Kalitta
CHARTERS

SAFETY MANUAL

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KALITTA CHARTERS

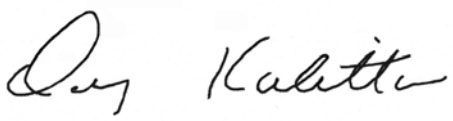
PRESIDENTS SAFETY COMMITMENT

Safety is the core value of Kalitta Charters because we deeply care about the health and safety of all our employees and customers.

It is the intent of Kalitta Charters to furnish all employees with a safe and healthy work place free of hazards and provide the safest possible air transportation to our customers.

Kalitta Charters believes that each individual has the responsibility to make our workplace safer for everyone. We must use appropriate safety equipment and report any unsafe work conditions to Management, Supervisors, or the Safety Office.

Finally, I will monitor closely all safety related incidents and all safety suggestions made. I encourage you to help make our process more safe and efficient.



Doug Kalitta
President and Chief Executive Officer

1.0 **Policy**

1.1 It is the policy of Kalitta Charters to provide a safe and healthful workplace free from recognized hazards that may cause serious injury to employees and to comply with applicable standards, codes and regulations. This is accomplished by maintaining a comprehensive safety and health program that depends on the active involvement of directors, mangers, supervisors and all employees. An effective safety program will prevent accident and injuries, improve operational efficiencies, and protect valuable resources.

1.2 The *Kalitta Charters Safety Manual* contains the company's safety, health and environmental policies, rules and procedures to reasonably protect people, property and the environment. New information will be incorporated into the manual as it becomes available. The policies, rules and procedures in this manual are not all inclusive. Each employee must exercise good judgment while performing his or her various tasks. Each task must be reviewed by each employee prior to performing it to be sure it can be done safely. If there is any doubt about task safety, the employees' supervisor must be contacted to determine a safe operating method.

1.3 Although the safety procedures and policies contained within address the majority of our operations, unusual situations may arise. Contact the Safety Department if you have questions or need assistance in implementing specific standards.

Kalitta Charters believes that every task can and must be done safely.

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LIST OF EFFECTIVE PAGES

LIST OF EFFECTIVE PAGES

LIST OF EFFECTIVE PAGES

PAGE	REV	DATE
Prevention, Emergency & Control Training		
Fire Characteristics/Behavior (KC501-1)		
1	Orig.	04/17/05
2	Orig.	04/17/05
Prevention, Emergency & Control Training		
Fire Prev. & Cntl Trng. (KC501-2)		
1	Orig.	04/17/05
2	Orig.	04/17/05
Prevention, Emergency & Control Training		
Fire Prevention Plan (KC502-1)		
1	Orig.	04/17/05
2	Orig.	04/17/05
Prevention, Emergency & Control Training		
Landlord Fire Protection Equipment (KC502-2)		
1	Orig.	04/17/05
2	Orig.	04/17/05
Prevention, Emergency & Control Training		
Fire Extinguishers (KC503-1)		
1	Orig.	04/17/05
2	Orig.	04/17/05
3	Orig.	04/17/05
4	Orig.	04/17/05
Prevention, Emergency & Control Training		
Fire Emerg. Egress and Emergency Exits (KC504-1)		
1	Orig.	04/17/05
2	Orig.	04/17/05
3	Orig.	04/17/05
4	#2	06//13/13
Prevention, Emergency & Control Training		
Fac. Req/Employee Alarm Sys. (KC504-2)		
1	Orig.	04/17/05
2	Orig.	06/17/02
Prevention, Emergency & Control Training		
Fac. Req/After a Fire (KC504-3)		
1	Orig.	04/17/05
2	Orig.	04/17/05
Prevention, Emergency & Control Training		
Emergency Action Plans (KC505-1)		
1	Orig.	04/17/05
2	Orig.	04/17/05
Reporting Process		
Incident/Injury Reporting Process (KC601-1)		
1	Orig.	04/17/05
2	Orig.	04/17/05
Reporting Process		
Event Log (KC602-1)		
1	Orig.	04/17/05
2	Orig.	04/17/05
3	Orig.	04/17/05
4	Orig.	04/17/05
Reporting Process		
Completion Instructions/Form Event Log (KC603-1)		
1	#6	10/01/14
2	#6	10/01/14
3	#6	10/01/14
4	#6	10/01/14
Injury Reporting		
Personal Injury & Occupational Illness Reporting (KC604-1)		
1	Orig.	04/17/05
2	Orig.	04/17/05
3	Orig.	04/17/05
4	Orig.	04/17/05
5	Orig.	04/17/05
6	Orig.	04/17/05
Injury Reporting		
Reserved for future use (KC604-2)		
1	Orig.	04/17/05
2	Orig.	04/17/05
Injury Reporting		
OSHA Injury and Illness Record keeping and Reporting (KC604-3)		
1	Orig.	04/17/05
2	Orig.	04/17/05
3	Orig.	04/17/05
4	Orig.	04/17/05
5	Orig.	04/17/05
6	Orig.	04/17/05
7	Orig.	04/17/05
8	Orig.	04/17/05
Investigations		
Accident/Incident Investigation Procedures (KC605-1)		
1	Orig.	04/17/05
2	Orig.	04/17/05
3	Orig.	04/17/05
4	Orig.	04/17/05
5	Orig.	04/17/05
6	Orig.	04/17/05
7	Orig.	04/17/05
8	Orig.	04/17/05
Investigations		
Third-Party Accident/Incident Investigation Proc. (KC605-2)		
1	Orig.	04/17/05
2	Orig.	04/17/05
Hazard Reporting		
General Hazard Reporting (KC606-1)		
1	Orig.	04/17/05
2	Orig.	04/17/05

LIST OF EFFECTIVE PAGES

PAGE	REV	DATE
Flightline Safety Introduction/Def./Phonetics (KC701-1)		
1	Orig.	04/17/05
2	Orig.	04/17/05
3	Orig.	04/17/05
4	Orig.	04/17/05
Flightline Safety Arcft. Communications – Procedure/Etiquette (KC702-1)		
1	Orig.	04/17/05
2	Orig.	04/17/05
Flightline Safety Arcft. Communications – Head Set Procedures (KC702-2)		
1	Orig.	04/17/05
2	Orig.	04/17/05
Flightline Safety Arcft. Communications – Signals/Marshalling (KC702-3)		
1	Orig.	04/17/05
2	Orig.	04/17/05
3	Orig.	04/17/05
4	Orig.	04/17/05
Flightline Safety Facilities Orientation (KC703-1)		
1	Orig.	04/17/05
2	Orig.	04/17/05
3	Orig.	04/17/05
4	Orig.	04/17/05
5	Orig.	04/17/05
6	Orig.	04/17/05
Flightline Safety Flightline Vehicle Operations – General Rules (KC704-1)		
1	Orig.	04/17/05
2	Orig.	04/17/05
3	Orig.	04/17/05
4	Orig.	04/17/05
5	Orig.	04/17/05
6	Orig.	04/17/05
Flightline Safety Flightline Vehicle – Equipment Operations (KC704-2)		
1	Orig.	04/17/05
2	Orig.	04/17/05
3	Orig.	04/17/05
4	Orig.	04/17/05
Flightline Safety Aircraft Ground Support Operations (KC704-3)		
1	Orig.	04/17/05
2	Orig.	04/17/05
3	Orig.	04/17/05
4	Orig.	04/17/05
5	Orig.	04/17/05
6	Orig.	04/17/05
7	Orig.	04/17/05
8	Orig.	04/17/05
Flightline Safety Jet Blast and Air Intake Precaustions (KC705-1)		
1	Orig.	04/17/05
2	Orig.	04/17/05
3	Orig.	04/17/05
4	Orig.	04/17/05
Flightline Safety FOD/Damage Prevention (KC706-1)		
1	Orig.	04/17/05
2	Orig.	04/17/05
Flightline Safety Aircraft Fueling Operations (KC707-1)		
1	Orig.	04/17/05
2	Orig.	04/17/05
3	Orig.	04/17/05
4	Orig.	04/17/05
Flightline Safety Facility Layout (KC708-1)		
1	Orig.	04/17/05
2	Orig.	04/17/05
Personnel Protection OSHA General Duty Clause (KC801-1)		
1	Orig.	04/17/05
2	Orig.	04/17/05
Personnel Protection Personal Protective Equipment (KC802-1)		
1	Orig.	04/17/05
2	Orig.	04/17/05
Personnel Protection Eye and Face Protection (KC802-2)		
1	Orig.	04/17/05
2	Orig.	04/17/05
3	Orig.	04/17/05
4	Orig.	04/17/05
Personnel Protection Occupational Head Protection (KC802-3)		
1	Orig.	04/17/05
2	Orig.	04/17/05
Personnel Protection Occupational Foot Protection (KC802-4)		
1	Orig.	04/17/05
2	Orig.	04/17/05
Personnel Protection Occupational Hand Protection (KC802-5)		
1	Orig.	04/17/05
2	Orig.	04/17/05
Personnel Protection Hearing Conservation Program (KC802-6)		
1	Orig.	04/17/05
2	Orig.	04/17/05
Personnel Protection High Visibility Apparel (KC802-7)		
1	Orig.	04/17/05
2	Orig.	04/17/05

LIST OF EFFECTIVE PAGES

PAGE	REV	DATE
Personnel Protection Hand and Power Tools (KC807-1)		
1	Orig.	04/17/05
2	Orig.	04/17/05
Personnel Protection Tools, Machine and Equipment Guards (KC807-2)		
1	Orig.	04/17/05
2	Orig.	04/17/05
Personnel Protection Chains, Slings and Cables (KC807-3)		
1	Orig.	04/17/05
2	Orig.	04/17/05
Personnel Protection Jacks/Jacking Safety (KC807-4)		
1	Orig.	04/17/05
2	Orig.	04/17/05
Personnel Protection Abrasive Wheel Safety (KC807-5)		
1	Orig.	04/17/05
2	Orig.	04/17/05
Personnel Protection Tire Servicing Safety (KC807-6)		
1	Orig.	04/17/05
2	Orig.	04/17/05
Personnel Protection Powered Industrial Truck Operator Training (KC808-1)		
1	Orig.	04/17/05
2	Orig.	04/17/05
3	Orig.	04/17/05
4	Orig.	04/17/05

PAGE	REV	DATE
Personnel Protection Powered Industrial Truck Safety (KC808-2)		
1	Orig.	04/17/05
2	Orig.	04/17/05
3	Orig.	04/17/05
4	Orig.	04/17/05
5	Orig.	04/17/05
6	Orig.	04/17/05
7	Orig.	04/17/05
8	Orig.	04/17/05
Hazard Communication Program Outline (KC901-1)		
1	Orig.	04/17/05
2	Orig.	04/17/05
3	Orig.	04/17/05
4	Orig.	04/17/05
3	Orig.	04/17/05
4	Orig.	04/17/05
Hazard Communication Terms and Abbreviations (KC901-2)		
1	Orig.	04/17/05
2	Orig.	04/17/05
3	Orig.	04/17/05
4	Orig.	04/17/05
3	Orig.	04/17/05
4	Orig.	04/17/05
Hazard Communication Written Program (KC901-3)		
1	Orig.	04/17/05
2	Orig.	04/17/05
3	Orig.	04/17/05
4	Orig.	04/17/05
5	Orig.	04/17/05
6	Orig.	04/17/05

PAGE	REV	DATE
Hazard Communication Record Keeping and Forms (KC901-4)		
1	Orig.	04/17/05
2	Orig.	04/17/05
3	Orig.	04/17/05
4	Orig.	04/17/05
5	Orig.	04/17/05
6	Orig.	04/17/05
7	Orig.	04/17/05
8	Orig.	04/17/05
9	Orig.	04/17/05
10	Orig.	04/17/05
Insurance Coverage/Reporting Overview (KC-1001-1)		
1	Orig.	04/17/05
2	Orig.	04/17/05
3	Orig.	04/17/05
4	Orig.	04/17/05
Flight Safety Program Introduction (KC-1101-1)		
1	Orig.	04/17/05
2	Orig.	04/17/05
3	Orig.	04/17/05
4	Orig.	04/17/05
5	Orig.	04/17/05
6	Orig.	04/17/05
Flight Safety Program Flight Safety Duties and Responsibilities (KC-1102-1)		
1	Orig.	04/17/05
2	Orig.	04/17/05
3	Orig.	04/17/05
4	Orig.	04/17/05
Flight Safety Program Incident Reporting and Investigation (KC-1103-1)		
1	Orig.	04/17/05
2	Orig.	04/17/05
3	Orig.	04/17/05
4	Orig.	04/17/05
5	Orig.	04/17/05
6	Orig.	04/17/05
7	Orig.	04/17/05
8	Orig.	04/17/05

LIST OF EFFECTIVE PAGES

PAGE	REV	DATE
Flight Safety Program		
Kalitta Air Flight Safety Committee (KC-1104-1)		
1	Orig.	04/17/05
2	Orig.	04/17/05
Flight Safety Program		
Trend Analysis (KC-1105-1)		
1	Orig.	04/17/05
2	Orig.	04/17/05
Flight Safety Program		
Audit Programs (KC-1106-1)		
1	Orig.	04/17/05
2	Orig.	04/17/05
3	Orig.	04/17/05
4	Orig.	04/17/05
5	Orig.	04/17/05
6	Orig.	04/17/05
Flight Safety Program		
Emergency Response Procedures (KC-1107-1)		
1	Orig.	04/17/05
2	Orig.	04/17/05
Flight Safety Program		
Operational Risk Management (KC-1108-1)		
1	Orig.	04/17/05
2	Orig.	04/17/05
Internal Evaluation Program (Appendix – A)		
(KC-1200-1)		
00-i	Orig.	04/17/05
00-ii	Orig.	04/17/05
0-i	#5	01/15/13
0-ii	#5	01/15/13
i	Orig.	04/17/05
ii	Orig.	04/17/05
1	#5	01/15/13
2	#5	01/15/13
3	#5	01/15/13
4	#5	01/15/13
5	#5	01/15/13
6	#5	01/15/13
7	Orig.	04/17/05
8	#5	01/15/13
9	Orig.	04/17/05
10	Orig.	04/17/05
11	Orig.	04/17/05
12	Orig.	04/17/05
13	Orig.	04/17/05
14	#5	01/15/13
15	Orig.	04/17/05
16	Orig.	04/17/05
17	Orig.	04/17/05
18	Orig.	04/17/05
19	Orig.	04/17/05
20	Orig.	04/17/05
21	Orig.	04/17/05
22	#5	01/15/13
23	Orig.	04/17/05
24	Orig.	04/17/05
A-1	Orig.	04/17/05
A-2	Orig.	04/17/05
A-3	Orig.	04/17/05
A-4	Orig.	04/17/05

LIST OF EFFECTIVE PAGES

PAGE	REV	DATE	PAGE	REV	DATE	PAGE	REV	DATE

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TABLE OF CONTENTS
Abbreviated

PREFACE

Chapter 1- SAFETY PROGRAM

Chapter 2- RESPONSIBILITIES and AUTHORITY

Chapter 3- SAFE and HEALTHFUL WORKPLACES

TABLE OF CONTENTS
Abbreviated

Chapter 7- FLIGHTLINE SAFETY

Chapter 8- PERSONNEL PROTECTION

Chapter 11- FLIGHT SAFETY PROGRAM

Chapter 12- INTERNAL EVALUATION PROGRAM (REF. IEP HANDBOOK)

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PREFACE

Chapter 1- SAFETY PROGRAM

Chapter 2- RESPONSIBILITIES and AUTHORITY

Chapter 11- FLIGHT SAFETY PROGRAM

INTRODUCTION TO THE SAFETY MANAGEMENT SYSTEM (SMS)

In recent years, a great deal of effort has been devoted to understanding how accidents happen in aviation and other industries. From extensive research, it has been proved that most accidents result from human error. Studies have further confirmed that these human errors are not purely indicative of carelessness or incompetence on the job. Investigators are finding that the human is only the last link in a chain that leads to an accident. We will not prevent accidents by changing people; we will only prevent accidents when we address the underlying causal factors.

In the 1990's the term 'organizational accident' was coined because most of the links in an accident chain are under the control of the organization. Since the greatest threats to aviation safety originate in organizational issues, making the system safer will require action by the organization. Aviation safety experts and regulatory authorities worldwide have accepted and endorsed the conclusion that the most efficient way to enhance aviation safety is to adopt a systematic approach to manage safety.

The basic safety process is accomplished in five (5) steps:

1. A safety issue or concern is raised, a hazard is identified, or an incident or accident happens;
2. The concern or event is reported or brought to the attention of management;
3. The event, hazard, or issue is analyzed to determine its causes or sources;
4. Corrective action, control, or mitigation is developed and implemented; and
5. The corrective action is evaluated to make sure it is effective. If the safety issue is resolved, the action can be documented and the safety enhancement maintained. If the problem or issue is not resolved, it should be re-analyzed until it is resolved.

Safety is defined by ICAO as a state in which the risk of harm to persons or property damage is reduced to and maintained at (or below) an acceptable level through a continuing process of hazard identification and risk management. A Safety Management System (SMS) is a systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies, and procedures including dissimulation of SMS awareness to personnel throughout the organization. Kalitta Charters uses posters and newsletters to communicate SMS awareness throughout our organization.

SMS concerns itself with organizational safety and defines how the airline intends the management of air safety to be conducted as an integral part of the company's business management activities. In common with all management systems, SMS provides for goal setting, planning, and measuring performance. SMS is woven into the fabric of the organization. It becomes part of the culture; the way people do their jobs. Notwithstanding the regulatory aspect, aviation experts agree that implementation of an SMS, by an airline, is justifiable as it also makes good business sense from the viewpoint of cost/benefit analysis.

Aviation can never be entirely risk free. While risk can never be completely eliminated, it must be reduced to as low a level as is reasonably practicable to ensure maximum safety and operational efficiency. The primary requirement for a SMS is to establish a management system that has the necessary processes and procedures in place such that operational safety is maintained at this acceptable level (risk management) and specified operational results are always achieved (quality management). Unlike traditional methods, which typically identify safety deficiencies after undesired events, safety management systems proactively identify and reduce causative hazards and their associated risks.

Refer to Chapter 2, Risk Management and Assessment for additional information.

GENERAL

PURPOSE

Safety is the most important consideration in all Kalitta Charters, LLC's ground and flight operations. The operating philosophy of Kalitta Charters, LLC. concludes that safety is an essential ingredient to success. Every policy or procedure is developed around such safety system process guidelines. Knowing and adhering to the safe practices that have been established for the mutual benefit of both employee and customer are essential to the prevention of mishaps. Kalitta Charters, LLC. Inc. is committed to safety, security, and quality as its three (3) fundamental priorities.

Through safety evaluations, quality assurance audits, internal evaluation audits, external audits, and inspections by customers and regulators and its confidential reporting system, Kalitta Charters, LLC. has a robust program for surveilling threats and errors in normal operations. Regardless, it is up to each individual to do his part to ensure safety, security, and quality are the best they can be at Kalitta Charters, LLC.

The purpose of Kalitta Charters Safety Program is to assure a safe and healthful environment for our employees. The Kalitta Charters Safety Program uses a prioritized risk management approach to eliminate or minimize accidents/incidents, injuries, and occupational illnesses.

The "prioritized risk management" approach evaluates:

1. The potential impacts on employee safety and health;
2. The impacts on daily operations and monetary impacts if the undesired event occurs;
3. Regulatory requirements; and
4. The probability of occurrence and what is considered an "acceptable level of risk".

Many of the specific Kalitta Charters safety and health programs are legislated by the Occupational Safety and Health Administration (OSHA), the Federal Aviation Administration (FAA), The Environmental Protection Agency (EPA), and other federal/state and foreign regulatory agencies.

Some specific aircraft safety practices and procedures are contained in the aircraft maintenance technical manuals, the General Operations Manual (GOM), Aircraft Operating Manuals (AOMs), and General Maintenance Manual (GMM).

Specific aircraft emergency response procedures are contained in the Emergency Response Manual (ERM).

NOTE:
The information contained herein shall not be released, disclosed, or used for any other purpose without the express written consent of the Director of Safety.

SAFETY ATTRIBUTES

Kalitta Charters assures the inherent safety and continuous validity of its operations by integrating the following safety attributes throughout this manual:

Responsibility: Responsibility confers accountability; responsibility refers to the act of being accountable for something within one's power and for being the source for decisions and actions intended to produce a specific result. Responsibility is conferred upon a clearly identifiable, qualified, and knowledgeable individual accountable for the outcome process. Responsibility may not be delegated. Therefore, responsibility for a result resides with the person causing action to be taken as well as the person(s) taking action to accomplish it.

Authority: The power to take action. Those responsible for a given task are also authorized to take action in accomplishing it. That includes delegating authority to others to take action in their behalf, as well as those directing specific action, are responsible for the outcome.

Procedures: A particular course or mode of action. The documented methods for accomplishing a process, a statement of steps to be taken to implement policy and comply with a regulatory requirement.

Controls: A procedural or mechanical device for correcting, guiding or directing the operation of a process: checks and restraints designed into a process in order to achieve a desired result. A "Control" is a mechanism in a sequence of procedural steps designed to ensure the quality of the outcome.

Process measurements: Mechanisms providing for assessment of the quality of an outcome after an operation has been accomplished: The means of evaluating processes to identify and correct problems or potential problems and to enhance Kalitta Charters management system, as well as the procedures employed to operate it aircraft.

Interfaces: Interfaces are the interactions between processes shared by two or more policies, procedures, elements or ideas, from either one department or functional area to another, between one manual to another or both. Kalitta Charters identifies and manages the interaction between process in it airline management system, though the System Control Manual.

APPLICABILITY

The policies, procedures, and requirements contained in this manual apply to all Kalitta Charters, LLC. operations, including:

1. Kalitta Charters Maintenance;
2. Outstation operations occurring within 50 feet of any aircraft;
3. Kalitta Charters flight operations system-wide;
4. Contracted aircraft and ground services system-wide; and
5. All personnel (Kalitta Charters -contracted services/temporary services, etc.) performing services for Kalitta Charters flight operations.

GOALS

The Safety Program goals are to:

1. Minimize the number of injuries/illnesses and aircraft/equipment damage incidents/accidents;
2. Integrate safety considerations into all daily work activities;
3. Ensure Kalitta Charters workplaces comply with corporate and regulatory safety requirements; and
4. Analyze accidents, injures, and illnesses to determine effective preventive actions to prevent recurrence.

PROGRAM ELEMENTS

To have an effective and legally viable safety program, four (4) elements must be present:

1. Kalitta Charters must have written safety policies and procedures;
2. Employees must be trained on all pertinent safety policies and procedures;
3. Kalitta Charters must have effective methods to identify, correct, and prevent hazards and unsafe work conditions; and
4. Effective enforcement of Kalitta Charters safety policies and procedures.

CORE PROCESSES

The Safety Program is organized and operated utilizing five (5) core processes:

1. Safety Policies and Procedures Development;
2. Risk Assessment and Management;
3. Safety Education and Communications;
4. Investigating and Reporting Accidents; and
5. Safety Data Analysis.

KALITTA CHARTERS SAFETY POLICY

Safety Policy

At Kalitta Charters, safety is an integral part and cornerstone of our business. We shall ensure its priority in every aspect of our work. We will strengthen and maintain the confidence of all interested parties to trust Kalitta Charters as the safest airline in the industry. Kalitta Charters is committed to providing all employees a safe, secure, and healthy workplace.

In order to achieve and sustain the highest level of safety performance:

- We shall maintain an active Safety Management System as an essential building block for a proactive management of all safety parameters;
- We shall promote the growth of a positive safety culture from the top management permeating through the middle tiers and cascading to every employee in the organization;
- We shall strive for continuous improvement in the level of safety in all our operations. Kalitta Charters will set challenging safety goals and regularly review these goals to increase the required standards;
- Though aviation will never be without risks, but in use of our safety-focused approach, we shall proactively identify the risks involved in our activities and the environments, and apply the necessary controls to mitigate their effects;
- We shall comply with defined corporate policies and procedures, international safety standards, national legislation, and regulatory requirements;
- We shall educate and encourage our employees to report all safety hazards, violations, (deliberate or inadvertent) human factor errors, safety risks, and security lapses without fear of retribution, thus enhancing our safety achievements through an interactive learning process. However, willful negligence and acts of deliberate violations jeopardizing our own safety and the safety of others will not be accepted or tolerated;
- We shall ensure that all required audits are conducted and reviewed regularly. All employees shall cooperate fully with internal and external auditors to achieve our goal of continual improvement, keeping in view the challenges of changing environments;
- We shall ensure active participation of representatives from relevant areas in all safety-related decisions we are making and ensure that good performance is recognized and rewarded.

All Kalitta Charters employees shall explicitly demonstrate their safety consciousness by being aware of their individual roles and responsibilities in the safety chain to make Kalitta Charters a safer airline. I realize and accept that the ultimate responsibility for safety in the organization rests with me as the Accountable Executive. I will ensure that timely decisions are taken to provide adequate resources to implement our safety strategy and policy.

Doug Kalitta	Berry Birurakis	Heath Nicholl
CEO/President	Accountable Executive	Director of Safety

05/30/14

DEPARTMENT MANAGERS AND SUPERVISORS

Experience, qualifications, and training requirements for managers and supervisors are detailed in specific job descriptions. In addition to those, managers and supervisors are responsible for, and have a legal obligation to ensure, a safe and healthful workplace free from recognized hazards that may cause serious injury or illness. Taking reasonable actions to protect people, property, and the environment discharges this responsibility.

RESPONSIBILITIES

Additional responsibilities include:

1. Ensures Federal, State, and Company safety and health standards are followed;
2. Monitors contracted services' personnel for compliance;
3. Ensures accident/incident, damages, and injuries are promptly reported and investigated;
4. Ensures a copy of the Safety Manual is made available for employees' use;
5. Inspects workplaces on a regular basis to identify potential safety hazards and takes effective corrective actions to permanently eliminate hazards;
6. Provides employee safety training and medical examinations when required by OSHA standards;
7. Enforces safety rules and procedures;
8. Ensures protective equipment is available and used by employees;
9. Ensures the necessary tools, equipment, and facilities are available to perform work tasks safely;
10. Sets the proper example for employees by following safety rules and procedures and actively supports the safety and health program;
11. Maintains a current Emergency Notification Plan and Fire Prevention Plan;
12. Ensures a medical facility is within 5 minutes, as required;
13. Maintains records concerning employee safety training and OSHA-required injury/illness logs;
14. Posts the appropriate safety and health poster (part of the Federal Labor Law Poster [00400-10], referred to as the five-in-one or six-in-one poster) in conspicuous place where notices to employees are normally posted. The OSHA Plain Language Safety and Health Poster are also available for posting with, or in lieu of, the standard poster. These posters are available through the Safety Department or from the OSHA regional office; and
15. Performs other duties as assigned by the Director of Safety.

AUTHORITIES

Each manager and supervisor has the authority to enforce Company and government safety rules and procedures. Failure to enforce safety standards may subject supervisors and other management personnel to Company disciplinary actions, criminal prosecution, or civil liability for violations of the Federal and State statutes.

RISK MANAGEMENT AND ASSESSMENT

(Ref: IOSA ORG 3.1.1)

SAFETY DATA COLLECTION

Risk Management comprises three essential elements: hazard identification, risk assessment and risk mitigation. It requires the analysis and elimination (or at least a reduction to an acceptable level) of those hazards that threaten the viability of an organization. Risk management serves to focus safety efforts on those hazards posing the greatest risks.

The risk management process seeks to identify, analyze, assess, and control the risks incurred in airline operations so that the highest standard of safety can be achieved.

It must be accepted that absolute safety is unachievable, but reasonable safety can be achieved across the spectrum of the operations. If the safety program outlined in this manual is diligently applied, the hazards and risks associated with commercial airline operations can be controlled and minimized.

Risk management decisions follow a logical pattern.

1. Identify hazards.
2. Assess those hazards in the order of their risk potential to determine whether Kalitta Charters can accept the associated risk(s). The willingness to use all available information and the accuracy of the information used are key to effective risk management. No decision can be better than the information on which it is based.
3. Find and identify the defenses that exist to protect against or control the hazards or even eliminate them.
4. Assess the defenses for their effectiveness and consequences.
5. Examine each set of hazards to determine whether the risk is appropriately managed and controlled.

The objective is to reduce the probability that a particular hazard will occur, or reduce the severity of the effects if it does occur. In some cases, the risk can be reduced by developing means to cope safely with the associated hazard.

The risk management process involves identifying specific workplace hazards and taking actions to minimize risks to personnel, aircraft, equipment, and property, including:

1. Identifying, evaluating, and taking actions to prevent or control workplace hazards by use of accident/incident investigations, site surveys, audits and inspections, and a hazard reporting process;
2. Ensuring employees use required safety equipment and follow safe work practices;
3. Conducting periodic safety program reviews to assure program effectiveness and evaluate safety program compliance levels; and
4. Integrating accident/incident response plans to support corporate, FAA, NTSB, and operating airport requirements.

THE COST OF RISK

(Ref: IOSA ORG 3.1.2)

The risks and costs inherent in commercial aviation necessitate a rational process for decision-making. Implementation of risk management processes is critical to an effective safety management program. Risks cannot always be eliminated; nor are all conceivable safety management measures economically feasible. Risk management facilitates this balancing act, beginning with hazard identification. The creation and operation of effective hazard identification programs is fundamental to effective safety management. An organization may draw from a broad menu of safety activities to identify hazards or safety issues warranting further action. The effective identification of hazards can be achieved by brainstorming and by using an appropriate selection of management and staff to review pertinent accident/incident records from both internal and external sources. Hazard identification should be initially undertaken to provide a comprehensive assessment of the risks that face Kalitta Charters. Subsequently, hazard identification should be periodically reviewed. The process should also be repeated whenever there is a significant change to the organization, its staff, procedures, or equipment. Front line managers have the responsibility for setting in place measures to remove, or mitigate, the risks of identified hazards.

To be successful, the hazard identification process must take place within a non-punitive (or just) safety culture. Management is primarily interested in learning of potential weaknesses in the system's safety that could lead to an accident or otherwise compromise the efficiency of the operation. Blame is only an issue when individuals are culpable of reckless or negligent behavior.

For the most part, there are two distinct elements in the safety management system: one is reactive, the other proactive. The basic difference is the method of discovery. The reactive process responds to events that have already occurred, while the proactive method actively seeks to identify potential hazards through an analysis of the everyday activities of the Company. The exception to this rule occurs when a potential hazard is reported through the Company's safety reporting programs.

One insurance company has calculated the following:

1. Ramp incidents alone cost the industry $3 billion a year, which equates to $300,000 per jet aircraft
2. Indirect costs, non-insurable costs, loss of revenue, etc. can exceed the direct costs by 20 times at least.

EXAMPLE:

Type of Event	Direct Costs	Indirect Costs
A/C struck by catering truck	$17,000	$230,000
A/C struck by another while taxiing	$1.9 million	$4.9 million
K-Loader struck parked A/C	$50,000	$600,000
A/C struck by tug during pushback	$250,000	$200,000

NOTE:

The above example refers to ramp events only. It is not generally appreciated that over 1 million vehicle movements a year are required to service one gate, where control and coordination are often poor. The direct and indirect costs will increase considerably if the incident occurs at a remote location.

RISK ASSESSMENT MATRIX

By ranking the hazards/concerns for operational/internal audit findings relative to each other, in terms of risk of an accident/incident, we can illustrate the different levels of criticality between them and identify different levels of corrective action to apply.

		Severity					
		Accident or Incident	Catastrophic- accident with fatality, substantial loss	Hazardous- accident with injury, large reduction in safety margins	Major- serious incident, significant reduction in safety margin	Minor- incident with minor injury or emergency procedure	Negligible- incident without injury, no damage
		Airworthiness	Fleet-wide airworthiness concerns with the potential to impact safety or operational capability	Multiple aircraft airworthiness concerns, or any concerns with the potential to impact safety or operational capability	Single aircraft airworthiness concern with no expected impact to safety or operational capability	Affecting aircraft system reliability but does not affect airworthiness or safety of operation	No expected impact to either airworthiness or safety
		Compliance/ Regulatory	Results in criminal charges, or suspension of license, certificate, or OpsSpecs	Results in penalties such as fines or operating restrictions	Results in regulatory impact (VDRP or LOI)	Procedural impact or minor regulatory impact (LOC)	No noticeable procedural or regulatory impact
		Environmental	Catastrophic effect international impact, legal >$55 M	Major effect national impact legal >$55M	Regional effect, considerable impact legal <$55M	Minor effect >15 gallons limited impact legal <$100K	Slight effect <15 gallons negligible impact
		Operational Impact	System-wide shutdown and negative revenue impact.	Poor performance and chronic disruption to the air carrier schedule	Poor performance and sporadic disruption to the air carrier schedule	Operational limitations with minor impact	Operational issue with no impact
Likelihood		Assets	Aircraft damage >$55M	Aircraft damage causing aircraft out-of-service. <$55M or equipment loss	Aircraft damage causing delay, <$1M- $500K or equipment damage	Aircraft damage <$500K or equipment damage	No aircraft/ equipment damage
Fleet or System	Observation		1	2	3	4	5
Frequent- Continuously experienced or likely to occur within 10 days	Multiple observations during audit and found on previous audit at different gateways	A	High	High	High	Moderate	Moderate
Occasional - Likely to occur sometimes or likely to occur within 30 days	Multiple observations during audit and found on previous audit	B	High	High	Moderate	Moderate	Low
Remote- Unlikely, but possible to occur or probably will occur within 6 months	Observations on this audit and previous audit	C	High	Moderate	Moderate	Low	Low
Improbable- very unlikely to occur or possible to occur within 1 year	Multiple observations during audit	D	Moderate	Moderate	Low	Low	Low
Extremely Improbable - almost inconceivable, the event will occur or possible within 5 years	Single observation during audit	E	Moderate	Low	Low	Low	Low

Risk Assessment Matrix

Risk Acceptance*		
CEO or Accountable Executive	High	Unacceptable: The proposed change cannot be implemented or the activity continued, unless hazards are further mitigated so that the risk is reduced to moderate or low. NOTE: See Safety Risk Management procedures for high risk acceptance criteria.
Safety Action Group or Responsible Director	Moderate	Acceptable: The proposed change may be implemented or the activity can continue, but tracking and management are required.
Manager with authority for programs or process as defined in the department's controlling manual	Low	Target: Acceptable without restriction or limitation; hazards are not required to be actively managed but documentation is required.

* Use of this matrix and risk acceptance decisions derived from this matrix may only be performed by individuals trained in Safety Risk Management.

NOTE: The objective in risk management should always be to reduce risk to as low as reasonably practicable regardless of whether the risk assessment shows that the risk can be accepted at its current level.

Risk Acceptance Decision Authority

Risk Assessment	Notification Requirements	Maximum time to initiate corrective action plan for a specific finding or event.	Maximum time to initiate corrective action plan for systemic issue	Average rate/time action plan for all findings or events / systemic issues	Management level to approve mitigation plan
HIGH	Immediate notification to; • VP/ General Manager • Director of Safety • Applicable operational department Director	24 Hours	15 Days	N/A / 10 Days	VP/ General Manager
MODERATE	Notification of appropriate operational department Director(s)	30 Days	30 Days	30 Days	Operational Department Director
LOW	Requires notification of respondent.	30 Days	90 Days	60 Days	Working Group

Risk Notification Requirements

RISK MITIGATION

If the risk does not meet the pre-determined acceptability criteria as determined by the Director of Safety or senior management , an attempt should always be made to reduce it to an acceptable level, or if this is not possible, to a level as low as reasonably practicable, using appropriate mitigation procedures. The identification of appropriate risk mitigation measures requires a good understanding of the hazard and the factors contributing to its occurrence, since any mechanism that will be effective in reducing risk will have to modify one or more of these factors.

Risk mitigation measures may work through reducing the probability of occurrence, or the severity of the consequences, or both. Achieving the desired level of risk reduction may require the implementation of more than one mitigation measure.

The possible approaches to risk mitigation include:

1. Revision of the system design;
2. Modification of operational procedures;
3. Changes to staffing arrangements; or
4. Training of personnel to deal with the hazard.

The effectiveness of proposed risk mitigation measures must be assessed by first examining closely whether the implementation of these measures might introduce any new hazards. In that case, the foregoing steps must be repeated by re-estimating hazard severity, the likelihood of the hazard occurring, and then evaluating the risk. Once the system is implemented, particular attention should be paid, when evaluating the results of safety performance monitoring, to verify that the mitigation measures are working as intended.

DECISION MAKING AND COST/BENEFIT CONSIDERATIONS

Operational and technical risks are manageable. Each department manager is responsible for collecting and analyzing data. Such actions form a sound basis for the decisions about actions required. It is each department manager's responsibility to ensure proper decisions are made and that calls for action are acknowledged and addressed within a specified timeframe. However, it has to be accepted that absolute safety is not achievable, but reasonable safety can be attained across the full spectrum of the operation. Provided, the risk management tools are used respectfully, the risks and hazards associated with commercial airline operations are controlled and minimized. Risk management, however, is incomplete without the consideration of the financial impacts.

Common incident cost factors include:

Operational	**Technical**
Flight Delays	Aircraft Recovery
Flight Cancellations	Aircraft Repair
Runway Obstruction	Test flight
Catering	Incident Investigation
Loss of Revenue	Technical Documentation
Ferry Flight	Spare Parts
Crew Change	Technical Inventory
Training/Instruction	Aircraft On Ground
Loss of reputation	Lease of Technical Facilities
	Repair Team Accommodation
	Training/Instruction
	Recertification

CHANGE MANAGEMENT

(Ref. IOSA ORG 3.2.2)

Change Management is a systematic approach to identifying and analyzing internal and external changes with the potential to affect the functionally of an organization, and assessing and controlling the risk associated with such changes.

The Safety Department will review both internal and external sources for potential procedures, policies, regulatory changes, or business decisions that might have an adverse effect on operational or ground safety. To accomplish this change management of the Safety Department will review all reporting sources to ascertain information that may include organizational expansion, contraction or consolidation, as well as the introduction of new, or the modification of, exiting systems, equipment, or programs. In addition, regulatory and/or industry sources will be monitored for potential regulatory requirements, or industry trends.

To accomplish this, the Director of Safety attends meetings with other senior management, liaisons with the FAA and other regulatory agencies, and liaisons with manufacturers, giving a thorough review of many internal sources including the Event log and deviation reports, training failures and repeated items report. In addition, changes or purposed changes to the GOM, AOM, and other manual will be evaluated for the potential effect on operational Safety.

REACTIVE AND PROACTIVE REPORTING

Hazard identification may be reactive or proactive in nature. Trend monitoring, occurrence reporting, and investigations are essentially reactive. Other hazard identification processes actively seek feedback by observing and analyzing routine day-to-day operations. Refer to of this manual for safety reporting methods.

SENIOR MANAGEMENT REVIEW

(Ref: IOSA ORG 3.3.3.)

One of the cornerstones of the safety program is the responsibility of keeping senior management informed of issues that have the potential to affect the safety of operations. Such review permits senior management to consider issues that affect the safety of operations and ensure appropriate corrective or preventive actions have been implemented and are being monitored for effectiveness in preventing accident and incidents.

An additional benefit of having senior management involvement is the ability of the Safety Department to respond quickly to the concerns of senior management, including the allocation of personnel and resources to address issues with-out undo delay. This direct-line reporting, and unimpaired access to the President/CEO, allows the Safety Department to be proactive in addressing issues.

FORMAL SENIOR MANAGEMENT REPORTING

As an additional process and control, the Director of Safety will, on a biannual basis, prepare a formal report for the President/CEO. The Safety Department will work in conjunction with the Director of Safety to determine the contents of each biannual report on a case by case basis. This report may contain a brief statement on the following issues:

INTERNAL AUDITS

1. Opened and closed findings.
2. DOD audits.
3. Any additional audits performed by outside agencies, and associated results.
4. A review of any issues concerning the Drug and Alcohol Program.

FLIGHT SAFETY

1. Significant findings from audits.
2. A review of any significant accidents/incidents.
3. A review of any significant human factor issues.
4. A review of any issues expressed by the FAA, NTSB, or other regulatory issues.

GROUND SAFETY

1. A review of any ground safety issue.
2. A review of any regulatory issue stemming from any OSHA, DEQ, or other regulatory agencies.

EVENT LOGS

Included in the report are a copy of the Event Log trend report and a copy of the Safety Event Report.

CERTIFICATION OF REVIEW

The Director of Safety meets with the President/CEO, and other senior management, to review biannual reports. At the conclusion of each meeting, the Director of Safety and the President/CEO both sign the report to signify that the report has been reviewed. This review by the President/CEO is the "closing of the loop" for all Safety Department efforts. The Director of Safety will be responsible for following up with any concerns expressed by the President/CEO during these meetings.

Original biannual reports are stored in the Director of Safety's office. Release of information contained in these reports is at the discretion of the Director of Safety.

ACCIDENT PREVENTION PROGRAM

The accident prevention program is intended to minimize the accident threat to Kalitta Charters employees and aircraft, both on the ground and in flight. This program takes an integrated view of all functions to provide people with a safe and productive environment for the accomplishment of required tasks. It provides for the reporting of unsafe conditions and practices that could result in personal injury or equipment damage. It requires the thorough investigation and resolution of reported or observed conditions that are considered threats to Kalitta Charters personnel or property.

Accident prevention involves every facet of the Kalitta Charters worldwide flight operation and every level of Kalitta Charters management. All employees should be observant of every phase of Kalitta Charters operations and if they believe an unsafe condition or emergency could arise, for which there are no established procedures, they are encouraged to submit an Hazard Report Form to the Director of Safety. Responsibilities assigned herein provide for rapid communication and resolution of safety matters.

The Safety Department will:

1. Act as the focal point for safety evaluations audits, accident prevention matters, and accident/incident reporting and investigation.
2. Coordinate directly with other departments to develop recommendations for interdepartmental safety matters and audits.
3. Investigate accidents and incidents involving operations assets and develop recommendations for elimination of identified hazards.
4. Maintain liaison with outside agencies concerning accident prevention and investigations.
5. Ensure applicable information is provided to the FAA, NTSB, or other regulatory agency, as appropriate.
6. Compile accident and incident data to determine trends requiring preventive actions and provide feedback to flight operations flight crews on accident and incident investigations.

SAFETY AWARENESS

Safety awareness programs are designed to heighten safety awareness in all employees.

The Safety department will distribute safety updates via e-mail, Pilot meetings, Company web site, and Company news articles to all crewmembers and ground personnel. The updates should include, but are not limited to, the following topics:

1. Kalitta Charters, LLC incidents and lessons learned.
2. Industry specific topics.
3. Other safety related trends as appropriate.

The Director of Safety, or his designee, will use the Company newsletter or website to convey safety items of interest/security awareness or concern to appropriate employee groups.

Chapter 12- INTERNAL EVALUATION PROGRAM (Ref. IEP Handbook)

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KALITTA CHARTERS

PRESIDENTS SAFETY COMMITMENT

Safety is the core value of Kalitta Charters because we deeply care about the health and safety of all our employees and customers.

It is the intent of Kalitta Charters to furnish all employees with a safe and healthy work place free of hazards and provide the safest possible air transportation to our customers.

Kalitta Charters believes that each individual has the responsibility to make our workplace safer for everyone. We must use appropriate safety equipment and report any unsafe work conditions to Management, Supervisors, or the Safety Office.

Finally, I will monitor closely all safety related incidents and all safety suggestions made. I encourage you to help make our process more safe and efficient.

Doug Kalitta

Doug Kalitta
President and Chief Executive Officer

1.0 Policy

1.1 It is the policy of Kalitta Charters to provide a safe and healthful workplace free from recognized hazards that may cause serious injury to employees and to comply with applicable standards, codes and regulations. This is accomplished by maintaining a comprehensive safety and health program that depends on the active involvement of directors, mangers, supervisors and all employees. An effective safety program will prevent accident and injuries, improve operational efficiencies, and protect valuable resources.

1.2 The *Kalitta Charters Safety Manual* contains the company's safety, health and environmental policies, rules and procedures to reasonably protect people, property and the environment. New information will be incorporated into the manual as it becomes available. The policies, rules and procedures in this manual are not all inclusive. Each employee must exercise good judgment while performing his or her various tasks. Each task must be reviewed by each employee prior to performing it to be sure it can be done safely. If there is any doubt about task safety, the employees' supervisor must be contacted to determine a safe operating method.

1.3 Although the safety procedures and policies contained within address the majority of our operations, unusual situations may arise. Contact the Safety Department if you have questions or need assistance in implementing specific standards.

Kalitta Charters believes that every task can and must be done safely.

***

1.0 Purpose

1.1 The purpose of Kalitta Charters Safety Program is to assure a safe and healthful environment for our employees. The KC Safety Program uses a prioritized risk management approach to eliminate or minimize accidents/incidents, injuries and occupational illnesses.

1.2 The "prioritized risk management" approach takes into consideration:

- What are the potential impacts on employee safety and health, daily operations, and monetary impacts if the undesired event occurs?
- What are the regulatory requirements? What is the probability of occurrence and what is considered an "acceptable level of risk"?

1.3 Many of the specific KC Safety and Health programs are legislated by the Occupational Safety and Health Administration (OSHA), the Federal Aviation Administration (FAA), The Environmental Protection Agency (EPA) and other federal/state regulatory agencies.

1.4 Some specific aircraft safety practices and procedures are contained in the aircraft maintenance technical manuals and the *KC General Maintenance Manual*.

2.0 Applicability

The *KC Safety Manual*, policies, procedures, and requirements apply to all KC operations; outstation operations occurring within 50 feet of any aircraft; KC flight operations systemwide; contracted aircraft and ground services system wide; and to all personnel (KC contracted services/temporary services, etc.), performing services for KC flight operations.

3.0 Goals

3.1 The Safety Program goals are to:

- Minimize the number of injuries/illnesses and aircraft/equipment damage incidents/accidents.
- Integrate safety considerations into all daily work activities.
- Ensure KC workplaces comply with corporate and regulatory safety requirements.
- Analyze accidents, injures and illnesses to determine effective preventive actions to prevent recurrence.

4.0 Program Elements

4.1 To have an effective and legally viable safety program, four elements must be present:

- The employer must have written safety policies and procedures.
- Employees must be trained on all pertinent safety policies and procedures.
- The employer must have effective methods to identify, correct and prevent hazards and unsafe work conditions.
- Effective enforcement of company safety policies and procedures.

5.0 Incident / Accident Definition

5.1 The term "Incident or Accident" is used throughout the *Safety Manual* to indicate an "unplanned and/or undesired occurrence" that did, or had the potential to result in:

- Damages to aircraft, property, vehicles, equipment, or freight.
- Employee injury or occupational illness.

Note:

When reporting events to the FAA or National Transportation Safety Board (NTSB), use the terms "accident" and "incident" as defined by the FAA/NTSB. Reference section KC1101-1, Accident and Incident Reporting.

6.0 Cause Definition

A accident or injury "cause is defined as: *those basic factors, events, acts, or conditions which singularly or in combination with other causes, result in damage or injury and, if corrected, eliminated, or avoided, would likely have prevented or reduced the accident or injury.*

7.0 Reporting Injuries

All injuries occurring to KC, contracted services' personnel, or temporary employees, etc., within 50 feet of an aircraft or on KC premises shall be reported by using the *KC Personal Injury and Occupational Illness Report (AIR-1024)* form. Reference section KC604-1, Personal Injury and Occupational Illness Reporting.

8.0 Reporting Accidents, Damages, and Incidents

All accidents, damages, and incidents occurring within the KC flight and supporting ground services area's shall be reported and investigated following the guidelines contained in sections KC601-1 through KC603-2.

***

1.0 Purpose

Provide guidance on the responsibilities of Kalitta charters management personnel to ensure employees have a safe and healthful work environment, operations are conducted safely, and compliance with regulatory requirements is maintained. **All Kalitta charters managers and supervisors are individually responsible to ensure our operations are conducted in a safe and efficient manner, protecting our employees and equipment.**

2.0 Management Duties

All managers and supervisors are responsible for, and have a legal obligation to ensure, a safe and healthful workplace free from recognized hazards that may cause serious injury or illness. Taking reasonable actions to protect people, property and the environment discharges this responsibility. Some specific responsibilities are:

- Ensuring Federal, State, and Company safety and health standards are followed.
- Monitoring contracted services' personnel for compliance.
- Ensuring accident/incident, damages, and injuries are promptly reported and investigated.
- Ensuring a copy of the KC Safety Manual is made available for employee's use and reference at each work location.
- Inspecting workplaces on a regular basis to identify potential safety hazards and taking effective corrective actions to permanently eliminate hazards.
- Providing employee safety training and medical examinations when required by OSHA standards.
- Enforcing safety rules and procedures.
- Ensuring protective equipment is available and used by employees.
- Providing the necessary tools, equipment, and facilities to perform work tasks safely.
- Setting the proper example for employees by following safety rules and procedures and actively support the safety and health program.
- Maintaining a current Emergency Notification Plan and Fire Prevention Plan.
- Having at least a medical facility within 5 minutes, as required by KC301-2.
- Maintaining records concerning employee safety training and OSHA-required injury/illness logs.
- Posting the appropriate safety and health poster (part of the Federal Labor Law Poster [00400-10], referred to as the five-in-one or six-in-one poster) in conspicuous place where notices to employees are normally posted. (This poster is illustrated on page 3). The OSHA Plain Language Safety and Health Poster is also available for posting with, or in lieu of the standard poster. These posters are available through the Safety department or from the OSHA regional office.

Note:

State safety and health posters, rather than federal posters, are required to be posted at work locations in Puerto Rico, the Virgin Islands, and the following states:

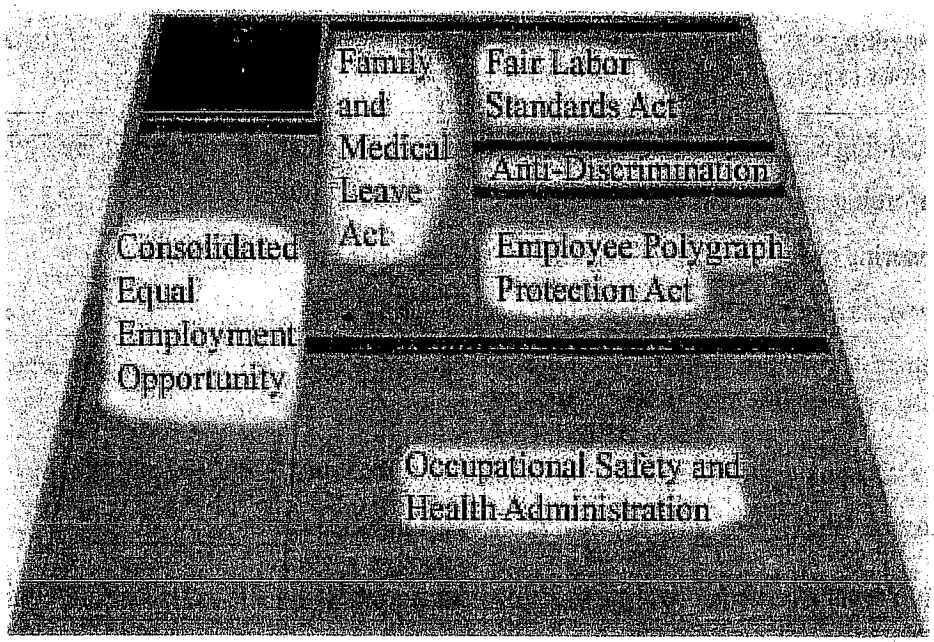
Alaska	Kentucky	New Mexico	Utah
Arizona	Maryland	North Carolina	Vermont
Hawaii	Michigan	Oregon	Virginia
Indiana	Minnesota	South Carolina	Washington
Iowa	Nevada	Tennessee	Wyoming
California			

Contact the appropriate state agency (usually the State Capital) to obtain a state poster.

3.0 Authority

Each supervisor/manager has the authority and is responsible for enforcing company and government safety rules and procedures. Failure to enforce safety standards may subject supervisors and other management personnel to company disciplinary actions, criminal prosecution, or civil liability for violations of the Federal and State statutes.

4.0 Labor Law Poster (6 in 1 example)



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1.0 Purpose

Provide guidance on the responsibilities of Kalitta Charters employees in conducting work activities safely and complying with regulatory requirements.

2.0 Employee Responsibilities

All Kalitta Charters employees are **individually responsible** to ensure our operations are conducted in a safe, efficient manner. Employees will:

- Adhere to the safety rules and procedures. Failure to do so may subject the employee to disciplinary actions.
- Not perform tasks or operate equipment unless he or she has been properly trained and is authorized to perform the tasks or operate the equipment.
- Review each task prior to performing it to ensure it can be performed safely. If any doubt exists about job safety, do not perform the task until supervision provides a way to perform the job safely.
- Use the appropriate tools, equipment, and facilities to perform the work tasks safely. Ensure safety guards and devices on machinery and equipment are functioning properly prior to use.
- Lift, push, pull and handle only those things they are physically capable of handling safely.
- Wear and use the prescribed personal protective equipment.
- Know the potential hazards associated with chemical substances and how to protect themselves before handling chemicals.
- Immediately report accident/incidents or injuries to their supervisor and promptly seek medical treatment when needed. Failure to immediately report accident/incidents and injuries may result in disciplinary action.
- Report any safety or health hazards to supervisors and take reasonable actions to protect fellow employees, property and the environment.
- Complete safety training and medical examinations when required by company policy or OSHA standards.

3.0 Employee Rights

Employees have specific rights under the OSHA Act. Detailed information is available from the Safety Department.

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1.0 Purpose

A safety counseling and potential disciplinary action process is used to ensure that employees understand the importance KC policies on employee safety and health.

2.0 Supervisory Duties

Supervisors will identify, investigate, and document safety infractions and take appropriate actions to correct unsafe work practices or behaviors.

- Depending upon the severity of unsafe actions or rules infractions, the supervisor will use safety counseling sessions (described below) or initiate actions under the company's Code of Conduct policies contained in the *KC Employee Procedures Handbook.*

3.0 Safety Counseling

Safety counseling is primarily a training method, not a disciplinary procedure. Counseling is used to bring to an employee's attention unsafe work practices and provide instruction on the proper (and safe) practices to be followed. The counseling (training) session will focus on how to perform each task correctly and safely.

- Safety counseling sessions will be documented and a copy will be placed in that employee's personnel file by the supervisor. The record will be retained for one year from date of the counseling. The documentation will include a statement of the identified safety concerns or unsafe work practices and the training/instruction given to identify the correct (safe) practices to be used for the tasks. A sample format is attached and may be photocopied for use. **MAKE SURE this page is returned to the manual if it is photocopied.**

- When an KC employee receives a safety citation, the supervisor will conduct and document a safety counseling session to address the unsafe act.

4.0 Corrective Actions

The purpose of a corrective action policy is to correct conduct and to encourage responsible actions for improved performance. Disciplinary actions are administered by the guidelines contained in the *KC Employee Procedures Handbook*

5.0 Code of Conduct

The company's Code of Conduct contains several items directly applicable to compliance with the safety program rules and procedures.

5.1 Major Infractions:

- Damaging or destroying company property, another employee's property, or customer's property through careless or willful acts.
- Disregarding company rules (including horseplay) and practices, including use of designated safety equipment or removal or alteration of safety devices.
- Authorizing untrained or uncertified employees to operate company equipment

5.2 **Lesser Infractions:**

- Carelessness, improper conduct, or violation of safety rules.
- Failure to meet housekeeping responsibilities.
- Careless use of company property/equipment.
- Failure to use company-supplied uniforms or safety equipment.
- Ground incident (non-aircraft involved).

6.0 Record of Safety Counseling

The attached record of safety counseling may be photocopied and used to record employee counseling sessions.

Kalitta Charters Record of Safety Counseling Date:_____

Employee Name:_____ Employee Number:_____
Location:_____

Description of unsafe work practices or actions:

_____
_____
_____
_____
_____

Training and/or instruction given to correct unsafe work practices actions:

_____
_____
_____
_____
_____

Supervisor Signature:_____ Date :_____
Employee Signature:_____ Date:_____

***

1.0 Purpose

Kalitta Charters strives to provide prompt medical treatment for employees suffering work-related injuries or illnesses and at the same time ensures compliance with applicable federal and state laws.

2.0 Procedure

Employees will immediately report job-related injuries and occupational illnesses, regardless of the severity, to their supervisor. Appropriate medical treatment will be promptly obtained. Supervisors will complete the *Personal Injury and Occupational Illness Report (AIR-1024)* form and the workers' compensation telephone reporting forms, as outlined in section KC1001-1.

- The supervisor will direct the employee to seek needed medical attention at the time of the injury/illness.
- If the employee completes their current shift, but is unable to work their next shift due to the injury, they must call in to their supervisor.
- The employee will present a "Return to Work" pass when returning to work to verify his or her visits(s) for medical treatment.
- The Human Resources supervisor is responsible for initiating the workers' compensation claim through the AIG. To report workers' compensation injuries call 1-877-366-8423. Complete the telephone-reporting process form (reference section KC604-1).

  Note:
  Failure to promptly report injuries may subject KC to State fines for late reporting, and/or denial of the employee's workers compensation claim.

- The Human Resources supervisor will complete a Personal Injury and Occupational Illness Report (AIR-1024) for each reported injury or occupational illness. Reference section KC604-1.
- The employee will complete the State of Injury - Workers' Compensation (06114-30), as required by federal and state law.
- The supervisor will fax a copy of the, TO REPORT WORKERS' COMPENSATION INJURIES form to the Human Resources Department within 24 hours; and further forward the following forms to the Safety Department within three days: PERSONAL INJURY AND OCCUPATIONAL ILLNESS REPORT (AIR-1024); and STATEMENT OF INURY WORKERS' COMPENSATION (06114-30). Separate reporting of the injury to the Human Resources Department is not required. The Safety Department will process the forms and coordinate required actions with the Human Resources Department.

3.0 Absence Policy

Occupational injuries and illnesses are nonchargeable occurrences under the "Absence from Work Policy" until review by the Safety Department. If it is determined that a primary cause or contributing factor of the injury/illness was the employee's failure to follow prescribed safety rules and procedures, then the absence may be chargeable, in accordance with the *KC Employee procedures Handbook.*

- Employees will be notified through their supervisors if the injury related absence has been made a chargeable absence.

- Appeals of chargeable absence determinations will be handled in accordance with the *KC Employee procedures Handbook*

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1) **Purpose**

a) The President/Chief Executive Officer, Director of Operations, Director of Maintenance and all line management personnel are responsible to implement the Kalitta Charters Safety program. Management and employees will take necessary actions to prevent accident/incidents and/or situations that result in injuries, property or equipment damage, or other "unsafe" operations.

b) The Director of Airline Safety is a full time position reporting directly to the President/CEO of Kalitta Charters. The Director of Safety directs and/or provides oversight of company safety activities, develops and implements safety program elements, and acts as a "consultant" to senior management to assist in identifying and resolving safety-related concerns.

2) Excerpt of HBAT 99-19 and HBAW 99-16 in regard to requirements of the Director of Safety:

SAFETY AND EVALUATION PROGRAMS.

1) As a matter of policy, the FAA encourages part 121 and 135 certificate holders to identify, correct, and disclose instances of noncompliance with company procedures and FAA regulations. The FAA has previously developed guidance material (AC 120-59) that encourages certificate holders to develop Internal Evaluation Programs as a tool for continuously monitoring and evaluating practices and procedures. The FAA believes that the development and implementation of a comprehensive and effective safety department that employs Safety and Internal Evaluation Programs will benefit both the certificate holder and the flying public.

2) Each part 121 and 135 air carrier should have a safety department that addresses the broad range of risks involved in commercial aviation to include, but not limited to, flight, maintenance, and ground safety. Since operators vary in both size and scope of operations, it is appropriate to consider such criteria as the kind of operations involved, the number and type of airplanes used, and the areas of operations when determining the size and complexity of a safety department.

3) Any safety program should be designed to prevent personal injury and property losses resulting from accidents and incidents. The primary objectives of a safety program should be to motivate safe actions through establishment of a dynamic corporate safety culture; identify hazards to safe operations; work with other company departments to develop and implement safety interventions; monitor intervention strategies to validate effectiveness; and communicate the results throughout the air carrier.

DIRECTOR OF SAFETY.

1) FUNCTIONS.

a) One of the functions of a Director of Safety is to develop and implement a comprehensive safety program. This safety program would include a safety structure and staff that is appropriate to the size of the operator, the kind and scope of operations, and the type and number of aircraft used in its operations. In all cases, it is important for the safety program to emphasize operational safety, including all aspects of flight and ground operations, maintenance programs and passenger safety.

b) The Director of Safety should ensure that the necessary safety program elements have been developed, properly integrated, and coordinated throughout the air carrier.

These elements include:

(a) A safety incident/accident reporting system.
(b) Accident/incident investigation.
(c) Safety audits and inspections.
(d) Internal evaluation program.
(e) Operational risk assessment program.
(f) Open reporting systems.
(g) Routine monitoring and trend analysis programs.
(h) Review of external evaluation programs.
(i) Safety Committee(s).

c) The Director of Safety should ensure that the safety program has been disseminated to all appropriate personnel and a detailed description of the safety program is incorporated in the appropriate manuals.

d) The Director of Safety should ensure that adequate safety program management is maintained.

e) To the greatest extent possible, the Director of Safety should be autonomous and separate from other departments and report directly to the chief executive.

f) The Director of Safety should have direct access to the appropriate level of senior management and to all managers/supervisors on safety issues.

g) The Director of Safety should provide safety concerns and findings to appropriate senior operations managers for appropriate corrective actions.

h) The Director of Safety should be a primary participant in the development of an internal evaluation program and the resultant safety audit procedures.

i) For part 135 operations and requirements, the Director of Safety position was established as a full time position responsible for keeping the highest management officials of the certificate holder fully informed about flight, maintenance, and ground safety practices, procedures, and programs of the certificate holder's entire operation.

2) QUALIFICATIONS.

a) Training. It is highly desirable that the Director of Safety completes an aviation safety education program consistent with the position's responsibilities. If an individual has not completed such a program prior to appointment, the Director of Safety should attend one to supplement his/her experience. Participation in industry safety meetings, conferences or schools is considered an essential part of the continuing education of the Director of Safety. Training should also include such subject areas as:

(a) Corporate safety culture.
(b) The role as advisor to senior management officials.
(c) Safety philosophy.
(d) Safety data collection and analysis programs.
(e) Risk management.
(f) Incident/accident prevention and investigation.
(g) Human factors.

b) Experience. The person assigned as the Director of Safety should have extensive operational experience and professional qualifications in aviation. This would include the knowledge and understanding of the following:

(a) Aviation safety programs.
(b) Aviation safety standards.
(c) Safe aviation operating practices.

c) Expertise. The person assigned as the Director of Safety should have established professional qualifications. These qualifications may be any of the following:

(a) An FAA commercial pilot or airline transport pilot certificate.
(b) An FAA mechanics certificate.
(c) An FAA aircraft dispatcher certificate.
(d) Three years experience in a supervisory position with a part 121 or a scheduled part 135 air carrier.
(e) Three years experience in a position comparable to paragraph 4.B.3. (d) above in U.S. military aviation operations.
(f) Three years experience in a supervisory position with a U.S. Government department, board, or agency that deals directly with aviation matters.

d) Knowledge. The person assigned as the Director of Safety should have a full understanding of the following materials with respect to the certificate holder's operation:

(a) The certificate holder's operations specifications.
(b) The manual required by section 121.133.
(c) All appropriate maintenance and airworthiness requirements of 14 CFR chapter I (parts 1 through 199).

3) RESPONSIBILITIES. The Director of Safety responsibilities may include, but not be limited to, the following:

a) Monitor and report to senior management on all air carrier activities that may have an impact on safety.
b) Establish a reporting system that provides for a timely and free flow of safety-related information.
c) Develop and maintain a database of incident/accident information to monitor and analyze trends.
d) Monitor and evaluate the various safety and malfunction reporting systems to ensure appropriate integration and evaluation of data.
e) Investigate and report on incidents/accidents and make recommendations to preclude a recurrence.
f) Conduct safety audits and inspections.
g) Solicit and process safety improvement suggestions.
h) Develop and maintain a safety awareness program.
i) Review and evaluate the adequacy of the emergency response plan.
j) Monitor industry safety concerns that may have an impact on operations.
k) Maintain close liaison with the FAA, NTSB and industry safety organizations and associations.

l) Discharge their duties to meet applicable legal requirements and to maintain safe operations in accordance with section 119.65.

3.0 Safety Department Authority - All safety department personnel, other than administrative and clerical personnel, have the authority to stop work or other activities that exposes and/or may expose, employees to serious hazards.

****

1.0 Purpose

1.1 To reduce and/or eliminate employee on the job injuries and damage to company resources. This policy applies to all KC employees and contractors/vendors operating under contract for KC.

1.2 In order to affect acceptable behavior, the Safety Citation Program will be administered and tracked under the Employee Performance Standards Policy. The Safety Department is responsible for maintaining a citation tracking system. If an incident warrants action greater than a warning of counseling (issuing of a citation) under this policy, the code of conduct and appropriate disciplinary action contained in the Policies and Procedures manual must be utilized.

2.0 Responsibility

It is the responsibility of management to ensure compliance with this policy and the responsibility of each affected person to comply with KC's safety standards and rules.

3.0 References / Authorities

3.1 KC Employee Handbook, KC General Operations Manual

3.2 KC Safety Manual, KC-201-3.

4.0 Procedures

4.1 Any employee, contractor, or vendor who is observed operating equipment in an unsafe manner, or violating equipment and/or personal safety procedures will be issued a safety citation.

4.2 Supervisors and above shall be authorized to issue a safety citation. Security personnel will be permitted to issue and forward citations to the individuals Supervisor and Safety Department.

4.3 The issuing person is responsible to properly distribute copies of the citation. The original (white) will be issued to the employee, copy 2 (pink) will be routed to the appropriate Human Resources Department (KC, or contactors), copy 3 (yellow) goes to the individuals Supervisor, and copy 4 (green), goes to the Safety Department.

4.4 When issuing a citation, the issuer will complete all sections of the citation form to indicate the appropriate violation, the name and employee number of the employee/person, and the date and time. The issuing person's name and signature must also appear on the citation.

4.5 **First Citation** – Employees Supervisor will counsel the individual on their inappropriate action and advise him/her of the correct safety procedure.

4.6 **Second Citation** (within a 12 month period) – The Supervisor will issue a written record of counseling. Counseling will include the nature of the inappropriate action, consequences of non-compliance of procedure/policy, and remedial safety training. The Safety Department has the option of administering additional remedial training as deemed necessary.

4.7 **Third and subsequent violations** (within a 12 month period) – Will be in accordance with established corrective action procedures contained in the KC Employee handbook.

4.8 This Safety Citation Procedure does not preclude the application of any other established policies. Where more restrictive measures are indicated by rule, they will take precedent.

4.9 Contesting citations, and grievance procedures will be in accordance with the guidelines provided in the KC Policies and Procedures Manual.

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1.0 Purpose

Provide guidance on Kalitta Charters' role as a " host employer" and when KC activities are conducted on "multi-employer" worksites.

2.0 Reference

OSHA Act Section 5

3.0 Overview

3.1 OSHA has established "host employer" and "multi-employer" worksite rules for workplaces that have more than one employer represented. Kalitta Charters facilities (in the U.S.) where outside contractors (ground service and/or freight handling) are performing operations for the benefit of KC may be covered by both the "host employer" and multi-employer worksite rules.

3.2 KC is defined as a "host employer" when the worksite is under KC control and non-KC employees are conducting contractual operations for the benefit of KC. As a "host employer", KC is responsible/required to provide a safe and healthy work environment for all employees in the workplace, including contracted services' employees. KC is also required to ensure that non-KC employees are aware of:

- Known workplace hazards and how to report potential hazards for resolution.
- Applicable KC safety rules and procedures for the tasks being performed.
- Personal protective equipment requirements.
- Specific training requirements for hazardous materials handling, freight handling procedures, and other tasks with KC defined training requirements.
- KC accident/incident and injury reporting and investigation procedures.
- Applicable workplace emergency procedures and response activities.

4.0 Contractor Responsibilities

Contractors are also required to provide a safe and healthy work environment for their employees. Contractors must ensure that their employees conduct tasks in a safe manner, comply with applicable OSHA guidance, and follow the host employer's safety rules and procedures.

5.0 OSHA Citations

OSHA normally issues citations to employers whose employees are exposed to workplace hazards. If OSHA determines that employees of more than one employer are exposed to a hazard, they may issue citations to each of the "exposing employers".

6.0 Legitimate Defense

Prior to issuing a citation to an employer at a multi-employer worksite, OSHA must determine whether the exposing employer has a legitimate defense. The following are legitimate defenses:

- Employer did not create the hazard.
- Employer did not have the authority or ability to correct the hazard.
- Employer made an effort to persuade the "controlling employer" to correct the hazard.
- Employer has instructed his or her employees on how to avoid or minimize the hazard and has, where feasible, taken actions to protect employees from the hazard.

7.0 Controlling Employer

If the exposing employer has met all of the legitimate defenses, the employer may not receive a citation for the hazard. This is especially true if the exposing employer has specifically requested the controlling employer to correct the hazard. OSHA may issue the citation to the employer who is in the best position to correct the hazard, even though no employees of that employer may be exposed to the hazard. If any question arises concerning multi-employer or controlling employer issues, notify the KC Safety Department or Legal Counsel.

***

1.0 Purpose

Provide guidance on contractor/vendor safety practices while performing activities for KC or working on KC controlled premises.

2.0 Reference

OSHA Act Section 5

3.0 Legal Responsibility

Contractors are required to provide a safe and healthy work environment for their employees. While performing tasks on another employer's site, contractors must ensure that their employees conduct all tasks in a safe manner, comply with applicable federal or state (most restrictive) OSHA guidance, and follow the "host employer's (KC)" safety rules and procedures. The contractor shall ensure that their employees:

- Perform only those tasks for which they are trained, qualified and authorized to perform.
- Are briefed on known workplace hazards, emergency procedures and response actions and how to report potential hazards to the KC supervisor.
- Comply with applicable KC safety rules and procedures for the tasks being performed.
- Wear/use applicable personal protective equipment and other required safety equipment.
- Complete, where applicable, the specific (or equivalent) training program for hazardous materials handling, freight handling procedures, fall protection, and other tasks with KC defined training requirements.
- Immediately report accident/incidents and injuries occurring on KC controlled premises to the KC site supervisor. Events may be investigated to determine needed actions to prevent recurrence.

4.0 Informing Local Management

Contractors will inform the KC Safety Department through the location manger/supervisor about any hazardous chemicals they bring into the property so that necessary precautions can be taken.

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1.0 Purpose

Federal, State and Local Governments have inspectors who inspect facilities for violations of their standards and regulations. Inspections may be of a routine nature or may originate from a filed complaint. Inspectors may include representatives from the Department of Transportation (DOT), Federal Aviation Administration (FAA), National Transportation Safety Board (NTSB), Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA), and various other state and local governments. The manner in which the inspection is handled by the location supervisor may have a significant effect on the outcome of the inspection.

2.0 Compliance

Compliance with Federal, State and Local standards and regulations is a basic corporate policy. Kalitta Charters strives to be in full compliance with applicable standards and regulations at all times. When an employee or investigator reports an unsafe condition or noncompliant situation, location mangers/supervisors will thoroughly investigate the issue and permanently correct the situation. Supervisors are encouraged to communicate with the Safety Department or other management personnel to resolve any noncompliance issues.

3.0 Inspections

3.1 Inspectors will normally arrive at your location, without advance warning, during normal working hours. They are required to identify themselves, and present proper credentials. They will request to speak with the manager, and explain the nature and scope of the inspection. If you have any doubt whether the person is an authorized inspector, call the applicable local regional government office and confirm the identity and authority of the inspector. They typically request to see records, machines, equipment, and hazardous materials. They may ask to review work processes.

3.2 Notify the Safety Department of any Federal, State or OSHA visit, inquiry, or inspection request. Notify the Director of Flight Operations and Director of Maintenance of FAA or DOT inspections. Notify the Director of Safety concerning Hazardous Materials, Dangerous Goods, or EPA issues.

3.3 If possible, call the applicable department manager for guidance and assistance before a government inspector begins his or her survey. Tell the inspector that it is company policy to inform management personnel of any inspection activities so the department manager can participate in the inspection process.

3.4 After any government visit/inspection, submit a Notification of Government Inspection. (Photocopy pages 4 through 5 of this report. **MAKE CERTAIN that you return the originals to the manual**). Forward copies to the appropriate department manager. It is important that the report include a record of all oral and documentary information given to the Inspector.

4.0 Handling Inspections

The following are suggested guidelines for handling OSHA or other government inspections. These are not absolute rules—use your best judgment in handling the situation. If you have any questions about these guidelines or inspection procedures, contact the KC Safety Department.

4.1 OSHA Inspections

Whenever possible, a Safety Department representative will accompany the OSHA inspector on any visits to KC workplaces and/or answer his or her inquires. Be aware of the following:

- Ask the inspector the reason for the visit. If he or she states that the visit is to address an employee-registered complaint, ask what specific area of the facility that the complaint covers. If the complaint is fairly specific, such as "the metal lathe area may present a hazard", then allow inspection of the specific item cited in the complaint.

- **According to corporate policy**, if the inspector states that the inspection is for reason other than investigating a specific employee complaint (i.e., to conduct a general inspection), ask for a search warrant. If the inspector does not have a search warrant, immediately notify the Safety Department. If you are unable to contact the Safety Department, courteously advise him or her that the company policy requires a search warrant before a general inspection can take place. Then escort the OSHA inspector off the property.

- If any question arises concerning the scope of the investigation or authority of the investigator, immediately contact the Airline Safety Department or the President (734) 544-3400x 7112

- An OSHA inspector can, by law, speak privately with any employee, salaried or contractual, when requested by the employee or OSHA inspector. The employee has the independent option to decline speaking with the OSHA representative.

- Try to limit the scope of the inspection as best you can. If the inspector wants to inspect the shop area, go directly to the shop area. Don't offer to show the inspector any other areas of the facility and encourage the inspector to stay within the boundaries of the area stated on the search warrant. If an employee(s) wants to accompany the OSHA inspector during an inspection, the OSHA Inspector must allow them to do so.

- If an OSHA inspector wants to inspect other areas of the facility not specified on the search warrant, advise the inspector that he or she may be going beyond the limits of the search warrant and you must have guidance from company officials before proceeding further. Contact the Airline Safety or General Manager for assistance.

4.2 Other Inspections/Suggestions

- Stay with the inspector while he or she is on the premises. Stay close enough to hear all conversations the inspector has while on the premises **unless a private discussion has been requested by an employee and/or the inspector**.

- If you don't know the answer to a question, say so. Don't guess or volunteer opinions. If the inspector has a question about company policies or procedures, refer him /her to the appropriate chapter in the company manual and to the functional manager for the desired information.

- Be cautious, but never volunteer information. Answer questions truthfully and answer with a "yes" or "no" whenever possible. Be courteous to the inspector, but remember that the inspector is there to look for possible violations of standards or regulations. Encourage the inspector to leave the premises as soon as the inspection is complete.

- It is important to pass on the visit results and any oral or documentary information given to the inspector so the functional manager can work any noted concerns or issues.

5.0 OSHA Citations

If an OSHA violation is found, you will receive a written citation describing the violation and the time period when the necessary correction must be made. Immediately forward the information to the Safety Department for assistance in completing the corrective actions. Display a copy of the citation prominently at or near each place where the violation was noted for three days or until the violation has been corrected.

6.0 OSHA Penalties

OSHA has a significant penalty structure for workplace health and safety violations for both the company and the individual supervisors/managers. Some individual penalties can result in criminal charges that have the potential of jail time and/or personal fines.

7.0 Notification of Government Inspection

A Notification of Government Inspection form is located on the following pages. Use it to report to the Safety Department.

NOTIFICATION OF GOVERNMENT INSPECTION

1. Date of visit: _____ Time: _____
2. Location: _____
3. Location of Inspector's base office: _____
4. Names & titles of Inspectors: _____

   _____
5. Inspectors employment unit (FAA, FHWA, NTSB, OSHA, EPA, State or Local):

   _____

   _____
6. What prompted the inspection/visit? _____

   _____

   _____
7. Was there advance notice given (Date)? _____
8. Duration of Visit: _____
9. What was inspected? _____

   _____

   _____
10. List measurements or pictures taken: _____

    _____

    _____

    _____
11. What violations or deficiencies were alleged? (Your comments) _____

    _____

    _____

    _____

    _____
12. Was a report visit or citations given to the office inspected? ☐ Yes ☐ No
13. List records requested by visitor:

Requested	Supplied	Not Available
_____	_____	_____
_____	_____	_____
_____	_____	_____

14. Inspector's verbal comments on visit findings: _____

_____

_____

_____

_____

15. List other employees with whom inspectors had discussions

Names and Titles	Subject
_____	_____
_____	_____
_____	_____

16. Provide a detailed account of your impression of the overall visit. (Attitude, knowledge, cooperation, etc. of Inspectors):

_____

_____

_____

_____

_____

17. Were the office procedures adequate for handling the visit? ❒ Yes ❒ No

_____

_____

_____

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_____

Signature _____ Title _____

Copies to: Appropriate Department Manager and Safety Office.

Note. If additional comments are required for any area, use a separate sheet and attach.

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1.0 Purpose

To inform employees of their right to access company maintained exposure and medical records.

2.0 Reference

29 CFR 1910.1020

3.0 Medical Records

3.1 The Human Resources Department will maintain a copy of employee medical records for the duration of employment plus 30 years, except for:

- Health insurance claims forms.
- First aid records of one-time treatments.
- Drug testing results.
- Medical records of employees that have worked less than one year. Upon request a copy of these records will be given to the employee.

3.2 The employee's company medical records normally contain:

- Audiometric testing results.
- Chest x-rays and other baseline medical tests.
- Description of treatments.
- Medical complaints.
- Reported injury history.
- Pre-employment, periodic, and post-employment physicals.
- Respiratory fit-test evaluations (if applicable).
- Chemical exposure record.

4.0 Exposure Records

Employee toxic substance exposure records will be preserved for at least 30 years, except for:

- Background data for environmental monitoring or measuring.

- Biological monitoring results required by another OSHA standards that will be maintained as required by the specific standard.

5.0 Company Records

KC will maintain the following exposure records (when applicable) for at least 30 years:

- Air monitoring records.
- Employee medical access training records.
- Measures taken to control employee exposure to chemicals.
- Noise monitoring records.
- OSHA 300 logs (for five years).

- Material Safety Data Sheets specific to exposures.
- Employee exposure records.

6.0 **Access**

A current or former employee, or designated (in writing) representative, will have an opportunity to examine and copy the applicable records within 15 working days from the day the Human Resources Department receives a written request. The employee (or designated representative) will be provided access to the records in a reasonable time, place, and manner. If the records cannot be accessed within 15 days, the Human Resources Department will inform the employee of the delay reason and when the records will be available for review.

7.0 **Request**

The written records review request must contain the following:

- Company name and date of request.
- Description of medical and/or exposure information requested.
- Employee name and employee's representative's name (if applicable).
- Purpose of request and employee signature.

8.0 **Employee's Right to Records**

Human Resources will inform the employee, when hired, of the existence, location, and availability of exposure and medical records, and the procedure to request a copy of these records from the Human Resources Department.

***

1.0 Purpose

When injuries occur, employees need to promptly seek and receive appropriate medical care to minimize the effects of the injuries. This section outlines a program to address these needs.

2.0 Reference/Authorities

OSHA 29 CFR 1910.151(2)

3.0 Responsibilities

3.1 **Employees** are responsible to report all injuries received in the workplace regardless of how minor.

3.2 Supervisors must ensure that their employees:

- Know where first aid and biohazard kits are located.
- Know where the nearest medical care facilities are located, and how to summon emergency medical services, and what the average response times are.
- Report injuries and subsequent medical treatment to the Safety Department (via the *Personal Injury and Occupational Illness Report [AIR-1024]* form). Reference section KC604-1.
- Immediately notify the Safety Department if an employee is hospitalized as results of a workplace injury or occupational illness, or a fatality occurs.

4.0 Program - First Aid

4.1 Each facility shall maintain a First Aid, Biohazard, and Eye Wash Station(s) sufficient for the number of employees in the facility. Each unit will be maintained in a serviceable condition and inspected at least monthly. Inspections will be annotated on an inspection form attached to, or inside, each first aid, biohazard, and eye wash station.

4.2 Each facility shall have a designated facility of care, which is available within 5 minutes of the workplace during that shift.

4.3 Contact the Human Resources or Airline Safety Department for use of the consulting physician's services.

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1.0 Purpose

All accident/incident or events that caused, or had the potential to cause, injuries and/or damages to facilities, equipment, property, freight, etc., must be immediately reported to supervision so that the appropriate response actions can be taken.

2.0 Priorities

The basic priorities in addressing a accident/incident are to:

- Notify the appropriate emergency response personnel by dialing the local emergency number(s) located on your emergency action poster.
- Evacuate the accident/incident area if hazards are still present, and control the situation to prevent further injuries or damages.
- If hazardous materials are involved, isolate the area and evacuate upwind.
- Take actions to treat injured personnel to best of your ability.
- Be available to provide information to emergency response personnel as requested.
- Provide initial accident/incident notifications, as needed, to the Airline Safety Department, the FAA, NTSB, EPA, OSHA, etc.
- If an injury is serious or fatal, the Director of Airline Safety will be contacted immediately. He, or his designee will contact the Workers' Compensation Department and the regional OSHA office (as required).
- A Human Resources official trained in family assistance should personally notify the next of kin as soon as practicable for serious injuries and fatalities.
- Determine needed actions to address operational requirements.
- Telephonically report KC personnel injuries, vehicular accident/incident, and general liability events to AIG, utilizing the TO REPORT WORKERS' COMPENSATION INJURIES form. Reference Chapter 6 and 10 for specific reporting procedures.
- Conduct the accident/incident /injury investigation. Reference section KC605-1, accident/incident Investigation Procedures.

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1.0 Purpose

When injuries occur, employees may need immediate care until proper medical treatment can be obtained. Many of these are minor injuries; as such, each operating location shall maintain a first aid kit appropriately sized for the number of personnel and type of work activities present. Supervisors will ensure employees promptly obtain the proper medical treatment as needed.

2.0 Reference

29 CFR 1910.151

3.0 Kits

3.1 First aid kits are typically provided and maintained by Kalitta Charters. KC will ensure that each kit is periodically inspected, restocked as needed, and contains a first aid manual. The kit(s) will be located in visible and easily accessible areas.

3.2 Kits shall be constructed of weatherproof materials with individually sealed packages for each item.

3.3 The standard kit for aircraft maintenance stations and material storage areas is a "large" (25 man-sized) kit with contents appropriate for industrial operations. A *Biohazard Spill Kit* and an eyewash station with a minimum of two bottles of eyewash solution will be co-located with each large first aid kit.

3.4 All enclosed vehicles shall be equipped with a small or medium first aid kit obtained through KC stockroom. The 5 to10-man kit shall have contents appropriate for industrial operations. A minimum of two bottles of eyewash solution will be co-located with first aid kits on vehicles used for aircraft maintenance activities.

NOTE: Vehicles designed for or equipped with tools and equipment to provide on-site maintenance within the vehicle will be required to have a *Biohazard Spill Kit* in addition to first aid and eye wash kits.

3.5 First aid kits for office areas shall have contents suitable for general office operations and will also have a *Biohazard Spill Kit* co-located with the first aid kit.

3.6 Aircraft first aid kits are maintained in a sealed condition with contents as specified by FAA regulations. Aircraft first aid kits shall also be equipped with disposable gloves and a resuscitation mask.

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1.0 Purpose

Eye wash stations will be maintained with unobstructed access to areas with potential eye exposures to chemicals and/or injurious materials. Access to eye wash stations must be accomplished within 10 seconds of the injury. The eye wash solutions will provide for quick drenching or flushing of the eyes and body.

2.0 Reference

29 CFR 1910.151

3.0 Stations

3.1 Eye wash station shall be located in each machine shop/work area and on maintenance vehicles with interior work areas where chemicals may be used. The stations shall consist of a minimum of two sealed and serviceable containers of eye wash solution. Buffered solutions are recommended. Self-contained eyewash stations shall be made of non-corrosive materials and will be readily identifiable to employees by use of high visibility signs or colors.

3.2 The eye wash solution bottles will be periodically checked for seal integrity, possible contamination, and expired contents. Any bottle with a broken seal, potential contamination, or which has exceeded the expiration date, will be immediately discarded and replaced by serviceable unit. The eye wash station shall be kept clean from contaminants.

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1.0 Purpose

Outline the minimum sanitary conditions and facilities necessary for workplaces. Employees will have ready access to sanitary facilities and potable water.

2.0 Reference

29 CFR 1910.141

3.0 Housekeeping

Keep all areas of employee use (including passageways, lavatories, lunchrooms, staterooms) clean, orderly, and free of accumulated debris. Workroom floors shall be maintained in as dry a condition as practical, kept in good repair, and free of protruding nails, splinters, loose boards or other items that may present a tripping or injury hazard.

4.0 Water

4.1 An adequate supply of potable (drinking) water shall be provided in all places of employment for the purposes of drinking and washing.

4.2 Portable drinking water dispensers will be designed to maintain sanitary conditions and will be equipped with a tap. Common drinking cups are prohibited. Unused disposable cups shall be kept in sanitary containers and a disposal receptacle shall be provided for used cups.

4.3 Nonpotable water will be posted or marked in a manner to indicate that the water is unsafe and shall not be used for employee drinking or washing purposes.

5.0 Toilets

5.1 Toilet facilities shall be provided or available in all places of employment. The number of required facilities are based on the following table:

Number of Employees	Number of Toilets
1 to 15	1
16 to 35	2
36 to 55	3
56 to 80	4
81 to 110	5
111 to 150	6

5.2 Where toilet rooms will be occupied by no more than one person at a time and can be locked from the inside, separate toilet rooms for each sex are not required.

5.3 Each toilet must be in a separate compartment with a door. The partition or walls between fixtures and the doors must be high enough to assure privacy. Each toilet shall have a toilet paper holder and an adequate supply of toilet paper.

5.4 Hand washing facilities with soap or other appropriate sanitizing method will be co-located with toilet facilities.

6.0 Washing Facilities

6.1 Washing facilities will be maintained in a sanitary condition and lavatories will be available for employee use.

6.2 Each lavatory shall be provided with hot and cold or tepid running water.

6.3 Hand soap or other cleansing agents shall be provided.

6.4 Cloth or paper individual hand towels, warm air blowers, or sections of continuous cloth toweling shall be provided.

6.5 If standard or emergency showers are required due to potential exposures to workplace contaminants or by specific OSHA standards, one shower shall be provided for each ten exposed employees. Contact the Safety Department for assistance in equipment selection.

7.0 Dressing Rooms

If employee dressing rooms are required for changing from street clothes into work uniforms or protective clothing because of exposures to excessive dirt, fumes, heat, vapor, etc., then have a dressing room for each sex and separate lockers or other storage areas for each employee's clothes. Also have a closet or rack for hanging outer garments.

8.0 Eating Areas

8.1 If employees eat lunch on the premises, have a separate area for this purpose. Make sure this area is physically separate from areas with potential exposures to toxic materials. No food is to be eaten or stored in a room having a toilet.

8.2 Refrigerators are to be used for food products or industrial product storage exclusively. **Never** mix the two in a common fridge.

8.3 Microwave ovens are to be maintained in a clean and serviceable condition. Never leave a microwave unattended while in use.

9.0 Sleeping Facilities

9.1 Employee sleeping facilities will be kept in a clean and orderly manner. Bedding will be exchanged prior to use by a different individual and at least weekly if used by the same individual.

9.2 Functional fast-acting smoke detectors will be used in all sleeping areas.

9.3 Sufficient night lighting will be provided to allow movement in the sleeping area by individuals with dark-adjusted eyesight.

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1.0 Purpose

1.1 The Bloodborne Pathogens Exposure Control Plan covers the procedures to protect employees from exposures to bloodborne pathogens that are present in human blood that can cause diseases in humans.

1.2 Bloodborne pathogens are microorganisms in the blood and other bodily fluids that can cause diseases such as Hepatitis A, B, and C (HAV, HBV, and HCV) and Human Immunodeficiency Virus (HIV)—commonly known as AIDS. Infectious materials include semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, and body fluids visibly contaminated with blood.

1.3 OSHA has instituted a Bloodborne Pathogens Standard detailing protective measures to minimize the workplace exposures to these substances. Under this standard, exposures can be minimized through engineering and work practice controls, training, medical surveillance, and use of personal protective equipment.

2.0 Reference

29 CFR 1910.1030

3.0 Exposure

Employees incur risk each time they are exposed to bloodborne pathogens. An exposure incident may result in infection and subsequent illness. Exposure incidents must be prevented whenever possible. Potential exposures can occur during accident/incident response actions, when providing First Aid and/or CPR, and during cleanup activities where employees have been injured. All employees shall take precautions to prevent contact with blood and body fluids.

4.0 Control Plan

4.1 The company has developed written bloodborne pathogens exposure guidelines, poster, and training to address the OSHA standards.

4.2 The Bloodborne Pathogens poster will be displayed in a location where notices to employees are customarily posted.

5.0 Training

KC employees will receive periodic Bloodborne Pathogens awareness training covering the general program requirements and Universal Precautions designed to limit potential exposures to HBV/HIV sources.

Universal Precautions

6.1 "Universal Precautions" is an infection control approach where all human blood and human body fluids are treated as if infectious for HIV, HBV, and other bloodborne pathogens. "Universal Precautions" are observed to prevent contact with blood or other potentially infectious materials. All body fluids should be considered potentially infectious materials.

6.2 Whenever possible, personal protective equipment is used during periods of potential exposures. First Aid kits contain antiseptic cleansers, disposable gloves, and disposable CPR breathing protective

devices. Each operating location shall also maintain a Biohazard Spill Kit for use during emergency/First Aid response situations. Each location should have ready access to an antiseptic hand cleanser, clean cloth/paper towels or antiseptic towelettes.

6.3 Employees must wash their hands and other exposed skin with soap and water, or flush mucous membranes with water as soon as feasible following contact with blood or other potentially infectious materials.

6.4 Garments penetrated by blood or other potentially infectious materials will be removed as soon as feasible and be disposed of or laundered in an accepted facility such as a hospital.

6.5 Disposable (single-use) gloves, such as surgical or examination gloves, are replaced as soon as practical when contaminated or immediately if they are torn, punctured, or when their ability to function as a protective barrier is compromised. Disposable (single-use) gloves will not be washed or decontaminated for re-use. Use new gloves for treating each individual.

6.6 Contaminated work surfaces will be decontaminated with an appropriate disinfectant such as a bleach solution or anti-microbial product as soon as feasible.

6.7 Broken glassware or other sharp objects that may be contaminated are not to be picked up directly by the hands. Use a broom/brush and dust pan, tongs or other mechanical means to clean up any debris.

6.8 Waste materials are discarded immediately, or as soon as feasible, in containers that are closable, puncture-resistant, leak proof on sides and bottom, and labeled. Red plastic disposal bags are contained in the Biohazard Spill Kit. All regulated waste must be disposed of in accordance with applicable regulations.

7.0 Vaccines

7.1 Hepatitis B Vaccination and Post-Exposure Evaluation and follow-up.

7.2 Post-exposure evaluations and follow-up care are made immediately available to exposed employees following a reported exposure incident. All medical evaluations and follow-up are confidential and are provided at no cost to employees. Immediately report any potential exposures to the Safety Department or the Human Resources Department. The Airline Safety Department will arrange for or recommend procedures for Hepatitis B vaccinations and exposure medical evaluations.

7.3 If an employee initially declines vaccinations but later decides to accept them, the Hepatitis B vaccinations will be made available upon request. Designated First Aid/CPR responders declining vaccinations must sign the *Vaccination Declination Statement*. File the *Vaccination Declination Statement* in the individuals' company medical file and with the safety department.

8.0 Spill Control

Maintain a Biohazard Spill Kit at each facility and place with the first aid kit(s). If the kit is opened and any materials are used, replace the entire kit with a new kit.

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1.0 Purpose

1.1 Aircraft cleaning personnel may be exposed to human waste and bodily fluids during servicing of the aircraft latrines as well as strong disinfectant solution. To provide personal protection, aircraft cleaning personnel shall wear latex gloves, protective apron, and a face shield in addition to personal protective equipment normally worn.

1.2 Sometimes during flight or loading of aircraft, a loadcrew member, flight mechanic flightcrew member, or jumpseater may become sick (vomit). When this happens, the question arises as to who is responsible to clean the area. The policy below addresses who has the responsibility, and how to clean the interior of aircraft when it has been soiled.

2.0 Personal Protection

Body fluids fall under the bloodborne pathogens regulations of OSHA. Certain protective procedures must be complied when working with or around bodily fluids; this includes the use of personal protective equipment (PPE). Required PPE for cleaning body fluids include latex gloves, protective apron, and face shield. The person whom vomited, or another employee who cleans the aircraft should dispose of the cleanup materials in a proper waste disposal container and disinfect the soiled location.

3.0 Air Sickness

Trash bags are carried aboard aircraft and should be used first to avoid soiling the aircraft. When an aircrew member, groundcrew member, or passenger aboard the aircraft feels ill, they should ask for and get an trash bag as a precautionary measure. If the person does vomit, he or she needs to carry the bag off the aircraft and dispose of it properly.

4.0 Cleaning

4.1 If an trash bag is not available or an individual does get sick and does not have time to get an trash bag, the following should be used as a guide to determine who cleans the area.

4.2 The person that became ill should clean the area as soon as possible with a biohazard spill kit.

4.3 Aircraft cleaning personnel (if available) should be contacted for additional follow-up cleaning of the area as soon as possible with a biohazard spill kit. In the event they are unavailable; then,

4.4 The KC or contracted mechanics should do the follow-up cleaning as soon as possible with a biohazard spill kit. Appropriate personal protective equipment shall be used.

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1.0 Purpose

OSHA regulations and ANSI Z53.1 prescribe the use of certain colors as indicators of potential physical hazards. The colors may be used for equipment types, equipment controls, or for marking areas containing physical hazards.

2.0 Reference

29 CFR 1910.144 - .145

3.0 Training

Employees will be trained in the safety color codes and accident/incident prevention sign system used in the workplace.

4.0 Color Codes

4.1 **Red or red/white**- red is used as the basic identifying color for fire protection equipment and danger zones. The color will be used for:

- Location of fire protection equipment and apparatus, alarm boxes, blanket boxes, extinguishers, exit signs, hose locations.
- Emergency stop buttons/bars.
- Danger signs.
- Barricades and temporary obstructions.
- Safety cans and other portable containers containing flammable liquids.

4.2 **Orange** - Orange is used to identify dangerous parts of machinery that may cut, crush, and shock or otherwise causes injuries.

4.3 **Yellow** - is used as the basic color for designating areas requiring caution and for marking physical hazards that cause someone to fall, stumble, trip, strike against or be caught in between. It is also used to identify hydrants and pumps.

4.4 **Green** - is used to identify First-Aid Equipment and signs providing basic safety information.

4.5 **Blue/Brown** - is used provide general information against starting, using or moving equipment.

4.6 **Black/White or Black/Yellow** - colors are used to identify boundaries associated with traffic aisles, stairways (risers, direction and border limit lines) and directional signs.

4.7 **Orange/Red** - Fluorescent orange or red orange identifies biological hazardous materials or equipment.

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1.0 Purpose

Safety signs and symbols have been developed to identify specific hazards that may lead to employee injuries or property damage and to provide safety instructions. The appropriate safety signs will be displayed in the hazard areas to convey the needed safety information to employees in order to prevent mishaps and injuries.

2.0 Reference

29 CFR 1910.145

3.0 Danger Signs

Danger signs are posted to warn of specific dangers and radiation hazards. All employees shall be instructed that danger signs indicate immediate danger and that special precautions are necessary. Danger signs use a combination of red, black and white colors. A few examples are: Danger—Hard Hat Area; Danger—Electrical Hazard; Danger—Flammable Materials; Danger—Explosives.

4.0 Caution Signs

Caution signs are used to warn of potential hazards and of proper precautions that should be taken. Caution signs have a yellow background with black lettering. A few examples are: Caution—Wear Hearing Protection; Caution—Fire Door Keep Closed; Caution—Safety Glasses Required; Caution—Goggles and Face Shield Required To Operate This Machine.

5.0 Safety Signs

Safety instruction signs are used to provide general instructions and safety information. Safety signs generally have white backgrounds with black or green lettering/symbols. Some examples are: First Aid Station; Eye Wash Station; Safety Glasses Required; and No Smoking.

6.0 Biological Signs

Biological warning signs are used to signify the actual or potential presence of biohazard (infectious agent which presents a risk of death, injury or illness).

7.0 Wording

The wording on any sign should be easily read, informative and to the point. Signs shall contain a signal word or words that get employees immediate attention and convey a message. The signal word (Danger, Caution, etc.) shall be readable at a Minimum distance of 25 feet and must be understandable by employees. The sign's major message shall be presented in either pictographs, written text, or both. Signs will be affixed as close as possible to the respective hazard.

8.0 Design

All signs must be glossy, highly visible, have rounded or blunt corners and not have any sharp edges, burrs, splinters or other sharp objects.

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1.0 Inside Facilities

Company policy prohibits smoking inside all Kalitta Charters facilities with the exception of the designated smoking areas. Smoking and tobacco products, not only has a negative effect on the indoor air quality, it presents a fire hazard and can cause damage to our facilities.

2.0 Outside Facilities

2.1 Smoking/smoking areas are strictly prohibited in the following areas:

- Within propane or hazardous materials storage areas.
- Within 50 feet of fuel islands.
- Within 50 feet of flammable/combustible storage areas.
- Within 50 feet of aircraft.
- While operating forklifts or other LPG powered equipment.

2.2 Smoking is permitted only in designated areas indicated by a sign or marked area. Chewing tobacco is considered a biohazard product and must be disposed of as such.

3.0 In Aircraft

3.1 Smoking is prohibited within the cockpit of KC aircraft and at all times while the aircraft is on the ground. The Captain has the authority to restrict or prohibit smoking elsewhere onboard the aircraft.

3.2 If the Captain allows smoking, aircraft occupants who choose to smoke during flight shall do so only in the cabin area between the cockpit bulkhead and the forward cargo restraint.

Note: These individuals area responsible for cleaning the aircraft of any debris caused as result of using tobacco products. Chewing tobacco is considered a biohazard product and must be disposed as such.

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1.0 Purpose

Lifting and setting down are the first and last movements in handling freight or other objects. Most sprains and strains to the back occur during these movements. Because of the large number of injuries that result from improper lifting, it is important to know the proper lifting techniques in order to avoid these injuries.

2.0 Before Lifting

2.1 Employees need to determine the amount of weight they can personally lift safely. If the object weight is more than the safe lifting weight or size, they must get help. Under no circumstances should an employee lift more than 70 lbs without assistance. Employees should never carry a heavy object that they can't see over or around.

2.2 Safe Lifting Practices

- Before lifting a heavy or bulky object that is to be carried to another place, inspect the area around the object and the travel route to ensure there are no obstructions or spills that might cause a trip or fall.

- Inspect the object for sharp edges, slivers, banding, or other hazards that might cause injury. Never gasp metal banding or rope to carry an object. If the object is wet or greasy, it must be wiped dry so it won't slip from the handler's hands. Use gloves when appropriate.

3.0 Lifting Techniques

Use the following lifting techniques:

- **Feet** - Part the feet. Place one foot along side the object to be lifted and one behind. Comfortably spread your feet apart for greater stability and position the rear foot for the upward thrust of the lift.

- **Back** - Use the sit-down position and keep the back locked in the normal spinal curve. A locked back keeps the spine back muscles and body organs in correct alignment. It minimizes the compression of abdominal organs that can cause a hernia.

- **Chin** - Keep the head and neck up rather than tucking the chin. This allows you to maintain the normal spinal curves in the neck and back.

- **Palm** - Gripping with the palm is one of the most important elements of correct lifting. The fingers and the hand are extended around the object to be lifted—using the full palm. Fingers alone have very little power—the strength of the entire hand is needed.

- **Arms and Elbows** - Draw the load to the body with arms and elbows tucked into the side of the body. When the arms are held away form the body they lose much of their strength, and because the weight is not fully supported on the spinal axis, a back strain can result.

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- **Body Weight** - Position the body so that its weight is centered over the feet. This provides a more powerful line of thrust and also ensures a better balance. Start the lift with a thrust of the rear foot.

4.0 Other Lifting Techniques

4.1 When lifting an object to shoulder height or above the head, it should be done in the following steps:

- Lift the load waist high and rest it on or against a support.
- Change your grip.
- Bend your knees to get added power from your leg muscles for the final lift.

4.2 Before setting the object down or beside you, shift your feet and face that direction. Twisting the body without shifting your feet may cause back injuries.

4.3 If stacking a box or carton, set it on the edge of the freight underneath and push it far enough so that it will not fall. To prevent your fingers from being pinched, move it in place by pushing from the front.

4.4 When lifting lumber, pipe, or other long objects, keep hands away from the ends to prevent pinching them.

4.5 Never try to change the position of the object you are carrying or adjust your grip while you're in motion. If you want to do either of these things, stop and rest the object against a support, and then make the change.

5.0 Lumbar Support

Injuries to the lower back are the most common injury suffered by employees. While medical evidence is inconclusive as to the effectiveness of lumber support devices, many employees have benefited from their use. An effective exercise program, proper lifting techniques, and stretching exercises prior to lifting have been shown to prevent most back injuries. However, for additional support, the company will provide a lumbar support belt for those employees whose tasks include the manual handling of articles or include the lifting of objects weighing 25 pounds or more.

6.0 Using Belts

Employees routinely handling articles weighing 25 pounds or more, are encouraged to wear the back belt at all times while working. When worn properly, the belt will fit snugly around the lower back without restricting circulation. In addition to on-duty activities, employees are encouraged to use back belts when performing strenuous tasks while off the job.

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1.0 Earphones and Headsets

The use of radio earphones and headsets is prohibited in non-office areas, except when required for specific work tasks. Driving, flightline operations, working around aircraft and in shop areas require employees to be alert to any possible dangers or hazards.

2.0 Rings

Finger and other body rings shall be removed prior to performing mechanical or electrical work, operating shop machinery, servicing or working on aircraft, or performing manual material handling tasks. Depending on the hazards associated with particular tasks, supervisors may also require employees to remove wristwatches and other jewelry.

3.0 Shirt Sleeves and Other Articles

Unless required otherwise by the operating procedures, shirtsleeves will be rolled up and gloves will be used when operating grinders, saws, sanders and other shop equipment to reduce the possibility of entanglement with the machinery. All identification badges, when worn on the person, must be attached with a breakaway design strap.

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1.0 Purpose

Falls are one of the leading causes of occupational deaths and injuries each year and are the leading cause of accidental deaths occurring in homes. Slips and trips are seldom recognized as incidents that can cause serious injuries. There are millions of slip, trip, and fall injuries that result in lost workdays, broken bones, "bad backs", permanent disabilities, and death. Often the cause of a slip, trip, or fall is not identified until after a serious injury has occurred. Obviously, we want to prevent slips, trips, and falls whenever possible.

2.0 Definitions

2.1 **Slips** - are a loss of balance caused by too little friction between your feet and the surface you work or walk on. Wet surfaces, ice or snow, walking carelessly, ignoring spills, and wearing shoes without adequate traction for the surface can cause slips.

2.2 **Trips** - are a loss of balance caused by interference between your forward motion and some object. You can also trip walking or running backwards. You can trip while taking short cuts, moving through cluttered walkways, in poor lighting, or walking on loose or uneven surfaces.

2.3 **Falls** - are caused whenever you move too far off your center of balance. A slipor trip often ends with a painful fall.

3.0 Prevention

The obvious best prevention is to remove the hazards that cause slips, trips, and falls. Recognize, avoid and control slips, trips, and falls hazards both at work and home. Some actions to take include:

- Beware of wet, dirty, or oily surfaces.
- Be extra cautious on ice or snow covered surfaces.
- Check the surface condition before stepping out of a vehicle.
- Clean up or report spills in walking areas.
- Pay attention to where you are walking and make sure the path is clear of hazards. Keep your hands free for balance rather than in your pockets.
- Be aware of changes in the type of walkway surface (going from carpet to vinyl or concrete for instance).
- Avoid hazards by walking carefully around them carefully or stepping over them.
- Use caution on stairs that may be less than perfectly stable, wet and covered with ice or snow. Always use the handrail and do not exceed the manufactures weight limits.
- While carrying luggage up crewstairs, keep one hand free for use of handrail. If more than one article of luggage, transport luggage one at time up the crewstairs, with the exception of strap luggage.
- Do not take long steps or turn corners sharply on wet surfaces. Walk carefully and slow down your walking pace. Take short steps to keep your center of balance under you. Walk with your feet pointed outward slightly for a stable base of support and make wide turns at corners.

- Wear slip-resistant shoes. Keep shoe soles clean and free of oil, mud, and ice.
- Use the handrail whenever going up or down stairs and watch for loose handrails. Have loose carpeting, broken floorboards, and damaged toe boards fixed.
- Avoid taking short cuts that may present walking hazards.
- Keep work areas well lit and clean.
- Always close file drawers.
- Store briefcases and purses away safely.
- Keep all chair legs on the floor.
- Clean up spills immediately.
- Use the correct stepladder or extension ladder. Don't use makeshift ladders. Never stand on the top of rungs or steps.

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1.0 Purpose

A safe driver exercises more caution than merely observing all traffic laws. A safe driver is prepared mentally and physically to do more than the law requires. This is known as defensive driving, and this is what management personnel must emphasize constantly. Defense driving saves lives, time, and money.

2.0 Defensive Driving

2.1 Defensive driving means driving safely, in spite of conditions around you and the actions of other drivers or pedestrians. Principles of defensive driving:

- Anticipate situations that cause accidents.
- Expect and make allowances for reckless and careless actions of others.
- Be constantly alert and think far enough ahead to prevent dangerous situations from developing. Don't assume other drivers will react to a situation the same way you would.
- Give yourself plenty of space and time to take preventive action if a dangerous situation develops. Use the 2-second rule to maintain a safe driving distance between your vehicle and the vehicle ahead.
- Adjust speed to meet all hazards of weather, roads, traffic, and other existing conditions.
- Ensure your vehicle is well maintained and all lights, wipers, horns, etc., are in proper operating condition.
- Recognize potential accident-producing situations in time to avoid accidents.
- During daylight hours, drive with your headlights or daytime running lights on. This significantly increases your visibility to other drivers and has shown to greatly reduce the number of accidents.

2.2 Keep your mind on your driving, your eyes on the road, and pay attention to crosswalks, intersections and congested areas adjacent to the street or highway. Most accidents can be prevented if drivers will exercise the attitude and caution of a defensive driver.

2.3 Thousands of lives could be saved each year if all vehicle occupants wear seat belts. The law in almost all states requires wearing seat belts.

3.0 Driver's Condition

The main defense against a vehicular accident is your condition as the driver. The following can affect your driving ability:

- Drinking and driving, alcohol adversely affects your judgment, reaction time, coordination, and blurs and distorts distances. Alcohol is involved in about 50% of all fatal traffic accidents.
- An aggressive "me-first" attitude frequently causes collisions.
- Don't drive when you are tired. Pull off the road for some exercise and fresh air or a cup of coffee. When you're tired, take a nap or let some else drive.
- Prescription and over-the-counter medications might affect your ability to drive safely. Read the labels for warnings.
- Anger, frustration, worry, joy and excitement can take your mind off your driving. Get your emotions under control before you get behind the wheel.
- Uncorrected vision or hearing impairments, heart disease, and diabetes increase your chance of a accident. Consult your physician.

4.0 Impaired Drivers

Steer clear of drivers who may be alcohol or drug impaired and are:

- Drifting or weaving.
- Speeding or driving too slowly.
- Accelerating or slowing down rapidly.
- Braking erratically or stopping without apparent cause.
- Driving with their head out of the window or with the window down in cold weather.
- Driving into opposing or crossing traffic.
- Driving with tires on a lane marker.
- Slow to respond to traffic signals.
- Giving inconsistent signals.
- Almost striking an object or another vehicle.

5.0 Speed

Excessive speed is unnecessary and dangerous. Employees must drive at a speed no greater than the posted limits. Road conditions, weather, and the amount of traffic may require that you drive slower than the posted speed. Adjust your speed to the conditions.

- Do not drive at a speed greater than is reasonable and prudent under the existing conditions and with the due regard for any actual or potential hazards.
- Attempt to drive your vehicle at a uniform rate of speed, consistent with road and traffic conditions.
- Proceed slowly through business districts, alleys, congested areas, past blind corners and over rough pavement.
- Slow down and don't take chances on winding roads and curves.
- Never over drive your vision.
- Never attempt to race another vehicle or attempt to "set a record".

6.0 Pedestrians

Expect the unexpected from pedestrians. Preventing pedestrian accidents requires a driver to be constantly alert and aware of the following:

- Elderly pedestrians may have impaired vision or hearing, while many children are forgetful or unaware of traffic dangers. They often concentrate only on the point they are trying to reach and don't pay attention to traffic. The defensive driver will recognize these human failings in both young and old, especially the inattention of children, and will drive accordingly.
- Drive slowly on crowded streets, especially if parked cars are near the curb. Pedestrians are almost certain to walk from between them. Be alert to motorist opening car doors as you pass.
- Use extreme caution when crossing in front of or passing vehicles-disembarking passengers. The passengers are often hurrying to their final destination and aren't paying attention to traffic conditions.
- When a traffic light changes, allow pedestrians the courtesy of enough time to complete their crossing of an intersection before you drive through or make a turn. Do not startle or confuse them with a loud horn blast.
- When entering the street from an alley, always stop at the sidewalk and yield to pedestrians.
- Watch for jaywalkers everywhere, especially children darting out from curbs in residential, playground, and school areas.

7.0 School Zones, Safety Lanes, Buses, Traffic Signs

Be exceedingly cautious and drive slowly when approaching schools, safety zones or other places pedestrians, especially children, may be on the highway, street or adjacent property, or when passing any vehicle stopped to load or unload passengers. Observe these safety rules:

- Come to a full stop behind streetcars or buses taking on or discharging passengers. (State laws require a full stop whether approaching or overtaking a school bus that is stopped to load or discharge passengers).
- Stay behind the pedestrian crosswalk when stopped for a traffic sign or signal.
- Obey all warning signs and signals that identify dangerous intersections, curves, hills, crossroads, railroads, etc.
- Never speed up to beat a signal light.
- Never pass to the left of a streetcar or bus.
- Keep to your right at all times.

8.0 Following Too Closely

8.1 Never follow another vehicle closer than is reasonable and prudent, taking into consideration the speed of the other vehicle, amount of traffic, and highway conditions. When vehicles are hauling hazardous materials, allow yourself an extra margin of safety.

8.2 A safe following distance is the distance necessary for you to make a smooth stop and avoid a accident if something unexpected occurs. (The driver must decide what is a safe distance). Use as a guide at least 2 seconds of traveling distance between your vehicle and the vehicle you're following.

8.3 Adjust your speed to maintain a safe following distance. The greater the speed, the more room you need to stop. Increase your following distance:

- Driving in a school zone.
- Roads are wet or covered with snow or ice.
- Driving in congested areas such as shopping centers, drive-in theaters, etc.
- Approaching intersections.

9.0 Avoiding Rear-End Collisions

You have a responsibility to the driver following you. Here are four measures you can take to avoid being hit from behind.

- Signal your intentions. Use your directional signals and brake lights.
- Stop smoothly. If you follow the rule of avoiding a collision with the vehicle ahead, you will reduce at the same time the chance for a collision with the vehicle following.
- Keep clear of tailgaters. Don't let a tailgater rile you. Just slow down. This will eliminate the hazard by encouraging them to pass you. Increase the following distance between you and the car ahead so you won't have to brake suddenly.
- Keep a foot on the your brake to activate the brake lights while stopped, this will help avoid a rear-end collision.
- Stop a least 10 feet behind the vehicle ahead to prevent any domino effect, in the event that a rear-end collision does occur. Keep lights on at dusk or in rain or snow.

10.0 Intersection Right of Way

Failure to yield the right of way causes almost every intersection collision. You can prevent an intersection crash and avoid a traffic citation if you adhere to your state's rules of the road and always yield the right of way.

- As you approach an intersection where the light has been green for a while, get ready for the light to change and be prepared to stop.
- When you're stopped at a red light and it turns green, check to see that the traffic has stopped on the intersecting street. Look left, then right, and scan left again before you proceed.
- A yellow light doesn't mean to accelerate through the intersection. A yellow light allows you time to clear an intersection when you are driving through it, not when approaching it.
- Turning right on a red light is permitted only when conditions are suitable and when; the state you are driving in permits it; no sign prohibits a right turn on red; your vehicle has come to a *complete* stop in the extreme right lane; and traffic is clear and pedestrians are clear of the crosswalk.

11.0 Bad Roads

Pay special attention when driving on bad roads (narrow roads, bumpy roads with potholes, soft shoulders, etc.). Adjust your driving to the specific road conditions.

- Look out for potholes, bumps and soft shoulders.
- Allow time and space to slow down or change lanes to avoid bad spots in the road.
- Be especially alert on unfamiliar routes. Don't let familiarity reduce your alertness.

12.0 Distractions

Avoid accidents that can be caused by distractions inside the vehicle, such as dropping cigarettes, gum, and food items from hands. Do not attempt to recover dropped or fallen items while the vehicle is in motion.

13.0 Construction Zones

Slow down and drive cautiously in construction or work zones. Be alert to the following:

- Reduce speed according to posted construction zones speed limit.
- Watch for and follow directions of flagmen.
- Be alert for traffic lane dividers (barrels), workmen, and construction equipment in the work zone. (Remember—traffic in a construction zone is usually congested and lanes are narrow, which limits your ability to maneuver.)
- Be alert for merging traffic and other vehicles that may merge into your lane abruptly.
- Respect the rights of workers whose duties require them to be on the highway. Be sure they are aware of your approach and proceed slowly when passing them. Be careful to obey their warning signs.

Note: Many states double the dollar amount of a traffic violation fine within construction zones.

14.0 Company Yard and Private Property

Driving on company property and on private property (customer's property) requires special attention to speed, obstructions and other employees.

- Do not exceed 15 mph.
- Watch for potholes or other surface irregularities that can cause directional control problems.
- Keep a careful watch for employees (pedestrians) at all times. (Customers or visitors, who may be unaware of the hazards, may be on the premises.)
- Exercise care at all blind corners, e.g. the ends of docks, buildings and parked vehicles.

15.0 Animals on the Highway

Avoid hitting animals on the highway if possible. However, do not risk serious injury to yourself by avoiding them. Even after they have left the roadway, extreme caution must be used since animals are likely to turn around and cross in front of you. Animals being transported in open racked trucks and pickups also constitute a potential hazard. They may jump out in front of you. Stay alert and be prepared!

16.0 Winter Driving

16.1 Rain, snow, fog, sleet, or icy pavement add more hazards to driving and make the normal hazards worse. If you adjust your driving to adverse conditions and take the necessary precautions, accidents can be avoided.

16.2 Be aware of the following conditions that result from inclement weather:

- Visibility will often be reduced.
- The stopping distance on snow and ice varies according to the temperature. Braking distance on ice is almost twice as long at 30 degrees as it is at 0 degrees.
- The polishing action of tires spinning and sliding on snow and ice greatly increases the slipperiness of already hazardous road surfaces. This occurs primarily at intersections, on curves, and on hills. The polishing effect increases stopping distances, slows traffic, and presents a severe hazard at intersections.
- Streets may only be wet while the surface of bridges and overpasses are frozen because they are exposed to the cold from below as well as from above. Shady spots on the street may be frozen while sections in the sunlight are only wet.
- Ruts in the road can cause a vehicle to sway and slide into parked vehicles or buildings, especially in narrow alleys.
- Roadways can be very slippery after the first rains due to oil, grease, leaves, etc., on the road.

16.3 The following actions will allow for safer driving in inclement weather:

- Keep windshield, all windows, and mirrors clean. If your heater, defroster, or windshield wipers are not working properly, have them repaired. Clean the windshield, windows, and mirrors at every opportunity.
- Make sure the lights are working and that those you can reach are wiped clean and can be easily seen. Dirt and snow reduces the light that gets through; clean the lights at every opportunity.

- Control your speed so you can steer and stop safely when traction is reduced. Avoid sudden stops, acceleration, and turns. When starting or stopping apply the accelerator and the brakes smoothly and gradually. Avoid losing traction on ice or snow. Once you've lost traction you've lost control.
- Get the feel of the road and try your brakes occasionally when out of the traffic stream and driving slowly. Find out just how slippery the surface is and adjust your speed to these conditions. Allow two or three times more following distance between you and the vehicle ahead, and allow more time and distance to make all stops and turns.
- Follow at a safer distance than normal, keeping well to the rear of the vehicle ahead and giving yourself plenty of room to stop.
- Don't increase your speed just because the road seems clear and dry. What looks like a small puddle could be ice.
- Put on tire chains when road conditions warrant.
- Apply brakes cautiously when driving on snow or ice. Hitting the brakes can lock your wheels, take away all steering control, and send your vehicle into a skid.
- Keep the bottoms of your shoes free of mud, ice or snow while inside the vehicle. A slippery shoe can slip on the pedal in a critical moment.
- Dress warmly in case you get stranded on the road or must walk to shelter.
- Carry blankets for potential emergencies.

17.0 Spring and Summer Driving

17.1 ***According to statistics, motor-vehicle related deaths are at their highest in July and August.*** There are more drivers on the roads, traffic congestion increases, and speed are higher. Be alert and concentrate on your driving and the action of others.

17.2 **Fall Driving** - presents additional concerns:

- Children have returned to school. Be prepared to make cautious stops where a school bus is loading or unloading, or groups of children are waiting for the bus.

  Note: In most states it's the law that a stopped school bus is an automatic stop sign for all traffic.

- A light rain in combination with fallen leaves makes the roadway slippery. Even if the roadway is dry, moisture can be trapped under the leaves and still be slippery.

18.0 Night Driving

18.1 Good vision is a driver's major concern when driving at night. Take time to let your eyes adjust to darkness after leaving a bright place. Drive slower when moving from a well lit area to an area with little or no lighting.

18.2 Drive slower at night. Your ability to see and recognize objects decreases by 20 feet with each 10 mph increase in speed. Look beyond the range of your headlights. Change your headlights to low beam well in advance of meeting oncoming vehicles. Headlight glare can cause a driver to lose his or her vision for five to seven seconds.

18.3 Relax your eye muscles by frequently shifting your gaze. Unless danger is eminent, focus on an object or location for only a few seconds. Keep your eyes moving to avoid a trance-like reaction.

18.4 Keep as much fresh air in the vehicle as possible. Experts say that oxygen is about the only efficient stimulant to help your eyes adapt to darkness.

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1.0 Purpose

1.1 Although working in extreme cold weather is not required for all Kalitta Charters employees, many employees, particularly aircraft mechanics, are required to spend a part of their workday in cold weather. This information provides assistance in coping with extreme cold weather work environments.

1.2 The body maintains temperature by gaining heat from food and muscular work, or by losing it through radiation and perspiration. Cold temperatures first affect the skin by cooling the blood closest to the skin. The skin cells then send a signal to the brain. The chill signal sent to the brain starts two processes—one to conserve heat already in the body and the other to generate new heat.

1.3 This section provides information on the different types of cold weather disorders, recognition, prevention, and recommendations on work/rest cycles to be followed during extreme cold conditions.

2.0 Cold Disorders

2.1 The main factors contributing to cold injuries are exposure to humidity and high winds, contact with wetness or metal, inadequate clothing, age, and general health.

2.2 **Hypothermia** - usually develops in air temperatures between 30°-50°F, particularly if the individual is not properly dressed for sustained exposure to chilling temperatures. With the wind-chill factored in, the effective temperature could be much lower than still air temperature. The first symptoms of hypothermia are generally the onset of shivering and the sensation of being cold. Uncontrollable fits of shivering, vague or slow slurred speech, memory lapses, incoherence, and drowsiness are some of the symptoms that can occur. Severe shivering must be taken as a danger sign.

2.3 **Frostbite** - can occur without hypothermia. Frostbite can occur when the body extremities do not receive sufficient heat from body stores and blood flow. Frostbite occurs when the fluids in body tissues start freezing. The most vulnerable parts of the body are the nose, cheeks, ears, fingers, and toes. In case of frostbite, do not attempt to rewarm the area until any risk of further cold injury is past. Do not massage or rub affected areas with snow.

2.4 **Frostnip** - occurs when the face or extremities are exposed to a cold wind, causing the skin to turn white due to cell pore constricting blood flow to the skin's surface.

2.5 **Trenchfoot** - is a condition that is caused by body parts being continuously exposed to cold temperatures, dampness, or actual immersion in water without freezing of the body parts. Swelling, tingling, itching, and severe pains may occur and may be followed by blistering, death of skin tissue, and skin ulceration.

3.0 Preventing Cold Stress

You can prevent cold stress and cold-related injuries by properly dressing for the cold environment, acclimatizing to the cold, ensuring sufficient intake of water without freezing of the body parts. Swelling, tingling, itching, and severe pains may occur and may be followed by blistering, death of skin tissue, and skin ulceration.

- Protecting your feet, hands, and face. Hands and feet are the farthest from the heart, and become cold most easily. Keeping the head covered is important since as much as 40 percent of body heat can be lost when the head is exposed.

- Wear layers of clothing. By dressing in layers, you can adapt easily to changing temperatures. Keep the layer closest to the skin dry. Choose fabrics that dry quickly and have sufficient ventilation.

- If wearing waterproof fabrics, be cautious of sweating since it cannot evaporate and may increase the rate of body cooling. Safety experts suggest that you choose outerwear that is easy to unzip so you can open it periodically to increase ventilation.

- Wear waterproof and/or insulated boots. Change socks and shoes/boots if they get wet. If your feet are warm, the rest of your body will feel warmer.

- Dry off and replace wet clothing with dry clothes.

- If necessary and available, get into warm blankets until help arrives.

4.0 Work-Rest Cycles

4.1 Work-rest cycles are based on an employee being properly dressed for the weather conditions. When the combination of air temperature and wind movement drops to -25°F and below, work-rest cycles should be observed.

4.2 Recommended work-rest cycles start at 50 minutes of work and 10 minutes of rest in a warm sheltered area. Rest periods should increase as the combination of temperature and air movement causes the effective temperature to drop. When the combination of temperature and air movement is at or below -45°F, work-rest cycles should be approximately 40 minutes of work with a 20-minute rest period each hour. If the combination of temperature and air movement dips below -73°F, work-rest should be approximately 30 minutes work and 30 minutes rest.

5.0 Wind-chill Index/Wind-chill

The wind-chill factor is the cooling effect of a combination of ambient air temperature and air movement. Simply stated, the wind blows away the thin layer of air that acts as an insulator between the skin and the outside air temperature, thereby increasing the cooling effect of the air. The wind-chill index should be consulted by anyone who has to work in cold windy conditions.

The human body senses "cold" as a result of both air temperature and wind velocity. Cooling of exposed flesh increases rapidly as the wind velocity goes up. Frostbite can occur at relatively mild temperatures if wind penetrates the body insulation. For example, when the actual air temperature of the wind is 40°F and its velocity is 30 mph, the exposed skin would perceive this situation as an equivalent still air temperature of 13°F.

The following is a wind-chill chart that indicates the importance of wearing proper attire to combat injury to expose skin, even though the temperature may be comparatively mild. To convert Fahrenheit degrees to Celsius, subtract 32 from the Fahrenheit reading; five-ninths of that figure is Celsius.

Wind-Chill Chart

Estimated Wind Speed MPH	Actual Thermometer Reading °F											
	50	40	30	20	10	0	-10	-20	-30	-40	-50	-60
	Equivalent Temperature °F											
Clam	50	40	30	20	10	0	-10	-20	-30	-40	-50	-60
5	48	37	27	16	6	-5	-15	-26	-36	-47	-57	-68
10	40	28	16	4	-9	-21	-33	-46	-58	-70	-83	-95
15	36	22	9	-5	-18	-36	-45	-58	-72	-85	-99	-112
20	32	18	4	-10	-25	-39	-53	-67	-82	-96	-110	-124
25	30	16	0	-15	-29	-44	-59	-74	-88	-104	-118	-133
30	28	13	-2	-18	-33	-48	-63	-79	-94	-109	-125	-140
35	27	11	-4	-20	-35	-49	-67	-82	-98	-113	-129	-145
40	26	10	-6	-21	-37	-53	-69	-85	-100	-116	-132	-148
Wind Speeds greater than 40 MPH have little additional effect	**Little Danger for Properly Clothed Person**				**Increasing Danger**			**Great Danger (Exposed Flesh May Freeze within 30 Seconds)**				
					Danger from Freezing of Exposed Flesh							

6.0 Help Yourself

A healthy body is less susceptible to cold injuries and is better able to maintain the activity level necessary to keep warm in cold climates. It is recommended you take the following steps to help yourself deal with the cold:

- Stay in physical shape.
- Eat a nutritious diet with frequent healthful snacks.
- Stay active in the cold to produce more body heat.
- Drink plenty of water. It is recommended you drink at least 16 ounces of water with each meal, before going to sleep at night and another 16 ounces every hour during the workday.
- Avoid caffeine, alcohol and tobacco, all of which can lead to increased heat loss.
- Keep hands, feet, and skin dry.
- Use lip balm and moisturizing lotions.

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1.0 Purpose

Hot, humid weather affects airline employees in one way or another, and many workers spend a part, or all of their workday in a hot environment. The body maintains temperature by gaining heat from food and muscular work, or by losing it through radiation and perspiration. Problems with heat stress are more common throughout the airline industry than those presented by cold temperatures.

2.0 Heat Stress

2.1 Heat stress is a combination of environmental and physical work factors that equal the total heat load on the body. The environmental factors of heat stress include temperature, how well your body is able to cool itself, air movement, and humidity level. Physical work contributes to the total heat stress in proportion to the intensity of the work, (the harder you work the higher your heat stress).

2.2 To maintain internal body temperatures within safe limits, the body must get rid of its excess heat, primarily by varying the rate and amount of blood flow through the skin and the release of fluid onto the skin by the sweat glands for evaporative cooling. Under conditions of high heat and humidity, the evaporation of perspiration from the skin is decreased, and the body's efforts to maintain a normal temperature may be impaired. The type and amount of clothing the individual is wearing also affects the degree of heat stress.

2.3 Heat stress may cause three different types of heat strain: heat cramps, heat exhaustion, and heat stroke.

3.0 Heat Strain

3.1 Heat strain is a combination of physical reactions to heat stress and the severity of the heat stress reflects the degree of heat strain. Heat strain is a reactive physiological response to environmental heat stress. Normal core temperature (internal body temperature) is 37°C (98.6°F). Hypothermia results when the core temperature exceeds 40.6°C (105°F) in the absence of sweating; death occurs when the core temperature exceeds 42°C (107.6°F).

3.2 Some factors affecting individual response are the individual's age, health status, water and salt balance (level of dehydration), degree of physical fitness, and alcohol consumption. When heat strain is excessive, a feeling of discomfort or distress may result. If the heat strain is not properly taken care of, a more serious heat disorder may develop that may require medical attention.

4.0 Heat Disorders

4.1 Medical authorities can distinguish a variety of heat disorders. These disorders range from simple fainting to very serious heatstroke. A common feature in all heat-related disorders, except fainting, is some degree of elevated body temperature caused by the heat levels and the amount of dehydration.

4.2 Fainting or loss of consciousness, which is caused by an inadequate blood supply to the brain, may indicate a **mild heat disorder**. When fainting occurs, have the victim lie down in a cool place and consult a physician. To prevent fainting in high temperatures, move about slowly and stretch to improve circulation.

4.3 **Heat Rash or "prickly heat"** may occur in hot and humid environments where perspiration is not easily removed from the surface of the skin by evaporation. When perspiration doesn't evaporate, skin

pores become clogged and sweat glands become inflamed. Treat by resting in cool place and allowing the skin to dry. A physician should treat severe irritations. To prevent heat rash, keep the skin dry, shower or bathe regularly, and wear cool loose, fast drying clothing.

4.4 **Heat Cramps** are painful intermittent muscle spasms caused by saline and electrolyte loss caused from profuse sweating. Cramps may occur during or after working hours and may be relieved by taking liquids by mouth. Treat cramps by massaging the affected muscles and consult a physician. Severe cases may require intravenous saline solutions administered by medical personnel.

4.5 **Heat Exhaustion** is a more serious disorder caused by failing to replace fluids lost through perspiration. Symptoms include profuse sweating, cool and clammy skin, hyper-normal body temperature, pale or flushed complexion, rapid pulse, weakness, dizziness, nausea, and headache. Treat by resting in a cool place and drinking cool fluids (not hot or ice-cold). Consult a physician if vomiting or loss of consciousness occurs.

4.6 **Heatstroke is a medical emergency.** Heatstroke occurs when the temperature regulating mechanisms malfunction from overload and the body can no longer adequately cool itself. Symptoms include hot, dry flushed skin; high temperature (105°F or higher); delirious behavior, mental confusion or bizarre behavior; occasionally convulsions; and loss of consciousness or coma. Victims usually do not sweat and the skin is warm and dry to the touch. ***Left untreated, this condition can be fatal.*** It can be helpful to lower the victim's body temperature with cold water, ice, wet sponges or cloths. Victims should receive emergency medical attention as soon as possible.

5.0 Preventing Heat Stress

5.1 Prevent heat-induced illnesses by recognizing early the signs and symptoms of heat stress. Train supervisors and other personnel in recognizing the signs and symptoms of the types of heat illnesses (e.g., heat cramps, heat exhaustion, heat rash and heatstroke), and administering first-aid procedures early on.

5.2 Prevent heat related illnesses by:

- Training all personnel exposed to heat on the causes and recognition of heat illnesses, and the personal care procedures to minimize risks: rest often; drink fluids; and pace your workload.

- Drinking a glass of water, fruit juice, or a beverage containing electrolytes (such as sports drinks) every half hour in hot conditions.

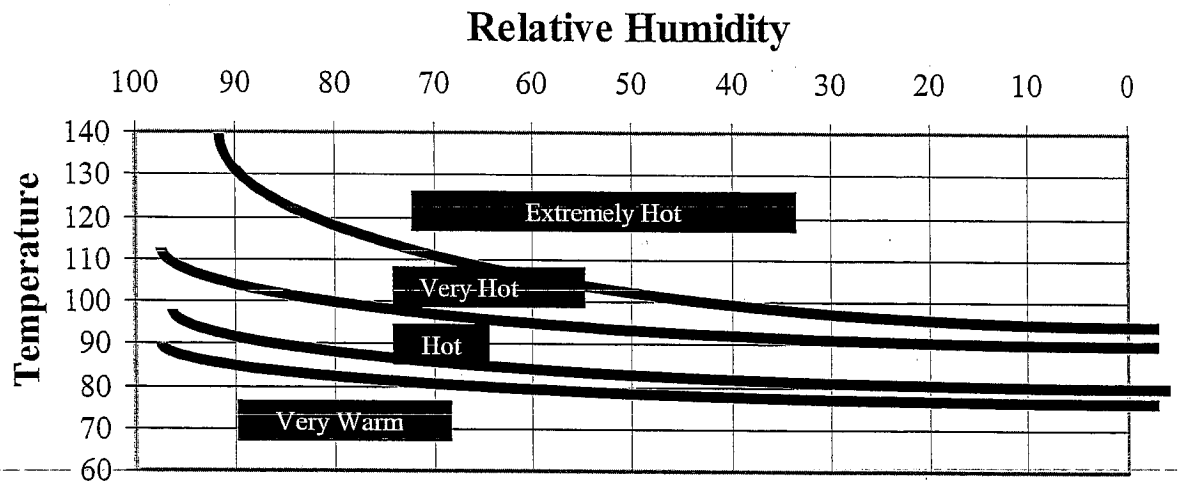
CAUTION: This is not a reliable guide to the body's need for water in extreme heat.

- Taking rest breaks in the shade or in a cool area at least every hour or two as needed.

- Allowing yourself sufficient time to reacclimate to the heat (4-7 days), if you are new to working in a very hot environment, or you have been away from the heat for more than a week.

6.0 Heat Stress Index

6.1 The combination of heat and humidity gives an "apparent temperature," which is a measure of how dangerous the heat level may be. To find the "apparent temperature"—locate the air temperature on the left side of the graph and then find the relative humidity across the top of the graph. The "apparent temperature" is where the temperature and humidity lines intersect on the curved line.



6.2 Example: Temperature 100°F and relative humidity of 60 percent. The apparent temperature is on the edge of the "extremely hot" range.

- **Extremely Hot:** Heatstroke imminent with continued exposure.
- **Very Hot:** Heatstroke possible with prolonged exposure. Heat cramps and heat exhaustion likely.
- **Hot:** Heat cramps and heat exhaustion possible with continued exposure.
- **Very Warm:** Physical activity could be more fatiguing than usual.

7.0 Work-Rest Cycles

Work-rest cycles should be based on the apparent temperature, which is the summation of the air temperature and the humidity. When the apparent temperature reaches the "hot" range and above, work-rest cycles are recommended. The suggested work-rest cycles start at 50 minutes of work with 10 minutes of rest in a cool or air-conditioned environment. Rest periods should increase as the apparent temperature increases. When the apparent temperature is in the "very hot" range, the recommended work-rest cycle is 40 minutes or work with a 20-minute rest period each hour. If the apparent temperature climbs into the "extremely hot" range, work-rest periods should be 30 minutes of work and 30 minutes of rest in a cooler environment.

8.0 Help Yourself

Some self-help methods in hot weather conditions are:

- Be physically fit. Physical fitness will enhance your heat tolerance for both heat-acclimatized and unacclimatized employees. The time period required to develop heat acclimation in unfit employees is about 50 percent greater than in physically fit persons.

- Ensure that water lost through perspiring and urinating is replaced during the workday. An adequate water supply and intake are essential for heat tolerance and prevention of heat induced illnesses. Liquids should be taken at least hourly; every half hour is recommended.

- When possible, supervisors should schedule work for a cooler part of the day (early morning, late afternoon, or night shift).

- Most important is for employees to have a cool area for rest and recovery from extremely hot environments.

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1.0 Purpose

Employee safety education and training is an important aspect of accident/incident prevention. All employees (including part-time, casual, contracted services, and temporary employment agency personnel) must be properly trained concerning the safety and health requirements of their assigned tasks and applicable emergency procedures. Safety training begins when initially hired and continues throughout the employee's employment.

2.0 Overview

The supervisor or manager will emphasize the need to perform tasks safely and follow safety rules and procedures. Employees must be trained to safely perform their assigned tasks prior to initial workplace exposure. Review applicable safety orientation and training items for each new or transferred employee, including temporary employees **prior** to performing the applicable tasks.

3.0 Safety Program

Describe how the safety program is designed to protect employees, property, and the environment and to comply with corporate and government regulations.

4.0 Safety Education

Describe how the safety education and training program is used to keep employees informed of safety program requirements and how to perform their work safely. Inform employees that basic safety training is the responsibility of their Supervisor and themselves. The Safety Department is available to assist and to provide more in-depth safety training as needed.

5.0 Rules Review

Review applicable safety rules and procedures with the employee and ensure that the employee understands them. Emphasize that employees must only perform tasks that they have been trained and authorized to perform.

6.0 Accidents/Incident

Explain the accident/incident and injury/illness reporting procedures and need to immediately report all occurrences. Review the typical types of accidents and injuries that may occur at the facility and how they can be avoided.

7.0 Orientation Checklist

7.1 The *Safety Orientation and Training Checklist (AIR-1035)* is used to conduct and record the initial safety orientation and training. A *Safety Orientation and Training Checklist* will be used for each employee to document the safety orientation/training. Maintain the complete form in the employee's personnel folder and forward a copy to the Safety Department for the master employee safety-training record. A listing of each training item along with a reference to the applicable subject in the *Safety Manual* is provided in subject *Safety Training References*, (KC401-2).

7.2 **Complete the general safety orientation/training *prior* to the employee beginning any work task. Complete task-specific safety training *prior* to the employee performing the applicable work task.**

SAFETY ORIENTATION AND TRAINING CHECKLIST
AIR-1035

Name:_____ **Hire Date:**_____
Job Position: _____ **Location:**_____

Orientation (All Employees):

- ❑ Safety Program Overview
- ❑ Management Responsibilities
- ❑ Employee Responsibilities
- ❑ General Safety Rules
- ❑ Safety Counseling and Disciplinary Actions
- ❑ Safety Education Program
- ❑ Safety Incentive Programs
- ❑ Facility Layout and Facilities
- ❑ Emergency Actions & Fire Prevention
- ❑ Fire and Emergency Exits, Fire Extinguisher, and Alarm Locations
- ❑ Medical Services and First Aid Treatment
- ❑ First Aid Kits and Eye Wash Stations
- ❑ Drug and Alcohol Awareness Program
- ❑ Smoking Policy
- ❑ Safe Driving Practices and Seat Belt Use
- ❑ Housekeeping Procedures
- ❑ Accident and Injury Reporting Procedures
- ❑ Workers' Compensation Overview
- ❑ Injury - Absence Policy
- ❑ Employee Exposure and Medical Records

Task Specific Training (as applicable to the employee's duties):

- ❑ Host Employer and Multi-employer Worksites
- ❑ Contractor/Vendor Safety Practices
- ❑ Typical Accident Occurring at the Facility
- ❑ Vehicular Accident Reporting Procedures
- ❑ Flightline/Ramp Safety
- ❑ Operating in Vicinity of Aircraft and Jet Blast
- ❑ Aircraft Servicing Safety Practices
- ❑ Freight Handling Safety Procedures
- ❑ Safe Lifting
- ❑ Environmental Compliance Programs
- ❑ Accident/Incident/Injury Prevention Actions
- ❑ Bloodborne Pathogen
- ❑ Hazard Comm/"Right-To-Know" Standards
- ❑ Material Safety Data Sheets
- ❑ Hazardous Materials/Dangerous Goods
- ❑ Hazardous Materials Emergency Actions
- ❑ Lifting Equipment
- ❑ Confined Spaces Entry Program
- ❑ Hand and Power Tools
- ❑ Machinery and Machine Guarding
- ❑ Forklift Operations
- ❑ Use of Flammable/Combustible Liquids
- ❑ Compressed Gas Cylinders
- ❑ Parts Cleaning
- ❑ Personal Protective Equipment
- ❑ Hearing Conservation Program
- ❑ Eye, Hand and Foot Protection
- ❑ Respiratory Protection Program
- ❑ Safety Color Codes and Signs
- ❑ Equipment Inspections and Tests
- ❑ Lockout/Tagout Program
- ❑ Electrical Safety-Related Work Practices

- ❑ Fall Protection
- ❑ Ladders
- ❑ Powered Platforms and Lifts
- ❑ Ramps and Stairways
- ❑ Platforms and Scaffolds
- ❑ Mobile Stands and Scaffolds
- ❑ Hot Work Permits
- ❑ Welding, Cutting and Brazing Equipment
- ❑ Compressed Air Cleaning
- ❑ LPG use and Precautions
- ❑ Tire Servicing

Other Location - Specific Safety Training Items:

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_____ (Supervisor Signature)

_____ (Employee Signature)

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1.0 Purpose

Employee safety education and training is an important aspect of accident/incident prevention. All employees (including part-time, casual, contracted services, and temporary employment agency personnel) must be properly trained concerning the safety and health requirements of their assigned tasks and applicable emergency procedures. Safety training begins when initially hired and continues throughout the employee's employment.

2.0 Overview

The supervisor or manager will emphasize the need to perform tasks safely and follow safety rules and procedures. Employees must be trained to safely perform their assigned tasks prior to initial workplace exposure. Review applicable safety orientation and training items for each new or transferred employee, including temporary employees **prior** to performing the applicable tasks.

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SAFETY ORIENTATION AND TRAINING CHECKLIST
AIR-1035

Name:_____ **Hire Date:**_____
Job Position: _____ **Location:**_____

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- ❑ Employee Responsibilities
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- ❑ Safety Incentive Programs
- ❑ Facility Layout and Facilities
- ❑ Emergency Actions & Fire Prevention
- ❑ Fire and Emergency Exits, Fire Extinguisher, and Alarm Locations
- ❑ Medical Services and First Aid Treatment
- ❑ First Aid Kits and Eye Wash Stations
- ❑ Drug and Alcohol Awareness Program
- ❑ Smoking Policy
- ❑ Safe Driving Practices and Seat Belt Use
- ❑ Housekeeping Procedures
- ❑ Accident and Injury Reporting Procedures
- ❑ Workers' Compensation Overview
- ❑ Injury - Absence Policy
- ❑ Employee Exposure and Medical Records

Task Specific Training (as applicable to the employee's duties):

- ❑ Host Employer and Multi-employer Worksites
- ❑ Contractor/Vendor Safety Practices
- ❑ Typical Accident Occurring at the Facility
- ❑ Vehicular Accident Reporting Procedures
- ❑ Flightline/Ramp Safety
- ❑ Operating in Vicinity of Aircraft and Jet Blast
- ❑ Aircraft Servicing Safety Practices
- ❑ Freight Handling Safety Procedures
- ❑ Safe Lifting
- ❑ Environmental Compliance Programs
- ❑ Accident/Incident/Injury Prevention Actions
- ❑ Bloodborne Pathogen
- ❑ Hazard Comm/"Right-To-Know" Standards
- ❑ Material Safety Data Sheets
- ❑ Hazardous Materials/Dangerous Goods
- ❑ Hazardous Materials Emergency Actions
- ❑ Lifting Equipment
- ❑ Confined Spaces Entry Program
- ❑ Hand and Power Tools
- ❑ Machinery and Machine Guarding
- ❑ Forklift Operations
- ❑ Use of Flammable/Combustible Liquids
- ❑ Compressed Gas Cylinders
- ❑ Parts Cleaning
- ❑ Personal Protective Equipment
- ❑ Hearing Conservation Program
- ❑ Eye, Hand and Foot Protection
- ❑ Respiratory Protection Program
- ❑ Safety Color Codes and Signs
- ❑ Equipment Inspections and Tests
- ❑ Lockout/Tagout Program
- ❑ Electrical Safety-Related Work Practices

- ❑ Fall Protection
- ❑ Ladders
- ❑ Powered Platforms and Lifts
- ❑ Ramps and Stairways
- ❑ Platforms and Scaffolds
- ❑ Mobile Stands and Scaffolds
- ❑ Hot Work Permits
- ❑ Welding, Cutting and Brazing Equipment
- ❑ Compressed Air Cleaning
- ❑ LPG use and Precautions
- ❑ Tire Servicing

Other Location - Specific Safety Training Items:

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_____ _____
(Supervisor Signature) (Employee Signature)

_____ _____
(Date) (Date)

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1.0 Purpose

The following list provides the Safety Orientation and Training item and the applicable *Safety Manual* subject reference to obtain training and orientation information.

2.0 General Training or Orientation Item

Item	Safety Manual Reference
❑ Safety Program Overview	KC 101-1, KC 101-2
❑ Management Responsibilities	KC 201-1
❑ Employee Responsibilities	KC 201-2, KC 201-4
❑ General Safety Rules	KC 101-4, KC 304-1
❑ Safety Counseling and Disciplinary Actions	KC 201-3
❑ Safety Education Program	KC 401-1, KC 402-1
❑ Safety Incentive Programs	
❑ Facility Layout and Facilities	KC 504-1
❑ Emergency Actions and Fire Prevention Plans	KC 502-1, KC 505-1
❑ Fire & Emergency Exits, Fire Extinguisher & Alarms Locations	KC 504-1, KC 504-2
❑ Medical Service and First Aid Treatment	KC301-2
❑ First Aid Kits and Eye Wash Stations	KC 301-4, KC 301-5
❑ Drug and Alcohol Awareness Program	KC *Employee Handbook*
❑ Smoking Policy	KC 302-3
❑ Safe Driving Practices and Seat Belt Use	KC 304-1, KC 305-1
❑ Housekeeping Procedures	KC 501-2
❑ Accident/incident/Injury Reporting Procedures	KC 601-1, KC 602-1, KC 603-1, KC 604-1
❑ Workers' Compensation Overview	KC *Employee Handbook*
❑ Reporting Injuries	KC 201-4
❑ Employee Exposure & Medical Records	KC 301-1

3.0 **Task Specific Training (as applicable to the employee's duties)**

Item	Safety Manual Reference
❑ Host Employer and Multi-Employer Worksites	KC 202-1
❑ Contractor/Vendor Safety Practices	KC 202-2
❑ Typical Accident Occurring at the Facility	
❑ Vehicular Accident Reporting Procedures	KC 1001-1
❑ Flightline/Ramp Safety	KC 701-1
❑ Operating in Vicinity of Aircraft and Jet Blast	KC 702-1
❑ Aircraft Servicing Safety Practices	KC 703-1
❑ Freight Handling Safety Procedures	
❑ Safe Lifting	KC 303-1
❑ Environmental Compliance Programs	KC 901-1
❑ Accident/incident/Injury Prevention Actions	
❑ Bloodborne Pathogens	KC 301-7
❑ Hazard Comm/"Right-To-Know" Standards	KC 901-1
❑ Material Safety Data Sheets	KC 902-1
❑ Hazardous Materials/Dangerous Goods	KC 903-1, KC 902-2
❑ Hazardous Materials Emergency Actions	KC 904-1
❑ Fall Protection	KC 803-4
❑ Ladders	KC 804-3, KC 804-4
❑ Powered Platforms and Lifts	KC 804-2
❑ Ramps and Stairways	KC 804-5
❑ Platforms and Scaffolds	KC 804-1
❑ Mobile Stands and Scaffolds	KC 804-1
❑ Lifting Equipment	KC 804-2, KC 807-3
❑ Confined Spaces Entry Program	KC 803-1
❑ Hand and Power Tools	KC 807-1
❑ Machinery and Machine Guarding	KC 807-2
❑ Forklift Operations	KC 808-1
❑ Use of Flammable/Combustible Liquids	KC 805-1
❑ Compressed Gas Cylinders	KC 806-1

❑ Parts Cleaning	KC 805-2
❑ Personal Protective Equipment	KC 802-1
❑ Hearing Conservation Program	KC 802-6
❑ Eye, Hand and Foot Protection	KC 802-2, KC 802-4, KC 802-5
❑ Respiratory Protection	KC 802-8
❑ Safety Color Codes and Signs	KC 302-1
❑ Equipment Inspections and Tests	Various
❑ Lockout/Tagout Program	KC 803-2
❑ Electrical Safety-Related Work Practices	KC 803 -3
❑ Hot Work Permits	KC 805-4
❑ Welding, Cutting and Brazing Equipment	KC 805-4
❑ Compressed Air Cleaning	KC 806-4
❑ LPG Use and Precautions	KC 806-02, KC 806-3
❑ Tire Servicing	KC 807-6

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1.0 Purpose

Provide information on the safety and work task training required by OSHA standards. Initial training is required prior to performing the applicable work task and retraining is required whenever the work process, tools or methods are changed or at specified time intervals.

2.0 Reference

29 CFR 1910

3.0 OSHA Required Training

Tasks/Subject	OSHA Reference	Frequency		
		Initial	Annual	Other
Abrasive Wheels	1910.215	X		
Access to Medical Records	1910.20	X	X	
Aerial Lifts	1910.38	X		
Bloodborne Pathogens	1910.1030	X	X	
Company Safety Program	OSHAct, Sect. 5	X		X
Compressed Gas	1910.166 - .171	X		
Compressed Air Use	1910.169, .242	X		
Confined Spaces	1910.146	X	X	
Contractor Safety Compliance	OSHAct, Sect. 5	X		
Electrical Safety and Procedures	1910.305	X		
Emergency Action Plans	1910.38	X	X	
Employee Alarm Systems	1910.165	X	X	
Employee Egress and Exits	1910.37	X	X	
Eye and Face Protection	1910.133	X		
Eyewash Stations and Use	1910.151	X		
Fall Protection	1910.22, .66	X	X	
Fire Extinguishers	1910.157	X	X	
Fire Detection Systems	1910.157	X	X	
Fire Prevention Plans	1910.38, .157	X	X	
First Aid/CPR	1910.151, .93	X		
Fire Extinguisher Systems	1910.160 - .162	X	X	
Flammable & Combustible Liquids	1910.106	X		
Foot Protection	1910.136	X		
Forklifts	1910.178	X	X	
Hand Protection	1910.138	X		
Hazard Communication	1910.1200	X	X	
HAZWOPER Awareness/Response	1910.120	X	X	
Hazardous Wastes	1910.120	X		
Head Protection	1910.135	X		
Hearing Conservation	1910.95	X	X	

Host Employer Responsibilities	OSHAct, Sect. 5	X		
Hot Work Permits	1910.119, .252	X	X	
Injury/Illness Recordkeeping	1904	X		
Jacks	1910.244	X		
Lockout/Tagout	1910.147	X	X	
LP Gas	1910.110	X		
Manlifts	1910.68	X		
Mechanical & Power Presses	1910.217	X		X
Parts Cleaning	1910.107	X		
Powered Platforms	1910.6t	X		
Respiratory Protection	1910.134	X	X	
Safety Color Codes	1910.144	X		X
Safety Orientation/Training	OSHAct, Sect. 5	X		
Signs and Tags	1910.145	X		X
Slings and Hoists	1910.184	X		
Tools, Hand and Power	1910.243	X		
Torso Protection	1910.119, .252	X		
Visibility at Night	1926.201	X		
Welding	1910.262 - .255	X		
Wheel Rims & Tire Servicing	1910.177	X		

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1.0 Purpose

The purpose of our safety committee is to bring workers and management together in a non-adversarial, cooperative effort to promote safety and health in the workplace. The safety committee will assist management and make recommendations for change. The goals of the Committee are:

- Meet the OSHA and other regulatory requirements
- Give employees a way to voice their safety concerns
- Educate employees about the safety issues of the workplace
- Correct unsafe acts and unsafe conditions

2.0 Meetings Structure

KC Safety Council –Director level participation meets quarterly to review input and actions of the Host Committee.

Host Committee - Meets monthly and is the focal point of the Safety Committee Program. It forms task groups to address specific safety concerns and programs. They are assisted by the Staff (Company) Safety Department with technical expertise and guidance. They report quarterly to the Safety Council. Sample representation consists of:

- Airline Safety
- Security
- Line Maintenance
- Heavy Check
- Technical Publications
- Stores
- Air Crew Representative

Satellite Committee – This is an adjunct to the Host Committee that allows for interaction with allied organizations that do not directly affect the KC Safety Program. It allows for the exchange of information with groups that interact with KC regularly or occasionally. This Committee meets quarterly with the Host committee.

- Kalitta Air
- Custom Air
- Other contractors/vendors
- Guests

Departmental Safety Committees - Meet monthly and are hosted by individual Host Committee members. This is the avenue to get training and information to and from all other employees in KC.

Each member of the Host Committee will be responsible for an area or departmental safety committee. The Host Committee member will facilitate the meetings and bring input from these meetings to the Host Committee meeting.

3.0 Records

After the safety meeting, complete the training/attendance form and provide a copy to the Safety Department. The Safety Department will maintain the master safety training/attendance records that will be made available to OSHA and other government inspectors when required.

- List all meeting/training session attendees on a minutes/attendance form. Depending on the topic and Safety Department instructions, employees may be required to sign the record to satisfy government regulatory training requirements.

- The record will list the topic(s) covered, applicable regulatory cites; the trainer/chairperson, the date, list of attendees and training materials used during the meeting.

4.0 Recommended Agenda for Host Committee

1. Old Business
   a. Follow-up on open topics of the previous meeting
2. New Business
   a. Members communicate employee safety concerns
   b. Review OSHA 300 Log for the previous month
   c. Perform/review area safety audits
   d. Review Task Group activities.
   e. KC Safety department will provide safety training material for facilitators to present at their Departmental committee meetings
3. Establish agenda for the next meeting.

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1.0 Purpose

Fire prevention is the best fire-fighting technique. By knowing what conditions cause fires and correcting those conditions, you may never have to fight a fire. But if a fire does start, knowing what to do and doing it immediately will usually prevent loss of life or injury and reduce damages. Heat, oxygen depletion, and carbon monoxide gas are the primary hazards in a fire, although many times panic causes more injuries and death than the actual fires.

2.0 Reference

29 CFR 1910 Various

3.0 Hazards

When a substance or gas burns, gases or vapors are formed. The kind of gases depends on the chemical composition of the items, the amount of oxygen available and the temperature of the fire. Many of these gases are poisonous.

4.0 Fires Phases

The three phases of burning are:

- **Incipient (Beginning)** - Plenty of oxygen is available and some gases are formed. Although the flame may be quite hot, the temperature in the room may be only slightly higher.
- **Free Burning** - Oxygen supply is being used up. The heated gases rise and spread out laterally from the top. The heat builds up until eventually all combustible materials in the upper part of the room are ignited.
- **Smoldering** - Not enough oxygen is available. Burning is reduced to glowing embers. The room becomes full of dense smoke and gases. The heat becomes intense and a human body can't survive in these conditions.

5.0 How Fires Spread

Heat causes fires to spread. In a burning building, heat travels by one or more of four ways:

- **Conduction** - heat moves from a fire to another area by means of a heat-conduction medium. For example a steel beam between floors.
- **Convection** - heated air from a fire expands, becomes lighter, and usually rises. This is how heat moves through hallways, up stairways and elevator shafts, and from room to room.
- **Direct Flame Contact** - heat moves from the fire to an object that the flame is in contact with.
- **Radiation** - heat waves from a fire move through space until they reach an opaque object. This is how heat from a fire in the outside wall of one building travels to another building nearby.

6.0 Fires Classes

The National Fire Protection Association has divided fires into five classes:

- **Class A** fires are fires in ordinary combustible materials (paper, wood, rags, etc.).
- **Class B** fires are fires in flammable liquids, gases, and grease (gasoline, oil, LPG, paint thinner, etc.).
- **Class C** fires are fires in live electrical equipment (motors, switches, appliances, etc.).
- **Class D** fires are fires in combustible metals (magnesium, sodium, titanium, etc.).
- **Class K** fires are fires in cooking appliances that involve combustible cooking media (vegetable or animal oils and fats).

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1.0 Purpose

Train all employees annually on fire prevention appropriate to their duties and workplace environment. Train new employees in fire prevention, emergency actions, fire extinguisher and alarms, and emergency exits prior to beginning work duties.

2.0 Reference

29 CFR 1910.157

3.0 Types of Training

Under OSHA regulations, an employer may choose to train employees in "interior structural" (fire brigades), "incipient stage" fire fighting, or evacuation only. Kalitta Charters has chosen to train selected employees to evacuate in most locations and fight fires only while in the incipient (or beginning) stage if required to accomplish egress of the facility. Incipient fires are small in nature and can usually be safely extinguished or controlled without the use of protective clothing or breathing apparatus.

4.0 Employee Actions

If a fire occurs immediately notify the local emergency authorities and evacuate all personnel. Take action (within the level of the individuals training) to extinguish the fire if it impedes egress.

5.0 Training Plan

Include the following in the annual training (recurrent) program, after reviewing the location's Fire Prevention Plan. Make sure all employees understand:

- How to identify potential fire hazards: use of flammable and combustible materials, heaters, electrical faults, aircraft refueling, welding, etc.
- How to notify the fire fighting services.
- How to protect themselves in case of a fire.
- How to use portable fire extinguishers and installed fire suppression systems as applicable to available equipment: chemical and Halon fire extinguishers, standpipe systems, and capabilities of automatic sprinkler systems.
- How to fight incipient stage fires and associated hazards.
- When and how to evacuate affected areas.

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1.0 Purpose

Fire prevention is the best fire-fighting technique. If a fire occurs, knowing what to do immediately will usually prevent the loss of life and minimize damages.

2.0 Reference

29 CFR 1910.38

3.0 Responsibility

Each location Supervisor/Manager will ensure that:

- Each location has a written Fire Prevention Plan that is up to date and communicated to the employees annually or whenever changes occur. The fire Prevention plan is kept in the work location and made available for employee review.

Note:
For those locations with 10 or fewer employees, the plan may be communicated orally to the employees and a written plan is not required.

- The plan is reviewed annually for currency and accuracy. Written certification of each operating location's annual Fire Prevention Plan review and employee training shall be forwarded to the KC Safety Department.

Note:
The Safety Department will normally designate one month during each year for the plan review and employee training.

- All new employees, including temporaries/casuals, are trained on the Fire Prevention Plan requirements prior to beginning work duties.

4.0 Fire Prevention Plan

The minimum elements of the fire prevention plan are:

4.1 A list of each major workplace fire hazard, the proper handling and store procedures, and the type of fire protection needed for each hazard. For example:

- **HAZARD:** Flammable paints and parts cleaners.
- **PRECAUTIONS:** Protect from high temperatures, physical damages, and keep stored in approved flammable storage cabinets when not being used. Immediately dispose of leaking storage cans. Keep all sparks and flames away from the cans.
- **FIRE PROTECTION:** At least one 10 B:C fire extinguisher located within 25 feet of the use and storage areas.

4.2 Potential ignition sources (such as welding, use of flammables in shop areas, etc) and control procedures (fire watch, water cooling, area cleared of combustible materials, designated smoking areas, etc.).

4.3 The type of available fire protection equipment (type(s) of extinguishers) and/or fire suppression systems (sprinklers, fire hoses, enclosures, etc) used to control fires.

4.4 The employee fire prevention and control training plan. Reference subject KC501-2, Fire Prevention and Control Training.

4.5 The names of job titles of employees responsible for ensuring fire equipment and systems are operable and require inspections are accomplished: For example:

- The lead mechanic will conduct the monthly inspections of fire extinguishers. The ABC Fire Bottle Company performs fire extinguisher charging, repairs, and service tests. The Airport Fire Department conducts facility fire suppression (sprinkler) system inspections.

4.6 The name or job title of the person responsible for controlling fuel source hazards. For example:

- The lead mechanic is responsible for proper storage and disposal of gasoline, diesel fuels, motor oils, waste petroleum products and heating oils.

4.7 Procedures to control accumulations of flammable/combustible materials and potential sources of ignition. For example:

- Place oily waste materials (rags) in self-closing oily waste containers. These materials shall be disposed of on a daily basis. Combustible non-liquid materials will be place in appropriate containers and emptied on a daily basis into the proper refuse containers.

- Clean up spills of flammable materials immediately. Properly store and dispose of waste fuel products, contaminated materials, used oil, etc. in accordance with the location's applicable hazardous waste disposal criteria.

- Inspect, regularly, electrical cords, outlets and control boxes or bare wires or frayed wires, worn or broken insulation, and overloaded circuits.

4.8 Proper housekeeping is very important in preventing fires. Each supervisor is responsible to ensure proper housekeeping standards to prevent fires. Employees will immediately report any recognized fire hazards to the supervisor.

4.9 Heat producing equipment shall be properly maintained to prevent accidental ignition of combustible materials. For KC owned or long-term leased facilities, include maintenance and inspection information procedures in the fire prevention plan. Maintain a record of equipment inspections and maintenance/repair activities.

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1.0 Purpose

The items listed below are normally the responsibility of the building/facility owner. However, to ensure the protection of KC property and employees, the KC location supervisor/manager confirms that the facility owner has the protective systems properly inspected and maintained in accordance with the applicable fire codes.

2.0 Reference

29 CFR 1910.158-.160

3.0 Hose Systems

The reels and cabinets used for hose systems must be designed so the hose, hose valves, and other equipment can be easily used; the access path is free of obstructions and readily accessible.

- Arrange the hoses on the rack so the hose won't kink or tangle when pulled out. Keep one end connected to the standpipe and the other end of the nozzle.

4.0 Inspection

4.1 Annually and after each use, have the system inspected by the local fire department or fire protection service representative to ensure that all equipment and hoses are serviceable and ready for use.

4.2 If any part of the system becomes unusable, replace it with equivalent protection (portable fire extinguishers, for example until the system is repaired.

5.0 Automatic Sprinkler Systems

Ensure they flush the entire system periodically to remove scales and foreign matter. Also, ensure that:

- The area around each sprinkler head has 18" to 36" clearance so the sprinkler water can saturate all protection areas in an emergency.
- The building is sufficiently heated in cold weather to prevent the system from freezing.

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1.0 Purpose

Portable fire extinguishers come in different sizes and with different extinguishing agents.

2.0 Reference

29 CFR 1910.157

3.0 UL Ratings

3.1 Each portable fire extinguisher has a UL (Underwriter's Laboratories) rating. This rating is a figure or combinations of figures and letters, e.g., 4-A or 40-B:C or 4-A; 40-B:C. The ratings indicate the fire fighting capabilities of the extinguisher. Each extinguisher must be labeled to show the class of fire it is to be used on.

- The letters (A, B, C, D or K) show the class of fire that the extinguisher can be used on.
- The figures show the relative effectiveness of Class A and B fire extinguishers. For example, a 4-A extinguisher can put out twice as much fire in ordinary combustibles as a 2-A extinguisher. On a Class B extinguisher, the figure 40-B:C shows the approximate square feet of fire in flammable liquids that could be put out, i.e. 40 square feet of fire in flammable liquids.

3.2 Most portable fire extinguishers are multipurpose (ABC dry chemical) and carry multiple ratings (4-A: 40-B:C, for example). This means that the extinguisher can be used on Class A, B, or C fires.

4.0 Locations

4.1 Have enough portable fire extinguishers and space them so that an extinguisher is no more than:

- 10 feet from the exterior of flammable/combustible storage rooms.
- 25 feet away at a LPG, diesel, gasoline, or fueling site.
- 50 feet away if on a dock or in machine/repair shops.
- 75 feet away if in an office area.

4.2 Each vehicle, forklift, belt loader, power cart, etc., used outdoors will carry a minimum of one 2-3/4 lb. size extinguisher. Maintenance vans/trucks that use flammable/combustible materials in the interior work area will ensure that the extinguisher (10 lb. size recommended) is directly accessible from the interior work area.

5.0 Symbolism

The distinctive characteristics used to identify each class of fire extinguishers are:

TYPES OF EXTINGUISHERS	
CLASS A	
CLASS A:B	
CLASS A:B:C	
CLASS A:C	
CLASS B:C	
CLASS D	
CLASS K	

6.0 Placement

Place the fire extinguishers so they are mounted:

- Along the routes normally traveled, are readily accessible, and do not block an aisle or likely to injure someone passing by.
- Clear of obstructions, easily seen, and properly mounted in their designated locations.
- On hangers or brackets on the wall, in fire extinguisher cabinets, or can be set on shelves. Never set fire extinguishers on the floor.
- Outside the entry door if the purpose of the extinguisher is to put out a fire in a small room or enclosed space.

7.0 Signs

In large rooms where an extinguisher might be hidden at times, place a sign high enough on the wall to be seen to show the fire extinguisher's location. Various types of fire extinguisher signs are available through the stock room or commercial vendors.

8.0 Replacements

If an extinguisher is removed from the area for repairs or recharging, put a fully operable replacement in its place.

9.0 Monthly Inspection

9.1 Visually inspect each fire extinguisher monthly to:

- Ensure that it is fully charged and hasn't been activated or tampered with.
- Ensure that there are no obvious defects, dents, physical damage, corrosion, and the handle-tampering band is not broken (may indicate that the extinguisher has been used).

9.2 After the inspection, sign the ***Fire Extinguisher Inspection Record*** attached to the extinguisher. When making the first inspection in a calendar year, attach a new inspection record to the extinguisher.

10.0 Annual Check

At least once a year, have each extinguisher examined and/or tested by an authorized fire extinguisher service.

- Ensure that the chemical extinguisher has hazardous material warning label (according to the OSHA HazCom requirements).

11.0 Hydrostatic Tests

If an extinguisher shows any corrosion of physical damage, have the extinguisher hydrostatically tested.

- Every 5 years, or 12 years from the date of manufacture, depending on the type of fire extinguisher. Ask your fire extinguisher service representative to tell you when this test should be made on the extinguishers at your location.

12.0 Test Record

After an extinguisher has been hydrostatically tested, had maintenance, or been recharged, ensure that the following information is recorded on a "Verification of Service" collar attached around the neck of the extinguisher and on a tag or label attached to the extinguisher.

- Date of recharge/test.
- Initials or signature of person performing the test.
- Test pressure used.

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1.0 Purpose

1.1 In case of emergencies, employees must be able to rapidly exit hazardous areas. Each building shall have sufficient exits to permit the prompt escape of all occupants from any point in the structure. Site-specific emergency exit/egress paths and procedures will be detailed in each location's Emergency Action Plan.

1.2 Automatic sprinkler systems, fire detection and alarm systems, exit lighting and fire doors shall be maintained in proper operating condition.

2.0 Reference

29 CFR 1910.37-.38

3.0 Inspection

A fire marshal having jurisdiction over the facility annually inspects the facility. The inspection is typically done by the airport fire department for most KC facilities.

4.0 Two Exits

Every building designed for human occupancy shall have a minimum of two exits, remote from each other, to reduce the possibility that both will be blocked in an emergency or fire.

5.0 Exit Paths

All exit paths shall provide a reasonably straight travel path and allow free and unobstructed egress from the structure. At all times, exit paths shall not have locks or other fasteners that would hinder the free escape from the inside of the building. Keep the exit paths, exits, and exit discharge areas free of all obstructions and ready for use. Exit path width shall be at least 28 inches wide.

6.0 Exit Points

Every exit route and exit point shall be clearly visible or marked so that all occupants can readily discern the escape path to the outside of the building. Each building equipped with lighting shall have adequate and reliable lighting at the exit point. Drapes or other obstructions shall not hide exit points. Anything that projects down from the ceiling (such as a light fixture) must be a least 6'8" from the floor

7.0 Exit Signs

A readily visible sign shall mark exits. Exit signs must be at least 6" in height and illuminated (internally or externally) by a reliable light source.

8.0 Not an Exit

Any door, passage, or stairway that is not an exit, or does not provide access to an exit route, that could be mistaken for an escape path/exit must have a sign showing "Not an Exit" or the actual use (e.g., "Basement" or "Storeroom").

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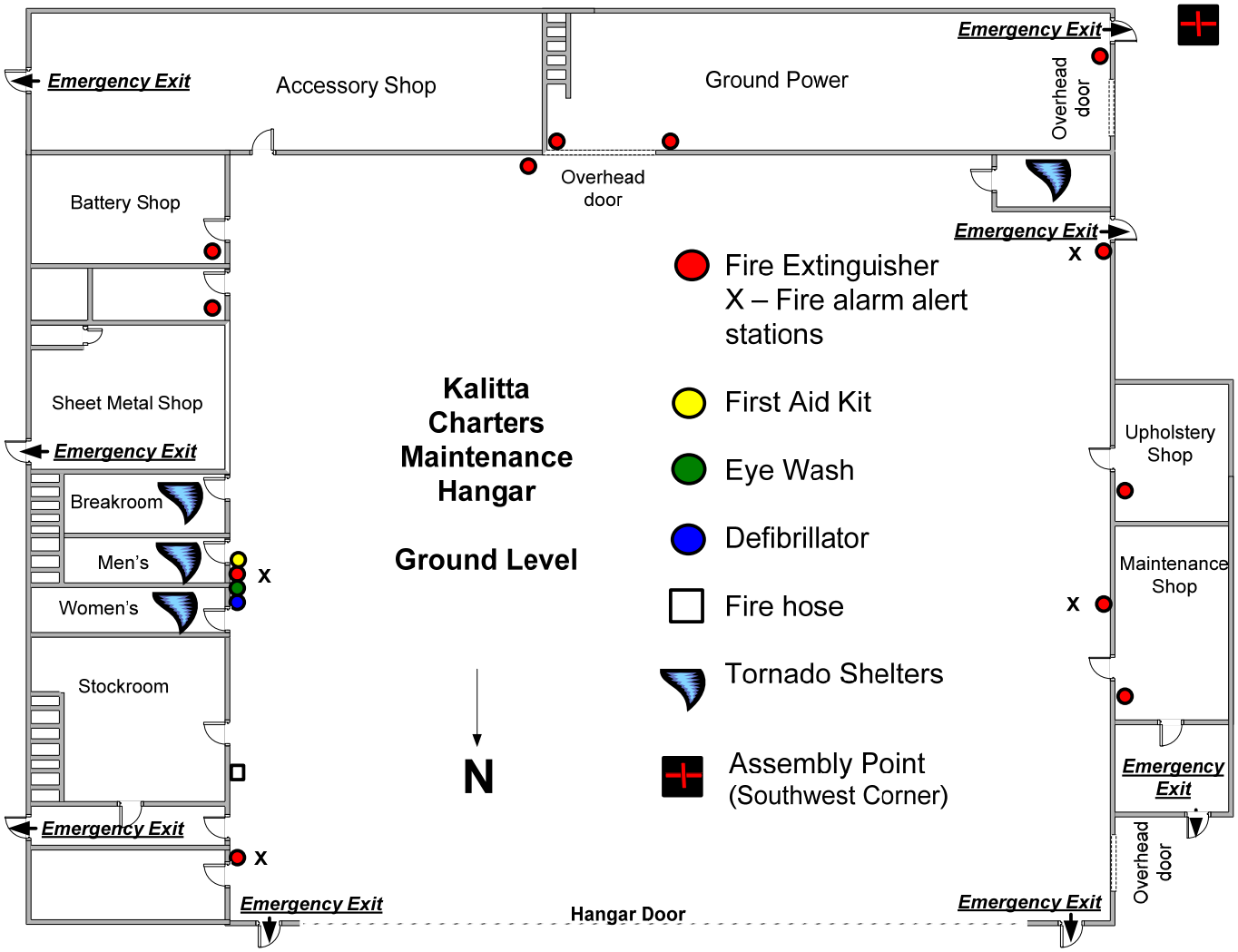
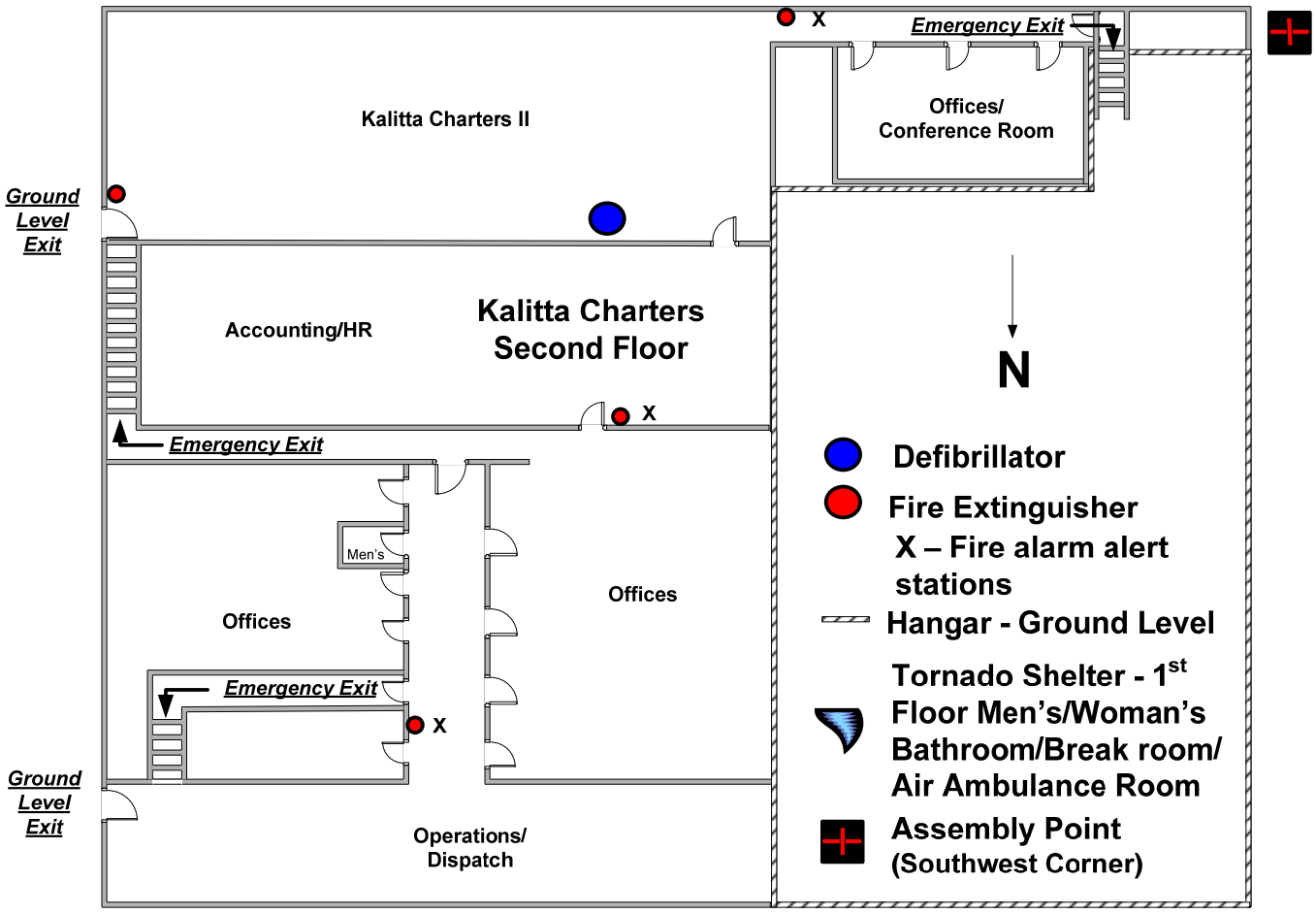
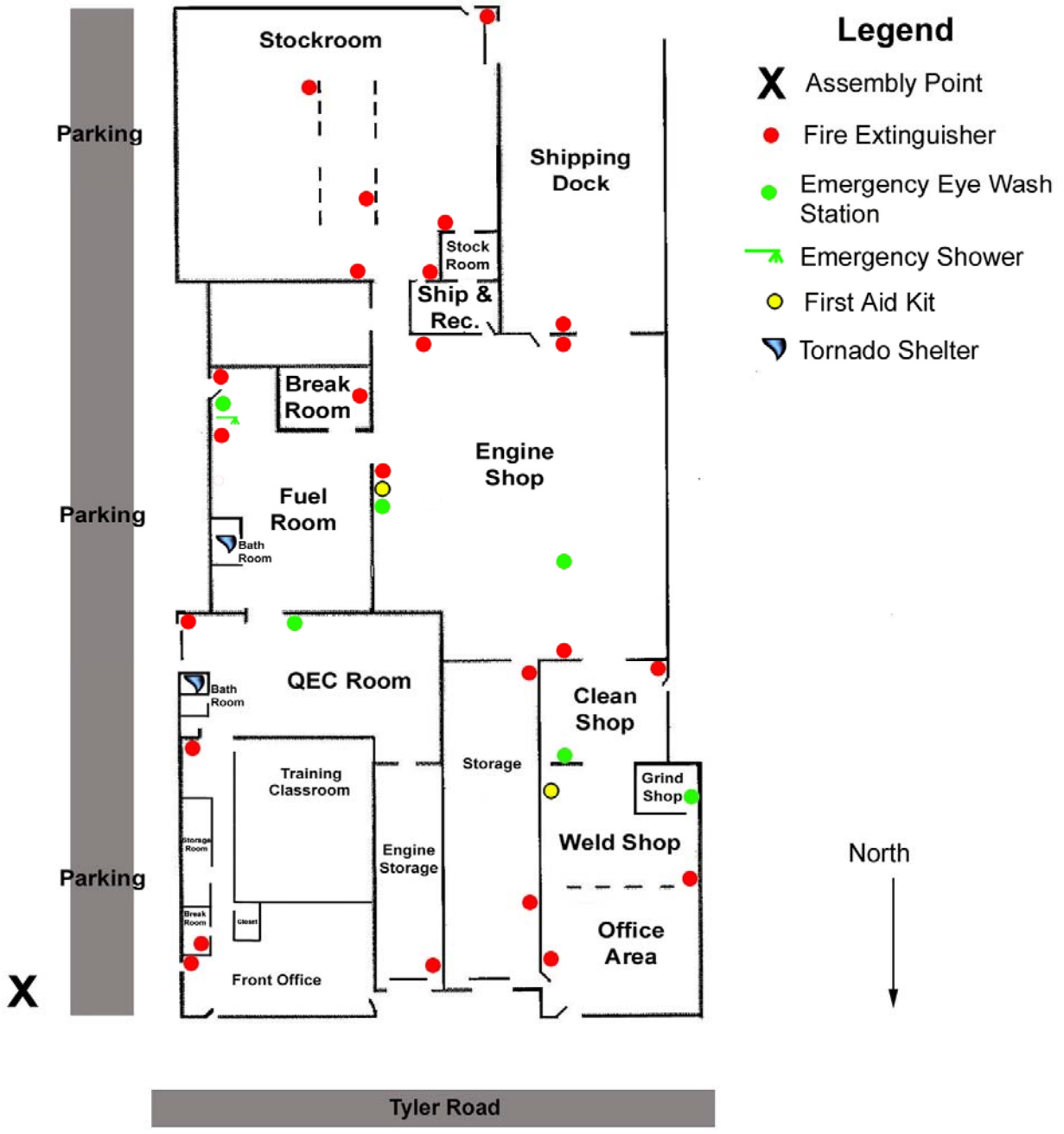
KC Maintenance Hangar



KC Second Floor



KALITTA TURBINES
FAA APPROVED REPAIR STATION CKSR0498
2850 Tyler Road
Ypsilanti, MI 48198
(Total Sq. Ft. 31,829)



1.0 Purpose

The Emergency Action Plan provides information to ensure employee safety during fires and other emergencies. Each location must have a site-specific plan to address emergencies that could be reasonably expected to occur at that location. Examples are fires, explosions, chemical releases, earthquakes, floods, blizzards, hurricanes, and tornadoes.

2.0 Reference

29 CFR 1910.38

3.0 Responsibilities

Each location Supervisor/Manager will ensure that:

- Each location has a written Emergency Action Plan that is up to date and communicated to the employees whenever changes occur. The plan will address the procedures to be followed for each type of major emergency. The plan shall be kept in the workplace and be available for employee review.

  Note: For those locations with 10 or fewer employees, the plan may be communicated orally to the employees and a written plan is not required.

  - The Emergency Action Plan is reviewed annually for currency and accuracy. Certification of each operating location's annual Emergency Action Plan review and employee training shall be forwarded to the Safety Department. This Department will normally designate one month during each year for the plan review and employee training of the plan.

  - Ensure all new employees, including temporary/casuals, are trained on the Emergency Action Plan prior to beginning work duties.

  - Use floor plans or workplace diagrams to clearly show the escape routes and assembly locations. The plans/diagrams shall be posted in conspicuous locations and made part of the Emergency Action Plan. All escape routes will be marked on the diagram.

  - A building-wide or standardized plan for a whole building with multiple employers, is acceptable provided all employees in the building are aware of the evacuation procedures. The standardized plan does not have to be maintained by each employer provided the building plan is in a location readily accessible by all employees.

4.0 Elements

The minimum elements of the Emergency Action Plan are:

4.1 **Emergency escape procedures and escape routes.** At the time of an emergency, employees should know what type of evacuation is necessary and what their actions should be. Inform employees when they are to evacuate the building (i.e., when fire alarm sounds); the primary and alternate escape routes, and assembly locations. Hold fire evacuation drills annually. For example:

- "When the fire alarm sounds, all employees will leave the building via the central stairway and assemble 300 feet from the Tower entrance at the south side of the building. The alternate escape route is the east stairwell with the same assembly location."

- "When the siren blasts with a steady tone indicating a tornado warning, immediately go to the inside hallway in the area of the tool room and remain there until the all clear signal is given."

4.2 **Procedures for employees who stay to do critical tasks before they evacuate.** Identify critical tasks to be accomplished prior to evacuating the premises in an emergency situation. (Reference subject ***Fire Prevention and Control Training*** (KC501-2) of the Safety Manual). For example:

- "Upon hearing the fire alarm signal, if safe to do so, place all flammable materials in the flammable storage cabinets, turn off all electrical power tools, and evacuate the building."

4.3 **A procedure to account for all employees after the emergency evacuation has been completed.** Personnel should be designated evacuation/fire wardens to direct evacuations, designate what escape routes to use and ensure that all personnel have evacuated the workplace. Have at least one trained warden for approximately every twenty employees.

4.4 Make all personnel aware of the following responsibilities:

- Safety Reps should be trained in the complete workplace layout and the alternate escape routes.

- Safety Reps should check rooms and enclosed spaces, before leaving the workplace area, for employees who may be trapped or otherwise unable to evacuate the area.

- Safety Reps shall ensure a headcount or other procedures is used to ensure all employees have evacuated the workplace and are accounted for.

- Employees should be aware of handicapped employees who may need extra assistance during evacuations. Use the buddy system to ensure their safe evacuation.

4.5 **Rescue and medical duty assignments and the names of the individuals with these duties.** Describe what they do and under what circumstances.

4.6 **The preferred means of reporting fires and other emergencies.** For example:

- "Call 911 to report fires and other emergencies requiring assistance. The alternate reporting method is notifying Tower personnel on the Tower radio frequency."

4.7 Information on the employee alarm system. The alarm system can be a public address system, fire alarms, or other audible or visual signal as long as the employees know what system is being used and the meaning of each signal. Reference subject **Employee Alarm Systems** (KC504-2) in the **Safety Manual.**

4.8 **Who to contact for Emergency Action Plan information or instructions.** Provide the name and regular job title of persons who can provide additional information, instructions and/or training on the Emergency Action Plan.

***

1.0 Purpose

The accident/incident and injury reporting process is a systematic approach to minimize or prevent accident/incidents and injuries. The three basic elements are:

- Initial reporting/notification of accident/incidents, damages, unusual events, or serious/fatal injuries.
- Investigating and documenting injuries and occupational illnesses, accident/incidents, damages, or unusual events and related cost data on applicable KC and insurance carrier forms.
- Identifying event "causes" and taking corrective and/or preventative action to eliminate future injuries, accident/incidents and damages.

2.0 Application

The event reporting and investigation process is applicable to all KC operations, and contractor activities conducting or supporting KC flight operations system wide. Flight Operations serves as the focal point for the initial notification and response process.

3.0 Process

The normal event reporting and investigation process flow is:

3.1 The event (accident/incident, injury, damages, flight incident, or unusual event) occurs. Employees shall immediately report aircraft/equipment, accident/incidents or damages, injuries or unusual events to their supervisor.

3.2 The supervisor or witnessing company/contractor personnel provides initial event log or / accident/incident notification to Flight Following. The initial notification may be telephonic or by use of the Event log *(EL-1001)* report. If any other department (e.g., Maintenance Control, Flight Following) is notified telephonically of a accident/incident, they are to complete the form with available information and forward to the Safety department.

3.3 **For ground related incidents, the supervisor responsible for the work area or work activity conducts the accident/incident/injury/event investigation and completes the EL-1001.** Reference subject KC605-1 Accident/Incident Investigation Procedures, in this chapter. ***Significant accidents (as defined in FAA Order 8020.11a) and serious injuries are normally investigated by the Airline Safety Department and government agencies.***

Flight related incidents will be investigated by the Fight Safety Office I.A.W. Chapter 11, Investigations.

> **Note:** A flight related incident is defined as an incident involving an KC aircraft between the time the aircraft doors are closed with the intent for flight till the exit of the flight crew from the aircraft.

3.2.1 The completed EL-1001, Event log form, original photographs, witness statement, diagrams, and insurance claim forms, will be forward to the Airline Safety Department within **three calendar days** of the incident.

3.2.2 The investigation needs to be conducted as soon as possible. Delays may result in the loss of important information. Reference subject accident/incident Investigation Procedures (605-1) for "how-to" investigation information.

3.2.3 Depending upon the type of event, also have human resources complete the applicable report forms for insurance reimbursement and potential liability issues:

- **Injuries** - Reference section KC1001-1.
- **Vehicles** - Reference Section KC 1001-1.

3.3 The investigation includes recommended actions to prevent recurrence of similar types of accident/incident or injuries. The applicable department manager/director and Airline Safety validates the investigation report and the recommended preventive/corrective actions related to safety. The work area supervisor and the location manager/director are then responsible to implement the preventive/corrective actions.

3.4 The event-related cost information is provided to the company insurance and legal departments for potential subrogation and cost reimbursements from responsible parties. In many cases, with adequate documentation, accident/incident and damage costs can be reimbursed from the responsible parties.

3.5 Events involving injuries to KA personnel, vehicle accidents, and third parties (non-KC personnel) are telephonically reported to our insurance carrier. Reference sections KC201-4 and KC604-1 for injuries; Chapter 10, Insurance Coverage for vehicular accidents and third party general liability clams.

***

1.0 Purpose

1.1 The Event Log *(EL-1001)* – illustrated in KC603-1, is used to provide initial notification and documentation of accident/incident and safety-related events for both ground and flight activities system-wide when each occurs.

1.2 If possible, witnesses, observers or anyone involved in the accident/incident or event, completes an initial report. The location manager/supervisor is ultimately responsible for submitting the report.

1.3 If an aircraft-involved accident/incident event occurs at a location where no KC personnel (or contractor personnel, as applicable) are stationed, the Safety Department will complete the report.

NOTE: The reporting process is applicable to all KC operations, and contractor ground and flight activities supporting KC flight operations system-wide.

Contractor aircraft damages must be documented by the KC event log process, and validated by the Kalitta Charters Safety Department, before any insurance claims will be paid.

1.4 The type of event report will be investigated and documented. In many cases, the associated costs may be reimbursable from insurance polices or non-Kalitta Charters parties responsible for the damage. A good investigation and associated cost documentation are essential for potential cost reimbursements.

2.0 Reporting

2.1 Employees shall immediately report accident/incident, damages, or unusual events to their supervisor.

2.2 Events reported to KC are documented on the Event Log EL-1001 reporting form and forwarded in accordance with their distribution plan. Fax (734) 544-7041.

- **Discovered damages to aircraft must be reported to Flight Operations within 30 minutes of aircraft arrival to your location. Failure to report within this time frame will result in damages being attributed to your location pending investigation or documented proof to the contrary.**

NOTE: Ask Flight Operations to immediately notify the President/CEO, Director of Operations and Director of Airline Safety of major aircraft accidents, substantial aircraft/equipment/facility damages, serious injury or fatality, or events that may receive news coverage.

- After the initial notifications have been made, the supervisor responsible for the work area or work activity conducts the formal internal investigation and documents the findings on the Event Log Form and forwards it to the Safety Department within three business days.

2.3 **A completed example of the** *Event Log (EL-1001)* for is illustrated in Appendix B: a blank form is illustrated in Appendix C. Additional copies for the form are kept at each KC operating location, in the aircraft forms kit, and at the Airline Safety Office.

1.0 Purpose

The Event Log Report, attached to these instructions, is used to record the investigation results of Accidents/Incidents, damages, and events having safety related or irregular concerns. The information is used to determine relevant event factors and to determine actions to prevent similar future occurrences. A complete and thorough investigation is essential to the effectiveness of this program.

- The information may be used to provide statutory reporting to the FAA, OSHA, EPA and other government agencies as well as being used for insurance subrogation and/or cost reimbursement issues.

2.0 Definitions

- **Aircraft Accident:** An occurrence, associated with the operation of an aircraft which takes place between the time any person boards the aircraft, with the intention of flight, until such time as all such persons have disembarked and in which any person suffers death or serious injury as a result of being in or upon the aircraft, or is which the aircraft received substantial damage.

- **Serious Injury:** An injury which requires hospitalization for more than 48 hours within seven days from the date of injury; involved severe hemorrhages or nerve, muscle or tendon damage; results in a fracture of any bone (except simple fractures of fingers, toes, or nose); involves injury to any internal organ; or involves second or third degree burns or burns covering more than 5% of the body surface.

- **Substantial Aircraft Damage:** Damage or structural failure adversely affecting the structural strength, performance or flight characteristics of the aircraft. Substantial damage normally requires major repair or replacement. Component damage classified other than substantial is further defined in NTSB 830.2.

3.0 General Information and Initial Report.

- **Event Number:** Assigned by Airline Safety Office. The event number consists of the two-digit year, and the daily event number. For example: An event occurs on June 6, 2014 and was the first event of the day. The event number would be “02-01.”

- **Aircraft/Equipment Number:** Enter the aircraft “N” number (tail number) or Equipment Number.

- **Event date and time:** Date and time of event occurrence in military hours, e.g., “Jun 24, 2014, 2135 hours.”

- **Event Location:** Where the event occurred, or closest location e.g., KYIP, en route, KBRO, etc.

- **Log Page Number:** Enter the Aircraft Log Page number if applicable.

- **Person Completing Report Form:** Enter the name and phone number of the person completing the initial report and making notifications.

Event Type:

- Check at least one and all items applicable to the event. One event may have multiple items. Example: Forklift with a ULD strikes aircraft wing, causing a leading edge dent, damages the ULD, forklift, freight, and injuring the forklift operator. The items checked would be: KC Aircraft Accident/Damage; Freight Handling Equipment Damage; and Event Related Injuries.

- **Did Emergency Services Respond?:** Did Fire Department, Spill Response Team, Paramedics, Police, EPA Response Team, etc. respond to the event? Mark "Yes" or "No" as applicable

- **Personnel Involved:** Check all applicable personnel directly involved in the event.

- **Names of crewmembers, ground personnel, witnesses:** Self explanatory, include company name and 24 hour telephone number

- **For each person directly involved, or injured list name:** The person(s) that were directly involved in the incident. For example the tug operator in a ground incident where the tug drove into an engine. Include duty assignment and number of hours the person had been working prior to the incident.

- **Describe Event:** Provide a brief description of the event to answer the; who, what and results of the event.

- **Who was notified and when? Who and when was aircraft released?** Enter the names; dates and times of FAA, NTSB notifications and aircraft release information.

- **Phase of Operations:** Check applicable blocks.

    - **Equipment, Vehicle, or Other Property Involved Events.** Complete this section for equipment, freight, vehicle, or property involved in the accident/incident/event.

- **Fuel/HazMat Spill:** If applicable, indicated type of spilled material and quantity. Example: Jet A, 35 gallons; Vinyl Chloride, 5 gallons.

    - **Was Emergency Equipment Used:** Check applicable block

***

KALITTA CHARTERS

EVENT LOG

Doc.: KC-002
Rev.: 5
Date: 01-18-12

Event Date: _____ **Event Time:** _____ **Event Location:** _____ **Log Page:** _____

Aircraft: _____ **Trip No.:** _____ **Name:** _____ **ID #:** _____

EVENT TYPE (Check all that apply)

☐ Aborted Takeoff	☐ Block Turn Back	☐ Freight Handling Equip. Damage	☐ Injury/Fatality
☐ Air Ambulance/Medical	☐ Close Call (Accident/Incident)	☐ Fuel Dump, specify lbs. _____	☐ No Damage Event
☐ Air Turn Back	☐ Emergency Declared	☐ Fuel Spill, specify qty. _____	☐ Vehicle Damage
☐ Aircraft Damage, Accident/FOD	☐ Engine Shutdown	☐ GSE Damage	
☐ Bird Strike	☐ Freight/Container Damage	☐ HazMat Spill, specify qty. _____	

☐ Other, specify: _____

PHASE OF OPERATION

☐ Freight Build up/Sort ☐ Freight Load/Unload ☐ Fueling ☐ Ground Handling ☐ Maintenance ☐ In-flight ☐ Taxi-in ☐ Taxi-out

☐ Other, specify: _____

INDIVIDUALS DIRECTLY INVOLVED AND/OR WITNESS TO EVENT

☐ Charter Employee ☐ Flight Crew ☐ Freight Handlers ☐ Fuelers ☐ Ground Handlers ☐ Loadmaster ☐ Unknown ☐ Vendor/Visitor

NAME: _____ EMPLOYER: _____ PHONE: _____
☐ *Witness Only* ☐ *Directly Involved* POSITION: _____ HRS ON DUTY: _____

NAME: _____ EMPLOYER: _____ PHONE: _____
☐ *Witness Only* ☐ *Directly Involved* POSITION: _____ HRS ON DUTY: _____

NAME: _____ EMPLOYER: _____ PHONE: _____
☐ *Witness Only* ☐ *Directly Involved* POSITION: _____ HRS ON DUTY: _____

NAME: _____ EMPLOYER: _____ PHONE: _____
☐ *Witness Only* ☐ *Directly Involved* POSITION: _____ HRS ON DUTY: _____

DESCRIBE EVENT (Attach additional sheets to hard copy if necessary)

Did Emergency Services (Fire, Spill, Police, etc.) respond? ☐ YES ☐ NO Non-Charter equipment/property involved? ☐ YES ☐ NO

TO BE COMPLETED BY MANAGEMENT

☐ YES ☐ NO Response Required? **Log #:** _____ **Distribution:** _____

E-mail Form | Print Form | Clear All

KALITTA CHARTERS

EVENT LOG

Doc.: KC-002
Rev.: 5
Date: 01-18-12

FAA REPORTABLE EVENTS

- Aircraft Structural Damage Requiring Major Repair
- Brake System Failure
- Engine Shutdown During Flight (Including Flameout)
- Failure or Hazardous Leakage of Fuel or Dump System
- False Fire Warning
- Hijack/ Terrorist Act
- In-Flight Fire
- Landing Gear or Gear Door Malfunction During Flight
- Near Mid-Air Collision
- Smoke/Fumes-Cabin/Cockpit
- Altimetry System Error (ASE)
- Assigned Altitude Deviation (AAD)
- Total Vertical Error (TVE)
- Unruly Passenger
- Weight Tab or Fueling Error - Significant

NTSB REPORTABLE EVENTS

- An aircraft accident;
- Flight control system malfunction or failure;
- Inability of a crewmember to perform normal flight duties due to injury/illness;
- Failure of any internal turbine engine component resulting in escape of debris other than out the exhaust path;
- In-flight fire;
- Aircraft collision in flight;
- Damage to property, other than A/C, estimated to exceed $25,000 for repair or fair market value in the event of total loss, whichever is less.
- For aircraft more than 12,500 pounds maximum CTW:
  - o In-flight failure of electrical systems which requires the sustained use of an emergency bus powered by a back-up source such as a battery, auxiliary power unit, or air-driven generator to retain flight control or
  - o In-flight failure of hydraulic systems that results in sustained reliance on the sole remaining hydraulic or mechanical system for movement of flight control surfaces;
  - o Sustained loss of the power or thrust produced by two or more engines; and
  - o An evacuation of an aircraft in which an emergency egress system is utilized.
- A complete loss of information, excluding flickering, from more than 50 percent of an aircraft's cockpit displays known as EFIS displays, EICAS displays, ECAM displays; orther displays of this type, which generally include a PFD, PND, and other integrated displays;
- ACAS resolution advisories issued either when an aircraft is being operated on an instrument flight rules flight plan and compliance with the advisory is necessary to avert a substantial risk of collision between two or more aircraft; or to an aircraft operating in class A airspace.
- Any event in which an operator, at a public-use airport on land, lands or departs on a taxiway, incorrect runway, or other area not designed as a runway; or experiences a runway incursion that requires the operator or the crew of another aircraft or vehicle to take immediate corrective action to avoid a collision.
- An aircraft is overdue and is believed to have been involved in an accident.

KC REPORTABLE EVENTS

- Airport Hazards
- ATC incident
- Cabin Pressure Loss
- Dangerous Goods Event
- Declaration of Emergency
- EFB Malfunctions
- Use Of Emergency Procedures or Equipment
- Diversion
- Flap Limit Speed Exceedence
- Fuel Dump
- Go-Around below Decision Height
- Go-Around for Windshear
- GPWS Go-Around Warnings
- Ground Facility Failure Affecting Flight Safety
- Hard Landing
- Hazardous Conditions - Other
- Landing With Less Than FAA Reserve Fuel
- Lavatory Smoke Detector Tampering
- Rejected Take-off
- Runway/ Taxiway Incursion
- Severe Turbulence
- Stall Warning
- Tailstrikes
- Third Party Damage/ Injury
- Unintentional Deviations from Track/Altitude/Speed

MEDFLIGHT REPORTABLE EVENTS

- Medical equipment failure (required to be reported to the FDA and manufacturer if the failure caused a patient death; report to manufacturer only if failure caused serious injury)
- CPR performed on the patient (required by CAMTS)
- Intubation/Extubation or artificial airway placement (required by CAMTS)
- Loss of Central or Arterial line or PICC
- Needle decompression or loss of chest tube
- Patient decompensating during transport
- Patients ground transported with red lights and sirens (required by CAMTS)
- Aborted transport (required by CAMTS)
- Flight diversion due to change in patient condition
- Patient death (required by CAMTS)
- Bloodborne pathogens / bodily fluids exposure (required by OSHA)

FAX THIS FORM TO THE DIRECTOR OF AIRLINE SAFETY AT: 734-544-3421 OR USE THE E-MAIL FORM BUTTON.
TO VERIFY YOUR LOG WAS RECEIVED CALL: 734-544-7016 or WORLD WIDE: 734-484-0088 (EXT. 7016)
E-mail inquiries to: hnicholl@kalittacharters.com

E-mail Form | Print Form | Clear All

3.0 **Events Requiring Reporting and Investigation**

Use the Event Log form to initially document accident/incident and events such as:

- Damages to KC, or Contractor aircraft, equipment, vehicles and property.
- Aircraft systems or equipment failures **causing damages** beyond the component's basic mechanical failure.
- In-flight emergencies, in-flight engine shutdowns, compressor stalls, and "emergency" aircraft diversions.
- Aborted/rejected takeoffs.
- Aircraft fire warnings, fires, or fire/heat damages.
- Loss of aircraft hydraulic systems or flight control system anomaly.
- Foreign Object Damages (FOD) to aircraft or engines.
- Lightning and bird/animal strikes on aircraft.
- Structural failure of aircraft engines/airframe.
- Loss of any external part from the aircraft (dropped object).
- In-flight door warning and/or loss of aircraft pressurization.
- Runway, taxiway or parking ramp excursions/incursions.
- Unplanned go-around.
- Aircraft encountering severe turbulence, hard landing or overstress events.
- Landing on wrong runway or at wrong airport.
- Bomb/terrorist threats and air piracy incidents.
- Fire, explosion, smoke, toxic fumes, and other events requiring response by emergency personnel (fire, paramedics, spill response, police, etc.).
- HazMat/dangerous goods or fuel spills occurring in or within fifty feet of aircraft.
- Weather-related injuries or damages to aircraft, vehicle, equipment, or property.
- Fatality or serious personnel injury requiring hospitalization of any person supporting KC flight operations.
- Ground handling or In-flight injuries, illnesses, or medical emergencies involving crewmembers, passengers, or ground handlers.

- A crewmember is unable to perform his or her assigned duties due to injury or illness after reporting to work.
- Emergency aircraft evacuations or use of aircraft emergency equipment.
- Near misses, in-flight or ground, or any event that had potential for significant damages or serious injuries.
- Events requiring NTSB reporting under Part 830 (listed later in the NTSB...Notification)

NOTE: This reporting requirement does not alter NTSB or FAA regulatory requirements for aircraft accidents and incidents.

See the Emergency Procedures Manual, FAR 121, FAA Order 8020.11a and NTSB Part 830 for further details regarding NTSB and FAA reporting requirements and aircraft accident notifications.

4.0 Distribution of Initial Report

- The initial report will be called, faxed, or hand delivered to the Airline Safety Department.
- If faxed the original will be sent to Airline Safety Department.
- Safety Department will make required notifications and then distribute a copy to each of the persons/offices listed on the bottom of the initial report form and on the mail distribution list.

5.0 Safety Office Immediate Notification

The Flight following will immediately notify the Director of Operations, Director of Safety and Maintenance control of the following events:

- Serious aircraft and vehicle accidents.
- Substantial damages to KC aircraft, equipment, vehicles, or property.
- Serious injuries, hospitalization, or fatality of KC or contractor personnel.
- Lost or overdue aircraft.
- In-flight "near-misses" involving KC aircraft.
- Runway, taxiway or parking ramp excursions.
- Declared In-flight Emergencies.
- Foreign object damages to aircraft engines.
- Large fuel or HazMat spills involving KC or contractor aircraft.
- KC property damage caused by severe weather (tornadoes, high winds, earthquakes, etc.).

- Fires or explosions involving KC aircraft, equipment, or property.
- Any significant safety-related events with potential of media coverage/interest.
- Events requiring immediate FAA, NTSB, or OSHA reporting.
- Events requiring response by emergency services (fire, police or medical)

6.0 NTSB Immediate Notification

The Director of Airline Safety, or designee, will immediately notify the NTSB of any aircraft accident I.A.W. NTSB Part 830. Airline Safety will complete and submit NTSB Form 6120.112 within 10 days of the accident or event.

NTSB telephone numbers and reporting procedures are contained in the KC *Emergency Notification Procedures Manual.* The Airline Safety Department accomplishes follow-up NTSB reporting.

7.0 FAA Immediate Notification

The Director of Airline Safety, or designee will immediately notify the FAA of any of the following events:

- An aircraft accident resulting in substantial damages.
- An aircraft is overdue.
- A bomb threat involving aircraft or airfield facilities.
- A suspected or actual air piracy.

FAA telephone numbers and reporting procedures are contained in the KC *Emergency Notification Procedures Manual.*

8.0 OSHA Required Notification

The Safety Department will immediately notify OSHA, within eight hours, if any of the following events occur.

- Work-related fatalities
- Hospitalization of three or more employees as a result of a work-related incident.

***

1.0 Reference

29 CFR 1904

2.0 Summary

The *Personal Injury and Occupational Illness Report (AIR-1024)* – illustrated on pages 2 through 5 – is used to record the investigation results of injury/illness events. The information is used to determine injury/event factors and determine relevant actions to prevent similar future occurrences. A complete and thorough investigation is essential to the effectiveness of the injury prevention program. The reporting process is applicable to KC operations and contractor activities supporting KC flight operations. Temporary and casual KC employee injuries are also covered under this process and must be reported on KC's OSHA injury/illness records. This process has the Safety Department as the single KC point of contact for reporting injuries. Separate reporting to the Human Resources Department and state workers' compensation agencies is not required.

3.0 Reporting

3.1 Employees shall immediately report all injuries (beyond minor first aid) or occupational illnesses to their supervisor. When required, promptly obtain medical attention. The Supervisor will report injuries and occupational illnesses to the Safety Department and our insurance carrier within 24 hours. The Human resources department completes the *To Report Workers' Compensation Injuries* telephone reporting form, including the state-specific question. Telephonically report the injury or illness to AIG using the 1-877-366-8423 phone number

3.2 AIG completes the required state reporting forms and report the injury/illness to the applicable state workers' compensation agency. AIG handles any medical bills, etc. and works directly with the injured employee. Report injuries occurring outside of the United States to the Airline Safety Department. The Safety Department, Human Resources Department, and the Workers' Compensation Department will process the claim due to differing state laws, regulations and applicable insurance coverage.

- The supervisor completes the *Personal Injury and Occupational Illness Report* and forwards to the Safety Department within three business days after the injury.
- The employee completes the *Claimants Statement Workers' Compensation* form and forwards to the Safety Department with the injury and telephone reporting forms completed by the supervisor.
- Ensure the AIG claim number is included on all reporting forms.
- Separate notification to the Human Resources Department is not required since the Airline Safety Department serves as the single point of contact for reporting injuries and occupational illnesses.
- The injury/occupational illness investigation needs to be completed as soon as possible since delays may result in the loss of important information. Reference subject KC605-1, Accident/Incident Investigation Procedures for "how-to" investigation information

PERSONAL INJURY AND OCCUPATIONAL ILLNESS REPORT
AIR-1024

KALITTA AIR

Report Number: _____ **Claim Number:** _____

PURPOSE: Determine facts involved with personal injury accident/incident or occupational illness and to identify actions to prevent similar events in the future. Forward to Airline Safety Department within 3 business days.

Event Date: _____ Time: _____ Location: _____

Person completing report form: _____ Phone: _____ SIC

Injured Employee Name (Last, First, MI): _____ Hire date: _____

Employee Number: _____ SSN: _____

Position/Job Title and Department: _____

Employees Home Address: _____
(Address) (City) (State) (Zip)

Describe what happened in detail: _____

Describe injury/complaints: _____

Injury reported to:

(Name) (Title) (Date) (Time)

Did employee receive medical care? ☐ Yes ☐ No ☐ First Aid ☐ Hospitalized ☐ Fatality

Date/Time injury reported to AIG:

If yes, list medical provider/hospital information: (Name) _____

(Address) (City) (State) (Zip) (Phone)

List specific medical care administered (x-rays, wound dressing, evaluation with no treatment, etc.):

Did employee return to unrestricted duty on same/next shift: ☐ Yes ☐ No

If "No," indicate Doctor's recommendations:

☐ Restricted/limited duty. What are restrictions? _____

☐ Medical absence. Estimated return date: _____

List witnesses/other personnel involved. Attach their statements.

Name) (Employer) (Phone)

Were other personnel injured? ☐ Yes ☐ No If yes, names of others injured:

Did the injury occur on KC premises? ☐ Yes ☐ No Provide location where injury occurred:

Name) (Address) (City)
(State)

Has employee had similar complaints/injuries in the past? ☐ Yes ☐ No ☐ Unknown

If yes, when and who provided medical treatment?

Has employee been injured in other events in the last two years? ☐ Yes ☐ No ☐ Unknown

If yes, provide date, type of injury, and description of event:

Were photographs taken of injury scene? ☐ Yes ☐ No Attach photographs and diagrams, descriptions, etc. to fully explain physical layout.

Related Aircraft Damage? ☐ Yes ☐ No Aircraft number _____

Related Equipment/Freight Damage? ☐ Yes ☐ No. Damaged Equipment: _____

Description of equipment involved; i.e., tools, powered equipment, etc.; equipment failure information; pre-existing mechanical problems; and equipment serial number:

Employee Information: Sex: ☐ Male ☐ Female Age of employee _____

Regular Days Off: ☐ Saturday ☐ Sunday ☐ Monday ☐ Tuesday ☐ Wednesday ☐ Thursday ☐ Friday ☐ Irregular Days Off ☐ No set work schedule

Employment Category: ☐ Full Time ☐ Part Time ☐ Casual ☐ Temporary ☐ Contractor/Vendor ☐ For Casuals, number of shifts this year: _____

Length of Employment: ☐ Less than 1 month ☐ 1 - 3 months ☐ 4 - 6 months ☐ 6 months - 1 year ☐ 1 - 5 years ☐ More than 5 years

Time on duty to injury: _____ hours. Number of hours worked in last 3 days? _____

Employee was working: ☐ Alone ☐ With crew/fellow worker

Supervision at time of injury: ☐ Directly Supervised ☐ Not Supervised ☐ Indirectly Supervised ☐ Supervision not Feasible

What Personal Protective Equipment (PPE) was required for duties? ☐ None

☐ Eyes ☐ Face ☐ Hands ☐ Feet ☐ Hearing ☐ Head ☐ Other _____

What PPE was being used at time of event/injury occurrence? ☐ None

☐ Eyes ☐ Face ☐ Hands ☐ Feet ☐ Hearing ☐ Head ☐ Other: _____

Was required PPE available? ☐ N/A ☐ Yes ☐ No Did PPE fail? ☐ N/A ☐ Yes ☐ No

If "Yes", explain how: _____

Did PPE limit injury? ☐ N/A ☐ Yes ☐ No How? _____

Parts of Body Injured:

☐ Head	☐ Face	☐ Eye L / R	☐ Ears L / R
☐ Neck	☐ Hand L / R	☐ Finger	☐ Wrist L / R
☐ Arm L / R	☐ Elbow L / R	☐ Back	☐ Shoulder L / R
☐ Groin/Stomach	☐ Chest/Lungs	☐ Leg L / R	☐ Knee L / R
☐ Ankle L / R	☐ Foot L / R	☐ Toes	

☐ Other: _____

Nature of Injury:

☐ Amputation	☐ Open Wound	☐ Frostbite	☐ Electric Shock
☐ Sprain/Strain	☐ Burn/Scald	☐ Dislocation	☐ Heart Attack
☐ Bruise	☐ Abrasion	☐ Fracture	☐ Vision Loss
☐ Cut/Laceration	☐ Pain/Swelling	☐ Concussion	☐ Hearing Loss
☐ Puncture Wound	☐ Dizziness	☐ Insect Bite	☐ Hazmat/Skydrol Contact

☐ Other: _____

Type of Activity or Motion:

☐ Struck Against	☐ Struck By	☐ Slip/Trip
☐ Fall-Different Level	☐ Fall-Same Level	☐ Caught Between/In/Under
☐ Rubbed or Abraded	☐ Reaching/Stretching	☐ Lifting/Lowering
☐ Pulling/Pushing	☐ Repetitive Motion	☐ Riding/Driving
☐ Standing/Sitting	☐ Walking/Jumping	☐ Kneeling/Crouching

☐ Other: _____

Accident site conditions:

☐ Daylight ☐ Night ☐ Dawn/Dusk ☐ Dry ☐ Wet

☐ Overcast ☐ Well Lighted ☐ Dimly Lighted ☐ Rain ☐ Snow

☐ Hazy/Foggy ☐ Sleet ☐ High/Gusty Winds

Temperature: _____ Other: _____

Accident site surface conditions:

☐ Dry ☐ Wet ☐ Icy ☐ Snowy ☐ Muddy ☐ Patchy Wet

☐ Patchy Ice/Snow ☐ Oily/Slippery ☐ Excellent/not a factor

Accident location:

☐ Aircraft or Vehicle Interior ☐ Building Interior ☐ Flightline Area ☐ Proximity of Aircraft

☐ Machine/Work Shop Area ☐ Other: _____

Check all applicable factors that may have contributed to this event:

☐ Supervisor's failure to enforce rules/procedures ☐ Inadequate procedural guidance

☐ Work practices or procedures ☐ Fatigue or personal conditioning

- ☐ Failure to obtain help
- ☐ Unnecessary or unusual haste
- ☐ Lack of knowledge or skill
- ☐ Failure to use proper equipment/tools
- ☐ Improper use of equipment or tools
- ☐ Environmental conditions
- ☐ Unsafe speed/movement
- ☐ Operating without authorization or qualification
- ☐ Inadequate training for task or event
- ☐ Inattention or distraction
- ☐ Infraction of workplace rules
- ☐ Inadequate housekeeping
- ☐ Faulty equipment or failure
- ☐ Unsafe design or operating method
- ☐ Actions of another person
- ☐ Not using spotter
- ☐ Improper bending/lifting
- ☐ No unsafe personal factors
- ☐ Other: _____

Does an applicable safety-training program exist? ☐ Yes ☐ No

What program? _____

When did employee last complete applicable task safety training? _____

Specific recommendations to prevent reoccurrence of injury or occupational illness:

_____

_____

_____

_____

What corrective or preventative actions have been, or will be, taken? By whom and when?

_____

_____

_____

_____

_____

What equipment, training, etc. are required to accomplish the corrective or preventative actions?

_____

_____

_____

_____

Name of Supervisor: _____ Title: _____

Signature: _____ Date: _____

Safety Department comments and recommended preventative/corrective actions.

_____

_____

Signature: _____ Date: _____

Director/Manager comments and actions taken or directed:

_____

_____

_____

_____

Name: _____ Title: _____

Signature: _____ Date: _____

Forward form to KC Safety Department, Fax (734) 544-7041

1.0 Guidelines

Complete the *Personal Injury and Occupational Illness Report (AIR-1024)* form according to instructions outlined below:

2.0 Instructions

- **Report Number:** Assigned by the Safety Office. Consist of the three-letter Station Identifier Code (SIC), the two-digit year and the sequential number of injury/illness occurring at that particular SIC. For example: an injury occurs at LAX (LAX) on February 6 and was the second injury of 2002. The event number would be "LAX-02-02."

- **Claim Number:** Insert AIG claim number given by the AIG customer service representative when the injury or occupational illness is telephonically reported.

- **Date of Injury or Illness:** Self-explanatory.

- **Time of Injury:** Local time of injury/illness occurrence in military hours, e.g., "2125 hours."

  NOTE:

  An occupational illness usually occurs over a period of time while an injury occurs at a specific time.

- **Injury/Illness Location:** Where the injury/illness occurred, e.g., Tampa, en route, BRO, Brussels.

- **SIC (Station Identification Code)**: The alphanumerical identifier for the event location (e.g., "LAX").

- **Employee Name:** Self-explanatory.

- **Employee Number:** Enter employee number.

- **Hire Date:** Enter employee hire date.

- **SSN:** Enter social security number.

- **Position/Job Title:** Enter position or job title.

- **Work Activity just prior to injury:** Explain what employee was doing immediately prior to the injury event. For example: "John was servicing the auxiliary hydraulic system while standing on top of a six-foot stepladder."

- **Describe what happened in detail:** Provide a complete, detailed narrative description of the event to answer who, what, when, where, how, event effects, etc. The description needs to provide all information to fully understand the sequence of events and effects. Use additional sheets if needed.

- **Describe injury/complaints:** Provide a narrative description of injuries and medical complaints.

- **Injury reported to:** Enter name, title, date and time the supervisor was notified of the injury/illness.

- **Date/time injury reported to AIG:** Enter date and time AIG was telephonically notified.

- **Did employee receive medical care:** Check applicable box. Medical care includes all visits to medical professionals for treatments/evaluations and first aid treatments.
- **Medical provider/hospital:** Enter medical provider (doctor), clinic or hospital information.
- **What specific medical care was administered:** Provide information on the type of treatment received such as "cleaned and bandaged cut"; "took x-ray of shoulder and elbow"; "examined wrist and received pain pills"; and "examined sprained knee and scheduled therapy sessions."
- **Did employee return to unrestricted duty on same/next shift:** Check applicable item.
- **Restricted/limited duty:** Annotate any medical restrictions and/or physical limitations the employee may have. For example, "cannot lift more than 20 pounds or climb ladder"; "wear knee brace for two weeks and no crawling on knees for a month," etc.
- **Medical absence return date:** Projected return date for lost-time injuries/illnesses.
- **List witnesses/other personnel involved:** enter name, employer and phone number of any witnesses or other personnel involved in the event. The witnesses can provide information to help determine injury causes.
- **Were other personnel injured:** Check applicable item. This information helps correlate injury information and for potential liability issues.
- **Did injury occur on KC premises:** Check applicable item. This includes facilities leased/used by KC. If injury did not occur on KC premises, then annotate where the injury occurred. This information is needed for insurance and potential liability purposes.
- **Has employee had similar complaints/injuries in the past:** Check applicable item. If "Yes, " provide when and who provided medical treatment.
- **Date, type of injury and description of event (in past two years):** Information helps determine if this is a new injury or a reoccurrence of a past injury. May also show a work procedures deficiency, incorrect equipment, a possible ergonomics problems, or a definable pattern of injuries due to an unresolved medical condition.
- **Were photographs taken:** Check applicable items. Attach photographs to report, and attach diagrams and descriptions to describe physical layout.
- **Related aircraft and equipment/cargo damage:** Check applicable blocks and provide aircraft number.
- **Related Equipment/Freight Damage:** Check applicable item and description of damages. The information is used to tie into the aircraft/equipment accident reporting an investigation process.
- **Description of equipment involved, etc.:** Provide equipment information to include make, model, serial number, any modifications made, any mechanical problems, etc. The information can help identify equipment design or use problems, inadequate operating instructions or training, or may be used for manufacturer liability issues.

- **Employee Information through Did PPE limit injury:** Check applicable blocks and provide information. Information used for injury/illness trend analysis, help identify common injury/illness factors, and determine correct used and effectiveness of PPE.

- **Parts of body injury:** Check all applicable blocks and circle L (left) or R (right) to indicate injured body part. If body part is not listed, insert on the "other" line.

- **Nature of Injury:** Check all applicable blocks. If multiple types of injuries to different body parts, explain in the: other: block or in the narrative section on the first page. The type of injury is not listed insert on the other line.

- **Type of Activity or Motion:** Check all applicable blocks. If you have questions on what the type of activity/motion, call the Safety Department for assistance in determining the specific applicable items(s).

- **Accident site conditions thru Accident location:** Check all applicable blocks and provide temperature and any conditions not listed. Information is useful in determining common factors and related environmental accident causes/factors.

- **Applicable factors contributing to the event:** Check all applicable items. This section annotates the basic cause(s) of the injury/illness. These are normally determined in the course of the investigation. Analyze the sequence of events/activities leading up to the injury/illness to determine what actions lead to, or caused, the injury/illness to occur. Another approach is to determine what step, action, or procedure could have prevented the injury/illness. Contact the Safety Department for assistance, if needed, in the analysis of the injury/illness.

- **Recommendations to Prevent Recurrence of Injury/Illness:** The recommendation(s) should address methods to correct or prevent the injury/illness causal factors. Each of the relevant cause(s) should be addressed by a recommended corrective/preventive action.

- **Corrective/Preventive Actions:** Recommended action to prevent reoccurrence. Some actions, depending on the accident causes, could be revised work procedures or practices, modifying equipment, work task-retraining, use of different safety equipment, additional training, etc. Each of the corrective/preventive actions will be tracked until completed.

- **Safety Department Comments and Recommendations:** The Safety Department reviews the report for completeness, validity or injury/illness causes and recommends corrective or preventive actions. The review considers existing procedures, effectiveness of the proposed corrective actions, cost effectiveness, timeliness, etc. The information is forwarded to the appropriate Director/Manager for validation and implementation actions.

- **Director/Manager Comments and Actions Taken:** Validates the injury/illness report and then recommends corrective or preventive actions. Ensures that the resources are made available and preventive actions are accomplished in a timely manner. Returns the completed form to the Safety Department.

***

1.0 Reference

29 CFR 1904

2.0 Summary

Under the OSHA act, certain accidents must be reported, and records of all *work-related* **deaths**, certain *work-related* **injuries** and *work-related* **illnesses** must be kept.

3.0 Injury or Illness Reporting

Employees (including part-time, casual, temporary) shall immediately report all injuries (beyond minor first aid) or occupational illnesses to their supervisor. When required, medical attention will be obtained promptly. If in doubt, seek medical treatment as it may lessen the extent of the injury/illness, minimize lost workdays, and hasten recovery.

- The injuries and occupational illnesses will be reported to the Safety Department within 24 hours. Complete the AIG telephone reporting as soon as possible. **Do not** delay initial reporting for lack of all requested information.

- The supervisor shall complete the *Personal Injury and Occupational Illness Report (AIR-1024)* form an forward to the Safety Department within three days after the event. Failure to promptly report injuries and occupational illnesses may subject the company to substantial OSHA and state penalties as well as potentially affecting the employee's workers' compensation and company insurance coverage.

4.0 OSHA Reporting

Immediately notify the Director of Airline Safety of serious injuries, employee hospitalization as a result of a work-related injury/illness, or an employee fatality. The Safety Department will assist the local authorities in investigating serious injuries and fatalities. The Safety Department will also notify the nearest OSHA Area Director, within eight hours, of an employee fatality or when three or more employees are hospitalized as a result of a work-related accident.

- As soon as possible (*within three hours*), provide the following information to the Safety Department who will then notify the nearest OSHA Area Director. If an employee fatality occurs, OSHA will conduct an on-site investigation of the accident, seeking information on the following:

  - Details of how the accident occurred.

  - Number of fatalities

  - Extent of injuries

5.0 Log and Summary of Occupational Injuries and Illnesses (OSHA Form 200)

The Safety Department maintains the consolidated Kalitta Charters log and summary of recordable injuries and illnesses. This information could be shown on the form, *Log and Summary of Occupational Injuries and Illnesses (08501-30)* - also known as OSHA Form No. 200-or equivalent. ***(This form is illustrated on page 6.)***

Recordable injury/illnesses are those resulting in a fatality, hospitalization, lost workdays, certain medical treatments, job transfer or termination, or loss of consciousness.

- The log and summary record will be compiled in accordance with OSHA guidance contained in 29 CFR 1904 and official interpretations of those guidelines. The Safety Department shall enter recordable injuries or illnesses into the log and summary within six days of notification.

- The Safety Department maintains the centralized record of injuries and illnesses rather than requiring each operating location to develop and maintain an OSHA log. A copy of the current log and summary of injuries and occupational illnesses will be provided to each location on a bi-monthly basis (data is current within 45 calendar days).

  NOTE: The bi-monthly log does not have to be posted but must be made available to employees upon request.

- The Safety Department also maintains a First Aid Injury log. The reporting and investigation of first aid injuries is an important part of the injury prevention program.

6.0 Annual Summary

6.1 The Log and Summary of Occupational Injuries and Illnesses (08501-30) (OSHA 200) is compiled from the injury/illness reports

6.2 The Safety Department will prepare a cumulative annual summary of occupational injuries and illnesses for each operating location or establishment. The OSHA 200 will be distributed to each location in January of each year listing the operating locations' record of injuries and illnesses for the previous year. The form will include the year's total occupational injuries and illnesses, location name and address, and the Director Safety's certification signature. The annual summary form must be posted in a location where notices to employees are usually placed for the time period of February 1 though March 1. The form must remain posted and unaltered. Failure to properly post the Summary for the specified time period may result in a $70,000 fine by OSHA.

7.0 Maintaining Records

A copy of the annual Log and Summary of Occupational Injuries (08501-30) (OSHA 200) shall be retained at each operating location for five years following the end of the year to which they relate.

- Within six working days after notification of a recordable injury or occupational illness, the KC Safety Department shall have available a copy of the Personal Injury and Occupational Illness Report for review by an OSHA representative.

8.0 Records Release

Upon written request of an employee, former employee, authorized or employee representative, the Safety Department will provide a copy of the OSHA 200 to the applicant within 15 working days from the date of receipt of the request.

- Upon request by an OSHA representative, medical records, the OSHA 200 for the current year and the five preceding years, and the injury and occupational illness reporting form for each recordable case, will be provided. The company Legal Counsel will review a request by OSHA for other medical records before a release decision is made.

9.0 **Annual Summary**

The Occupational Injuries and Illnesses Annual Survey (Form 200S) are sent by the Bureau of Labor Statistics to selected firms or work site locations. If you receive this information survey, promptly forward the form to the Safety Department for completion.

10.0 **Recordable Cases Defined**

Work-related deaths, injuries, and illnesses (other than minor injuries requiring only first aid treatment and which do not involve medical treatment), loss of consciousness, restriction of work or motion, or transfer to another job will be recorded on the OSHA 200 form.

11.0 **Injury or Illness**

The single-incident concept is the determinant (for recordkeeping purposes) as to whether an incident is an injury or illness. If the incident was because of something that happened in one instant, it is an injury. If the incident was the result of longer exposure to a hazardous substance or environmental factor, it is an illness.

12.0 **Work-Related Defined**

12.1 "Work relationship" for OSHA recordkeeping purposes is primarily determined by whether the employee was engaged in company work or, as a condition of employment, was present where the exposure took place.

12.2 Where the exposure took place is an important factor. If an employee becomes ill or has back pains or a heart attack while at work, and the actual exposure or cause can be attributed to have taken place off premises and/or in a non-working activity, the case isn't recordable for OSHA purposes.

12.3 For OSHA reporting purposes, an employee is engaged in company work when actually doing work for the company. This includes time spent in the company's interest traveling directly to and from customer contacts; entertaining or being entertained for the purpose of transacting, discussing, or promoting business; and traveling directly between company locations.

13.0 **Not Work-Related**

An employee isn't considered to be engaged in company work when:

- In the company parking lot before reporting to work, after leaving work, or going to/from lunch, etc.
- At company recreational facilities during off-work hours and for personal reasons.
- On a side trip for personal reasons while traveling on company business. (When back on the direct route of travel, the employee would be engaged in company work.)
- When traveling, the employee establishes a "home away from home" when checking into a motel or hotel. Thereafter, the employee's activities are evaluated in the same manner as for a non-traveling employee.

14.0 **Medical Treatment**

If medical treatment was given to the injured employee, the Safety Department will recorded the details on the Log and Summary of Occupational Injuries and Illnesses (08501-30) (OSHA 200) form. The following are considered medical treatments:

- Treatment of infection
- Application of antiseptics during second or subsequent visit of medical personnel
- Treatment of second or third degree burn(s)
- Application of sutures (stitches)
- Application of butterfly adhesive dressing(s) or steri strips(s) in lieu of sutures
- Removal of foreign bodies embedded in eye
- Removal of foreign bodies from wound if procedure is complicated because of depth of embedment, size or location
- Use of prescription medications (except a single does administered on first visit for minor injury or discomfort)
- Use of hot or cold soaking therapy during second or subsequent visit to medical personnel
- Application of hot or cold compress(s) during second or subsequent visit to medical personnel
- Cutting away dead skin (surgical debridement)
- Application of heat therapy during second or subsequent visit to medical personnel
- Use of whirlpool bath therapy during second or subsequent visit to medical personnel
- Positive X-ray diagnosis (fractures, broken bones, etc.)
- Admission to a hospital or equivalent medical facility for treatment

15.0 **First Aid Treatment**

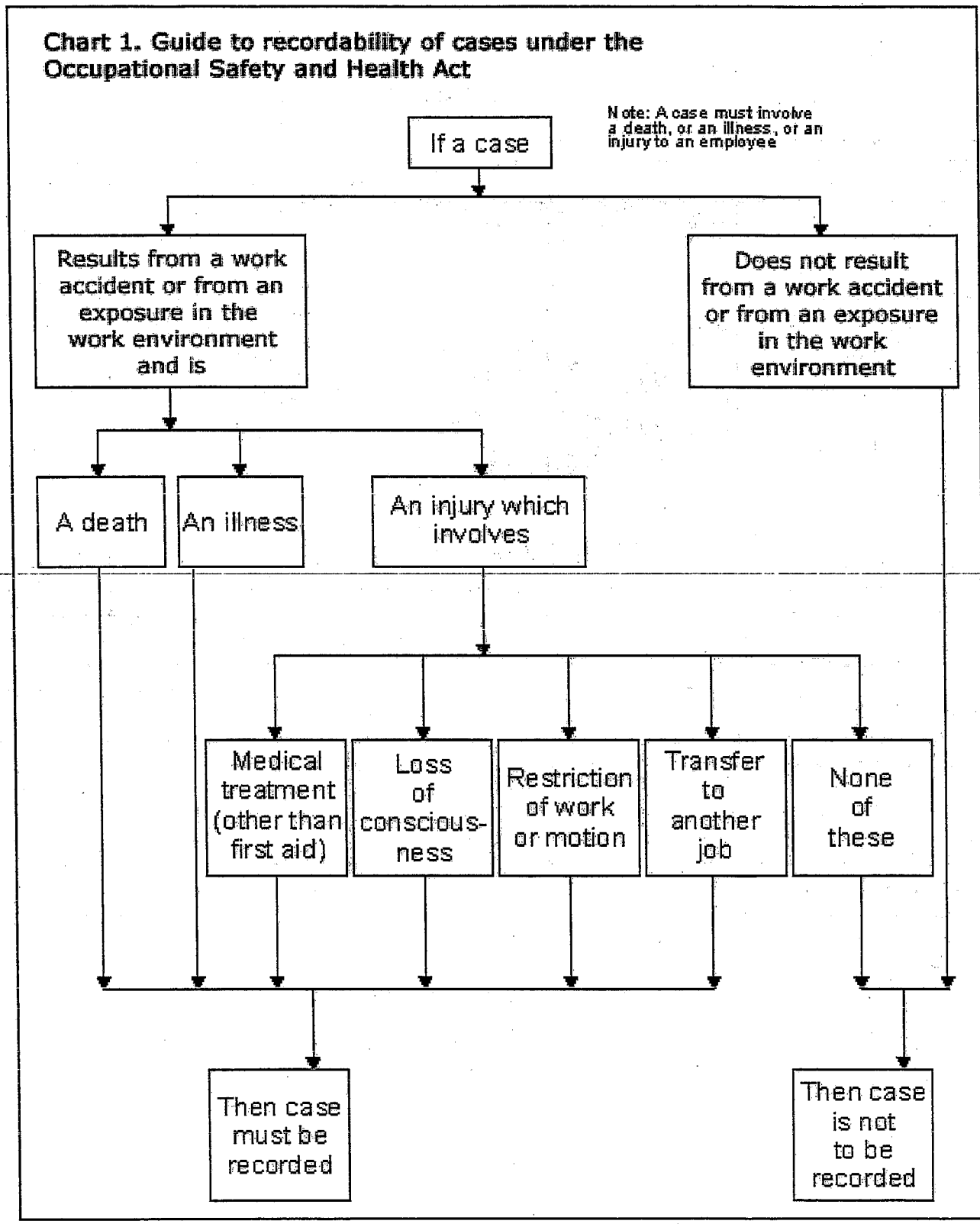
If only first aid treatment was given to the injured employee, the Safety Department will record the details on the First Aid Log. The following are considered first-aid treatments:

- Application of antiseptics during first visit to medical personnel
- Treatment of first degree burn(s)
- Application of bandage(s) during first visit to medical personnel

- Use of elastic bandage(s) during first visit to medical personnel
- Removal of foreign bodies not embedded in eye if only irrigation is required
- Removal of foreign bodies from wound, if procedure is uncomplicated, and is, for example, by tweezers or other simple technique
- Use of non-prescription medication and administration of single does of prescription medication on first visit for minor injury or discomfort
- Soaking therapy on initial visit to medical personnel or removal of bandages by soaking
- Application of hot or cold compress during first visit to medical personnel
- Application of ointments to abrasions to prevent drying or cracking
- Application of heat therapy during first visit to medical personnel
- Use of whirlpool bath therapy during first visit to medical personnel
- Negative X-ray diagnosis
- Observation of injury during visit to medical personnel

- Administration of tetanus shot(s) or booster(s). The shots alone are not considered medical treatment. However, these shots are often given in conjunction with the more serious injuries; consequently, injuries requiring tetanus shots may be recordable for other reasons.

16.0 **OSHA Recordable Flow Diagram**



17.0 Log and Summary of Occupational Injuries and Illnesses

OSHA Form 300

U.S. Department of Labor

For Calendar Year 20____ Page ___ of ___

Company Name

Establishment Name

Establishment Address

Form Approved O.M.B. No. 1220-0029

Extent of and Outcome of INJURY						Type, Extent of, and Outcome of ILLNESS												
Fatalities	Nonfatal Injuries					Type of Illness							Fatalities	Nonfatal Illness				
Injury Related	Injuries With Lost Workdays				Injuries Without Lost Workdays	CHECK Only One Column for Each Illness (*See other side of form for terminations or permanent transfers.*)							Illness Related	Illnesses With Lost Workdays				Illnesses Without Lost Workdays
Enter DATE of death. Mo./day/yr.	Enter a CHECK if injury involves days away from work, or days of restricted work activity, or both.	Enter a CHECK if injury involves days away from work.	Enter number of DAYS *away from work.*	Enter number of DAYS of *restricted work activity.*	Enter a CHECK if no entry was made in columns 1 or 2 but the injury is recordable as defined above.	Occupational skin diseases or disorders	Dust diseases of the lungs	Respiratory conditions due to toxic agents	Poisoning (systemic effects of toxic materials)	Disorders due to physical agents	Disorders associated with repeated trauma	All other occupational illnesses	Enter DATE of death. Mo./day/yr.	Enter a CHECK if illness involves days away from work, or days of restricted work activity, or both.	Enter a CHECK if illness involved days away from work.	Enter number of DAYS *away from work.*	Enter number of DAYS of *restricted work activity.*	Enter a CHECK if no entry was made in columns 8 or 9.
(1)	(2)	(3)	(4)	(5)	(6)	(7) (a)	(b)	(c)	(d)	(e)	(f)	(g)	(8)	(9)	(10)	(11)	(12)	(13)

Certification of Annual Summary Totals By ______________________ Title ______________________ Date __________

OSHA No. 300 POST ONLY THIS PORTION OF THE LAST PAGE NO LATER THAN FEBRUARY 1.

Bureau of Labor Statistics
Log and Summary of Occupational
Injuries and Illnesses

NOTE: This form is required by Public Law 91-596 and must be kept in the establishment for *5 years*. Failure to maintain and post can result in the issuance of citations and assessments of penalties. (*See posting requirements on the other side of form.*)

RECORDABLE CASES: You are required to record information about every occupational **death**, every nonfatal occupational **illness**, and those nonfatal occupational **injuries** which involve one or more of the following: loss of consciousness, restriction of work or motion, transfer to another job, or medical treatment (other than first aid). (*See definitions on the other side of form.*)

Case or File Number	Date of Injury or Onset of Illness	Employee's Name	Occupation	Department	Description of Injury or Illness
Enter a nonduplicating number which will facilitate comparisons with supplementary records.	Enter Mo./day.	Enter first name or initial, middle initial, last name.	Enter regular job title, not activity employee was performing when injured or at onset of illness. In the absence of a formal title, enter a brief description of the employee's duties.	Enter department in which the employee is regularly employed or a description of normal workplace to which employee is assigned, even thought temporarily working in another department at the time of the injury or illness	Enter a brief description of the injury or illness and indicate the part or parts of body affected. Typical entries for this column might be: Amputation of 1st joint right forefinger; Strain of lower back; Contact dermatitis on both hands; Electrocution—body.
(A)	(B)	(C)	(D)	(E)	(F)
					PREVIOUS PAGE TOTALS
					TOTALS (Instructions on other side of form)

***

1.0 Background

All accident/incident or events that caused, or had the potential to cause injuries and/or damages to facilities, equipment, property, freight, etc., must be immediately reported to supervision so that the appropriate response and preventive actions can be taken. The investigation needs to be conducted as soon as possible since delays may result in the loss of critical information or the ability to gather eyewitness information.

2.0 Purpose

Accident/incident and "close calls" are investigated to determine the basic event causes. Emphasis is placed on getting the facts and not on placing blame for the accident/event. Once the facts have been determined, the basic cause(s) can be identified, recommendations can be made and actions taken to prevent recurrence.

3.0 Depth

The extent of the investigation depends on the potential seriousness of the accident/incident. A first aid case, which had no potential beyond a negligible injury, would receive a less extensive investigation than a more serious injury. The Safety Department will normally investigate major accident/incident and serious injuries.

4.0 Investigator

The supervisor of the injured employee, or the person responsible for the work area where a accident/incident /injury occurred, is responsible for investigating the event and completing the accident/incident or injury reporting forms (*see KC 604-1*). Most accident/incident /injuries are caused by a combination of factors, each of which needs to be fully investigated. Investigators should:

- Avoid jumping to conclusions during the investigation. It is important to find the underlying or root causes of the accident/incident. You need to determine *why* an unsafe condition existed or why the unsafe procedure/action occurred and then how to prevent it in the future.
- Follow three basic rules:
  - Stick to the facts.
  - Weight the value of all facts and relevant information.
  - Reach justified and supportable conclusions.
- Address who, what, when, where, why, and how the accident/incident occurred. The accident/incident /injury report should answer these questions along with providing justification for any recommended corrective or preventive actions. While gathering accident/incident facts, ask employees for their ideas on how the accident/incident could have been prevented

5.0 Tips

Some general accident/incident investigation tips:

- Don't rely on your memory and take notes as you go.

- Talk to witnesses and participants as soon as possible.
- Gather applicable records as soon as possible.
- Make a log of all photographs taken and list the time, the view, and the purpose of the photograph.
- The KC Safety Department or Senior Management can have the flight data and voice recorder removed and analyzed for aircraft accidents/incidents when relevant data may be obtained. Remember that the FAA and NTSB always have investigation priority and authority for aircraft accident/incidents.
- Recognize that very few accident/incidents have just one cause; it is usually a sequence of events and/or actions that leads to the accident/incident. Understanding the sequence of events is crucial to determining the "root" cause(s).
- Consider human factors in accident/incidents: why did the personnel involved do what they did; how did they it; what is their experience and training levels, what was the involved, person's fatigue levels; any distractions, complacency, negative habit patterns, or mental stress factors; any procedures/rules violations, etc.
- Contact the Safety Department if you need assistance.
- Reference "Third-Party accident/incident Investigation Procedures" (KC605-2) for additional information that may be needed.

6.0 Questions

Answer the following as applicable:

- **Who:**
  - Was a party to the accident/incident?
  - Observed the accident/incident and/or who may know something about the event?
  - Is responsible for the job and the work area?
  - Reported the accident/incident /injury and what actions did he or she take?
- **What:**
  - Happened before, during, and after the accident/incident?
  - Was the condition of the employee, equipment, aircraft, freight, etc. before, during and after the accident/incident accident/incident?
  - Were the local environmental conditions and/or nearby activities occurring before, during and after the accident/incident that may have been a causal factor?
  - Would prevent the accident/incident from occurring again?

- **Where:**
  - Did the accident/incident occur – the exact physical/geographical location and the name of the company responsible for the premises?
  - Were the witnesses located when they observed the event?
  - Was the equipment located; was it in its proper location?
- **When:**
  - Did the accident/incident /injuries occur – the specific time and date?
- **Why:**
  - Did the accident/incident occur at this particular time and place and to the personnel involved?
  - What was different about this event as compared to other similar circumstances that did not result in accident/incident or injury or why hasn't the accident/incident /injury occurred previously?
- **How:**
  - Did the sequence of accident/incident events occur and what were the inter-related factors in the sequence of events?
  - Does the investigator, after reviewing the information and physical evidence, think the accident/incident /injury occurred?

7.0 "How To"

The following is a general flow of conducting an accident/incident or injury investigation. The items below are usually completed in the course of an effective investigation but should be tailored to the particular circumstances of the accident/incident/injury investigation.

- Secure the accident/incident scene to preserve perishable evidence.
- Take actions to prevent further incidents until any hazards have been eliminated.
- Obtain description of accident/incident events, related activities, and names of witnesses.
- Obtain a copy of the MSDS (Material Safety Data Sheet) to assist in any needed medical care and HazMat clean-up operations if the employee was exposed to hazardous materials or hazardous materials were involved in the event.
- Determine if Drug/Alcohol Testing is appropriate and direct the tests to be taken when required.
- Gather perishable evidence/information (e.g., fuel samples, debris, broken parts, applicable freight paperwork) needed for completing the investigation and compiling the report.

- Take photographs of the accident/incident/injury location and any related damages.
- Interview the witnesses. Avoid using the term "statement" since it carries "legal" overtones. Eyewitness accounts are helpful in determining the sequence of accident/incident events and related activities; basic accident/incident causes; third-party involvement; and validating accident/incident/injury participants' claims.

  NOTE: Whenever possible, interview witnesses on an individual basis; put witnesses at ease; let them provide the information in their own way; don't lead these individuals into providing answers that are not their own. Remember, witnesses provide information of their own free will. Asking for their assistance in help to prevent future accident/incidents will normally be effective in obtaining the desired information.

- If necessary Fill out the personal injury reporting forms and notify the Safety Department. Telephonically notify AIG if an employee is injured.
- Determine the sequence of accident/incident events.
- Recreate the accident/incident in a controlled situation, if necessary.
- Document known or anticipated costs associated with the event on the accident/incident reporting form.
- Review operational procedures and equipment design for adequacy.
- Review employee education/training for adequacy and applicability.
- Review work procedures/practices and supervisory oversight effectiveness.
- Review adequacy of safety rules and employee compliance levels.
- Develop a list of potential causes and relevant factors and then logically determine the most likely cause(s). Provide justification or reasons for your conclusions.
- Determine potential methods to minimize the applicable hazards or how to prevent similar types of accident/incidents.
- Ensure that each contributing cause is addressed by a specific recommendation to prevent recurrence.
- Determine the most feasible hazard control methods, and who should be responsible for implementing preventative actions.
- Submit the accident/incident investigation report to the Safety Department.

Timeline

The accident/incident investigation report must be completed and forwarded to the Safety Department within three business days. All pertinent items on the report must be completed. Reports that are incomplete or incorrect will be returned for completion/correction. Accident/incident facts will be communicated to the

appropriate managers to keep them informed about workplace safety issues and to obtain assistance in implementing preventive actions.

9.0 Follow-up

The department head responsible for the area where the accident/incident or event occurred, and the supervisor preparing the accident/incident report, are jointly responsible for ensuring that accident/incident investigation report recommendations are complied with and/or resolved.

10.0 Safety Department

The Safety Department will:

- Provide investigation and event reporting assistance.
- Maintain the accident/incident/injury report files.
- Assist in identifying appropriate preventive actions.
- Coordinate/consolidate preventive actions.
- Help identify safety or task training requirements.
- Incorporate preventive actions into the overall safety program.
- Serve as focal point for event and cost data gathering.
- Provide assistance in Workers' Compensation reporting.
- Perform OSHA/NTSB/FAA required reporting as required.
- Provide periodic accident/incident/injury status reports to management.
- Conduct analyses to determine preventive action effectiveness.
- Conduct or request additional investigation of accident/incidents at their discretion.

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INTENTIONALLY

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1.0 Background

Many times accident/incident or injuries involve third non-KC parties (subrogation), which may bring outside insurance companies, legal actions, and determination of accident/incident/injury liabilities into the accident/incident investigation and cost reimbursement process. Additional information may need to be gathered during the investigative process to address these legal requirements. Reference Chapter 10 for additional information.

2.0 Vehicular

If a vehicle is involved:

- Obtain the name, address, and telephone number of the other driver.
- Obtain the make, model, year, and license number of the vehicle and the name and telephone number of the vehicle owner.
- Obtain the name and address of the insurance carrier.
- Obtain the name, address and telephone of any witnesses.

3.0 Equipment

If a malfunction of equipment is involved:

- Obtain the make, model, year, purchase date, and manufacturer
- Determine any changes or alterations that may have been made to the equipment and by whom, when, and for what purpose. Did the changes alter the original design and the intent or use of the equipment
- Determine if there have been any recent repairs or parts replacements by outside vendors – who, what, when, etc.
- Obtain copies of repair records, modification descriptions, etc.

4.0 Hazards

If a property hazard is involved, give specific descriptions, location, general awareness of the hazard, etc. For example, determine:

- Who owned the property and did the owner have prior knowledge of the hazard?
- Was the hazard obvious and was the hazard generally known and recognized by people working or operating in the area?
- Was the hazard properly marked as a hazard – roped off, posted, painted in a warning/caution color, or otherwise made conspicuous?

- Was the owner or a company employee negligent (your opinion)?
- Who had control of the property and were previous attempts made to have the hazard corrected?

5.0 HazMat

If hazardous material was involved, was it classified, described, labeled, packaged, and marked in conformity with the applicable hazardous materials or dangerous goods regulations?

Determine the following:

- Pro number, date, and shipper and consignee names and addresses
- Specific name of product, compound, chemical, or substance
- Prescribed DOT container number
- Integrity of the cap; was it leaking? Save the cap and the decontaminated container.

6.0 All Accident/incidents

Photograph all pertinent objects involved in an event and provide other diagrams, measurements, etc. to fully describe damages, physical layouts, relationships between objects or persons, etc.

Determine the following:

- Point of impact(s)
- Location after impact(s)
- Distance of falls or movements
- Hazards and unsafe conditions, warning signs, etc.

Keep equipment or objects available for inspection by other investigators.

***

1.0 Overview

Almost everyone has a strong interest in personal safety. Frequently hazards occur which are known only to the crewmember, the mechanic, the office worker, or to others who experience them. If we can't get individuals to report the hazards, we may lose an opportunity to prevent a serious accident/incident or injury. To assist in identifying hazards, a reporting system has been developed to report hazards and other safety concerns so that corrective or preventative actions can be taken to prevent future operational problems, incidents, or accidents.

2.0 Purpose

The responsibility to identify and eliminate safety hazards belongs to each and every employee. This hazard documentation process allows employees to alert supervisors, managers, and directors, of hazardous conditions requiring corrective action. The sole purpose of the hazard reporting process is to prevent accident/incident and injuries and does not replace or supersede any other reporting directives required by KC, FAA, OSHA, NFPA, DOT, or EQA.

3.0 Reporting Hazards

Anyone observing a hazardous situation should first inform his or her supervisor if he or she couldn't correct the hazardous condition. The supervisor should take actions to abate the hazard. If the supervisor is unable correct the hazard, or if the hazard could occur at other KC locations, then a *Hazard Report* should be submitted to the Safety Department for assistance in resolving the hazard concerns.

4.0 Hazard Reporting Form

The self-explanatory *Hazard Report* (ASD-001) form can be used to report safety hazards or concerns (anonymously if desired), unsafe operating practices, training or procedural deficiencies, property hazards, fire hazards, equipment deficiencies, etc. The submitted information will be used ***only*** for accident prevention purposes. Forms are generally available in each work area, through the KC Safety department.

5.0 Hazard Report Processing Overview

The Safety Department takes the following actions after receipt of a reported hazard:

- Evaluates the hazard. Confirms that it does exist and determines its potential seriousness.
- Adds more information, as needed, to clarify or fully explain the hazard.
- Numbers the *Hazard Report* for tracking purposes and entering in the hazard report log.
- Forwards the *Hazard Report* to the appropriate director or line manager with a suspense time and instructions to respond with corrections and/or comments. The line manager provides the Airline Safety Department with results of the investigation and action(s) taken to resolve the reported hazard.
- Notifies the originator of the *Hazard Report* (if known) of the action taken. The completed hazard paperwork is filed for future reference and/or follow-up at the next safety or other type of inspection.

6.0

The *Hazard Report* (ASD-001) form is illustrated on the next page.

KALITTA CHARTERS

HAZARD Report

Sample
Report Number

Date:

	First Name	Last Name	Department	Station
1.				
2.				
3.				

Name(s) optional, but must be included to receive direct feedback

Description of Hazard:

Your Recommendation to Correct the Hazard:

Forwarded for Action to: **Department:** **Date:**

Response/Corrective Action(s) Taken:

Signature and Printed Name: **Date:**

Safety Dept Comments:

Date Rtnd Safety: **Reviewed By:**

Safety Committee Review: ☐ **Review Date:** **Committee Action:**

Closed Out Date:

***

1.0 Purpose

This document provides the information necessary for KC personnel, contractors for KC, and other persons providing services on behalf of KC, to operate safely on the flighline. This program serves as part of a new employee orientation program and as a guide for annual refresher training for all personnel who may work on flightline areas.

2.0 Scope

Flightline and ramp operations offer a unique set of hazards, and require skills most people do not encounter in other careers. Therefore, this program will review the hazards, and skills needed to operate safely on the flightline. This program serves to bring together key points of the many policies and procedures established within the company. This program does not set policy; it only references policies and guidelines already in place.

3.0 Authorities

- FAA Advisory Circular (AC)-150/5200 Airport Safety - General.
- FAA AC-150/5210 Airport Safety Operations (Training, Standards, Manning).
- FAR 139:329 Ground Vehicles.
- KC General Operations Manual.
- KC Safety Manual.
- OSHA 29 CFR 1910.
- KC Ramp Operations Manual.

4.0 Responsibilities

4.1 Management is responsible to ensure the proper resources and materials are made available to effectively train personnel exposed to a flightline environment and to enforce the requirements consolidated within this program.

4.2 Supervisors are responsible for properly training the individuals assigned to them in accordance with this program. They have a further responsibility to take disciplinary or remedial action for violations of flightline safety policies.

4.3 Employees are responsible to learn and use the information provided in this program.

5.0 Introduction & Definitions

5.1 Definitions

Acknowledge
(Radio Term) Let me know you have received and understand this message.

Advise Intentions
(Radio Term) Tell me what you plan to do.

Affirmative
Yes/Correct

Compressor
A fan-like disk or several disks, at the front end of a jet engine that draws air into the engine and compresses the air before passing into the combustion chamber.

Confirm
(Radio Term) My version is... is that correct?

Correction
(Radio Term) I made a mistake This is what I should have said

Flight Deck
Cockpit, the section of the aircraft where crew members sit and control the aircraft.

Flightline
Airport areas that include aircraft parking ramps, runways, taxiways, and supporting facilities.

FOD
Foreign Object Damage/Debris - damage caused to an A/C by debris, forgotten tools, etc.

Fuselage
The main body of an aircraft, cylindrical in shape. It contains the cockpit, main cabin, and/or the cargo compartment.

Go Ahead
(Radio Term) Continue speaking your message.

Hold
(Radio Term) Stay where you are.

Hold Line
The set of lines separating a taxiway and a runway consisting of two solid yellow lines followed by two broken yellow lines.

Hold Short
(Radio Term) Stop at the Hold Line at the intersection of the taxiway and the runway. Do Not proceed onto the runway.

Knot
Abbreviation for one nautical mile per hour. A nautical mile is 15% longer than a standard mile (1.15 mi.).

Introduction & Definitions - (cont'd)

Negative
(Radio Term) No, or permission not granted, or that is not correct.

Out
(Radio Term) The radio conversation has ended, no response expected

Over
(Radio Term) My part of the radio conversation has ended and I am expecting a response.

Proceed
(Radio Term) You are authorized to begin or continue moving

Ramp
The aircraft parking area. The ramp is where most aircraft service, loading, and unloading is performed

Read Back
(Radio Term) Repeat my message to me.

Roger
(Radio Term) I have received your transmission.

Say Again
(Radio Term) Repeat your last transmission.

Verify
(Radio Term) Request confirmation of information.

Wilco
(Radio Term) I have received your message, understand it, and will comply.

5.2 Acronyms

A/C	Aircraft
FAR	Federal Aviation Regulation
FOD	Foreign Object Damage/Debris
OSHA	Occupational Safety & Health Administration
ULD	Unit Loading Device

6.0 Phonetic Alphabet

A	Alpha	J	Julie	S	Sierra
B	Bravo	K	Kilo	T	Tango
C	Charlie	L	Lima	U	Uniform
D	Delta	M	Mike	V	Victor
E	Echo	N	November	W	Whiskey
F	Fox-trot	O	Oscar	X	X-Ray
G	Golf	P	Papa	Y	Yankee
H	Hotel	Q	Quebec	Z	Zulu
I	India	R	Romeo		

***

INTENTIONALLY

LEFT

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1.0 Purpose

At a controlled airport, you must get permission from the air traffic controller to go onto a runway or taxiway. To get permission, you must use the same procedures and terminology that pilots use.

2.0 Steps in Obtaining Runway/Taxiway Permission

Tower Communications

- Use an air-to-ground radio with the airport's ground control frequency on it. Each vehicle should have a call sign identifying the vehicle (like "Connie Mx").

- Know the proper phrases that controllers and pilots use. Controllers do not use the "ten codes" such as "ten-four".

- Know what you are going to say before you call the controller. If you are uncomfortable talking on the radio, practice a few times by yourself before calling the controller.

- Use the proper sequence in calling the controller. Before you start talking on the radio, make sure that no one else is already talking on that frequency. Then, when the radio is clear, you should:

  Say who you are calling, then who you are: "(Name of Airport) ground, this is (your vehicle call sign)".

- Wait for the controller to respond. It may take the controller a little while to call you back if he or she is very busy. When the controller calls back;
  Example;
  "(Connie Mx), this (Willowrun) ground".
  Tell the controller who you are again, where you are, and what you want to do,
  "(Connie Mx) is on the west parking ramp by XYZ and would like to proceed down taxiway Alpha and cross runway 5L-5R to the west side)".
  Then wait for the controller to answer you.

- The controller will either approve or deny your request, or issue special instructions:

  "(Connie Mx), proceed down taxiway Alpha and cross runway 5R-5L", or;
  "(Connie)", proceed down taxiway Alpha and hold short of runway 5R".
  Acknowledge that you have heard the controller's instructions; "Roger, (Connie Mx)".

- If the controller gives you special instructions (such as hold short), repeat the instructions briefly to the controller to show that you have heard and understand the order:

  "(Connie Mx), Roger, Hold Short of runway 5R".

- You should know the phrases that controllers use and what they mean before going onto any runway or taxiway.

- Once you have acknowledged the controller, follow the instructions he or she just gave you.

If you're ever unsure what the controller said, or if you don't understand an instruction, **ask the controller to repeat it.** For example: "(Your vehicle call sign), say again".

- The controller would much rather repeat something to you than to have you go some place you shouldn't and cause a runway incursion or accident.

3.0 Light Signals

3.1 Air traffic controllers have a backup system for communicating with pilots if the aircraft radios stop working. The controller has a light gun in the tower that sends out different colored lights to tell the pilot what to do. If you are ever working on a runway or taxiway and your radio quits working, you should turn your vehicle toward the tower and start flashing your headlights. The controller will then signal you with the light gun.

Note: Ensure an occupant of the vehicle can see the tower signals and can distinguish between the colors of red and green (is not color blind).

3.2 The signals and what the mean are listed below:

IF THE LIGHT IS:	**IT MEANS:**
STEADY GREEN	OKAY TO CROSS RUNWAY OR TAXIWAY
STEADY RED	STOP
FLASHING RED	MOVE OFF THE RUNWAY OR TAXIWAY
FLASHING WHITE	GO BACK TO WHERE YOU STARTED
ALTERNATING RED/GREEN	USE EXTREME CAUTION

***

1.0 Purpose

1.1 A member of the ground crew or flight mechanic should always be in contact with the cockpit during engine start and pushback operations. A ground handler will perform this function. If the headset communication is not operable, the marshaller shall be notified and the marshaller shall use hand signals or radios to communicate with the crew.

1.2 Miscommunication between the ground crew and cockpit could result in damaged equipment, damaged aircraft, injuries, or fatalities. This is why it is extremely important that proper terminology be used at all times. This will help eliminate miscommunication. The following are common phrases used by pilots and controllers that must become part of your vocabulary.

2.0 By Radio/Headset - Ground Handler/ Flight Mechanic To Cockpit Communication

The following is an example of the communication that may take place between the Ramp and Crew during engine start.

- Ramp will establish contact with aircraft by depressing all crew button and saying:

  Ramp: "Ground to cockpit".
  Crew: "This is cockpit".
  (Crew will acknowledge that contact is made.)

- If GPU and Air-Start are in use, Ramp will confirm all connections are made by saying:

  Ramp: "GPU and Air-Start are connected".
  Crew: "Roger" (Crew will confirm.)

- Ramp will advise crew that all doors are closed and indicate locked, stairs are removed, and area is clear of FOD:

  Ramp: "All doors are closed and locked, stairs are removed, and area clear ".
  Crew: "Roger" (Crew will acknowledge.)

- Ramp will monitor the engine start by ensuring the jet blast and suction areas are clear prior to giving permission to start. When engine start occurs, ramp will acknowledge rotation of the engines to the Crew and watch for any abnormalities.

  Note: In addition to this training, the Ramp person will need to be trained on what abnormalities to watch for during engine starts, emergency procedures, and how to use the ramp fire bottle.

By Radio/Headset-Ground Handler To Cockpit Communication - (cont'd)

- When standing at the nose of the aircraft, facing the wings, the engine to your furthest right is engine #1, the engine to the left of it is engine #2 and so forth.

  Crew: "Ready to start #4".
  Ramp: "Clear to start #4".
  Ramp: "Rotation #4".
  (Same sequence for #3, #2, and #1 engines.)

- If abnormality occurs:

  Ramp: "Shut down #3, we have_____(problem).
  Crew: "#3 shutting down".

- Preparing for taxi, all equipment is removed:

  Ramp: "Three (or four) normal starts, all equipment clear".
  Crew: "Roger" (Crew will acknowledge.)

Note: If the need to reestablish communication with the ramp arises, the cockpit will flash the taxi light **three or four times.**

- Marshallers will assume their position, (if the ramp person is done).

***

1.0 Purpose

This subject provides information regarding the general operating rules and precautions for marshalling the movement and placement of aircraft. The Standard Hand Signals are extracted from ICAO Rules, Air Annex 2, and will be used by all ground personnel and mechanics when directing ground movement of aircraft.

2.0 Responsibilities

2.1 The Captain of the aircraft has the ultimate responsibility for safe taxing of the aircraft. The Captain will stop the aircraft if he or she has any doubt or misunderstanding of the Marshaller's signals.

2.2 The Marshaller shares the responsibility for safe movement of the aircraft when the captain is following the Marshaller's signals.

2.3 Wing-walkers are responsible for keeping the Marshaller in sight and communicating with him or her through the proper hand signals. Wing-walkers will be used to ensure that aircraft do not come closer than 20 feet to another aircraft or obstruction such as, equipment, fences, poles, etc.

3.0 Equipment

Marshallers and wing-walkers will use two bright orange wands, one for each hand to perform their hand signals. Two styles of wands are used: Illuminated (flashlight-style) for night operations and non-illuminated for day operations.

4.0 Signal/Marshalling

Visual signals will be used when direct radio communication with A/C is not available. Hand signals are sufficient (wands preferred) for daylight operations. Lighted marshalling wands will be used at night. Visual/hand signal communications will be in accordance with approved company/industry standard signals. Persons that may need to communicate with A/C will be required to know these signals.

4.1 Arrivals

The signal person should plan the parking of the aircraft so that the proper signals can be given to the Captain in an orderly sequence and in ample time to enable the Captain to execute the desire maneuver.

4.2 Parking/Departing Aircraft

4.2.1 Extreme caution must be exercised when parking an aircraft. To ensure the operation is accomplished without injury to personnel or damage to the aircraft, the following will be complied with;

4.2.2 Personnel other than those assigned to assist parking will remain clear of the area until aircraft has come to a stop per KC 703-1.

4.2.3 All vehicles or other obstructions should be cleared from the aircraft taxi and parking area.

4.2.4 Ramp obstructions require no less than two persons will park the aircraft; one directing the Captain and one walking with the wing tip nearest any obstruction (more personnel will be

required if aircraft is maneuvering the tight quarters, where obstructions exist on both sides, etc.).

4.2.5 Whenever the aircraft is being guided in a restricted area, personnel shall be stationed at the wing tips and/or tail as necessity dictates.

4.2.6 In towing or taxing operations, the person who signals directly to the aircraft or tug operator will be known as the MARSHALLER/SIGNAL PERSON. He/She maintains a position in view of the GUIDE PERSON from whom he receives clearance signals in directing the movement of the aircraft. GUIDE PERSON will be located as needed near wing tips or tail section and will be responsible for safe clearances in their areas. The MARSHALLER/SIGNAL PERSON may also act as a GUIDE PERSON as long as he maintains his position in view of the aircraft or tractor operator and other GUIDE PERSON.

4.2.7 Responsibility for transmitting the approved signals to the cockpit with respect to proper clearances and guidelines resets with the marshaller/signal person. The overall responsibility for safety of the aircraft and properly following the signals rest with the tug operator if the aircraft is being towed or with the cockpit crew if the aircraft is being taxied. Whenever a doubt exists on the part of the signal person, tug or cockpit crew regarding safety of the aircraft, the aircraft will be stopped until the problem is resolved.

4.2.8 Two marshallers/signal persons may be used if necessary. However, only one person will give signals at a time. The procedure is as follows:

- The first marshaller/signal person will stand at the wing edge line near the spot where the aircraft approaches the wing edge line. He will direct the;
- Captain through the first part of the turn, to parallel the wing edge line. He will then transfer marshaller/signal responsibility to the second marshaller;
- The second marshaller/signal person will stand at the wing edge line location that will be opposite the cockpit when the aircraft has stopped. Upon receiving the signal or responsibility from the first marshaller/signal person, he will continue the directions until the aircraft has stopped moving.

4.2.9 Marshaller/Signal Person and guide person must be constantly alert to ensure a safe clearance while directing aircraft. Signals must always be clear and concise to the aircraft or tractor operator. Remember, the rapidity of hand/wand motion is a signal to increase (or decrease) the aircraft's rate of movement. Give particular attention to the rate-of-turn signal as described and illustrated in the marshalling signal instructions. A good marshaller will "lead" his signals - rather than make them hasty and abrupt - so the operator can follow them smoothly.

- For example: a gradual decrease in aircraft movement is desired prior to the signal for "stop". The marshaller should gradually slow his hand motion as the aircraft approaches the parking position. There is no room for poor judgment or a lackadaisical attitude in the use of hand signals.

4.2.10 If, at any time, the marshaller/signal person feels that his signals are not being followed, or are not understood, and the damage or injury may result, he will immediately give a 'STOP" signal to the cockpit. No further movement of the aircraft will be permitted until it is determined why the signal is not being followed.

4.2.11 Because of the inherent danger of running engines, personnel must avoid walking in danger areas (intake and exhaust) at all times.

4.2.12 The figures illustrated below are the basic hand signal to be used by company personnel. Ground personnel in directing or assisting aircraft operators in starting or stopping engines or maneuvering aircraft will use no hand signal other than those in the marshalling illustration.

- During hours of darkness, signaling flashlights (wands) will be used by the marshaller/signal person and guide persons. In an emergency, common flashlights may be used.

4.2.13 All signals will be given with the signal person facing the cockpit. This is necessary for the cockpit crew to readily interpret the signal given.

Note: **THE ONLY EXCEPTION WILL BE THE SIGNAL THAT IS USED TO INDICATE THE MARSHALLER HAS COMPLETED GUIDING THE AIRCRAFT. IN THIS CASE, THE MARSHALLER FACES THE DIRECTION IN WHICH THE AIRCRAFT IS POINTED.**

4.2.14 When giving the signal to turbine aircraft for departure from a terminal gate, and where space permits, the marshaller should signal the Captain to move straight ahead a few feet before turning. This will permit breakaway without the use of excessive power. When this signal is used under circumstances requiring "use of additional thrust", hand will be moved slowly.

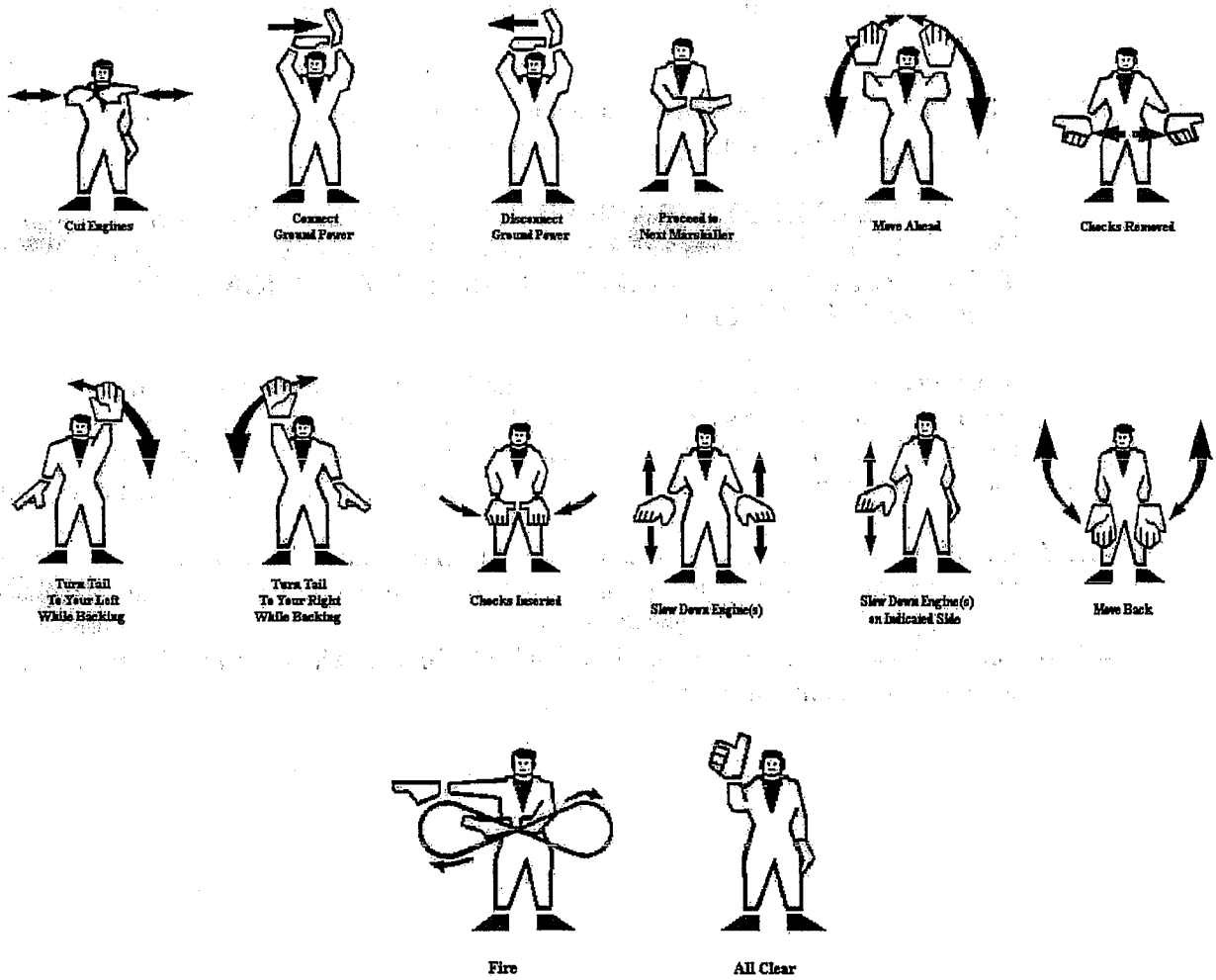
4.2.15 If a need to communicate with the ground crew should arise the cockpit will flash the taxi light three or more times. Providing that headset communication is not available.

4.2.16 Ground handling personnel must be completely familiar with the ramp signals involved in guiding and parking the aircraft.

5.0 Signals

The following illustrations identify the proper signals to be used by all personnel directing the ground movement of aircraft:

Figure KC702-3a



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1.0 Purpose

This subject provides information for the employee to understand an **Airports General Layout**. If you've never worked at an airport before, it can be confusing. Here are some important things to know about the airport itself. FAR 139 governs airport requirements for certificate holders.

2.0 Runways

Specially prepared surfaces are used to takeoff and landing aircraft. Runways have several features to assist pilots in identifying and landing on them.

2.1 Markings

2.1.1 Runway Numbers

The number is the runway's compass direction. (For example, a runway numbered 36 would be pointing north or 360 degrees). Some airports have more than one runway going in the same direction, so they add letters to the end of the number - R for right, C for center, and L for left. The other end of the runway is pointing in the opposite direction, so it gets a different number. The runway called 36 would be called 18 (for 180 degrees) if you were looking at it from the other end.

2.1.2 Touch Down Marking

Extra markings called touchdown markings, fixed distance markings and threshold markings tell the pilot where to touch down when landing, and how much runway is left in front of them. The runway is meant for aircraft use, so you should **never drive your vehicle on it, unless you are specifically authorized to do so.**

2.1.3 Other Markings

Runways usually have white stripes down the middle, and solid white lines on the edges. The runways are meant for aircraft use - **never drive your vehicle on it unless you are authorized to do so.**

2.1.4 Lighting

- The lights along the sides of the runway are white except for the last 1000', which are red. Near the ends of instrument runways, the lights may have two colors - white on one side and amber on the other. Lights across the end of the runway are called runway threshold lights and are green on one side and red on the other.

- The flashing light on top of a pole or building or tower that flashes a green and white light is called a "rotating beacon". This light helps the pilot in the air locate the airport at night.

- A bright red light on buildings or poles is an "obstruction light". It warns pilots that there is an object or structure underneath it.

- The lights on the edges of taxiways are blue. They actually outline all areas that are safe lanes to travel for an aircraft on the flightline. Ramp areas may have blue lights as well.

3.0 Signs

The signs near the runways and taxiways come in different sizes and colors. A runway holding position sign has white numbers on red background. It means that you are on the edge of the protected area around a runway and you should not be there without special permission.

3.1 Warning Signs

Warning signs tell vehicle operators not to drive beyond a certain point, and signs may be posted to remind pilots of nose reduction procedures.

3.2 Guidance Signs

Guidance signs are yellow with black letters (at some airports black with yellow letters). The signs are posted next to taxiways to help guide the pilot from one place to another on the ground. Signs such as CARGO or TERM (terminal) to identify that the parking area ahead is used for the direction to go to find that area.

3.3 Distance Remaining

A sign placed beside the runway tells the pilot how much runway length is left.

3.4 ILS Holding Position

A sign that indicates to the pilots and vehicle operators where to stop to avoid interrupting navigation signals used by landing aircraft.

4.0 Taxiways

Taxiways are areas used by the aircraft to travel between the parking place and the runway. Taxiways resemble runways, but aren't as wide and don't have the same markings.

4.1 Markings

4.1.1 Single Solid Yellow Line

The center of the taxiway has a solid yellow stripe. Commonly referred to as the Nose Gear Line.

4.1.2 Two Solid Yellow Lines

The sides may have one or two solid yellow stripes along the edge.

4.1.3 Two Solid Yellow Lines Followed by Two Broken Yellow Lines

HOLD LINE, this is the pilot's version of a STOP sign. It means you are about to go onto a runway.

4.1.4 Runway Position Sign

Along the side of the taxiway next to the hold line is the runway holding position sign. Remember, you should never go onto a runway, except in special circumstances. So if you see a hold line, STOP and don't go any closer to the runway. Instead of numbers, taxiways use letters (like, A,B, or C) for names. Like runways, taxiways are meant for aircraft use. Never drive your vehicle on a taxiway unless specifically authorized to do so.

4.1.5 Some Airports Have Special Landing Areas for Helicopters

An "H" in a triangle on the parking ramp or on the ground identifies the area as a helicopter-landing pad. Helicopters take off and land on that area. Be especially careful when you drive in this area and look up as well as all around to make sure that a helicopter is not about to land on the pad. Helicopters can blow a lot of dust and gravel around when they are close to the ground, so watch out. You must yield the right-of-way to a helicopter.

5.0 Parking Ramps

Aircraft parking ramps vary in size and unlike runways and taxiways, are used by vehicles. Your work may require you to drive on a parking ramp and around aircraft—be very careful in these areas.

5.1 Markings

5.1.1 Aircraft Parking Spaces

Sometimes called tie downs, may be marked on the parking ramp.

5.1.2 Vehicle Traffic Pattern/Roadways

White Lines - Traffic flow patterns may also be marked on the parking ramp (white lines forming lanes). Drive your vehicle within those marked areas.

5.1.3 Taxiways

Single Yellow Line - Commonly referred to as the nose gear line. Taxiways are areas used by the aircraft to travel between the parking place and the runway. Taxiways resemble runways, but aren't as wide and don't have the same markings. Taxiway markings are yellow. Instead of numbers, taxiways use letters (like A,B, or C) for names. Like runways, taxiways are meant for aircraft use. Never drive your vehicle on a taxiway unless you are authorized to do so.

5.1.4 Hold Short Active Line

Solid Yellow followed by Black & Yellow Dash - Ramps also have markings to separate the ramp area from the active taxiway, these markings consist of a solid yellow line followed by a black and yellow dashed line. This line should never be crossed without permission from the control tower.

5.1.5 **Wing Line**

- Dashed Yellow bordered by Two Solid Black Lines - This line indicates the clearance width required to taxi aircraft. This borders the taxiway line. Personnel are not permitted to walk pass the wing line, thus entering an active taxiway. Ground support equipment should never be staged between the wing lines of an active taxiway.

- Watch out for moving aircraft and always yield the right of way to them by maneuvering outside of the wing line. Every year there are many accidents involving vehicles and aircraft that result in property damage, personal injury, and fatalities. The rules for driving a vehicle on the flightline are there for your safety as well as the prevention of damage to equipment and aircraft.

5.1.6 **Ramp Edge Lines**

Two Solid Yellow Lines.

5.1.7 **Grounding Plugs**

Solid Black Two Foot Diameter Circle - Grounding plugs are used for aircraft fueling operations and should not be parked over or blocked.

5.18 **Fire Hydrants**

Green Rectangle Square with a Yellow Access Lid.

***

1.0 Purpose

1.1 This subject provides information on the safe practices and procedures for operating vehicles on flightlines and airports. The information provides a general overview of vehicle operating safety practices and then describes airport symbols and lighting, radio communications, light signals, traffic flow on the parking ramp and around short stopped aircraft, turns and lane changing, speed limits, parking in the vicinity of aircraft, and regulatory references.

1.2 General information that apply to all airports on which vehicular operations are conducted. Consult your airport manager for any additional or local specific flightline driving requirements.

1.3 Operating a vehicle on a flightline requires that a number of precautions be observed. The vehicle operator needs to be knowledgeable about the flightline driving environment, including the hazards present and techniques for driving and communicating with the tower controllers. This information will help the vehicle operator avoid the hazards present on the flightline.

2.0 Active Area Rules

Operating on the active areas of the flightline requires special permissions and training. If your job assignment requires you to operate in these areas, make sure you receive these permissions and specific training. You will be instructed on methods to obtain clearance from the tower, radio frequencies to use, and methods of travel. **NEVER enter active taxiway/runway areas, even momentarily, without permission!**

3.0 Ramp Area Rules

3.1 Ramp Speed Limits

- Maximum speed for normal operations within the traffic lanes is 15 MPH.
- Maximum speed when within 50 ft. of any aircraft (all vehicles) is 4 MPH.
- Maximum speed when pulling up to any surface of an aircraft is a walking pace.
- Maximum speed for emergency vehicles when responding to an incident is 25 MPH. (15 MPH if not a life-threatening event).
- All speeds shall be adjusted downward based on weather conditions, visibility, and congested areas. Common sense is the secret here folks.

3.2 Rights of Way

3.2.1 **Emergency Vehicles** have primary right-of-way in all areas of the ramp when responding to an emergency. All vehicles will pull to the right or stop to make way. Marshallers shall hold aircraft for the passage of emergency vehicles.

3.2.2 Emergency vehicles must get clearance to enter active areas of the flightline, they area subject to holding until committed aircraft traffic is clear.

3.2.3 **Moving Aircraft are next in priority for right-of-way.** Watch out for moving aircraft and yield the right-of-way to them.

3.2.4 **Never** pull into the path of moving aircraft.

3.2.5 Don't assume the pilot will see you and stop—he or she may not. Every year there are many accidents involving vehicles and aircraft that result in property damage, personal injury, and death. The rules for driving a vehicle on the airport are there for your safety as well as the prevention of damage to equipment and aircraft.

3.2.6 Maintain at least 25 feet from aircraft at all times, unless your specific duties require a closer approach.

3.2.7 Do not park in the aircraft cargo-loading zone or under any part of the aircraft unless required for aircraft servicing.

3.2.8 Do not park in the Flight Crew access zone. This area extends from the right side of the nose, outward for 30 feet and counter clockwise to the crew stair.

3.2.9 Parked vehicles shall have the ignition turned off, the transmission placed in "Park", the parking brake set, and the wheels chocked (when required by specific equipment procedure).

3.2.10 All equipment must clear the path of travel and 25' beyond the width of the wingspan for taxing aircraft.

3.2.11 Never travel between a marshalling vehicle and an aircraft. There are rare times that an aircraft may taxi without a marshal. This requires a strong vigilance of all persons operating on the ramp, as it is hard to tell at times when a plane is moving.

3.2.12 All vehicles and equipment should stop and turn off their driving lights when they are pointed at the front third of a taxing aircraft. The lights can cause glare that makes it harder for the pilots to see things around him. This is a safety courtesy and should be done unless it will create an immediate traffic hazard.

3.2.13 Be aware of jet blast behind a running engine. If you are near the aircraft, especially if you are behind it, you can be hit by a strong wind that can knock you onto the ground or burn you. A vehicle can be overturned by jet blast. A flashing light on the top and bottom of the aircraft fuselage may be an indication that an engine is about to start or that the engine is running. (Refer to Figure 1, KC705-1). Also reference subject KC 705-1, Jet Blast and Suction Precautions for additional information and precautions.

3.2.14 Never approach an aircraft until the following steps have been completed:

- The aircraft has come to a complete stop.
- The aircraft engines have been shut down.
- The aircraft wheels have been chocked.
- The red aircraft beacons are turned off.

4.0 General Right of Way Rules

Vehicles entering/exiting the traffic flow shall enter and exit at right angles to the traffic. Use your turn signals if your vehicle is equipped with them.

Vehicles entering the traffic flow shall yield to other traffic and enter so as not to hinder traffic already established in the flow.

Whenever operational requirements necessitate driving outside normal traffic lanes, yield the right-of-way to all vehicles traveling in the proper direction in their lane. Stay to the right of oncoming vehicles.

4.1 Turns

- **Right Turn** - A right turn to exit the traffic flow should be made from as close as possible to the right hand edge of the right-most lane.

- **Left Turn** - Vehicles turning left from areas where two or more lanes exist should approach the turn in the extreme, left-hand lane. Do not make angling or veering turns when crossing the oncoming traffic lane. Rather, every attempt should be made to turn "squarely" so as to cross the opposing lane at a right angle. A driver intending to turn left at any place along the traffic flow is required to yield the right-of-way to any vehicle approaching from the opposite direction.

4.2 Changing Lanes

- Vehicles shall be driven as nearly as possible within a single line of traffic; do not move from your traffic lane until you first determined that such movement can be accomplished safely. Traffic moving slower than the traffic flow must use the available right lane. A vehicle shall not cross the centerline except to turn left.

- Use turn signals if available for turns and lane changes.

4.3 Overtaking Vehicles

A driver may overtake and pass to the right of another vehicle that is making a left turn. At all times, the overtaking vehicle operator shall be responsible for ensuring a safe distance from the vehicle being overtaken. Such overtaking shall be completed without interfering with the vehicle being overtaken.

4.4 Standing

If you must stop your vehicle to wait or speak with another person, pull out of the traffic flow and ensure you are not impeding traffic. This is very important around aircraft and when close to the active taxi line. Make sure others can get around you without getting too close to the aircraft or crossing the active taxiway line. When parking near an aircraft, park in the designated area whenever possible.

4.5 **Parking**

When you park to leave your vehicle, turn off the engine and set the parking brake to ensure it will not move. It is also a good idea to turn your wheels away from nearby aircraft so that it will move away from the aircraft if hit or pushed by jet blast. It is permissible to leave your vehicle running in very cold weather if the vehicle is chocked.

4.6 **Weather Considerations**

Bad weather is a fact when working on the ramp. Common sense dictates that when the ramp conditions are deteriorated due to weather, everyone must slow down and be extra alert. Allow additional stopping distance, keep windows cleared, and drive with your lights on (daytime bad weather).

4.7 **Bad Weather Driving**

- Bad weather can be a hazard to drive in. Snow, rain, freezing rain, and fog can affect the operation of the airport as well as affecting your driving. Here are a few precautions to remember when driving in bad weather;
- Give yourself plenty of time to get where you are going.
- Drive more slowly than you normally would.
- Plan your route to avoid slippery areas, if possible.
- Test the brakes, headlights, and windshield wipers on the vehicle before you leave.
- Fueling operations are to cease if lighting is within three miles of the ramp.
- During cold weather conditions, vehicles are permitted to be left running and unattended providing; vehicle transmission is in neutral or park, the parking brake is engaged, and at least one is chocked fore and aft.

5.0 **Runway or Taxiway Driving**

5.1 Your work may require you to drive on or across a runway or taxiway. If so, you must do certain things, as follows:

- Get the tower controller's permission before going onto a runway or taxiway, or into the protected areas next to them. When you approach the runway or taxiway, **slow down**, look both ways, and then look **up** for aircraft that may be taxing, landing or taking off.
- Yield the right-of-way to any aircraft and give them plenty of room to pass by you. If the aircraft is on the same taxiway as you are and is headed in your direction, move out of its way.
- Look both ways, and then look again, if you are about to cross or go onto a runway. If an aircraft is about to land, stop and wait for it to land and go past you before going onto the runway. Obtain tower permission before crossing the runway. If you can't see both ends of the runway from where you are, go to a place where you can before crossing. Whenever possible, cross at the end of a runway.

- Ensure that your vehicle is equipped with a red or amber rotating beacon or strobe when you are driving on a taxiway or runway. The rotating beacon or strobe light shall be operating whenever on a taxiway, runway, or within 100 feet of the runway or taxiway.

6.0 Federal Regulations

6.1 Reference Federal Aviation Regulations—Part 139:329 Ground Vehicles.

6.2 Each certificate holder (i.e., KC or airport authority) shall:

- Limit access to movement areas and safety areas only to those ground vehicles necessary for airport operations.
- Provide adequate procedures for the safe and orderly access to, and operation on, the movement area and safety areas by ground vehicles.
- Ensure that each ground vehicle operating on the movement area is controlled by one of the two items listed below, when an air traffic control tower is in operation.
- Two-way radio communications between each vehicle and the tower, or have an escort vehicle with two-way radio communications with the tower to accompany any vehicle without a radio.

Note: Develop methods acceptable to the FAA for controlling vehicles by use of signs, signals, or guards when it is not operationally practical to have two-way radio communications with each vehicle or an escort vehicle.

- Provide adequate procedures to control ground vehicles on the airfield and parking ramp movement area through prearranged signs or signals ***when an air traffic control tower is not in operation.***
- Ensure that each employee, tenant, or contractor who operates a ground vehicle on any portion of the airport is familiar and complies with the airport's rules and procedures for the operation of ground vehicles.
- Make available for inspection, when requested by the FAA, any record of accidents or incidents on the movement areas involving air carrier aircraft and/or ground vehicles.

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1.0 Purpose

1.1 The presence and movement of aircraft and special purpose equipment are unique to the flightline environment. A person's life driving experience does not "set" their mind to recognize these additional hazards. Because of this, operating a vehicle on a flightline requires a greater awareness of your surroundings at all times.

1.2 This portion of the program will discuss the safety requirements for operating a vehicle or other equipment on the flightline.

2.0 Certification

Each individual must be trained and certified to operate a specific vehicle or piece of equipment on the ramp. Provision of training is the responsibility of each Department Head for each type of vehicle the individual will be operating. Training shall be in accordance with Kalitta Air guidelines. This training shall include an orientation of the vehicle, specific safety and operation requirements, hands-on-training, and a driving exam to ensure the individual is completely familiar and comfortable with the equipment. Once this is successfully accomplished, a sign off and flightline certification endorsement should be made in our employee training record for the vehicle type. This procedure should be repeated for each vehicle or piece of equipment you will operate.

3.0 Pre-operation Inspection

3.1 Before you use a vehicle or piece of equipment, check it to ensure that it is serviceable and that all safety features work properly. This serviceability and safety check procedure will vary depending on the type of vehicle you are operating. Some general things to check are:

- All lights and yellow beacon working and aimed properly.
- Horn works (if equipped).
- Tires inflated properly and in good shape.
- Fluid levels good.
- Mirrors properly adjusted.
- All safety devices in place and functioning properly.
- Gauges working properly.
- Windshields/windows clean and In good repair.
- FOD check (loose items, trash that could fall out of vehicle).
- Brakes working properly (driving and parking brakes).
- Chocks available.
- Any damage to the structure of the vehicle/equipment.
- Seats and seat belts are secure.

3.2 If any defects are found, inform your supervisor. He/she will determine if the vehicle will be taken out of service or can be used with the defect.

4.0 Seat Belts

Seat belt use **is mandatory** for all employees. If your vehicle/equipment has seat belts, wear them. **Period.**

5.0 Equipment Specific Rules

As mentioned earlier, several unique vehicles are used on the ramp. There are rules that apply specifically to each of these. The following is a brief overview. More detailed descriptions will be included in the specific vehicle training programs.

6.0 Passenger Vehicles/Vans

6.1 You are permitted to transport only the number of people for which you have seats (generally denoted by the number of seat belts). Do not use improvised seats or place persons in open cargo areas of the vehicle.

6.2 It is the driver's responsibility to ensure the proper conduct of the passengers. No horseplay or distractions to the driver shall be tolerated.

6.3 The vehicle will not be placed in motion until all doors are closed and all occupants are in place and seat belted.

7.0 Forklifts

- Watch overhead clearance.
- Watch for obstacles and pedestrians in your path.
- Watch rear end swing.
- Leave sufficient space between your equipment and other vehicles.
- Ensure a clear path of travel by looking around at all times.
- Always look before changing the direction of travel.
- Drive in reverse when the load blocks your view.
- Keep forks close to ground when traveling, do not drag forks on ground.
- Stay aware of your centers of gravity.
- Use a lift adequate for the load you are to move.

8.0 Belt Loaders

- Never allow persons to ride on a moving belt.
- Ensure the belts and platforms are clear before starting or moving them.
- Place chocks when operating next to an aircraft.
- Never exceed the rated capacity of the loader platform.
- Do not allow anyone between the front of the loader and the aircraft (or other equipment) until the belt loader is parked in position and chocked.

9.0 Manlifts

- Ensure all safety features and controls function properly.
- Inspect fall protection devices and wear/use them properly.
- Stay aware of your centers of gravity.
- Use lifts only on level terrain.
- Always use outriggers if provided.
- Watch overhead clearances and electrical hazards.

- Lower basket before moving the lift vehicle.
- Use lift adequate for loads expected.

10.0 K-Loaders

- Ensure all safety features and controls function properly.
- Watch overhead clearances.
- Never use a K-loader as a manlift or personnel work platform.
- Use care to not force huts against top of cargo opening of the aircraft.
- Do not allow platforms to "bounce". It may damage the hydraulics.

11.0 Tugs/Pushbacks

- Ensure all safety features and controls function properly.
- Ensure tow hitches are solidly attached and functioning properly before each use.
- Make sure vehicle is rated for the expected loads.
- Do not back up with dollies attached. Make sure you always leave an "out" in front of you.
- When towing A/C, make sure you are using the appropriate tow bar.
- Always use wing walkers when towing A/C.
- Never allow persons around towbars when under tension.
- Use extreme caution when disconnecting towbars. They can drop, lift, or move forward, back or sideways with great force when disconnected.

12.0 Vehicle Accident/Incident Procedures

- Refer to KC Safety Manual Chapter 6.

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1.0 Purpose

This section provides information concerning the hazards and protective measures needed to prevent injuries and damages due to jet blast or ingestion around jet engines. Jet engines can generate jet blast (wind) forces in excess of 60 miles per hour during normal ground operations as well as greatly increasing air temperatures in the jet blast stream. Air intake forces at the engine inlet are also a major hazard during jet engine operation. The greater the engine operating power level, the larger the hazard areas. *Reference Figure 1.*

2.0 Engine Air Intake (Suction)

2.1 There is no positive visual reference for the air intake forces. A general rule of thumb is to maintain a minimum of 25 feet from engine inlets for engines operating at idle. Normally, by the time the intake force is felt, it is too late for personnel to avoid the hazard. This force may be strong enough to pull objects (ear muffs, pens, etc.) into the engine or even pull the individual into the engine inlet.

2.2 **The only positive way to avoid this suction hazard** is to ensure personnel do not enter the hazardous areas in front of operating engines. If it is necessary to cross in front of an operating jet engine, do so only at or beyond a point parallel with the nose of the aircraft.

3.0 Precautions

3.1 When the inboard engines are operating, service personnel must not go into areas aft of the forward entry door when performing required duties. Specifically:

- **Close all cargo and service and entrance doors** prior to starting any engine. Once the engine starting procedure has begun, **do not attempt** to load additional cargo or persons on the aircraft.
- Do not attempt to service or perform maintenance on an inboard engine if the outboard engine on the same side is operating.
- Install/place landing gear pins, chocks only after all engines have stopped operating. Do not enter the hazardous intake areas with cargo handling equipment until the engines have stopped operating. On departures, landing gear pins and chocks must be removed prior to starting any engines.
- Prevent the ingestion of foreign objects into jet engines by keeping the immediate area of the aircraft free of debris and loose foreign objects. All objects such as nuts, bolts, paper, plastic, rocks, pebbles, cloth, and other loose items must be removed from the area prior to starting jet engines. The loading crew must complete a FOD (Foreign Object Damage) sweep after completion of aircraft loading and prior to starting the aircraft engines. The sweep will cover the area parallel to the nose of the aircraft, to the wing tips, and to the aft end of the aircraft. All loose debris is removed and placed in a suitable container. The ramp/loading supervisor ensures the FOD sweep is complete before the aircraft engines are started.

4.0 Jet Blast

4.1 When running at maximum power, jet engine exhaust gases, within 30-50 feet aft of the engine, can reach a temperature of 600 degrees Fahrenheit and wind velocity of 400 knots. Atmospheric conditions, different engine designs and power settings can cause a wide variation in the actual conditions encountered. **Extreme caution is required anytime when you are near jet blast areas.** Be aware of the following:

- Some representative jet blast velocities and temperatures above ambient (outside air) conditions are (depending on engine type):

Power Setting		@ 75 Feet	@ 100 Feet	@200 Feet
Idle Power	Velocity	30-65 kts	25-45 kts	5-25 kts
	Temperature	35-55°F	20-40°F	15-30°F
Max Power	Velocity	50-100kts	45-75 kts	10-40 kts
	Temperature	50-150°F	40-70°F	15-30°F

- No jet engine may be started or operated until all personnel and equipment have been cleared from an area 200 feet long and 50 feet wide behind each operating engine and an area with at least a 25 feet radius from the front and sides of each engine inlet. The ramp agent or maintenance personnel in charge will ensure that personnel do not enter the cleared areas during engine operation.

Note: **EXCEPTION:** The rear distances may be reduced when blast deflectors or buildings adequately protect personnel and equipment.

- If it is necessary to pass along the side of an operating jet engine, do so only at, or beyond, a point parallel with the wing tip, maintaining at least 25 feet distance from the engine inlet. Do not walk under the fuselage or wings when engines are operating.

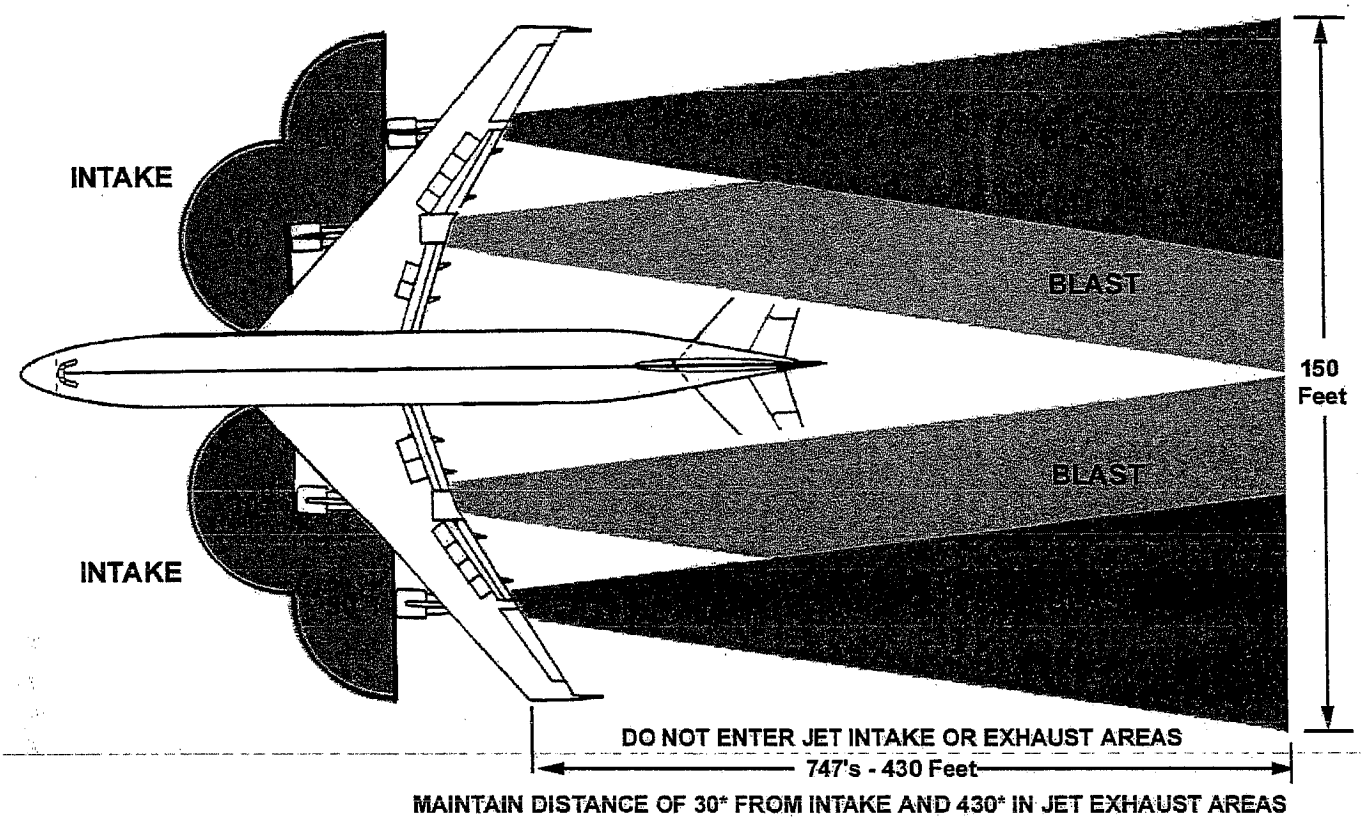
5.0 Noise Protection

Reference subject KC 802-6, Hearing Conservation Program for hearing protection requirements when in the vicinity of operating jet engines.

6.0 Wide Body Aircraft

747's jet blast zone is 430 feet and jet intake is 30 feet.

Figure 1 - Jet Intake and Exhaust Zones



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1.0 Purpose

Provide Guidance and establish a program to prevent Foreign Object Debris/Foreign Object Damage (FOD) to aircraft during loading, operation and maintenance. The objective of the FOD prevention program is to promote ground and flight safety and the preservation assets.

2.0 Reference

NAS 412, FAA advisory Circular 150/5380-5B

3.0 Responsibility

All personnel involved with the daily operations at KC are responsible for prevention and reporting of FOD. A strong undertaking by managers and supervisors to enforce the FOD Prevention Program will eliminate the potential for FOD.

4.0 FOD Program

The FOD Prevention Program is designed to allow personnel to learn and recognize potential FOD items and eliminate them. The key to a successful FOD Prevention program requires commitment, focus and consistency by everyone. Following the policies for proper tool management, hardware control and good housekeeping habits will significantly reduce the number of FOD mishaps.

5.0 FOD Prevention

Prevent the ingestion of foreign objects into jet engines and damage to aircraft/vehicle tires by keeping the immediate areas of aircraft parking, taxiways, and flightline driving lanes free of debris and loose foreign objects. Any object such as tools, bolts, nuts, paper, rivets, plastic, wood rocks, hats, clothing and any other loose items **must be removed** from the area prior to starting aircraft engines. A FOD walk of the aircraft parking area **must be** accomplished prior to aircraft arrival and departure. Supervisors can notify airfield management, time permitting, to dispatch sweepers when excess debris is evident on aircraft parking ramps.

6.0 FOD Reporting

Report all FOD incidents to your supervisor, who will then initiate a report and notify the appropriate personnel to document and investigate the incident.

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1.0 Purpose

These procedures are established to ensure the safety of the ground and flight crews and to prevent accidents/incidents during aircraft refueling operations.

2.0 General Procedures

The Pilot-In-Command or Flight Mechanic present is responsible for ensuring the following procedures are followed during refueling operations.

- A trained, qualified individual will be in the cockpit and in constant communication with the fuel truck operator during the refueling process.
- The aircraft fuel servicing vehicle will be positioned so that it can be moved promptly after all aircraft fuel hoses have been disconnected.
- Smoking, open flames, or lighted open flame devices are not permitted on aircraft ramps, aprons or any other location within 50 feet of any aircraft fuel servicing operation or fueling equipment.
- Electric tools, drills, buffer, or similar tools likely to produce sparks or arcs will not be used on or within 50 feet of the aircraft during fueling.
- The aircraft weather-mapping radar equipment will not be operated during fuel servicing operations.
- Fuel servicing operations must be suspended when lightning discharges are within the vicinity of the airport (five miles).
- The GPU and/or APU, if required, will be connected or started prior to refueling operations and not disconnected until fueling is completed. The GPU will be located as far away from the fuel truck and aircraft fueling points as is practicable.
- Photo flashbulbs will not be used in the vicinity of aircraft during fueling operations.
- Fuel services will ensure that the refueling unit is free from water and dirt contamination.
- When single-point refueling is used, ensure that the fuel being pumped does not exceed the fueling pressure for the aircraft.
- After fueling, aircrews or maintenance will ensure that the desired amount of fuel is in each tank; check this amount against the fueling reported by the servicing agent.
- After refueling, ensure that all caps and receptacles are properly closed, and the fuel is checked for any contaminants.
- All drain sumps will be drained if contaminants are suspected, after allowing at least thirty minutes for contaminants to settle.
- Under no circumstances shall the aircraft be fueled from fuel drums.

3.0 Ground and Bonding

3.1 The aircraft and fueling equipment must be grounded/bonded as follows:

3.1.1 **Three-point method.** If ground rods are available, use the "three-point" grounding method by:

- Attach a grounding cable from the fueling equipment to the ground rod on the ramp.
- Attach one end of a grounding cable to the grounding lug on the aircraft, and then attach the other end to the ground rod on the ramp.
- Attach a bonding cable to the grounding lug on the aircraft. Attach the other end of the cable to the fueling equipment or fuel pit bond/ground attach point.

3.1.2 Two-point method. If ground rods are not available on the ramp, then the two-point bonding method must be used.

- Attach the bonding cable to the grounding lug on the aircraft.
- Attach the other end of the cable to the fueling equipment or fuel pit bond/ground attach point.

4.0 Concurrent Operations/Loading and Refueling

Unless otherwise prohibited, concurrent cargo loading and refueling is permitted. The aircrew or loading supervisor must ensure that all the following procedures are followed:

- At least one aircraft exit door must be available for emergency evacuation and shall remain open and free of obstructions.
- Aircraft crew stairs must be in position at the exit door.
- Movement into or out of the aircraft during refueling operations should be kept at a minimum.
- A strict fire watch must be maintained in the aircraft during fueling. Any condition that may constitute a potential hazard to either the cargo or aircraft will be reported immediately to the refueling supervisor. The supervisor will cease fueling operations until remedial action has been taken.

5.0 Fueling With One or More Engines Operating

This alternate "engine-running" refueling procedure may be used **only** when it is known that an engine cannot be restarted because of inoperative ground or aircraft starting equipment and when not prohibited by the airport regulations. In addition to the general fueling procedures, these guidelines must be followed:

- The airfield fire department must be notified and have fire-fighting equipment "manned" and positioned at the aircraft to perform immediate fire-fighting actions if needed.

- All personnel involved in the operation will be thoroughly briefed to ensure that each phase of the operation is understood and that emergency procedures are in place to accomplish the operation safely.
- The aircraft must be positioned at least 50 feet away from the loading area of the terminal building and from other aircraft.
- If an engine refueling operation is required at a location where no KA aircraft maintenance employees are available, then the flight engineer may accomplish this function.
- No person other than those required for fuel servicing and the flight crew will be onboard the aircraft or remain within 50 feet of the aircraft.
- A pilot and flight engineer will be on board and in their duty positions to shut down the aircraft engines, electrical systems and activate the aircraft fire suppression system if an emergency situation arises.
- If at all possible, the aircraft must be headed into the wind.
- The running engine must be strictly monitored. Communications between ground and the flight deck personnel must be maintained at all times.
- Fueling equipment should not be attached to the side of the aircraft with the engines running.

6.0 Fuel Spills

6.1 If a fuel spill occurs during refueling operation, stop refueling immediately. This can be accomplished by releasing the deadman controls and activating the emergency fuel shutoff switch. **Deadman switches are never to be mechanically blocked in the "ON" position.**

6.2 The fueling supervisor must be notified at once. The operation must not be continued until it has been determined that it is safe to do so.

6.3 The airport fire department must be notified if a spill is over 10 feet (3m) in any dimension, over 50 square feet (5 m2) in area, continues to flow, or otherwise creates a hazard to personnel or property. Reference section, KC 904-1 for cleanup and incident reporting procedures.

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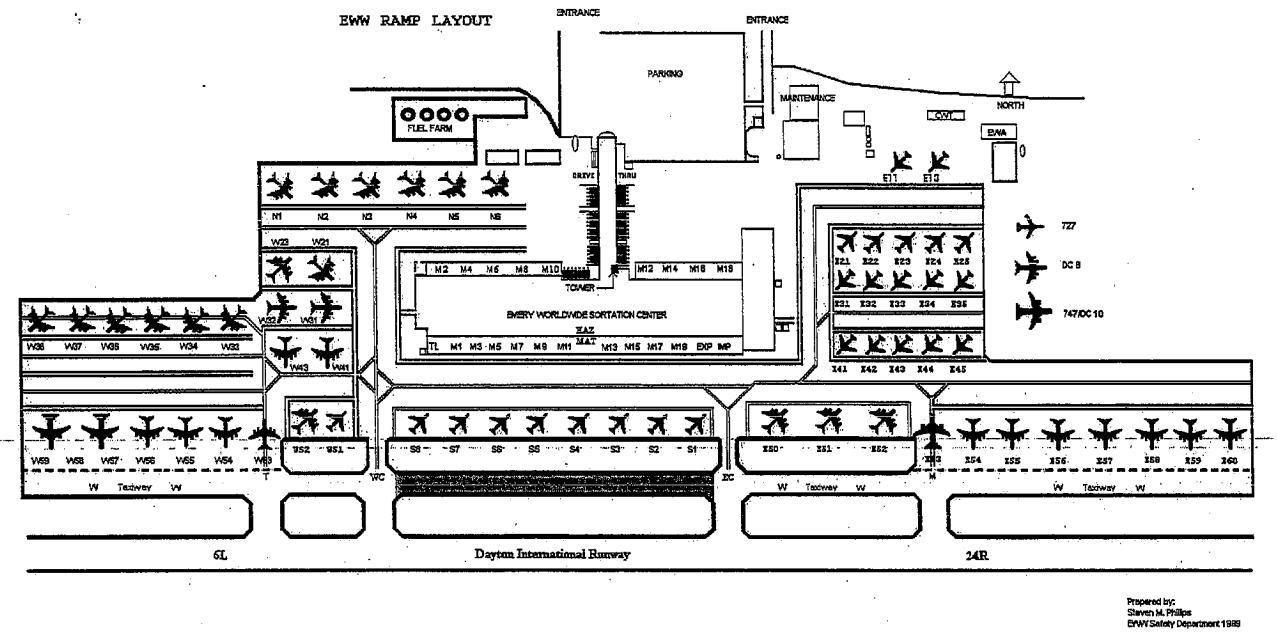
1.0 Overview

The ramp area at Emery's Dayton Hub handles a large number of aircraft for the purpose of loading cargo. Logically, you will also find a large amount of vehicular activity and many people working on the ramp as well. Most of this activity occurs during the nighttime hours, which only complicates the inherent hazards found on the ramp. The aircraft-parking ramp surrounds the Hub building. Aircraft parking occurs primarily on the East, West, and South areas with limited parking on the North ramp as indicated in the following illustration. Also shown are vehicle driving lanes and the restricted areas adjacent to the ramp.

Figure 1 - Dayton Hub Diagram



2.0 Traffic Flow

2.1 Traffic lanes on the Hub ramp are marked in white and divided into four lanes. Vehicles will travel in the marked travel lanes whenever possible. You should enter and exit these lanes at right angles. The lanes are designed to be wide enough so that slower vehicles can keep to the right of a lane and not interfere with the flow of other traffic.

2.2 When traveling outside the established lanes, try to follow to the right of a taxi line or other landmark. Keep in line with other vehicles. One of our greatest hazards is when multiple vehicles travel across the ramp side by side or at angles to the traffic lanes. This disrupts traffic flow and has been a factor in ramp mishaps and close calls.

2.3 Due to the amount of traffic and the layout of the ramp, you will encounter several congested areas. These typically are at intersections of travel lanes and in areas adjacent to ULD Staging and buildup areas. Other congested areas come and go, such as when an aircraft is parked in a ramp taxiway (short-stopping). You must slow down and use extra caution in these congested areas.

2.4 There are areas on the ramp that are restricted to normal traffic. Specifically areas such as the active taxiway and the runway. Never enter these areas unless you have proper authorization and adequate training to do so. Another area is the fuel farm; enter this area only when you need to fuel your vehicle.

ULD Staging and buildup areas are another location you should not enter unless you have specific duties there. These areas have a lot of pedestrian and forklift traffic and reduced visibility.

3.0 De-icing Areas

The East and West ramps contain areas for the de-icing of aircraft. Long, narrow grates running through a portion of the ramp pads denote these de-icing areas. These grates are connected to catch basins to catch the de-icing fluid. During the de-icing, a chemical and hot water mixture is sprayed on the control surfaces of the aircraft to melt ice and snow. You must use caution if you drive in or near these areas while de-icing operations are in progress. The over-spray can coat windshields and reduce visibility.

4.0 Equipment Staging Areas

4.1 Emery's ramp has several long and short-term equipment staging areas. You should ask your Supervisor which staging areas affect you and learn their location and layout.

4.2 **Forklifts.** Forklifts shall enter the traffic flow for the purpose of traveling from one area of the Hub to another area of the Hub. Cats and C20's shall not operate within the HUT STAGING AREA for the purpose of going from one area of the HUB to another.

5.0 Short-Stopped Aircraft

Traffic flow will proceed to the right of the aircraft based on direction of travel if possible (See Figure 2). If the flow is blocked on one side of the aircraft due to the parking arrangement, proceed to the open side allowing for the passage of on-coming vehicles to your left. Reduce speed and allow equipment working at the aircraft the right way.

Figure 2 - Normal Traffic Flow Around Short-Stopped Aircraft

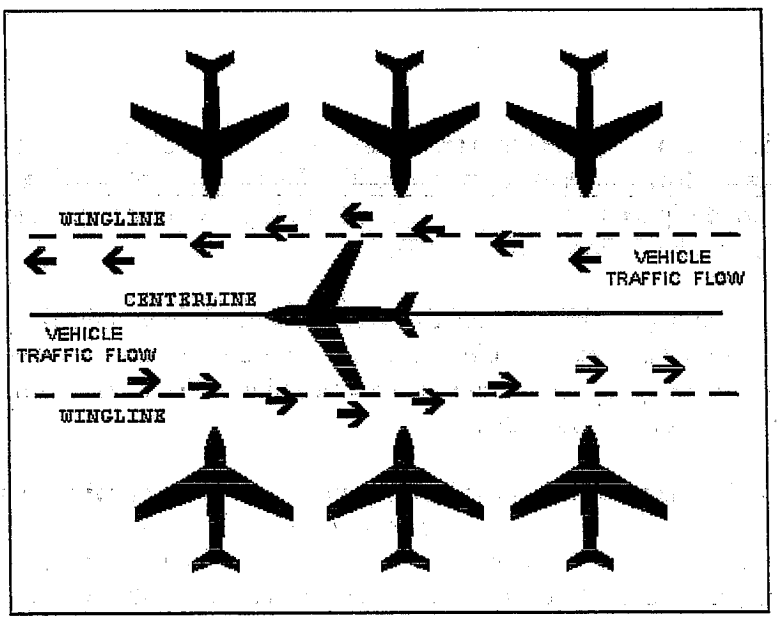


Figure 2 – Toledo Express Airport Diagram

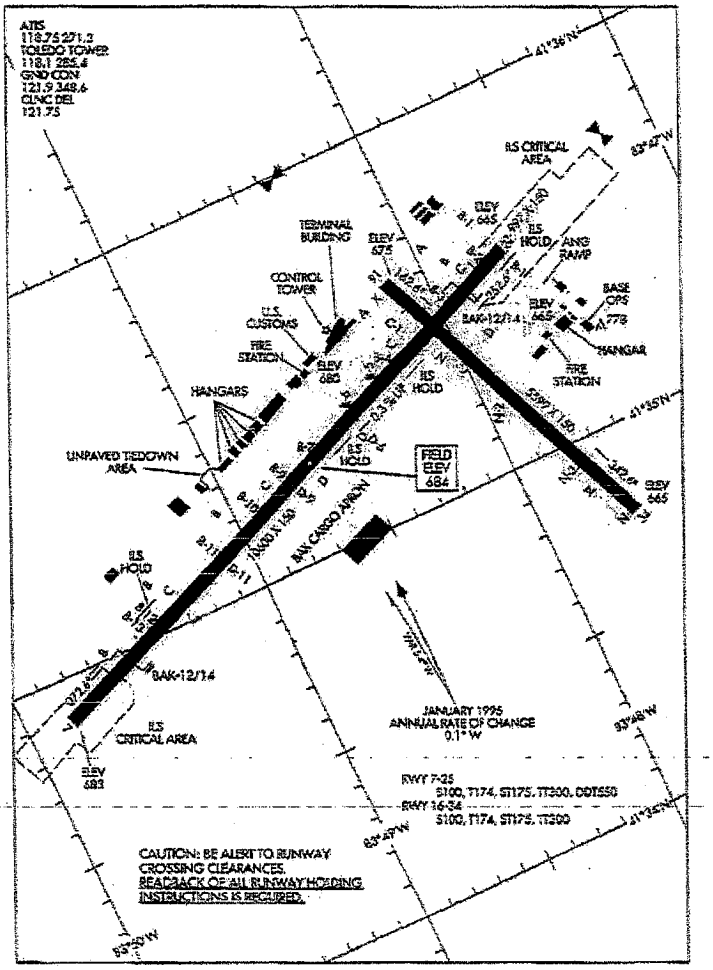
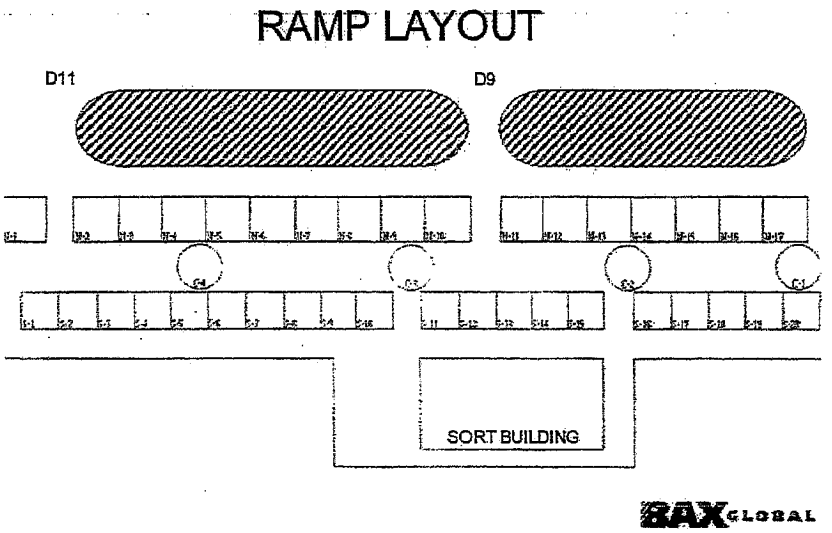


Figure 3 – Toledo Express Ramp Layout



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1.0 Purpose

Section 5(a) of the Occupational Safety and Health Act of 1970 states: "Each employer shall furnish to each of his employees a place of employment which is free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees." While many hazards are addressed by OSHA standards, many others are not. If a hazard is recognized by the particular industry or by the employer's accident/injury history, then OSHA expects steps be taken to minimize any associated hazards.

2.0 Reference

OSH Act, Section 5(a)

3.0 Employers

The OSH Act requires employers to:

- Conduct regular inspections of job-sites, materials, and equipment to identify and correct hazardous conditions.
- Instruct each employee in the recognition of hazards and avoidance of unsafe conditions and in the safe operating procedures applicable to his or her work environment to eliminate any hazards and prevent illnesses or injuries. Reference Chapter 4 for employee training requirements.
- Prohibit the use of any machinery, tool, material, or equipment, which is not in compliance with any applicable OSHA requirements.
- Inform employees about OSHA, provide required training and provide medical examinations when required by OSHA.

4.0 Employees

The OSH Act requires employees to:

- Read the OSHA poster maintained at the worksite and comply with applicable OSHA standards.
- Follow all employer safety and health rules and regulations. Wear or use prescribed protective equipment while engaged in work activities.
- Report hazardous conditions to their supervisor.
- Report any job-related injury or illness to the employer and promptly seek needed medical treatment.
- Cooperate with OSHA compliance officers when performing inspections.

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1.0 Purpose

Personal protective equipment (PPE) is worn or used to protect against existing or potential hazards encountered in the workplace that cannot be eliminated by engineering or administrative controls or by use of alternate, less hazardous methods. Employees should understand that his or her life may well depend upon the use of PPE. The wear/use of PPE is mandatory wherever employees are exposed to potentially hazardous conditions related to work practices, environmental conditions, chemical hazards, radiological hazards, or mechanical irritants. PPE can provide eye and face, hearing, head, hands, feet, respiratory, and/or whole body protection.

2.0 Reference

29 CFR 1910.132

3.0 General

Supervisors shall ensure employees wear/use PPE as required. PPE shall not be modified in a manner as to diminish its protective properties. Be aware of the following:

- PPE must be maintained in a sanitary and reliable condition, and must fit properly. Equipment shall be replaced if damaged or otherwise fails to provide required protection levels. Contaminated PPE that cannot be properly decontaminated will be disposed in an appropriate manner.

- Provide PPE to employees through requisitions or local purchase; discourage them from providing their own equipment due to liability considerations. Ensure that all PPE complies with applicable OSHA or ANSI (American National Standards Institute) design criteria. Make employees aware of any manufacturer's warning labels and equipment limitations.

- Employees may provide their own personal protective equipment when authorized by their supervisors. The equipment must meet applicable OSHA/ANSI standards and KA requirements. Documentation certifying that the equipment complies with the applicable design criteria shall be provided to the supervisor and placed in the employee's personnel file.

4.0 Hazards Assessment

Supervisors and/or the Safety Department will assess workplaces and work practices to determine if hazards are present, or likely to be present, which require the use of PPE.

- Evaluate hazards in terms of the hazard type, risk, frequency, and duration of exposure. PPE will be selected to provide a level of protection greater than the minimum required.

- The supervisor and/or Safety Department will accomplish a written hazard assessment approved by the Safety Department, and maintained on file at the Safety Department. Workplaces shall be periodically reassessed for new equipment; changed work practices or workplace hazards to identify need for additional personal protective equipment and to evaluate the effectiveness of previously selected PPE.

- KC employees are subject to normal workplace hazards associated with aircraft flight operations, aircraft maintenance/servicing activities, limited machine shop operations, storeroom/warehouse activities, freight/material handling operations, and limited exposures to hazardous chemicals.

5.0 Criteria

The workplaces will be evaluated for PPE requirements by identifying known or potential hazard sources in the following basic categories:

- Impact hazards to head, hands, and feet
- Penetration potential to any portion of the body, head, or extremities
- Compression (roll-over) hazards to feet/hands
- Chemical exposures
- Temperature extremes
- Harmful dust/particles
- Light (optical) radiation sources
- Sources of motion from machinery or employee movements
- Potential falling/dropped objects
- Electrical hazards
- Sources of sharp objects
- Hazardous noise exposure
- Jet blast effects from operating aircraft engines.
- Microwave/hazardous radio energies

6.0 Training

Each employee (including temporaries and casuals) required to use PPE will be trained for the following:

- When and what PPE is necessary for the various tasks
- How to properly put on, remove, adjust and wear the PPE and any equipment limitations
- Proper care, maintenance, and useful life of the PPE
- PPE disposal instructions.

Training effectiveness will be validated through competency evaluations of employees after training evolutions. PPE training will be documented in writing. The training record will include:

- The training topic
- A general outline of the material covered
- The names of employees receiving training
- The training date.
- Competency measurement tool (test/evaluation, etc.)

7.0 Changes

When changes in workplace or work practices require the use of additional PPE or when inadequacies in employee PPE performance or knowledge of deficiencies are identified, additional training will be accomplished. Employees must demonstrate an understanding of the training and required skills prior to performing work requiring the use of PPE.

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1.0 Purpose

This subject provides guidance on the eye and face personal protective equipment program, which provides protection against blowing dust/particles, flying particles, splash from fuels/chemicals/liquids, compressed air/gases, and radiant energy sources. Potential employee exposures routinely occur during flightline operations, aircraft servicing/maintenance, warehouses, machine/shops, and facility maintenance activities.

- Eye and face protection shall meet the requirements of ANSI Standard Z 87.1 – 1989, "American National Standard Practice for Occupational and Educational Eye and Face Protection. All safety glasses shall provide side impact protection.

- Typically exposed employees requiring the use of eye/face protection are aircraft mechanics, aircraft cleaners, facility maintenance personnel, aircraft fueling and servicing personnel, flight engineers, loadmasters, stores personnel and freight/cargo handlers.

- Contact lenses do not provide eye protection. Persons wearing non-ANSI approved corrective lenses (contacts/glasses) shall wear goggles or safety glasses over their corrective lenses when eye hazards are, or may be present.

- Protective eyewear will be washed and disinfected on a periodic basis following manufacturers' instructions or using soap and warm water.

2.0 Reference

29 CFR 1910.133

3.0 Eye Protection

Wear the appropriate safety glasses or goggles when:

- Working with compressed air or gases, chemicals, or performing welding, brazing, or cutting operations.

- Performing grinding, drilling, riveting, metal forming or sanding operations or working on machinery capable of producing flying objects/particles.

- During high wind conditions on flightline areas creating blowing dust and particles and when in the area of operating jet engines.

- When the possibility of liquid splashes or overhead drips are present.

4.0 Goggles

Wear indirect vent goggles; chemical-resistant goggles; or safety glasses and a faceshield, when servicing aircraft or other systems containing chemicals, fuels, or potentially hazardous liquids/chemicals. Crewmembers will wear eye protection when performing exterior aircraft inspections and trouble-shooting activities.

5.0 Welding

Wear welding goggles or welding face shields, with the appropriate protective shade number, when performing or assisting on welding, brazing, oxygen cutting, or other light/radiant energy operations. Typical shades required are: welding 4-11; oxygen cutting 3-5; brazing 3-4; torch brazing or solder 1.5-3. Reference Attachment 1 for detailed listing of protective shade numbers.

6.0 Tinted Glasses

Tinted safety glasses/goggles may be worn in bright outdoor areas but will be removed prior to entering indoor areas and/or nonbright outdoor work areas. Only wear clear safety glasses/goggles at night or in dimly lit areas.

7.0 Spares/Temporary Issue

Each location maintains several pairs of spare goggles/glasses for breakage or loss replacements and/or visitor use. Issue temporary employees safety glasses/goggles on a daily basis when eye protection is required for their work tasks. Clean temporarily issued glasses after each use.

8.0 Eyewash Stations

Place emergency eyewash stations in appropriate locations (machine and workshops, warehouses, maintenance trucks, etc.) to provide immediate emergency use in dealing with eye/face injuries and potential chemical splashes. Eyewash stations must be located within 100 feet of the activity worksite or not take more than 10 seconds to reach the eyewash station. (Reference ANSI Z358-1-1990 and 29CFR 1910.151).

9.0 Protection

Eye and face protection shall meet the following requirements:

- Provide adequate protection for the potential hazard and will be replaced if damaged, scratched, or otherwise impairs vision or protective properties.
- Fit snugly, be reasonably comfortable, not unduly interfere with movements, and kept in good repair.
- Be durable, capable of being disinfected, and easily cleanable.
- Marked distinctly to facilitate identification of the manufacturer and ANSI Z87.1.

Attachment 1: **Filter Lenses for Protection Against Radiant Energy**

Operations	Electric Size 1/32 in.	Arc Current	Minimum * Protective Shade
Shielded metal arc welding	Less than 3	Less 60	7
	3-5	60-160	8
	5-8	160-250	10
	More than 8	250-550	11
Gas metal arc welding and flux cored arc welding		Less than 60	7
		60-160	10
		160-250	10
		250-500	10
Gas Tungsten arc welding		Less than 50	8
		50-150	8
		150-500	10
Air Carbon Arc cutting	(Light)	Less than 500	10
	(Heavy)	500-1000	11
Plasma arc welding		Less than 20	6
		20-100	8
		100-400	10
		400-800	11
Plasma arc cutting	(Light)**	Less than 300	8
	(Medium)**	300-400	9
	(Heavy)**	400-800	10
Torch brazing			3
Torch soldering			2
Carbon arc welding			14

Operations	Plate thickness Inches	Plate thickness mm	Minimum * Protective Shade
Gas welding:			
Light	Under 1/8	Under 3.2	4
Medium	1/8 to1/2	3.2 to 12.7	5
Heavy	Over 1/2	Over 12.7	6
Oxygen cutting:			
Light	Under 1	Under 25	3
Medium	1 to 6	25 to 150	4
Heavy	Over 6	Over 150	5

* As a rule of thumb, start with a shade that is too dark to see the weld zone. Then go to a lighter shade, which gives sufficient view of the weld zone without going below the minimum. In oxyfuel gas welding or cutting where the torch produces a high yellow light, it is desirable to use a filter lens that absorbs the yellow or sodium line in the visible light of the (spectrum) operation.

** These values apply where the actual arc is clearly seen. Experience has shown that lighter filters may be used when the arc is hidden by the work piece.

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1.0 Purpose

Safety hard hats provide head protection from impact, penetration from falling objects, and limited electric shock. Protective helmets are required in work areas where there is a potential for injuries due to falling objects. Generally hard hats are designed to provide head protection from an eight-pound weight dropped from a height of five feet.

If a work place hazard assessment indicates the need for safety hats, contact the Safety Department for assistance in establishing the workplace wear guidance and specific PPE selections. Be aware of the following:

- The appropriate Class "A", "B", or "C" hard hats shall be specified for the potential hazards in the particular workplaces.
  - **Class A** – provides protection against impact hazards and limited voltage protection.
  - **Class B** – provides protection against impact and penetration hazards and from high voltage shock and burns.
  - **Class C** – provides impact protection and no voltage protection.
- Safety hats shall meet the requirements of ANSI Standard Z 89.1. -1986, "American National Standard for Personal Protection—Protective Headwear for Industrial Workers—Requirements".
- "Bump caps" may be worn, if desired, by individual employees. Bump caps are thin shelled plastic headgear worn to protect the head from bumps or lacerations but do not meet the protective helmet requirements.
- Work areas requiring the use of safety helmets will be marked by means of safety signs.

2.0 Reference

29 CFR 1910.135

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1.0 Purpose

This section outlines foot protection requirements when duties involve the potential for foot injuries. The wearing of safety shoes/boots to provide impact and compression protection is **mandatory** when performing duties with the potential for foot injuries due to falling and rolling objects, objects piercing the sole, or where employees routinely carry or handle objects weighing 15 pounds or more that can fall on their toes or when working with freight or other objects that could potentially roll over their feet.

PPE hazard assessments indicate exposed employees include:

- Aircraft mechanics
- Aircraft fueling and servicing personnel
- Loadmasters
- Storeroom/warehouse personnel
- Freight/cargo handlers

Temporary and casual employees shall also wear safety shoes when required for their work activities.

If working in areas with potentially slippery surfaces, consideration should be given to selecting safety shoes/boots with oil resistant, nonskid soles. Supervisors may specify the wear of safety boots (versus shoes) and nonskid soles if more appropriate to the prevailing worksite conditions.

2.0 Reference

29 CFR 1910.136

3.0 Design Criteria

Safety shoes/boots, with toes made of steel or a composite material, having a minimum impact protection value of 75 lbs. (I/75) and compression value of 75 lbs. (C/75) and meet the requirements of ANSI Standard Z 41.1. – 1991, "American National Standard for Personal Protection—Protective Footwear".

Take the time and effort to obtain a pair of properly fitted shoes/boots. Properly fitted shoes will eliminate many foot problems, reduces back and hip aches/strains, and provide greater wearer comfort.

4.0 Medical Excuse

Employees with medical problems precluding the wear of safety shoes/boots may be excused from this requirement if a medical doctor's evaluation/statement is provided to the supervisor. One copy of the medical excuse will be forwarded to the Safety Department and one copy will be maintained in the employee's personnel folder at the operating location. The Safety Department will provide a copy of the medical excuse to the Human Resources Department for inclusion in the employee's company medical file.

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1.0 Purpose

Hand protection is required for employees who are exposed to hazards that may cause lacerations, severe abrasions, punctures, chemical and thermal burns, skin absorption of toxic materials, and harmful temperature extremes.

- Glove selection must be based on the job to be performed, the glove's protective/performance characteristics, and degree of dexterity required, the duration, frequency, and degree of exposure to the hazard. The gloves shall be removable in a manner so as to prevent skin contamination.

- Exposed employees typically include aircraft mechanics, aircraft fueling and servicing personnel, loadmasters, storeroom/warehouse personnel, and freight/cargo handlers.

2.0 Reference

29 CFR 1910.138

3.0 Glove Types

For general laceration/abrasion protection and handling cargo; cargo handlers, storeroom/warehouse personnel, aircraft mechanics, and loadmasters shall use leather gloves. Thermal gloves will be used in cold weather conditions. For more specialized needs, be aware of the following:

- Adequate gloves shall be worn during welding, blazing, torching, and soldering operations.

- When working with fuels and other hydrocarbon products, the employee shall wear synthetic gloves designed for this particular application.

- When working with chemicals that have potential dermal or toxic properties, select a synthetic glove providing the level of protection recommended by the chemical manufacturer. Generally, we can use "chemical resistant" gloves when working with dry chemical powders.

- Be aware that chemical protective gloves and garments have "breakthrough" times associated with particular chemicals. Not all materials will protect equally for certain chemicals. Make sure to select the glove with the greatest breakthrough time for the chemical it will be exposed to. You must also ensure that the selected glove is durable enough for the task at hand.

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1.0 Purpose

Exposure to high noise levels can cause temporary and permanent hearing loss or impairment as well as physical and psychological stress. **Noise-induced hearing loss is permanent - there is no cure.** Prevention of, or protection against, noise is the only way to prevent hearing damage.

2.0 Reference

29 CFR 1910.95

3.0 Background

High noise level exposures occur during flightline operations, aircraft servicing and maintenance, freight handling operations and some machine shop and equipment operations. OSHA requires hearing protection for employees in the workplace that have an 8-hour time-weighted average (TWA) noise level at or above 85 decibels (dB) and **anytime** noise levels exceed 115 dB. The TWA is the sound level at which, if constant over an 8-hour exposure, could result in injury.

Note: Sustained flightline background noise levels may also require hearing protection under the time-weighted exposure computation method. For example, sustained noise levels of 75 bB (vacuum cleaner, alarm clock, lawnmower) over a four-hour period require the use of hearing protection. Most aircraft powered support equipment and freight handling equipment operate in the 75-105 dB range. A good rule of thumb is that hearing protection is required if you need to raise your voice to be heard three feet away.

4.0 PEL

The following chart list the maximum time limit a person can be exposed to particular decibel levels without adverse effects. If the levels will be exceeded for the time listed, they must wear suitable hearing protectors.

Hours Exposed	Max Decibels (dB)
24	80
16	82
8	85
4	88
2	91
1	94
30 min	97
15 min	100
0	140

5.0 Surveys

Due to the significant differences in our daily operations and the wide range of noise level exposures, determining site-specific wear requirements based on sustained peak noise levels at every KC worksite is impractical/impossible. Surveys of various flightlines and machine shop areas indicate that very few KC employees are exposed to TWA (time-weighted average) noise exposure levels above 85 dB. However, because of the seriousness of hearing loss and the ever-changing noise levels on flightline areas, the KC policy is to require hearing protection requirements **as if** our employees are working in environments with TWA noise levels greater than 85 dB.

Supervisors will identify any additional workplaces with high noise levels to the Safety Department. The Safety Department will perform site-specific noise level measurements to determine any additional hearing protection requirements.

6.0 Flightline Wear/Use

Noise level surveys indicate that flightline ground support and freight-handling equipment operate in the noise level ranges of 75 dB to 105 dB. Hearing protection (earplugs or earmuffs) shall be worn on flightline areas whenever ground support equipment, cargo handling equipment, aircraft APUs, or pneumatic equipment is being operated within 100 feet of the employees.

- Operating jet engines noise levels may exceed 120 dB, which requires a maximum level of hearing protection. **Both** earplugs and earmuffs will be worn whenever jet engines are operating within 100 feet of employees with direct exposure (not inside a vehicle or aircraft) to the engine noise. The number of personnel within the engine noise areas will be held to an **absolute minimum** consistent with the service requirements. Engine noise levels are the highest within 50 feet directly in the front and aft of the jet engines.

7.0 Other Areas

Hearing protection (earplugs or earmuffs) will be worn when in the vicinity of loud machine shop operations, during use of compressed air or other activities that have significant noise levels.

8.0 Design Criteria

Earplugs and earmuffs provide different levels of hearing protection due to the different design features. Select disposable earplugs with a minimum Noise Reduction Rating (NRR) of 28 and earmuffs with a minimum NRR of 21.

Disposable foam earplugs, when properly worn, provide the best level of hearing protection. Dispose of damaged or dirty earplugs.

Ensure that earmuffs are fitted properly since glasses, long sideburns, and long hair compromise their protective levels. Follow manufacturer's use/care instruction for the proper maintenance of the earmuffs.

Ensure that earmuffs are cleaned and sanitized on a periodic basis. Earmuffs shall be cleaned after each use if worn by several individuals. Replace ear pads if they are torn or otherwise have lost their protective properties. Replace earmuffs that have cracked or damaged earcups.

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1.0 Purpose

Kalitta Charters operates for various hub operations that may have a mandatory policy for high visibility, reflective striped safety vests/apparel for all personnel performing ground activities in the vicinity of aircraft or other operating equipment on the flightline. The safety vest/apparel wear policy applies to all KC aircraft operations from the period of sunset to sunrise and other periods of low light or reduced visibility. Safety vests/apparel will be worn as the outermost garment.

2.0 Reference

OSH Act Section 5(a)
ANSI/ISEA 107-1999

3.0 Applicable Personnel

The safety vests/apparel will be required for freight handlers, ground support personnel, loading supervisors, loadmasters, maintenance representatives, horse handlers and grooms, aircraft mechanics, aircraft fuelers, couriers, flight engineers (during walk-around inspections and other on-the ramp duties), aircrew members, jumpseaters, FAA representatives, and other personnel or visitors who are walking or working on the ramp in the vicinity of the aircraft. KC locations are encouraged to maintain spare safety vests for use by new employees and visitors who will be on the ramp performing their required activities.

4.0 Vest Design

It is highly recommended that safety vests/apparel meet ANSI/ISEA 107-1999 specifications for a class 2 garment. This generally consists of a vest or garment with 775 sq. in. of fluorescent yellow or orange background material and 201 sq. in. of retro-reflective striping with a width of not less than 1 3/8 inch.

5.0 Obtaining Vests

Vests are available from KC stockroom.

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1.0 Purpose

Provide general guidance on respiratory protective requirements. Engineering controls are the primary measures used to control employee exposure to harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors. Such engineering controls include, but are not limited to, enclosures or confinement, general and local ventilation and substitution of less toxic materials.

- KC employees are not routinely exposed to harmful agents requiring the use of respirators. Potential encounters with harmful agents may occur during spills of hazardous materials/dangerous goods. In such cases, employees are to immediately evacuate the area and notify the appropriate emergency service personnel.

- Occasionally, employees are exposed to annoyance/nuisance/irritating non-hazardous fumes, dusts, sprays, or vapors. Employees shall use the appropriate NIOSH/MSHA approved air purifying respirator mask for protection against the organic vapors, nuisance dust, and non-toxic fumes as appropriate. Use of such respiratory protection will necessitate the development of a respiratory protection program for that specific location.

2.0 Reference

29 CFR 1910.134

3.0 Respirator Program

If a hazard assessment or work procedure dictates the need for a respiratory protection program, **notify the Safety Department** for assistance prior to implementing the program. The Safety Department will assist in determining specific program requirements and respiratory equipment selections. The basics of a respiratory program are outlined below.

4.0 Confined Spaces

A respiratory protection program has been established for personnel conducting in-tank aircraft fuel tank repairs. Personnel performing in-tank aircraft fuel tank repairs shall use respiratory protection in accordance with the applicable aircraft Maintenance Procedures and the Entry Permit Confined Space program criteria (reference 29 CFR 1919.146). Respiratory protection shall be used until the confined space has been determined to be free of hazardous, or potentially hazardous atmospheres.

5.0 Program Elements

Key elements of a respiratory protection program includes a periodic program evaluation to determine program effectiveness, plus:

- Only NIOSH, National Institute of Occupational Safety and Health, approved respirators are worn which provide adequate respiratory protection against the particular hazard.

- Respirators will be used in compliance with the conditions of its certifications.

- Employees will receive instruction and training on the proper wear/use of respirators and their limitations; cleaning, inspection and storage instructions; and fit testing.

- Employees designated to wear respiratory protection shall annually complete a medical review, I.A.W. 29 CFR 1910.134(e), to ensure they are physically able to wear respiratory protection and perform the designated work tasks. A medical review will be completed prior to training and assignment to activities requiring the use of respirators. A copy of the medical review shall be placed in the employee medical record. The medical review will be at the company's expense.

6.0 Care/Use and Storage

Respirators will be cleaned and disinfected on a regular basis and after each use following manufacturer's instructions. The following actions are also recommended:

- Respirators and air supply hoses will be stored in sealed plastic bags and kept in a clean and sanitary location. Respirators will be stored to protect against dust, sunlight, heat, extreme cold, excessive moisture, or damaging chemicals. Respirators will be placed in plastic bags.

- Respirators are packed or stored so that the face-piece and exhalation valve rest in a normal position and functions will not be impaired by elastomer setting in an abnormal position.

- Respirators shall be inspected before and after each use for defective, worn or deteriorated parts. If a respirator is only for emergency use, ensure that it is inspected after each use and at least monthly. A qualified technician prior to use shall accomplish all needed repairs. Maintain a written record of inspections and repairs.

- Respirator modifications, changes, and/or additions to the breathing air supply system including, but not limited to, the compressor, piping, couplings, etc. must be approved and inspected to ensure that the work was done properly, and that the changes, modifications and/or additions did not adversely affect the quality of the breathing air, such as the mistaken connection of a breathing air line to an argon, or other gas line.

7.0 Supplied Air

Breathing air is supplied to respirators from air compressors or breathing air cylinders.

- **Cylinder supplied:** Compressed oxygen shall not be used as a supplied air source for airline respirators. Breathing air cylinders shall have at least Grade D air.

- **Compressor supplied:** Compressors supplying breathing air shall be equipped with the necessary safety and standby devices. Compressors will be situated to avoid entry of contaminated air into the systems and have suitable in-line air purifying sorbent beds and installed filters to assure Grade D or better breathing air quality. Reference 29 CFR 1910.134 for additional technical requirements.

8.0 Dangerous Atmospheres

When operations are required in areas of potential hazardous atmospheres, there shall be detailed written procedures covering the safe use of respirators for both normal operations and in emergencies. These procedures shall be located in the work areas where respirators are used and employees shall be trained on the specific procedures.

- Only trained emergency responders must handle situations requiring the use of respirators to handle a large hazardous material release/spill. No person shall enter an area requiring the use of a respirator unless that person has been trained and understands the use of the equipment and the correct procedures.

9.0 Training

When supplied air respirators are used, supervisors and employees shall be trained by competent persons in the selection, use, and maintenance of respirators prior to performing duties requiring the use of respirators. During the training , respirator users are provided an opportunity to handle the respirator, have it fitted properly, test its face piece-to-face seal, wear it in normal air for a long familiarity period, and wear it in a test atmosphere.

10.0 Fitting

Every respirator wearer shall receive fitting instructions, including demonstration and practice, in how the respirator should be worn, how to adjust it, and how to determine if it fits properly.

- Respirators must not be worn when conditions prevent a good face seal such as: growth of a beard, sideburns, a skullcap projecting under the face piece, temple pieces on glasses, or absence of dentures.

- Employees shall be periodically evaluated to ensure a proper fit and donning methods are used. The wearer shall check the faceplate fit each time the respirator is donned.

11.0 Glasses

There may be problems with respirator seals due to the temple pieces; therefore individuals wearing corrective lenses must obtain special eyeglass frames, contacts, or prescription face-pieces to wear full-face respirators.

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1.0 Purpose

Electrical Protection – Use approved electrical protective equipment to protect workers from live electrical current greater than 50 volts. The protective equipment may consist of rubber insulating gloves, rubber matting, and rubber insulating sleeves. If a hazard assessment indicates the need for electrical protective devices, notify the Safety Department for assistance in establishing the workplace wear guidance and specific PPE selections. (Reference 29 CFR 1910.137).

Conduct aircraft electrical system maintenance in accordance with the appropriate aircraft technical manuals and maintenance procedures.

2.0 Reference

Various 29 CFR 1910

3.0 Torso Protection

Many hazards may affect the torso: heat, splashes from hot metal and liquids, impacts, cuts, and acids. A variety of protective clothing is available: vests, jackets, aprons, coveralls, and full body suits. Supervisors shall evaluate the tasks to be performed and determine when torso protection is required. Select and use the appropriate equipment to provide the needed level of protection. Notify the Safety Department if such equipment is needed for assistance in establishing the workplace wear guidance and specific PPE selections. (Reference 29 CFR 1910.119 and .252).

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1.0 Purpose

1.1 Provide practices and procedures to protect employees from the hazards of entry into Permit-Required Confined Spaces. A confined space is defined as space large enough and so configured that an employee can bodily enter and perform assigned work, has limited or restricted means for entry or exit, and is not designed for continuous employee occupancy. Of particular concern are confined spaces that have, or may have, hazardous atmospheres or contain any other recognized serious safety or health hazard. These types of spaces require special precautions and procedures to ensure the safety of employees.

1.2 The information below provides definitions, safety practices and precautions, and rescue procedures. Under the OSHA standard, the employer is required to identify all workspaces that contain or have a potential to contain a hazardous atmosphere or any other recognized serious safety or health hazard.

1.3 The most common permit-required confined spaces encountered by KC personnel are aircraft fuel tanks. If additional confined spaces are identified, contact the Safety Department for assistance in establishing specific operating procedures. As a KC Maintenance Policy, fuel tank contractors will perform all tank entry work.

1.4 Reference the specific aircraft maintenance procedures for entering or performing activities in aircraft fuel tanks. The aircraft maintenance procedures provide detailed information for three levels of operations:

- Employees conducting Confined Space Entry Permit activities (normally done by contractors).
- Employees conducting Limited Fuel Tank Entry (boost pump changes, etc.).
- Contractor personnel conducting confined space entry activities.

2.0 Training

Personnel shall complete a Confined Space Entry Permit training program and be certified for the specific duties prior to conducting applicable operations. The training program will be accomplished annually prior to recertification for confined space entry duties. The training record shall contain the employee's name, the signatures of the trainees, training dates, and authorized duty positions (Supervisor, Entrant, and/or Attendant). Training certification shall be provided to the Safety Department upon completion of initial and annual training.

Personnel conducting entries shall complete confined spaces procedures training. Personnel selected for the supplied air respiratory-required duties shall additionally receive a respiratory medical evaluation and equipment-specific respiratory training. Reference subject EA802-8, Respiratory Protection.

3.0 Terms Defined

Terms used throughout the confined space text are explained:

- **Acceptable Entry Conditions**: Conditions existing in a permit space to allow entry those employees can safely enter into and work within the space.

- **Authorized Entrant**: An employee who is authorized by the employer to enter a permit space.

- **Combustible Gas Indicator (CGI):** An indicator that has been calibrated to accurately measure flammable vapors in the range of 20% to 5% of the lower explosive limit (LEL).

- **Air Ventilation:** Introducing fresh air into the fuel tank to reduce the flammable atmosphere to below a predetermined toxic threshold and below the predetermined Lower Flammable/Explosive Limits of the vapors and then maintaining the condition.

- **Attendant:** An individual stationed outside a permit space who monitors the authorized entrants and who performs assigned duties.

- **Confined Space:** A space that is large enough and so configured that an employee can bodily enter and perform assigned work, has limited or restricted means for entry or exit, and is not designed for continuous employee occupancy.

- **Emergency:** Any occurrence or event internal or external to permit space, including any failure of hazard control or monitoring equipment that could endanger entrants.

- **Entry:** The action by which a person passes through an opening into a permit-required confined space. Entry includes ensuring work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space.

- **Entry Permit:** The written or printed document that is provided by the employer to allow and control entry into a permit space.

- **Entry Supervisor:** The trained and qualified person responsible for determining if acceptable entry conditions exist for authorizing entry and overseeing entry operations, and for terminating entry. Can also serve as an attendant or as an authorized entrant if trained. The duties of the entry supervisor may be passed from one individual to another during the course of an entry operation if the second individual is trained and qualified to perform entry supervisory duties.

- **Fire Safe Condition:** When the atmosphere in a confined space is less than 15% of the lower explosive limit or lower flammability limit.

- **Hazardous Atmosphere:** An atmosphere that may expose employees to risk of death, incapacitation, impairment of ability to self-rescue (escape unaided from a permit space), injury, or acute illness from:

    - Flammable gas, vapor, or mist in excess of 10% of its lower flammable limit (LFL).
    - Atmospheric oxygen concentration below 19.5% or above 23.5% by volume.
    - Atmospheric concentration of any substance that could result in employee exposure in excess of its permissible exposure limit.
    - Atmospheric conditions (any), not mentioned above, that is immediately dangerous to life or health.

- **Health Safe Condition:** The atmosphere in the tank is less than lower explosive level and contains less than the applicable permissible exposure limit to hazardous substances that may be present in the confined space.

- **Hot Work Permit**: The employer's written authorization to perform operations capable of providing a source of ignition, such as riveting, welding, cutting, burning, or heating. Reference subject KC805-3, Hot Work Permit.

- **Inerting**: The displacement of the atmosphere in a permit space by a noncombustible gas, such as nitrogen, to such an extent that the resulting atmosphere is noncombustible.

- **Isolation**: Removing a permit space from service and completely protecting against the release of energy and material into the space by lockout or tagout of all sources of energy. Reference subject KC803-2, Lockout/Tagout.

- **Limited Entry**: The action by which only the arms and hands pass through an opening into a permit-required confined space. Limited entry includes ensuing work activities in that space and is considered to have occurred as soon as any part of the entrant's body breaks the plane of an opening into the space. Industry/aircraft standard work practices use this method for changing boost pumps, etc.

- **Lower Explosive Limit (LEL), or Lower Flammable Limit (LFL)**: The minimum concentration of a combustible gas or vapor in the air that will ignite if an ignition source is present.

- **Oxygen Enriched Atmosphere**: An atmosphere containing more than 23.5% oxygen by volume.

- **Permit-Required Confined Space (Permit Space)**: A confined space that contains or has a potential to contain a hazardous atmosphere or contains any other recognized serious safety or health hazard.

- **Prohibited Condition**: Any condition in a permit space that is not allowed to exist during the period when entry is authorized.

- **Retrieval System**: The equipment used for non-entry rescue of persons from permit spaces. Includes retrieval line, chest or full-body harness, wrislets, or a lifting device.

- **Stratified Atmosphere**: Gases that are lighter than air rise to the top of the confined space. Gases that are heavier than air sink to the bottom of the space. These gases form a layered, or stratified, atmosphere.

- **Testing:** Identifying and evaluating the hazards that may confront entrants of permit space. Includes specifying the tests that are to be performed in the permit space.

4.0 Atmospheres

4.1 The atmosphere in a confined space may be extremely hazardous because of the lack of natural air movement. This characteristic of confined spaces can result in oxygen-deficient atmospheres, flammable atmospheres, and/or toxic atmospheres.

4.2 **Oxygen-Deficient Atmospheres**: An oxygen-deficient atmosphere has less than 19.5% available oxygen. It should not be entered without an approved self-contained breathing apparatus (SCBA) or supplied-air respirator.

- The oxygen level in a confined space can decrease because of work being done, such as welding, cutting, or brazing. It can also be decreased by certain chemical reactions (rusting) or through bacterial action (fermentation).
- The oxygen level is also decreased if displaced by another gas, such as carbon dioxide or nitrogen. Significant or total displacement of oxygen by another gas, such as carbon dioxide, will result in unconsciousness, followed by death.

4.3 **Flammable Atmospheres**: The two things that make an atmosphere flammable are the oxygen in the air and a flammable gas, vapor, or dust in the proper mixture. Different gases have different flammable ranges.

- A source of ignition, such as a sparking or electrical too, if introduced into a space containing a flammable atmosphere, may cause an explosion.
- An oxygen-enriched atmosphere (above 23.5%) will cause flammable material, such as clothing or hair, to burn violently when ignited. Never use pure oxygen to ventilate a confined space. Ventilate only with normal ambient air.

4.4 **Toxic Atmosphere**: Most substances (liquids, vapors, gases, mists, solid materials, and dusts) should be considered hazardous in a confined space. Toxic substances can come from the following:

- The product stored in the space can be absorbed into the walls and give off toxic gases when removed. When cleaning out the residue of a stored product, toxic gases can be given off, such as decomposing material giving off deadly hydrogen sulfide gas during the removal of sludge from a tank.
- The work performed in a confined space, such as welding, cutting, brazing, painting, scraping, sanding, degreasing, etc. Toxic atmospheres are generated in the various chemical processes. For example, the vapors from cleaning solvents used for cleaning and degreasing can be very toxic in a confined space.
- Areas adjacent to the confined space. Toxicants produced by work in the area of confined spaces can enter and accumulate in areas adjacent to confined spaces.

5.0 Atmosphere Testing

Atmospheric testing is required for two distinct purposes: Evaluation of the sphere hazards of the permit space and verification that acceptable entry conditions exist for entry into that space.

- **Evaluation Testing**: The atmosphere should be analyzed to identify and evaluate any hazardous atmospheres that may exist or arise.

- **Verification Testing**: The atmosphere should be tested for residues of all contaminates identified by evaluation testing to determine that residual concentrations are within the range of acceptable entry conditions. Results shall be recorded on the entry permit.
- Testing Stratified Atmospheres: Test all areas of confined space to determine what gases are present. The atmosphere should be tested a distance of four feet (1.22m) in the direction of travel and to each side. If a sampling probe is used, the entrant's progress should be slowed to accommodate the sampling speed and detector response.

6.0 Ventilation

If testing reveals oxygen-deficiency, or the presence of toxic gases or vapors exceeding permissible entry concentration levels, the space must be ventilated and retested before workers enter.

- Measurements should be made for at least the minimum response time of the test instrument. If ventilation is not possible and entry is necessary, workers must have appropriate respiratory protection. Entry will **NOT** be made until the space is made fire-safe (<10% of the LEL).

CAUTION: Never trust your senses to determine if the air in a confined space is safe. You cannot see or smell many toxic gases and vapors, nor can you determine the level of oxygen present.

- Ventilation by a blower or fan utilizes a large hose, one end attached to a fan and the other placed into the confined space is used to blow out harmful gases and vapors. The air intake will be placed in an area that will draw in fresh air only. Ventilation should be continuous because the hazardous atmosphere can form again when the flow of air is stopped.

CAUTION: Under certain conditions where flammable gases or vapors have displaced the oxygen but are too rich to burn, forced air ventilation may dilute them until they are within the explosive range.

- If inert gases such as carbon dioxide, nitrogen, or argon are used in the confined space, the space shall be well ventilated and retested before an entry.

7.0 Duties of Authorized Personnel

7.1 **Entrants.** Entry supervisors shall ensure that all authorized entrants:

7.1.1. Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.

7.1.2. Properly use equipment as required.

7.1.3. Communicate with the attendant as necessary to enable the attendant to monitor entrant status and to enable the attendant to alert entrants of the need to evacuate the space as required.

7.1.4. Alert the attendant whenever:

- The entrant recognizes any warning sign or symptom of exposure to a dangerous situation, or;
- The entrant detects a prohibited condition; and

7.1.5. Exit from the permit space as quickly as possible whenever:

- An order to evacuate is given by the attendant or the entry supervisor;
- The entrant recognizes any warning sign or symptom of exposure to a dangerous situation or;
- An evacuation alarm is activated.

7.2 **Attendants**. Entry supervisors shall ensure that each attendant:

7.2.1. Knows the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.

7.2.2. Is aware of possible behavioral effects of hazard exposure in authorized entrants.

7.2.3. Continuously maintains an accurate count of authorized entrants in the permit space and ensures that a means is used that identifies who is in the permit space.

7.2.4. Remains outside the permit space during entry operations until relieved by another attendant.

7.2.5. Communicates with authorized entrants as necessary to monitor entrant status and to alert entrants of the need to evacuate the space if the need arises.

7.2.6. Monitors activities inside and outside the space to determine if it is safe for entrants to remain in the space and orders the authorized entrants to evacuate the permit space immediately under any of the following conditions:

- If the attendant detects a prohibited condition.
- If the attendant detects the behavioral effects of hazard exposure in an authorized entrant.
- If the attendant detects a situation outside the space that could endanger the authorized entrants.
- If the attendant cannot effectively and safely perform all the duties required of him.

7.2.7. Summons rescue and other emergency services as soon as he determines that authorized entrants may need assistance to escape from permit space hazards.

7.2.8. Takes the following actions when unauthorized persons approach or enter a permit space while entry is underway:

- Warn the unauthorized persons that they must stay away from the permit space.
- Advise the unauthorized persons that they must exit immediately if they have entered the permit space.
- Inform the authorized entrants and the entry supervisor if unauthorized persons have entered the permit space.

7.2.9. Performs non-entry rescues, as he is able.

7.2.10. Performs no duties that might interfere with the attendant's primary duty to monitor and protect the authorized entrants.

7.3 **Entry Supervisor**. Appropriate KC Management shall ensure that each entry supervisor:

7.3.1. Knows the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure.

7.3.2. Verifies, by checking that the appropriate entries have been made on the permit, that all tests specified by the permit have been conducted and that all procedures and equipment specified by the permit are in place before endorsing the permit and allowing entry to begin.

7.3.3. Terminates the entry and cancels the permit when:

- The entry operations covered by the entry permit have been completed; or
- A condition that is not allowed under the entry permit arises in or near the permit space.

7.3.4. Verifies that rescue services are available and that the means for summoning them are operable.

7.3.5. Removes unauthorized individuals who enter or who attempt to enter the permit space during entry operations.

7.3.6. Determines whenever responsibility for a permit space entry operation is transferred and at intervals dictated by the hazards and operations performed within the space that entry operations remain consistent with terms of the entry permit and that acceptable entry conditions are maintained.

8.0 **Guidelines for rescue and emergency services:**

8.1 In accordance with OSHA 29CFR 1910.146(k), an employer shall:

8.1.1. Develop and implement procedures for summoning rescue and emergency services, for rescuing entrants from permit spaces, for providing necessary emergency services to rescue employees, and for preventing unauthorized personnel from attempting a rescue.

8.1.2. Evaluate a prospective rescuer's ability to respond to a rescue summons in a timely manner, considering the hazard(s) identified.

Note: What will be considered timely will vary according to the specific hazards involved in each entry. For example, 29CFR 1910.134, Respiratory Protection, requires that employers provide a standby person or persons capable of immediate action to rescue employee(s) wearing respiratory protection while in work areas defined as IDLH atmospheres.

8.1.3. Evaluate a prospective rescue service's ability, in terms of proficiency with rescue-related tasks and equipment, to function appropriately while rescuing entrants from the particular permit space or types of permit spaces identified.

8.1.4. Select a rescue team or service from those evaluated that:

- Has the capability to reach the victim(s) within a time frame that is appropriate for the permit space hazard(s) identified.
- Is equipped for and proficient in performing the needed rescue services.

8.1.5. Inform each rescue team or service selected of the hazards they may confront when called on to perform rescue at the site.

8.1.6. Provided the rescue team or service selected with access to all permit spaces from which rescue may be necessary so that the rescue service can develop appropriate rescue plans and practice rescue operations.

8.1.7. If KC or Contractors designate employees to provide permit space rescue and emergency services, they shall take the following measures:

- Provide affected employees with the personal protective equipment (PPE) needed to conduct permit space rescues safely and train affected employees so they are proficient in the use of that PPE, at no cost to employees.
- Train affected employees to perform assigned rescue duties. The employer must ensure that such employees successfully complete the training required to establish proficiency as an authorized entrant.
- Train affected employees in basic first aid and cardiopulmonary resuscitation (CPR). The employer shall ensure that at least one member of the rescue team or service holding a current certification in first aid and CPR is available.
- Ensure that affected employees practice-making permit space rescues at least once every 12 months, by means of simulated rescue operations in which they remove dummies, manikins, or actual persons from the actual permit spaces or from representative permit spaces. Representative permit spaces shall, with respect to opening size, configuration, and accessibility, simulate the types of permit spaces from which rescue is to be performed.

8.1.8. To facilitate non-entry rescue, retrieval systems or methods shall be used whenever an authorized entrant enters a permit space, unless the retrieval equipment would increase the overall risk of entry or would not contribute to the rescue of the entrant. Retrieval systems shall meet the following requirements.

8.1.9. Each authorized entrant shall use a chest or full body harness, with a retrieval line attached at the center of the entrant's back near should level, above the entrant's head, or at another point which the employer can establish presents a profile small enough for the successful removal of the entrant.

Note: Wristlets may be used in lieu of the chest or full body harness if the employer can demonstrate that the use of a chest or full body harness is infeasible or creates a greater hazard and that the use of wristlets is the safest and most effective alternative.

8.1.10. The other end of the retrieval line shall be attached to a mechanical device or fixed point outside the permit space in such a manner that rescue can begin as soon as the rescuer becomes aware that rescue is necessary. A mechanical device shall be available to retrieve personnel from vertical type permit spaces more than 5 feet (1.52m) deep.

8.1.11. If an injured entrant is exposed to a substance for which a Material Safety Data Sheet (MSDS) or other similar written information is required to be kept at the worksite, that MSDS or written information shall be made available to the medical facility treating the exposed entrant.

9.0 Contracted Operations Procedures

When outside contractor services are used to perform Permit-Required Confined Space entries, the following procedures apply:

9.1 **Host Responsibilities**-Attachment 1 illustrates an KC Confined Space Entry Checklist. When KC (host employer) arranges to have employees of another employer (contractor) perform work that involves permit space entry, KC shall:

- Inform the contractor that the workplace contains permit spaces and that permit space entry is allowed only through compliance with a permit space program.
- Apprise the contractor of the elements, including the hazards identified and KC's experience with the space that can make the space a permit space.
- Apprise the contractor of any precautions or procedures that KC has implemented for the protection of employees in or near permit spaces where contractor personnel will be working. Provide the contractor a copy of KC's Confined Spaces Entry Permit Procedures.
- Coordinate entry preparation operations with the contractor, when both KC personnel and contractor personnel will be working in or near permit spaces, so those employees do not endanger the employees of the other employer.
- Adequately complete an KC Confined Spaces Entry Permit or Aircraft Fuel Tank Entry Permit, in addition to the contractor's entry permit. The KC representative will assist or ensure that the confined space entry preparation checklist is followed prior to, and during the entry process.
- Debrief the contractor at the conclusion of the entry operations regarding the permit space program followed and regarding any hazards confronted or created in the permit space during entry operations.
- Forward a copy of the Confined Space/Fuel Tank permit and checklist to the KC Safety Department in a timely manner.

9.2 **Contractors Responsibilities-**In addition to complying with the permit space requirements that apply to all employers, each contractor who will perform permit space entry operations shall:

- Obtain any available information regarding permit space hazards and entry operations from KC.
- Coordinate entry operations with the KC supervisor, when both KC personnel and contractor personnel will be working in or near permit spaces, so those employees do not endanger the employees of the other employer.
- Inform the KC supervisor of the permit space program that the contractor will follow and of any hazards confronted or created in permit spaces, either through a debriefing or during the entry preparations.
- Provide the KC supervisor with copies of the contractor and KC entry permits and a certification that the contractor's employees are trained and certified for their confined space entry activities.

The KC supervisor retains the closed out entry permit record on file for at least one year and forwards a copy to the KC Safety Department.

10.0 Entry Permit Requirements/Procedures

10.1 Permit System

10.1.1. Before entry is authorized, KC/Contractor shall document the completion of measures required by preparing an entry permit.

10.1.2. Before entry begins, the entry supervisor identified on the permit shall sign the entry permit to authorize entry.

10.1.3. The completed permit shall be made available at the time of entry to all authorized entrants or their authorized representatives, by posting it at the entry portal or by any other equally effective means, so that the entrants can confirm that pre-entry preparations have been completed.

10.1.4. The duration of the permit may not exceed the time required to complete the assigned task or job identified on the permit.

10.1.5. The entry supervisor shall terminate entry and cancel the entry permit when:

- The entry operations covered by the entry permit have been completed; or
- A condition that is not allowed under the entry permit arises in or near the permit space.

10.1.6. KC shall retain each canceled entry permit for at least 1 year to facilitate the review of the permit-required confined space program. Any problems encountered during an entry operation shall be noted on the pertinent permit so that appropriate revisions to the permit space program can be made.

10.2 **The Entry Permit** (Aircraft Fuel Tank Entry Permit (Reference Form MEO 120, IAQ-0044) or Confined Space Entry Permit as attached).

10.3 The entry permit that documents compliance and authorizes entry to a permit space shall identify:

- The permit space to be entered.
- The purpose of the entry.
- The date and the authorized duration of the entry permit.
- The authorized entrants within the permit space, by name or by such other means (for example; through the use of rosters or tracking systems) as will enable the attendant to determine quickly and accurately, for the duration or the permit, which authorized entrants, are inside the permit space.

Note: Inserting a reference on the entry permit as to the means used, such as a roster or tacking system may meet this requirement, to keep track of the authorized entrants within permit space.

- The personnel, by name, currently serving as attendants.
- The individual, by name, currently serving as entry supervisor, with a space for the signature or initials of the entry supervisor who originally authorized entry.
- The hazards of the permit space to be entered.
- The measures used to isolate the permit space and to eliminate or control permit space hazards before entry.

Note: Those measures can include the lockout or tagging of equipment and procedures for purging, inerting, ventilating, and flushing permit spaces.

- The acceptable entry conditions.
- The results of initial and periodic tests performed, accompanied by the names or initials of the testers and by an indication of when the tests were performed.

- The rescue and emergency services that can be summoned and the means (such as the equipment to use and the numbers to call) for summoning those services.
- The communication procedures used by authorized entrants and attendants to maintain contact during the entry.
- Equipment, such as personal protective equipment, testing equipment, communications equipment, alarm systems, and rescue equipment, to be provided for compliance with this section.
- Any other information whose inclusion is necessary (I.E., MSDS's), given the circumstances of the particular confined space, in order to ensure employee safety.
- Any additional permits, such as for hot work, which has been issued to authorize work in the permit space.

11.0 Permit Program Requirements

Under the permit space program required by paragraph (c)(4) of 29 CFR 1910.146, the employer shall:

11.1 Implement the measures necessary to prevent unauthorized entry.

11.2 Develop and implement the means, procedures, and practices necessary for safe permit space entry operations, including, but not limited to, the follow:

11.3 Specifying acceptable entry conditions.

11.4 Providing each authorized entrant or that employee's authorized representative with the opportunity to observe any monitoring or testing of permit spaces.

11.5 Isolating the permit space.

11.6 Purging, inerting, flushing, or ventilating the permit space as necessary to eliminate or control atmospheric hazards.

11.7 Verifying that conditions in the permit space are acceptable for entry throughout the duration of an authorized entry.

11.8 Provide the following equipment at no cost to employees, maintain that equipment properly, and ensure that employees use that equipment properly.

- Testing and monitoring equipment.
- Ventilating equipment needed to obtain acceptable entry conditions.
- Communications equipment necessary.
- Personal protective equipment insofar as feasible engineering and work practice controls do not adequately protect employees.
- Lighting equipment needed to enable employees to see well enough to work safely and to exit the space quickly in an emergency.
- Barriers and shields as required.
- Equipment, such as ladders, needed for safe ingress and egress by authorized entrants.
- Rescue and emergency equipment needed, except to the extent that the equipment is provided by rescue services.
- Any other equipment necessary for safe entry into and rescue from permit spaces.

11.9 Evaluate permit space conditions as follows when entry operations are conducted:

- Test conditions in the permit space to determine if acceptable entry conditions exist before entry is authorized to begin, except that, if isolation of the space is infeasible because the space is large or is part of a continuous system (such as a sewer), pre-entry testing shall be performed to the extent feasible before entry is authorized and, if entry is authorized, entry conditions shall be continuously monitored in the areas where authorized entrants are working.
- Test or monitor the permit space as necessary to determine if acceptable entry conditions are being maintained during the course of entry operations.
- When testing for atmospheric hazards, test first for oxygen, then for combustible gases and vapors, and then for toxic gases and vapors.
- Provide each authorized entrant or that employee's authorized representative an opportunity to observe the pre-entry and any subsequent testing or monitoring of permit spaces.
- Reevaluate the permit space in the presence of any authorized entrant or that employee's authorized representative who requests that the employer conduct such reevaluation because the entrant or representative has reason to believe that the evaluation of that space may not have been adequate.
- Immediately provide each authorized entrant or that employees' authorized representative with the results of any testing conducted.

11.10 Provide at least one attendant outside the permit space into which entry is authorized for the of entry operations.

Note: Attendants may be assigned to monitor more than one permit space provided the duties can be effectively performed for each permit space that is monitored. Likewise, attendants may be stationed at any location outside the permit space to be monitored as long as the duties can be effectively performed for each permit space that is monitored.

11.11 If multiple spaces are to be monitored by a single attendant, include in the permit program the means and procedures to enable the attendant to respond to an emergency affecting one or more of the permit spaces being monitored without distraction from the attendant's responsibilities to other entrants.

11.12 Designate the persons who are to have active roles (as, for example, authorized entrants, attendants, entry supervisors, or persons who test or monitor the atmosphere in a permit space) in entry operations, identify the duties of each such employee, and provide each such employee, and provide each employee with the training required.

11.13 Develop and implement procedures for summoning rescue and emergency services, for rescuing entrants from permit spaces, for providing necessary emergency services to rescued employees, and for preventing unauthorized personnel from attempting a rescue.

11.14 Develop and implement a system for the preparation, issuance, use, and cancellation of entry permits as required by this section.

11.15 Develop and implement procedures to coordinate entry operations when employees of more than one employer are working simultaneously as authorized entrants in a permit space, so that employees of one employer do not endanger the employees of any other employer.

11.16 Develop and implement procedures (such as closing off a permit space and canceling the permit) necessary for concluding the entry after entry operations have been completed.

11.17 Review entry operations when the employer has reason to believe that the measures taken under the permit space program may not protect employees and revise the program to correct deficiencies found to exist before subsequent entries are authorized.

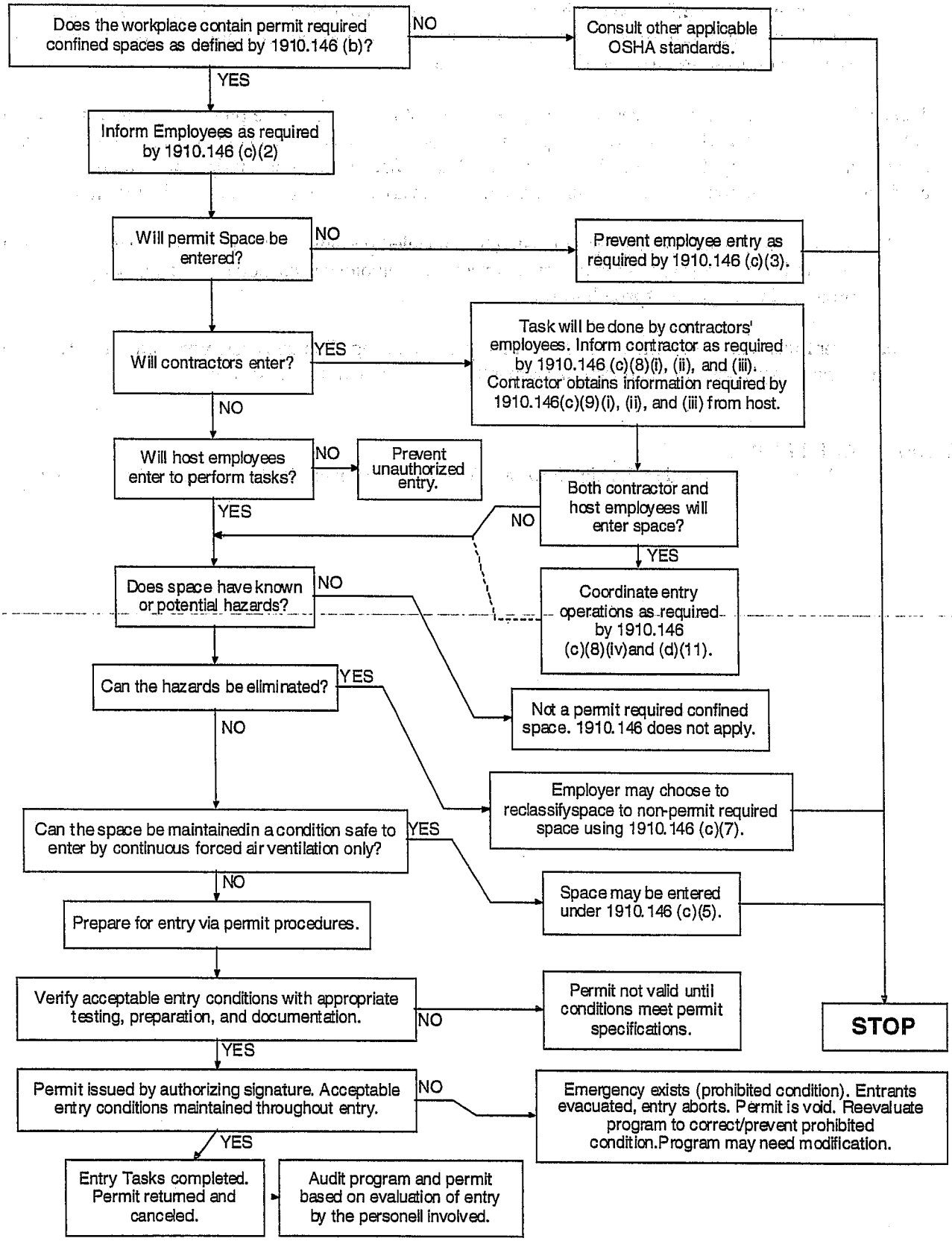
Note: Examples of circumstances requiring the review of the permit space program are: any unauthorized entry of a permit space, the detection of a permit space hazard not covered by the permit, the detection of a condition prohibited by the permit, the occurrence of an injury or near-miss during entry, a change in the use or configuration of a permit space, and employee complaints about the effectiveness of the program.

11.18 Review the permit space program, using the canceled permits retained within 1 year after each entry and revise the program as necessary, to ensure that employees participating in entry operations are protected from permit space hazards.

Note: Employers may perform a single annual review covering all entries performed during a 12-month period. If no entry is performed during a 12-month period, no review is necessary.

CONFINED SPACE FLOW CHART

The next pages provide a decision flow chart for use in determining confined spaces and required forms.


Does the workplace contain permit required confined spaces as defined by 1910.146 (b)?
NO
Consult other applicable OSHA standards.
YES
Inform Employees as required by 1910.146 (c)(2)
Will permit Space be entered?
NO
Prevent employee entry as required by 1910.146 (c)(3).
Will contractors enter?
YES
Task will be done by contractors' employees. Inform contractor as required by 1910.146 (c)(8)(i), (ii), and (iii). Contractor obtains information required by 1910.146(c)(9)(i), (ii), and (iii) from host.
NO
Will host employees enter to perform tasks?
NO
Prevent unauthorized entry.
Both contractor and host employees will enter space?
YES
NO
YES
Does space have known or potential hazards?
NO
Coordinate entry operations as required by 1910.146 (c)(8)(iv)and (d)(11).
Can the hazards be eliminated?
YES
Not a permit required confined space. 1910.146 does not apply.
NO
Employer may choose to reclassifyspace to non-permit required space using 1910.146 (c)(7).
Can the space be maintainedin a condition safe to enter by continuous forced air ventilation only?
YES
NO
Space may be entered under 1910.146 (c)(5).
Prepare for entry via permit procedures.
Verify acceptable entry conditions with appropriate testing, preparation, and documentation.
NO
Permit not valid until conditions meet permit specifications.
STOP
YES
Permit issued by authorizing signature. Acceptable entry conditions maintained throughout entry.
NO
Emergency exists (prohibited condition). Entrants evacuated, entry aborts. Permit is void. Reevaluate program to correct/prevent prohibited condition.Program may need modification.
YES
Entry Tasks completed. Permit returned and canceled.
Audit program and permit based on evaluation of entry by the personell involved.

Kalitta Charters Fuel Tank Entry Checklist

ITEM	YES	NO
Has a copy of KC Fuel Tank Entry Procedures been provided and reviewed?	____	____
Has an KC Fuel Tank Entry Permit been used for the entry process?	____	____
Has the work area been adequately secured and prepared for the entry activities?	____	____
Is the appropriate and required protective and safety equipment available for use?	____	____
Are the correct, and properly calibrated, atmospheric testing instruments being used?	____	____
Has the confined space been made safe for entry?	____	____
Have entrants and attendant been properly informed of the conditions and hazards of the confined space?	____	____
Has the attendant been reminded of his responsibilities, and not given additional tasks?	____	____
Has coordination with rescue services been accomplished?	____	____
Have work procedures been coordinated with KC Maintenance Control and Safety?	____	____
Are copies of any appropriate Material Safety Data Sheets attached to the entry permit?	____	____

Aircraft # _____ Date: _____ Permit Start Time: _____ Permit End Time: _____

Entry Supervisor Name:

Print: _____ Sign: _____ Phone: _____

KC Approving Manager Name:

Print: _____ Sign: _____ Phone: _____

NOTICE: ***This form is to be completed for all confined space entries that occur by, or on behalf of, Kalitta Charters.***

Original - Keep in Station files. Copy to: KC Safety Department

Kalitta Charters Confined Space Entry Permit

Confined Space/Hazardous Area Description: _____

Physical Location *(Address, Room, A/C Number, etc.)*: _____

Purpose of Entry: _____

Permit Hours *(Not to exceed 8 hours)*: _____ Entry Start Time: _____ Entry Stop Time: _____

(PRINT, USE FULL NAME & Employee Number)

Entry Supervisor(s): _____

Authorized Attendant(s): _____

Authorized Entrant(s): _____

Rescue Service *(Name, Phone)*: _____ Est. Response Time: _____

Minimum Requirements to be Completed/Reviewed before Entry

Requirements	Date	Time	Requirements	Date	Time
Lockout/Tagout/De-energize/Tryout			Full Body harness w/ "D" Ring		
Line(s) Broken/Capped/Blanked			Emerg. Escape & Retrieval Equip		
Purge/Flush and Vent			Lifelines		
Ventilation			Fire Extinguisher(s)		
Secure Area (Signs & Tape)			Explosion Proof Lighting		
Breathing Apparatus			Protective Clothing		
Respirator(s). Air Purifying			Hot Work Permit		
Authorized Attendant(s)			MSDS(s)		

Atmospheric Monitoring *(Use continuous monitoring; Record results at least every 2 hours)*

Test	TWA[1]	STEL[2]	Reading/Time	Reading/Time	Reading/Time	Reading/Time
Percent of Oxygen (19.5 - 23.5%)	---	---	/	/	/	/
Combustible Gases* (< 10% LFL)	---	---	/	/	/	/
Carbon Monoxide	35 ppm	---	/	/	/	/
Aromatic Hydrocarbons	1 ppm	5 ppm	/	/	/	/
			/	/	/	/

1= 8 Hour Time Weighted Average- Employee can work up to 8 hours in a day. 2= Short Term Exposure Limit- Employee can work max of 15 minutes in a day.

*= Calibrated or adjusted to Jet A Fuel Lower Flammable Limit for aircraft fuel tank entries.

Person(s) performing monitoring: _____

Brand(s) of instrument(s) used: _____ Model/Serial #'s: _____

Entry to the above listed confined space is authorized in accordance with the above listed information and determination of the safety of the space:

Signed: _____ Authorized Entry Supervisor. Employee #: _____ Date: _____

Print: _____ Department: _____ Phone: _____

Original- Keep in Station Files *Copy - KC Safety Department*

Kalitta Charters Aircraft Fuel Tank Entry Permit

Confined Space/Hazardous Area Description: _____ Aircraft # _____ Log Page #_____

Physical Location *(Ramp Parking Spot Number, Hanger A, etc.)*: _____

Purpose of Entry: _____

Permit Hours *(Not to exceed 8 hours)*: _____ Entry Start Time: _____ Entry Stop Time: _____

(PRINT, USE FULL NAME & Employee Number)

Entry Supervisor(s): _____ Company_____

Authorized Attendant(s):

_____

Authorized Entrant(s):

_____

Rescue Service *(Name, Phone)*: _____ Est. Response Time: _____

Minimum Requirements to be Completed/Reviewed before Entry

Requirements	Date	Time	Requirements	Date	Time
Mx Control/Safety Notified of Entry			Rescue Service/Equipment Available		
Area Secured (Signs, Tape)			Communications Equipment		
Lockout/Tagout/De-energize/Tryout			Hot/Cold Weather Supplies/Equipment		
Purge, Flush, Ventilate			Fire Extinguishers		
Monitoring Instruments			Explosion Proof Lighting		
Protective Clothing & Gloves			Proper Grounding/Bonding, Static Prev.		
Respirator(s), Air Purifying			Hot Work Permit		
Respirator(s), Supplied-air (for neg. test)			MSDS(s)		

Atmospheric Monitoring *(Use continuous monitoring; Record results at least every 15 minutes)*

Test	TWA[1]	STEL[2]	Reading/Time	Reading/Time	Reading/Time	Reading/Time
Percent of Oxygen (19.5 - 23.5%)	---	---	/	/	/	/
Combustible Gases* (< 10% LFL)	---	---	/	/	/	/
Carbon Monoxide	35 ppm	---	/	/	/	/
Petroleum Hydrocarbon Vapor	14 ppm	---	/	/	/	/
			/	/	/	/

1= 8 Hour Time Weighted Average- Employee can work up to 8 hours in a day. 2= Short Term Exposure Limit- Employee can work max of 15 minutes in a day. *= Calibrated or adjusted to Jet A Fuel Lower Flammable Limit for aircraft fuel tank entries.

Person(s) performing monitoring: _____

Brand(s) of instrument(s) used: _____ Model/Serial #'s: _____

Entry to the above listed confined space is authorized in accordance with the above listed information and determination of the safety of the space:

Signed: _____, Authorized Entry Supervisor. Employee #: _____ Date: _____

Print: _____ Department: _____ Phone: _____

Original- Keep in Station Files *Copy- KC Safety Department*

INTENTIONALLY

LEFT

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1.0 Purpose

1.1 This section provides safety work practices used to prevent electric shock or other injuries resulting from electrical contact or from unplanned actuation of other stored energy sources such as hydraulic or pneumatic systems. This procedure establishes the minimum requirements for the lockout and/or tagout program by use of energy isolating devices. These procedures ensure the equipment is deenergized, and remains deenergized, during servicing or maintenance activities. Failure to recognize and control hazardous energy sources can cause serious injuries.

- **Lockout/tagout procedures for aircraft maintenance and servicing activities are conducted in accordance with Kalitta Charters Maintenance Manuals.**
- Only "qualified" employees as defined below will perform work on equipment subject to lockout/tagout requirements.
- All employees must recognize hazardous energy sources that require lockout/tagout so they can protect themselves. The types of sources include electrical, hydraulic, chemical, spring tension, components under compression, and thermal energy.

1.2 A general rule to determine when lockout/tagout is needed is: Whenever you need to bypass machinery guarding/safety devices; the equipment has moving parts not directly controlled by motors; the equipment has stored electrical energy (diodes/capacitors), or the activity places a body part in the path of the machines' operation; then lockout/tagout is required.

2.0 Reference

29 CFR 1910.147

3.0 Definitions

Authorized employee- is an employee that has been properly trained in implementing lockout/tagout procedures. He is authorized by the employer to work on devices he has locked/tagged out.

Affected employee- is an employee that may be performing tasks in the vicinity of a locked out or tagged out device. These employees must be aware of the purpose of a lockout/tagout program to prevent them from performing actions that may injure an authorized employee that is working with de-energized equipment.

4.0 Survey

Each location will conduct a survey to locate and identify all equipment that must be locked or tagged out. More than one energy source (electrical, mechanical, or pneumatic) may be involved in each piece of equipment. Ensure that the lockout/tagout procedures outline how to dissipate stored energy or otherwise prevent inadvertent movement by blocking, pinning, etc.

5.0 Applicability

Employees who use lockout/tagout procedures must be trained and authorized by supervision. The authorization requires training on the special lockout/tagout instructions concerning the scope, purpose, authorization, rules, and techniques for:

- Procedures/steps for shutting down, isolating, blocking, and securing the equipment.
- Methods to verify that hazardous energy sources have been eliminated or rendered harmless.
- Steps for placement, removal and transfer of lockout/tagout devices and responsibility.

- Procedures to notify employees that machinery/equipment is being locked/tagged out, and transfer procedures for operations extending beyond a single shift.

6.0 Training

6.1 The following employees may reasonably be expected to face risks of injury due to electric shock or other stored energy hazards:

- Aircraft mechanics; mechanics and repairers, painters and welders.
- Electrical and electronic engineers, assemblers and technicians; electricians; and industrial machine operators.

6.2 Each new or transferred affected employee and other employees whose work operations may be in the area where lockouts/tagouts are used shall be instructed annually in the purpose and use of the lockout/tagout procedure.

7.0 Training Program

7.1 Only "qualified" persons are permitted to work on electrical circuits or equipment that has not been deenergized (locked/tagged out). Qualified persons are capable of working safely on energized circuits and are familiar with the proper use of special precautionary techniques, personal protective equipment, insulating and shielding materials, and insulated tools. "Qualified" persons permitted to work on or near exposed energized parts receive the following minimum annual classroom or on-the-job training as required for the risk level to the employee:

- Skills and techniques to distinguish exposed live parts from other parts of electric equipment and determine the nominal voltage of exposed live parts.
- Clearance distances required for working on or near exposed energized parts and corresponding voltages.
- Proper use of precautionary techniques, personal protective equipment, insulating and shielding materials, and insulated tools.

7.2 A record will be kept of employees training and verification that they understood the training and applicable procedures.

8.0 Contractors

Contractors, when required to use lockout/tagout procedures, will ensure their employees are trained on the lockout/tagout procedures prior to performing work at a site.

9.0 Locks/Tags

The devices, locks and/or tags, are used to ensure that machines or equipment are isolated from all potentially hazardous energy sources and cannot be inadvertently actuated by other employees. The energy sources will be locked out or tagged out before performing any servicing or maintenance activities where the unexpected, start-up or release of stored energy could cause injury.

- Equipment manufactures may provide lockout/tagout information in the operators' manual or servicing information. If so, follow this guidance for lockout/tagout requirements.

10.0 Practices

Each piece of applicable equipment will have lockout/tagout procedures. The specific safety-related work practices depends on the nature and extent of the associated electrical hazard and will include procedures to:

- Deenergize live parts before the employee works on or near them, unless the deenergizing creates an additional or increased hazard; or deenergizing is not feasible due to equipment design or operational limitations; or where live parts operate at less than 50 volts to ground.

- When Employees work or within 10 feet of exposed deenergized parts, the following work practices will apply:

  - Treat all conductors and electrical equipment as being energized even if they have been deenergized and have not been properly locked or tagged out. Deenergized fixed electric equipment or circuits (fastened in place or connected by permanent wiring methods) shall be locked out or tagged out or both.
  - Disconnect circuits and equipment to be worked on from all electric energy sources.
  - Release stored electrical energy, which might endanger personnel such as discharging capacitors and short-circuiting and grounding high capacitance elements, if the stored electric energy might endanger personnel. If the capacitors or associated equipment are handled, they are treated as being energized.
  - Block or relieve stored nonelectrical energy (hydraulic, pneumatic, etc.). That could reenergize, so that the device cannot accidentally energize the equipment.

11.0 Lockout/Tagout

11.1 A lock and tag will be placed on each disconnecting means used to deenergize circuits and stored energy except where a lock cannot be applied and it can be demonstrated that tagging procedures provides an equivalent level of safety. A lock is attached to prevent persons from operating the disconnecting means unless they resort to undue force or use of tools.

- Tags contain a statement **prohibiting** unauthorized operation of the disconnecting means and removal of the tag.

- Tags are used without locks only when a lock cannot be applied, or where it has been demonstrated that tagging procedures provide an equivalent level of safety.

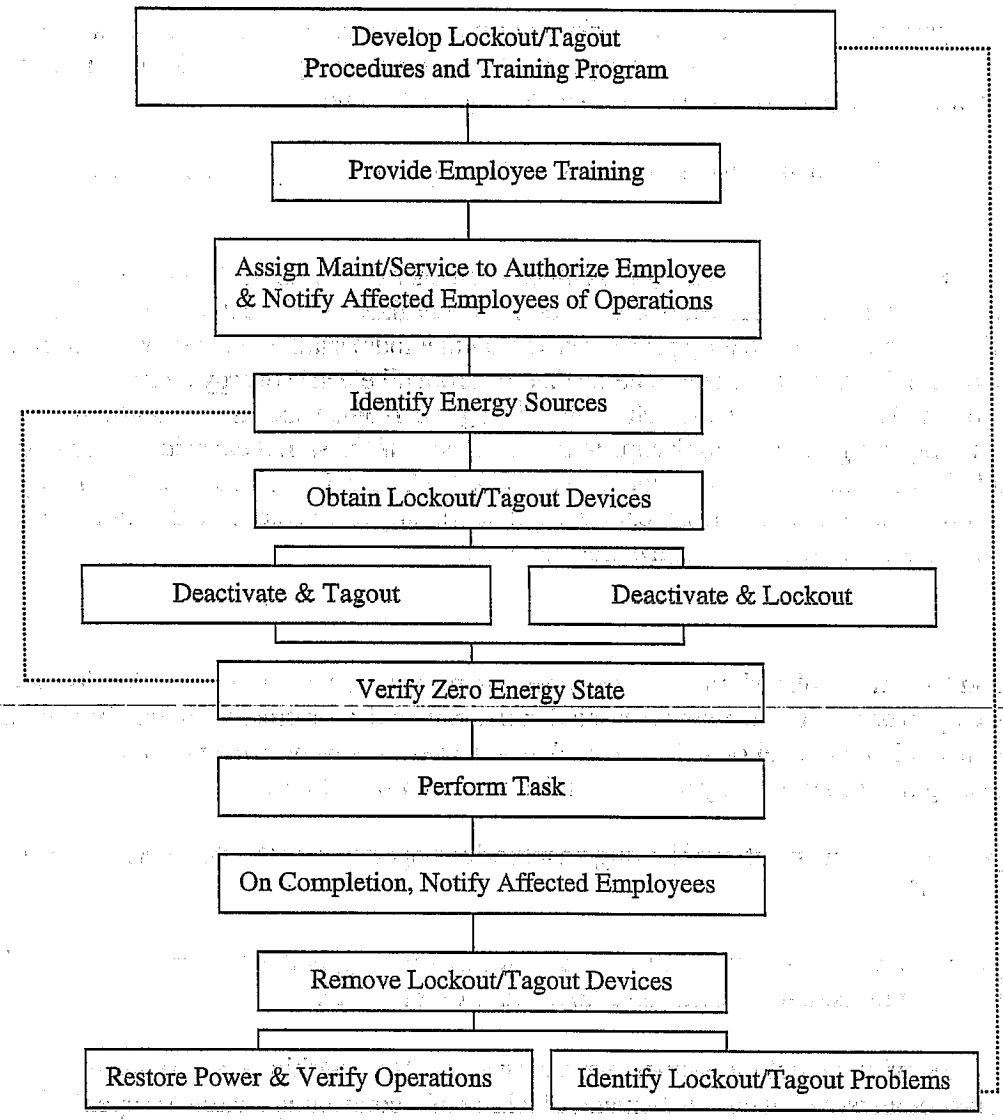
- Tags used without locks are supplemented by at least one additional safety measure, such as removal of an isolating circuit element, blocking of a controlling switch, or opening of an extra disconnecting device.

11.2 Locks are used without tags only under the following conditions:

- Only one circuit or piece of equipment is deenergized.
- The lockout period does not extend beyond the workshift.
- Employees exposed to the hazards are familiar with lockout/tagout procedures.

11.3 **Process** – A flow diagram of the basic lockout/tagout process is:

Flow Diagram for Lockout/Tagout



12.0 Verification

The following requirements shall be met before any circuit or equipment is considered deenergized or worked on as deenergized.

- A qualified person operates the equipment operating controls or otherwise verifies that the equipment cannot be restarted.

- A qualified person tests the circuit and parts with the test equipment and verifies that the circuit elements and equipment parts are deenergized. The test shall confirm there is no energized condition from

inadvertent induced voltage or unrelated voltage backfeed. When voltage over 600 volts nominal are tested, the test equipment shall be checked for proper operation immediately before and after the test.

13.0 **Restoring**

The following requirements are met in the order given before circuits or equipment are reenergized, even temporarily.

- A qualified person conducts tests and visual inspections, as necessary, to verify that all tools, electrical jumpers, shorts, grounds and other such devices have been removed so that circuits and equipment can be safely energized.
- Employees exposed to the hazards of reenergizing the circuit are warned to stay clear.
- Only approved locks and/or tags will be used and will identify the employee(s) applying the device. Each lock and tag is removed by the person who applied it or under his or her direct supervision. However, if the person is absent from the workplace, his or her lock and tag maybe removed by a qualified person designated by supervision to perform the task provided that:
  - Supervision ensures the person is not available at the workplace.
  - Supervision ensures that the person is aware that his or her lock and tag have been removed before resuming work at that workplace.
  - Supervision (or designee) ensures—by visual determination—that all people are clear of the circuits and equipment.

14.0 **Test Equipment**

14.1 Only qualified persons are allowed to perform testing work on electric circuits or equipment. All test instruments and equipment and all associated test leads, cables, power cords, and probes are visually inspected for external defects and damage before the equipment is used.

14.2 If defects or damage is observed that might expose an employee to injury, the test equipment items are removed from service and are not used until repaired.

15.0 **Clearances**

At least 10 feet clearance shall be maintained for all vehicles or mechanical equipment capable of having parts or its structure elevated near energized overhead lines. For example; cranes, mobile scaffolds, elevating platforms, dump trucks, lift trucks, flatbed trailer cranes, etc.

16.0 **Illumination**

Employees will not enter spaces containing exposed energized parts unless the area is illuminated sufficiently to allow the work to be performed safely.

17.0 **Confined Spaces**

Persons working in confined or enclosed spaces containing exposed energized parts must use protective shields, protective barriers, or insulating materials to avoid inadvertent contact with exposed energized parts.

18.0 **Apparel**

Employees are not allowed to wear conductive articles of jewelry and clothing such as watchbands, bracelets, rings, key chains, necklaces, metalized aprons, cloth with conductive thread, or metal headgear if they might contact exposed energized parts.

19.0 **Barricades**

Barricades are used in conjunction with safety signs where necessary to prevent or limit employee access to areas exposing employees to uninsulated energized conductors or circuit parts. Conductive barricades are not used where they might cause an electrical contact hazard.

20.0 **Housekeeping**

Housekeeping duties are not performed close enough for contact with live parts unless adequate safeguards such as insulating equipment or barriers are provided. Electrically conductive cleaning materials such as steel wool, metalized cloth, silicon carbide and liquid solutions will not be used near energized parts unless procedures are followed which prevent electrical contact.

***

1.0 Purpose

Ensure that all electrical equipment is free of recognized hazards and work is only performed on de-energized circuits. Injuries from electrical sources occur from touching live parts, short circuits, accidental grounds, broken connections, and system overloads. Qualified electricians must handle electrical problems.

- **Conduct aircraft electrical system maintenance in accordance with the appropriate aircraft technical manuals and maintenance procedures.**

2.0 Reference

29 CFR 1910.205, 332-335

3.0 Safety Tips

Employees must immediately report any evidence of hot wires, tingling, shocks from equipment, abnormal sparking, frayed cords, loose connections, or any other electrical problems. **All electrical work shall be in compliance with the National Electrical Code unless otherwise provided by OSHA regulations.** Be aware of the following:

- Employees shall not wear metal-rimmed glasses or metal jewelry when working with electricity.
- Use only wiring and equipment properly designed for the intended use. Ensure all cords and equipment is equipped with operable grounding circuits (three prong systems).
- Portable tools and appliances protected by an approved double insulation systems do not need to be grounded.
- Extension cords used with portable electric tools shall be the 3-wire type, shall be protected from damage, and shall not be fastened with staples, hung from nails or suspended from wires.
- Splices shall have soldered wire connections with insulation equal to the cable. Worn or frayed cables shall not be used. Splices, joints and free ends shall be covered with insulating devices.
- Electrical receptacles shall be of the grounding type.
- Examine extension cords for worn insulation and exposed strands before using them. Don't drag extension cords over sharp edges or run them across aisles where they can be damaged or cause someone to trip.
- Cover or elevate cable passing through work areas to protect it from damage, which would create a hazard to employees.
- Do not suspend temporary lights by their electric cords unless designed for suspension. Except where bulbs are deeply recessed in the reflector, bulbs on temporary lights shall be equipped with guards.
- Have electrical control panels readily accessible—keep these areas free of obstructions. In case of an electrical fire, turn these switches off immediately.
- Make certain that receptacles for attachment plugs are of the approved, concealed contact type. Where different voltages, frequencies, or types of current are supplied, electrical receptacles shall be designed so that attachment plugs are not interchangeable.
- Pull on plugs to disconnect cords. Don't yank the cord.
- Mark (legibly) each disconnecting means of motors and appliances and each service feeder or branch circuit at the point where it originates to indicate its purpose, unless they are located and arranged so the purpose is evident.

- Fasten boxes for disconnecting means securely and rigidly to the surface on which they are mounted and fitted with covers.
- Ensure that no employee works in proximity to any part of an electric power circuit that he or she may contact unless the circuit is deenergized, grounded out, or guarded by effective insulation or other means.
- Inspect cord sets, attachments, plugs and receptacles before each day, for external defects and possible internal damage. **Do not** use defective or damaged equipment.
- Use flexible cord only in continuous lengths—no splices or taps are permitted.

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1.0 Purpose

This section establishes minimum fall protection criteria for employees who work above ground, or floor level, or on work platforms and mobile work platforms. Whenever fall protection is required and is not specified below, contact the Safety Department for assistance and equipment requirements.

2.0 Reference

29 CFR 1910.22 &. 66

3.0 Criteria

Employees must use adequate fall protection whenever they are working 4 feet or more above the adjacent ground, floor or other surfaces.

EXCEPTION: Fall protection is not required for ladders less than 20 feet in length/height.

Note: Ladders and other items shall not be used on top of the maintenance vehicle platforms to gain additional working heights. If additional working height is required, make use of work stands, manlifts, highlifts, or aerial basket devices along with the appropriate fall protection.

4.0 Guardrails

Standard guardrails along the exposed sides of platforms where the fall potential is 4 feet or more or where the employee could fall into moving equipment, corrosive chemicals, or impalement hazards. The standard guardrail shall be 42 inches high with a 21 inch high midrail and a 4 inch toeboard within 1/4 inch of the platform.

5.0 Stair Railing

Provide standard stair railing on the open sides of any steps that have 4 or more risers. A standard stair railing is between 34 and 30 inches high measured from the leading edge of the tread.

6.0 Floor Opening

Provide every floor opening measuring 12 inches or more in its least dimension with a cover or a guardrail. Design the cover or guardrail to prevent persons from accidentally walking into the opening and also as not to create an additional hazard.

7.0 Fixed Ladders

Protect employees and prevent falling from fixed ladders when the fall potential is 20 feet or more by cages or ladder safety devices.

8.0 Other Devices

8.1 Whenever a guardrail, stair railing, floor opening, or hole cover will not provide the protection necessary to prevent a fall the following devices will be provided:

- Personal lifeline systems including harness and lifeline (lanyard).
- Climbing protection systems such as climbing devices used on fixed ladders when cage cannot be used.
- Protect employees working at heights of 4 feet or greater by use of approved fall protection equipment including safety harnesses and lifelines.

9.0 Equipment Inspections

Maintain fall protection equipment in safe operating condition at all times and inspect prior to each use. Remove all fall protection devices from service and examine/test after being subjected to actual fall conditions. Test fall protection devices annually under the frequency and load requirement specified in 29 CFR 1910.66. A copy of the OSHA criteria is maintained by the Safety Department.

10.0 Training

Train employees when they are hired, whenever there is a change in assignment, and annually thereafter when their duties require the use of fall protection devices. They should be aware of the following:

- When fall protection is required.
- What devices are available.
- The difference between fall prevention and fall arrest technologies.
- The purpose of fall protection, and instructed in the proper use of the equipment. Employees must demonstrate that they know, understand and can use the fall protection equipment properly.
- Maintenance and inspection requirements for fall protection devices.

***

1.0 Purpose

Provide information and OSHA requirements for the safe use of manually propelled mobile stands and scaffolds.

- The designed working load of work stands is calculated on the basis of one or more 200-pound persons with 50 pound of equipment each. The stands must be capable of supporting four times the designed working load.

- All exposed surfaces will be free of sharp edges, burrs or other safety hazards. The stand or scaffold supporting structure shall be rigidly braced to provide a steady work platform. The steps of ladder stands will have slip resistant treads.

- The working height must not exceed four times the smallest length or width dimensions of the mobile ladder stand or scaffold. Outriggers will be used for stability if the smallest base dimension is less than required for the working height.

- The platform width at any working height must be at least 16 inches wide for ladder stands and 20 inches wide for scaffolds.

- Wheels or casters must be able to support four times the designed working load. Scaffold casters shall have positive wheel and/or swivel locks to prevent movement. Workstands shall have at least two of the four casters equipped with positive wheel and/or swivel locks.

2.0 Reference

29 CFR 1910.29

3.0 Railings

Reasonable fall prevention protection shall be provided to protect personnel from accidental falls associated with floors, platforms, scaffolds, and elevated work stands.

- If a scaffold will be used at a height of 10 feet or more above the adjacent level, it must have guardrails with a top rail at least 36 inches high but not more than 42 inches high, a middle rail, and a 4 inch toeboard. The top rail of a railing shall be smooth-surfaced, with strength to withstand at least 200 pounds. The intermediate rail shall be approximately halfway between the top rail and the stand/scaffold floor.

  Exception: Maintenance truck platforms must have the rail system described above or must use a belt/harness and lanyard system to **prevent** a fall.

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1.0 Purpose

The subject provides information and OSHA requirements for the safe use of vehicle-mounted elevated platforms, scissors lifts, aerial ladders, articulating/extension boom platforms, vertical towers and lift platforms/buckets. The devices must comply with ANSI 92.2-1969, *Vehicle-Mounted Elevating and Rotating Work Platforms.* The manufacturer must certify any "field modifications" in writing.

2.0 Reference

29 CFR 1910.67

3.0 Safe Operations

Follow the safety and operating procedures found below to avoid incidents and injuries:

- Operate the lifting equipment **only** if you are trained to do so. Each operator will review the manufacturer's operating manual as part of the training program. Follow manufacturer warnings and cautions in using the equipment.

- Test the lift controls and equipment each day in accordance with the operating manual before conducting operations. The designed working load of the platforms, stands and scissors lifts shall not be exceeded. Controls will be plainly marked as to their function.

- Drive the vehicle slowly and assure adequate clearances are maintained. Do not simultaneously drive and elevate the basket/platform. Do not elevate the basket/platform unless the handrails and chains are in place and secured.

- Do not drive with the platform elevated except on hard level surfaces free of obstructions, holes and drop-offs. The brakes must be set and outriggers deployed (if equipped) on solid surfaces before commencing work activities.

- Check clearances around the equipment prior to raising or lowering the basket/platform. Maintain a minimum of ten feet from power lines or other energized equipment. Do not use the lifting equipment when the wind speed exceeds the manufacturer recommended limitations.

4.0 Fall Protection

4.1 Wear a body harness and lifeline attached to the boom or basket prior to elevating the basket/platform.

4.2 Stand firmly on the floor of the basket/platform and do not sit or climb on the edge of the basket/platform. **Do not use** ladders, planks or other devices to provide additional working height.

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1.0 Purpose

1.1 This subject provides guidance on the minimum requirements for the construction, care and use of portable wood and metal ladders.

1.2 Never use a homemade ladder—use only ladders that conform to OSHA's recommendation I.A.W. ANSI A14b. Ensure an OSHA/ANSI label is affixed and visible on each ladder and that each ladder is in serviceable condition.

2.0 Reference

29 CFR 1910.24 & .25

3.0 Design

Stepladders shall not be more than 20 feet in length/height and shall meet OSHA/ANSI design standards. Straight sectional ladders shall not exceed OSHA/ANSI length standards for the design type. All ladders shall have sufficient design strength for the planned use.

- Ladders and all parts will be of solid construction, not have sharp edges, all joints will be tight, and movable parts shall operate freely. Metal bearings will be frequently lubricated. Safety feet and auxiliary equipment shall be kept in good condition for proper performance. Rungs shall be kept free of dirt, mud, oil, and grease.

- Ladders will be inspected frequently and any defects fixed prior to use. If a defect is noted, set it aside for repairs, or destruction, and immediately tag it "Dangerous—Do Not Use".

- Ladders constructed of metal, *if dropped or tipped over*, must be immediately inspected for dents, bends, and cracked rivets.

- Ladders shall have nonconductive siderails if they are used where the ladder or the employee could contact exposed energized parts.

- Ladders constructed of wood that are used under wet conditions must have the top of each rung covered with a nonslip material. Metal portable ladders will have the bottom of each rail covered with an insulating nonslip material.

- Ensure that steps are uniformly spaced not more than 12 inches apart. The minimum step width will be at least 11 ½ inches wide.

4.0 Ladder Use

Stepladders will be placed on level firm surfaces. Do not stand on the top two steps of stepladders. Ensure the feet of straight ladders are on a level surface and won't slip. Also, be aware of the following:

- Do not use portable metal ladders for electrical work or where they may contact electrical conductors.

- Face the ladder when climbing up or down and hold on with both hands.

- Ensure that shoes are not greasy, muddy, or slippery, and that the rungs are free of grease, mud, or other slippery substances *before* climbing the ladder.

5.0 Straight Ladders

Portable straight ladders shall have clear access at the top and bottom and extend a minimum of 36 inches above the landing or anchor point. Handle these ladders as follows:

- Set the ladder upright and at an angle so the distance from the foot of the ladder to the wall is one-fourth the length of the ladder. Never use a ladder when it is in a horizontal position.
- Position the foot of the ladder to prevent it from slipping or have the ladder held or fastened into position. The ladder must be secured against movement while in use.
- Don't set the ladder in front of doors that swing open toward the ladder unless the door is blocked, locked, and guarded.
- Don't set the ladder on boxes, barrels, or other unstable base to gain additional height.
- Adjust the height of the ladder so that you can ensure that the locks are securely in place when using an extension ladder.
- Don't place a ladder close to live electrical wiring or piping.

6.0 Ladder Storage

Store portable wooden ladders out of the elements in a well-ventilated, dry place away from excessive heat. If a wooden ladder is stored horizontally, support it at enough points to prevent sagging.

***

1.0 Purpose

Fixed wooden and metal ladders must meet OSHA/ANSI design standards to provide minimum service levels.

2.0 Reference

29 CFR 1910.27

3.0 General

Fixed ladders must be designed to handle a minimum concentrated load of 200 pounds.

4.0 Rungs

The rungs shall have a minimum diameter of a least 3/4" in diameter if metal or 1 1/8" in diameter if wooden.

- The distance between rungs shall not exceed 12 inches and will be uniform throughout the length of the ladder.
- The rungs, cleats and steps shall be free of splinters, sharp edges, burrs, or projections that may create a hazard.
- The rungs will be designed so the employee's foot won't slip off the end of the rung.

5.0 Corrosion

Metal ladders must be painted or treated to resist corrosion and wooden ladders will be treated with a nonirritating preservative.

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1.0 Purpose

1.1 Flammable and combustible liquids used and stored require special precautions due to the inherent dangers of fire and explosion. Only approved safety containers shall be used for storage and handling of flammable and combustible liquids. When the total quantity in an area exceeds 10 gallons, flammable liquids shall be stored in flammable storage cabinets and kept in closed containers when not actually in use.

- Smoking, open flames and use of spark producing devices are not permitted within 50 feet of flammable and combustible liquids storage or use areas.
- Water/air-reactive materials **are not to be stored** in the same area as flammables and combustibles.

1.2 A suitable fire extinguisher will be located within 25 feet of flammable and combustible liquid storage areas.

2.0 Reference

29 CFR 1910.106

3.0 Classes

Flammable and combustible liquids are divided into classes based upon the flash point and boiling points. The classes are:

Class	Flash Point	Boiling Point
Flammable IA	Below 73°F	Below 100°F
Flammable IB	Below 73°F	At or above 100°
Flammable IC	73°F to 100°F	
Combustible II	101°F to 140°F	
Combustible III	At or above 140°F	

4.0 Safety Cans

4.1 Containers used for storing flammable liquids having a flash point at or below 80°F shall be painted red with some additional clearly visible identification either in the form of a yellow band around the can or the name of the contents stenciled/painted on the can in yellow. The can will be marked with the name of the contents. Cans containing other flammable liquids shall be painted red and marked with the name of the contents. Reference subject *Labeling* (KC902-2) in the *Kalitta Charters Safety Manual.*

4.2 Safety cans shall have a spring closing lid and spout cover and a flame suppression screen installed in the spout. Class I flammable liquids shall not be dispensed into containers unless the nozzle and container are electrically bonded to each other.

5.0 Quantities

5.1 The maximum quantities of flammable and combustible liquids that may be kept in portable containers are:

	Flammable Liquids			Combustible Liquids	
Container Type	Class IA	Class IB	Class IC	Class II	Class III
Glass or approved plastic	1 pt	1 qt	1 gal	1 gal	1 gal
Metal (not DOT drums)	1 gal	5 gal	5 gal	5 gal	5 gal
Safety cans	2 gal	5 gal	5 gal	5 gal	5 gal
Metal drums	60 gal	60 gal	60 gal	60 gal	60 gal

5.2 For periods of incidental use, no more than 25 gallons of Class IA flammable or combustible liquids may be located outside of a flammable storage room or cabinet.

6.0 Storage Cabinets

6.1 Metal flammable liquids storage cabinets will be of fire-resistant design and meet OSHA (1910.106) and NFPA 251 design requirements. Flammable storage cabinets shall be labeled in conspicuous lettering, "Flammable—Keep Fire Away".

6.2 No more than 60 gallons of Class I or II flammable/combustible liquids or 120 gallons of Class II combustible liquids shall be stored in any **one** storage cabinet.

6.3 Class III combustible materials may be stored in warehouse areas. Provide signs and keep flames and other sources of sparks at least 50 feet away.

7.0 Storage Rooms

Inside flammable and combustible liquids storage rooms shall be constructed of 2-hour fire-resistive materials and have; self-closing fire doors at all openings; 4-inch liquid-tight sills or depressed floors; and exterior ventilating system that provides at least six air changes within the room per hour; electrical wiring and equipment approved for Class I, Division 2 locations. Reference NFPA 251 for additional criteria.

- Every inside storage room shall have at least one clear aisle three-feet wide. The liquids will be stored in a manner to keep exits, stairways and aisles free of obstructions and permit rapid egress. Keep flammable and/or combustible materials at least 3 feet away from beams, girders or sprinklers.

- At least one portable fire extinguisher shall be located outside of, but not more than 10 feet from, any door opening into the storage room.

8.0 Outside Storage

Storage in outside buildings shall not exceed 1,100 gallons in any one pile or area. The storage area shall be graded to divert possible spills away from building or shall be surrounded by a 6-inch curb or dike.

- Flammable storage buildings shall be constructed of 2-hour fire-resistive materials with electrical wiring and equipment approved for Class I, Division 2 locations.

- Storage areas shall be located at least 20 feet from other buildings and the surrounding areas shall be kept free from weeds, debris, and other combustible materials.

- At least one portable fire extinguisher rated at 40 B:C shall be located not less than 10 feet nor more than 25 feet form the Class I or Class II liquid storage area, outside of the storage building or area.

- Smoking, open flames and spark producing devices is not permitted within 50 feet of the flammable and combustible liquids storage areas.

- Storage buildings shall be accessible from at least one side for fire fighting and fire control purposes.

9.0 **Signs**

Conspicuous and legible signs prohibiting smoking shall be posted in areas where flammable and combustible liquids are stored or used.

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1.0 Purpose

Many parts cleaning solvents can cause eye or skin irritation and the vapors may be irritating or even harmful if breathed excessively. Refer to the *Material Safety Data Sheet* prior to use so that proper precautions can be exercised.

2.0 Reference

29 CFR 1910.107 & .108

3.0 Dip Tanks

Dip tanks using combustible cleaning solvents are commonly used in maintenance operations. Use only dip tanks approved by a nationally recognized testing laboratory. Observe all manufacturer warnings and precautions. Inspect the tank prior to use for any defects that must be corrected before use.

- Place rags used in the cleaning operation in metal waste cans immediately after use. The contents of waste cans shall be properly disposed of daily.
- Avoid breathing solvent vapors. A face shield and safety glasses/goggles shall be used when washing parts with a pressurized spray.
- Wash hands and arms with soap and water when finished at the dip tank and clean the protective equipment (as required).
- Keep dip tank closed when not in use.

4.0 Storage

If the cleaning fluids are flammable or combustible, keep only the minimum amount of the solvent required for the cleaning operation in the immediate vicinity.

- Flammable materials stored in bulk shall be in approved flammable storage cabinets.
- Flammable or combustible solvents shall be transported only in enclosed and approved safety containers or in the original container.
- Portable containers, when used to transfer Class I flammable materials, will be positively grounded and bonded to prevent static spark discharges during liquid transfers.

5.0 PPE

Use the appropriate personal protective equipment. Typically this is eye protection (safety glasses/goggles and face shield or chemical resistant goggles) and the appropriate type of protective gloves. The gloves will be of sufficient length to prevent skin contamination.

6.0 Fire Safety

Use flammable or combustible solvents only in well-ventilated areas and observe all flammability precautions.

- Ensure a fire extinguisher is located within 25 feet of the work area.
- Ensure there are no open flames or spark producing equipment being operated within 20 feet of the dip tank (50 feet if using flammable materials) and the vapor ventilation areas.
- Clean up, immediately, any spilled cleaning solutions, and properly dispose of the cleaning materials.

***

1.0 Purpose

Many parts cleaning solvents can cause eye or skin irritation and the vapors may be irritating or even harmful if breathed excessively. Refer to the *Material Safety Data Sheet* prior to use so that proper precautions can be exercised.

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29 CFR 1910.107 & .108

3.0 Dip Tanks

Dip tanks using combustible cleaning solvents are commonly used in maintenance operations. Use only dip tanks approved by a nationally recognized testing laboratory. Observe all manufacturer warnings and precautions. Inspect the tank prior to use for any defects that must be corrected before use.

- Place rags used in the cleaning operation in metal waste cans immediately after use. The contents of waste cans shall be properly disposed of daily.
- Avoid breathing solvent vapors. A face shield and safety glasses/goggles shall be used when washing parts with a pressurized spray.
- Wash hands and arms with soap and water when finished at the dip tank and clean the protective equipment (as required).
- Keep dip tank closed when not in use.

4.0 Storage

If the cleaning fluids are flammable or combustible, keep only the minimum amount of the solvent required for the cleaning operation in the immediate vicinity.

- Flammable materials stored in bulk shall be in approved flammable storage cabinets.
- Flammable or combustible solvents shall be transported only in enclosed and approved safety containers or in the original container.
- Portable containers, when used to transfer Class I flammable materials, will be positively grounded and bonded to prevent static spark discharges during liquid transfers.

5.0 PPE

Use the appropriate personal protective equipment. Typically this is eye protection (safety glasses/goggles and face shield or chemical resistant goggles) and the appropriate type of protective gloves. The gloves will be of sufficient length to prevent skin contamination.

6.0 Fire Safety

Use flammable or combustible solvents only in well-ventilated areas and observe all flammability precautions.

- Ensure a fire extinguisher is located within 25 feet of the work area.
- Ensure there are no open flames or spark producing equipment being operated within 20 feet of the dip tank (50 feet if using flammable materials) and the vapor ventilation areas.
- Clean up, immediately, any spilled cleaning solutions, and properly dispose of the cleaning materials.

***

1.0 Purpose

The purpose of the hot work permit system is to prevent fires and/or explosions whenever performing hot work such as welding, cutting, burning and spark-producing activities. A permit is required when doing hot work on or near areas containing, or has contained, flammable or combustible materials such as aircraft fuel tanks, diesel fuel or waste petroleum products storage barrels, etc., or when performing operations in close proximity to combustible materials. The location supervisor authorizes the hot work permit. Make a copy of the permit in this section for use.

2.0 Reference

29 CFR 1910.119 & .252

3.0 Inspections

For locations that conduct hot work operations, the location supervisor or manager will identify those areas subject to the hot work permit program and will conduct a facility-wide inspection annually. The applicable areas will be documented and the list kept on file. Areas containing flammable materials will be prominently marked with signs or placards stating "Danger—Flammable Materials" or similar warning.

4.0 Training

Employees who perform hot work activities and authorizing supervisors will be trained annually on this procedure.

5.0 Precautions/Procedures

5.1 Before any hot work is performed, the area will be inspected and cleared, as much as possible, of potential fire hazards and flammable/combustible materials.

5.2 Hot work **will not** be conducted in explosive or flammable atmospheres or near storage areas of easily ignitable materials. Combustible materials shall be moved at least 35 feet away from the work site. Be aware of the following:

- Hazardous atmospheres containing flammables/combustibles shall be rendered "fire safe" (less than 10% of the lower flammability limit), and will remain "fire safe" prior to conducting hot works operations. Fans or forced ambient airflow shall continuously ventilate enclosed areas with limited air circulation during hot work operations.

- Provisions of the Entry Permit Confined Spaces program shall apply if work is being conducted inside tanks or enclosed spaces. Contact the Safety Department for assistance **prior** to conducting hot work in confined spaces.

- Fire protection (shields, fire blankets) will be installed wherever possible to contain sparks, dropping slag, etc. Ensure that all areas located below hot work areas are free of flammable and combustible materials. Fire extinguishers will be immediately available and a fire watch will be present during all hot work operations.

- Employee(s) performing the hot work will review the operation and potential fire/explosion hazards in the hot permit work area. Also review the fire department notification procedures.

- Employees are required to use the appropriate personal equipment (eye, hand, body and respiratory protection).

- The hot work permit will be posted at the work site and will remain posted for at least 30 minutes after hot work has been concluded. Once the hot work and the 30-minute fire watch have concluded, the permit will be filed for 30 days. Send a copy of the completed permit to the Safety Department.

6.0 Supervisor Duties

The authorizing supervisor shall ensure:

- That all possible fire prevention precautions are taken, the work site is rendered "fire safe" and will remain "fire safe". Fire extinguishers are in place and firewatchers are standing by at the hot work site.

- That employees are qualified for the task, have reviewed and complied with the hot work permit procedures, and have the required personal protective equipment (eye, hand, body and respiratory protection).

- That the supervisor will sign the permit once all precautions have been taken.

7.0 Permit

Hot work permits shall include the following:

- Date(s) authorized for hot work, the object and area in which hot work is to be performed. Indicate whether hot work area involves a Confined Space or Hazardous Atmosphere.

- Protection against fire and other safety precautions have been taken.

- Employees are qualified and briefed on the hot work operation and required personal protective equipment is available.

The next page provides an example of a hot work permit that may be photocopied and used.

Hot Work Permit

Location:_____

Authorization Date (s):_____

The object on which hot work is to be performed:_____
_____

Fire protection actions have been completed:_____(Supervisor Initials)

Other fire and safety precautions taken:_____
_____
_____

Employees are qualified and briefed:_____(Supervisor Initials)

Confined Space or Hazardous Atmosphere precautions required ❒ Yes ❒ No

Required personal protective equipment is available:_____(Supervisor Initials)

Hot Work Authorized:_____ Date:_____
(Supervisor Signature)

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1.0 Purpose

OSHA regulations in Subpart Q (1910.252 – 1910.255) cover the use of welding, cutting, and brazing equipment. Of particular concern are the potential fire hazards associated with these types of activities. Reference subject *Hot Work Permits* (KC805-3) in the *KC Safety Manual* for specific fire prevention requirements and authorizations required before performing welding, cutting, or brazing operations. Ensure that only qualified personnel perform welding, cutting, or brazing operations.

- Ensure that the rules and regulations covering using and maintaining oxygen or fuel-gas supply equipment, including generators, and oxygen or fuel-gas distribution piping systems are readily available for review. Use only approved equipment for welding, cutting, and brazing operations and follow manufacturer instructions. Only qualified personnel shall perform equipment repairs.

- Review manufacturer warnings and safety information for the welding materials being used. Welding materials containing cadmium and fluorides require additional safety considerations due to potential health risks.

- Reference the applicable portions of American National Standards Institute, Z49.1-1967, Safety in Welding and Cutting, for additional details not covered in this section.

2.0 Reference

29 CFR 1910.252 & .255

3.0 Fire Watch

Suitable fire extinguishers must be readily available for immediate use. A fire watch will be maintained for at least a half-hour after completion of welding or cutting operations to detect and extinguish possible smoldering fires.

4.0 PPE Needs

Helmets or hand shields shall be used during arc welding. Helmets, goggles, or other suitable eye protection shall be used during gas welding, oxygen cutting or brazing operations. Helmets and hand shields will be arranged to protect the face, neck and ears from direct radiant energy.

- Reference subject *Eye and Face Protection* (KC802-2) in the *KC Safety Manual* for protective lenses/filter shade requirements for the various types of welding, cutting, or brazing operations. Helpers shall also use the appropriate eye protection. The lenses shall bear some type of distinctive marking by which the source and shade number are readily identifiable.

5.0 Ventilation

Ensure that the area is adequately ventilated with a continuous flow of air to remove air contaminants. Avoid breathing the fumes and gases generated by the welding, cutting, or brazing operations since many of the materials may pose a health hazard. Use appropriate respirators when performing welding, cutting, or brazing in confined spaces, areas with inadequate ventilation, or when recommended by the MSDS for the materials being used.

6.0 Welding

Some precautions to follow when performing welding operations:

- Noncombustible or flameproof shields to protect employees from direct arc rays shall shield arc welding and cutting operations.
- When electrode holders are to be left unattended, the electrodes shall be removed and the holder shall be placed or protected so that they cannot make electrical contact with employees or conducting objects.
- All Arc welding and cutting cables shall be completely insulated and be capable of handling the maximum current requirements for the job. There shall be no repairs or splices within 10 feet of the electrode holder, except where splices are insulated equal to the insulation of the cable. Defective cable shall be repaired or replaced.
- Fuel gas and oxygen hose shall be easily distinguishable and shall not be interchangeable. Hoses shall be inspected prior to use and shall be repaired or replaced if defective.

***

1.0 Purpose

Employees using/handling cylinders will be trained on inspecting, handling, storage, marking, and labeling of compressed gas cylinders. Aircraft servicing with compressed gases is done in accordance with the aircraft technical manuals and maintenance procedures.

2.0 Reference

29 CFR 1910.101 - .104

3.0 Cylinders

Ensure that compressed gas cylinders are legibly marked to identify the gas content, with either the chemical or trade name of the gas. The markings should be stenciled, stamped, or labeled and shall not be easily removable. Whenever practical, the marking shall be located on the shoulder of the cylinder. The cylinders shall have connections and controls meeting the requirements of ANSI B57.1 and be free of defects.

4.0 Care

Inspect cylinders before each use for safe operating conditions.

- Keep cylinders, valves, couplings, regulators, hoses and connections free of oily or greasy substances. Don't handle cylinders with oily hands or gloves. Do not lubricate threads on the cap or cylinder.
- Keep the valve protection cap on and hand tightened, except when using the cylinder. Make sure the valve on an empty container is kept closed.
- Open the cylinder valve by hand; don't use a hammer or wrench. If you can't open the valve by hand, notify the supplier. **Open cylinder valves slowly**.
- Keep cylinders at a safe distance or shielded from welding or cutting operations.

5.0 Handling Cylinders

Handle cylinders as follows:

- Never use a cylinder, empty or full, as a roller or support. Regulators shall be removed and valve-protection caps put in place before cylinders are moved.
- Do not drop or rough-handle cylinders. Cylinders shall be stored and transported in the upright position at all times, except if necessary for short periods of time when cylinders are actually being hoisted or carried.
- Take cylinders with leaking valves or fittings outdoors, away from sources of ignition, and slowly empty.
- Do not tamper with safety devices on cylinders.

6.0 Storing Cylinders

Store cylinders as follows:

- In dry, well ventilated and protected areas. Store them away from radiators and other sources of heat.
- Do not store in areas where they can be knocked over or damaged by passing or falling objects, or subject to tampering by unauthorized persons. Cylinders shall not be placed where they might contact electrical circuits.
- Store fuel-gas cylinders at least 20 feet away from combustible materials, especially highly combustibles such as oil, grease, and excelsior. Oxygen and fuel-gas cylinders can be separated from each other and combustible materials by a 5-foot high, noncombustible barrier with a fire resistance rating of at least 1/2 hours.

7.0 Warning Signs

Mark cylinder storage areas with signs such as "Oxygen—No Smoking" or "No Open Flames".

8.0 Inspections

Inspect and hydrostatically test cylinders periodically with an approved/authorized contractor.

***

1.0 Purpose

These procedures are established to ensure the safety of the employees whose job assignment requires use/handling of LPG.

2.0 Reference

29 CFR 1910.110

3.0 Liquified Petroleum Gas (LPG)

3.1 LPG is a name commonly used to describe a product composed of the hydrocarbons propane, butane or their mixture. It has a flash point of -100°F and an auto ignition temperature of 800° to 1000°F. LPG is highly flammable when used in its gaseous stage, which makes it suitable as a fuel and is commonly used in forklifts.

3.2 LPG can be very dangerous if improperly handled. It is heavier than air and any leakage tends to settle in low spots and can easily ignite before being dissipated.

3.3 Small quantities of LPG readily vaporize and mix with air, however, a spark, open flame, can ignite it and it will flash quickly. This type of fire may not be too serious. However, if the LPG is confined, under pressure, or in sufficient quantity, an explosion may occur.

4.0 Precautions When Handling LPG

4.1 LPG is considered nonpoisonous; however, a high concentration of LPG in a confined space can cause lack of oxygen, which could cause asphyxiation. When liquid LPG vaporizes rapidly, it has a refrigerating effect.

4.2 Skin contact with leaking LPG under pressure must be avoided or cold burns can result. Therefore, all personnel filling LPG cylinders or handling cylinders should wear long sleeves and rubber gloves.

5.0 Cylinders

All LPG is stored in pressure cylinders (fuel tanks) that are designed, constructed and tested in accordance with the code of the American Society of Mechanical Engineers for Unfired Pressure Vessels or the Department of Transportation.

6.0 Filling Cylinders

Never fill LPG cylinders completely liquid-full. The upper portion of the cylinder should contain only vapor, which will allow room for expansion of the liquid. If a cylinder is completely filled with liquid LPG leaving no room for expansion, a rise in temperature will cause the liquid to expand and exert pressure on the cylinder. The relief valve will open and allow liquid to escape. However, if this relief valve fails to operate, the cylinder may rupture and an explosion could occur if a source of ignition is present. The possibility of a cylinder being "over-filled" is minimized through the use of valves and gauges in the cylinder and through education of the employee who is responsible for handling of this product.

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7.0 Detecting Leaks

An approved agent such as mercaptan is added to all liquified petroleum gases to give a distinctive odor so that a leak can easily be detected by the smell. Leaks will also be visible by a frost build up at the point of leakage.

8.0 Hose Inspection

Filler hoses should be inspected daily for defects and replaced when suspected of physical weakness.

9.0 Parking Vehicles

Vehicles using LPG as fuel should be stored outside, if possible, when not in use.

10.0 Maintenance

10.1 LPG fueled vehicles being repaired in a shop must have the cylinder (fuel tank) shut-off valve closed except when fuel is required for engine operation. Do not park an LPG vehicle near sources of heat, open flames or other sources of ignition or near open pits unless the pits are adequately ventilated. LPG is heavier than air and any accidental leakage tends to settle in the lowest sport, causing a dangerous and explosive situation.

10.2 Do not allow welding, cutting and other operations involving open flames or sparks to be performed in the shop at the time these vehicles are being serviced unless the area is separated by standard firewalls.

10.3 "NO SMOKING" signs must be displayed, and a no smoking policy rigidly enforced.

10.4 Vehicles involved in accidents must be carefully inspected before being returned to service. Special attention should be given to any evidence of leakage, stress or shifting of fuel system parts.

10.5 At the end of the work day, park the lift truck in a designated area, shut off the fuel valve at the tank and run the lift truck until the fuel in the lines is used up. Then, turn off the ignition switch.

11.0 Types of Cylinders

11.1 There are two types of cylinders:

- ASME - Permanently mounted cylinder (fuel tank) designed according to the Unfired Pressure Vessel Code of the American Society of Mechanical Engineers.
- DOT – Removable cylinders designed according to the Department of Transportation specifications.

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- ASME - Permanently mounted cylinder (fuel tank) designed according to the Unfired Pressure Vessel Code of the American Society of Mechanical Engineers.
- DOT – Removable cylinders designed according to the Department of Transportation specifications.

11.2 Each cylinder will be marked showing type of construction, manufacturer, date of manufacture and capacity. In addition, DOT cylinders show tare weight and date of requalifications while ASME cylinders show dimensions of the container, thickness, maximum pressure of fuel permissible and water gallonage. Service valves must be labeled to indicate whether they are connected to the liquid or vapor space (with the Cylinder in the installed position).

12.0 Removable Cylinder Inspection

Each cylinder must be carefully inspected prior to refilling for the following:

- No parts of the cylinder pressure relief valve and threaded connection are damaged or leaking.
- The foot ring and head ring on removable cylinders are in serviceable condition, e.g., not damaged beyond the point of providing proper support in an upright and stable position and the pressure relief device and filling connection are protected against damage.
- No leakage from any part of the cylinder. Evidence of bad dents, cuts, gouges, bulges or corrosion that indicate possible weakness is reason for rejection. Contact your supervisor if in doubt.
- Quick-Disconnect coupling must be serviceable. No cracks or burrs. Pressure relief valve must have a rain cap or other protection over it to prevent water or dirt from collecting in it.
- Filling connection must be covered at all times when cylinder is not in use.
- Cylinders must be marked with the DOT specification number and date of manufacture. This marking is normally made on the valve protection guard. DOT specifications authorized are: DOT-4B, DOT-4BA, DOT-4BW and ICC-26. Service pressure is P.S.I.
- Test date; this must be marked on the cylinder. (Cylinders must be tested [hydrostatic] 12 years after date of manufacture and every 7 years thereafter).

13.0 Hydrostatic Pressure Test

The manufacturer of the cylinder or a competent testing agency must perform the test. A copy of the manufacturer's certificate and a copy of the inspection report must be retained at your facility. If cylinders are rented from a propane gas company visually inspect the cylinder. The gas company must ensure the cylinders are tested when required and retain the inspection report.

14.0 Cylinder Storage

14.1 Removable LPG cylinder must be stored in the appropriate designated area. Do not leave empty cylinders lying around the workplace.

14.2 Observe the following storage requirements:

- Store cylinders in the vertical position whenever possible. If cylinders are stored horizontally, they must be turned so the pressure relief valve is in the 12 o'clock position. The pressure relief valve must be in the vapor space of the cylinder. Close valves on empty cylinders.
- Do not throw, drop, slide, or drag cylinders. A cylinder must be secured tightly whenever it is moved.

15.0 **Outside Storage**

15.1 Removable LPG cylinders used for propane fueled forklifts should be stored outside whenever possible. Store cylinders a minimum of 10 feet from any building and in a safe place away from normal traffic. Storage shall be located to minimize exposure to excessive temperature rise, physical damage, or tampering by unauthorized persons. A minimum of one fire extinguisher, rated at 20BC or larger, must be located within 25 feet of the storage area. No Smoking signs must be posted.

15.2 If the above storage requirements cannot be met, contact the Safety Department for alternate storage arrangements.

16.0 **Inside Storage**

When LPG cylinders are stored inside a building, the following requirements apply:

- No more than 300 pounds (approximately 2550 cubic feet in vapor form) of LPG cylinders will be stored inside. All empty cylinders shall be considered as full cylinders when calculating the weight.
- Cylinders, when stored inside, shall not be located near exits, stairways, or in areas normally used or intended for safe exit of people.
- The storage area shall be posted with "No Smoking' signs and have the minimum of one 20BC or larger rated fire extinguisher located in the area.

17.0 **Changing Cylinders**

17.1 Some Lift trucks are equipped with removable LPG cylinders. Fueling is accomplished by replacing an empty tank with a full tank. While replacing a LPG cylinder is a relatively simple task, certain precautions and attention are necessary to ensure one's safety.

17.2 **Procedure** – Follow this procedure when changing a LPG cylinder on a lift truck.

- Park the lift truck in a designated parking area and turn off the engine.
- Close the cylinder valve, then remove the quick-disconnect coupling from the cylinder valve. (Inspect the lift truck fuel lines and the quick-disconnect coupling for damage or abnormal wear).
- Remove the empty cylinder from its holding device being careful not to drop it. (Inspect the cylinder and cylinder fittings for damage or abnormal wear).
- Move the empty cylinder to the designated storage area.
- Select a filled cylinder. (Inspect the cylinder and its fittings for damage or leaks).
- Install the filled cylinder on the lift truck being careful to properly align the cylinder-centering pin and the alignment hole in the cylinder collar. (Notify your supervisor if the cylinder cannot be properly aligned for any reason).
- Fasten the cylinder securely in the cylinder holding device.

- Inspect the fuel line for wear or frayed spots. Report any defects to your supervisor.
- Firmly connect the fuel line to the cylinder liquid service valve, ensuring that the line is protected against rubbing, chafing or exposure to heat, such as the exhaust manifold. Open the liquid service valve slowly. (Inspect for leaks. If a leak is found, close the valve immediately and notify the supervisor).

18.0 Filling Cylinders

LPG cylinders (permanently mounted or removable) for highway vehicles and forklifts will be filled from either stationary storage tanks or from LPG cargo tank trucks.

19.0 Refueling Cylinders/Tanks

19.1 Use the following procedure when a fuel cylinder (fuel tank) from either a stationary storage tank or a LPG cargo tank truck.

Note: The fueler must remain in attendance during the entire refueling operation and position himself so that he can immediately shut off valves and power in case of filler hose failure, broken connections or other emergency. Only qualified personnel will conduct fueling operations.

19.2 **Before Filling:**

- Park the cargo tank vehicle at least 10-15 feet from the vehicle being fueled, turn off the ignition of both vehicles—except where power take-off is used on the cargo tank vehicle—set the brakes, set the transmission in low gear, and block the rear wheels on the downhill side.
- Determine that cylinder (fuel tank) needs refilling before starting filling operation.
- Wear rubber gloves and avoid any other contact with escaping gas.
- Check for and eliminate any ignition source within 50 feet of refueling operation.
- Fill cylinder (fuel tank) 10-15 feet from storage tank or LPG cargo tank truck in a well-ventilated area.
- Inspect cylinder (fuel tank), valves, and hose before filling. (Check for sharp dents, gauges, leaks, excessive external corrosion, broken or damaged collars or footings).
- Inspect, valves, and hose before filling cylinder (fuel tank). (Check for leaks and excessive wear, missing handwheels, relief valve and valve caps; dirt or other debris in openings; and worn threads).

  Note: Any defective cylinder (fuel tank) must be removed from service. Qualified personnel must accomplish replacement or tightening of valves to eliminate leaks.

- Have fire extinguisher readily available (within 25 feet).
- Ensure that relief valve points in the proper direction.
- Ensure that valve protection caps are in place.
- Never drop or drag removable cylinders.

19.3 **Filling Procedure:**

- **Do not fill cylinder (fuel tank) liquid-full.**
- Connect the adapter of the filler hose from the cargo tank vehicle or storage tank to the filler valve of the fuel cylinder (fuel tank) being refilled. (Make sure the connection is tight and free of leaks).
- Ensure that the bleeder valve between the hose and the filler valve on the cylinder is closed.
- Turn on pump of cargo tank vehicle or storage tank.
- Open hose filler valve.
- Open liquid level gauge on the fuel container of the vehicle being refueled. (Sometimes referred to as a breather valve, 80% gauge or fixed liquid level gauges).
- Watch liquid level float gauge.
- When liquid appears from the breather valve in the form of fog or mist, this indicates the tank is filled to the desired capacity. Close the fixed liquid level gauge (breather valve).
- Close the hose filler valve.
- Open the bleeder valve on the hose to bleed off the gas between the hose filler valve and the fueler container filler valve. Close bleeder valve when finished.
- Turn off pump of cargo tank vehicle or storage tank.
- Disconnect filler hose from container filler valve very slowly to release pressure and replace dust cover on the filler valve.

19.4 **After Filling:**

- Place filler hose in the storage rack of the cargo tank vehicle or storage tank, being very careful not to get dirt in the filler adapter connection.
- After filling, check fittings for leaks with a soap solution.
- Ensure that valves on stationary storage tanks and LPG cargo tank trucks are locked and cannot be accidentally opened.

***

1.0 Purpose

This procedure establishes the proper safety and careful use of compressed air by the employees.

2.0 Reference

29 CFR 1910.169 & .242

3.0 Hazards

Compressed air and blowing particles can cause damage to the eyes and the skin from the blast effect and flying particles. Compressed air can also put air bubbles into the blood stream through a cut as well as damaging eardrums. Proper safety precautions and careful use of compressed air can prevent injuries.

4.0 Cleaning

Avoid using compressed air for any type of cleaning except as a last resort. When used, the air pressure shall not exceed 30 psi at the orifice and effective chip guarding must be used. The proper personal protective equipment – a face shield and safety glasses/goggles and gloves must be worn. Depending on the type of cleaning operation and the materials involved, respiratory and hearing protection may also be required.

5.0 Equipment

Periodically inspect the safety valves and other components to ensure that they are functioning properly.

- Inspect air receiver equipment for serviceability and drain accumulated oil and water from the traps prior to use.
- Check the pressure gage and pressure relief valves for operability.
- Inspect the air inlet ports for cleanliness and clear the work area of any items that could be blown around.
- Examine all connections to make sure they are tight before operating the air hose.
- Handle the airlines and operating devices carefully to avoid inadvertent air discharges.
- **Turn off the air at the control valve;** do not kink the hose to stop the airflow.
- Keep air hoses out of aisle ways where they can be damaged by traffic or be a tripping hazard.
- Never point a compressed air hose at any part of your body or at another person. Before cleaning machinery or other items, make sure the dirt and particles will not be blown onto other workers.

6.0 Air Tools

Pneumatic power tools shall be secured to the hose in a positive manner to prevent accidental disconnecting.

- Safety clips or retainers shall be securely installed and maintained on pneumatic impact tools to prevent attachments from being accidentally expelled.
- Do not exceed the manufacturer's recommended safe operating pressure for all fittings.
- All hoses exceeding 1/2 inch inside diameter shall have a safety device at the source of supply or branch line to reduce pressure in case of hose failure.

***

1.0 Purpose

Misuse of hand tools and power tools are a frequent cause of industrial injuries. Use tools only for the function for which they were designed. Before using tools, employees need to know how to use each tool safely and how to maintain the tool in serviceable condition.

2.0 Reference

29 CFR 1910 Subpart P

3.0 General

Most hand and power tool accidents will be avoided if employees understand the following:

- Always wear safety goggles/glasses and a face shield while grinding, standing, chiseling, or using any operation that creates particles or could potentially create a danger to the eyes.
- Use the right tool for the job. Do not use excessive pressure or force a tool. If you have to use too much pressure, then you are not using the right tool for the job.
- Keep tools clean and in safe working condition. Dispose of or repair damaged tools.
- Don't use a screwdriver with a rounded edge or tip. Don't use a screwdriver for prying, punching, chiseling, scoring, or scraping.
- Always pull, **if possible**, never push on a wrench; adjust your stance to prevent a fall if something lets go.
- Always use the properly adjusted tool guards—never disable a guard.
- Inspect any new power tool and read the manufacturer's information before operating the power tool.
- Do not wear loose clothing that might get caught in the power tools.
- Inspect the electrical service (power tool cord, extension cord, plugs, outlets, proper grounding) before using a power tool.

4.0 Wrenches and Pliers

Many people injure themselves by substituting pliers for wrenches and vice versa. Wrenches are meant to hold and turn nuts, bolts, caps, plugs, and other threaded parts. Pliers should be used to turn, bend, cut, and grip.

- Don't use pliers when the jaws sprung to the point that slippage occurs, and never use a wrench as a hammer.
- Don't use pliers for cutting hardened wire unless the tool is specifically manufactured for this purpose.
- Select a wrench whose opening exactly fits the nuts.
- Use a striking face box-wrench or a heavy-duty box or socket wrench if a nut or bolt is "frozen". Use penetrating oil beforehand.

5.0 Power Tools

Special safety considerations are necessary when working with power tools. Ensure that all employees understand the manufacturer's recommended procedures for the proper use of the tool.

- Electric power operated tools shall either be approved double insulated, be properly grounded, or used with ground fault circuit interrupters.

- Power tools shall be equipped with the appropriate guards. Reference subject KC807-2, Machine Guards.

***

1.0 Purpose

1.1 Machine guards are used as engineering controls to allow for the safe operation of machinery.

- Interlocking devices.
- Automatic shutoffs or dead man switches.
- Point of operation guards.
- Enclosures.
- Thermal barriers.

1.2 Guards should be attached to the machine and be designed to prevent the operator from having any part of his or her body in the "danger zone" during the operating cycle.

2.0 Reference

29 CFR 1910 Subpart P

3.0 Guards

The following machines shall have the appropriate guards installed and operable prior to use:

- Guillotine cutters.
- Sheers and alligator sheers.
- Power presses.
- Milling machines.
- Power saws and jointers.
- Portable power tools.
- Forming rollers and calendars.
- Abrasive wheels.
- Fan blades.

4.0 Guarded Area

The areas of the machines that must be guarded are:

- Point of operation.
- Ingoing nip points.
- Rotating parts.
- Flying chips and spark containment.
- Blades and saws.
- High heat areas.

5.0 Tool Guards

The following is specific information on the types of guarding required for various power tools:

- Power tools will be equipped with positive action on-off switches and may have a lock-on control if a single motion can turn off the tool by the fingers used to turn it on. The on-off switch design must not allow turning on the tool accidentally.

- Hand-held power woodworking tools must have a dead man control, which automatically turns off the power when the operator releases the control switch.

- Belts, gears, shafts, pulleys, sprockets, spindles, drums, fly-wheels, chains, or other reciprocating, rotating, or moving parts of equipment shall be guarded if such parts are exposed to contact by employees or otherwise constitute a hazard or "nip" point. Guarding shall meet the requirements of ANSI B15.1-1953 (R 1958), "Safety Code for Mechanical Power Transmission Apparatus".

- Portable sanders Must have guards to prevent accidentally contact with the sander while in use. Belt sanders shall be provided with guards at each nip point where the sanding belt runs onto a pulley. The unused run of the sanding belt shall be guarded against accidental contact.

- Band Saws. All portions of band saw blades shall be enclosed or guarded, except for the working portion of the blade between the bottom of the guide rolls and the table. Band saw wheels shall be fully encased. Guide rolls shall be properly adjusted to the correct height for the stock being cut.

- Portable Circular Saws. Portable power-driven circular saws shall be equipped with guards above and below the base plate or shoe. The lower guard shall cover the saw to the depth of the teeth, except for the minimum arc required to allow proper retraction and contact with the work, and shall automatically return to the covering position when the blade is removed from the work.

- Table Saws. Circular table saws shall have a hood over the portion of the saw above the table, mounted so that the hood will automatically adjust itself to the thickness of, and remain in contact with, the material being cut.

***

1.0 Purpose

This subject provides safety guidelines for the use and inspection of chains, slings, and cables. Follow the general safety practices found below to eliminate or reduce risks.

- Use only ANSI approved chains, slings, and cables.
- Inspect the chains, slings, and cables daily before each use and remove any defective equipment. If defective, repairs will be accomplished only by manufacturer-approved repair sources. A certification of proof testing is required after repairs have been accomplished.
- Identify, with a tag, load rating, limitations, etc. on all chains, slings, and cables.
- Never exceed the load rating for the chains, slings, and cables.

2.0 Reference

29 CFR 1910.184

3.0 Chains

Use only alloy steel chains designed for industrial use. Inspect chains for wear, stretching, abrasions, or visible damage before each use. Ensure hooks, rings, links or any coupling device has the same or higher rating as the chain. Never use makeshift links or coupling devices.

4.0 Cables

Inspect cables for types of damages specified by the manufacturer.

- Make sure the attachments meet the same (or higher) load bearing capability as the cable they are attached to.
- Use fiber-core wire rope only at temperatures below 200°F.

5.0 Slings

5.1 Use slings in the manner as prescribed by the manufacturer. Never splice slings. Repairs will only be done by manufacturer-approved repair sources.

5.2 All webbing shall have uniform thickness.

5.3 Natural or synthetic fiber slings shall be removed from service if:

- Abnormal wear, snags, punctures, tears, or cuts occur.
- Powdered fiber appears between strands.
- Fibers are broken our cut or has broken or torn stitching.
- Discoloration or rotting is detected or the hardware is distorted.

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1.0 Purpose

Ensure jacks have a sufficient rating to lift and sustain the intended load. Aircraft jacking procedures and equipment requirements are outlined in the aircraft maintenance manuals. The rated load shall be legible and permanently marked in a prominent location on the jack. Use aircraft jacks that are maintained and inspected in accordance with the applicable maintenance manual and manufacturers guidance.

2.0 Reference

29 CFR 1910.244

3.0 Use

If there is a possibility of slippage, place a block between the top of the jack and the load. Once the load is raised, block, crib or otherwise secure the load immediately. Watch the top of the stop indicator in order to determine the travel limit. Do not extend the jack beyond the designated travel limit.

4.0 Lubrication

Properly lubricate each jack at the manufacturer's recommended intervals using the recommended lubricants.

5.0 Inspection

Inspect each jack at the following times:

- If the jack is used constantly or intermittently in one locality, inspect every six months.
- If the jack is sent out for special work, inspect the jack when sent out and when returned.
- Whenever the jack is subjected to abnormal load or shock, inspect it immediately before and after subsequent use.

6.0 Out of Order

Out-of-order jacks will be clearly tagged and **not used** until repairs have been accomplished.

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1.0 Purpose

The following OSHA guidance covers requirements for the safe use of abrasive wheels.

2.0 Reference

29 CFR 1910.215

3.0 Safety Guards

Abrasive wheels shall only be used on machines equipped with safety guards. Safety guards must cover the spindle end, nut, and flange projections and mounted to maintain proper alignment with the wheel. Safety guards are required unless:

- The wheel is used for internal work within the item being ground.
- The wheel is 2 inches or smaller in diameter and mounted in portable equipment.

4.0 Flanges

Grinding machines must have wheel mounting flanges sized not less than 1/3 the diameter of the wheel and meet the grinder manufacturer's type/design specifications.

5.0 Work Rests

Works rests must be used to support the work on offhand grinding machines. The rests must be rigid and adjustable to compensate for wheel wear. Keep the work rests adjusted close to the wheel with the maximum opening no wider than 1/8" to prevent the work from jamming between the wheel and the rest, which could break the wheel. Turn off the power and wait for the wheel to stop before making work rest adjustments. After each adjustment, clamp the work rest securely.

- Make sure the contact surfaces of wheels, blotters, and flanges are flat and free from foreign matter.
- Make sure that any bushing used in the wheel hole isn't wider than the wheel, and that it doesn't touch the flanges.

6.0 Before Use

Inspect the wheel, safety guards, flanges and work rests for proper adjustments and protective capabilities. Ensure the machine speed does not exceed the wheel rpm limit.

7.0 Wheel Tests

Before mounting the wheel, check for any wheel deformities or cracks and perform a "ring test".

8.0 Ring Test

To perform a ring test:

- Make sure the wheel is dry and free from sawdust; otherwise, the sound will be deadened.

Note: Organic bonded wheels don't have the same clear metallic ring that vitrified and silicate wheels have.

- Tap the wheel gently about 45 degrees on each side of the centerline at 1 to 2 inches from the outside edge. A sound and undamaged wheel will give a clear metallic tone. If cracked, there will be a dead sound and not a clear "ring".

***

1.0 Purpose

Employees shall be trained in the hazards of servicing single and multi-piece rim wheels and the applicable safety procedures. Multi-piece rim wheel operations present significant hazards to personnel. Employees must be trained in the proper mounting, demounting and related activities prior to servicing multi-piece rim wheels. Employees shall stay out of the trajectory area (defined as the area approximately 90° to the plane of the tires surface) during all inflation and deflation procedures. The majority of multi-piece rim wheelwork tasks will be conducted with the tire/wheel within the appropriate restraining devices.

- **Accomplish aircraft tire/wheel procedures in accordance with the applicable aircraft maintenance technical information and procedures.**

2.0 Reference

29 CFR 1910.177

3.0 Training

Employee training will address each of the following work tasks:

- Deflating and demounting of tires.
- Inspecting wheel components for defects.
- Mounting and inflating tires within a restraining device.
- Using restraining devices.
- Handling wheels.
- Inflating mounted vehicle or aircraft tires.
- Installing and removing tires/wheels.

4.0 Tire Cages

A safety tire rack, cage, or equivalent protection shall be provided and used by personnel when inflating, mounting, or dismounting tires installed on split rims, or rims equipped with locking rings or similar devices

5.0 Multi-Piece Rim Wheels

Use the procedures listed below when servicing multi-piece rim wheels.

- Tires shall be completely deflated before demounting by removal of the valve core. Tires shall be completely deflated by removing the valve core before a rim wheel is removed from the axle if; the tire has been driven under-inflated at 80% or less of its recommended pressure or there is obvious/suspected tire or wheel component damage.

- Rubber lubricant shall be applied to the bead and rim mating surfaces during assembly and inflation of the tire unless recommended against by the tire or wheel manufacturer.

- If a tire on a vehicle is under, but has more than 80% of the recommended pressure, the tire may be inflated while the rim wheel is on the vehicle if remote control inflation equipment is used and no employees remain in the trajectory area during inflation.

- Tires can be inflated outside a restraining device only with sufficient pressure to force the tire bead onto the rim ledge and to create an airtight seal with the tire and bead..

- Whenever a rim wheel is in a restraining device, the employee shall not rest or lean any part of his body or equipment on or against the restraining device.

- After tire inflation, the tire/wheel will be inspected while still in the restraining device to make sure the tire is properly seated and locked. If further adjustment to the tire wheel components is necessary, deflate the tire by removing the valve core before making any adjustments.

- Do not try to correct side and lock ring seating by hammering, striking forcing the components while the tire is pressurized.

- Cracked, broken, bent or otherwise damaged rim components shall not be reworked welded or brazed. Heat will not be applied to a Multi-piece wheel or wheel components.

6.0 Single Piece Rim Wheels

The procedures listed below will be used when servicing single piece rim wheels.

- Tires shall be completely deflated before demounting by removal of the valve core.
- Tire mounting and demounting shall be done only from the narrow ledge side of the tire. Take care not to damage the tire bead while mounting the tire.

- Nonflammable rubber lubricant will be used on the bead and wheel mounting surfaces before assembly recommended against by the tire wheel manufacturer.

- If a tire-changing machine is used, the tire will be inflated only to the minimum pressure necessary to force the tire bead onto the rim ledge while on the tire changing machine.

- If a bead expander is used, it shall be removed before the valve core is installed and as soon as possible after the rim wheel becomes airtight (the tire slips onto the bead seat).

- Tires may be inflated only when contained in a restraining device, positioned behind a barrier or bolted on the vehicle with the lug nuts fully tightened. Tires will be inflated to the manufacturer's recommended pressure.

- Cracked, broken, bent or otherwise damaged wheels shall not be reworked, welded or brazed.

***

1.0 Purpose

1.1 Locations that operate forklift trucks and other powered industrial equipment (including belt loaders) are required to train and annually certify all operators as specified by OSHA 1910.178. Locations that contract outside personnel must ensure that the contractor has trained their forklift and other powered industrial equipment operators as specified in the OSHA regulations.

1.2 OSHA revised the standard for training forklift and other powered industrial equipment operators to a "performance-oriented" training program. The employer is required to administer at training program based on the knowledge of trainees and their ability to use the knowledge and skills to safely operate forklifts and other similar powered industrial equipment.

1.3 In addition to initial and refresher training, an annual evaluation of each employee's powered industrial equipment operating performance is required. OSHA also requires the employer to conduct remedial training if an operator is operating powered industrial equipment in an unsafe manner; if the employee was involved in a accident or near miss; or if deficiencies were noted during the annual operator evaluation.

2.0 Reference

29 CFR 1910.178

3.0 Training Materials

Kalitta Charter has a formal *Forklift Truck Operator Training Program* available. The program includes classroom instructions, hands-on-training, and written and operating equipment tests. Each employee who successfully completes this program and passes all tests in issued a wallet-sized certificate titled *Certified Forklift Operator.* An OSHA compliance officer may ask to see this certificate, and as such, it should be kept on the operator's person while on duty.

4.0 Company Responsibility

The location manager/supervisor is responsible to meet the following requirements:

- Ensure that only candidates that have passed all tests are issued a *Certified Forklift Operators* certificate and are authorized to operate powered industrial equipment (forklifts, belt loaders). Ensure that the employee is physically qualified to operate the equipment.

- Under no circumstances should an unqualified or uncertified employee be allowed to operate powered industrial equipment.

- Ensure each operator has received the required training, has been evaluated by a "designated" person while performing the required duties, and those operations are performed competently before issuing a *Certified Forklift Operator* certificate.

- Insert a copy of the training certificate in the employee's personnel file and forward a copy to the Safety Department.
- Ensure daily operational checks are completed before using any powered industrial equipment. Remove defective or unsafe equipment from service.

- Mark forklifts "Flammable" if the use propane or other compressed gas(es).

5.0 Training Overview

The location manager/supervisor is responsible to meet the following training requirements:

- Ensure that the quality and scope of the program as intended in the training manual is maintained.
- Ensure the person "designated" as the "trainer/certifier" is qualified and certified to perform these duties. Conduct all training and evaluation using a designated person who has the knowledge, training experience to train operators and judge their competency.
- Ensure that only candidates that have passed all tests are issued a Certified Forklift Operator certificate and are authorized to operate powered industrial equipment (forklifts, belt loaders).

  Exception: Trainees under the direct supervision of a designated person can operate an industrial truck provided it is away from other employees, in a controlled environment.
- Ensure qualification training consists of a combination of classroom instruction such as lecture, discussion, videotapes, and practical training such as demonstrations and practical exercises by the trainee.

6.0 Training Program Contents

The location manager/supervisor trains equipment operators in the following main topic areas:

- Forklift and industrial equipment operations.
- Workplace and operating environment related topics.

7.0 Equipment Training

Forklift/industrial equipment related topics:

- All operating instructions and limitations, warnings and precautions for the types of industrial equipment the operator will be authorized to operate.
- Similarities to and differences from the automobile.
- Controls and instrumentation: location, what they do and how they work.
- Vehicle capacity and stability.
- Steering, maneuvering, and visibility (including restrictions due to loading).
- Fork and attachment adaptation, operation and limitations of their utilization.
- Vehicle inspection and maintenance.
- Refueling, charging, or recharging batteries.
- LPG cylinder instructions (if applicable).

- Any other operating instruction, warning or precaution listed in the operator's manual for the type vehicle which he employee is being trained to operate.

8.0 Operating Environment

Workplace and operating environment related topics.

- Surface conditions where equipment will operate.
- Composition of probable loads and load stability.
- Load manipulation, stacking, and unstacking.
- Pedestrian traffic.
- Narrow aisles and other restricted places of operation.
- Operating the truck on ramps and other sloped surfaces that could affect equipment stability.
- Other unique or potentially hazardous environmental conditions that exist or may exist in the work area.
- Operating the equipment in closed environments and other areas where insufficient ventilation could cause a buildup of carbon monoxide or diesel exhaust.

9.0 Recurrent and Remedial Training

9.1 The location manager/supervisor ensures there is an effective evaluation process and remedial training program so that equipment operators retain and use the knowledge, skills and ability needed to operate the powered equipment safely.

- Ensure a performance evaluation is conducted at least annually by a designated trainer/certifier.
- Provide refresher or remedial training when there is reason to believe that there have been unsafe operations, when an accident or a near miss occurs, or when an evaluation indicates that the operator is not capable of safety performing the assigned duties.

9.2 Use the following information when training is more than an "on-the-spot" correction made by a supervisor or when there have been multiple instances of "on-the-spot" corrections.

- When an "on-the-spot" correction is used, the person making the correction should point out the incorrect manner of equipment operation or other unsafe act being conducted. Tell the employee how to do the operation correctly, and then ensure that the employee does the operation correctly.
- Review the applicable initial qualification training topics and the following items when a more general, structured retraining program is used to train employees and eliminate unsafe equipment operations.
- Identify common unsafe situations encountered in the workplace.
- Observed or known unsafe operating methods.
- The need for constant attentiveness to the vehicle, the workplace conditions, and the manner in which the equipment is operated.

10.0 Certification

Prior to certifying an equipment operator, the location manager/supervisor ensures that each operator has:

- Successfully completed the required training and has been evaluated.
- Demonstrated competency in the performance of their duties.
- The certification includes the name of the trainee, date of training, and signature of the person performing the training and evaluation. The location manager/supervisor will retain a copy of the training materials and course outline, or the name and address of the person who conducted the training, if it was conducted by an outside (non-Kalitta Charters) trainer.
- Insert a copy of the training certificate in the employee's personnel file and forward a copy to the Safety Department.

11.0 Duplicative Training

Each current and new equipment operator who has completed training on specific parts of the program listed under "Training Programs Contents" for the types of equipment they are authorized to operate, and in the operating environment in which the equipment will be operated in, does not have to be retrained on those items if the trainer/certifier verifies that the operator is competent in performing those duties and if the location manager/supervisor has written documentation of the training and the employee is evaluated and is found to be competent.

***

1.0 Purpose

1.1 Forklift operators should be aware of the major causes of forklift accidents that have been identified as follows:

- Distraction – Operator's attention is diverted to something else in the workplace.
- Carelessness – Safety rules are known but are not practiced.
- Overconfidence – Operator is not prepared to react to an unusual situation.

1.2 This section covers the safe way to operate a forklift. All forklift operators must be thoroughly knowledgeable about these principles and must be constantly

2.0 Operator Safety

Keep feet, legs, arms, and hands inside the frame of the truck so they can't be pinched while passing in close quarters. Stunt driving and horseplay are not permitted.

3.0 Overhead Guards

3.1 All forklifts shall have overhead guards and 36-inch load back rests.

3.2 The overhead guards and load backrests are to remain on the forklifts. **Neither the overhead guard nor the backrest is to be removed.**

4.0 Aisle Marking

4.1 Aisle marking is a means of restricting the movement of forklifts to a specific route on a terminal dock or in a warehouse. Aisles must be clearly marked and must be wide enough to allow wide turns.

4.2 All facilities are required to use aisle marking where practical. Aisles and passageways shall be kept clear and in good repair with no obstructions across or in aisles that could create a hazard.

5.0 Operations Characteristics

The operation of a forklift is basically different from that of an automobile. The new operator will learn that a forklift:

- Is steered by the rear wheels.
- Steers more easily loaded than empty.
- Is probably driven backward as much as forward.
- Is often steered with one hand since the other hand is used to operate the controls.

6.0 Turning

6.1 The forklift is steered by the rear wheels, which means that the operator must carefully and cautiously watch the rear of the forklift at every turn. Beginners have a tendency to over-steer and turn too quickly.

6.2 Forklifts have peculiar characteristics known as free turning that is once the turn is started, they tend to turn more and more sharply in a smaller and smaller circle. To counteract this tendency and reduce the sharpness of the turn, turn the steering wheel slowly in the opposite direction after the turn is started. This tendency works in reverse when moving backwards.

6.3 If traveling forward and you need to make a sharp turn, start the turn, start the turn from as near the inside corner as possible, rather than the middle of the aisle, to allow sample space for the rear to swing. When making a turn while backing, do the opposite. Don't start the turn until the front will clear the corner.

7.0 Ramps

7.1 Ramps require special driving care because the load and forklift is likely to be less stable and the stopping distance is increased when moving down the ramp. Always keep the load on the "uphill side".

7.2 Drive in reverse when carrying a load down a ramp or incline and drive forward when going up an incline. Never turn sideways on an incline.

8.0 Speed Limit

Forklift accidents can be prevented if you follow the same rules that apply to safe driving on a highway. A safe operating speed is that speed that will let you stop the forklift within the clear distance in the direction of travel. On wet or slippery floors, drive at a slower than normal speed, as you would on a wet or icy highway. Maximum speed limit indoors is 2-3 miles per hour (a fast walk).

9.0 Stopping

Always use the foot brake to stop the vehicle when changing from backward motion to a forward motion or from a forward motion to a backward motion. Never use reverse or forward gear to change the direction of movement before stopping the vehicle.

10.0 Parking

10.1 Always park a forklift in the designated parking area. Never leave it in an aisle or doorway, or where it can obstruct materials or equipment others need to use.

10.2 Follow this parking procedure:

- Put the controls in neutral.
- Shut off the power.
- Set the brakes.
- Remove the key or pull the connector plug.
- Place the forks flat on the floor.

11.0 Winter Conditions

11.1 Lift truck operators must take extra care when driving during winter months when blowing snow and slippery pavement present hazards. Slippery pavement makes stopping distance longer.

11.2 Apply the following safety principles:

- Adjust speed to conditions.
- Be especially careful on steep dock plates.
- Ensure that trailers wheels are blocked before entering.
- Use drying compound for dock sweat and seep or shovel blown snow.
- Ensure that propane tank is properly secured, fuel lines aren't chaffed and the emergency brake is set when operator exits the forklift.

12.0 Unattended Forklift

12.1 A forklift is considered unattended if the operator is more than 25 feet from the unit or the operator cannot see it.

12.2 Before leaving a forklift unattended, set the controls in neutral, shut off the power, set the brakes. Turn off the ignition, and place the forks flat on the floor. If it operates on LPG fuel, close the manual shut-off at the tank when the forklift will not be used for some time. Never park the forklift in an aisle, doorway, or any area that would obstruct handling materials or the movements of another employee. Mishaps often occur when an unauthorized person tries to move the forklift into a safer place or out of the way.

13.0 LPG Cylinders

13.1 Every cylinder used on a lift truck should be inspected prior to use. Proper handling and inspection of cylinders will provide lasting serviceability, and prevent damage to equipment or injury to operators.

13.2 Inspect cylinders to ensure that:

- Cylinder is free of sharp dents and gouges.
- Cylinder and fittings are gas tight. No Leaks.
- Quick-disconnect coupling is serviceable. No cracks or burrs.
- Protective caps are over the safety relief valve. Plastic or rubber caps may be used.
- Cylinder has been carefully placed into position on truck. Never throw or drag a cylinder.
- Cylinder is positioned so locating pin is in place, clamped securely, and that clamps are serviceable, not missing or broken.
- Fuel lines are firmly fastened and protected against rubbing, chafing or exposure to heat, such as the exhaust manifold. If frayed or worn, report immediately to a supervisor.

14.0 Additional Safety Rules

14.1 In addition to the safety principles identified above, all forklift operators must be aware of the following additional safety rules:

- Yield to pedestrians.
- Never ride the clutch.
- Never pump the accelerator while the forklift is in motion.
- Proceed slowly around corners.
- Watch at blind corners and signal with horn before turning corner.

- Never carry riders.
- Keep forks flat on the floor when parked.
- Shut off engine, set parking brake, and shut off fuel at the tank on LPG powered trucks when the forklift won't be used for an extended period of time.
- Only authorized drivers may operate a forklift.
- Report damage or faulty operation to your supervisor immediately.
- Don't operate the forklift until you are familiar with it—get instructions.
- Use appropriate attachments for different loads.
- Don't smoke while fueling or operating a forklift.
- Ensure that headlights and rotating beacons are used when outdoors at night.

15.0 Picking Up and Lowering Loads

15.1 When positioning the forks to lift a load:

- Spread the forks as wide as possible to fit the pallet. This distributes the load evenly and tends to bind it together. (If the forks are placed close together, the pallet tends to droop at the sides and cause undue strain and instability).
- Seat the forks fully and squarely in the pallet.
- Use caution when adjusting the blades from side to side. Carelessness during this operation has caused serious injuries to fingers, hands, and toes.
- Do not extend the forks beyond the pallet. (Extending the forks beyond the pallet may damage freight on the other side).

Note: Do not attempt to lift a load weighing more than the rated capacity of the forklift.

15.2 When picking up a load:

- Level the forks squarely under the pallet or freight.
- Tilt the upright back far enough to handle the load safely and return the tilt lever to neutral.
- Return the shift lever to neutral and disengage the clutch while raising the fork—don't leave the forklift in gear with the clutch depressed.
- Don't stand under raised forks.
- Never raise a load while moving.
- Return the shift lever to neutral and disengage the clutch before lowering the forks—don't leave in gear with the clutch depressed.
- Tilt elevated load forward only when directly over the loading place.
- Lower the load slowly and smoothly.
- Seat the pallet on the floor and then tilt the upright to the vertical position so the forks can be easily withdrawn.
- Back the forklift clear of the load before turning to move away.
- Never lower loads while moving.

16.0 Bulky Loads

If a bulky load obstructs your view, drive the truck backward so you will have a clear view of the path of travel. Always use low gear when carrying heavy loads. Starting heavy loads in high gear causes excessive wear on the clutch.

17.0 Picking Up Round Objects

When picking up round objects, be certain the fork's tips don't damage the load or push it against other objects. Tilt the uprights so the tips of the forks touch the floor, and then move forward so the forks can easily slide under the object. When completely under the object, tilt the upright toward the rear so the load will roll back against the upright in a safe carrying position.

18.0 Using Rug Pole

Use a rug pole when carrying rolls of carpet and be especially careful on turns.

19.0 Using Chain

If a chain is required, raise the freight and place it on the blocks before trying to secure the chain. Never permit an employee to steady a load while it is being raised, lowered, or moved. Ensure the chain is rated at or exceeds the load.

20.0 Moving Loads

20.1 **Never raise or lower loads while moving.** Whether loaded or empty, place the forks as low as possible but high enough not to strike any raised or uneven surface or other objects in the path. Tilting the upright toward the rear helps secure the load.

20.2 **Make all starts, stops, and turns easy, smooth, and gradual** to prevent the load from shifting. Take particular care while traveling or maneuvering to avoid striking overhead fixtures. This is especially true when entering or leaving a trailer.

21.0 Safety Rules

21.1 All forklift operators must be thoroughly familiar with the following safety rules:

- Use care in stacking and unstacking.
- Watch for unstable loads and stacks.
- Keep the load against the carriage.
- Keep clear of the dock edge.
- Watch overhead clearance.
- Don't push or bump freight with the forks or rear end.
- Use a dock plate and check for security and strength.
- Check for blocked trailer tires.
- Avoid slick spots, bumps, and holes.
- Use care when handling long pieces of lumber, metal, etc; watch the swing.
- Watch for obstacles and pedestrians in your path.
- Keep backing to an absolute minimum.
- Never travel with a load lifted more than 6" to 8" off the floor.
- Leave sufficient space between your forklift and other vehicles.
- Keep to the right side of aisles.
- Watch the rear end swing.
- Face the direction of travel.

- Be alert.
- Watch truck or trailer floor strength.

21.2 Most collisions occur when the forklift is backing in a turning maneuver. Usually the operator, being so intent on handling the load safely, neglects to note where the truck is going. Stop at all blind crossings before continuing and don't move until you are sure the way is clear. Take extreme caution when passing aisles where freight is stacked high enough to obstruct your vision.

22.0 Assisting Forklift Operator

When assisting a forklift operator, position yourself in a safe area to prevent injury. Never place yourself directly in front of or behind the travel path of a forklift. Guide the driver to prevent damaging freight with extended forks.

23.0 Inspection Procedures

23.1 Make an inspection at the start of each shift, when returning from break or lunch, and when changing operators. Check the following:

- Battery connection and cable for cracks and wear.

Note: For electric forklifts, on the Forklift/Hoisting Tractor Daily Inspection Report [08562-10]—illustrated on page 8—see column #14. Record findings pertaining to the battery systems in this column. **Do not attempt to check fluid levels in batteries.**

- Oil, water and hydraulic fluid levels.
- Horn.
- Steering.
- Brakes.
- Hydraulic systems and chafing or leaking lines.
- Tire pressure.
- Lights and safety flashers/beacons.

23.2 Report any defects immediately; do not operate defective equipment.

24.0 Inspection Report

Fill out a *Forklift/Hoisting Tractor Daily Inspection Report (08562-10)* form (illustrated on next page) for each forklift. This form has been designed to provide a daily inspection log for a one-month period for a forklift. It should be kept within the facility for control purposes, but must be readily available to the operator. Completed forms must be retained for a 90-day period after the last entry date on the form.

25.0 Forklift/Hoisting Tractor Daily Inspection Report

FORKLIFT/HOISTING TRACTOR DAILY INSPECTION REPORT
08562-10

Equipment Number	Month/Year	Location

Place "X" in appropriate columns if defect noted or repair needed (explain in comments section). Check last detail column to indicate others are OK.

Date	Oil	Water	Fuel	Steering	Brakes	Chassis &	Lifting Devices	Coupling Devices	Wheels & Tires	Lights	Fire Extinguisher	Battery Charged	Check all OK except columns marked with X	Comments (Defect Noted/Repair Needed)	HOUR METER	OPERATOR'S SIGNATURE	Mechanics/ Supervisor's Initials: Out of Service	Deferred to P.M.	Repaired
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* Shop forklifts only **Electric lift trucks

26.0 Charging Procedures

26.1 Set the parking brake (when applicable) and plug the charging unit into the battery cable. Most units will begin charging immediately; some units must be turned on to operate. Ensure that vent caps are functioning and the battery compartment is open to dissipate heat.

26.2 Keep tools and other foreign objects away from the top of uncovered batteries.

27.0 Charging Locations

27.1 Locate battery-charging installations in areas designated for that purpose. *Facilities must provide for the following:*

- Flushing and neutralizing spilled electrolyte.
- Fire protection.
- Protection for charging apparatus from damage.
- Adequate ventilation for dispersal of fumes from gassing batteries.
- Eyewash station in accordance with ANSI Z358.1 and subject KC301-5 Eyewash Stations.

27.2 **Carboy tiller and siphon.** Ensure that a carboy tiller or siphon for handling electrolyte is available.

27.3 **Smoking**. Smoking is prohibited in the charging area.

28.0 Battery Changing Area

- Locate battery-changing installations in areas designated for that purpose.
- Provide an overhead hoist, conveyor or equivalent material handling equipment for handling batteries.
- Make certain that reinstalled batteries are properly positioned and secured in the lift truck.

***

1.0 Purpose

The Hazard Communication Program is intended to prevent occupational injuries and illnesses related to chemical exposures by educating employees about workplace chemical hazards. Hazardous chemicals can have immediate harmful effects or may cause long-term health problems. Employees have the need and a right to know about the hazards and identities of chemicals they are exposed to in the workplace. The information contained in the Material Safety Data Sheet for each chemical must be immediately available to assist in providing proper information for exposed employees.

- Maintenance and distribution of Material Safety Data Sheets is the responsibility of the Director of Quality Control.
- It is the employee's responsibility to use this information and the provided training in order to protect themselves and the environment from contamination.

2.0 Reference

29 CFR 1910.1200

3.0 Program

OSHA requires a written Hazard Communication Program where hazardous chemicals are known to be present both under normal conditions and in foreseeable emergencies. Reference section KC901-3, Written Program. The Hazard Communication Program has four major components:

- Container labeling and other forms of warning information for hazardous chemicals used in the workplace.
- Material Safety Data Sheets (MSDSs) for hazardous chemicals.
- Employee education and training to inform employees and contractors of any hazardous chemicals to which employees may be exposed.
- Methods to inform employees of hazards associated with non-routine work.

Each operating location will develop a Hazard Communication Program for their specific circumstances. Use this chapter's information along with the MSDS binder; inventory sheets and training materials. Kalitta Charters's overall Hazard Communication Program is contained in the *KC Hazardous Materials Ground Handlers Training Manual.*

4.0 Definition

The OSHA definition of "hazardous chemicals" is "any chemical which is a physical hazard or health hazard". Hazardous chemicals can have immediate effect on the worker or case long-term health problems. Chemical physical hazard characteristics include substances which are:

- Combustible, flammable or explosive.
- Compressed gases.

- Organic peroxides, oxidizers (promotes fire), pyrophorics (materials and ignite when exposed to air), unstable reactive) or water reactive.

Chemical health hazards include substances which are:

- Toxic or highly toxic.
- Irritants, sensitizers, carcinogens and those affecting specific body organ.

5.0 Exceptions

There are several categories of material not covered by the HazCom Standard. Some of these are obvious, as they are inherently non-harmful while others are already controlled by other agencies such as the Food and Drug Administration, DOT, or EPA. Some examples are:

5.1 Food, drugs, or cosmetics for personal use and drugs sold at the retail level.

5.2 Hazardous waste, pesticides and fungicides covered by the EPA.

5.3 Transportation of chemicals under the DOT HAZMAT regulations.

5.4 Normal consumer products covered by the Consumer Safety Act, which are used only in the same manner as regular consumer use. Generally, these would include items such as janitorial cleaning supplies. Some other examples would include administrative supplies, such as:

- Glue, ink and rubber cement.
- Cleaning supplies, floor-wax, and furniture polish.
- Glass cleaner, hand cleaner, hand soap.
- Toilet bowl cleaner.

5.5 Manufactured articles that do not cause exposure to workers under normal conditions of use.

6.0 Labeling

The location manager/supervisor has the responsibility to ensure hazardous chemicals display, in English, a precautionary label stating the name of the hazardous chemical(s), the appropriate hazard warning(s) and the name and address of the manufacturer or importer.

All portable containers of hazardous chemicals require labeling. The employee who uses the portable container is responsible for labeling the container and the manager/supervisor will ensure that the labeling is done.

EXCEPTION: Portable containers of hazardous chemicals do not have to be labeled if they contain chemicals transferred from a labeled container, and are intended only for the immediate use by **and remain under the constant control of the employee** who performs the transfer.

7.0 Master MSDS

KC Maintenance Quality Control section maintains the KC master MSDS information and distributes MSDS binders. Quality Control sends updated information to each operating location that uses and stores hazardous/chemical materials. A copy of the MSDS for each locally procured hazardous material shall be forwarded to Quality Control if not already included in the MSDS binder. A copy of the MSDS's will be maintained on file for thirty years (reference 29 CFR 1910.20).

8.0 MSDS Information

Material Safety Data Sheets (MSDSs) contain information on the product's hazards and are prepared and distributed by the chemical manufacturers and distributors. Reference subject *Material Safety Data Sheet* (KC902-1) for detailed information. MSDSs contain the following types of information:

- Name of the material on the label and who to call for additional information.
- What the ingredients are and what the exposure limits are.
- The material's physical and chemical characteristic.
- The fire and explosion hazards.
- The reactivity data of the material.
- The health hazard data.
- The precautions for safe handling and use.
- Control measures including protective equipment.

9.0 MSDS Review

Quality Control will review incoming data sheets for new and significant health/safety information. New information will be transmitted to the manager/supervisors so appropriate measures can be taken to inform affected employees. If deficiencies exist or additional information is needed concerning MSDSs, the chemical manufacturer or supplier will be contacted to obtain the desired information. MSDSs will be made available for OSHA representatives upon request.

10.0 New/Trial Chemicals

Quality Control and/or the Safety Department must approve all chemicals before use by employees. Affected employees will be trained on the chemical's hazards prior to being exposed to the new hazard.

11.0 Inventory

The location manager/supervisor has the responsibility to maintain an inventory list of known chemicals in the workplace. The chemical inventory list will be inserted into the front of the location's MSDS binder. Periodically review the inventory and ensure that each chemical has a MSDS in the binder.

12.0 Training

Effective employee training and education is the most critical component of the hazard communication program. A properly conducted training program will ensure that employees are aware of hazards in the workplace and appropriate control measures to protect themselves.

All employees who work in areas where hazardous chemicals are used and/or maintained, and those who may be exposed in an emergency, shall annually receive HazCom training. The program is presented in two phases: General Information and Specific Hazard Training.

12.1 General Information Training:

- Explanation of the Hazard Communication Program, location and availability of the KC written hazard communication program, and how the program is implemented for the operating location.

- Operations in the work area where hazardous chemicals are present.
- General introduction of chemical hazards, labeling and Material Safety Data Sheet (MSDS's) and explain the labeling system.
- Information describing how they can work safely with chemical hazards.

12.1.1 Specific Hazard Training.

- Review the hazardous chemicals used or stored in the work area.
- Review the MSDS information on potential health hazards for the chemicals being used/stored.
- How to detect the presence/release of hazardous chemicals in the work area, i.e. smell, visual clues, etc.
- Review appropriate work practices, personal protective equipment requirements and emergency procedures.
- How to obtain additional safety and health information.

13.0 New Employees

Employees reassigned/transferred to other work areas will review the specific hazards for their new work area. The manager/supervisor is responsible for ensuring the training is accomplished. New, temporary and casual employees will complete hazard communication training prior to being exposed to hazardous chemicals. Document the training on the *Safety Orientation and Training Checklist (AIR-1035)* as described in KC401-1.

14.0 Non-Routine Work

Occasionally employees will be asked to perform non-routine work, which is defined as work not normally performed by an employee during the normal course of job duties. Examples of non-routine work area:

- Confined Space entry work.
- Floor stripping/coating.
- Building and structural repair.
- Welding and cutting operations.

Use the following procedures when employees perform non-routine work:

- Before employees start non-routine tasks, the manager/supervisor will conduct meetings to explain the correct work procedures. Ensure employees are aware of associated hazards and review the applicable MSDS(s) for any hazardous chemicals involved in the work process.
- Employees share in the responsibility by ensuring their supervisor knows that non-routine work will be performed.

- Special work permits are required for some non-routine work such as confined space entry, welding, cutting, and brazing. Reference the appropriate section for confined space entry (KC803-1) and welding/hot work (KC805-3).

15.0 Contractors

Contractors must comply with all OSHA HazCom standards and requirements. Outside vendors may include heating, telephone, vehicular maintenance, aircraft repair specialists, etc. The Hazard Communication Standard requires all contractors working on company property to be informed hazardous chemicals which the contractor's employees may be exposed to while performing their work. Also review the applicable KC protective measures and personal protective equipment requirements with the contractor. This information is needed so contractors can properly train and inform their employees of potential hazards.

The contractor will inform the KC location manager/supervisor about hazardous chemicals that the contractor brings onto the property so that precautions can be taken. Each employer is responsible for informing and training their employees when on a common site.

16.0 Shipping

All hazardous chemical containers that are shipped shall be labeled in accordance with DOT regulations and the Dangerous Goods Manual. The labels shall include the identity of the hazardous chemicals(s), appropriate hazard warning(s), and the name and address of the chemical manufacturer or other responsible part. Place a copy of the MSDS with the shipment.

17.0 Hazardous Wastes

Hazardous waste materials are stored, handled and disposed of following the procedures contained in the *KC Hazardous Material ground Handlers Training Manual.*

18.0 Medical Emergency

If an employee suffers an exposure requiring medical care, provide a copy of the applicable MSDS to the medical providers. If the chemical is a trade secret and a nurse or treating physician needs the specific chemical identity for emergency or first aid treatment, the manufacturer must immediately disclose the chemical identity.

***

1.0 Reference

29 CFR 1910.1200

2.0 Glossary

The following glossary of terms and abbreviations has been compiled to increase the understanding of the OSHA Hazard Communication Standard.

2.1 **ACUTE** - Having a sudden onset, usually severe and often dangerous exposure in which relatively rapid physical effects are occurring.

2.2 **ARTICLES** - Manufactured items that are formed to specific shape or design during manufacture and do not release, or otherwise result in exposure to a hazardous chemical *"under normal condition of use"*.

2.3 **ASPHYSIANT** - means a vapor or gas that can cause injury by reducing the amount of oxygen available for breathing.

2.4 **CARCINOGEN** - means a chemical that has been demonstrated to cause cancer in humans, or to c cancer in animals, and therefore, is considered capable of causing cancer in humans. A chemical is considered to be a carcinogen if:

- It has been evaluated by the Internal Agency for Research on Cancer (IARC), and found to be a carcinogen or potential carcinogen.
- It is listed as a carcinogen or potential carcinogen in the Annual Report on Carcinogens published by the National Toxicology Program (NTP) (latest edition).
- It is regulated by OSHA, as a carcinogen.

2.5 **CHEMICALS** - Elements, chemical compounds, or mixtures or elements and/or compounds.

2.6 **CHEMICAL MANUFACTURERS** - Employers who produce chemicals for use or distribution.

2.7 **CHRONIC** - Persistent, prolonged, repeated, or long duration.

2.8 **COMBUSTIBLE LIQUID** - means a liquid having a flash point at or above 100°F (37.8°C) but below 200°F (93.3°C), except that this term does not include any liquid mixture that has one or more components with a flash point above 200°F (93.3°C) which make up 99% or more of the total volume of the mixture.

2.9 **COMMON NAME** - A designation or identification such as code name, code number, trade name, brand name, or generic name used to identify a chemical other than by its chemical name.

2.10 **CONTAINER** - Anything that holds hazardous chemicals except pipes and piping systems, engine fuel tanks, or other operating systems of a vehicle.

2.11 **CORROSIVE MATERIAL** - means a chemical liquid or solid that causes visible destruction or irreversible alteration in human skin tissue at the site of contact or in the case of leakage from its packaging, a liquid that has a severe corrosion rate steel.

- A material is considered to be destructive or to cause irreversible alteration in skin tissue if the tissue at the site of contact is destroyed or changed irreversibly after an exposure period of 4 hours or less.
- A liquid is considered to have a severe corrosion rate if its corrosion rate exceeds 0.250 inch per year on steel at a test temperature of 130°F.

2.12 **DESIGNATED REPRESENTATIVE** - Any individual or organization to which an employee gives written authorization to exercise the employee's rights under this section (i.e. attorney, physician).

2.13 **DISTRIBUTIONS** - Supplies "hazardous chemicals to other distributors, businesses, employers, or to manufacturing purchasers". Manufacturers only provide data sheets to distributors that normally sell to manufacturing purchasers.

2.14 **EMPLOYEE** - A worker who may be exposed to hazardous chemicals under normal operating conditions or in foreseeable emergencies. The HazCom program does not generally cover workers such as office workers or bank tellers who encounter hazardous chemicals only in non-routine, isolated instances.

2.15 **EXPLOSIVE** - means a chemical that causes a sudden, almost instantaneous release of pressure, gas and heat when subjected to sudden shock, pressure or high temperature.

2.16 **EXPOSURE** - Employee inhalation, ingestion, or absorption of a hazardous chemical during the course of employment. Exposures may be potential or known sources.

2.17 **FLAMMABLE MATERIAL** - means a chemical substance that falls within any of the following categories:

- Flammable Aerosol - A chemical substance or mixture dispensed from its container as a mist, spray or foam by a propellant under pressure, which, when tested by the method described in 16 CFR 1500.45 yields a flame projection exceeding 18 inches at full valve opening or a flash-back (a flame extending back to the valve) at any valve opening.

- Flammable Gas - A gas which, at atmospheric temperature and pressure, forms a flammable mixture with air when present at a concentration of 13% or less by volume, or that forms a range of flammable mixtures with air wider than 12%, regardless of lower limit, or see flammable aerosol, above.

- Flammable Liquid - A liquid having a flash point below 100°F (37.8°C), except that this does not include any liquid mixture having one or more components with a flash point at or above 100°F (37.8°C) which make up 99% or more of the total volume of the mixture.

- Flammable Solid - A solid, other than an explosive, that can cause fire through friction, absorption of mixture, spontaneous chemical change, or retained heat from manufacturing or processing, or that can be readily ignited, and when ignited, will continue to burn or be consumed after removal of the source of ignition.

2.18 **FORESEEABLE EMERGENCY** - An emergency which employers would normally plan for as a presumed potential occurrence determined by the nature of the operation, such as equipment failure or rupture of containers.

2.19 **HMIS** - Hazardous Materials Identification System.

2.20 **HAZARD RATING** - a signal word used to draw attention to the presence of hazardous substance and to indicate the potential degree of severity that may result from overexposure to the substance. Each word is capable of expressing the degree of severity in relative terms only.

- DANGER - Serious, severe, hazardous.
- WARNING - Moderate, immediate, harmful.
- CAUTION - Minor, mild, irritating.

2.21 **HAZRD WARNING** - Conveys the hazards of the chemical in the container to employees by words, pictures, or symbols.

2.22 **HAZARDOUS CHEMICAL** - Any Chemical that presents a physical or health hazard.

2.23 **HEALTH HAZARD** - A chemical for which there is evidence that acute or chronic health effects may occur in exposed employees. The term 'health hazard" includes chemicals which are carcinogens, t or highly toxic agents, reproductive toxins irritants, corrosives, sensitizers, hepatoxins, etc.

2.24 **IDENTITY** - Any name used on the material safety data sheet for the chemical and on the list of hazardous chemicals in the work place. OSHA definition permits use of common names on labels for individual components or for the mixture as a whole.

2.25 **IMMEDIATE USE** - The hazardous chemicals produced in other countries for the purpose of supplying them to distributors or manufacturing purchasers within the United States.

2.26 **IMPORTERS** - Companies procuring hazardous chemicals produced in other countries for the purpose of supplying them to distributors or manufacturing purchasers within the United States.

2.27 **IRRITANT** - means a chemical substance or mixture, not a corrosive that on immediate, prolonged or repeated contact with normal living tissues induces a local inflammatory response in the skin, eyes or mucous membranes.

2.28 **LABEL** - Written, printed, or graphic material displayed on or affixed to a container of hazardous chemicals.

2.29 **MANUFACTURING PURCHASERS** - Employers who purchase a hazardous chemical for use within a workplace within SIC Codes 01-89.

2.30 **MATERIAL SAFETY DATA SHEET (MSDS)** - Written or printed material prepared in accordance with State and/or Federal regulations for a hazardous chemical.

2.31 **MIXTURES** - A combination of two or more chemicals if the combination is not, in whole or part, the result of a chemical reaction.

2.32 **NFPA** - National Fire Protection Association.

2.33 **NONROUTINE TASKS** - A nonroutine task is defined as one that is performed but not part of the usual daily or weekly work routine. An example would be chemically washing down walls of a workspace twice a year.

2.34 **NORMAL OPERATING CONDITIONS** - Operations which employees usually encounter in performing their job duties in their assigned areas.

2.35 **OSHA** - Occupational Safety and Health Administration.

2.36 **OXIDIZER** - means a chemical other than a blasting agent or explosive that initiates or promotes combustion in other materials, thereby causing fire either of itself or through the release of oxygen or other gases.

2.37 **PHYSICAL HAZARD** - A chemical for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer, phrophoric, unstable (reactive), or water-reactive.

2.38 **PRODUCE** - Manufacture, process, formulate, or repackage.

2.39 **PYROPHORIC MATERIAL** - means a chemical substance or mixture that will ignite spontaneously in dry or moist air at or below 130°F (54.4°C).

2.40 **REACTIVE MATERIAL** - means a chemical substance or mixture that may vigorously polymerize, decompose, condense, or become self-reactive under conditions or shock, pressure or temperature and includes a chemical substance or mixture that falls within any of the following categories.

- "Explosive material". A chemical substance or mixture that causes sudden almost instantaneous release of pressure, gas and heat when subjected to sudden shock, pressure or high temperature.
- "Organic peroxide". An organic compound that contains the bivalent-O-O-structure which may be considered a structural derivative of hydrogen peroxide, in which one or both of the hydrogen atoms has been replaced by an organic radical.
- "Pressure-generating material". A chemical substance or mixture that may spontaneously polymerize, with an increase in pressure, unless protected by the addition of an inhibitor, or by refrigeration or other thermal control; may decompose to release gas in its container; or comprises the contents of a self-pressurized container.
- "Water-reactive material". A chemical substance or mixture that reacts with water to release heat or gas which is flammable, highly toxic, or toxic.

2.41 **SENSITIZER** - means a chemical substance or mixture that causes a substantial number of persons to develop a hypersensitive reaction in normal issue upon reapplication of the chemical substance or mixture, through an allergic or photodynamic reaction.

2.42 **SIC** - Standard Industrial Classification. Codes that identify companies by type of industry.

2.43 **"THRESHOLD LIMIT VALUES"** (TLV) - means the airborne concentration of the substance which represent conditions under which it is believed nearly all workers may be repeatedly exposed day after day without adverse effect. There are three categories of Threshold Limit Values (TLVs):

- Time Weighted Average (TWA) - the time weighted average concentration for a normal 8-hour workday or 40-hour week, to which nearly all workers may be exposed, day after day, without adverse effect.

- Short Term Exposure Limit (STEL) - the maximum concentration to which workers can be exposed for a period up to 15 minutes continuously without suffering from, (1) irritation, (2) chronic or irreversible tissue change or (3) narcosis of sufficient degree to increase accidental injury, impair self-rescue, or materially reduce work efficiency, provided that no more than four excursions per day are permitted, with a least 60 minutes between exposure periods, and provided that the daily TWA also is not exceeded.

- Ceiling (C) - the concentration that should not be exceeded even instantaneously.

2.44 **TOXIC** - refers to a chemical falling within any of the following toxic categories:

- A chemical that has a median lethal dose (LD50) of more than 50 milligrams per kilogram but not more than 500 milligrams per kilogram of body weight.

- A chemical that has a median lethal dose (LD50) of more than 200 milligrams per kilogram but not more than 1000 milligrams per kilogram of body weight when administered by continuous contact for 24 hours (or less if death occurs within 24 hours).

- A chemical that has a median lethal concentration (LC50) in air of more than 200 parts per million but not more than 2000 parts per million by volume of gas or vapor, or more than two milligrams per liter but not more than 20 milligrams per liter of mist, fume or dust, when administered by continuous inhalation for one hour (Or less if death occurs within one hour).

2.45 **TRADE SECRET** - Any confidential formula, pattern, process, device, information, or compilation of information that is used in an employer's business, and that gives the employer an opportunity to obtain an advantage over competitors who do not know or use it.

2.46 **UNSTABLE** - means a chemical which in the pure state, or as produced or transported, will vigorously polymerize, decompose, condense, or will become self-reactive under conditions of shock, pressure or temperature.

2.47 **USE** - Package, handle, react, or transfer.

2.48 **WORK AREA** - A room or defined space in a workplace where hazardous chemicals are produced or used, and where employees are present.

2.49 **WORKPLACE** - An establishment, job-site, or project at one geographical location containing one or more work areas.

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1.0 Purpose

1.1 Each location must have a written hazard communication program. This requirement can be satisfied by typing in the information in the blanks on the pages in this section. Upon completion, the pages must be returned to the manual and made available, upon request, to all interested parties. The location manager is responsible for ensuring that these requirements are complied with.

1.2 This program is based on the Federal Hazard Communication Standard. However, many states have adopted their own program that is more restrictive than the federal standard. Check with your State Job Safety and Health Agency in order to determine if your state follows the federal or a state program. If your state has it's own program, obtain a copy of this program, and review and implement those requirements that are not contained in this chapter.

2.0 Reference

29 CFR 1910.1200

3.0 Complete Written Program

3.1 It is important to remember that this written program must reflect your actual workplace conditions and covers any additional state requirements (if applicable). The written program, when customized to meet the needs of your individual workplace, should fulfill all the requirements of this standard. Please ensure all sections of the written program that follow are completed. Any additional state requirements that must be made part of the written program must also be included in this section.

3.2 **Questions** - If you have any questions concerning the Hazard Communication Program, or the completion of the written program, contact KC Safety Department.

4.0 Company Policy

4.1 Kalitta Charters is firmly committed to providing each of its employees a safe and healthy work environment. It is a matter of company policy as well as an important public program under the OSHA Standard. We have implemented this Hazard Communication Program as outlined herein.

4.2 *(Name of facility manager/supervisor)* _____ will have the overall responsibility for the coordination of the program for Kalitta Charters, LLC., located at: *(enter full site address).* _____

_____.

5.0 Access to Written Program

All, or part, of this written Hazard Communication Program is available to employees, their designated representative, the Assistant Secretary of Labor for Occupational Safety and Health (OSHA), and the Director of the National Institute of Occupational Safety and Health (NIOSH). This is available from the person named above for review and copying.

6.0 Labeling

6.1 *(Name of person or position)* _____ is responsible for assuring compliance with labeling requirements, in accordance with 29 CFR 1910.1200.

6.2 No hazardous chemicals will be accepted for use in the facility, or shipped to any outside location, unless labeled with at least the following information:

- Identity of the hazardous chemicals(s).
- Appropriate hazard warnings.
- Name and address of the chemical manufacturer, importer, or other responsible party.

6.3 All chemicals on site will be stored in their original or approved containers with a proper label attached, except small quantities for immediate use. Any container not properly labeled must be immediately reported to the named individual above for labeling or proper disposal.

6.4 The coordinator of the labeling program is responsible for ensuring all in-facility containers (transfer or secondary containers) of hazardous chemicals will be labeled with at least the following Information:

- Identity of the hazardous chemical(s).
- Appropriate hazard warnings.

6.5 The coordinator of the labeling program is responsible for reviewing and assuring that the label information is kept current. No label is to be defaced or removed when a material is received or in use.

6.6 Ensure that labels on sealed containers moving through the facility containing hazardous chemicals are not removed or defaced. This includes, DOT, IATA or ICAO hazard class labels when the chemical is regulated for transportation as dangerous goods.

7.0- Material Safety Data Sheets (MSDSs)

7.1 The Director of Quality Control is responsible for establishing and monitoring the company MSDS program. This individual will make sure the company procedures are followed to obtain the necessary MSDS's and will review incoming MSDS's for new or significant health and safety information. He or she will see that any new information is passed on to affected employees.

7.2 Chemical manufacturers, importers, and suppliers are responsible for providing appropriate and current MSDS's and ensuring their accuracy. Kalitta Charters will not be held responsible for inaccurate information on an MSDS as long as it is accepted in good faith from the manufacturer, importer or supplier. The individual responsible for the MSDS program will maintain copies of written requests to manufacturers, importers, and supplies.

7.3 Copies of all MSDS's for hazardous chemicals used at this facility are kept in a binder in the (show location) _____
_____.

7.4 MSDS's will be readily available to all employees during each work shift. If an MSDS is not available, immediately contact (name of person or position) _____
_____.

7.5 When new revised MSDS's are received, the MSDS binder will be updated and the outdated MSDS will be placed in a separate file for 30 years. This is the same procedure once a hazardous chemical product is no longer present at the facility. The KC Quality Control Department will maintain the master MSDS information.

7.6 Employees wishing to obtain copies of a MSDS will prepare a separate *MSDS Request Form* for each substance for which a copy is desired. See individual responsible for the MSDS program at your facility.

7.7 Any MSDS's that are moving with any non-regulated or dangerous goods shipments must continue to move with the shipment to destination, unless damaged.

7.8 If an employee requests a MSDS for shipment moving through the facility, the employee must complete a *MSDS Request Form.* The form must indicate the air bill number or the shippers name and address and the specific type of material involved.

8.0 Chemical Inventory List

(Name of person or position) _____ will maintain a list of all hazardous chemicals used in the facility, and update the list as necessary. The chemical inventory list will be updated upon receipt of hazardous chemicals at the facility. The Chemical Inventory List is contained in the MSDS binder maintained at (location) _____
_____.

9.0 Employee Training and Information

9.1 The Airline Safety Department and the individual's supervisor (*name*)_____ is responsible for Kalitta Charters's employee training programs. He or she will ensure that all program elements specified below are carried out:

- An overview of the requirements contained in the Hazard Communication Standard.
- Hazardous Chemicals present at his or her workplaces.
- Physical and health risks of the hazardous chemicals.
- Symptoms of overexposure.
- How to determine the presence or release of hazardous chemicals in his or her work area.
- How to reduce or prevent exposure of hazardous chemicals through the use of control procedures, work practices and personal protective equipment.
- Steps the company has taken to reduce or prevent exposure to chemicals.
- Procedures to follow if employees are overexposed to hazard information.
- Location of the MSDS binder and written hazard communication program.
- Document training on the *Safety Orientation and Training Checklist* (AIR-1035).

9.2 **Prior to introducing a new chemical hazard** into any section of the facility, each employee in that section that will, or could, come in contact with the material, will be given information and training as outlined above for the new chemical hazard.

9.3 Annual refresher training shall be provided to all employees whose positions require contact with hazardous chemicals.

9.4 The Airline Safety Department will monitor and maintain records of employee training and advise the facility manger/supervisor on training needs.

10.0 Hazardous Non-Routine Tasks

10.1 A non-routine task is defined as one that is performed but not a part of the usual daily or weekly work routine. An example would be chemically washing down walls of a work area twice a year.

10.2 In the event of a work-related task that is not consistent with normal duties that has the potential or probability of exposing employees or contractor personnel to hazardous chemicals, the appropriate supervisor, manager, or contractor is responsible for providing information about any hazardous chemicals an employee may be exposed to during the performance of a non-routine task. To handle hazardous non-routine tasks:

- Identify the hazardous non-routine tasks.
- Identify the products that are to be used for the task that contain hazardous substances.
- Obtain a MSDS (if not already available) for each of the products.
- Prior to performance of the non-routine task, ensure that the employees who are going to perform the task have been informed and trained concerning the use of the product containing the hazardous substances.

Note: Other employees in the area during the performance of the hazardous non-routine task and hazards associated with the task. If possible, post signs and rope off the area to decrease the potential of accidental exposure to the hazard.

11.0 Chemicals in Un-labeled Pipes

Pipes or piping systems are exempt form labeling requirements. However, employees working in areas where pipes containing hazardous chemicals are present will be informed by their supervisor or manager of the hazardous chemicals contained in the pipes and what to do in an emergency situation.

12.0 Informing Contractors

12.1 The facility manager will ensure that all contractors retained to perform services at any Kalitta Charters facility are informed of the presence of all hazardous chemicals in the facility. Contractors will be supplied with a letter stating that hazardous chemicals are located at our facility, and where the Chemical Inventory List and MSDS binder is located. The letter also requires outside contractors, vendors and sub-contractors to supply an MSDS for any substances they bring onto Kalitta Charters's property. If KC employees work in an area where exposure to a hazardous chemical used by a contractor may occur, then the employees will receive training regarding the hazardous substance being used, if the substance represents a hazard for which the employees were not previously trained. Each employer is responsible for informing and training their employees when on a common site.

12.2 Facilities will display the following *Hazardous Chemical Notice (KC 08530-40)* at their main entrances.

HAZARDOUS CHEMCIAL NOTICE
KC085030-40

ATTENTION
VENDORS CONTRACTORS VISTORS

This facility has a written Hazardous Chemical Communication Program for chemicals used and Stored at this location. See the facility supervisor before performing any work or enter the work areas.

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1.0 Purpose

1.1 Maintaining certain records and using standardized forms will assist you in documenting various aspects of the hazard communication program at your facility. OSHA does not require the use of any standardized forms in the Hazard Communication Program (HCP), but using or adapting some of the examples in this chapter will assist you in organizing the program.

1.2 The most important documentation is the Kalitta Charters written program that must be maintained and available to employees at all times. It must also be provided to OSHA Compliance Safety and Health Officers (CSHOs) upon request during an inspection. Because the written program is a statement of roles and responsibilities, it must be updated as situations change, particularly since the program incorporates actual names and titles of responsible employees. Changes in job status or employment as they affect responsibilities in the company HCP must be reflected in the written program.

1.3 Other important records, which should be maintained and updated on a regular basis, are the chemical inventory form, evidence of assuring proper labeling on chemical containers in the workplace, records of attendance, and topics covered in employee training sessions.

2.0 Reference

29 CFR 1910.1200

3.0 Effective Record Keeping

The first step to effective record keeping and documentation is organization. Knowing exactly how and what records are maintained, the person(s) responsible for maintaining the records, where all records are kept, where new MSDS's are to be sent, and where MSDS requests are to be filed are examples of the basic parts of an organized and efficient record keeping plan.

4.0 Records Location

If possible, maintain all permanent records to the hazard communication program in one location. The Quality Control section will keep a master file of original MSDS's, MSDS requests, and chemical inventory. The Safety Department will maintain the master training records. In some cases, documentation about training and MSDS requests should be copied to the employees' permanent file in the Human Resources Department. This is particularly important for terminated or retired employees who may have certain record retention requirements.

5.0 Record Keeping Format

5.1 Keep all MSDS's in a central location that is well-marked and easily accessible to employees. Point out the location to all employees during the initial training session. Use the Kalitta Charters Material Safety Data Sheet binder and store the MSDS's in alphabetical or other noted order. It may be necessary to secure the binder to the central location to make sure that it is not removed.

5.2 Employees wishing to obtain copies of MSDS must prepare a separate request form (see MSDS Employee Request) for each substance for which an MSDS is desired. Any employee found removing an MSDS without completing the required request or obtaining permission from management in the event of an emergency may be subject to disciplinary actions up to and including discharge.

5.3 Keep available near or in the binder blank MSDS request forms for employees to complete. The OSHA Standard says that employees must have access to the MSDS binder at all times during their work shifts.

5.4 All outdated copies of MSDS and those chemicals no longer on-site must be maintained in a separate file for a period of 30 years. Note on the MSDS the time frame the product was used at your facility.

6.0 Documenting Training Sessions

6.1 Maintain evidence of training sessions and attendance. Note employee questions or particular areas of concern to help plan future sessions or follow-up with immediate needs. The Safety Department will maintain the master employee hazardous materials training records.

6.2 In order to assist you in complying with the HCP, included in this chapter are example letters and forms for documentation of the necessary activities and records conducted as part of fulfilling the standard.

7.0 Non-Routine Tasks Training

The facility manager will ensure that each employee is trained in the health hazards, appropriate work practices, and required personal protective equipment when performing non-routine tasks at each facility. Each employee will be trained verbally in the specific hazards associated with a particular task. The training session will be documented and each employee will sign the form attesting that they have attended a special training session for the specific non-routine task. The training and documentation will be the responsibility of the Supervisor. Forward a copy to the Safety Department.

8.0 Documenting MSDS Requests

8.1 An example letter for requesting MSDSs to chemical manufacturers and suppliers is included at the end of this chapter. ***Retype the letter on company letterhead.*** For each MSDS request mailed, set up a tracking system to note the date the request was mailed and the final disposition.

8.2 Keep chemical manufacturers' correspondence in a permanent file with the HCS program coordinator. **Use these letters and forms directly or adapt them to fit your needs.**

8.3 **Letters.** The types/subjects of letters that you may need in dealing with vendors, chemical manufacturers and supplies are listed below: (Examples of written letters on these matters follows):

- Initial MSDS request to chemical suppliers and manufacturers (see pages 3 or 4).
- Follow-up/second MSDS request to chemical manufacturers or suppliers (see page 5).
- To contractors and vendors, using hazardous chemicals on the facility premises (see page 6).
- To Regional OSHA Office for assistance in obtaining MSDS from chemical manufacturer/supplier (see page 7).

8.4 **Forms.** Important forms that you will use in this program are also found on the following pages. **(Photocopy the appropriate form as needed, but MAKE CERTAIN the page is then returned to the manual).** They are:

- *Material Safety Data Sheet Employee Copy Request.*
- *Documentation of Training Hazardous Non-Routine Tasks.*

8.5 **Example Letters and Forms**

Example letter #1. Initial MSDS/label requirements letter to chemical and manufacturers and suppliers.

Purpose: To notify chemical suppliers and distributors of the corporate policy regarding MSDS and chemical container labeling for products received/used at the facility.

Use: Retype (alter if necessary) on corporate letterhead. Document date mailed and track disposition in MSDS tracking file.

Note: Letter incorporates an arbitrary example of refusal of payment for receiving MSDSs. Although this is recommended, **law does not require it.**

(Date mailed)

(Name and address of vendor/supplier)

Pursuant to the Hazard Communication Standard (29 CFR 1910.1200), as directed by the Occupational Safety and Health Administration; chemical manufacturers, importers, suppliers and distributors must provide hazard information on their products in the form of container/package labeling and Material Safety Data Sheets (MSDS).

We have conducted a chemical inventory at our facility and have determined that you supply our company with the following chemical products:

(List product[s])

For each of the chemical products listed above, please provide us with a Material Safety Data Sheet (MSDS) within 10 business days from the receipt of this letter.

All future containers received at this facility must meet the labeling and MSDS requirements as outlined by OSHA. The label must include the following information: (1) identity of the substance, (2) physical and health hazards associated with the use of the substance, and (3) name and address of the manufacturer, supplier or importer of the chemical. Each chemical received in this facility must have an MSDS on file. The MSDS must accompany the shipment or be received within two days of receiving the shipment.

Effective immediately, all future shipments of chemical products to this facility at the above address must fulfill the above requirements. Failure to do so may result in refusal of shipment and withholding of payment.

For questions regarding this matter, contact the Hazard Communication Program Coordinator (insert name) at (insert phone numb
Thank You.

Sincerely Yours,
(Name and title of responsible person)

Example Letters and Forms - (cont'd)

Example letter #2. To chemical manufacturers or distributors.

Purpose: First request for MSDS.

Note: Letter incorporates an arbitrary example of refusal of payment for receiving MSDSs. Although this is recommended, **law does not require it.**

(Date mailed)

(Name and address of chemical manufacturer, vendor or supplier)

Pursuant to the Occupational Safety and Health Administration's Hazard Communication Standard (29 CFR 1910.1200), our records indicate that we have not received a Material Safety Data Sheet (MSDS) for the following chemical products(s):

(List products[s])

Please provide the MSDS information as requested to the undersigned at the address provided within 10 business days from the receipt of this letter. Failure to comply with this request may result in refusal of future shipments and withholding of payment, as well as notification to the regional Occupational Safety and Health Administration Office.

Please contract me directly if you have any questions. Thank you.

Sincerely Yours,

(Name and title of responsible person)

Example Letters and Forms - (cont'd)

Example letter #3. To chemical manufacturers and suppliers.

Purpose: Second request for MSDS.

Note: Send after failure to manufacturer or supplier to respond to initial request in the time period approximately seven days from the addressees expected receipt of the letter. *(Date mailed).*

(Date Mailed)

(Name and address of chemical manufacturer, vendor or supplier or importer as it appears on the chemical label)

On *(insert date),* we first requested an MSDS for your chemical products(s) as noted in the attached letter, and listed below. We have not yet received the MSDS for these substances:

(List products[s])

Pursuant to the Occupational Safety and Health Administration's Hazard Communication Standard (29 CFR 1910.1200), chemical manufacturers, importers and suppliers must provide a Material Safety Data Sheet (MSDS) for these products.

Please respond to this second notice no later than *(insert date).* Failure to contact us and provide the necessary information will result in our referral of this matter to the Occupational Safety and Health Administration Regional Office.

If you have already sent the MSDS, please contact me directly at the following telephone number: *(area code)* _____. Thank you for your immediate attention to this matter.

Sincerely Your,

(Name and title of responsible person)

Example Letters and Forms - (cont'd)

Example letter #4. To company vendors or contractors who perform services at the facility.

Purpose: To inform vendors of the existence of the Standard, that they have obligations, and how your facility will meet these requirements.

Note: Include language or an accompanying statement in future contracts or agreements outlining these responsibilities.

(Date mailed)

(Name and address of vendor or contractor)
(You might include equipment repair, tool suppliers, plumbers, electricians, truck washing vendors, etc).

In order to comply with the Occupational Safety and Health Administration's Hazard Communication Standard, 29 CFR 1910.1200, (name of company) is conducting an inventory of chemicals stored on its premises. As a contractor or vendor providing a service on *(insert company name's)* premises, we realize that you may bring or use chemicals on our property to which our employees could be exposed, either accidentally or otherwise.

To ensure that our corporate program and inventory is complete, please notify us about the use or existence of any chemicals stored on our premises, provide us with Material Safety Data sheets (MSDS) for those chemicals, and an explanation of any precautionary measures that should be taken to protect employees at this facility. Prior to conducting work, please notify the *(insert responsible person)* in advance each time you plan to use any hazardous chemicals or perform any hazardous processes such as welding or similar operations on the premises.

The Hazard Communication Written Program for (insert name of company) can be found at the following location (insert terminal location). This information, including MSDS's and the written program, is available from us upon request. We intend to comply fully with this legal obligation with respect to our employees, and assume that your company will comply with respect to your employees.

Sincerely Yours,

(Name and title of responsible person)

cc: Purchasing
(Other departments as appropriate)

Example Letters and Forms - (cont'd)

Example letter #5. To OSHA; failure to provide appropriate MSDS.

Purpose: Notify OSHA of manufacturer's failure to provide MSDS.

Address: Director of appropriate regional OSHA office (see reference section).

Note: Contact the regional OSHA office in your area regardless where the manufacturer is located.

(Date mailed)

(Address of appropriate regional office)

Pursuant to Hazard Communication Standard (29 CFR 1910.1200), we have been unable to obtain the appropriate Material Safety Data Sheet (MSDS) from our chemical *(insert appropriate supplier, distributor, manufacturer)* as outlined below:

Name and address
Chemical Manufacturer/Supplier Distributor

(List product[s])

At the time of this writing, the above named supplier has failed to respond to two written requests on (insert dates) as noted in the attached letter(s). Therefore, we are asking your assistance in investigating this complaint and obtaining the MSDS(s).

Please contact us if you need further information. Thank you.

Sincerely Yours,

(Name and title of responsible person)

cc: (supplier)
Enclosures: (number)

Example Letters and Forms - (cont'd)

MATERIAL SAFETY DATA SHEET
EMPLOYEE COPY REQUEST

Employee name: _____ No _____

Employee representative: _____
Title: _____

Work area: _____

Job classification: _____

Material Safety Data Sheet is being requested for

_____
(Chemical or substance name)

_____ _____
Employee Signature Date

❑ MSDS has been received

_____ _____
Employee Signature Date

❑ MSDS is not currently available. A copy is being requested from our supplier and will be made available to you as soon as we receive it.

_____ _____
Employee Signature Date

_____ _____
Employee Signature Date

A separate request form is required for each substance.

Example Letters and Forms - (cont'd)

DOCUMENTATION OF TRAINING FOR HAZARDOUS NON-ROUTINE TASKS

Task description:

When performed:

Hazardous chemical(s) used/produced:

I, the undersigned, have attended a special training session on the health and physical hazards related to the hazardous chemicals encountered in the above described non-routine tasks.

Name	Date
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

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1.0 Purpose

1.1 Knowing what to do and doing it immediately are very important when dealing with a accident. Kalitta Charters employees must react quickly to stop further damage or injury, and to report and investigate the accident. The location manager or supervisor must get the necessary details and notify the Safety department. Getting complete and accurate details early can save a lot of time and expense later. Airline Safety will serve as the company's single point of contact for accidents and coordinating with the General Manager, which in turn handle claims with the company insurance carriers.

1.2 Insurance claims are broken down into three categories:

- Vehicular and general liability claims involving third parties (non-KC) personnel.
- Claims for physical damages to KC buildings or theft of KC property.
- Workers' compensation claims.

2.0 Claims Administration

2.1 The General Manager handles claims with the assistance, of the Safety department. AIG, and Aviation Insurance Services (AIS), claims as follows:

- Vehicular and general liability claims involving third parties (non-KC) personnel are handled by Aviation Insurance Services. Submit the accident reports to the Safety Department. These claims will telephonically be reported to AIS. All vehicle claims must be reported to AIS, even if it's a one-vehicle accident.

AIS will file the state-required vehicular accident/damage reporting forms in some states and jurisdictions. The vehicle operator must still file operator reports required by the local or state agencies.

- The General Manager and the Airline Safety Department handle Damage/theft to KC buildings and property. Report the claims to the Airline Safety Department on the *Event Log Report (EL-1001) form.*

- Work-related injuries to KC personnel and their workers' compensation claims are handled by AIG.

2.2 A third-party liability claim is:

- Any injury or damage to persons or property not employed or owned by KC, and where KC equipment or personnel are involved in the incident. For example: a motorist hits a KC vehicle, a KC vehicle hits a motorist, or a KC vehicle hits a structure or property owned by another party. (These are vehicular claims).

- Accidents with damage to non-KC property or a third party (non-KC) person is injured with involvement by an KC employee or KC equipment. (These are general liability claims). For example:

- A visitor to an KC office slips and falls on a wet floor in the KC office.
- A contractual employee is injured when he or she falls from the crew stairs or K-loader.
- KC or contractor aircraft jet blast damages vehicles in a parking lot next to our parking ramp.

- Report these claims to The Airline Safety Office. Document the incident on the *Event Log Report (EL-1001) form or the Statement of Injury – Worker Compensation Report (06114-30)* form as applicable.

3.0 Physical and Property Damage Claims Defined

3.1 Physical damage and property claims may be defined as those that involve KC assets, but do not always involve a third party.

3.2 Examples of physical damage and property claims would be:

- An KC truck rolls off the side of a road damaging the truck, but does not damage any other property.
- Hail, wind, flood, lightning damage to KC buildings or property.
- Theft of KC property or employee property (i.e. tools) being used to perform services for KC benefit.
- A vendor damages KC's fence or light-pole with a vehicle.

3.3 Report these kinds of claims to the Airline Safety Department on the Event Log Report (El-1001) form. The Safety Department coordinates with the General Manager for reimbursements with AIS.

3.4 Instruct employees that when a accident of any kind occurs in which they are involved, they must immediately report it to their supervisor. (Typically, accidents are reported orally first, then in writing). Management then evaluates the circumstances of the accident and determines whether to telephonically report the accident to AIS. All accidents will be reported to the Safety Department by the accident reporting process.

3.5 The AIS reporting requirements applies not only to accidents involving company vehicles, but also to leased vehicles if the accident occurred while a company employee was driving it on company property.

4.0 Alleged Mishaps

4.1 Thoroughly investigate all alleged accidents, report the event to AIS, and document your findings. The insurance carrier needs this information to decide whether to pay or deny the claim.

4.2 If asked about the company's liability insurance coverage, refer the person to the General Manager or the Office Manager.

5.0 Injury While Vehicle is Parked

If an employee is injured while the vehicle is properly parked, report this as Workers' Compensation Injury.

6.0 Summons

If, as an agent of the company, you are served a summons, suit paper, or any other legal document pertaining to a vehicle accident or general liability event, act immediately and notify The General Manager's office. Make a photocopy of the document and mail the original to KC . Fax a copy to (fax: 734-484-3630), Airline Safety Department (fax: 734-544-7041), stating: what papers were served: time and date they were served; where they were served; and who accepted service.

7.0 Unreported Vehicle Damages

7.1 On discovering unreported damage to company equipment, the location supervisor or manager makes every reasonable effort to find out what caused the damage, when it could have happened, and who (if anyone) was driving at the time. Get the answers to such questions as:

- Could the damage have happened only while the vehicle was parked?
- Would the driver notice the damage?
- Who drove the vehicle recently?
- Was the damage reported on the last daily inspection form?
- During what period of time could the damage have happened?

7.2 Report these kinds of claims to the General Manager's office and the Airline Safety Department on the *Event Log (EL-1001)* form.

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1.0 Overview

Flight Safety programs address the very complex interactions of aircraft, ground, and flight operations and the associated human factors. Aircraft accidents/incidents are the result of direct and indirect events or actions, occurring in a specific sequence, time and place ("chain of events"), that result in an aircraft ground or flight accident/incident. A dedication to safety, diligence to duties, employee education, use of good judgment, and a constant awareness of associated hazards are necessary to break this "chain of events" and prevent costly aviation accidents.

This Flight Safety program can help prevent aircraft accidents by identifying and recommending actions to eliminate the "causes" of accidents or reduce risks to an acceptable level. This is accomplished by focusing on:

Aircrew, maintenance, ground support, scheduling, and flight following personnel procedures, education, and training to address "human factor" concerns.

Reporting and investigating accidents, incidents, "close calls," and other events having adverse effects on flight and ground operations.

Identifying, resolving, or controlling flight and ground hazards to an acceptable level of risk. Hazards may include airport facilities, fueling, cargo handling, weather, birds, foreign object damages, departure and arrival procedures, deicing procedures, etc.

Providing aviation-involved personnel with current operational procedures, industry trends and concerns, hazards, and other information that will aid in improving operational safety.

Recommending actions to correct aircraft and ground support equipment design, performance, or reliability concerns.

2.0 Objective

The Objective of the KC Safety program is to help prevent aircraft accidents, incidents, and personnel injuries by identifying potential hazards, recommending corrective action, assisting other KC departments with implementation of corrective action, and promoting safety awareness throughout KC.

3.0 Methods

3.1 To accomplish this objective, the Safety department performs the following functions in accordance with guidance found in HBAT 99-19 and HDAW 99-16, 14 CFR 121, and 14 CFR 135, Air Carrier Safety Programs, and the Director of Safety:

- Identification of potential safety hazards
- Incident/ Hazard investigations and Risk Assessments
- Collection and analysis of safety information
- Dissemination of safety information and Promotion of safety awareness
- Monitoring effectiveness of corrective action
- Developing and exercising KC emergency response procedures

3.2 Identification of potential safety hazards

An effective Safety program addresses potential hazards to prevent accidents. Management and employees need to pay particular attention to identifying potential ground and flight hazards such as:

- Crewmembers not adequately rested to perform flight duties safely.
- Poorly designed or confusing instrument approaches.
- High workloads during portions of the flight or ground operations.
- Poor communications between the flight crew, operations and control areas.
- Flight crews rushing checklists or not properly running checklists.
- Mid-air collisions potential, particularly near high density airports.
- Poor communications with Air Traffic Services.
- Flight crew stress factors.
- Cargo fires and HazMat spills/leakage.
- Poor airport, ground, and ramp lighting.
- Failure to follow company and FAR standard operating procedures.
- Overlooking information in Notices to Airmen (NOTAMs).
- In-flight turbulence and hazardous weather conditions.
- Unsafe ground movements and inadequate marshalling.
- Obstacles and equipment in the parking area.
- Poor communication between flight crews and maintenance personnel.
- Adverse human reactions to time or schedule pressures.
- Poor work continuity between maintenance shifts.
- Lack of up-to-date maintenance manuals.
- Inadequate maintenance actions, checking repairs and sign-off actions.
- Lack of emergency equipment, procedures, and training for emergencies and safe work practices.
- Having tools and equipment to properly perform maintenance activities.
- Chronic failures of aircraft systems or inability to troubleshoot chronic problems.
- Loading irregularities found after load notification to the crew.

3.3 The Flight Safety department uses the following processes to identify potential safety hazards:

Event Log Reporting System (KC Safety Manual, KC 606-1) – Any KC employee may submit a Event Log report to the Flight Safety department if they perceive a potential risk to flight safety exists in their department. All Event Log reports are investigated by the appropriate department and monitored until resolved. The KC Airline Safety department maintains the Event Log report database.

Safety Audits – KC Flight Safety reviews station audits, internal evaluation audits, attends CAS meetings, and external audits (FAA, DOD, etc) to identify potential problem areas.

Open reporting systems – The Safety department maintains an anonymous toll free telephone number and anonymous reporting form for all KC employees to report safety concerns if they wish to remain anonymous.

Safety Committee – KC Safety chairs the Safety Committee. The Safety Committee is comprised of senior management within KC and Safety Representatives. The committee meets quarterly to review progress on open safety recommendations and identify areas of concern.

Daily Interaction With Other Departments - Attends weekly operations and senior staff meetings, perform and/or monitor flight crewmember duties and monitor training programs, and observe ramp operations.

3.4 Event Log Investigations

- Before measures can be taken to prevent future accidents, incidents, or alleged safety violations, we must learn what events, actions, and underlying "causes" combined to allow the event to occur. This requires that the event be investigated to determine the "who, what, when, where, why, and how" of the event. The basic purpose of accident/incident investigations and follow-up analyses are to identify the basic "causes"; relevant personnel actions, behaviors, and pertinent skills; environmental factors; communication problems; equipment deficiencies; training program shortfalls; etc., **before** they have a chance to lead to a accident and **before** they set off a chain of events which makes a future accident or incident inevitable. If the pertinent and deficient "human factors," equipment problems, or operating environmental hazards can be identified early enough, and suitable corrective actions taken, an accident may well be prevented. Refer to Ch. 6 for initial accident and incident Event Log reporting procedures and a list of those safety events that require reporting. Section KC1104-1 describes the accident and incident investigation process.

- Rather than wait for an accident to occur, the KC Safety department investigates problems at the incident level. It also investigates flight hazards identified under the Event Log reporting system. There are several elements crucial to this process. The investigations are independent, conducted in an atmosphere free from political pressure. The reports are written to ensure accurate and well-documented data. Investigations are intended to identify methods to improve procedures, processes, training, and equipment and not for use in corrective action against a particular individual or department.

- A significant portion of the Flight Safety program efforts will be directed towards addressing "human factors" issues since about 70% of aircraft accidents are attributed to "human factors." "Human factors" is the term given to the study and understanding of humans; their interactions with each other and their environment; and their physical and mental capabilities within that environment. Human factors involve everyone and their interactions in the aviation environment—mechanics, crewmembers, air traffic controllers, dispatchers, load supervisors, etc.

- Human factor concerns are generally addressed by enhancing training and educational programs (for example, Crew Resource Management training), developing operational procedures to minimize human errors or risks, conducting man-equipment analyses to correct interface problems, and reducing or controlling operating environment hazards to minimize the opportunities for human errors leading to accidents

- Recommendations as a result of an investigation are distributed to the appropriate department for follow up. A written response from each department is required. The response must include either corrective action taken, or to be taken, or a reason for not implementing proposed corrective action. Recommendations remain in an open or monitor status until corrective action is implemented or the Safety Committee recommends closure with no action after reviewing a department's reason for not implementing corrective action.

- The Airline Safety department also conducts periodic risk assessments of critical operations such as aircraft de-icing, aircraft loading, or selected maintenance items (in-flight engine shutdowns). Assessment recommendations are processed in the same manner as incident and hazard report recommendations.

3.5 Collection and analysis of safety information

Safety Database: The safety department inputs information from all incident investigations, hazard reports, audits, and relevant flight crew debriefs into the safety database. This information is used to identify trends, track open recommendations. The data is reviewed monthly and significant trends are presented to senior management. Special investigations may be conducted to address trend issues.

3.6 Dissemination of safety information and Promotion of safety awareness

- An effective communication program is essential to KC's Safety program. No one method is better than another for communicating safety information. All available mediums are used.

- Company Notams – For rapid dissemination of information to KC crewmembers. These are included on the dispatch release provided to the Captain before each flight.

- Safety Committee – Addresses a wide range of issues with senior management.

- Safety/Ops PIREPS –Monthly reports on pertinent flight issues.

- Company Manuals – Contain policy and procedures related to flight safety.

- Bulletin Board – Includes interesting publications and articles promoting flight safety.

- Safety News Letters – articles promoting flight safety.

3.7 Monitoring effectiveness of corrective action

- It would not matter how many investigations, audits, or reports were published if the corrective action was never implemented and validated. To ensure that all corrective action is implemented and effective the Airline Safety department tracks the status of all open recommendations and obtains

monthly progress reports from the appropriate departments. There are three status levels for a recommendation; open, monitor, and closed.

- An open recommendation is defined as a recommendation for which corrective action has not been decided and/or accepted by the Safety Department. A recommendation in monitor status indicates that corrective action has been identified and accepted but not fully implemented yet. A closed recommendation indicates corrective action is complete or the Safety Department recommended closure without corrective action for whatever reason. The reason is documented in writing when the recommendation is closed.

- Follow up audits and incident trending is used to validate the effectiveness of the corrective action. If the corrective action fails to resolve the safety concern the recommendation will be reopened.

3.8 Developing and exercising KC emergency response procedures

- Since every accident/incident is different, no one can really become an expert in managing one. It is clear, however, that the response will be much better if the procedures and processes are thought out in advance and committed to writing. The Safety department has overall responsibility for developing, coordinating with all KC departments, and exercising KC emergency response procedures. Emergency response procedures are documented in the KC Emergency Notification Procedures Manual.

- A manual, of course, is no good unless people are trained to use it. Safety's responsibility is to ensure all departments are knowledgeable as to their role and required actions following an aircraft accident. To achieve this knowledge the Emergency Notification Procedures Manual will be reviewed and exercised at least annually. Lessons learned from each exercise are published as a revision to the Emergency Notification Procedures Manual.

- The KC Airline Safety department also conducts Go-Team training for pre-identified Go-Team members.

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1.0 Overall Purpose

The FAA requires that each certificate holder that conducts operations under part 121 have a Director of Safety. This person would be responsible for keeping the highest management officials of the certificate holder fully informed about he safety status of the certificate holder's entire operation. The FAA believes that an independent, full time position is important if at all available or possible. Within Kalitta Charters, the Director of Airline Safety performs this duty.

2.0 Nature and Scope

The Safety Department acts independently of other parts of the Company. This position demands a meticulous approach, the highest degree of integrity, and the ability to cope with rapidly changing circumstances in varying situations entirely without supervision.

The Director of Safety is responsible for providing information and advice directly to the President/ CEO on all matters relating to the safe operation of company aircraft. Tact and diplomacy are therefore prerequisite.

The Safety Department interacts with flight crews, maintenance and departmental managers throughout the company to encourage and achieve integration of all activities regardless of an individual's status and job discipline. The Director of Safety must also foster positive relationships with regulatory authorities and outside agencies.

3.0 Authority

On flight safety matters, the Director of Safety has direct and immediate access to the President/CEO and all management when required and is authorized to conduct audits in connection with any aspect of KC operations.

Where it is necessary to conduct an investigation into a flight related incident, the Director of Safety has the authority to implement the proceedings on behalf of President/CEO in accordance with the terms of Chapter 6 and section KC1104-1 of this manual.

4.0 Points of Contact

The main functional points of contact within KC on a day-to-day basis are:

- General Manager/ Director of Operations
- Chief Pilot
- Director of Maintenance
- Manager of MED Flight
- Manager of Training

The functional points of contact outside KC are:

- FAA and NTSB
- Other airlines Safety departments
- Aircraft and Equipment Manufacturers
- Airport Authorities
- Industry Flight Safety Organizations

5.0 Qualifications

The suggested minimum attributes and qualifications required are:

- A broad aviation/technical education
- A sound knowledge of commercial operations, in particular flight operations procedures and activities, preferably under Part 121, Part 135, or DOD
- Experience as a instrument or commercial rated pilot or engineer
- The ability for clear expression in writing
- Good presentation and interpersonal skills
- Computer-literacy
- The ability to communicate at all levels, both inside and outside the Company
- Organizational ability
- To be capable of working alone (at times under pressure)
- Good analytical skills
- To exhibit leadership and an authoritative approach

6.0 Training

The Director of safety must be familiar with all aspects of KC organization, activities and personnel. This is achieved in part by in-house induction training but such knowledge is best acquired by self-education and research.

External training will include as a minimum, Flight Safety program management and accident investigation. This is normally accomplished through FAA, NTSB, or DOD sponsored training programs.

7.0 Flight Safety – Responsibilities

The Director of safety, reports to the President/CEO and is responsible for proposing safety policy, monitoring its implementation and providing an independent overview of KC activities with regards to flight safety; reviews and revision of the Flight Safety program; timely advice and assistance on safety matters to managers at all levels; and a reporting system for flight safety hazard identification and resolution.

The Director of Safety is responsible to the President/CEO for:

- Maintaining the KC Event Log database.
- Monitoring safety trends and advising senior management.
- Conducting investigations at the incident level, before an accident, to determine root cause, developing recommendations, assisting with implementing corrective actions and monitoring the effectiveness of those actions.
- Coordinating with all KC department managers to resolve safety issues.
- Acting as Facilitator of the KC Flight Safety Committee, arranging its meetings and keeping records of such meetings.
- Disseminating safety-related information company-wide.
- Carrying out safety audits and inspections
- Maintaining familiarity with all aspects of the Company's activities and its personnel
- Establishing a rapport with the company pilot group through meetings and general information sharing

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1.0 Objective

To help prevent future accidents, flight related incidents with accident potential will be investigated to determine what events, actions, and underlying "causes" combined to allow the incident to occur. This requires an investigation to determine the "who, what, when, where, why, and how of the event. The objective of a safety investigation is not to place blame on an individual or department but to identify opportunities for improvement in KC processes, training, facilitation, communication, equipment, and organization that will prevent a future accident.

2.0 Definitions

Accident: An occurrence associated with the operation of the aircraft that takes place between the times any person boards the aircraft with the intention of flight and all such persons have disembarked, and in which a person suffers death or serious injury, or in which the aircraft receives substantial damage.

Serious Injury: Any injury which: 1) Requires hospitalisation for more than 48 hours, commencing within 7 days from the date of the injury was received; 2) results in a fracture of any bone (except simple fractures of fingers, toes, or nose); 3) causes severe haemorrhages, nerve, muscle, or tendon damage; 4) involves any internal organ; or 5) involves second or third degree burns, or any burns affecting more than 5 percent of the body surface.

Substantial Damage: Damage or failure which adversely affects the structural strength, performance, or flight characteristics of the aircraft, and which would normally require major repair or replacement of the affected component. Engine failure or damage limited to an engine if only one engine fails or is damaged, bent fairings or cowling, dented skin, small punctured homes in the skin, damage to landing gear, wheels, tires, flaps, engine accessories, brakes, or wingtips are not considered "substantial damage' for the purpose of this part.

Incident: An occurrence, other than an accident, associated with the operation of an aircraft, which affects or could affect the safety of operation.

Serious incident: An incident involving circumstances indicating that an accident nearly occurred. The difference between an accident and a serious incident lies only in the result.

Causes: Actions, omissions, events, conditions, or a combination thereof, which led to the accident or incident.

Investigation: A process conducted for the purpose of accident prevention, which includes the gathering and analysis of information, the drawing of conclusions, including the determination of causes and, when appropriate, the making of safety recommendations.

Investigator-in-charge: A person, commission or other body charged, on the basis of his/her/their qualifications, with the responsibility for the organization, conduct and control of an investigation.

3.0 Incident/Accident Notification & Reporting

Notification and Reporting Procedures will be in accordance with the KC Emergency Notification Procedures Manual and the KC Safety Manual, Chapter 6.

4.0 Accident/Incident Investigation Procedures

In case of an accident or serious incident (usually an incident with high accident potential and FAA and NTSB involvement as well), the Director of Safety will form a rapid response team (Go-team) comprised of the following:

- Go-Team Lead (typically the Director of Airline Safety)
- Go-Team Facilitator - Safety Representative
- IBT Pilot Safety Committee Representative
- Line Maintenance Representative
- Quality Control/Assurance Representative

The Go-team will travel to the accident/incident site and begin a company investigation. If the NTSB and/or FAA are also onsite the Go Team will provide whatever assistance they require to facilitate their investigation.

The Go-Team Lead or Facilitator will immediately advise the President/CEO, and the appropriate departmental manager of findings requiring immediate action.

5.0 Relevant Documents

As soon as a notification of an incident/accident is received, it is the duty of the Safety Department to ensure that all relevant documents are gathered and made available for reference. This list is not exhaustive, but will typically include, as appropriate:

- The original incident report
- Crew statements
- Crew license details and training records
- Witness statements
- Photographs
- Flight documentation (navigation log, weight and balance information, etc)
- Operating/maintenance manuals and checklists
- All relevant DFDR printouts and CVR transcripts
- ATC voice tapes or transcripts
- ATC radar transcript

6.0 Investigation Reports

All incidents investigated by the safety department will generate a written report. An accident or serious incident will generate a report in accordance with NTSB guidelines as outlined below. A minor incident will generate a condensed version of the NTSB format with the appropriate sections. As a minimum, the written report will contain a brief narrative, findings, probable cause, and recommendations.

7.0 Accident or Serious Incident Report Format

7.1 Factual Information

History of the flight. A brief narrative giving the following information:

- Flight number, type of operation, last point of departure, time of departure (local time or UTC), point of intended landing
- Flight preparation, description of the flight and events leading to the accident, including reconstruction of the significant portion of the flight path, if appropriate
- Location (latitude, longitude, elevation), time of the accident (local time or UTC), whether day or night.

Injuries to persons. Completion of the following (in numbers):

Injuries	Crew	Passengers	Other
Fatal			
Serious			
Minor/None			

Note: Fatal injuries include all deaths determined to be a direct result of injuries sustained in the accident.

Damage to aircraft. Brief statement of the damage sustained by aircraft in the accident (destroyed, substantially damaged, slightly damaged, no damage).

Other damage. Brief description of damage sustained by objects other than the aircraft.

Personnel information

- Pertinent information concerning each of the flight crewmembers including: age, validity of licenses, ratings, mandatory checks, flying experience (total and on type) and relevant information on duty time
- Brief statement of qualifications and experience of other crewmembers
- Pertinent information regarding other personnel, such as air traffic services, maintenance, etc., when relevant

Aircraft information

- Brief statement on airworthiness and maintenance of the aircraft (indication of deficiencies known prior to and during the flight to be included, if having any bearing on the accident)
- Brief statement on performance, if relevant, and whether the mass and center of gravity were within the prescribed limits during the phase of operation related to the accident. (If not, and if of any bearing on the accident give details)
- Type of fuel used

Meteorological information

- Brief statement on the meteorological conditions appropriate to the circumstances including both forecast and actual conditions, and the availability of meteorological information to the crew
- Natural light conditions at the time of the accident (sunlight, moonlight, twilight, etc.)

Aids to navigation

Pertinent information on navigation aids available, including landing aids such as ILS, MLS, NDB, PAR, VOR, visual ground aids, etc., and their effectiveness at the time

Communications

Pertinent information on aeronautical mobile and fixed service communications and their effectiveness

Aerodrome information

Pertinent information associated with the aerodrome, its facilities and condition, or with the take-off or landing area if other than an aerodrome

Flight recorders

Location of the flight recorder installations in the aircraft, their condition on recovery and pertinent data available wherefrom

Wreckage and impact information

General information on the site of the accident and the distribution pattern of the wreckage; detected material failures or component malfunctions. Details concerning the location and state of the different pieces of the wreckage are not normally required unless it is necessary to indicate a break-up of the aircraft prior to impact. Diagrams, charts and photographs may be included in this section or attached in the appendices

Medical and pathological information

Brief description of the results of the investigation undertaken and pertinent data available from it
Note: Medical information related to flight crew certificates should be included in the Personnel Information.

7.2 **Other Pertinent Information**

Fire

If fire occurred, information on the nature of the occurrence, and of the fire fighting equipment used and its effectiveness

Survival aspects

Brief description of search, evaluation and rescue, location of crew and passengers in relation to injuries sustained, failure of structures such as seats and seat-belt attachments

Tests and research

Brief statements regarding the results of tests and research

Organizational and management information

Pertinent information concerning the organizations and their management involved in influencing the operation of the aircraft. The organizations include, for example, the operator; the air traffic services, airway, aerodrome and weather service agencies; and the regulatory authority. The information could include, but not be limited to, organizational structure and functions, resources, economic status, management policies and practices, and regulatory framework

Additional information

Relevant information not already included above

Useful or effective investigation techniques

When useful or effective investigation techniques have been used during the investigation, briefly indicate the reason for using these techniques and refer here to the main features as well as describing the results under the appropriate subheadings above.

Analysis

Analyse, as appropriate, only the information documented in the factual information and which is relevant to the determination of conclusions and causes

Conclusions

List the findings and causes established in the investigation. The list of causes should include both the immediate and the deeper systemic causes

Recommendations

As appropriate, briefly state any recommendations made for the purpose of accident prevention and any resultant corrective action

Appendices

Include, as appropriate, any other pertinent information considered necessary for the understanding of the report
Note: All the above should be included in the report in the same sequence. If not relevant to the accident/incident they should be included and the term not relevant mentioned next to them whenever appropriate

8.0 Report Close Out Actions

- When the investigation is complete, the safety department will forward a draft copy of the final to all accountable managers for review and comment. Comments should be returned to the safety department within seven days from receipt of the draft report. Comments received from accountable managers are taken into consideration when preparing the final report.

- The final report is sent to the President/CEO, and all department managers for which there are recommendations requiring their action to implement. Upon receipt of the final report, the department manager should, within seven days, review the report and provide written response to the safety department as to whether he/she either concurs or non-concurs with the findings, probable cause, and recommended corrective action.

- If the department manager concurs with the recommendations then he/she should forward an action plan for implementing recommended corrective action to the flight safety department, which will be filed with the report and monitored until implemented.

- If the department manager does not concur, either in whole or part, with the recommendation then he/she must submit in writing to the safety department their reasons for non-concurrence and alternative recommendations, if any. This will be filed with the report.

9.0 Recommendations

- Upon receipt of an action plan, the recommendation status will change from open to monitor. The recommendation will remain in monitor status until corrective action is completed, at which time the recommendation will be closed. The safety department will send a monthly request for a progress report the appropriate manager

- If the departmental manager non-concurs with a recommendation and the accountable manager concurs, the recommendation will be closed. The President/CEO will receive written notice that a recommendation was closed without corrective action and the reason for closure

- All recommendations, open, closed, and in monitor status, will be reviewed at the quarterly Safety Committee meetings

10.0 Report Filing

A synopsis of the report, findings, and recommendations will be entered into the KC incident-tracking database. A hard copy of the report, action plans, and non-concurrence documentation will be kept in the KC incident file.

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1.0 Objective

Safety Committees are an important tool of safety management and are invaluable in fostering a positive safety culture. The KC Safety Committee provides the forum to obtain agreement for action on issues, which left unchecked, could have a negative impact on flight safety. Typically, these issues cross-departmental boundaries and are not addressed through other corporate functions.

The importance given by the President/CEO and all levels of management to resolving safety issues at these meetings demonstrate KC's commitment to safety.

The Safety Committee will meet as required but no less than quarterly.

2.0 Membership

Membership of the committee is comprised of management representatives (or a designated representative) from key departments with in KC.

The following list is typical but not exhaustive:

- Director of Airline Safety (Chairman)
- Flight Operations Director
- Chief Pilot
- Manager of MED Flight

3.0 Conducting the Meetings

The Director of Airline Safety is the Committee Chairman and directs the proceedings. The Chairman will present issues that cannot be resolved by the committee to the President/CEO for resolution.

Meeting minutes will be distributed to the President/CEO, Senior Management Staff, Committee members, and other staff as appropriate. The minutes will contain a summary of issues discussed and brief details of corrective action and preventive measures implemented.

The active representation of the President/CEO and departmental managers is vital if safety committees are to be effective. The people who have the capacity to make and authorise decisions should be in attendance. Without the involvement of these decision-makers, the meetings will just be "talking shops."

4.0 Agenda

The agenda will be prepared and distributed two-weeks prior to the meeting. Minutes from the previous meeting will also be redistributed to committee members at this time. Participating members will be solicited for items they wish to be included for discussion. Only published agenda items will be discussed.

The meetings typically follow the format below:

- Review of significant trends

- Review of significant incidents
- Update on Status of Recommendations from prior investigations
- Review of action items from previous meetings
- New business

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1.0 Objective

An important responsibility of any safety program is the early identification of negative trends, which, if left unchecked, could escalate in frequency or severity and result in a major incident. Identified trends need to be rapidly disseminated to senior management so prompt corrective action can be taken. Corrective action must be monitored to ensure the desired objective is achieved.

2.0 Definition

One event can be considered to be an isolated incident; two similar events mean the start of a trend.

3.0 Identifying Trends

The Safety Department will conduct a monthly (minimum) review of incidents, and Event Log reports, safety audits, and reliability reports to identify trends requiring management attention to correct.

4.0 Reporting Trends

Trend information will be documented and presented by the Director of Airline Safety to the President/CEO and Senior Management at their staff meetings.

Trend information and preventive actions will be topics of discussion in the Safety News letter, PIREPs, stand-alone reports, and Safety Committee meetings.

5.0 Investigating on Monitoring Corrective Actions

The Safety Department will investigate all flight related incidents for which a trend has been established, regardless of severity. Investigations will be in accordance with the Safety investigation procedures outlined in chapter 6 of this manual.

When available, industry standards will be used to establish benchmarks for determining when corrective actions, taken to reduce a trend, have been effective.

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1.0 Objective

Kalitta Charters conducts regular auditing of departmental processes and procedures to ensure KC operations are conducted in accordance with the standards set forth in KC manuals and the FARs. The safety department reviews audit findings to identify areas where additional training or resources are required to mitigate a potential risk to flight operations.

2.0 Audits

Safety department personnel assist other departments conducting audits. Typical audits performed by Safety personnel include cargo loading audits, station audits, and Internal Evaluation audits in the flight operations area.

The Safety department reviews the audit findings in the following areas on a regular basis:

Cargo Loading

- ULD Reweigh Audits
- ULD Airworthiness Audits
- Internal Evaluation Audits

Ramp Conditions

- Safety Department Audits

Maintenance

- Internal Evaluation Audits
- Maintenance Reliability Review
- FAA Evaluations
- DOD Evaluations

Operations

- Internal Evaluations
- FAA Evaluations
- DOD Evaluations

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1.0 Objective

The purpose and intent of the Kalitta Charters Emergency Notification Procedures is to establish an orderly, effective system of communications and to assign responsibilities that are necessary in order to exercise sound judgment and establish the course of action to be implemented for a given emergency. The procedures are contained in the Kalitta Charters Emergency Notification Procedures Manual.

2.0 Review

The KC response procedures will be reviewed annually for content, currency, and KC's readiness to implement the procedures.

This review will either be a tabletop or full-scale exercise and may be in conjunction with an airport's annual exercise. This exercise will be coordinated by the Airline Safety Department.

Any changes or alterations will be submitted to KC the Airline Safety Department for implementation into the KC Emergency Notification Procedures Manual.

A request will be made quarterly for updated contact information by the Airline Safety Department. This update will include contact person and associated telephone numbers. Any changes to contact information will then be processed for a revision to the Emergency Notification Procedures Manual.

3.0 KC Emergency Notification Procedures Manual Responsibilities and Revisions

The Airline Safety Department is the sole department responsible for the manual and its materials.

Requests for revisions should be submitted to Airline Safety Department. All revisions to this manual will require the approval of the Airline Safety Department.

4.0 Training

Each department is responsible for familiarization of emergency response procedures contained in the Emergency Notification Procedures Manual.

Each department manager is responsible for training individuals within their department on their department duties in the event of a major accident.

New employees to an affected department, as part of new hire orientation, will be asked to read the appropriate sections of the Emergency Notification Procedures Manual.

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Flight Safety Program
Operational Risk Management

1.0 Objective

Risk Management can be defined as the identification, analysis and economic elimination, and/or control to an acceptable level, those risks that can threaten the assets or earning capacity of an enterprise. In this case, a commercial airline. The risk management process seeks to identify, analyze, assess and control the risks incurred in airline operations so that the highest standard of safety can be achieved. It must be accepted that absolute safety is unachievable, but *reasonable* safety can be achieved across the spectrum of the operations.

An overview of KC's Risk Management Program is located in Chapter KC 101-3 of this manual.

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Statement of Commitment
Internal Evaluation Program

The objective of Kalitta Charter's Internal Evaluation Program (IEP) is to ensure that our policies, procedures, and key business processes are documented and conducted so that we meet our business objectives and facilitate compliance with Federal Aviation Administration (FAA) and other governmental regulations. The Internal Evaluation Program applies to all employees and work processes of Kalitta Charters (KC).

The primary focus of the Internal Evaluation Program is to identify and improve any policies, procedures, or work processes that are not correct, incomplete or are inconsistent with good business practices. We want to provide Kalitta Charters employees with an environment that facilitates compliance with regulatory requirements and that encourages and supports their efforts to perform the job in the most effective manner.

Each employee of Kalitta Charters is an integral part of this ongoing evaluation program. Our employees are close to the action. They are frequently the first to identify potential weaknesses in key processes. The senior management of Kalitta Charters depends on each employee to continually "self-evaluate" his or her own work and to assess the effectiveness of the processes in which they are involved.

Doug Kalitta

Doug Kalitta
President and Chief Executive Officer
Kalitta Charter, LLC.

Date: 04/12/05