**ANNEX E**
**Victoria Airport Authority – Contractor Requirements**

R.087575.004 Reay Creek Remediation – Victoria Airport Lands
1640 Electra Boulevard, Sidney, BC
SLR Project No.:  205.03892.00004

**Victoria International Airport**
**Contractor Orientation**

R.087575.004 Reay Creek Remediation – Victoria Airport Lands

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**From: Ken Gallant / Reg Barnes**

**Subject: Construction Operational Safety and Security**

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## VAA SAFETY POLICY:

"Life safety, prevention of injury to our employees and customers, and protection of the environment shall be given the highest priority throughout our airport"

The Victoria Airport Authority maintains a Safety Management System that is based on non-punitive interaction between the VAA and its contractors. Safety Management is the result of input from all levels of the corporation.

## Process:

ALL contractors are required to report any safety hazard, condition or incident to their supervisors or the Safety Administrator and may do so without fear of disciplinary action provided the hazard, and condition or incident does not involve willful negligence, failure to report known unsafe conditions or accidents, criminal intent or the use of illicit substances.

## Procedure:

The Safety Administrator may be contacted at: safety@victoriaairport.com or anonymously via the internet at https://www.victoriaairport.com/submit-safety-concern or through access to the main Victoria Airport Authority webpage at www.victoriaairport.com. There is a link under the 'Contact' tab for submitting a safety concern.

All contractors engaged in work within the confines of the Victoria International Airport shall comply with all the elements of the Victoria Airport Authority Safety Management System plan and are accountable for their actions and the actions of their employees and sub-contractors.

Contractors shall:

- Follow established safe work procedures;
- Immediately remove or rectify any unsafe condition wherever possible;
- Report ALL accidents, incidents, hazards or otherwise unsafe conditions to the VAA Management team as noted above in a timely manner;
- Familiar themselves with this plan prior to commencing work and;
- Liaise with VAA Management team throughout the duration of their work

All electronic reports are recorded into the reporting system, each with a unique number and are reviewed frequently. The Victoria Airport Authority is required to respond to these reports and take action to investigate and analyze all reports.

Some employees may wish to report an unsafe condition or practice anonymously and may file their reports directly to the Safety Administrator for action. Every report received in this manner will respect the sender's anonymity and no attempt will be made to identify the sender.

Contractors Employees must be trained for the tasks assigned and no employee will be disciplined for refusing to undertake a task in which they lack, or perceive they lack sufficient training. Any contractor employee believing they have not received adequate training, or lack the expertise or experience required to safely conduct their assigned duties should discuss their concerns with their supervisor.

## Understanding and Acceptance:

This non-punitive reporting policy forms the backbone of the VAA Safety Management System and therefore it is imperative that the policy be understood and accepted by all. The Safety Administrator shall reinforce the non-punitive policy through a constructive attitude, timely corrective actions and positive feedback for every safety submission received.

## Safety:

1. All persons shall wear day glow safety vests with reflective tape or striping.
2. All persons shall remain within delineated boundaries of project.
3. Absolutely no smoking Airside.
4. All contractor vehicles shall be equipped with operational orange strobe or rotating beacons.
5. Contractors are responsible for first aid, however incidents requiring an ambulance MUST be coordinated with the Airside Escort for airside projects or directly with Security at 250-953-7511 for groundside projects.
6. No open flame unless pre-authorized with a hot work permit. The Victoria Airport Fire Department issues hot work permits. They can be reached at 250-953-7568. All hot work must be coordinated with the Airside Escort for airside projects or directly with the Fire Department for groundside projects.
7. VAA Operations Director, VAA Facilities Director, VAA Manager of Safety and/or the VAA Resident Engineer has authority to issue a "stop work order".
8. Safety of aircraft, passengers and the public are paramount and shall not be jeopardized during this project. Activities or actions that may impact safety of operations must be reported immediately to the Director of Airside Operations or the Manager of Safety.
9. All debris such as sandwich wrappers, coffee cups, pizza boxes and pop cans shall be disposed of in appropriate containers. Any such debris represents the potential to cause "Foreign Object Damage" to aircraft. This debris is referred to as "FOD". Maintaining the airfield in a FOD-free state is a top priority for airfield operations and is a shared responsibility for anyone on airport property including yourself.
10. Project work airside requires that a report be made to the Control Tower Supervisor by telephone or radio daily to confirm aircraft maneuvering surfaces have been inspected by the Director of Airside Operations or his designate and are suitable for aircraft operations.
11. Contractors shall provide portable toilet facilities near the area of the work. For airside projects this is required to avoid unnecessary vehicle traffic on the runways and taxiways.
12. The attached 'Airside Operations Work Area' map will be used to describe the location of work areas both for yourself and for your escort when working airside. Staff in the Control Tower directing ground traffic will be using the same map.

## Security:

1. All personnel working in the restricted area shall be issued and sign for a Security Pass. The pass shall be returned to security at the end of the working day. Truck drivers leaving airside are not required to return the pass on exiting, however on their last exit their pass shall be returned. Security Pass is to be worn on the outer clothing and above the waist line.
2. Anyone losing a pass may not return to the work site in a restricted area until such time as the pass is replaced by airport security. A fine not exceeding $200 may be levied at the Airport Authorities discretion for lost passes.
3. Airside Escort will be provided by VAA to provide liaison between Tower and construction personnel.
4. Vehicles shall not leave the designated (barricaded) work site unless escorted by a VAA escort vehicle.
5. Private vehicles shall not enter the restricted area; secure designated parking may be provided by the VAA.
6. Construction personnel shall not enter the restricted area except during scheduled working hours, and then only with the specific authorization of the VAA.
7. Contractors and employees shall not mingle, shake hands or make any other physical contact with travelling passengers. This may result in their immediate removal from the worksite.
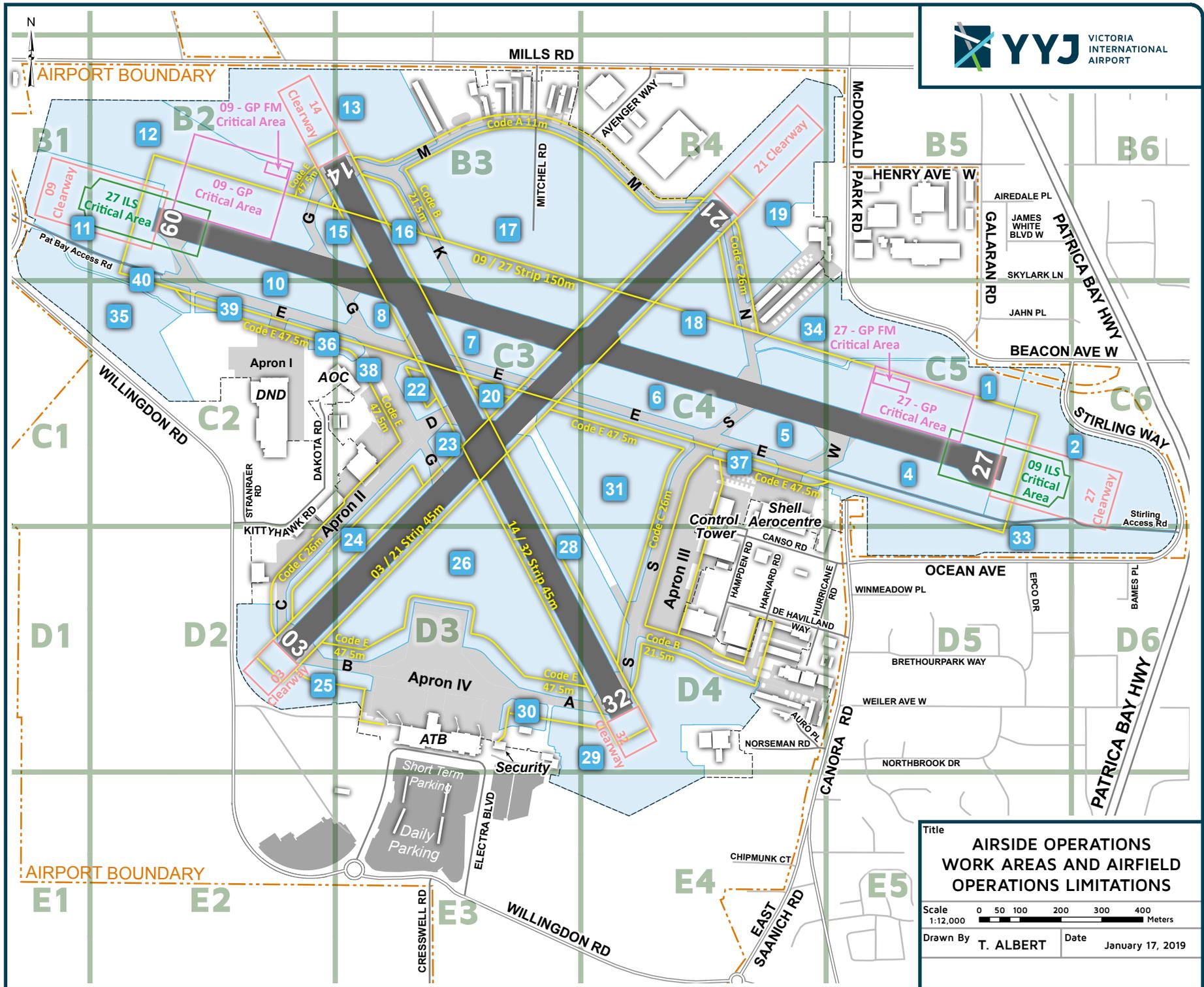
## Airport Movement Areas:

1. **Runways** are used for aircraft takeoff and landing. The runways at Victoria International Airport are 09-27, 14-32 and 03-21. If you add a "0" to the runway you are able to determine its magnetic direction to the nearest 10 degrees (i.e. Runway 09-27 has a magnetic heading of 090 or 270). You may be working on runways, which are closed to aircraft operations during the shift. The runway must be returned to operating condition before the end of the working shift. The time will be specified in the contract specifications.
2. **Taxiways** are used for aircraft movements other than takeoff or landing. Taxiways may be closed to aircraft traffic during the work shift, however they shall not be accessed without specific permission. Taxiways are designated by letters such as A, B or C etc and are pronounced using the phonetic alphabet Alpha, Bravo, Charlie, etc.
3. **Aprons** are for parking aircraft, loading and fuelling. While working on Aprons, you must remain under the direction of the construction escort at all times. They are designated by Roman Numerals, such as Apron IV and pronounced as Apron 4.
4. **Barricades** limit your work area and will be identified by delineators, cones, tape or other means and will be identified prior to commencing work. **Do not move beyond delineated work areas without prior permission and escort.**
5. **Driver's License** – all persons driving Airside shall hold a valid Provincial/Territorial, or State driver's license. All traffic regulations shall be adhered to.


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N

AIRPORT BOUNDARY

MILLS RD

YYJ VICTORIA INTERNATIONAL AIRPORT

AVENGER WAY

McDONALD PARK RD

B1  B2  B3  B4  B5  B6

HENRY AVE W

AIREDALE PL

14 Clearway

09 - GP FM Critical Area

09 - GP Critical Area

09 Clearway

27 ILS Critical Area

JAMES WHITE BLVD W

GALARAN RD

SKYLARK LN

JAHN PL

PATRICA BAY HWY

Code A 11m

M

M

M

Code B 21.5m

21 Clearway

Code E 36m

N

Pat Bay Access Rd

Code C 47.5m

60

09 / 27 Strip 150m

K

BEACON AVE W

27 - GP FM Critical Area

27 - GP Critical Area

C1  C2  C3  C4  C5  C6

WILLINGDON RD

Apron I

DND

AOC

STRANRAER RD

DAKOTA RD

Code E 47.5m

E

G

G

E

E

S

E

W

S

09 ILS Critical Area

27

27 Clearway

Stirling Access Rd

STIRLING WAY

Code E 47.5m

D

Code C 26m

G

Shell Aerocentre

Control Tower

HAMPDEN RD

HARVARD RD

CANSO RD

HURRICANE RD

DE HAVILLAND WAY

OCEAN AVE

EPCO DR

BAMES PL

WINMEADOW PL

KITTYHAWK RD

Apron II

C

03 / 21 Strip 45m

14 / 32 Strip 45m

03

Code C 26m

B

Code E 47.5m

03 Clearway

Apron IV

Apron III

D1  D2  D3  D4  D5  D6

Code B 21.5m

S

S

S

A

32

32 Clearway

WEILER AVE W

BRETHOURPARK WAY

NORTHBROOK DR

AURO PL

CANORA RD

NORSEMAN RD

Short Term Parking

ATB

Security

ELECTRA BLVD

Daily Parking

AIRPORT BOUNDARY

CRESWELL RD

E1  E2  E3  E4  E5

CHIPMUNK CT

EAST SAANICH RD

WILLINGDON RD

PATRICA BAY HWY

Title

AIRSIDE OPERATIONS WORK AREAS AND AIRFIELD OPERATIONS LIMITATIONS

Scale  1:12,000
0  50  100  200  300  400  Meters

Drawn By  T. ALBERT

Date  January 17, 2019

T:\Drawings & Maps\Base\Operations\Airside Operations Work Areas\19-01-17 - Airside Operations Work Areas With Limitations.mxd - January 17, 2019 - 12:01 PM

# DECLARATION

Failure to comply with instructions contained in this briefing will result in the individual or individuals involved being permanently removed from the work site.

I have reviewed the "Contractor Orientation" and understand the contents.

VAA Project Title/Number: _____

Contractor: _____

Responsible Supervisor: _____

Employee: _____  Date: _____

Signature: _____

cc: Project Manager

**Victoria International Airport**
**Safety Management System Manual**


R.087575.004 Reay Creek Remediation – Victoria Airport Lands

# Safety Management System

Manual 2018

**Author Name**

Manager, Safety & Emergency Services

# Table of Contents

# Part 1

# Safety Management Plan

# Part 1

# Safety Management Plan

The Canadian Aviation Regulations define a Safety Management System as:

"A systematic, explicit, comprehensive and proactive process for managing safety risks that integrates operational and technical systems with financial and human resource management to achieve safe operations and compliance with Canadian Aviation Regulations"

The Victoria Airport Authority (VAA) has developed this Safety Management System in conjunction with Transport Canada regulations and guidance material to ensure a safe environment for our employees, contractors, airline partners, and customers.

The VAA's Safety Policy is implemented at all levels of the organization to reduce accidents, eliminate damage and prevent personal injuries.

The Safety Policy is endorsed and promoted by the Accountable Executive and is communicated to all VAA employees through various media and all employees are aware of their individual safety obligations and responsibilities.

Based on our Safety Policy and a priority commitment to safety within the VAA, the objective of this plan is to achieve a loss rate as close to zero as possible.
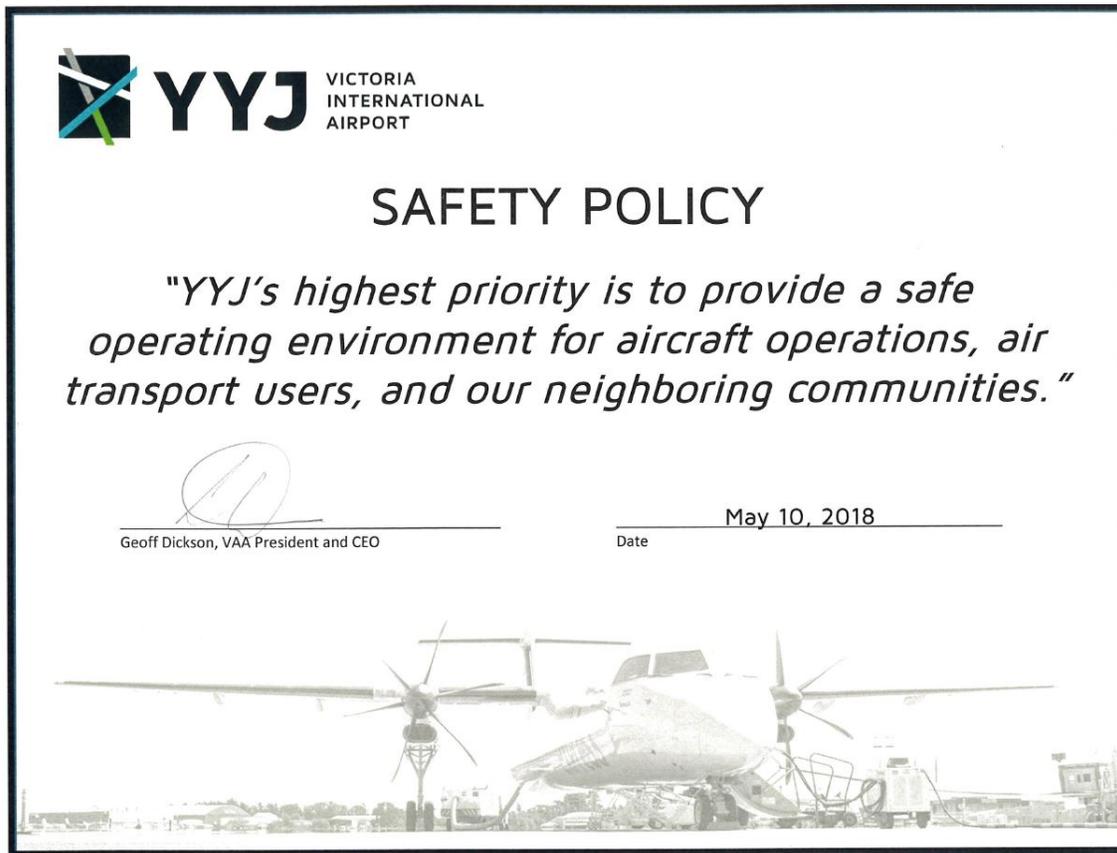
To achieve this objective, the VAA will:

1. Take a proactive approach to identifying and managing known hazards;
2. Reduce risk wherever practical;
3. Continually employ and share industry best practices;
4. Share all related safety information with all identified personnel;
5. Annually review the Safety Policy and this plan; and
6. Conduct a quarterly review of applicable regulations and amend plan as required.

The Victoria International Airport Safety Management Plan is broken down into the following six (6) components:

1. Component 1 - Safety Management Plan
2. Component 2 – Documentation
3. Component 3 – Safety Oversight
4. Component 4 – Training
5. Component 5 – Quality Assurance Program
6. Component 6 – Emergency Preparedness

## 1.1 Safety Policy



## SAFETY POLICY

*"YYJ's highest priority is to provide a safe operating environment for aircraft operations, air transport users, and our neighboring communities."*

Geoff Dickson, VAA President and CEO

May 10, 2018
Date

\* Signed copies of the VAA Safety Policy are posted in the workplace[1]

The Victoria Airport Authority is committed to improving safety within all levels of the organization to reduce risk, prevent personal injury and achieve a loss rate as close to zero as possible.

Through the Safety Management System (SMS), we have committed to provide a systemic, explicit and comprehensive process for managing airside risks. Ultimately, life safety, prevention of injury to our employees and customers, and protection of the environment is given the highest priority though our airport.

To achieve this safety goal, we have established safety as an integral part of our airport culture which includes the following:

1.    Recognizing the importance of safety;

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[1] CAR requirement 107.03 (a)

2.      Taking a proactive approach to managing known and identifiable hazards;

3.      Identify hazards, assessing risks and implementing control measures to reduce the risk;

4.      Reporting hazards, incidents and accidents;

5.      Following procedures, guidelines and knowing our roles within the SMS;

6.      Continuously improving the VAA's safety processes and performance

7.      Documenting safety activities, maintaining records and auditing our system on a regular basis

Reporting of any real or perceived safety issues is essential to the success of our Safety Management System and is encouraged. Therefore, anyone who reports an aviation safety issue or makes suggestions that seek to improve safety will not be subject to disciplinary action except in the cases involving unlawful acts, gross negligence or willful violations where the individual is deemed responsible.

To be effective, our Safety Management System must work from the bottom up and to do that it must have support from the top down.  I am committing to providing that support and encourage everyone to become actively involved in the management of airside safety risks at our airport.

Geoff Dickson, VAA President and CEO _____

Date: _____

# 1.2 Non-Punitive Reporting Policy

<u>**Policy**</u>[2]

Safety Management is the result of input from all levels of the corporation. This Safety Management System is based on non-punitive interaction between the VAA and its employees.

<u>**Process**</u>

All employees are required to report any safety hazard, condition or incident to their supervisors or the Safety Administrator and may do so without fear of disciplinary action provided the hazard, and condition or incident does not involve willful negligence, failure to report known unsafe conditions or accidents, criminal intent or the use of illicit substances.

<u>**Procedure**</u>

Employees are encouraged to use the Safety Hazard Report Forms available in hard copy in the workplace or on-line in the Safety section of the VAA network for this purpose. The website allows for the anonymous reporting of safety concerns.

All electronic reports are recorded into the reporting system, each with a unique number and are reviewed frequently. Supervisors and managers are required to respond to these reports and take action to investigate and analyze all reports. Hard copy reports are forwarded to the Safety Administrator and are entered into the system.

Some employees may wish to report an unsafe condition or practice anonymously and may file their reports directly to the Safety Administrator for action. Every report received in this manner will respect the sender's anonymity and no attempt will be made to identify the sender.

Employees will be trained for the tasks assigned and no employee will be disciplined for refusing to undertake a task in which they lack, or perceive they lack sufficient training.

Any employee believing they have not received adequate training, or lack the expertise or experience required to safely conduct their

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[2] CAR requirement 302.502 (a)(iv)

assigned duties should discuss their concerns with their supervisor and additional training shall be supplied to ensure the employee is competent and confident in performing their duties.

The Accountable Executive will conduct an annual review of employee disciplinary actions to ensure no infringement of this non-punitive policy has occurred.

**Understanding and Acceptance**

This non-punitive reporting policy forms the backbone of the VAA Safety Management System and therefore it is imperative that the policy be understood and accepted by all employees.

To help ensure all employees are aware of the policy and their responsibilities, the Safety Administrator and the VAA management team shall conduct regular employee training sessions and meetings, as well as conduct employee surveys as part of the annual internal audit process.

The Safety Administrator shall reinforce the non-punitive policy through a constructive attitude, timely corrective actions and positive feedback for every safety submission received.

# 1.3 Roles, Responsibilities and Employee Involvement

<u>**Policy**</u>

The VAA shall manage safety related incidents and risks in a proactive professional manner.

<u>**Process**</u>

The VAA will ensure every employee is aware if his/her role and responsibilities in understanding, supporting and improving a strong corporate safety culture through its transparent safety incident reporting systems, job description reviews, staff meetings and annual appraisals.

<u>**Procedure**</u>
**Accountable Executive**
The Accountable Executive (President and CEO) is ultimately responsible for safety and shall:

1. Provide positive safety leadership and reinforcement through the Safety Management System;
2. Provide the financial and human resources to properly execute the SMS;
3. Promote the VAA Safety Policy,
4. Ensure safety authorities, responsibilities and accountabilities and safety related information is transmitted to all personnel and;
5. Ensures the Safety Administrator meets the requirements of this plan.

**Safety Administrator**

The Safety Administrator is appointed by the Accountable Executive to promote and manage the SMS and ensure compliance with regulatory requirements and shall[3]:

1. Manage the SMS program in a productive manner;
2. Maintain regulatory compliance;
3. Provide SMS oversight and Quality Assurance;
4. Evaluate and promote the VAA safety culture;

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[3] CAR requirement 302.504 (b)

5.      Improve safety awareness through training and positive reinforcement;

6.      Review, revise and monitor the SMS manual, hazard identification, safe work practices, incident reporting, incident trends, corrective action and audit results;

7.      Ensure reactive and proactive reports are completed in a timely manner;

8.      Conduct risk assessments, incident and accident investigations and monitor corrective actions for effectiveness;

9.      Correlate safety related data for analysis;

10.     Monitor Transport Canada website for changes to SMS;

11.     Monitor industry best practices;

12.     Meet with and provide recommendations and advice to the Accountable Executive, Director, Operations and Safety and the VAA management team and;

13.     Schedule regular SMS training sessions, audits and reviews.

The Safety Administrator also advises VAA management and staff of regulatory or compliance changes and ensures the Safety Management System is maintained and kept current.

The Safety Administrator has the corporate authority to recommend a stop work order for operations or activities considered unsafe, to recommend initiating a formal investigation as necessary and to engage the services of a consultant to assist in investigating serious incidents or accidents.

**Directors, Managers and Supervisors**

Directors, managers and supervisors are responsible for promoting, transmitting and reinforcing the VAA corporate safety culture throughout the airport and shall:

1.      Support the Accountable Executive in promoting the VAA safety culture;

2.      Take responsibility for ensuring employees are made aware of their personal safety responsibilities through regular training, staff meetings, appraisals and other medium;

3.      Take responsibility for ensuring employees are properly trained and adequately prepared to perform their assigned duties;

4.      Assist in the identification, analysis and management of safety hazards;
5.      Take proactive measures to prevent accidents;
6.      Ensure safety responsibilities are discussed during annual appraisals and;
7.      Assist the Safety Administrator in the investigation of incidents, accidents and safety reports to identify causes and corrective action to minimize the risk of recurrence.

**Employees**

Employees are responsible for complying with the Safety Management System requirements and shall:

1.      Identify and report potential risks and safety concerns;
2.      Refuse work which is unsafe;
3.      Assume responsibility for their own actions;
4.      Accept training opportunities as they arise;
5.      Request additional training where applicable;
6.      Assist managers and supervisors in identifying potential safety risks or hazards;
7.      Promote the VAA corporate SMS culture and;
8.      Review the SMS plan and other safety documentation posted on the VAA network.

**Contractors**

All contractors engaged in work within the confines of the Victoria International Airport shall comply with all the elements of this plan and are accountable for their actions and the actions of their employees and sub-contractors.

**Contractors shall:**

1.      Follow established safe work procedures;
2.      Immediately remove or rectify any unsafe condition wherever possible;
3.      Report all accidents, incidents, hazards or otherwise unsafe conditions to the VAA Management team in a timely manner;
4.      Familiarize themselves with VAA's Construction Operational Safety and Security procedures and sign declaration prior to commencing work and;

5.      Liaise with VAA Management team throughout the
        duration of their work.

*Table 1.3 Safety Responsibilities*

| SAFETY RESPONSIBILITIES[4] | | | |
|---|---|---|---|
| | **Employees** | **Directors, Managers and Supervisors** | **Safety Administrator** | **Accountable Executive** |
| **Safety Policy** | Understand, support and suggest improvements | Understand, support and suggest improvements | Understand, support and recommend improvements | Issue and review |
| **Non-Punitive Reporting Policy** | Understand and support | Understand and support | Understand and support | Issue and review |
| **Planning and Measuring Safety** | Understand and support | Defines safety goals and objectives within area of responsibility and reviews with staff<br><br>Generates safety performance reports | Reviews departmental safety performance and prepares reports for CEO | Annual review and sets corporate goals |
| **Identifying Hazards, Internal Reporting and Corrective Measures** | Observe and document observations<br><br>Generate reports | Review reports from employees and forward any recommendations and action plans in writing to Safety Administrator<br><br>Investigate and recommend changes as required | Receive and process reports<br><br>Investigate and recommend changes as required<br><br>Request formal investigation if necessary<br><br>Compile reports for CEO and revise corporate documents as required | Review reports and provides corporate direction. |
| **Risk Evaluation and Mitigation** | Perform duties assigned to mitigate risk | Participate in risk assessment to identify measures to reduce or mitigate risk | Facilitates risk assessment and discuss mitigation<br><br>Forwards report to CEO | Review and assess report |
| **Communication** | Report hazards or risks to supervisor, manager, or Safety Administrator | Maintain open lines of communication<br><br>Treat all reports with respect and investigate<br><br>Forward written report to Safety Administrator in writing<br><br>Ensure staff are familiar with policies and responsibilities | Maintain open lines of communication<br><br>Report to applicable manager<br><br>Advise all staff of any documentation changes | Maintain open lines of communication |

[4] CAR requirement 107.03 (f), and 302.502 (a)(ii)

| | | | | |
|---|---|---|---|---|
| **Training** | Participate in required training | Determine training requirements, ensure staff complete required training and maintain training records | Prepare and provide SMS training<br><br>Support training delivery and audit training records | Ensure resources are available for required training |
| **Audits and Reviews** | Conduct regular inspections as directed by AMRS<br><br>Support supervisor and manager reviews and audits | Review inspections completed by employees<br><br>Support Safety Administrator and outside agency audits<br><br>Provide documentation on request | Investigate all reports in a timely manner<br><br>Conduct internal audits and support external audits<br><br>Compile audit reports and action plan for CEO | Review audit reports |
| **Documentation** | Prepare and submit SMS comments as required | Review documents and provide guidance | Assist managers with applicable documentation | Approves SMS Manual |

# 1.4 Communication

<u>**Policy**</u>

The VAA will ensure all safety related workplace matters, changes to existing policy or procedures or other significant safety issues are communicated to all stakeholders through the use of training sessions, staff meetings and the electronic distribution system.

<u>**Process**</u>

The Accountable Executive chairs weekly managers meetings and ensures safety issues are discussed at the beginning of each meeting. Meeting minutes are recorded and posted for employee information.

The Safety Administrator ensures the VAA Safety Policy and other safety related documentation are posted on workplace bulletin boards and training and informational documents are distributed to VAA staff. The Safety Administrator co-chairs weekly Operations Meetings and relays all pertinent information to departmental supervisors, reinforcing decisions and action plans.

The Safety Administrator maintains and manages the Safety Management System, records all safety hazard reports and prepares annual reviews of the Safety Management System for the Accountable Executive.

<u>**Procedure**</u>

The Accountable Executive shall:

1.    Ensure any safety related issues are raised at the beginning of every VAA weekly manager's meeting and discussed and evaluated.
2.    Review annual SMS plan;
3.    Participate in annual review and development of safety related goals and objectives for the upcoming year.

**The Safety Administrator shall:**

1.    Ensure Safety Management System related bulletins and other critical material related to aviation safety or safety in general are communicated;
2.    Prepare, review and disseminate SMS reports;

3.      Ensure specific documentation such as the Emergency
        Response Plan and the Fire Safety Plan remain current and
        advise all staff of any changes;
4.      Report on safety related incidents at weekly meetings and
        status of any action plans.

**Directors, Managers and Supervisors shall:**

1.      Become familiar with the VAA SMS plan;
2.      Support the Accountable Executive and the Safety
        Administrator;
3.      Support VAA training initiatives and;
4.      Reinforce the VAA safety culture through training,
        documentation and appraisals.

**Employees shall:**

1.      Become familiar with the VAA SMS plan;
2.      Conduct all work related activities in a safe, established
        manner;
3.      Attend SMS briefings, training sessions and other safety
        meetings as required;
4.      Report all safety related incidents;
5.      Provide safety related feedback and comments to the
        Safety Administrator and,
6.      Periodically review the information available on the VAA
        SMS network.

# 1.5 Safety Planning

<u>**Policy**</u>

The Victoria Airport Authority is committed to reducing and managing risk to an acceptable level.

<u>**Process**</u>

The VAA incorporates a number of resources into its safety planning. Utilizing both reactive and proactive incident reporting processes and a safety risk profile, the information obtained through these resources is reviewed weekly by the Safety Administrator and actioned as required.

Reports and if applicable, corrective action plans (CAPs) are discussed at the weekly manager's meetings and weekly Operations meetings[5]. This information is also translated into annual reports used in safety planning, accident prevention, trend analyses and goal attainment.

**Development of Safety Goals and Objectives**

Safety goals are derived from the key risks identified in the safety risk profile or key hazards identified through review of the proactive incident reporting process. Goals are intended to eliminate or mitigate the systemic weaknesses; the process for developing safety objectives and associated Key Performance Indicators is located in section 1.6. Objectives, measurable steps taken to obtain the goals are created and included in the annual report. The desired time-frame to achieve a goal may span over several years.

The goals and associated objectives contained in the annual report are measurable through key VAA tracking systems such as AIRS and the Safety Hazard Reporting System.

<u>**Procedure**</u>

**The Accountable Executive shall:**

1.    Review previous years safety reports, accomplishments, Key Performance Indicator results and safety trends and analyses;

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[5] CAR requirement 107.03 (c)

2. Review and ensure goals are consistent with the SMS plan and are attainable and measurable;
3. Convene goal setting meetings with the VAA Safety Management team;
4. Allocate resources to meet those goals.

**The Safety Administrator shall:**

1. Prepare annual reports for the Accountable Executive;
2. Identify, prioritize, and publish safety goals within the annual reports to the Accountable Executive;
3. Review achievement of safety goals on a quarterly basis;
4. Ensure staff training is adequate and current;
5. Review security related safety issues with the applicable director;
6. Review and record proactive reports, CADORS[6] and reactive reports on a weekly basis and action as required;
7. Collect data from all reporting sources and prepare trend analysis reports for the Accountable Executive;

**Employees shall:**

1. Review safety goals and objectives periodically;
2. Understand safety goals and objectives for current year and;
3. Assist in meeting those goals

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[6] CAR requirements 302.505 (1)(f)

# 1.6 Performance Measurement

<u>**Policy**</u>

The VAA promotes a strong safety culture throughout the airport.

<u>**Process**</u>[7]

An annual report will be generated summarizing the previous year's total incidents and hazards. This report is used to develop the next year's goals, objectives and Key Performance Indicators (KPIs).

Measuring the objectives and strategies against these KPIs provides the VAA with a tool to gauge the performance of those objectives and strategies.

Elements used in the risk assessment process are:

1.      Industry Standards and Best Practices;
2.      Risk Analysis;
3.      Measurable Key Performance Indicators;
4.      Safety Objectives;
5.      Mitigation Strategies;
6.      Procedures;
7.      Expectations of Others and;
8.      Documentation.

**Key Performance Indicators**

Key Performance Indicators are developed annually to quantify the safety performance related to each objective. Safety data is recorded to track progress and the effectiveness of the VAA's objectives.

Other tools used to measure safety performance are the reactive Airport Incident Reporting System (AIRS) and the proactive Safety Reporting System. Both of these digital programs are owned and maintained by the VAA and each has a means of generating reports for analysis.

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[7] CAR requirement 302.502 (a)(v)

**Procedure**

**The Accountable Executive shall:**

1. Participate in annual safety review goal setting;
2. Assist in generating corrective action plans to achieve goals and expectations and;
3. Through routine meetings, review reports generated through AIRS and the Safety Reporting System.

**The Safety Administrator shall:**

1. Monitor reactive and proactive reporting data on a weekly basis;
2. Identify trends and generate reports for the Accountable Executive as required;
3. Assist in generating corrective action plans to address non-compliance, non-conformance issues;
4. Monitor and measure performance against corrective action;
5. Report to the VAA Management Team through monthly management meetings;
6. Annually prioritize and rank hazards in order of severity based on assessment;
7. Establish Key Performance Indicators for each identified hazard;
8. Develop and monitor safety objectives and strategies for the upcoming year based on a review of past year's safety reports
9. Ensure new safety objectives are consistent with the Safety Policy and their attainment is measureable;
10. Review Key Performance Indicators based on the data received by the VAA reporting systems, or for cause and;
11. Generate an annual report for the Accountable Executive using data from all reporting sources and assist in developing safety objectives for the upcoming year[8]

**Hazard Registry**

Based on the previous year's safety performance, the VAA Hazard Registry is used to prioritize known hazards, reinforce a specific

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[8] CAR requirement 302.502 (g)

policy, define a process for mitigating the hazard and develop specific procedures to monitor and measure safety performance.

The Hazard Registry is reviewed annually.

# 1.7 Management Review

**Policy**

The Victoria Airport Authority will continuously review the elements of its SMS.

**Process**

**Weekly Review**

Immediate safety threats are dealt with at the departmental level and are removed, isolated or corrected as they arise. Incidents are reported to the management team using the Airport Incident Reporting System (AIRS) and the Civil Aviation Daily Occurrence Reporting System (CADORS)[9].

Safety Hazards are reported through the VAA Safety Hazard Reporting system. All incidents and reported hazards are reviewed by the Safety Administrator to ensure they are directed to the proper department for follow-up and corrective action plans are generated where required.

Incident and safety reports and CADORS[9] reports are reviewed weekly at operations meetings and managers meetings. Action plans and resolutions are also reviewed at that time and the resulting minutes are disseminated to all staff.

**Quarterly Review**

Key Performance Indicators and achievement of goals and objectives are reviewed quarterly.

**Annual Review**

Annual SMS Review Checklist located in Appendix D.

All SMS related policies and documents will be reviewed annually. This review enables the VAA to continuously improve the SMS and ensure compliance against applicable regulations and standards.

The Safety Administrator will meet annually with the Accountable Executive in order to review the current year's safety performance

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[9] CAR requirement 302.505 (1)(f)

and approve the next year's goals, objectives and key performance incicators (KPI).

**Procedure**

The risks associated with known hazards are reviewed and measures are identified to track and reduce the risk to an acceptable level. Objectives, goals and targets for the upcoming year are determined and Key Performance Indicators for those targets are established[10].

**Document Review**

Safety Management System documents and policies are scheduled in Vortex to be reviewed on an annual basis and include:

1. Safety Policy (1.1);
2. Non-Punitive Reporting System (1.2);
3. Roles and Responsibilities (1.3);
4. Communication (1.4);
5. Safety Planning-Goals and Objectives (1.5);
6. Key Performance Indicators Measurement (1.6);
7. Management Review Process (1.7);
8. Process to Review Applicable Regulatory Requirements (2.1)
9. SMS Master Documentation (2.2);
10. Records Management (2.3);
11. Vortex Reactive (3.1) and Proactive Processes (3.2);
12. Investigation and Analysis (3.3);
13. Risk Management Structure (3.4);
14. Training Requirements (4.1);
15. Quality Assurance (5.1);
16. Emergency Preparedness (6.1).

**The Annual Review will also include:**

1. A review and assessment of employee SMS participation, hazard reporting, other communication tools and training requirements;
2. A review of record keeping system to ensure documentation is current;
3. A review of hazards, investigations and trend analysis;

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[10] CAR requirement 107.03 (b)

4.      A review of any corrective action plans and their effectiveness;
5.      A review of any follow-up actions from previous annual reviews;
6.      A review of changes to the VAA organizational structure that may involve specific safety responsibilities;
7.      A review of any changes affecting the SMS plan;
8.      The sharing of best practices across the organization.

**Review for Cause[11]**

The Accountable Executive, the Safety Administrator or any member of the management team may conduct a review of the SMS program for cause following a serious incident or accident, a finding from an internal audit, or an external event that raises concern about similar activities conducted at the Victoria International Airport.

**Corrective Action Plan**

When any of these reviews identify a gap, inconsistency or define a need for a change in the managerial policies, controls or procedures concerning safety critical activities or the effective implementation of the SMS, a corrective action plan (CAP) will be generated for the Accountable Executive, by the Safety Administrator.

Specific responsibilities, requirements and actions are then assigned to the responsible manager or director and results are discussed at the weekly managers meetings, or sooner as required.

Corrective action plans may be generated as a result of these reviews. Short term or long term as resolution time frames are variable and may depend on outside resources or influences. Where it is anticipated a CAP may take longer than 30 days to rectify, a note shall be included within that CAP, indicating an estimated time of completion.

Tracking and trending the results of reports and/or investigations shall be evaluated by the management team to ensure immediate and long term effectiveness of any changes.

Corrective action plans may be generated as a result of these reviews.

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[11] CAR requirement 107.03 (h)

Wherever necessary, outside assistance may be engaged at the manager or directors' discretion to resolve any safety issue where VAA staff lack expertise or training.

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# Part 2

# Document Management

# Part 2

# Document Management

## 2.1 Identification and Maintenance of Applicable Regulations

<u>**Policy**</u>

The VAA is committed to a transparent Safety Management System.

<u>**Process**</u>

All SMS documents and other safety related material is maintained in electronic format and is available to all VAA employees and applicable regulatory auditors on request. The VAA web- based Safety Dashboard provides links to Transport Canada and other websites to help ensure staff and management are provided the most current regulations and documentation.

The Safety Administrator shall review this process quarterly and ensure website links and other digital support mechanisms are in place and functional.

<u>**Procedure**</u>

**The Safety Administrator shall:**

1. Review regulations and applicable standards in preparation of internal QA audit to ensure accuracy;
2. Circulate any new information to employees;
3. Maintain the SMS Safety Dashboard to simplify this process and provide all VAA employees with a means to review the regulations and requirements and;
4. Ensure all employees are adequately trained in the retrieval of these documents.

## 2.2 SMS Documentation

<u>**Policy**</u>

The VAA is committed to SMS and shall make available to all employees, the entire SMS plan, all of its elements and other safety related materials.

<u>**Process**</u>

The VAA developed a web-based "Safety Dashboard" which also contains links to related SMS regulations, advisory documentation and meeting minutes.

All applicable documentation is posted electronically on the VAA Safety Dashboard and employees have unlimited access to all SMS related records and documentation in a "read only" format.

Employees are advised of significant changes and revisions or amendments to the SMS document through the Victoria Airport Authority's Mass Mailing System (MMS) which ensures employees are notified of any new or altered SMS documentation, or other safety related information.

<u>**Procedure**</u>

**The Safety Administrator shall:**

1.  Conduct annual review of SMS documentation for continued suitability, adequacy and effectiveness resulting from changes to internal and external policies or incidents;
2.  Review and amend the SMS and its documentation for cause at any time;
3.  Ensure that all employees are made aware of these changes or additions through the MMS and;
4.  Maintain the VAA Safety Bulletin Boards posted throughout the workplace;

Any changes within the organization that may affect the SMS are presented to all employees through staff and manager meetings.

A documentation review shall be held whenever there is a significant change within the organization or the structure of the organization, or is planned.

The management team shall consider the impact of events such as review results and document deficiencies, operational changes, change in ownership, changes in senior management, or revisions of other existing corporate documents that may affect the SMS.

Corrective action plans may be established and documents amended as required. All documentation requiring federal approval shall be submitted to Transport Canada prior to implementation.

## 2.3 Records Management

The SMS documents are stored digitally to ensure the generation, retention and availability of all records necessary to document and support the SMS and the process is completely transparent.

This electronic retrieval and storage system incorporates a daily server backup provision thereby guaranteeing the process in place ensures appropriate identification, legibility, storage, protection, archiving, retrieval, retention time and the disposition of all SMS related documentation.

This is a sustainable and environmentally sound process and all records will be retained for two (2) audit cycles.

The VAA records management system also incorporates the use of the VAA network which allows all staff to review existing SMS documentation, policies, regulations, corrective action plans and any new information at a glance.

# Part 3

# Safety Oversight

# Part 3

# Safety Oversight

## Policy

The Victoria Airport Authority shall conduct safety oversight to ensure goals and objectives are met.

## Process

The VAA has both reactive and proactive reporting systems in place. Both reporting systems are used by employees to provide information on hazards, incidents, accidents and other relevant safety related issues.

Once an event has been reported, or a hazard identified, the procedures for dealing with these issues follows a similar process, as shown in Figure 3.

*Figure 3 – SMS Process Flow*
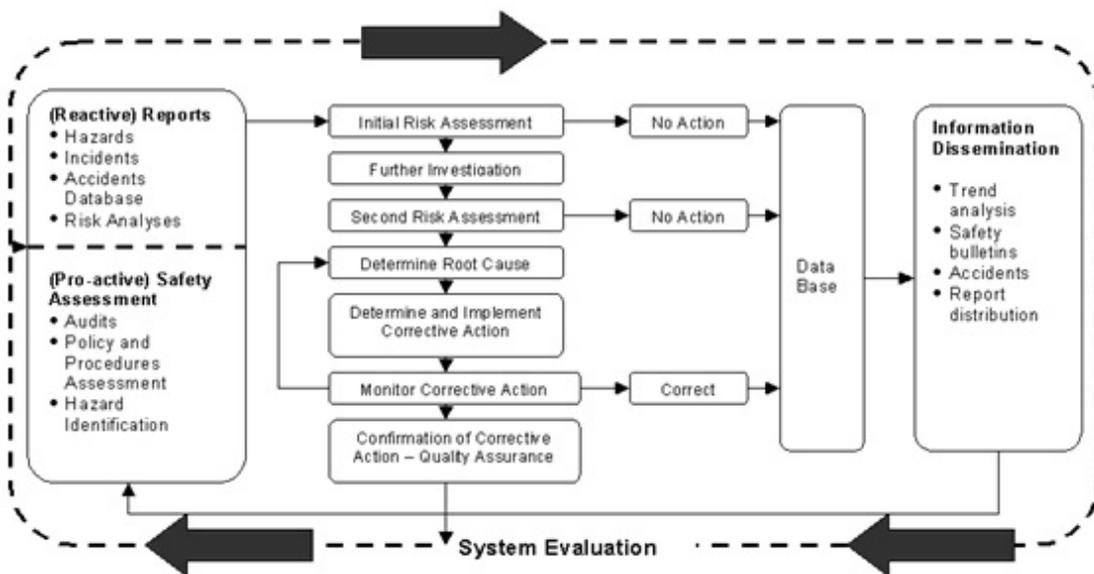
# 3.1 Reactive Process

The reactive process is a simple, user friendly electronic incident reporting system developed and owned by the VAA called the Airport Incident Reporting System (AIRS). This transparent reporting system is used by the VAA to report hazards, incidents or accidents that have already occurred and is accessible by all employees[12].

**Procedure[13]**

Using the pre-defined AIRS report form and a variety of drop down menus, the contributor enters data including:

1.   Type of incident;
2.   The location of the incident;
3.   Date and time of the incident;
4.   A brief summary of the incident;
5.   Who reported the incident and contact information;
6.   Date and time of reporting the incident;
7.   Environmental and other conditions at the scene;
8.   Responding agencies;
9.   Names and addresses of witnesses and;
10.  Any other notes or narratives.
11.  A unique tracking number for each report;
12.  The ability to upload photos and graphics;
13.  The ability for contributors to add information at any time.

## *Trend Analysis*

**Policy**

All safety reports are reviewed weekly at the manager's meetings and operation's meetings and are retained for trend analysis.

**Process**

The management team receives AIRS reports as they are generated and all incidents are reviewed by the Safety Administrator for review with the responsible manager and identification of any further action.

If required, the Safety Administrator meets with the responsible manager and generates a corrective action plan. The Safety

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[12] CAR requirement 107.03 (c)
[13] CAR requirement 107.03 (e) and CAR 302.502 (b)

Administrator then periodically reviews those corrective action plans to ensure issues are dealt with in the appropriate manner.

Trends are established and analyzed to compare year over year and how they measure against the goals in the previous years' hazard registry

The Safety Administrator prepares a quarterly report for the management team based on the Key Performance Indicators and annual goals and objectives.

**Procedure**

**The Safety Administrator shall:**

1.  Review all AIRS reports to ensure accuracy of information and ensure the appropriate manager receives the report;
2.  Review each incident for potential further investigation;
3.  Review the report in conjunction with the appropriate manager;
4.  Assists in the generation of corrective action plans and;
5.  Generate reports for the Accountable Executive and the VAA Management team.

**The Management Team shall:**

1.  Review the AIRS reports on a regular basis and prioritize reports applicable to that department;
2.  Immediately mitigate any reported incident, wherever possible;
3.  Support the Safety Administrator in any investigation;
4.  Document all pertinent information into the AIRS system and;
5.  Encourage staff to review the AIRS files periodically.

The Airport Incident Reporting System is continually reviewed and upgraded and a complete listing of current categories may be found in Appendix B.

## 3.2 Proactive Process

**Policy**

Every VAA employee is expected and required to report safety hazards using the VAA Safety Hazard Reporting System.

**Process**

This flexible system allows the employee to report a hazard directly to their supervisor in hard copy, or in electronic format through the VAA network (this provides for anonymity). The tenants, stakeholders, and the general public are able to report safety hazards through the VAA public website as well[14].

Every hazard report is completely transparent and is designed to assist the management team in dealing with issues before they become incidents.

Hazards are analyzed to determine the level of risk and condition that permitted the hazard to exist (root-cause). Associated actions to prevent re-occurrence of the hazard are identified and tracked through the use of the Vortex Management System. Verification of the effectiveness of actions taken is achieved during the management review process.

**Procedure[15]**

**VAA Staff shall:**

1. Advise their supervisor or the Safety Administrator of any new hazard discovered;
2. Complete a Safety Hazard Report, providing as much information as possible;
3. Assist the management team in mitigating the hazard wherever possible;
4. Review their hazard report(s) to ensure timely action, and;
5. Conduct proactive and preventative inspections as specified in AMRS.

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[14] CAR requirement 107.03 (c)
[15] CAR requirement 107.03 (e) and CAR 302.502 (b)

**The Safety Administrator shall:**

1. Receive and action every Hazard Report;
2. Review and verify the report with the contributor;
3. Conduct a preliminary risk assessment to determine severity and likelihood of associated risks;
4. Apply the risk assessment results assessment to the risk assessment worksheet located in section 3.4 to determine acceptability of the risk;
5. Identify root cause of the condition or circumstance that permitted the hazard to exist;
6. Identify and prioritize any actions taken, or to be taken to mitigate the risk;
7. Request additional resources as required to mitigate the hazard;
8. Advise the contributor of the status of the report;
9. Record any changes to the VAA Hazard Register resulting from newly identified hazards or incidents reported through the Safety Hazard Reporting System;
10. Maintain and correlate data for annual report and;
11. Review and prepare a report for the Accountable Executive on any new trends identified through this process.

**The Management Team shall:**

1. Review and action all safety hazard report forms submitted;
2. Review and action all safety hazard reports submitted;
3. Identify and prioritize any additional actions taken, or to be submitted;
4. Approve additional resources as required to mitigate the hazard and;
5. Provide additional assistance to the Safety Administrator.

# 3.3 Investigation and Analysis

The VAA is committed to maintaining a high level of safety and shall review all reported accidents, incidents and hazards.

Every employee of the VAA is expected to promote a strong safety culture and report hazards. On occasion employees may be called upon to assist in an incident or accident investigation based on their training, abilities and knowledge pertaining to a specific incident.

### 3.3.1 Airside Incident Reporting System Investigations

#### Policy

Every event will be reviewed by VAA management. The extent of any incident investigations will depend on the actual and potential consequences of the occurrence, and of the potential for learning valuable safety lessons.

This focused approach will prevent the overloading of organizational resources and will increase the quality of investigations and subsequent corrective actions.

#### Process

The management team will receive all AIRS reports as they are generated. All reports will be reviewed during weekly operations and management meetings. Table 3.3.1 will be used to guide management decisions on the extent of any investigation that will be needed for single incidents, or group of chronic incidents.

All reports that are not identified as requiring further investigation will be retained for trend analysis.

#### Procedure[16]

**The Safety Administrator shall:**

1. Review all AIRS reports to ensure accuracy of information and ensure the appropriate manager receives the report;
2. Review each incident for potential further investigation;
3. If selected for investigation, generates an associated Vortex Safety System Report

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[16] CAR requirement 107.03 (e) and CAR 302.502 (e)

4.      Review the report in conjunction with the appropriate manager;
5.      Assemble Incident Investigation Team;
6.      Conduct investigation to discover root-cause of incident;
7.      Assists in the generation of corrective action plans and;
8.      Generate reports for the Accountable Executive and the VAA Management team.

*Table 3.3.1: Learning Potential for Types of Incidents*

| Type of Incident | Situation | Frequency | Investigated? | Learning Potential |
|---|---|---|---|---|
| Acute* | Actual Losses | 1% | Nearly all investigated | High |
| Non-Acute | Near-miss or near hit deviations | 5% | Most incidents investigated | Moderate for individual incidents |
| | Potentially harmful circumstances but no actual loss | ~10% | Trending and investigation of chronic incidents<br><br>Regardless, all data about incidents will be entered into AIRS for trending | High to moderate for groups of chronic incidents** |
| All other incidents | Variations of unsafe acts or conditions, errors, or failures | 85% | Not investigated<br><br>May be dealt with through other organizational systems that provide learning from experience | Low individually<br><br>Chronic incidents may have a higher learning potential** |

*Acute – infrequent incidents of short duration      **Chronic – similar incidents that occur frequently

### 3.3.2 Safety System Report Investigations

**<u>Policy</u>**

All safety concerns submitted to the VAA Safety Hazard Reporting System will be reviewed and risk assessed.

**<u>Process</u>**

The management team receives safety concerns as they are submitted. All records are reviewed by the Safety Administrator along with the responsible manager who shall then conduct a Risk Assessement.

The risk score of this assessment is used to direct further investigations and corrective actions according to the associated Safety Concern Reporting Procedure Checklists.

**<u>Procedure</u>[16]**

**The Safety Administrator Shall:**

| Safety Concern Reporting Procedure Checklists for high, medium, and low Risk Assessments found in Appendix D |
| --- |

1. Review all Vortex Safety System Report submissions to ensure accuracy and to confirm all information.
2. Issues notification of receipt to person originating the concern.
3. Performs initial risk assessment worksheet, risk statement and classification.
4. Notifies responsible manager of submission.
5. Completes the Safety Concern Reporting Procedure Checklist that is associated with the Risk Assessement of the safety report.

### 3.3.3 Investigation Conduct

Safety Reports, AIRS reports and all other safety related reports are investigated in a timely manner, as follows:

1. Reports are received by the applicable director, manager or the Safety Administrator and documented;
2. All persons conducting an accident investigation shall to use standardized forms to capture data;
3. Investigations are initiated that include interviews with involved parties and witnesses, as required;
4. The disposition of any injured parties;

5.      Contact information of involved parties, witnesses or injured persons;
6.      Records of any mutual aid assistance;
7.      Photographs of incident site;
8.      Photographs of any damage to property;
9.      Analysis of collected data to determine contributing factors and root cause and;
10.     Debriefing of all involved parties to determine any corrective action.

**Analysis**

All hazard, accident and incident reports and investigations are reviewed by the VAA management team weekly to ensure that a proper investigation has taken place and that contributing and root causes have been identified utilizing the appropriate analysis tools[17] (5 Whys technique, Cause & Effect/Fishbone diagram)

The management team also ensures an appropriate action plan is generated. Minutes of these meetings are distributed to all VAA staff.

Investigation evidence and trend analysis may be a simple one-person evolution, or a complex multi-agency inquiry. Regardless of the level of complexity, all evidence is documented through the AIRS system or the Safety Hazard Reporting system and reviewed weekly. Every member of the VAA management team has access to these reports and immediate action takes place if required.

The results of these investigations and analyses are discussed as they occur with the applicable manager or director and force the generation of the corrective and preventative action plans required to reduce, mitigate or eliminate the reoccurrence of related incidents.

**Contributing Factors**

When identifying contributing factors and possible root causes, the VAA considers all factors and documents in AIRS, including:

1.      Time of day;
2.      Incident location;
3.      Weather conditions at incident scene;
4.      Lighting factors at incident scene;

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[17] TC Advisory Circular SUR-002 Root Cause Analysis and Corrective Action for TCCA Findings

5.      Activities in progress at incident scene;
6.      Vehicle/equipment factors;
7.      Tool/parts factors;
8.      Qualifications and skill factors
9.      Communication factors;
10.     Activities immediately following the incident;
11.     Statements and photographs;
12.     Individual human factors;
13.     Supervisory factors;
14.     Training factors;
15.     Environmental impact factors;
16.     Organizational elements and;
17.     Any other contributing factors at incident scene that may have impacted the incident.

The results of all investigations are communicated to the responsible manager for corrective action. The Safety Administrator monitors the progress of the corrective action plan and provides progress reports to the President and CEO[18].

**Process for Trend Analysis**

The Safety Administrator generates reports within the SMS and analyses the captured data and looks for trends. All suspected trends are reviewed with the management team and corrective action plans are created and documented in AIRS using the "notes" field.

Additionally, the management team discusses safety issues on a weekly basis to identify trends.

Any forthcoming corrective action plans are documented and timelines generated.

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[18] CAR requirement 302.502 (g)

# 3.4 Risk Management

The VAA management team maintains a structured process to manage known risks and identified hazards. The Hazard Register uses a systematic procedure to evaluate hazards by levels of severity and probability at the time the hazard is reported.

By employing a systematic procedure to prioritize hazards by levels of severity and probability, an acceptable level of tolerability and ultimately, risk management is achieved.

It is VAA policy to annually assess the reported hazards and whenever operational or service changes are planned. This assessment process is based on accepted understandings and definitions.

**Hazards**

Identified as a condition or object with the potential of causing injuries to personnel, damage to equipment or structures, loss of materials, or reduction of ability to perform a prescribed function.

**Risk**

Risk is the combined probability or frequency of occurrence of a defined hazard and the magnitude of the consequences of that occurrence.

*Risk = the likelihood of occurrence X the seriousness of the results of that occurrence.*

The following table relates to identified hazards and is used by the management team to quantify risk.

## RISK ASSESSMENT WORKSHEET

| | | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| | Severity / Probability | Little or No Consequence | Minor Injury | Serious Injury | Loss of Life | Multiple Deaths |
| 5 | Frequent | | | | | |
| 4 | Occasional | | | | | |
| 3 | Remote | | | | | |
| 2 | Rare | | | | | |
| 1 | Improbable | | | | | |

Using the grid above, multiply the corresponding numbers together to establish the risk tolerability.

### Probability x Severity = Acceptability

| 9 or greater = High Hazard = Unacceptable and demands immediate attention |
|---|
| 6 to 8 = Medium Hazard = Undesirable and must be managed |
| 1 to 5 = Low Hazard = Acceptable when managed accordingly |

### Risk Tolerability

Risk tolerability is measured as being acceptable, undesirable or unacceptable. The VAA management team assigns a number to the severity and probability of all identified risks. The numbers identified in the table are multiplied together and provide a total tolerability level.

As a general rule, the VAA has determined numbers greater than eight (8) are deemed unacceptable, and will require the completion of a root-cause analysis and development of a corrective action plan. Numbers between six (6) and eight (8) are undesirable and may require further analysis at the discretion of VAA management. Numbers up to and including five (5) are acceptable and require no further action.

Undesirable indicates the risk should be reduced to as low a level as possible, balancing time, cost and effort against the consequences of a resulting incident.

**Corrective Action**

The VAA Safety Management System demands every report be subjected to managerial scrutiny and evaluation. Wherever corrective action plans are generated, either through the review and analyses of KPI's, quarterly reports, annual documentation assessments, as part of the Quality Assurance program or for cause, all are subject to reasonable timelines and an evaluation of their effectiveness.

Timelines shall be commensurate with the severity of the corrective action plan and shall be of a definite duration. No timeline shall exceed one calendar year without written approval of the President and CEO and only in extenuating circumstances. Short-term mitigation will address the immediate symptom or issue, long term solutions are intended to address the root cause and prevent re-occurrence.

**Evaluating Corrective Action Effectiveness**

An analysis of a corrective action plan for effectiveness shall be conducted following its implementation and may be monitored for considerable time following initiation due to its complexity. Simple or complex, every corrective action shall be monitored to ensure success and those results documented.

Where this monitoring process determines a corrective action plan failed to meet expectations, a modified action plan shall be generated, initiated and monitored.

# Part 4

# Training

# Part 4

# Training

The VAA goal is to ensure the competence of employees through education and training, both for their own safety and to be certain the activities they are engaged in do not introduce hazards or place airport users at risk.

## 4.1 Training, SMS Awareness and Competence

### Policy

SMS training shall be provided to all VAA employees as well as certain contracted agencies who are required to perform work on airside.

### Process[19]

The responsible manager will determine the type and frequency of safety related training required for employees, including human and organizational factor training, workplace environment training as well as emergency preparedness and response training for effected personnel.

### Procedure

The VAA training program requires all employees complete SMS training every three years. This will ensure all personnel are competent to perform their duties within the SMS. The Human Resources department tracks employee training and advises departmental managers and supervisors when recurrent training is due through the VAA computerized training programs

**Training – All Employees[20]**

All VAA employees receive Human Factors training at time of hire and at 36 month intervals, and VAA managers and supervisors are given accident awareness and investigation training. Employee SMS awareness is reinforced through a variety of means, including the

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[19] CAR requirement 107.03 (d) and CAR 302.502 (f)
[20] CAR requirement 302.502 (h)

success of the AIRS and Safety Hazard Reporting systems. Employee situational awareness and competence levels within the SMS is challenged by both management and the employees through daily interaction, training sessions, internal and external audits, reviews and interviews.

SMS training is part of the indoctrination process for all new employees and continues throughout the employees' career with recurrent and update training as required.

**Training Validation[21]**

VAA employees are required to complete on-line SMS training sessions which utilizes a validation process.

**Training - Contractors**

Every contractor engaged in work for the VAA shall be made aware of the Safety Management System and other safety and security related information in the Contractor Orientation package. Contractors are required to sign a declaration as part of this orientation.

**Training – Emergency Responders and Effected Personnel**

The VAA will ensure all staff employed as emergency responders are trained to the standards dictated in the Canadian Aviation Regulations, and shall not employ any individual in an emergency responder role unless so trained and certified. Records of this training shall be maintained held in the VAA computerized training system.

**Measuring Training Effectiveness**[20]

Training effectiveness is measured through staff surveys and regularly scheduled exercises. Survey and exercise results are recorded and discussed at manager's meetings. Plans, policies and procedures are reviewed and corrective action plans generated as required.

Any changes or revisions to plans, policies or procedures are transmitted to employees through additional training and other awareness venues.

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[21] CAR requirement 302.505 (1)(g)

# 4.2 Training – General

### Policy

The VAA shall ensure all staff are fully trained and understand the expectations of the job function and are competent to fulfill all the duties of the position they hold.

### Process

The responsible manager will determine the type and frequency of regular and recurrent training for all VAA job descriptions and positions. This training shall be conducted on a regular basis its effectiveness measured through the use of checklists, exams and practical exercises for all staff.

### Procedure

The VAA training program requires all employees to complete a variety of training on a regular and planned basis. This helps ensure all personnel are provided the latest in technique, application and technological advances to perform their duties.

### Training – All Employees

All VAA employees receive initial job-related training and attend regular upgrade sessions when new equipment, procedures or policies are introduced. . Managers and supervisors are also provided additional supervisory skills training available throughout their careers.

Recurrent training, such as first aid courses or fire extinguisher training for staff, tenants and other personnel are often connected to outside promotions such as North American Occupational Health and Safety Week

### Training Validation

The VAA requires written validation or certification from third party training providers and these documents are entered into the individual employees training file through the VAA Human Resources department.

# Part 5

# Quality Assurance

# Part 5

# Quality Assurance

## Policy

The Quality Assurance program systematically reviews all aspects of the organization to monitor, evaluate and improve compliance, safety performance and airport related services.

The audits conducted go beyond examining the minimum compliance standards but examines processes within the organization and the overall efficiency of the Safety Management System, ultimately reducing the systemic gaps within the organization. The audit program not only focuses on constructive results but highlights the positive practices of airport management and staff.

The Victoria Airport Authority will ensure that the expectations of the Safety Management System are met and continuously exceeded by conducting regular audits of compliance, process, and procedures of the SMS including the audit program itself and Safety Management System.

Quality assurance audits are conducted to ensure:

1.   Compliance to regulatory requirements;
2.   Conformance to internal processes and procedures;
3.   The SMS program is properly established, maintained and implemented;
4.   Management policy, controls and procedures concerning all safety critical activities are effective and appropriate;
5.   Staffing levels, competence and training are adequate for the task;
6.   The quality assurance program is effective.

The quality assurance program outlined in Chapter 5 will ensure the quality assurance policy is being implemented in a consistent, defined process allowing the Victoria Airport Authority to ensure continuous improvement.

**Scope**[22]

There are a number of components and activities to an effective quality assurance program. The requirements of the Canadian Aviation Regulations require an airport operator to have an "Operational" and "System" audit.  The operational activities will ensure compliance of the Canadian Aviation Regulations as documented in the approved operational manual.  The system activities will audit the overall effectiveness of the SMS quality assurance program and the individual processes within the organization.

In order to achieve these requirements, the Victoria Airport Authority has implemented a process where both compliance (Operational) and conformance (System) are checked on a recurring basis in accordance with the requirement of the Canadian Aviation Regulations.  This process entails the initial creation of compliance (Operational) checklists which have been supplemented to address conformance (System) components, strictly looking at the individual processes within the organization, in accordance with approved manuals.  In addition, a secondary checklist has been developed which can be used by a third party, or at a minimum by personnel other than those assigned quality assurance responsibilities to ensure objectivity.

> Compliance (Operational) Checklists located in Appendix D

The Victoria Airport Authority has elected to complete an audit of the entire quality assurance program through a series of audits at intervals on Table 5.1: QA Program Audit Schedule, below.

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[22] CAR requirement 107.03 (g), CAR 305.502 (a)(V) and CAR.503 (1)

*Table 5: Quality Assurance Program – Audit Schedule[23]*

| Component | CY 2018 | CY 2019 | CY 2020 |
|---|:---:|:---:|:---:|
| Airport Operations Manual | X | | |
| Apron Safety Plan[24] | X | | |
| Construction and Maintenance Control | X | | |
| Airfield Inspection Program | X | | |
| Airside Access and Control Procedures (AVOP) | | | X |
| Emergency Response Plan | | X | |
| Airport Rescue and Firefighting | | X | |
| Obligations of the Operator | | | X |
| Safety Management System | | | |
| Operational QA | X | X | X |
| System QA | X | X | X |
| Aerodrome Standards & Recommended Practices | | | |
| TP312 Chapters 1 thru 4 | X | | |
| TP312 Chapter 5 - Markings | X | | |
| TP312 Chapters 5 - Lights | X | | |
| TP312 Chapters 5 - Signs | X | | |
| TP312 Chapters 6 - 9 | X | | |
| Wildlife Management Program | | | X |
| Winter Maintenance | | | X |

The Victoria International Airport maintains the following checklists which meet the requirements of the quality assurance program, and the components identified above[25]:

1. Airport Operations Manual Checklist
2. Airside Access and Control Procedures (AVOP)[24]
3. Emergency Response Plan Checklist
4. Airport rescue and Firefighting Checklist
5. Obligations of the Operator Checklist
6. Safety Management Manual "Operational" Checklist
7. Safety Management System "Quality Assurance" Checklist

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[23] CAR requirement 302.503 (3)(b)(ii)
[24] Full development of checklists, and applicable processes will take place over one full audit cycle
[25] CAR requirement 302.503 (3)(c)

8.     TP312 Checklist
9.     Wildlife Management Program Checklist
10.    Winter Maintenance Checklist

The processes for performing both the compliance (Operational) and conformance (System) quality assurance audits are captured below.

**Quality Assurance Audit Responsibilities[26]**

Accountable Executive: Reviews submitted reports, findings, corrective actions and follow-up activities. Attends annual meetings.

Safety Administrator:  is responsible for the implementation and management of the Quality Assurance Program and for the completeness of the Quality Assurance process by:

1.     Coordinating, managing and maintaining the SMS audit process;
2.     Ensuring that the Quality Assurance Program is understood by all concerned by conducting appropriate training, documented and managed in accordance with this section;
3.     Ensuring that the Quality Assurance Program takes account of all relevant organizations, companies, third party, legislative, regulatory and company and customer requirements, details of which are documented;
4.     Ensuring that the Quality Assurance Program is regularly reviewed in accordance with Task Calendar (Appendix E) to ensure its effectiveness; and
5.     Monitoring Quality Assurance audit corrective action completeness.

Audit Team Leader: Ensures performance of the audit and supervises the audit team, leads associated meetings and communications.

**Qualifications**

Auditors participating in the Quality Assurance program should meet the following requirements:

1.     The auditor must have completed an auditing course prior to being considered for an audit team member; and

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[26] CAR requirement 107.03 (f) and 302.502 (a)(ii)

2.      The audit team leader must have participated in at least one internal audit prior to being selected for this role;

1.      In addition, auditors should have training related experience in:

1.      Quality Assurance Auditing;

2.      SMS for airports or the aviation industry;

3.      Transport Canada and the Canadian Aviation Regulations;

4.      TP312; and

5.      Other regulations tied to the Airport Certificate

**Timelines**

As part of the Quality Assurance Program, the following timelines are adhered to by all participating parties:

1.      Audit Plan: An audit plan is reviewed or created annually depending on the audit cycle, a three (3) year cycle or less;

2.      Response to an Audit Finding: Corrective actions and proposed follow-up actions resulting from audit findings are summarized in report and provided to the Accountable Executive within 60 days;

3.      Audit checklists and intervals: reviewed as part of a (3) year cycle during creation of the audit plan per section;

4.      Record Retention:  Corrective action plans and all associated audit documentation records (including records of compliance/conformance and non-compliance/non-conformance[27]) are maintained for a minimum of two (2) audit cycles or six (6) years[28]; and

5.      Reporting: A summary of audit results and associated corrective actions are presented to the management committee on an annual basis.

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[27] CAR Requirement 302.503 (3) (d)

[28] CAR Requirement 302.503 (4) (a) (b)

# 5.1 Audit Process

### 5.1.1 Compliance (Operational) Audit

Under the direction of the Manager, Safety & Emergency Services, compliance audits are conducted for the following planned maintenance activities which are identified in the AOM:

1.    Movement Area Access & Control (Security)
2.    Hazard Beacon & Arcal System Check (Security)
3.    AVOP (AFS)
4.    Airfield Lighting, Signs, & Windsock Weekly Inspection (Electrical)
5.    Weekly Generator Checks (Electrical & Mechanics)
6.    Daily Airfield Inspection (AFS) (Maintenance from Nov 1 to March 31)

These audits are generated monthly within the AMRS system and are assigned to the both the Manager, Safety & Emergency Services, and the Airside Operations Officer for completion.

**Procedure**

There are 5 steps in the compliance (Operational) audit:

Random Sampling Application located at: http://www.ic.gc.ca/app/mc/rndm/RndmMn?lang=eng

1.    Reference the zero-based acceptance sampling plan and determine the sampling size based on 1.00% Acceptable Quality Level (AQL).
2.    Use the Government of Canada Random Sampling Application to generate selected samples for audit.
3.    Conducts compliance audit on selected samples.
4.    Any errors found indicates an unacceptable result and will generate a 100% compliance audit for the selected month.

Steps 1 & 2 are not required if a 100% audit of records is intended.

5.    The Manager, Safety & Emergency Services will complete an investigation to find the root cause and generate a corrective action plan for the audit finding.

The results of each monthly compliance audit will be reported to the management team and the Accountable Executive during the first management meeting scheduled following the completion of the audit.

### 5.1.2 Conformance (System) Audit

There are four (4) phases related to the audit process, each with a series of actions which will ensure a complete and robust process. The four main phases are:

1.  Preparation
2.  Performance
3.  Reporting
4.  Closure

Each of main phases and the associated process will be discussed in further detail below.

*Phase 1 – Preparation*

The preparation phase includes a number of activities including the following:

1.  Review of regulations / update of checklists
2.  Review of procedures / update of checklists
3.  Draft audit plan
4.  Select auditor team
5.  Notification of audit
6.  Audit preparation

**Review of Regulations / Update**

**Background / Purpose**

To ensure the Victoria Airport Authority continues to operate in full compliance with the Canadian Aviation Regulations, it is imperative the accuracy of both the Operational and System checklists are in full compliance with current regulations. The following process will be undertaken during the preparation phase of a quality assurance audit cycle.

**Objective / Scope**

To ensure the current / applicable Canadian Aviation Regulations are being applied to the Victoria Airport Authority Quality Assurance Program. Scope includes a review of regulatory requirements only.

**Frequency**

To be performed in advance of every Quality Assurance Audit.

**Deliverables**

Updated checklists reflecting the latest amendment number, and/or date on each applicable checklist.

**Procedures**

1.  Utilizing the latest quality assurance checklists, compare the regulations from the Government of Canada, Justice Laws Website to those of the VAA Checklists.
2.  Compare the checklists against Transport Canada Safety Alerts, Advisory Circulars, and any other applicable management system documents to those of the VAA Checklists.
3.  Update the checklists as appropriate for content, ensuring the audit selection number is updated and sequential.
4.  Update the amendment number, and/or date on each applicable checklist to reflect current audit cycle.

**Review of Procedures / Update of Checklists and Operational Manuals**

**Background / Purpose**

To ensure both the Operational manuals the Quality Assurance audit checklists are in full compliance with Canadian Aviation Regulations, and to ensure the Quality Assurance Program is robust and addresses both operational and system audit requirements with respect to reviewing applicable procedures.

**Objective / Scope**

To review and update checklists including, any new regulatory requirements, and/or operational activities authorized under a certificate.  The objective is to ensure the manuals reference the applicable regulation and/or standard and to highlight applicable procedures. A secondary objective is to ensure future updates of manuals will not inadvertently delete regulatory requirements from the manual(s).

Scope includes a review of applicable operational processes.

**Frequency**

To be performed in advance of every Quality Assurance Audit.

**Deliverables**

Updated operational manuals, which include footnotes tying the operational process to the procedure ensuring compliance with Canadian Aviation Regulations.

Updated checklists reflecting the latest amendment number, and/or date on each applicable checklist.

**Procedures**

1.   Review the applicable operational manual which is subject to audit against the quality assurance audit checklists. Where the manual speaks to the applicable regulation and/or standard, include a footnote reference in the manual stating the applicable regulation / standard.

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**SUBPART 4 – COMMUNICATION**

**4.01.  General**[20]

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[20] CAR requirement  302.203 (1) (p) (v)

Airport Emergency Procedures Manual                        Amendment 1 – June 30, 2015

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2.   For the applicable manuals, review the regulatory "compliance" and determine if there are associated procedures that relate to it.  If a process is included add it to the applicable checklist as show below and record the output of the procedure.  Note: The output must be a defined requirement for which to audit against.

| 52 | (c) | trained for the particular role that they perform. | X | Compliance component | Provided in the ERP Manual, Part I, Page 3. | Compliance or non-compliance |
| | *Process* | Observe training records for the On-Scene Controller, and EOC Director | | Performance component | | Conformance or non-conformance |

3.   Update the checklists ensuring the audit selection number is updated and sequential.
4.   Update the amendment number, and/or date on each applicable checklist to reflect current audit cycle.

**Draft Audit Plan**

An audit plan and associated schedule enables the airport to communicate its expectations regarding audits for each year or audit cycle, and helps to ensure that resources are assigned to complete the audits required to manage the airports risk and remain in compliance with CARS.

The plan is created and/or reviewed annually by the Safety Administrator and is subject to approval by the Director of Operations & Safety. All systems and procedures defined within the airport certificate are audited on three year cycle.

Audits may be conducted outside of the audit plan as necessary or as directed by the Director of Operations & Safety, such audits may be warranted by inherent risk, an incident or accident or as part of an investigation process.

The audit plan must include:

1. Audit title and number
2. Auditee (group or area being audited)
3. Explain the purpose of the proposed audit;
4. Detail the scope of the audit, including documents to be reviewed;
5. Establish the timelines for conduct of the audit including opening meeting, etc.;
6. Identify how auditors or the audit team will be selected and identify the audit leader, team or company; and
7. Must be approved by the Director of Operations & Safety.

Should deviation of the audit plan be required due to extenuating circumstances, a written or electronic request will be submitted to the Safety Administrator for approval.

**Select Auditor Team**

Under the direction of the Safety Administrator, Quality Assurance audits are conducted using selected personnel within the organization, or an independent organization. In selecting auditors, the Safety Administrator uses the following guidelines to ensure there are no conflicts of interest, operational independence is maintained and the auditor(s) have the appropriate qualifications.

The Safety Administrator shall ensure:

1.      The Auditor must not be subject to any undue management influence in completion of the audit;

2.      The auditor must not have a vested interest in the area being audited; and

3.      The audit of the Quality Assurance System (System Audit) shall be performed by a person that is not involved in the day to day operation of the Quality Assurance System. The use of an external auditor from another department within the VAA may be satisfactory.

The scope of the audit will determine the level of resources needed to perform it accordingly.  Ideally, a minimum of two persons should comprise the audit team as this will give a balanced and objective audit.

**Notification of Audit**

The auditor must provide notification to the auditee by advising the appropriate department or staff member being audited and the Safety Administrator to allow time for adequate preparation to be made. Typically two weeks is sufficient. The date of the audit may be adjusted if agreed by both parties providing the audit is completed within the requirements of the audit plan. Notification may be electronic or issued by hard copy, presentation of the Audit Plan is deemed an acceptable means of notification.

**Audit Preparation**

Preparation for an audit is completed by the audit team leader, audit team members and overseen by the Safety Administrator. Overall the Safety Administrator must:

1.      Ensure appropriate resources are available to facilitate conduct of the audit;

2.      Notify affected staff members or departments of reduced availability; and

3.      Ensure input from other interested parties is considered in the development of the audit plan.

*Phase 2 – Performance*

The performance phase includes a number of activities including the following:

1.      Opening meeting;

2.    Audit of components and related regulations, standards, processes and procedures;
3.    Summary of key findings; and
4.    Exit meeting.

**Opening Meeting**

The auditor shall conduct a preliminary meeting with the auditee, onsite at the opening of the Quality Assurance audit. The purpose of the meeting is to confirm the purpose, scope and schedule for conducting onsite activities. Ideally, this meeting should be 15 minutes or less and should include all audit team members.

**Audit of Components and Related Regulations, Standard, Processes and Procedures**

The auditor will be granted full access to site facilities, records and staff within all levels of the organization. Audits will be conducted using the appropriate compliance checklists; verification of conformance or compliance will be made through observation, interviews or physical evidence.

Associated documentation and records will be reviewed to verify examples of compliance or conformance against applicable requirements. The completeness or incompleteness of records may prompt additional interview questions as the auditor seeks to determine the performance of the associated process and desired outcome.

Activities, practices or site conditions may be observed by the auditor to demonstrate compliance. Observations are conducted to validate the associated outcome of a process.

Persons to be interviewed will be selected from all levels of the corporation and those interviews will be conducted face-to-face and in private. Interviews provide the audit team with an opportunity to assess the level of understanding of the auditable component and staff commitment to safety and the SMS.

All associated documentation resulting from the audit process will be held for a period as specified under section 2.3 of the Safety Management System Manual.

During the audit, if any serious safety concerns are noticed they will be immediately identified to staff or management and followed-up with a hazard report.

During the audit process, daily de-briefs should be conducted with the auditee for the purpose of clarifying factual information, making information requests, verifying the audit schedule and staff availability for the next day activities.

**Summary of Key Findings**

Non-compliance/conformance will be identified in the respective audit checklist.  Non-compliance/conformance should be grouped based on patterns or connections between non-compliances/conformance found into a finding.  The finding must be a clear and concise statement relating to the generic activity (training, documentation, etc.), not the specific non-compliance/conformance itself.

The auditor shall compile and complete the audit findings, detailing the issue using the following categories:

**Level 1** – Serious discrepancies or failings with respect to regulatory requirements;

**Level 2** – Failings that require resolution within a fixed and predetermined time frame;

**Level 3** – Observations that are likely to impact safety or become a regulatory issue before the next audit, and;

**Level 4** – Positive observations and successes.

**Exit Meeting**

The auditor will conduct an exit meeting with the SMS Manager and Safety Administrator to present preliminary findings, confirm factual accuracy and to receive any additional information required before the draft report is prepared.  At this time, a brief summary of the potential findings can be presented to the Victoria Airport Authority.

*Phase 3 - Reporting*

**Draft Report**

For the purpose of this Quality Assurance Program, a finding is a conclusion that identifies a condition having significant adverse effect on the quality of the activity under review. A finding is a problem or cause-and-effect statement and is normally accompanied by several specific examples of the observed condition, grouped from a non-conformance.

The auditor will prepare a draft audit report identifying all findings and may also include observations not directly tied to a finding.  A copy of the draft audit report will be provided for review to determine if there was any information not presented during the audit which impacts the non-compliances/conformances observed, or the findings.

**Final Report**

Once a review of the draft is completed by the Victoria Airport Authority, the Auditor will finalize the draft report based on feedback provided.  The final report should include the following:

1. Cover letter
2. Introduction;
3. Audit summary;
4. Summary of findings;
5. Recommendations and observations (if applicable);
6. Conclusion; and
7. Checklists including the finding form(s).

The checklists must include identification of both compliance/conformance and non-compliance/conformance[29]. Every example of non-compliance for a checklist item does not have to be presented in the final report, only a few examples are required to demonstrate non-compliance/non-conformance.

**Reporting to Management[30]**

At the completion of the audit, it is the discretion of the Director of Operations and Safety on who within the organization shall receive

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[29] CAR requirement 302.503 (3) (d)
[30] CAR requirement 302.503 (2) and CAR 302.503 (3)(e)

the final report.  The Canadian Aviation Regulations dictate the Accountable Executive needs to be notified of findings as the result of a Quality Assurance Audit.  Notification of the Accountable Executive will be achieved by sending a copy of the final report via e-mail.

*Phase 4 - Closure*

**Analysis of Findings**

The identification of non-compliance or non-conformance in the Quality Assurance Audit is intended to identify underlying latent failures in process, not specifically identify examples of failure.  In order to address the underlying latent failures, a proper investigation needs to be conducted to determine the causal factors (contributing factors) that allowed the non-compliance or non-conformance to occur.  This analysis is conducted in accordance with Section 3.3 (Investigation and Analysis) of the Victoria International Airport Safety Management System.

For each finding determined as a result of a Transport Canada Program Validation Inspection (PVI), or internal Quality Assurance Audit a full investigation including determination of causal factors (contributing factors), analysis of the causal factors and identification of root cause must be completed.

The analysis of the findings, determination of root cause is recorded in the computerized Safety System.

**Development of Corrective Action Plans (CAP)**

A good corrective action plan will have two critical components, short-term mitigation to immediately address non-compliance or non-conformance and long-term mitigation to address the underlying causal factors or latent failure.

A corrective action plan shall include the following:

1.    Statement of the problem / finding
2.    Identification of the individual responsible
3.    Identification of root causes
4.    Identification of short-term corrective action already taken
5.    Identification of long-term corrective action
6.    Expected completion date for long-term corrective action
7.    Follow-up and verification actions / dates
8.    Signature of issuing authority

9. Acknowledgement of CAP closure

Corrective action plan development should address more severe (Level 1) findings first, then proceeding to Level 2 and 3 findings.  It is also encouraged to prepare Corrective Action Plans based on areas of opportunity which may be tied to seasonality, or budget cycles.

Long term corrective action should be SMART (Specific, Measurable, Attainable, Realistic, Timely).

**Verification of Corrective Action Plans[31]**

Once the development of the Corrective Action Plan is completed, the verification actions and dates will be recorded in the Safety System, with notification alerts entered for the responsible person to follow-up.  Once the verification periods occur, the responsible person will record the effectiveness into the Safety System.  If it has been determined the corrective action was ineffective, the Safety Administrator will initiate an investigation again to re-determine the underlying root cause and latent failure(s).

Verification of corrective actions will be included as part of the management committee agenda and discussed for information purposes, and will also be included in the annual report to the Accountable Executive.  The summary of corrective action are included in the annual report and are used to:

1. Determine employee resources, skills and training needs;
2. Generate new policies, procedures, forms or instructions;
3. Review additional or improved equipment or tool requirements;
4. Highlight any unresolved deficiencies, outstanding safety concerns or areas of non-compliance; and
5. Generate an appropriate course of mitigation.

**Closure of Corrective Action Plans**

When verification actions are complete, and deemed to be successful, the Director of Operations & Safety will sign-off and close the corrective action plans, and recorded in the Safety System for a minimum of two (2) audit cycles[32].

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[31] CAR requirement 302.503 (3)(f) and CAR 302.505 (1)(e)
[32] CAR requirement 302.503 (4)

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# Part 6

# Emergency Preparedness

# Part 6

# Emergency Preparedness

## 6.1 Emergency Preparedness

The VAA Emergency Response Plan (ERP) is the primary document used in emergency preparedness and contains detailed response strategies for managing any emergency occurring on airport property. Specific emergency response roles, responsibilities and duties are defined within the ERP. All managers and staff members are expected to be familiar with this document.

The ERP also contains emergency contact information and Letters of Understanding for local businesses that can provide shelter, accommodation and food for passengers or family and friends in the event of an air carrier incident.

### *Annual Review*

The Emergency Response Plan is reviewed and approved annually by the Manager, Safety and Emergency Services and the Director of Operations & Safety. Stakeholders and mutual aid partners are solicited for input and comment to ensure content accuracy and contact information is correct. The final revision is distributed to all.

Any organizational or other changes to any of these resources are documented as an amendment within the ERP and revised copies are distributed.

In addition to the ERP, the safety dashboard provides employees with access to the Apron Safety Plan, ATB Fire and Evacuation Plans, Emergency Disaster Plans and other emergency and disaster awareness documentation.

The ERP and ATB Fire and Evacuation Plans exercises are conducted in compliance with the Canadian Aviation Regulations involving key personnel using both table top and full scale exercises.

The results of those exercises are recorded in the form of an After Action Report (AAR). These AARs are analyzed and any amendments or changes to the plan being tested are made accordingly. AARs and

plan amendments are reviewed at managers' committee meetings prior to being distributed to applicable stakeholders and employees.

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# **Appendix**

**Appendix A**

## REFERENCE MATERIAL

Canadian Aviation Regulation 107.03

Canadian Aviation Regulation 302.503

Canadian Aviation Regulation 302.504

Canadian Aviation Regulation 302.505

Transport Canada TP 13739 – Introduction to Safety Management Systems

Transport Canada TP 14135 – Safety Management Systems for Small Aviation Operations

Transport Canada TP 14343 – Safety Management Systems Implementation Guide

Transport Canada SUR-001 – Safety Management System Assessment Guide

Transport Canada SUR-003 – Routine Oversight of SMS Organizations

Transport Canada TP 312 – Aerodrome Standards and Recommended Practices

Transport Canada Advisory Circular AC 107-001

Transport Canada Advisory Circular AC 107-002

Transport Canada Advisory Circular AC 300-002

International Civil Aviation Organization (ICAO) Convention Annex 14

International Civil Aviation Organization (ICAO) Document 9774

International Organization for Standardization (ISO) – ISO 9000:2000

## VAA DOCUMENTS

Emergency Response Plan

Apron Management and Safety Plan

Vortex Hazard Registry

Air Terminal Building Fire and Evacuation Plan

**Appendix B**

## AIRPORT INCIDENT REPORTING SYSTEM ELEMENTS

The Airport Incident Reporting System (AIRS) is an on-line program used by the VAA to record   and report on safety related incidents on airport property.

Managers are notified via email of new incidents and these are reviewed on a daily basis. The   program has the ability to expand and grow with the VAA and is continually under review.

The following is a list of the elements currently tracked by AIRS:

AFS Incident
- Aircraft Accident
    - Runway Overshoot
    - Runway Undershoot
    - Runway Veer-Off
    - Other Aircraft Accident

- Aircraft Problem
- Aircraft Standby
- AVOP Infraction or Issue
- Disabled Aircraft
- ELT
- Fire Alarm
- FOD
- FOD - Significant
- OLS Violation
- Structural Fire
- Vehicle Fire
- Other

Aircraft Diversion

Apron IV
- Aircraft
- AVOP Infraction
- Passenger
- Policy and Procedure
- Vehicle

Bomb Threat

Environmental Issue
- Airside
    - Construction
    - Hazardous Materials
    - Spills
- Groundside
    - Construction
    - Hazardous Materials
    - Spills

Facility Breakdown
- Airside
    - Buildings
    - Electrical Systems
    - Fencing and Gates
    - Fire Suppression/hydrants

    - Glycol Dispensing Station
    - Glycol Pads and Recovery Tanks
    - Lands
    - Lighting and Signage
    - Navigation Aids
    - Pavement
    - Pump Station
    - Storm, Drainage, and Sanitary
    - Other
- Groundside
    - Buildings
    - Electrical Systems
    - Fencing and Gates
    - Fire Suppression and Hydrants
    - Lands
    - Lighting and Signage
    - Pavements
    - Pump Station
    - Storm, Drainage and Sanitary
    - Tank Farm, Warning Lights
    - Other
- Terminal Building
    - Baggage System
    - Doors, Windows and Stairs
    - Electrical
    - Elevators
    - Escalators
    - Fire Suppression
    - HVAC
    - Jet Bridge
    - PA System
    - Plumbing
    - Sidewalks and walkways
    - Structure
    - Other

Fire Alarm and/or Fire Incursion

- Runway
  - Aircraft
  - Pedestrian
  - Vehicle
- Taxiway
  - Aircraft
  - Pedestrian
  - Vehicle

Medical Response
- Aircraft
- Airside
- Groundside
- Tenant Facility
- VAA Facility
- VAA Staff Injury

Non-Incidents
- Airfield Escorts
- Assist General Public
- Assist Other Agency
- ATB Escorts
- VIP Visits

Security Response
- Apron IV Safety
- Drone
- Insecure Aircraft
- Insecure Holdroom
- No Trespass
- Restricted Area Violation

- Slip and Fall – No Medical Response
- Theft
- Unattended Bag
- Unlawful Interference
- Unruly Non-passenger
- Unruly Passenger
- Vandalism
- Other
- Other – Airside

Security Screening Response
- HBS-RCMP Emergency Response required
- HBS-RCMP Non-Emergency Response Required
- NPS-RCMP Emergency Response required
- NPS-RCMP Non-Emergency Response Required
- PBS-RCMP Emergency Response required
- PBS-RCMP Non-Emergency Response Required

**Appendix C**

# AIRPORT TENANT COMMITTEES

## Airport Safety and Security Committee[1]

Co-chaired by the Director, Terminal Operations and Security, and the Manager, Safety and Emergency Services. This committee is composed of representatives from the VAA, airlines, tenants, pre-board screening and Airport Security, the Airport Safety and Security committee is another venue where airport safety and operational issues are brought forward and is a vital component of the SMS program.

The Airport Safety and Security committee meets quarterly, or more often as required, and minutes are generated of issues discussed and circulated to the members and the VAA management team.

The committee's responsibilities include:
1. Providing a forum to discuss operational safety and security related issues pertaining to aircraft, vehicle and pedestrian traffic, tenants and other users of the airport;

2. Recommending changes to the VAA safety and security;

3. Reviewing audits, accident and incident investigations and corrective action at the operational level;

4. Monitor and review local and industry safety trends;

5. Identify new and review the status of existing hazards;

6. Discuss and recommend safety improvements;

7. Monitor and report on the effectiveness of those improvements and;

8. Establish sub-committees as needed (ie: Ramp Safety Committee)

## Airport Operators Committee

Chaired by an Air Carrier manager on a rotating basis this committee is comprised of the various airline operators using VAA facilities and is charged with providing opportunities for dialogue, advancement and improvement of all aspects of airline operations in YYJ through meetings, communications and other activities.

This venue focuses on the airline operator's concerns and their day-to-day operations at the airport. Security and safety issues and other items such as VAA construction plans, disposal of biohazardous waste and apron parking plans are discussed at this level and any outstanding issues resolved.

This monthly committee also takes an active role in the planning and development of airport training exercises and is a valuable component of the SMS.

Airside safety audits will focus on the performance of airside workers, vehicle condition and the condition of airside facilities. Groundside safety audits will focus on the condition of groundside facilities and areas.

Information on safety initiatives, a review of on-going safety performance indicators and any changes to regulations or process that impact safety are raised at these meetings.

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[1] CAR requirement 302.502 (d)

**Appendix D**

## Inspection Checklists

Are continually being added to digital AMRS format and may be downloaded on request.

**Appendix E**

All tasks entered in Airside Maintenance Reporting System (AMRS)

## Task Calendar

**Periodic**
- SMS training for staff every three years 4.1
- QA Timelines Chapter 5
- Timelines identified under 3.2 Proactive Process

**Annual**

<u>Annual Report Content</u>
a. Total Incidents and hazards 1.6
b. Trend analysis 1.5
c. Safety Planning (review & setting of goals and objectives) 1.5
d. Goal Attainment 1.5
e. Develop KPIs 1.6

- Annually prioritize and rank hazards in order of severity 1.6
- The Hazard Registry is reviewed annually 1.6
- SMS policies and related documents are reviewed annually (document review) 1.7

- Annual review also includes: 1.7

    1. A review and assessment of employee SMS participation, hazard reporting, other communication tools and training requirements;

    2. A review of record keeping system to ensure documentation is current;

    3. A review of hazards, investigations and trend analysis;

    4. A review of any corrective action plans and their effectiveness;

    5. A review of any follow-up actions from previous annual reviews;

    6. A review of changes to the VAA organizational structure that may involve specific safety responsibilities;

    7. A review of any changes affecting the SMS plan;

    8. The sharing of best practices across the organization.

- Conduct annual review of SMS documentation for continued suitability, adequacy and effectiveness resulting from changes to internal and external policies or incidents; 2.2
- Annual review and approval of ERP

- 1.4 Production of annual report
    o Accountable Executive
        ▪ reviews annual SMS plan
        ▪ assists with production of safety goals and objectives
    o Safety Administrator
        ▪ Prepares annual reviews of the SMS for AE
        ▪ Prepares annual report

**Quarterly**
- Safety Administrator reviews achievement of safety goals on a quarterly basis 1.5
- Review Safety Dashboard to ensure website links and other digital support mechanisms are in place and functional 2.1
- Quarterly report for management team based on the key performance indicators and annual goals and objectives 3.1
- Airport Safety and Security Committee  Appendix C

**Monthly**
- Airport Operators Committee Appendix C
- VAA management team; Monthly Management meetings 1.6

**Weekly**

1.4 Weekly Managers Meetings
- o  Accountable Executive chairs
    - ▪ Ensures safety issues discussed at beginning of each meeting
- o  Safety Administrator Co-chairs
    - ▪ Relays pertinent information to departmental supervisors
    - ▪ Reports on safety related incidents and status of action plans
    - ▪ Reports and Corrective Action Plans are discussed
    - ▪ Review Safety Reports 3.1

1.5 Weekly Operations Meetings
- ▪ Review Safety Reports 3.1

- Review CADORS, reactive and proactive reports on weekly basis 1.5
- Monitor reactive and proactive reporting data on a weekly basis  1.6
- Management Team Review safety reports on a weekly basis to identify trends 3.3

**Victoria International Airport**
**Security and Safety Plan**


R.087575.004 Reay Creek Remediation – Victoria Airport Lands

## OVERVIEW

The Security and Safety Plan for groundside to airside conveyance facilitates the safe, secure and efficient movement of authorized vehicles, personnel, and materials between two non-restricted areas and without impacting the integrity of the operational area.

In practical application, this facilitates the transit of vehicles, project construction personnel, and materials at access gate 250 and the area of Reay Creek from the east lift station east to the perimeter fence.

## SCOPE

The approximate number of groundside to the work area movements on a daily basis Is less than twenty. The escorts will be in compliance with the Canadian Aviation Security Regulations, Sections 335-340.

## VAA SAFETY POLICY

"Life safety, prevention of injury to our employees and customers, and protection of the environment shall be given the highest priority throughout our airport"

All individuals engaged in work within the confines of the Victoria International Airport shall comply with all the elements of the Victoria Airport Authority Safety Management System plan and are accountable for their actions and the actions of their employees and sub-contractors.

Visitors shall:

- Follow established safety procedures;
- Report ALL accidents, incidents, hazards or otherwise unsafe conditions to the VAA Management team as noted above in a timely manner;
- Familiarize themselves with this Plan prior to commencing work: and
- Liaise with the VAA Management team throughout the duration of their work on site

# Safety

1. All persons shall wear high visibility safety vests with reflective tape or striping.
2. All persons shall remain within delineated boundaries of the project.
3. Absolutely no smoking is permitted on Airside.
4. All contractor vehicles shall be under escort whenever on Airside.
5. Contractors are responsible for first aid, however incidents requiring an ambulance MUST be coordinated with the Airside Escort for airside projects.
6. No open flame is permitted unless pre-authorized with a hot work permit. The Victoria Airport Fire Department issues hot work permits. They can be reached at 250-953-7568. All hot work must be coordinated with the Airside Escort for airside projects.
7. VAA Operations Director, VAA Facilities Director, VAA Manager of Safety and/or the VAA Resident Engineer has authority to issue a "stop work order".
8. Safety of aircraft, passengers and the public are paramount and shall not be jeopardized during this project. Activities or actions that may impact safety of operations must be reported immediately to the Director of Airside Operations or the Manager of Safety.
9. All debris such as sandwich wrappers, coffee cups, pizza boxes and pop cans shall be disposed of in appropriate containers. Any such debris represents the potential to cause "Foreign Object Damage" to aircraft. This debris is referred to as "FOD". Maintaining the airfield in a FOD-free state is a top priority for airfield operations and is a shared responsibility for anyone on airport property including yourself.
10. Project work airside requires that a report be made by telephone or radio daily to confirm aircraft maneuvering surfaces have been inspected by the Director of Airside Operations or his designate and are suitable for aircraft operations.
11. Contractors shall provide portable toilet facilities within the area of the work. For airside projects this is required to avoid unnecessary vehicle traffic on the runways and taxiways.
12. The attached map will be used to describe the location of work areas both for yourself and for your escort when working airside.

## VAA SECURITY POLICY

"The Victoria International Airport, in partnership with Employees, Tenants and Contractors, will operate in a manner that ensures security is a top priority and fundamental to Victoria International Airport's operations. Victoria Airport Authority Senior Management will therefore ensure that all decisions about the airport take into account the potential impact on the security of our operations."

# Security

1. All construction personnel working in the restricted area shall be issued and sign for a Temporary Construction Security Pass. The pass shall be returned to security at the end of the working day. This Pass is to be worn on the outer clothing and above the waist line.
2. Anyone losing a pass may not return to the work site in a restricted area until such time as the pass is replaced by airport security. A fine not exceeding $250 may be levied at the Airport Authority's discretion for lost passes.
3. Airside Escort will be provided by VAA to provide liaison and safe transit between the Access gate and the construction site.
4. Vehicles shall not leave the designated work site other than through Gate 250
5. Construction personnel shall not enter the work area except during scheduled working hours, and then only with the specific authorization and under the escort of the VAA.

**For further clarity:**
- All vehicles and construction personnel will enter the airside via Gate 250. This gate is normally rendered inaccessible except during times of construction operations.
- Each person entering through Gate 250 will be issued a temporary construction pass by the site security member assigned as gate guard. These passes are numbered and a record of issuance log is completed and maintained.
- Before this pass is issued, the gate guard assigned will confirm identity via government issued photo I.D. and will ensure the company represented is authorized to access the construction area. A list of such companies will be maintained at the access point.
- All construction vehicles and personnel will proceed directly to the work area at Reay Creek to gate 250. Temporary construction passes will be returned to the gate guard, and this will be noted on the record of issuance along with the time the pass was returned.
- Once the activity for the day is complete, the construction area fence will be locked down and gate 250 will be closed to traffic until the next day. This will also be the case during weekends unless advance arrangements have been made with the VAA.
- At gate 250, the temporary construction passes will be returned to the gate guard, and this will be noted on the record of issuance along with the time the pass was returned.
- Once the activity for the day is complete, the construction area fence will be locked down and gate 250 will be closed to traffic until the next day. This will also be the case during weekends unless advance arrangements have been made with the VAA.

Please see the attached drawing/site plan for further information.

## Airport Movement Areas:

1. **Aprons** are for parking aircraft, loading passengers and their baggage, and fueling. While working on Aprons, you must remain under the direction of the construction escort at all times. Aprons are designated by Roman Numerals, such as Apron IV and pronounced as Apron 4.

2. **Barricades** limit your work area and will be identified by delineators, cones, tape, fencing or other means and will be identified prior to commencing work. Do not move beyond delineated work areas without prior permission and escort.

3. **Driver's License** – all persons driving Airside shall hold a valid Provincial/Territorial, or State driver's license.

4. All traffic regulations shall be adhered to.