

Edmonton Airports Contractor Environment, Safety and Loss Prevention Program Manual

Version 1.2
September 2011



Terminal expansion airside view

Table of Contents

| | | |
|-----------|---|-----------|
| 1. | INTRODUCTION | 1 |
| 1.1. | Overview..... | 1 |
| 1.2. | Purpose and Expectations of the Program | 1 |
| 1.2.1. | Purpose..... | 1 |
| 1.2.2. | Expectations of the Program..... | 1 |
| 1.3. | Contractor Environment, Safety and Loss Prevention..... | 1 |
| 1.4. | Legislated Jurisdiction | 2 |
| 2. | ASSIGNMENT OF RESPONSIBILITY..... | 3 |
| 2.1. | Edmonton Airports, Project Manager | 3 |
| 2.2. | Prime Contractors' Management..... | 3 |
| 2.3. | Contractor Management..... | 4 |
| 2.4. | Contractors' Supervision | 4 |
| 2.5. | Contractors' Worker..... | 4 |
| 2.6. | Compliance Policy | 5 |
| 3. | HAZARD ASSESSMENT | 6 |
| 3.1. | Purpose | 6 |
| 3.2. | Standard Reference..... | 6 |
| 3.3. | Monitoring Process | 6 |
| 3.3.1. | Hazard Identification | 6 |
| 3.3.2. | Hazard Evaluating..... | 7 |
| 3.3.3. | Control Measures..... | 7 |
| 3.3.4. | Supervisor Responsibility | 9 |
| 3.3.5. | Worker Responsibility | 9 |
| 3.3.6. | Documentation Evaluation..... | 9 |
| 4. | TRAINING AND COMMUNICATIONS..... | 10 |
| 4.1. | Purpose | 10 |
| 4.2. | Standard Reference..... | 10 |
| 4.3. | Contractor Workers Orientation | 10 |
| 4.3.1. | Safety Handbook for Contractors..... | 10 |
| 4.3.2. | Completion of Documentation | 10 |
| 4.4. | Safety & Loss Prevention Training | 10 |
| 4.4.1. | Contractor Competency..... | 11 |
| 4.5. | Training Record Retention | 11 |
| 4.6. | Pre-Job Safety Instruction | 11 |
| 4.7. | Safety Meetings | 12 |
| 4.7.1. | Responsibility of the Contractor Supervisor | 12 |
| 4.7.2. | Topics of Discussion | 12 |
| 4.7.3. | Record Keeping/Distribution..... | 12 |
| 4.8. | Posters, Pamphlets, and other Reminders | 13 |
| 5. | EDMONTON AIRPORTS WELLNESS | 14 |
| 5.1. | Smoking..... | 14 |
| 5.2. | Harassment | 14 |
| 5.2.1. | Definition of Discrimination | 14 |
| 5.3. | Modified Work | 15 |
| 5.4. | Substance Abuse..... | 15 |
| 6. | AIRPORT PERMITTING SYSTEMS | 16 |
| 6.1. | Facility Alteration Permit (FAP)..... | 16 |
| 6.1.1. | Excavation Permits | 16 |
| 6.1.2. | Hot Work Permits | 17 |
| 6.1.3. | Confined Space Entry Permits | 17 |
| 6.1.4. | Lock Out Procedures | 17 |
| 7. | PERSONAL PROTECTIVE EQUIPMENT..... | 19 |

| | | |
|------------|--|-----------|
| 7.1. | Purpose | 19 |
| 7.2. | Standard Reference..... | 19 |
| 7.3. | Training and Education..... | 19 |
| 8. | ENVIRONMENTAL PROTECTION | 20 |
| 8.1. | Contractor Environmental Response Plans | 20 |
| 8.1.1. | Initial Generic/Overall Response Actions | 20 |
| 8.1.2. | Notification Procedures..... | 21 |
| 8.1.3. | Regulatory Agency Notification..... | 21 |
| 8.1.5. | General Spill Characteristics | 22 |
| 8.1.6. | Response Equipment List..... | 23 |
| 8.2. | Environmental Guidelines for Contractors | 24 |
| 8.2.1. | Earthworks..... | 24 |
| 8.2.2. | Dust Control..... | 26 |
| 8.2.3. | Concrete and Pavement Management Activities..... | 26 |
| 8.2.4. | Waste | 28 |
| 8.2.5. | Ozone Depleting Substances..... | 28 |
| 8.2.6. | Temporary Storage of Hazardous Materials during Construction | 28 |
| 9. | OPERATIONAL COMPLIANCE | 29 |
| 9.1. | CRANES..... | 29 |
| 9.1.5. | Minor Review..... | 29 |
| 9.1.6. | Major Review..... | 29 |
| 9.2. | NOTAM..... | 30 |
| 9.2.5. | Requirement for NOTAM..... | 30 |
| 9.2.6. | Request for NOTAM..... | 31 |
| 9.2.7. | Voice Advisories..... | 31 |
| 10. | PREVENTATIVE MAINTENANCE | 33 |
| 10.1. | Purpose | 33 |
| 10.2. | Standard Reference..... | 33 |
| 10.3. | Removal of Defective Tools and Equipment..... | 33 |
| 10.3.5. | Locking out Defective Equipment | 33 |
| 10.3.6. | Tagging out Defective Equipment..... | 33 |
| 11. | MONITORING THE STANDARDS | 35 |
| 11.1. | Inspection Purpose | 35 |
| 11.1.5. | Informal Inspections..... | 35 |
| 11.1.6. | Formal Inspections..... | 35 |
| 11.1.7. | Governmental Inspections..... | 35 |
| 12. | EMERGENCY PREPAREDNESS | 36 |
| 12.1. | Emergency Assistance Program | 36 |
| 12.1.5. | Purpose and Scope | 36 |
| 12.1.6. | Roles and Responsibilities | 37 |
| 12.1.7. | Identification of an Emergency..... | 39 |
| 12.1.8. | Notification..... | 39 |
| 12.1.9. | Emergency Assistance List | 40 |
| 12.1.10. | Emergency Evacuation..... | 40 |
| 12.1.11. | Emergency Equipment | 41 |
| 12.1.12. | First Aid Requirements | 41 |
| 12.1.13. | Fire Prevention..... | 42 |
| 12.2. | Security of Work Area and Tools..... | 45 |
| 12.3. | Media Relations | 45 |
| 13. | GENERAL REQUIREMENTS | 46 |
| 13.1. | General Rules | 46 |
| 13.2. | Respiratory Protection Program..... | 46 |
| 13.3. | Lock out/Tag out Program..... | 46 |
| 13.4. | Illumination | 46 |
| 13.5. | Housekeeping | 46 |

| | | |
|------------|---|-----------|
| 13.6. | Foreign Object Damage (FOD) Control..... | 47 |
| 13.6.5. | FOD Protocols..... | 47 |
| 13.7. | Ladders and Scaffolds..... | 48 |
| 13.8. | Sanitation Facilities..... | 49 |
| 13.9. | Safe Access and Egress | 49 |
| 13.10. | Utilities | 49 |
| 13.11. | Compressed Gas Systems..... | 49 |
| 13.12. | Falling Hazards | 50 |
| 13.12.5. | Fall Protection | 50 |
| 13.12.6. | Raising and Lowering Tools and Material..... | 51 |
| 13.12.7. | Overhead Protection..... | 51 |
| 13.12.8. | Guardrails, Floor and Wall Openings | 51 |
| 13.13. | Mobile Equipment and Vehicle Operation..... | 51 |
| 13.14. | Traffic Hazards..... | 52 |
| 13.15. | Tools and Equipment..... | 52 |
| 13.16. | Barricades, Signage, and Hoarding..... | 52 |
| 13.17. | Securing of Equipment and Materials | 53 |
| 13.18. | Office Environmental, Safety and Loss Prevention..... | 53 |
| 13.19. | Working Alone..... | 53 |
| 14. | SECURITY | 54 |
| 14.1. | General..... | 54 |
| 14.2. | Tool and Equipment Identification | 54 |
| 14.3. | Contractor Use of Premises | 54 |
| 14.4. | Parking..... | 54 |
| 14.5. | Restricted Area Identification Cards (RAIC) | 54 |
| 14.5.5. | Pass Control | 55 |
| 14.5.6. | Key Control..... | 55 |
| 14.6. | Vehicle Escort on Airside | 55 |
| 15. | INCIDENT INVESTIGATION..... | 56 |
| 15.1. | Incident Reporting Procedure | 56 |
| 15.1.5. | Organizational and Government Notification | 56 |
| 16. | DEFINITIONS | 57 |
| | Appendix A - Spill/Release Report | 63 |
| | Appendix B – Crane Usage Assessment Form | 65 |
| | Appendix C - Transport Canada Aeronautical Obstruction Clearance Form Process..... | 67 |
| | Appendix D - NAV CANADA Land Use Submission Form Process..... | 69 |

1. INTRODUCTION

1.1. Overview

The Contractor Performance Program has been designed to verify that all contractors working on Edmonton Airports premises have all the necessary information required to verify their workers have a safe and healthy environment.

Each contractor will be expected to perform their daily tasks in accordance to this program, which is based on applicable legislated requirements.

1.2. Purpose and Expectations of the Program

1.2.1. Purpose

The purpose of the Contractor Performance Program is to provide contractors with a minimum *set of standards and expectation*, necessary to identify the potential risk of personal injury, property damage, or environmental impacts and identify preventative control measures to react if an incident occurs.

1.2.2. Expectations of the Program

The expected results of this program are to provide information to contractors so they will:

- Implement Environment, Safety and Loss Prevention elements into each facet of their work process beginning with the planning stages of the contract.
- Reduce and eliminate risk to their own workers, other workers present, and the general public.
- Meet and exceed their moral, ethical, and legal health, safety, and environmental obligations as employers.
- Have a consistent set of minimum standards by which each contractor, employed on Edmonton Airports premises, will be measured to for the consideration of future contracts.

1.3. Contractor Environment, Safety and Loss Prevention

Edmonton Airports will review all contractors Environment, Safety and Loss Prevention Programs submitted at bid. Successful contractors will be monitored for performance using the contractor's own standards and the standards outline within this document as a measurement of the contractor's commitment to Environment, Safety and Loss Prevention. A list of preferred

contractors, for Edmonton Airports' record retention, will be established from the results.

A Contractor that maintains substandard performance criteria while engaged in work for Edmonton Airports may be asked in writing to remove themselves from the premises with their contract voided.

1.4. Legislated Jurisdiction

Contractors performing work on Edmonton Airports premises will be required to comply with the following Environment, Occupational Health and Safety legislation:

- Alberta Occupational Health and Safety Act, and Regulations
- Alberta Environmental Protection and Enhancement Act, and Regulations
- Alberta Workers' Compensation Act, and Regulations
- Alberta Building, Fire, and Electrical Codes
- Canada Labour Code – Part II
- National Fire Code
- Canadian Environmental Assessment Act
- Canadian Environmental Protection Act

This document is based on, but not inclusive to all, the above mentioned legislated standards.

2. ASSIGNMENT OF RESPONSIBILITY

2.1. Edmonton Airports, Project Manager

The Edmonton Airports Project Manager is acting on behalf of the contract owner, Edmonton Airports, and as such, will be required to monitor the overall Environment, Safety and Loss Prevention Performance of each contractor assigned to his/her contract. Responsibilities include:

- Include Environmental, Safety and Loss Prevention issues on the agenda for meetings with the contractor(s).
- Review the Contractor Environment, Safety and Loss Prevention Program elements during the review of contractor performance in production, and quality assurance.
- Contact the Superintendent, Safety when specialty services or information is required in regards to Contractor Environment, Safety and Loss Prevention.
- Review Environmental, Safety and Loss Prevention documentation required by each contractor.
- Initiate action to correct substandard actions or conditions.
- Edmonton Airports Project Manager will immediately notify the Edmonton Airports Superintendent, Safety of any governmental investigations or orders issued to the Prime Contractor.
- Initiate action for investigations to start incident investigation procedure and completes all applicable reports.
- Set a proactive leadership example.

2.2. Prime Contractors' Management

The prime contractor will be expected to maintain Environmental, Safety and Loss Prevention Excellence through the implementation of their company standards and legislated standards.

Responsibilities include, but are not limited to:

- The prime contractor will identify the individual(s) assigned to monitor and correct substandard actions or conditions at the work site.
- Provide a copy of all company Environmental, Safety and Loss Prevention policies and procedures relevant to the successful management of the site program.
- The prime contractor will have available for inspection, copies of all documentation of their Environmental, Safety and Loss Prevention Program and provide copies upon request.
- The prime contractor will immediately notify the Edmonton Airport's Project Manager of any governmental investigations or orders issued.

- The prime contractor will participate in Edmonton Airports' inspection and evaluation process, and will take action to correct any noted deviations from the above mentioned standards.
- Set a proactive leadership example.

2.3. Contractor Management

Every contractor who directs the activities of an employee involved in work at areas on Edmonton Airports' premises shall:

- Cooperate with the prime contractor in the delivery of the Environmental, Safety and Loss Prevention Program.
- Educate Management, Supervisors, and Workers on their legislated responsibilities.
- Verify that work is completed by a competent worker or where a worker is not competent, under direct supervision by a competent worker.
- Identify health and safety hazards and communicate control measures to workers.
- Make available at the workplace, all equipment that is necessary to enable a worker to perform their task without personal risk to their health or safety.
- Maintain equipment and tools in a condition to perform the function for which they were intended or designed.
- Report all incidents to the prime contractor and assist in the investigation.
- Set a proactive leadership example.

2.4. Contractors' Supervision

The contractors' supervision is the front line manager of the Environmental, Safety and Loss Prevention Program; therefore, Edmonton Airports will expect contractors to provide competent supervisors with a proactive attitude towards Environmental, Safety and Loss Prevention Practices. Responsibilities include, but are not limited to:

- Complying with and participate in the requirements of his/her own Environmental, Safety and Loss Prevention program, Edmonton Airports Contractor Performance Program, and legislated standards.
- Request assistance when a situation arises where there are known factors, that if left uncontrolled, will cause a negative effect to workers, other workers present, the general public, or the environment.
- Verify workers are competent to perform their tasks safely.
- Set a proactive leadership example.

2.5. Contractors' Worker

Every worker is required to cooperate with their employer to protect the health and safety of themselves and other workers at the work site. Responsibilities include, but are not limited to:

- Participate in the Environmental, Safety and Loss Prevention Program, as outlined by the employer.
- Report unsafe conditions and actions to the employer.
- Report all incidents and injuries to the employer.
- Properly utilize tools, equipment, and personal protective equipment as they were intended and designed.
- Maintain safeguards on all equipment, tools, floor and wall openings.
- Remove from service any equipment, tool, or personal protective equipment that is damaged and will not perform the function for which it is intended or designed.
- Refuse to work were there exists an imminently dangerous situation for yourself or for workers and the general public nearby.
- Set a proactive leadership example.

2.6. Compliance Policy

Compliance with established standards is essential in verifying all workers are provided a safe and healthy workplace; the environment is protected from damage; the general public and process equipment is protected.

3. HAZARD ASSESSMENT

3.1. Purpose

The purpose of identifying, evaluating and controlling occupational hazards is to reduce and/or eliminate the potential loss of health or wellness that workers would experience from uncontrolled energy releases or fugitive emissions. In this program uncontrolled energy releases or fugitive emissions will be called exposures.

3.2. Standard Reference

Alberta Occupational Health and Safety Code Part 2; General Safety Part15; Chemical Hazards Regulation all sections; Canada Labour Code-Part II Sections 124, 125(s), 125.1, 126.(1), 7.3, 10.4, 11.2(1).

3.3. Monitoring Process

3.3.1. Hazard Identification

Identifying hazards is the task of reviewing a work process and observing “energy” or “emission” points in the process where negative consequences may result if not controlled. Areas of review include:

3.3.1.1. People

- Do the workers performing the task have the physical capabilities, experience, and adequate training?
- What contacts are present that could cause injury, illness, stress or strain?
- Could the worker be caught in, on or between? Struck by? Fall from? Fall onto?
- What practices are likely to downgrade safety, productivity or quality?

3.3.1.2. Equipment

- What hazards are presented by the tools, machines, vehicles or other equipment?
- What equipment emergencies are most likely to occur?
- How might the equipment cause loss of safety, productivity or quality?

3.3.1.3. Material

- What harmful exposures are presented by chemicals, raw materials or products?
- What are the specific problems involving material handling?
- How might materials cause loss of safety, productivity or quality?

3.3.1.4. Environment

- What are potential problems of housekeeping and order?
- What are the potential problems of sound, lighting, heat, cold, ventilation or radiation?
- Has the external as well as the work environment been considered?

Identifying specific loss exposures is a key step in preventing losses from occurring.

3.3.2. Hazard Evaluating

A contractor supervisor and his/her management team will perform hazard evaluation in most cases. In some cases where the hazard is not so easily seen to be evaluated, a qualified person will be required for an accurate evaluation of the hazard. The evaluation process includes:

- Exposure potential for worker
- Magnitude of exposure
- Contaminants involved
- Control measures already in place
- Effectiveness of control measures
- Documentation of evaluation results
- Advising required personnel

3.3.3. Control Measures

Best practices in Environmental, Safety and Loss Prevention involves managing hazards through engineering and administration controls. Personal protective equipment (PPE) is used only as a last resort to protect workers. Once hazards have been identified and analyzed, the group must now manage the risk using one or more of the following controls.

3.3.3.1. Engineering Controls

Engineered controls provide the highest level of control and are the preferred method because they control the hazard at its source. These controls are listed in order of preference below:

- a. Elimination
 - applied at design stage
 - scaffolds
 - trench boxes
 - lifting hoists
 - eliminating sharp edges, pinch points and trip hazards
- b. Substitution
 - purchase a nonflammable solvent
 - less toxic products
 - wet methods as opposed to dry sanding or sweeping
- c. Isolation
 - barriers
 - shields
 - guards
 - air conditioned cabs
- d. Ventilation
 - scrubbers
 - fans and local exhaust
 - dilution ventilation as a short term solution when no heating and ventilation system has been installed in a building or while awaiting installation of more advanced controls

3.3.3.2. Administrative Controls

When engineering controls are not possible or practical, administrative controls are the next method used in hazard control. Examples include:

- Purchasing controls
- Written directives (company Environmental, Safety and Loss Prevention Programs); Safe work practices, job procedures, safe work permits, policy, rules

- Work-rest regimes to reduce exposures and hours of work
- Scheduling - Hours of work or hazardous work in off hours
- Monitors and alarm systems
- Medical screening including pre-employment and ongoing
- Training such as safety meetings and job training courses
- Posters, bulletins, new-letters, suggestion programs, etc.

3.3.3.3. Personal Protective Equipment (PPE)

When engineering and administrative controls do not reduce the risk to acceptable levels, organizations often resort to using PPE. This is the last option for worker protection because PPE does not reduce the energy potential of the hazard at its source. Hazard analysis provides valuable information on the proper selection of PPE. In certain cases, PPE may be the only acceptable interim barrier to a hazardous condition, until more advanced methods are developed.

3.3.4. Supervisor Responsibility

First line management is responsible to verify that proper control measures have been implemented and that all workers with the potential of using the control measure are competent in its uses and limitations.

3.3.5. Worker Responsibility

Workers will cooperate with their employer and use the prescribed control measure(s) for its intended use and design.

3.3.6. Documentation Evaluation

During periodic contractor evaluation inspections, copies of documentation, including training records, may be requested for review for verification on existing control measures and hazard identification meetings.

4. TRAINING AND COMMUNICATIONS

4.1. Purpose

Each element of Environmental, Safety and Loss Prevention has some form of hazard control measure. To verify that the worker knows the hazards as well as control measures associated with his/her process, different levels of training are necessary to deliver a constant message of Environmental, Safety and Loss Prevention in the workplace.

4.2. Standard Reference

- Alberta Occupational Health and Safety Act, Regulations & Code
- Chemical Hazards Regulation.
- Canada Labour Code-Part II

4.3. Contractor Workers Orientation

Every contractor who engages in work on Edmonton Airports premises is required to verify that each of their workers has received an Edmonton Airports safety orientation prior to starting their work.

4.3.1. Safety Handbook for Contractors

Each contractor worker shall upon completion of their orientation be issued a copy of Edmonton Airports Safety Handbook for Contractors. Each contractor worker shall review and agree to work within the standards outlined within the orientation hand booklet.

4.3.2. Completion of Documentation

During periodic contractor evaluation inspections, copies of training documents will be requested to view for verification of orientation acknowledgment.

4.4. Safety & Loss Prevention Training

Contractors are responsible for the initial training and reoccurring training of their own workers on legislated items such as, but not limited to:

- Standard First Aid
- Workplace Hazardous Materials Information System (WHMIS)
- Transportation of Dangerous Goods (TDG)

- Confined Space Entry
- Respiratory Protective Equipment Program
- Working at Heights; Fall Protection Program

4.4.1. Contractor Competency

The contractor shall ensure that workers on the site are adequately qualified and sufficiently experienced to perform work in a safe manner. Workers who do not meet these criteria shall be supervised by someone who is competent. The contractor shall provide or arrange for the necessary training to ensure sufficient workers on site are competent.

4.5. Training Record Retention

A current copy of each contractor worker's level of training shall be made available during periodic contractor evaluation inspections.

4.6. Pre-Job Safety Instruction

The Pre-Job Safety meeting is a highly effective administrative tool providing an opportunity to discuss hazardous work. It is important that two way communication exists in these meetings, so that everyone is aware of the issues.

Key issues for discussion may include, but not limited to:

- The hazard assessment done in the work area; existing hazards onsite
- Hazards identified by workers; control measures reviewed with workers
- Other scheduled activities that may affect Environmental, Safety and Loss Prevention
- Special tools and equipment required
- PPE required
- Communication barriers - noise, language or visibility
- Chemicals used and any potential risks/controls in place
- Written procedures required and reviewed with crew
- Applicable legislation
- Employee training required
- Emergency response plans
- Critical Lifts

The Pre-Job Safety meeting is an effective administrative control that increases awareness at all levels. It provides an opportunity for hazard review in the planning stages of the task, ultimately reducing the risk.

4.7. Safety Meetings

As Pre-Job Safety meetings are important for providing “front line” hazard awareness training, so to are (weekly, bi-weekly, monthly) safety meetings. These meetings provide timely information on Environmental, Safety and Loss Prevention issues relating to the workers activities.

4.7.1. Responsibility of the Contractor Supervisor

Each contractor or employer supervisor will provide their workers with continual awareness training to promote Environmental, Safety and Loss Prevention while working at Edmonton Airports.

Supervisors must be aware that they set the performance standards and must lead by example.

4.7.2. Topics of Discussion

Items of review may be:

- Bring forward topics for discussion; e.g. environmental, substandard acts, practices or conditions that have been observed. Decide on corrective action and follow up to verify that this has been completed.
- Review recent injuries or incidents, discuss why they happened and what can be done to prevent recurrence
- Encourage employee suggestions and discussion
- Governmental environmental and safety publications
- Brief the crew on new types of equipment and controlled products, with specific reference to their capabilities and safeguards
- Discuss personal protective equipment suitable to the work on site
- Demonstrate the use of emergency equipment, fire extinguishers and safety harnesses

4.7.3. Record Keeping/Distribution

Copies of these meeting minutes shall be kept on file at the site for review during contractor evaluation inspections. Any meeting minutes that includes action by Edmonton Airports should be forwarded to Edmonton Airports' Project Manager.

Edmonton Airports Project Manager will forward a copy to the Edmonton Airports Superintendent, Safety.

4.8. Posters, Pamphlets, and other Reminders

Posters and pamphlets can assist the contractors in providing continuous safety awareness for their workers. These items can be ordered for free from various contractors safety associations, Alberta Labour Workplace Health and Safety, and Human Resources Development Canada.

5. EDMONTON AIRPORTS WELLNESS

5.1. Smoking

Smoking is only permitted in designated areas of Edmonton Airports premises. With approval from Edmonton Airports, designated smoking areas may be established on groundside exterior locations.

Smoking is not permitted anywhere on airside property or inside the terminal building. Smoking violations will result in the contractor removing the worker from Edmonton Airports premises.

5.2. Harassment

Harassment is a form of discrimination. It is against the law. Canadian law prohibits discrimination. Both the Federal and Provincial Human Rights Commission provide the framework to protect our rights and dignity.

Harassment is defined by the Canadian Human Rights Act as any unwanted verbal or physical conduct related to:

- Gender
- Age
- Race
- National or ethnic origin
- Colour
- Religion
- Mental or physical disability
- Family status
- Marital status
- Sexual orientation
- Conviction for which a pardon was granted

that offends or humiliates. Edmonton Airports will not tolerate harassing or discriminatory behaviour.

5.2.1. Definition of Discrimination

Harassment is not limited to sexual behaviour, but includes discriminatory behaviour which is directed at or is offensive to another. It includes, but is not limited to, displaying offensive pictures, insulting gestures and making unwelcome remarks or taunting about a person's body, ethnic origin or religion. Harassment can be an expression of perceived power or intimidation over an individual or

group of people.

5.3. Modified Work

Edmonton Airports maintains a modified work policy for our employees and we support contractors who provide modified work for their employees where the duties are meaningful and practical for a worker who may have physical limitations.

5.4. Substance Abuse

The use of drugs on premises or while on contractor business poses a serious threat to the safety of our workers, compromises the quality and reliability of our services, and jeopardizes operations at the airport. Edmonton Airports expects contractors to prohibit:

- Consumption, use, possession or sale of controlled drugs or alcohol on Edmonton Airport's premises.
- Being under the influence of drugs or alcohol on Edmonton Airports premises.

Use of prescription drugs which may impair the performance of workers' job duties, or impairment resulting from the use of drugs or alcohol, must be reported to the contractor workers' supervisor prior to work.

Failure to enforce these prohibitions will result in the immediate removal of the contractor worker from the workplace.

6. AIRPORT PERMITTING SYSTEMS

All permits are available through Edmonton Airports Project Manager.

6.1. Facility Alteration Permit (FAP)

Edmonton Airports requires that all construction, renovation, or major maintenance projects on airport lands comply with Edmonton Airports' Facility Alteration Permit (FAP) and development guidelines and processes, as well as to conform to all applicable codes, standards, and permit processes of local authorities having jurisdiction on the airports' premises. The process applies to Edmonton Airports' projects, their tenants, or any third party working on the airports' premises.

The following codes and design guidelines are as follows:

- Edmonton Airports' Design Guidelines
- Airport Vicinity Protection Area (AVPA) Regulations
- Airport Zoning Regulations
- Transport Canada/Nav Canada Guidelines (where applicable)
- Municipal or County Zoning Regulations
- Alberta Safety Codes Act
- Alberta Building Code or National Building Code*
- Alberta Fire Code or National Fire Code*
- Environmental Codes & Practices (where applicable)

Note: Additional codes and guidelines not mentioned above may apply to individual projects and should be followed accordingly.

* whichever guideline has the most stringent code requirements.

FAP – Development and FAP – Construction permits are required for any and all work initiated on airport premises, including work in the terminal buildings. It provides Edmonton Airports with the opportunity to provide comments on projects that may affect airport operations (or other areas of concern) and allow Airport Facility Drawing Management (AFDM) to track and incorporate changes into the airport base drawings.

Facility Alterations Permit must be approved by Edmonton Airports prior to the commencing or applying for other required permits. Requests will require 5 work days prior to the work beginning. Areas covered by the FAP includes excavation/trenching, hot work, confined space entry, etc.

6.1.1. Excavation Permits

Excavation/trenching permits follow a process similar to the FAP procedure. These permits are required for all work below existing ground level on airport premises. Although an excavation/trenching permit will not be granted until a FAP for the project has been approved, it may be applied for at the same time. An application form may be obtained from AFDM on the 3rd Floor of the Air Terminal Building at the Edmonton International Airport. No permit shall be issued until a hard copy of the utility search has been conducted by Alberta First Call and a copy forwarded to AFDM via the Project Manager.

6.1.2. Hot Work Permits

An application for a Hot Work permit shall provide 48 hours notice to Edmonton Airports prior to commencing with any hot work (welding, cutting, grinding) on airport premises. Edmonton Airports Emergency Response Services shall issue and approval requests for hot work on site. For information please contact the Project Manager.

6.1.3. Confined Space Entry Permits

Confined Space Entry Permits are required for certain Edmonton Airports facilities and/or worksites. It is the responsibility of the contractor doing the entry to complete a Confined Space Entry Permit in conjunction with discussion of the entry with ERS prior to entering a confined space.

6.1.4. Lock Out Procedures

To ensure the equipment being locked out will not adversely affect operational systems and/or equipment; contractors must request and submit a Service Request for Lock Out through the Airport Authority Infrastructure group. The Project Manager is the go to source for coordinating this process. In many cases coordination with the operating personnel will be necessary (e.g.: to lock-out an HVAC system which services many areas).

The Contractor must also co-ordinate with Edmonton Airports' Electrical department via the Project Manager for any fire alarm detection bypasses that may be required.

- No construction personnel may work on any equipment that represents a safety hazard unless that equipment is properly locked-out. The contractor supervisors are to determine which equipment needs to be locked-out prior to proceeding with the work.

- On complex installations, the electrical or mechanical contractor in each area will designate a responsible employee to assist all other trades in locating the necessary switches, drives or valves which are to be locked out. The designated employee of the electrical or mechanical contractor in each area will physically isolate the equipment prior to others installing their locks and tags. The supervisor responsible for personnel working on the equipment will install a scissor and lock on the isolating device after assuring the equipment is isolated by whichever means is necessary, i.e. local jog button, tell-tales, etc.
- All construction personnel who will be working on equipment are required to place their own lock and tag on the isolation device. When the work is completed and after all personnel locks have been removed the supervisor will make a final check of the equipment to ensure it is safe to operate before proceeding with clearing of the lock-out.
- Employees must remove their locks and tags when they leave the work site or are no longer working on the equipment.
- If the worker has left the site (quit, fired or injured), their personal lock must be removed from service until the keys are recovered.
- A master key for all personal locks shall be kept in a secure location and shall only be used by a responsible management designate. No personnel shall remove a personal lock other than their own except as noted below

Lock Removal By Others Only If:

- The personal lock has been positively identified
- All responsible efforts have been made to contact the worker who placed the lock and have the worker return to remove the lock
- In the event the worker cannot be contacted or is incapable of removing the lock the management delegate must ensure that no other workers will be endangered if the lock is removed and that no process or machinery will be damaged

If you are in doubt about lock-out or lock-out procedures, contact your supervisor or the Project Manager. Remember: Stop it, Lock it, Test it.

7. PERSONAL PROTECTIVE EQUIPMENT

7.1. Purpose

If other control measures (engineering and administrative) are impracticable to eliminate or reduce a hazard(s), then personal protective equipment shall be used as the last resort of controlling worker exposure to the hazard(s).

In some cases Engineering, Administrative, and PPE are required to reduce the potential exposure to the hazard i.e. confined space entry.

7.2. Standard Reference

Alberta Occupational Health and Safety Code Part 18;
Canada Labour Code-Part II Sections (in general) 124, 125(q) (v), 126(a) (b);
7.7, 11.7, 12.10 - 12.17, 12.3 - 12.9.

7.3. Training and Education

Contractors shall educate their workers on the uses, limitations, maintenance requirements, etc., as outlined by the equipment manufacturer.

Copies of the training records shall be made available for review upon request.

8. ENVIRONMENTAL PROTECTION

8.1. Contractor Environmental Response Plans

The primary purpose of this section is to provide limited general guidance to contractors working for Edmonton Airports to quickly, safely, and effectively respond to a hazardous material spill incident. It is not a site-specific plan for a specific project. For detailed information on preparing a plan; refer to the CAN/CSA-Z731-03 Emergency Preparedness and Response.

Of all the possible airport environmental emergencies, oil/fuel spills probably present the greatest overall risk. Not only does fuel represent the greatest spill volume, once released, it presents hazards such as fire/explosion, hazards to human health, and environmental contamination.

Prior to starting a project all contractors should assess the nature and risk of potential hazardous material spills, develop a site specific response contingency plan for the project and provide appropriate spill response training to their employees.

8.1.1. Initial Generic/Overall Response Actions

The circumstances of individual spill incidents will vary widely depending on specific factors such as location, type of product, source and rate of discharge, time of day or week, and weather. The initial generic response actions described below should be fitted to the conditions of each incident.

Ensure the safety of all personnel (i.e. workers, passengers, and tenants).

Stop the product flow (Only if safe to do so)

Isolate/Secure the area

Assess the situation (Refer to product specific Material Safety Data Sheets).

Notify the Airport Duty Manager 780-890-8327, Emergency Response Services 780-890-8911 (for co-ordinating emergency response action and will maintain proper training and resources for initial spill response and spill containment) and Manager Environment, Safety and Operational Compliance 780-890-8530 (ensure regulatory agencies are contacted/site remediated/proper documentation to follow).

Contain/Recover/Clean-up

8.1.2. Notification Procedures

All spills, regardless of size, are to be reported by the spill observer or person-in-charge immediately to Airport Duty Manager and then to Emergency Response Services. The Manager Environment, Safety and Operational Compliance should be contacted at first opportunity.

Duty Manager 780-890-8327
Emergency Response Services – 7911
Manager, Environment, Safety and Operational Compliance 780-890-8954

8.1.3. Regulatory Agency Notification

Following a spill, there may be a requirement to notify regulatory agencies. As soon as it is safely possible to do so, the contractor person-in-charge will make the following calls or designate an employee to notify those regulatory agencies

For Land Spills on Federal Airport Property
Environment Canada/Alberta Environment – 1-800-222-6514

This includes spills or releases that get off hard surfaces or enters storm sewer system. Ensure the call centre personnel are aware that the spill occurred on federal land. They will require a follow-up written report within 7 calendar days.

For Spills into Sanitary Sewer System
Leduc County Public Works and Utilities 780-955-7226

8.1.4. Initial Spill Reporting Guideline

As information about a spill is passed through notification process to various personnel and agencies, it must be clear, concise, accurate, and timely. The minimum information communicated in any report includes:

- Name & telephone number of caller
- Date and time of call
- Estimated time of spill/release
- Location of spill/release
- Hazardous materials spilled/released
- Estimated quantity spilled
- Actions taken so far
- Evacuation required
- Assistance required

Refer to the spill release report in Appendix A as a guide.

8.1.5. General Spill Characteristics

8.1.5.1. Water Spills

The general characteristics of light density fuels when spilled on water include:

- The product will spread quickly across the surface of the water in a thin film or sheen
- The product may cover a wide area, if uncontained
- A fairly strong odour may be present even at non-toxic levels
- Product will tend to evaporate fairly rapidly compared to thicker or more viscous oils
- In a sheltered environment, evaporation of the product may be slow; evaporation and wave action is effective on small spills in a relatively high-energy environment.

8.1.5.2. Land Spills

General characteristics of light density fuels when spilled on land include:

- Soil penetration will be dependent on the permeability of the soil and on the moisture content of the ground. If the ground is sufficiently wet, the product will float on the water and soil penetration will be limited but surface migration will be more rapid. If the ground is dry, the product will be able to penetrate the ground more easily resulting in contaminated soil
- Product which seeps into the ground may settle at the top of the water table and can reappear months later, some distance away, on the surface or in a water well
- Product released onto pavement or concrete will spread rapidly across the surface and evaporate quickly. Penetration into the concrete or pavement should be minimal if the spill is cleaned up quickly
- The behavior of these products determines the most appropriate and effective response tactics to be taken by responders to contain and recover the spilled product, protect sensitive environmental resources, and to clean-up the spill site and other affected areas

8.1.6. Response Equipment List

Contractors and sub-contractors handling hazardous materials on Airport Authority property should have in place a site-specific contingency plan and be capable of providing an initial first response to a spill/release of hazardous materials. Additional response equipment belonging to the Airport Authority can and will be made available to contractors on a replacement or cost recovery basis.

The Project Manager and the contractor will jointly determine the type and quantities of spill response equipment required for each project based on the project environmental risk assessment. The following equipment list is an example of response equipment that may be required for a small project with minimal risk.

| LOCATION | QUANTITY | DESCRIPTION |
|-----------------------------|-------------|--|
| Job Site | 1 Spill Kit | Containing: 100 sorbent “white” pads – polypropylene (fuels & lubes) 25 sorbent “general purpose” pads – cellulose (glycol) 6 sorbent socks - polypropylene 3” x 48” 1 drain cover; neoprene 36” x 36” 1 roll of barrier tape - 300’ 4 refuse bags (6 mil) Personnel Protective Equipment (PPE) for two: nitrile gloves, splash goggles, poly-coated Tyvek suit and boots. 1 - spill kit container List detailing contents of kit and where to obtain replacement items. Set of instructions on how to use each item in the kit. |
| Individual Equipment | Small Kit | Nylon spill kit containing; 20 pads, 2 sorbent socks, refuse bag, goggles and gloves. |

8.2. Environmental Guidelines for Contractors

The following guidelines were prepared to assist contractors to carry out their activities while eliminating, reducing, and controlling the adverse environmental effects during construction.

8.2.1. Earthworks

Construction projects usually involve land disturbance such as removing vegetation and reshaping topography. Such activities make the soil vulnerable to erosion. Soil removed by erosion may become airborne and create a dust problem or be carried by water into natural waterways and pollute them.

8.2.1.1. Erosion

When considering land disturbance and its consequences, priority should be given to preventive rather than treatment measures.

To develop effective erosion controls it is necessary to obtain information on the erosion potential of the site where soil disturbance is planned. Erosion potential is determined by soil type and structure, vegetative cover, topography, rainfall and wind, and the nature of land-clearing. Erosion potential will also be affected by the type, nature and intensity of the earthworks.

Groundcover provides the most effective means of preventing erosion. Consequently, sediment run-off and dust controls depend on retaining existing vegetation or re-vegetating and mulching disturbed areas as soon as possible.

The following measures should be taken to minimize erosion:

- Keep land disturbance to a minimum.
- Re-vegetate progressively as each section of work is completed. The interval between clearing and re-vegetation should be kept to an absolute minimum.
- Program construction activities so that the area of exposed soil is minimized during times of the year when the potential for erosion is high, i.e. during summer when intense rainstorms are common.
- Smoothly graded cut and fill slopes should be avoided. Instead surfaces should be roughened perpendicular to

the flow direction in order to retard surface water run-off and increase filtration.

- Stabilize the site and install and maintain erosion controls so that they remain effective during any pause in construction. This is particularly important if a project stops during wetter months.
- Keep vehicles to well-defined haul roads.

8.2.1.2. Contaminated Stormwater

Soil eroded during land disturbance can wash away and contaminate stormwater. The type of sediment controls used for a particular situation depends on the nature of the site combined with rainfall patterns, soil type and topography. There are three ways of minimizing sediment run-off.

Reduce stormwater on the site

If uncontaminated surface water enters a recently cleared site, it will quickly pick-up sediment and need to be treated. As more water enters the site, it could add to the erosion potential, increasing the risk of pollution.

It is therefore desirable to divert stormwater away from areas of exposed soil. This can be done by constructing diversion banks and intercept drains around the site while ensuring that the water discharging from such banks or drains is disposed of without causing erosion.

Wherever possible, new on-site inlets should not be connected to stormwater drainage system until the site has been stabilized and rehabilitated. This will ensure that silt-laden stormwater cannot escape the site via this route. Instead it will have to be treated on-site.

Water Flow Rate

There is a direct relationship between water flow rate over exposed soil and the rate of erosion. Installation of rock structures on the site to retard water flows is an effective measure to reduce erosion in areas where high water flows are expected.

It is desirable to minimize continuous slopes where flowing water can scour.

To prevent scouring, drainage lines may need to be lined or velocity-reducing structures, such as crushed rock or geotextile placed in the drainage line.

Slopes

Any natural drainage lines that discharge water on to the top of a slope should be directed to grassed areas by interceptor drains. Otherwise water will run down the slope, eroding it. Perimeter banks or sediment fences should also be constructed at the toes of the slope to contain sediment runoff.

8.2.2. Dust Control

Dust from unpaved roads can be a significant source of particulate matter in the atmosphere, and can have numerous environmental and socio-economic implications such as air pollution, impairment of driver vision, health impacts, and impacts to aesthetics. Road deterioration can increase because of loss of fines since they act as road surface binders. This can lead to road safety issues, increased economic cost to vehicles and increased road maintenance needs. The use of dust suppressants has been shown to lower road maintenance requirements and associated costs as well as mitigate the environmental and health impacts associated with road dust. The following measures taken to reduce dust problems:

- Prevent the generation of dust in preference to applying dust suppression measures.
- Ensure in the project schedule that the area of cleared land is minimized during the drier months of the year, when dust generation is at its greatest.
- Water haul roads promptly. Frequency of watering will be determined by weather conditions and the erodibility of the soil.
- Water areas other than haul roads, if they are a source of dust.

8.2.3. Concrete and Pavement Management Activities

8.2.3.1. Concrete

A concrete wash-down area needs to be established and maintained on the project site so equipment can be properly washed without contaminating the stormwater system. The following best management practices should be taken to reduce negative impacts associated with concreting activities:

- Wash down area must be located with appropriate sediment controls. These should be inspected and

maintained regularly and be repaired or replaced as necessary.

- To minimize the amount of wash-down water generated, scrape excess concrete off the equipment before it is washed.
- Excess concrete should be placed into a site receptacle designated for concrete and masonry and allow to set.
- A high pressure, low volume water spray nozzle conserves water usage and reduces maintenance of sediment controls.

Wash-down water is best managed by draining it into a container, allowing the water to stand until the solid particles settle at the bottom. After adjusting the pH of the water to neutral, it can then be siphoned off and reused, and the residue in the bottom can be allowed to set, then recycled with other excess concrete and masonry material. No wash-down water may be disposed of to the sewage system.

Wash-down area should drain to a low point where water is allowed to percolate through geotextile fabric into the soil. The settled and hardened concrete residue on the ground must be allowed to set and must be placed in a designated concrete/masonry recycling bin on-site. Do not allow equipment wash-down water to flow directly into a stormwater system.

8.2.3.2. Pavement

Pavement management activities may create environmental issues that need to be addressed in planning and undertaking. The following best management practices should be taken to reduce negative impacts associated with asphalt surface activities:

- Prior to surface management activities, identify what areas of the stormwater drainage system are nearby i.e. manholes and drainage ditches.
- Determine how much of an impact the activities will have on the system to identify if there are environmental concerns.
- Work activities should be undertaken during periods of dry weather to minimize contaminated run-off.
- If work activities need to occur during or around rainfall, take steps necessary to ensure stormwater run-off is prevented, particularly for surface repair works requiring

the application of patching and sealing compounds, tar, asphalt, and chemical surface sealants.

8.2.4. Waste

Waste storage should be conducted in approved containers. Waste should not be stored for excessive periods of time and should be transported off-site for disposal as soon as possible. Garbage shall be disposed of in a designated landfill site. Contractors need to maintain a high quality of housekeeping and ensure that materials are not left where they can be washed or blown away to become litter.

Throughout the life of a project, waste and debris may be found in storm drainage courses such as ditches, swale, culvert, etc. or surface drainage features such as manholes, catchbasins, etc.). When this occurs, it must be removed on completion of the work.

8.2.5. Ozone Depleting Substances

Ozone-Depleting Substances (ODS) are chemical substances that deplete the ozone layer found in the earth's atmosphere. The depletion of the ozone layer results in higher levels of harmful solar radiation reaching the earth's surface. Any solvent, refrigeration, air condition or fire-extinguishing systems being installed at EIA must be designed, installed, operated and maintained in accordance with the Federal Halocarbons Regulations (2003). Contractors performing demolition operations at EIA must provide from a certified disposal agency certification of the proper decommissioning and disposal of existing air-conditioning units and/or other CFC-containing equipment from the EIA property.

8.2.6. Temporary Storage of Hazardous Materials during Construction

Hazardous materials can include, but are not limited to, fuel, hydraulic oil, paint and solvents. All materials shall be stored using purpose-made CSA and ULC listed containers clearly labeled and stored in lockable cabinets. Spill containment shall be provided as a best management practice. Hazardous materials shall be disposed according to applicable legislation.

Storage of hazardous materials such as fuel on construction sites shall conform to Environmental Code of Practice for Aboveground and Underground Storage Tanks Systems Containing Petroleum and Allied Petroleum Products and the *National Fire Code* and *Alberta Fire Code*.

9. OPERATIONAL COMPLIANCE

9.1. CRANES

Crane usage at the Edmonton International Airport has the potential to create significant impacts on operations, as well as impacts to the airport's certification. It is important that prior to crane usage being conducted on airport property, the details of usage be reviewed to understand the impacts and the required mitigations. Crane usages will undergo one of two types of reviews: Minor or major.

A crane assessment form has been included in Appendix B. To initiate the review process, complete the form with details such as height, time and locations and send it to the ES&OC department for evaluation via the EA Project Manager. The EA Project Manager and contractor will be notified of all accepted reviews and will be responsible for notifying ES&OC and the Duty Manager the day before the approved crane usage.

9.1.5. Minor Review

Minor reviews occur when cranes are unlikely to cause operational impacts, which can include:

- smaller mobile cranes
- usage for short periods of time
- the maximum tip height will not exceed the height of neighbouring structures
- the crane will be located in a non-sensitive area (like groundside)

Minor reviews require a minimum 72 hours notification and do not require the issuance of a NOTAM for potential crane impacts.

9.1.6. Major Review

Major reviews occur when large crane operating at heights greater than neighbouring structures or a crane is to be at height for extended periods of time. A major review involves submissions to Transport Canada and NAV CANADA to understand possible impacts to aviation safety that will require mitigation.

Transport Canada's review process is conducted through their Aeronautical Obstruction Clearance Form process. Typical review timings are between one and two weeks. See Appendix C for additional process details.

For crane usage in sensitive locations on the property, NAV CANADA will review this through their Land Use Submission Form Process. Edmonton Airports will coordinate the submission of requests on behalf of the contractor. Typical review timings are three to four weeks. See Appendix D for additional process details.

The results of the Transport Canada and NAV CANADA reviews will be compiled to form the mitigation strategy to maintain aviation safety while lifting occurs. Mitigations can range from basic notification NOTAMs to operational restrictions to runway closures. If the results of a major review identify the potential for significant operational impacts, the contractor will be notified and changes will be required in order for the crane usage to be approved.

9.2. NOTAM

NOTAMS are an advisory notice broadcasted to pilots. They contain information on the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to flight operations.

Examples of when NOTAM's should be issued:

Significant changes in serviceability of runways and associated approach or runway lighting systems that could restrict aircraft operations;

The presence or removal of obstructions which are considered to be hazardous to aircraft navigation. Hazardous obstructions are defined in TP 382E, Standards Obstructions Markings, Chapter 2, General Criteria;

The establishment, withdrawal or significant changes to designated airspace or air traffic procedures and services;

Interruptions in service or unreliability and the return to normal operation of enroute and terminal aids to air navigation;

The establishment or withdrawal of electronic and other aids to air navigation and aerodromes; and

Changes in frequency, identification, orientation and location of electronic aids to air navigation.

9.2.5. Requirement for NOTAM

As the requirement for a NOTAM is based on the need to mitigate an aviation safety impact from a construction-related activity, the need for a NOTAM is established through the development of a Plan of Construction Operations for an airside project. The Plan of Construction Operations identifies when a NOTAM is required, according to the project schedule, and NOTAM language required.

9.2.6. Request for NOTAM

All NOTAM requests must be submitted a minimum of three days prior to the anticipated date that the NOTAM is scheduled to take effect. Submission of the Request for NOTAM does not constitute a guarantee that the NOTAM will be approved. Approvals will be subject to acceptance by Edmonton Airports and Project Managers must receive confirmation that the NOTAM has been granted prior to proceeding.

The Request for NOTAM must include:

- Name, phone and fax number of Requester
- Date that NOTAM is to take effect, length of time that NOTAM required, and recurrence if necessary;
- Details on the nature of the aerodrome impact that requires the NOTAM to be placed; reference approved Plan of Construction Operations for the work
- Details from the approved crane review, that may include:
 - Height of “obstruction”, if applicable;
 - Swing and/or arc radius of “obstruction”, if applicable;
 - Location of “obstruction”, given in latitude and longitude coordinates. Distance of “obstruction” from nearest runway;

The Airport Authority reserves the right to request or require further documentation, information or other relevant materials as necessary to ensure that the NOTAM requirements are properly met, and to stipulate any requirements appropriate to ensuring the “obstruction” is properly located, marked and identified as necessary to ensure the safety of aircraft and/or normal operations.

9.2.7. Voice Advisories

Voice advisories are an alternative to NOTAM's and are often required for work on taxiways and aprons. The requirement for a

Voice Advisory would be identified in a project's Plan of Construction Operations.

Questions regarding whether voice advisories must be established should be referred through Environment, Safety, and Operational Compliance Department.

10. PREVENTATIVE MAINTENANCE

10.1. Purpose

When tools, equipment, or designed structures are not maintained to the manufactures' or engineers' specifications, failures in the material will occur resulting in loss.

Contractors shall verify that tools, equipment, machines, and structures used for work at Edmonton Airports' premises:

- Are maintained in a condition that will not compromise the health or safety of workers using or transporting the equipment
- Will perform the function for which it is intended or was designed
- Is of adequate strength for that purpose, and;
- Is free from patent defect

10.2. Standard Reference

- Alberta Occupational Health and Safety Act, Regulations & Code
- Canada Labour Code-Part II Sections (in general) 124, 125(t).

10.3. Removal of Defective Tools and Equipment

Where a worker has equipment under his/her control that does not function as outlined in Section 9.1 of this document, the worker shall remove the item from service.

The contractor who owns the item shall have it repaired by a qualified person or removed from Edmonton Airports' premises.

10.3.5. Locking out Defective Equipment

Equipment that is to be locked out to control the energy source will be done so in compliance with Part 15 of the Alberta Occupational Health and Safety Act, Regulation & Code.

10.3.6. Tagging out Defective Equipment

If equipment or tools are tagged out of service then the following information shall be marked legibly on the tag:

- Danger do not operate
- The date the tag was installed

- The workers printed and signed name

11. MONITORING THE STANDARDS

11.1. Inspection Purpose

The purpose of an inspection is to measure the compliance with established standards and to commend excellence and correct deviations from the standards.

11.1.5. Informal Inspections

May or may not be documented. These inspections are done on an ad-hoc basis as opposed to being scheduled. When a contractor supervisor corrects a deviation from a standard, he/she may document the corrective measures in their daily progress report.

11.1.6. Formal Inspections

Are documented, follow a distribution system and are scheduled.

Contractors will be expected to perform scheduled inspections as per the Contractors' Environmental, Safety and Loss Prevention Program.

Records of scheduled and periodic inspections are to be maintained for the duration of the contract.

11.1.6.1. Distribution Reports

A copy of the contractors' inspection results will be given to Edmonton Airports' Project Manager or to Edmonton Airports Superintendent, Safety upon request.

11.1.7. Governmental Inspections

If a governmental department inspects a contractors' work area of responsibility and issues an order, Edmonton Airports shall be given a copy of the report immediately after the contractor receives the documentation or within a reasonable period if after regular business hours. All issues shall be resolved and corrected within the prescribed amount of time as noted on the order.

11.1.7.1. Posting Inspection Results

The contractor shall post, for worker access, all governmental inspection documentation for a 10 working day period.

12. EMERGENCY PREPAREDNESS

12.1. Emergency Assistance Program

Each contractor shall have the means and knowledge on how to communicate an emergency occurrence. Participation in this element may be as simple as knowing the nearest fire alarm pull station to participating in a rescue operation until medical responders take over the scene.

12.1.5. Purpose and Scope

Proper planning and preparation shall provide effective management of any incident, spill or disaster, with the objective of ensuring the personal safety of all individuals within the influence of the project and to reduce damage to property and the environment.

To accomplish these objectives, Edmonton Airports requires that the principal contractor develop a Construction Emergency Response Plan [CERP] for each construction site/area prior to the commencement of construction activities.

The CERP shall detail specific responses to the following occurrences:

- Serious injury or fatality
- Fire or explosion
- Hazardous material release/spill, and
- Threat of insurrection
- The CERP shall also address potential risks associated with the project due to;
- Working in remote locations on airside, where response times of emergency services personnel may be increased
- Working inside the terminals, wherein minor events could have adverse affect on tenants and the general public
- Working in proximity to airside and aircraft, wherein minor events could have the potential for creating substantially larger events, ie; fire, aircraft damage, flight delays
- Where site access and egress routes change frequently as areas are added to the project or turned over to the Airport Authority/tenant

- Where applicable, Edmonton Airports Emergency Response Plan will be followed

12.1.6. Roles and Responsibilities

12.1.6.1. The Project Manager shall ensure that:

- The CERP has been properly developed, documented and posted conspicuously on the site
- A command structure has been established that identifies the contractor Person-in-Charge, and as many alternates as deemed necessary based on types of hazards, number of workers on the jobsite, size of jobsite and any other consideration.
- The person named as the contractor Person-in-Charge is knowledgeable of the requirements of the role and capable of undertaking the CERP duties
- A responsible person is designated to manage the CERP
- Supervisory personnel are aware of their respective roles and responsibilities, and that said personnel have received appropriate instruction and training
- All workers receive appropriate indoctrination in emergency response measures
- All site visitors receive indoctrination in site emergency procedures
- Workers have appropriate training on emergency equipment
- The CERP is regularly reviewed and updated to reflect any changes in area, environment or risk factors
- Changes to the CERP are disseminated to all subcontractors, workers and visitors
- On-site drills are conducted as required to ensure that the program is operating effectively

12.1.6.2. Contractor Supervisors shall ensure that:

- When an event is reported, immediately assess the situation and initiate the appropriate response measures

- Make the appropriate calls to emergency agencies, contractor management and Airport Authority Operations
- Ensure that all personnel under his/her authority is accounted for, and report to the contractor Person-in-Charge whether any of his/her personnel are not accounted for
- Report all changes to areas, egress routes or emergency equipment that could effect the CERP
- All new workers under his/her supervision receive indoctrination in the CERP
- All visitors under his/her area of responsibility receive indoctrination in the CERP
- Report all upcoming shut downs to emergency equipment, egress routes etc to the CERP manager
- Emergency equipment is maintained in proper functioning order
- Workers who violate CERP requirements are disciplined

12.1.6.3. Workers shall ensure that:

- They immediately report any situation or incident that comes under the CERP to their supervisor
- If they are unable to report directly, that they initiate a response by sounding a site warning device, or requesting another worker to initiate the response
- They immediately report the use of any emergency equipment to their respective supervisor
- They report to the muster area when an evacuation has sounded, and advise their respective supervisor on the location of any accounted for colleagues
- They abide by the conditions of the CERP

12.1.6.4. Emergency Response Coordinator shall:

- Upon notification on an event, immediately assess the scene and initiate the appropriate level of response
- Secure the scene, evacuate personnel as required

- Determine the extent and number of injured persons
- Initiate, as per the CERP, the notification process
- Liaise with responding agencies
- Co-ordinate rescue, injury management, fire fighting, spill containment efforts until such times as the incident has been resolved, or until relieved by a higher command authority
- Determine whether any persons are unaccounted for, and report this information to rescue personnel
- Document the scene and co-ordinate the investigation
- Provide written reports to management and other concerned parties

12.1.7. Identification of an Emergency

- A situation which has the potential to be classified and treated as an emergency may become apparent in a number of different ways, including but not limited to:
- An accident has occurred in which a worker or workers have sustained injuries or death
- An accident has occurred in which structural collapse or significant property damage was sustained
- Automated warning systems have been activated in the existing facilities as a result of fire, smoke, heat or gas detection
- A release/spill of hazardous materials has occurred that may be harmful to persons or cause serious environmental damage
- A verbal warning has been given by an individual who is aware of a major safety problem
- An evacuation signal has been initiated within the construction area by a person who is aware of a major safety concern
- The contractor has been advised by responsible Airport Authority personnel that an event has or will occur that could affect the safety of individuals on the construction project

12.1.8. Notification

Each CERP shall have an Emergency Contacts List [ECL] that will include a list of all persons and/or agencies that may require notification of an event. This information shall be prominently displayed on the site Project Information Board and near site telephones. The ECL shall be updated as required to reflect current command structures and corresponding phone numbers.

12.1.9. Emergency Assistance List

A copy of the Contractor's Emergency Assistance List, indicating emergency personnel and contact information will be prepared by the Contractor. This list will be posted above each phone or radio dispatch station.

The contractors' workers shall be trained on the use of the communications system to verify they know how to call for help. This is the responsibility of the contractors' supervision.

Edmonton Airports' contractor orientation will provide appropriate emergency numbers for the airport.

12.1.10. Emergency Evacuation

Each contractor supervisor shall educate his or her workers according to Edmonton Airports Emergency Evacuation Plan. Assistance in the training may be acquired through Edmonton Airports' Project Manager who will request assistance from the Manager, Emergency Response Services (ERS).

A general evacuation plan shall be developed and posted for each site. The objectives of the plan shall be;

- To provide for a quick, safe evacuation of all employees in the event of an emergency
- To establish the necessary teams and equipment required to respond to the emergency
- To account for all personnel at the assembly points
- Report to the Edmonton Airports fire department an "all clear" or "not all clear"

All workers shall, when notified, immediately shutdown equipment and proceed in an orderly manner to the designated evacuation point or assembly area, where head counts shall be taken by the respective supervisors. Workers shall not return to the site until proper authorisation has been received.

The evacuation plan shall include:

- A checklist for securing any equipment or work in progress at the time of the evacuation
- A list of assembly areas, including alternates, to which employees are to go in the event of an evacuation signal
- Map(s) showing assembly areas and routes

- A system of accounting for all employees at assembly areas
- Criteria for confirming the safety of the area prior to allowing workers to return to work
- A system of signals for "evacuation", for "test" and for "all-clear"
- A plan for practising evacuations and testing the suitability of the accounting system
- A plan for checking the availability of emergency equipment on a frequent basis

The evacuation plan shall be discussed at the site safety orientation sessions and the site evacuation plans shall be posted in conspicuous places around the site and the Project Information Board.

12.1.11. Emergency Equipment

An itemized list of equipment - including equipment locations - which could be utilized in the event of an emergency shall be prepared, updated and posted on the Project Information Board as well as being made available to:

- Airport Authority Operations
- EIA Fire Department
- Alberta Health EMS
- Other Airport Authority departments or external agencies as requested

The following categories shall be included:

- First Aid Equipment and Attendants
- Fire Fighting Equipment
- Equipment Available for Rescue, Evacuation or Spill Response
- Radio Equipment

12.1.12. First Aid Requirements

Contractors will verify that they have an adequate amount of first aid trained personnel and necessary equipment on any given work shift as outlined in Part 11 of the Alberta Occupational Health & Safety Code.

Worker injuries take precedence over construction site activities and normal airside operations. Edmonton Airports Emergency Response (ERS) is to be notified immediately.

The site First Aid Attendant will evaluate the injured worker(s) and ERS will make decisions regarding the need to transport the injured worker, including the appropriate level of transportation.

Accordingly, in medical situations the Airside Escort will take direction from ERS in all matters relating to the disposition of the injured worker(s).

12.1.13. Fire Prevention

Each contractor will be required to participate in Edmonton Airports' Fire Prevention Program.

It's the expectation of the Edmonton Airports that every reasonable and prudent effort will be taken to prevent or minimize the risk of fire. The safety of all persons, property, environment and equipment shall have the highest priority.

This program encompasses hot work performed inside the Terminal Buildings, on Groundside and Airside. At the discretion of Edmonton Airports, fire safety requirements may be imposed on tenant leasehold space, including aprons, where the risk of fire is deemed to be detrimental to the normal functioning of the Airport.

Requirements under the program shall vary depending on the location, duration, and potential hazards identified with the work. Hot work may only be undertaken with the express written consent of the Edmonton Airport Authority fire department and shall be subject to compliance with components of the program.

Hot work permits are required for any work process that creates a spark, flame or heat. 48 hours notice to Edmonton Airports Project Manager is required. Emergency Response Services shall issue and approve all Hot Work Permits.

12.1.13.1. Hot Work Definition

The following criteria will constitute hot work under the Construction EH&S Manual:

- Welding, cutting or soldering employing open flame

- Arc welding or similar processes creating hot by-products
- Equipment or processes that create spark and/or flame
- Any equipment that uses combustible fuels and has an open flame, and which is not tied into the building fire systems. Several examples of this are; propane heaters, hot water tanks and barbeques
- Any other activity or equipment that could generate a heat source sufficient to cause combustion

Edmonton Airports Hot Work SOP will be followed.

12.1.13.2. Hazard Assessment

Prior to any hot work proceeding, the contractor must complete and submit the appropriate Fire Safety Hazard Assessment to the Edmonton Airport Authority fire department for review and approval. Hazard Assessments must be submitted a minimum of 2 working days in advance of the start of hot work activities.

12.1.13.3. Hot Work Procedures and Monitoring

The following procedures shall be required for all hot work.

- Persons performing work are properly trained and qualified
- Ensure that work area is clear of flammable materials
- Combustible walls must be adequately protected by fire blankets, metal or other protective materials
- Combustible materials that cannot be moved must be adequately protected,
- Fire extinguishers must be present at work area
- Appropriate personal protective equipment must be worn/used by all worker(s)
- Where required, flash shields or other adequate protective devices must be used to

prevent harmful exposure to persons within the influence of the work

- Once hot work is completed, the area will be inspected to ensure no lingering embers or hot spots remain
- Between 15 and 30 minutes after hot work is completed the area will be re-inspected to ensure that no hot zones remain
- For all airside work, notification shall be made to Airport Authority Operations prior to starting, and upon completion, of all hot work

12.1.13.4. Fire Prevention and Training

All workers must receive instruction on the relevant fire prevention rules and regulations for each area where hot work will occur. Locations of firefighting equipment must be identified, well marked and maintained to provide easy and quick access. Procedures to be followed in the event of a fire shall be posted on the Project Information Board.

Persons performing fire watch must receive proper instruction on the use of portable fire extinguishers, and shall be trained in the operation of hydrants, hose cabinets and stations if said equipment constitutes part of the fire fighting methods employed on the construction site.

12.1.13.5. Reporting of Incidents Involving a Fire

All fires, regardless of size, shall be promptly reported to the Edmonton Airport Authority fire department (780-890-7911), to the Airport Duty Manager (780-890-8327) and to the Project Manager. An investigation shall be conducted to determine the cause of the fire, along with recommendations for adequate measures to prevent a reoccurrence.

12.1.13.6. Waivers

At the discretion of Edmonton Airports, some components of this program may be waived if the risk of fire resultant from the hot work is such that the implementation of the component is unwarranted.

Contractors should consult with the Airport Authority Project Manager. Waivers may be granted in circumstances where the hazard assessment and subsequent protective measures have previously been determined through the Facility Alteration Permit process. Waivers may also be granted when an existing fire safety program is already in place through a base building contractor, to which all other contractors shall follow.

Waivers shall be provided in writing, itemizing which components of the program may be waived. Under no circumstance shall the granting of a waiver negate the contractors' responsibility to follow all other aspects of the program.

12.2. Security of Work Area and Tools

Edmonton Airports assumes no responsibility for lost or stolen items. Each contractor is responsible for the security of their tools and equipment.

12.3. Media Relations

Edmonton Airports has a Corporate Communications department which will field questions from the media. This department handles all media liaison.

Contractors and their workers are encouraged to politely direct any media inquiries to Edmonton Airports' Corporate Communications department.

13. GENERAL REQUIREMENTS

13.1. General Rules

All personnel shall participate in the following general rules:

- Radio or tape headphones shall not be permitted on site since they render the user unaware of potential dangers and a sounded evacuation alarm.
- Firearms or weapons of any kind are not permitted on the premises.
- Intoxicating beverages and drugs are not permitted (for consumption or otherwise) by a worker in their workplace.
- Workers are to report equipment and property damages to their supervisor.
- Personnel who perform lifting tasks should verify that good ergonomic posture is used when handling material. Lift with your legs, not with your back.
- Theft, vandalism, horseplay, and fighting will not be tolerated and are grounds for immediately being asked to leave the workplace after potential charges have been laid.

13.2. Respiratory Protection Program

Where the work process requires the use of respiratory protective equipment to prevent worker exposure to a contaminated or oxygen deficient atmosphere, the contractor shall develop a code of practice that will govern the selection, maintenance and use of the equipment. Reference Alberta OH&S Act, Regulations & Code-Part 15.

13.3. Lock out/Tag out Program

The contractor shall comply with Edmonton Airport's Lock out/Tag out procedure.

13.4. Illumination

The contractor will verify that illumination at the work site is sufficient to enable the work to be done safely. Where the failure of normal lighting would endanger workers, the contractor shall ensure a system exists to provide for a safe egress out of the area in darkness.

13.5. Housekeeping

The contractor shall adopt a "clean as you go" attitude. Any materials left to blow around the project either airside or groundside poses a high risk of

damage to jet engine aircraft. The risk of damage to an aircraft due to the ingestion of foreign object damage (FOD), such as extraneous construction materials is significant, not only in terms of the cost of repair or the down time of the aircraft itself, but the potential for injury or the death of passengers as a result of the catastrophic loss of the aircraft. Good housekeeping should also include the control and clean up of mud and stones tracked onto aprons and aircraft maneuvering areas by construction vehicles.

Contractors will keep access and egress areas clean and free from slipping and tripping hazards.

13.6. Foreign Object Damage (FOD) Control

The Foreign Object Damage Control Program details Edmonton Airports' policy for the prevention of foreign object damage (FOD) to aircraft on movement surfaces. Foreign object damage can be caused by the presence of any material that may be ingested into aircraft engines or cause other damage to aircraft and vehicles. Types of FOD include paper, small hardware (such as bolts, nuts, nails), stones, baggage hardware (such as handles, wheels, locks) and other debris.

Everyone whose work duties require them to be on airside, is responsible for monitoring potential FOD hazards and ensuring that foreign objects are not discarded on or near aircraft maneuvering areas.

13.6.5. FOD Protocols

Edmonton Airports procedures for the control and removal of foreign objects involve daily inspections, constant monitoring, provision of foreign object control receptacles, corrective actions for various types of common FOD hazards, and levels of administrative involvement.

13.6.5.1. Responsibilities

13.6.5.1.1. Edmonton Airports

The Superintendent, Field Maintenance, supported by the Airport Safety Coordinator, is responsible for Edmonton Airports' FOD Program. All employees (and contractors) are required to monitor potential FOD hazards on an ongoing basis and take steps to eliminate them, or bring them to the attention of the Superintendent, Field Maintenance.

13.6.5.1.2. Airport Contractors

All airport contractors working on airside are required to appoint a FOD control officer. This officer is responsible for ensuring that the company's FOD control procedures are followed, and that all workers (and contractors) are aware of potential FOD hazards and act to eliminate them.

13.6.5.2. Procedures

- Maintenance and servicing contractors (including aircraft maintenance contractors) should account for all tools and hardware used during the repair and maintenance of aircraft on airside areas.
- Foreign objects found in the vicinity of an aircraft must be identified and, if determined to be from an aircraft, the airline responsible for the aircraft should be notified immediately.
- All contractor workers should be aware of potential FOD hazards in their actions. FOD control is everyone's responsibility. When FOD is found, it should be removed and identified immediately.

13.6.5.3. Frequency of Inspections

Edmonton Airports Field Maintenance staff complete daily inspections of aircraft maneuvering areas. Ongoing monitoring is completed by all contract workers at the airport, including airline and control tower personnel, who are working on or near aircraft maneuvering areas.

13.7. Ladders and Scaffolds

The contractor shall ensure that ladders which meet the requirements of applicable legislation are provided when no other safe means of access or egress between levels is present.

The contractor shall ensure that a scaffold will be designed to the requirements stated in the Alberta OH&S Act, Regulations & Code-Part 23.

Thrust outs used to suspend scaffolds shall be secured against movement or attached to the building or structure as prescribed by the regulations.

13.8. Sanitation Facilities

The contractor shall verify that his/her workers have access to washroom facilities. The contractor will verify that workers have access to fresh potable water and a clean room to consume his/her lunch.

For the abatement of hazardous products or the use of corrosive chemical(s), showers with recovery tanks will be required.

13.9. Safe Access and Egress

All means of entry to and exit from a work area must be maintained in a good state of repair and free from materials, equipment and other obstructions that might endanger workers or impede their exit from the area in an emergency.

Routes of worker entry include: ramps, runways, walkways, stairways, ladders and doors.

13.10. Utilities

The contractor shall ensure that all underground utilities are located and that the procedures outlined in the Pipeline Act, Electrical Utilities Regulations, and other applicable legislation are followed. An Edmonton Airports Excavation/Trenching Permit is required prior to excavating an area.

The contractor shall ensure that workers are made aware of the location of overhead utilities, the dangers of contacting these utilities are communicated to all workers and the safe limits of approach as outlined in the legislation are maintained for workers and equipment.

13.11. Compressed Gas Systems

The contractor shall ensure compressed and liquefied gas cylinders are:

- Clearly identified as to their contents
- Equipped with a valve protection
- Secured to prevent dislodgment
- Flashback devices are installed on the regulator end of all lines
- Oil or grease does not contact the oxygen cylinders

13.12. Falling Hazards

13.12.5. Fall Protection

- *Approved* fall protection equipment must be worn continuously when there is a hazard of:
 - Falling 3 metres or more from a temporary or permanent work area
 - Falling into operating machinery
 - Falling into or onto hazardous substances or objects; or
 - Falling into waste or liquids.

As well, workers must be tied off when moving to, from or between elevated work locations where safe access is not provided. Fall protection is not required when accessing and going from work areas using a portable ladder.

- Where continuous fall protection cannot be used because it creates additional risk, the contractors shall establish approved work procedures to guard against falls.
- A full body harness is mandatory in all *Fall Arrest Systems* (FAS).
- Fall protection equipment, which has been involved in arresting an actual fall must NOT be used again and is removed from service.

NOTE: Once equipment intended for one-time use only, such as life lines and shock absorbers has been used to arrest a fall, it must never be reused and must be removed from service.

- Anchor points must be used if a worker uses a FAS. Anchor points and plates must comply with the specifications of Part 9 of the Alberta OH&S Code.
- Life lines must be positioned so as to prevent damage from chafing, burns and sharp edges.
- A rescue plan is mandatory wherever fall arrest systems are used.
- All users of fall protection equipment must be properly trained.
- No user modifications are allowed with fall arresting equipment.

- A competent person must inspect all fall arrest equipment before it is used on each work shift and that fall arrest equipment is re-certified as specified by the manufacturer.

13.12.6. Raising and Lowering Tools and Material

- An *approved* hand line must be used for raising or lowering tools and material to workers on structures (approved tool bags may be used in conjunction with the hand line).
- Articles must NOT be thrown to workers aloft and must NOT be thrown or dropped to the ground.
- Tool bags must NOT be suspended from the worker's belt.

13.12.7. Overhead Protection

Where the risk of falling material presents a hazard, overhead protection must be provided. Where this is not practicable, the hazardous area must be roped off and posted with warning signs.

13.12.8. Guardrails, Floor and Wall Openings

- All openings in floors, roofs or other surfaces to which people have access must have a cover in place strong enough to withstand any load that may be applied to it. In conjunction, there should be a guardrail and posted signs to identify the hazard.
- The perimeter, open sides and ends of roofs and other surfaces where workers could fall must have guardrails or appropriate travel restrictions.
- Access to roofs and other surfaces where workers could fall must be controlled if guardrails or appropriate travel restrictions are not provided.
- Guardrails must meet all requirements of the Alberta Occupational Health and Safety Code and the Canada Labour Code-Part II.

13.13. Mobile Equipment and Vehicle Operation

The contractor shall ensure that powered mobile equipment meets the requirements of pertinent legislation. Personnel shall not be transported in a vehicle unless adequate seating is provided. Equipment fitted with roll over protective structures shall be equipped with seat belts and the seat

belts shall be worn when the equipment is operated. Equipment requiring back-up alarms shall have the alarms maintained in good working order.

All contract workers will operate all vehicles and equipment in accordance to the *Highway Traffic Act* and posted instructions while on Edmonton Airport's premises.

13.14. Traffic Hazards

Contractors shall take appropriate measures to ensure workers and, where specified, the general public are protected from traffic hazards. Control measures include:

- High visibility vests (CSA Level II)
- Barricades and signs directing traffic
- Flag personal directing traffic away from workers
- A combination of these control measures

13.15. Tools and Equipment

The contractor will supply all tools and equipment necessary to complete the work process safely and without adverse health effects to the workers. Tools and equipment shall be kept in an orderly fashion and away from public access. If working in a public area, a storage area will be identified.

The use of explosive actuated tools is restricted in the airport. Approval from the Project Manager must be obtained before this type of equipment is used. In addition, the operator of explosive actuated tools must have the proper certification to use the equipment.

13.16. Barricades, Signage, and Hoarding

Hard barricades and signs will be required wherever the general public can access a potentially hazardous work area.

Barricades shall be highly visible and of adequate strength to perform the task. Barricades cannot be attached to Edmonton Airports' furniture of fixtures i.e. rope tied to chairs and garbage cans.

Containment hoarding shall be guarded from breaching its protection factor. No unauthorized worker or the general public shall have access to a containment zone.

The contractor responsible for the containment zone shall verify that an emergency evacuation from inside the exclusion zone is possible and communicated to the affected workers.

13.17. Securing of Equipment and Materials

The contractor shall verify that loads and materials are secured from unintentional movement that could adversely affect the safety of workers and the general public.

13.18. Office Environmental, Safety and Loss Prevention

Contractor shall keep office spaces free and clear of tripping, slipping or fire hazards.

Contractors shall have an adequate number of fire extinguishers posted by the exit(s).

Ignition sources such as coffee makers shall be turned off by the contractor at the end of the work day.

13.19. Working Alone

Any contract worker required to work alone will make every reasonable effort to keep the dispatcher, the on-duty person, the answering service and/or the supervisor aware of their progress and expectation of completion.

Contractor workers will have the means to communicate a call for emergency assistance.

14. SECURITY

Each contractor shall ensure that they have reviewed, understand and will abide by the Edmonton Airports Security Plan, contained separately.

14.1. General

When access to "restricted (secure) areas" of the airport is provided, an employee or agent of the contractor is subject to Edmonton Airports' security controls (i.e. search, surveillance, or escort) while within a restricted area. A Restricted Area Pass holder supplied by the contractor or by Edmonton Airports under terms of a specific agreement shall provide security controls. A designated escort for contractors shall be in a position to communicate with the contractor and/or airport security i.e. portable radios.

14.2. Tool and Equipment Identification

Contractors will have a means of identifying their tools and equipment prior to arrival to the site. If a discrepancy occurs on the owner of a tool or piece of equipment, the issue will be handled by the local police authority.

14.3. Contractor Use of Premises

- The contractor will participate in all Edmonton Airports requirements in the protection of workers, the general public, the environment, equipment, and process.
- Contractor visitors to areas outside Edmonton Airports' security zones, shall be educated by the contractor on site procedures for that area.
- Movement of personnel and equipment will be subject to Airport security regulations and controls.

14.4. Parking

Parking of contractor and their workers' vehicles shall be limited to areas designated by Edmonton Airports for contractor use. Unauthorized vehicles will be towed at the owner's expense.

14.5. Restricted Area Identification Cards (RAIC)

- All passes issued are the property of Edmonton Airports.
- The pass shall be returned to the Pass Control Office on termination of employment, completion of contract or on demand from the issuing authority at Edmonton Airports.
- The pass must be visibly displayed (worn on a worker's outer clothing)

at all times while in a restricted area.

- The pass must be safeguarded at all times. Loss or theft of the pass must be reported to the Pass Control Office immediately.
- Unauthorized use of the pass is prohibited.
- Only to be used while employees or agents of the contractor are performing work in areas requiring a pass.
- Violations of the terms of issue for Restricted Area Passes are subject to prosecution under the Aerodrome Security Regulations. A violation may also result in suspension of pass privileges by Edmonton Airports.
- A fee of \$100 (one hundred) shall be charged for a lost or non-returned Restricted Area Pass.

14.5.5. Pass Control

Edmonton Airport's pass control office is located on the Mezzanine Level (Room #03-076) at the Edmonton International Airport. Hours of operation are from 08:00 – 17:00 hours Monday to Friday. Alternative arrangements can be made by phoning 780-890-8377.

14.5.6. Key Control

The Pass Control Office at the Edmonton International Airport issues all keys for airports under Edmonton Airports' direction. Arrangements for keys should be made 48 hours in advance.

14.6. Vehicle Escort on Airside

Movement of contractor's vehicles and equipment on "airside" must be in accordance with the provisions of the Airside Vehicle Operator's Permit program and Edmonton Airports' traffic directives. Approved escorts may be required for movement of personnel and equipment on airside.

15. INCIDENT INVESTIGATION

Contractors shall investigate all incidents including:

- near miss
- injury
- fire
- environmental release
- premises and equipment damage
- security breach
- refusal to work
- imminent dangerous work environment

15.1. Incident Reporting Procedure

All fires regardless of size or consequence must be reported to the Edmonton Airports firehall immediately.

Contractor supervisors when advised of an incident will notify Edmonton Airports Emergency Response Services (if the incident requires emergency response), the Project Manager and the Prime Contractor immediately upon securing the incident area.

The Superintendent, Safety will receive a copy of the incident report from the contractor within 24-hours from the time of the occurrence.

15.1.5. Organizational and Government Notification

The contractor supervisor shall follow his/her own company policy regarding government notification. When an occurrence requires government notification, the Superintendent, Safety shall be notified immediately.

16. DEFINITIONS

The following are definitions used within this document.

Airport means an aerodrome for which under the Canadian Aviation Regulations, an airport certification has been issued by Transport Canada.

Airport Operator means the holder of an airport certification or the person in charge of such airport, whether an employee, agent or representative.

Airside means the aircraft movement area of an aerodrome, adjacent terrain and buildings or portion thereof, to which access is controlled.

Airside Vehicle Operator Permit (AVOP) means a document issued by the airport operator certifying that the person named therein is authorized to operate vehicles in an airside area.

Apron means that part of an aerodrome, other than the maneuvering area, intended to accommodate the loading and unloading of passengers and cargo, the refueling, servicing, maintenance, and parking of aircraft, and any movement of aircraft, vehicles, and pedestrians to allow execution of those functions.

Approved in relation to a type of equipment and a named organization or standard, means a description that is approved or certified by that organization as meeting those standards or specifications of the organization that are applicable to that type of equipment, or, where applicable, the named standard.

Authority means the federal, provincial, municipality, county, or city having jurisdiction.

Competent in relation to a worker, means adequately qualified, suitably trained and with sufficient experience, to safely perform work, without, or with only a minimal degree of supervision.

Contractor means a person, partnership or group of persons who, through a contract, an agreement or ownership, directs the activities of one or more employers involved in work at a work site.

Controlled product means any product, material or substance specified by the regulations made pursuant to Paragraph 15(1)(a) of the Federal Act to be included in any of the classes listed in Schedule II to the Federal Act (*Hazardous Products Act*).

D Permit means an AVOP authorizing the person named therein to operate a vehicle at the airport named on the permit on all airside areas, subject to any

restrictions specified on the permit.

D/A Permit means an AVOP authorizing the person named therein to operate a vehicle at the airport named on the permit on aprons and service roads, but not maneuvering areas, subject to any restrictions specified on the permit.

Designated signaler means a worker designated to give signals.

Duty Manager means a person who is employed by Edmonton Airports to operate the airport during regular business hours and after hours.

Employer means:

- a person who is self-employed in an occupation,
- a person who employs 1 or more workers,
- a person designated by an employer as his representative; or,
- a director or officer of a corporation who oversees the occupational health and safety of the workers employed by the corporation.

Equipment means any man-made device or anything used to equip workers at a work site, and includes machinery and sanitary facilities.

Emergency Response Service means a trained, qualified person who is employed by Edmonton Airports to respond to fire, medical, and first aid emergencies on airport premises.

Exclusion Zone means an area within a contaminated or potentially contaminated hoarding environment. Definition usually used with an abatement process.

Facility Alternation Permit (FAP) means Edmonton Airports permit procedure process for all construction, renovations, or major maintenance projects on airport premises or at any Terminal Building.

Foreign Object Debris (FOD) means a substance, part, component, natural element or live animal that, because of its proximity to the area of aircraft in motion, has the potential to accidentally encounter an aircraft and threaten its safe operation and/or require a repair.

Examples:

- Rocks and loose paving material on ramps, runways or taxiways
- Pieces of luggage and cargo containers on ramp areas
- Tools and aircraft hardware left after maintenance work is done

- Ice, snow, and sand
- Birds, deer and other live animals

Fall arresting device means personal protective equipment which provides a means of arresting the fall of a worker and which, subsequent to the arrest of the fall, does not by itself permit the further release or lowering of the worker.

Fire hazard area means an area that contains or is likely to contain explosive or flammable concentrations of dangerous substances.

First aid (FA) means immediate treatment is rendered by a qualified person and the injured worker immediately returns to work.

First aid room means a room used exclusively for first aid or medical purposes.

Groundside means that area of an airport not intended to be used for activities related to aircraft operations and to which the public normally has unrestricted access.

Hand tool means hand held equipment whose use is dependent on the energy of the worker for its direct effect and which does not have any hydraulic, pneumatic, electrical or chemical energy source for its operation.

Harmful substance means a substance which by its nature, application or presence creates or could create a danger to the health or safety of any worker who is exposed to it.

Job Procedure (SOP) means a written series of logical steps that describe how to do the job safely from start to finish.

Locked out means, in respect of any equipment, machine or device, that the equipment, machine or device has been rendered inoperative and cannot be operated or energized without the consent of the person who rendered it inoperative.

Lost time incident (LTI) means an injury incident where a physician directs the injured worker to remain away from work longer than the day of the incident.

Lower explosive limit (LEL) means the lower limit of flammability of a chemical agent or a combination of chemical agents at ambient temperature and pressure, expressed;

- (a) for a gas or vapour, as a percentage in air by volume; and,
- (b) for dust, as the weight of dust per volume of air.

Machinery means any combination of mechanical parts that transmits from one part to another or otherwise modifies force, motion or energy that arises from hydraulic, pneumatic, chemical or electrical reactions.

Manufacturer's rated capacity means the maximum capacity, speed, load, depth of operation or working pressure, as the case may be, recommended by the specifications of the manufacturer of equipment for the operation of the equipment under the circumstances prevailing at the time of operation.

Manufacturer's specifications means the written specifications, instructions or recommendations, if any, of the manufacturer of equipment, which outline the manner in which the equipment is to be erected, installed, assembled, started, operated, used, handled, stored, stopped, adjusted, maintained, repaired or dismantled, and includes a manufacturer's instruction, operating or maintenance manual or drawings for that equipment.

Medical aid (MA) means an injury which requires treatment by a physician beyond simple first aid care but does not result in time lost from work beyond the day of the injury.

Occupational Exposure Limit (OEL) in respect of a substance means the Occupational Exposure Limit or Limits established by a legislated body for that substance.

Occupation means every occupation, employment, business, calling or pursuit over which the Legislature has jurisdiction.

Owner in respect of a work site means the person in legal possession of the work site or, if the person in legal possession does not request the work, the person with an ownership interest in the work site who requests that the work be done.

Oxygen deficient atmosphere means an atmosphere in which there is less than 18 per cent by volume of oxygen at a pressure of one atmosphere.

Peace officer means a member of the Royal Canadian Mounted Police or a member of a municipal police service.

Personal fall arresting system means personal protective equipment consisting of an assembly of subsystems and components used to arrest a fall of a worker and may contain some or all of the following:

- an independent anchor point,
- a lanyard, lifeline or static line,
- a harness or safety belt,
- a fall arrester,
- a shock absorber,

- a safety net

Personal protective equipment (PPE) means equipment or clothing worn by a worker to protect him from health or safety hazards associated with working conditions or a work site, and includes a fall arresting device.

Prime contractor means:

- the contractor, employer or other person who enters into an agreement with the owner of the work site to be the prime contractor, or
- if no agreement has been made or if no agreement is in force, the owner of the work site

If a work site is required to have a prime contractor, the prime contractor shall ensure as far as it is reasonably practicable to do so, that the Alberta Occupational Health and Safety Act, Regulations & Code are complied with in respect of the work site.

Professional engineer means a person who holds a certificate of registration to engage in the practice of engineering, geology or geophysics, as the case may be, under the *Engineering, Geological and Geophysical Professions Act* and is a member or licensee in good standing of the Association of Professional Engineers, Geologists and Geophysicists of Alberta.

Project means:

- the construction, demolition, repair, alteration or removal of a structure, building, complex, street, road or highway, pipeline, sewage system or electrical, telecommunication or transmission line
- the digging of, working in or filling of a trench, excavation, shaft or tunnel
- the installation, modification, repair or removal of any equipment, machinery or plant

Project Manager means a person who is employed by Edmonton Airports to manage and administer a contract, and has budget signing authority.

Qualified person means, in respect of a specified duty, a person who, because of his knowledge, training and experience, is qualified to perform that duty safely and properly.

Restricted Area means an area of an airport designated by a sign as an area to which access by persons or vehicles requires the production of valid identification.

Runway means a defined rectangular area on a land aerodrome prepared for the landing and take-off of aircraft.

Safe Work Practice means a written overview of a specific task that is a regularly repeated function of the organization. The practice provides consistency for the safe completion of the task.

Specifications, in relation to a professional engineer or an employer, includes the written instructions, procedures, drawings or other documentation of a professional engineer or employer or certified by a professional engineer and relating to equipment or a work process or operation.

Supplier means a person who rents, leases, erects, installs or provides any tools, appliances or equipment or who sells or otherwise provides any designated substance or hazardous material to be used by a worker in respect of any occupation, project or work site.

Taxiway means that part of an aerodrome used for maneuvering aircraft and airport equipment between the apron area and runway.

Terminal Building means the main air terminal building on airport premises.

Tower crane means a crane using wire rope which raises and lowers a load and moves a load horizontally by means of a carriage or a trolley travelling on a jib or boom that sways about the vertical axis of a mast.

Vehicle means a device, including powered mobile equipment, in, on or by which a person or thing may be transported or drawn.

Worker means a person engaged in an occupation.

Work area means a place on a work site where a worker is or may be during his work or during a work break.

Work site means a location where a worker is, or is likely to be, engaged in any occupation and includes any vehicle or mobile equipment used by a worker in an occupation.



Appendix A - Spill/Release Report

| SPILL/RELEASE REPORT | |
|--|------------------------------------|
| Report all Spills/Release to the Airport Duty Manager (780) 890-8327 | |
| Occurrence Date: _____ Time: _____ | MSDS Available? YES NO |
| Reported Date: _____ Time: _____ | UN PIN No: _____ |
| Spill Location: _____ | Vehicle/Aircraft Identifier: _____ |
| Spill Type: _____ | Quantity: _____ L ga lb kg |
| Company Responsible: _____ Ph: _____ | Contact Name: _____ |
| Cause (include underlying factors and root causes) | |
| Spill Contained: Yes No | Describe containment method: _____ |
| Spill Entered Environment? No Yes > Air | Soil Groundwater Ditch Sewer |
| Describe Pathway/Environmental Impact: | |
| Clean Up Material: _____ | Quantity: _____ L ga lb kg |
| Clean Up Done? Yes No | Disposal Method: _____ |
| Clean Up Details (people, equipment contractors) | |
| Comments: | |
| Follow Up Action (details, who's responsible, when, root cause): | |
| Print Name: _____ | |
| Position/Company _____ | |
| Phone/fax/email: _____ | |
| Signed: _____ Date: _____ | |
| FAX COMPLETED REPORT TO MANAGER ENVIRONMENT, SAFETY & OPERATIONAL COMPLIANCE 780-890-8550 | |

Appendix B – Crane Usage Assessment Form



Crane Assessment Form

| | |
|--------------------|--------|
| Project: | |
| Company/Contractor | |
| Project Manager | Phone: |

Work Information

| | | |
|--|--|---------------------------------------|
| Estimated Start | Date: | Time: |
| Estimated Finish | Date: | Time: |
| Recurring Usage | Daily? Yes No | Duration: (i.e. 2 weeks) |
| Description/Area of Work | (please include site map, if available) | |
| Elevation | Ground (ASL) | Adjacent Structure |
| | ft m | ft m |
| Single Crane Coordinates (in DMS format) | Latitude: 53 | Longitude: 113 |
| Site Footprint Coordinates for multiple cranes (corners, in DMS format) | Latitude: 53 | Longitude: 113 |
| | Latitude: 53 | Longitude: 113 |
| | Latitude: 53 | Longitude: 113 |
| | Latitude: 53 | Longitude: 113 |
| Equipment Type | Tower Crane <input type="checkbox"/> | Mobile Crane <input type="checkbox"/> |
| | Other <input type="checkbox"/> | |
| | Note: Tower crane assessments may take up to 30 days | |
| Swing Radius | | |
| Boom Length | | |
| Maximum height to be reached during construction | | |
| Additional Comments | | |

Email a copy to Rob Hough, Edmonton Airports, rrough@flyeia.com Ph (780) 890-8530

| | | |
|--|------------|-------|
| Airport Authority Approval – Internal Use Only | | |
| ASO Authorization | Signature: | Date: |
| NOTAM required | Yes No | |
| Entered in Database | | |
| Special Conditions | | |



Appendix C - Transport Canada Aeronautical Obstruction Clearance Form Process

Aeronautical Obstruction Clearance Form - Transport Canada

Transport Canada is the federal regulatory body responsible for Aerodrome safety, security and certification. Transport Canada reviews and approves Plans of Construction Operations and stipulates any safety and security measures required in maintenance of the operating certificate. Plans of Construction Operations are prepared and approved in advance of construction.

Transport Canada is required to perform an assessment on man-made structures such as cranes to determine the requirement for obstruction marking and lighting. Obstructions are assessed through the Aeronautical Obstruction Clearance Form (AOCF) Process. If a crane exceeds 20 metres in height or exceeds the height of an adjacent dominant structure, an AOCF form may be required. The ES&OC department will submit this to Transport Canada on behalf of the contractor.

Typical review timeframes are 7 to 14 days, and exceptions will not be given to start a project prior to review completion by Transport Canada.

Blank forms can be found at www.tc.gc.ca. Search the website using the words “aeronautical obstruction clearance form”.



Appendix D - NAV CANADA Land Use Submission Form Process

Land Use Submission Form - NAV CANADA

NAV CANADA is responsible for the movement of aircraft airside hence they need to be advised of activities that may affect the movement of aircraft. NAV CANADA provides an advisory service for movement of aircraft on the Apron, and controls the movement of aircraft in the maneuvering area. Advisories are given through NOTAM's and Voice Advisories and issued by Edmonton Airports Duty Manager.

In some cases, i.e. Tower Crane, a formal submission to NAV CANADA under the Land Use and Construction Proposal Submission may be required. Edmonton Airports will coordinate this but will require the following data requirements:

- geographic location of proposed project or structure
- existing ground elevation at proposed project site
- highest point of structure or project above ground
- general construction description of the project and all components (construction materials, roof details, etc.)
- trenching and/or excavating details including maximum depths
- during the project and/or within the finished structure, will there be:
 - high voltage equipment use
 - arc welding
 - radar emission
 - high powered transmissions
 - VHF radio
 - any other
- during the project and/or from the finished structure, will there be interferences with established lines of sight from NC Tower by:
 - Lines of sight to Taxiways/Runways
 - generation of smoke/vapour
 - reflectivity of building materials
 - aircraft parking
 - exterior lighting

Graphical Requirements for submission (required in triplicate, if applicable):

- site plan depicting entire airport and location of all proposed structures, masts/antenna, and excavations/trenching
- site plan at 1:2000 of all proposed structures and masts/antenna showing 90 degree distances to all runways and taxiways
- elevation drawings showing at least two sides of all proposed structures and masts/antenna
- site plan at 1:2000 indicating locations of all proposed excavations/trenching including maximum depths
- plot plan drawings showing orientation of buildings and masts/antenna on site, including vehicle and aircraft entry and exit points

- line-of-sight drawings showing plan view from Tower/FSS/CARS to runways and taxiways
- line-of-sight drawings with cross sectional views from Tower/FSS/CARS to runways and taxiways showing possible obstructions

If during the review NAV CANADA requires further information on the submission form, ES&OC department will contact the contractor for details. On receipt of the response from NAV CANADA, the ES&OC department will forward copies of the response to the contractor and project manager. The recommendations from NAV CANADA will be considered a project requirement.

Blank forms can be found at www.navcanada.ca. Select land use program, then forms and preference tools.