# Safety Management System

Portland International Jetport
Portland, Maine

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# Section 1: Document Control and List of Effective Pages

1.1 This manual is a controlled document. Changes will be made as required by amending the affected pages and noting the changes in Table 1.3 below. The manual will be re-issued in its entirety at each revision.

## 1.2 Record of Revisions

| Revision Number | Date | Affected Pages |
|---|---|---|
| Revision 1 | September 18, 2020 | Page 7 - revised Safety Committee membership |
| Revision 2 | June 30, 2025 | Section 2 - Removed draft language and added timeline per implementation plan.<br>Section 3 - Added confidentiality statement.<br>Section 4-7 - Added 139 Compliance checklists.<br>Section 7 - added training requirements by role. Added required record retention statements<br><br>Appendix 2 and 3 Updated to 2025<br>Appendix 4 - updated safety objectives<br>Appendix 9 - Removed |
| | | |

## Section 2: Applicability and Scope

The PWM Safety Management System (SMS) has been developed in accordance with 14 CFR Part 5, and FAA Advisory Circular 150/5200-37A. The Portland International Jetport has submitted its SMS implementation plan and Gap Analysis to the FAA. The Jetport has through May of 2027 to fully implement its SMS program to all tenants and stakeholders.

To achieve these goals, the SMS scope includes both airside and landside operations. The airside (Part 139) aspects of the SMS will be identified and treated separately from the landside components. However, the overarching principles and components of the SMS apply to both airside and landside. Therefore, this manual encompasses the entire campus.

The SMS applies to all individuals and organizations operating at the Jetport, including but not limited to City of Portland employees, airport contractors, vendors, tenants, concessionaires, fixed-base operators (FBOs), airlines, and ground service providers. All such entities are considered active participants in the Safety Management System and are expected to align with the safety principles and practices outlined in this manual.

For FAA regulatory compliance purposes, only those Hazard Reports, IEP Audits, High and Low Consequence Safety Performance Indicators, and Safety Objectives identified as airside components, will be regulated by the FAA.

A list of the sections of the SMS that will fall under the regulatory oversight of the FAA is provided at Appendix 9.

**IMPLEMENTATION TIMELINE**

The roll out of the SMS will be tiered. Below is the proposed implementation timeline.

July 1, 2019 - Roll out and implementation for all direct City of Portland Employees complete
July 1, 2025 - Start Roll out and implementation for airside operations and tenants. Roll out will consist of introduction to SMS, Training on four pillars and Jetport SMS procedures.
July 1, 2026 - Roll out and implementation for all other airport tenants operating on campus.

# Section 3: Introduction to the PWM Safety Management System

3.1 Safety is the minimization of risk achieved by having a clear safety policy which establishes our safety objectives.

3.2 The PWM Safety Management System (SMS) creates an organizational culture which encourages all employees to proactively identify hazards and report them so that an analysis can be made of the potential for a risk to our organization.

The SMS provides airport management with a set of tools to make safety related decisions. It also helps airport management identify safety risks associated with airport operations, Airport Capital Projects and other changes at the airport to proactively address those issues before they result in accidents, incidents, injury or damage.

For the SMS to be successful, it must create an environment of trust between management and all employees. Every employee must be willing to submit a Hazard Report whenever the employee observes anything that may present a safety or health risk to the organization or to any individual, without fear of retribution for doing so. This can only be achieved by having a just culture within the organization. This means that individuals are not subject to disciplinary action for errors or omissions that they make while at work, so long as those errors or omissions are commensurate with the employee's training, qualifications and experience. This does not mean that the organization will tolerate willful acts of destruction, gross negligence or intentional violations.

All Hazard Reports submitted to the SMS will undergo a Safety Risk Assessment to determine their priority for processing. The submitter of the Hazard Report will receive an immediate acknowledgement of the report, and will receive further contact from the Airport Safety Officer within three business days. When the identified hazard and its associated risks have been successfully mitigated, the submitter will receive further feedback from the Airport Safety Officer advising of the outcomes of the Hazard Report.

3.3 Inclusion and Confidentiality Statement

The success of the PWM Safety Management System (SMS) depends on the full participation of everyone who works at or conducts business at the Jetport. This includes City of Portland employees, contractors, vendors, tenants, airlines, service providers, and other stakeholders. Every individual, regardless of their employer or role, is encouraged and expected to contribute to safety efforts by reporting hazards and concerns.

All hazard and safety concern reports, whether submitted openly or anonymously, will be treated with strict confidentiality. Individuals who submit reports will not face any retaliation, retribution, or negative consequences for doing so. This protection applies regardless of employment status or affiliation.

The SMS promotes a "just culture" that supports learning and improvement rather than punishment. Reports that involve willful misconduct or gross negligence may be escalated for administrative review, but no individual will be penalized for making a good-faith effort to report a safety issue.

## Section 4:

# Safety & Health POLICY

Part 139 Compliance items:
139.402(a)(1) - The Accountable Executive is Paul Bradbury, Airport Director
139.402(a)(2) - Section 4.1 covers this requirements
139.402(a)(3) - All safety policy statements are available online at www.portlandjetport.org/safety.
139.402(a)(4) - Section 4.6 covers this requirement
139.402(a)(5) - Section 4.4 covers this requirement
139.402(a)(6) - Section 4.2 covers this requirement
139.402(a)(7) - Section 4.3, 4.4, and 4.5 cover this requirement

4.1 The Safety and Health Policy and the Letter of Commitment from the Accountable Executive are displayed at Appendix 2 and Appendix 3 of this manual and are also prominently displayed at various locations within the offices and facilities of PWM.

4.2 PWM is committed to the safety of our employees, our tenants, the passengers who use the airport and the aviation community. This commitment is supported by the Airport Director as evidenced in the documents referenced above.

The overall safety objective is to achieve zero levels of preventable accidents and injuries. Therefore, safety is the highest priority in everything that we do on a day-to-day basis. It is imperative that all employees understand this commitment to safety which must become part of our culture. We do not want people taking short-cuts or risks to get the job done. We all need to commit to safety in everything that we do. In support of this, management undertakes to provide the necessary resources to ensure that we can achieve this objective.

To effectively manage hazards in the workplace, Management needs to know what each and every employee sees as unsafe in the workplace. To achieve this, all employees must be willing to speak up when they are involved in an incident or accident or when they observe something that they consider to be potentially unsafe. Employees can do this by submitting a Hazard Report to the SMS. Management understands that accidents happen. Employees shall not be disciplined for submitting a Hazard Report, but should an employee have concerns about notifying management of hazards, Hazard Reports may be submitted anonymously.

4.3 The strategy for approaching our SMS is as follows:

4.3.1 All regulated employees at PWM will be involved in the SMS.

4.3.2 Employee awareness, education and compliance with the SMS will be ensured by initial and yearly recurrent training on the SMS.

4.3.3 All employees will endeavor to identify, report and eliminate hazardous conditions.

4.3.4 All hazardous events reported will be examined to determine a root cause and a corrective action plan will be developed, implemented and reviewed for effectiveness following implementation.

4.3.5 Changes in the way PWM conducts airport activities will be reviewed by the Airport Safety Officer in conjunction with the appropriate Deputy Director to identify any new risks or hazards as a result of the proposed change.

4.3.6 All employees will ensure that all applicable local, state and federal laws are complied with, including all Maine Department of Labor, Bureau of Labor Standards (BLS) requirements applicable to the job being performed.

4.4 The SMS depends upon the appointment of key personnel who have responsibility and accountability for ensuring the success of the SMS. These key personnel and their responsibilities are listed below.

4.4.1 The **Accountable Executive** is responsible for ensuring that the necessary resources and financial support are made available for the successful development, implementation, operation and continued improvement of the SMS. This means that the Accountable Executive is ultimately responsible for the success of the program, and this will be achieved by:

- Accepting and signing the Safety and Health Policy
- Accepting and signing the Letter of Commitment
- Providing adequate resources to ensure implementation and management of the SMS
- Providing leadership in safety related issues by actively participating in safety significant events
- Ensuring that all managers are aware of and are held accountable for their roles and responsibilities under the SMS
- Promoting and encouraging a positive safety culture within the airport
- Ensuring ongoing effectiveness of the SMS by facilitating, participating in or reviewing periodic reviews and evaluations
- Reviewing SMS data provided by the Airport Safety Officer

4.4.2 The **Airport Safety Officer** is responsible for the day-to-day implementation,

operation and oversight of the SMS. This will be achieved by:

- Reviewing and prioritizing all Hazard Reports when submitted
- Entering all Hazard Reports into the SMS tracking spreadsheet
- Conducting root cause analysis of all Hazard Reports in conjunction with the employee's supervisor
- Developing a corrective action plan (CAP) as a result of the root cause analysis
- Assisting the responsible manager with the implementation of the CAP
- Conducting follow-up of every CAP for effectiveness
- Revising and reviewing the SMS for currency and effectiveness
- Chairing PWM Internal Safety Committee meetings

4.4.3 The **PWM Internal Safety Committee** is an integral part of the SMS. It ensures two-way communication of safety information between the Airport Safety Officer and the airport division managers.

A) Membership of the committee is mandatory for each division manager, as is attendance at the committee meetings. An alternate member from each division must be available to attend meetings in the event of the unavailability of the primary member. The structure of the committee is as follows:

- Airport Safety Officer - Chairperson
  - Alternate - Airport Operations Manager
- Deputy Director, Operations & Maintenance - General Member
  - Alternate - Airport Operations Manager
- Maintenance Manager - General Member
  - Alternate - Airport Maintenance Supervisor
- Airport Maintenance Worker III - General Member
  - Another Maintenance Worker
- Deputy Director, Engineering & Facilities - General Member
  - Alternate - Assistant Airport Engineer
- Facilities Manager - General Member
  - Alternate - Facilities Supervisor
- Facilities Technician - General Member
  - Another Facilities Technician
- Deputy Director of Finance & Administration - General Member
  - Alternate - Principal Administrative Officer
- City of Portland Director of Occupational Health & Safety
  - City of Portland Safety & Training Officer

- There is an open invitation to the Airport Director, the Assistant Airport Director and the City of Portland Risk Manager to attend all meetings.

B) The duties and responsibilities of the committee members are as follows:

- The chairperson will develop agendas and solicit agenda items from the general members, and conduct committee meetings in a formal manner. They will set assignments and deadlines for subcommittees and be actively involved in implementing recommendations received from those subcommittees. The chairperson will also be the main liaison between the committee and senior management, and will hold quarterly meetings with the Accountable Executive to report on the activities of the committee and the SMS in general. Most importantly, the chairperson will promote health and safety by personal example.

- The vice-chairperson will assume leadership of the committee when the chairperson is unavailable for a short period of time, and will assist with the coordination and direction of the committee and subcommittee activities.

- General committee members will be the safety champions for their divisions within the airport. They will lead by example and promote good safety practices among their employees. They must be proud to do things safely and discourage shortcuts or "turning a blind eye" to safety issues.

C) Internal Safety Committee meetings will be held monthly and will cover the following topics:

- Review and acceptance of the previous meetings minutes
- Business arising from the previous minutes and unfinished business from previous meetings
- Review airport log of injuries
- Review employees vehicular or equipment accident reports
- Review complex Hazard Reports which may require the establishment of a subcommittee to conduct root cause analysis and develop an effective corrective action plan
- Status reports from subcommittees
- Review the status of current corrective action plans
- Discuss any upcoming events or activities planned for the airport from a safety aspect (change management assessment required?)
- Discuss safety suggestions and concerns
- Confirm next meeting date and request agenda items for that meeting

D) The agendas and minutes of all meetings will be stored electronically in the PWM Jetport Safety Team Drive, shared via email, and posted on employee Health & safety Boards for all employees to see.

4.4.4 The **Deputy Director, Engineering and Facilities** is responsible for fostering a safety culture within the division. This will be achieved by:

- Ensuring that all major contract work includes a Safety Plan Compliance Document
- Establishing a safety champion for the division
- Ensuring safe practices and policies are adopted and followed within the division
- Ensuring that all Engineering and Facilities employees are adequately trained
- Review draft CAPs and either accept and implement them, or modify them as appropriate prior to implementation.

4.4.5 The **Deputy Director, Operations and Maintenance** is responsible for fostering a safety culture within the division. This will be achieved by:

- Ensuring that all operations, communications and maintenance employees are adequately trained
- Establishing a safety champion in each division
- Ensuring safe practices and policies are adopted and followed
- Quickly and efficiently responding to any safety issues and reporting as necessary
- Review draft CAPs and either accept and implement them, or modify them as appropriate prior to implementation.

4.4.6 The **Deputy Director, Finance and Administration** is responsible for fostering a safety culture within the division. This will be achieved by:

- Establishing policies and procedures to ensure that the on-boarding of all new employees includes safety training and the issue of appropriate PPE
- Tracking individual employee training records
- Ensuring that appropriate safety policies are in place for all administrative employees
- Acting as the safety champion for the division
- Review draft CAPs and either accept and implement them, or modify them as appropriate prior to implementation.

4.5 A major component of the SMS is to ensure the safety of all employees, tenants, passengers and other users of the airport during an emergency situation.

4.5.1 In the event of any emergency occurring on the PWM campus, the Emergency Action Plan will be activated. This is a stand-alone manual.

4.5.2 In the event of an aircraft accident at PWM, the emergency plan will be activated. Refer to the stand-alone manual titled Airport Emergency Plan for appropriate guidance.

4.5.3 PWM Management will pursue a Data Sharing Agreement per 14 CFR 139.401(e) with tenants and stakeholders who are required to maintain an SMS plan. The agreement will establish the terms and conditions under which SMS data will be shared between the tenants and shareholders and the PWM in compliance with FAA regulations and for the mutual benefit of enhancing aviation safety at PWM. The SMS data to be shared may include, but is not limited to:

- Incident/accident reports
- Hazard identification and risk assessments
- Safety performance indicators
- Trend analysis reports
- Corrective actions and mitigations taken
- Safety investigation findings
- Emergency response data
- Near Miss reports
- Safety audits and inspections

This data will be used solely for the purposes of safety improvement and regulatory compliance and shall not be disclosed to any third party without prior written consent from the disclosing Party, unless required by law or FAA regulation.

4.6 SMS Structure

All safety reports will be directed to the Airport Safety Officer who is a direct report to the Accountable Executive.

## Section 5:

# Safety Risk MANAGEMENT

Part 139 Compliance Items:
139.402(b)(1) - Section 5.1 covers this requirement
139.402(b)(2)(i) - Section 5.1 covers this requirement
139.402(b)(2)(ii) - Section 5.1.1 covers this requirement
139.402(b)(2)(iii) - Section 5.1.2 covers this requirement
139.402(b)(2)(iv) - Section 5.1.2 covers this requirement
139.402(b)(2)(v) - Section 5.1.3 covers this requirement
139.402(b)(3)(i) - Section 5.2 covers this requirement
139.402(b)(3)(ii) - Section 5.3 covers this requirement

5.1 Safety Risk Management (SRM) can be broken down into four key components:

- Hazard Identification
- Hazard Analysis and Risk Assessment
- Risk Control
- Follow-up Risk Assessment and Closure

5.1.1 Hazard Identification

The identification of all potential hazards to the airport can be done in several ways:

- Hazard Reports
- Confidential Hazard Reports
- Accident/Incident/Near Miss Reports
- Change Management Analysis

The Hazard Report can be either reactive or predictive. If the hazard already exists and can be identified, it falls into the reactive category. If the hazard is foreseen it is a predictive. Either way, the hazard, or potential hazard, needs to be identified, analysed and controlled. The form is a fillable PDF document which is available to all PWM employees on their Google Drive or on the SMS Portal of the PWM website. However the report is submitted, it will be directed electronically to the Airport Safety Officer.

There is an option to submit a Confidential Hazard Report via the PWM website. Under the EMPLOYEES tab > Additional Resources, there is a link to a Safety Form. This may be submitted confidentially by leaving the identity fields blank.

Another form of hazard reporting is the Accident/Injury/Near Miss Report. This type of report would be submitted on the Hazard Report form and identified as Proactive.

Proactive safety risk management at PWM also includes an effective change management system and an internal evaluation program (IEP). Any planned change to PWM's equipment or facilities, the way we do business or the movement area environment will

be subject to a change management analysis. The Change Management Worksheet, located at Appendix 6 to this Manual, identifies all of the potential hazards associated with the proposed change. The hazards are analysed, and any hazard that presents a risk level of Medium or High will be subject to mitigation down to a level of Low.

5.1.1.2 Internal Evaluation Program (safety audits)

The Airport Safety Officer will conduct monthly internal evaluation program (IEP) audits to assess the overall health and safety culture and compliance status of the organization. Any finding below "Satisfactory" will result in a Hazard Report being generated which will be processed through the SMS. The following tables set out the IEP audit schedule and also identify the months where the Airport Safety Officer presents a report to the Accountable Executive.

**Annual FAA Part 139 Evaluations**

| MONTH | AUDIT SCOPE | AE REVIEW |
|---|---|---|
| JANUARY | Training / Records | Yes |
| FEBRUARY | Reporting Procedures | |
| MARCH | Maintenance | |
| APRIL | Asset Management | Yes |
| MAY | Wildlife Control | |
| JUNE | Operations Center | |
| JULY | Mowing / Weed Control | Yes |
| AUGUST | Engineering & Facilities | |
| SEPTEMBER | Safety Management System | |

| | | |
|---|---|---|
| OCTOBER | Airfield Operations | Yes |
| NOVEMBER | Emergency Action Plan | |
| DECEMBER | Snow Removal | |

**Annual BLS and Other Compliance Evaluations**

| MONTH | AUDIT SCOPE | AE REVIEW |
|---|---|---|
| JANUARY | Lock Out Tag Out | Yes |
| FEBRUARY | PPE | |
| MARCH | Fire Extinguishers | |
| APRIL | Hearing Conservation | Yes |
| MAY | Fork Lift | |
| JUNE | Fall Prevention | |
| JULY | Confined Spaces | Yes |
| AUGUST | Aerial Lift | |
| SEPTEMBER | Parking Lots | |
| OCTOBER | Bloodborne Pathogens | Yes |
| NOVEMBER | Public Road Snow Removal | |
| DECEMBER | Public Area Slip / Fall | |

### 5.1.2 Hazard Analysis and Risk Assessment

When a hazard has been identified by any of the above methods, the first step in assessing the risk associated with that hazard is to conduct a hazard analysis. If the risk is assessed as High, the activity presenting the hazard must be halted until the risk is controlled.

The following assessment tool will be used to identify the severity and likelihood of an unwanted event occurring as a result of the identified hazard.

| **SEVERITY** | |
|---|---|
| Catastrophic | Loss of aircraft, loss of structures, fatalities |
| Major | Damage to aircraft, damage to structures, serious injuries |
| Minor | Slight damage, functional impairment, minor injuries |
| Minimal | Miniscule operating / personnel costs and damages |

| **LIKELIHOOD** | |
|---|---|
| Frequent | Probability of happening weekly |
| Probable | Probability of happening weekly to monthly |
| Remote | Probability of happening annually |
| Improbable | Unlikely to happen |

Assigning the appropriate levels of severity and likelihood will be done by the Airport Safety Officer in most cases. However, for complex Change Management hazard analyses, it will be necessary for an expert panel to be convened via the PWM Internal Safety Committee to assist with this process.

When the severity and likelihood levels have been established, they will be entered into the following risk matrix to determine the level of risk.

| Predictive Risk Index | | LIKELIHOOD | | | |
|---|---|---|---|---|---|
| | | Improbable | Remote | Probable | Frequent |
| SEVERITY | Catastrophic | | | | |
| | Major | | | | |
| | Minor | | | | |
| | Minimal | | | | |

| Risk Index | Description | Required Action |
|---|---|---|
| **Red** | **High Risk** | Unacceptable level of risk. The activity cannot be undertaken until the level of risk is reduced to medium. |
| **Yellow** | **Medium Risk** | Undertake a risk control assessment to reduce the risk to low if possible. If not possible, put in place some alerts for the crew to ensure they are aware. |
| **Green** | **Low Risk** | Acceptable level of risk. No control measures are required. |

In the event that a High Risk activity cannot be controlled or reduced to a Medium or Low Risk, the Accountable Executive must be advised. The activity must be ceased and reviewed with the Accountable Executive. However, under no circumstances, can the activity be continued until the risk is controlled.

### 5.1.3 Risk Control

Typically, one of the following approaches to risk control will be used:

- Avoidance. The activity is suspended because the associated safety risks cannot be controlled, and the Safety Risk Index remains at High.
- Reduction. Some level of safety risk is accepted, although the severity or likelihood associated with the risk are lessened through measures that mitigate the related consequences.
- Segregation. Action is taken to isolate the potential consequences related to the hazard or to establish multiple layers of defenses to protect against them.

Whichever method of risk control is used, there must be consideration of the cost versus benefit, practicality, acceptability, durability, residual safety risks and unintended consequences.

The resultant mitigation strategies may include a number of alternatives such as modifications to existing standard operating procedures, enhanced training programs or improved equipment. Most of these strategies will take time to implement, so there will be a period in which the hazard will need to be carefully monitored during the mitigation process.

Regardless of the approach to risk control, the root cause of the hazard will be determined by using the Causal Analysis and Corrective Action Worksheet (CACAW). The Six Sigma 5 Whys method will be used to determine the root cause of the risk.

When the root cause has been determined, an appropriate mitigation strategy will be developed and a Corrective Action Plan (CAP) will be drafted by the Airport Safety Officer and provided to the appropriate Deputy Director for review and implementation. For CAPs developed to mitigate risks assessed as HIGH, the appropriate Deputy Director should assess and implement the CAP within 24 hours of receipt. For MEDIUM and LOW risk CAPs, the appropriate Deputy Director should assess and implement the CAP within seven days. When the CAP is implemented, the Airport Safety Officer will be advised so that appropriate follow-up can be scheduled.

If the appropriate Deputy Director referenced in the above paragraph cannot meet the required timeframes for assessing and implementing a CAP, the proposed CAP will be directed to the Assistant Airport Director for assessment and implementation.

CAPs arising from complex Change Management analyses will be developed by the expert panel established at the Risk Assessment stage.

CAPs developed by the Airport Safety Officer or the expert panel will be non-punitive in nature. The goal of the CAP is to eliminate, or reduce to an acceptable level, any risk identified by the SMS. Typically, CAPs will include re-engineering the problem to achieve an acceptable level of risk, training and education, or improving policy, process and procedure documents.

5.1.3.1 The airport movement area has twice daily Safety Self-Inspections carried out by Operations, one during daylight hours and one at night. These inspections are documented with all discrepancies recorded. They are designed to identify any safety hazards associated with the airside of the airport. Any unsatisfactory finding on the checklist is corrected by work order. Work orders will be reviewed weekly by the Airport Safety Officer as a data collection tool to identify any safety issues.

5.1.4 Follow-up Risk Assessment and Closure

At an appropriate time after the implementation of the CAP, an assessment will be made to determine its effectiveness. The time will depend on the level of risk associated with the hazard. For Low and Medium level risks a follow-up period of 60 days is appropriate. High risk hazards must be mitigated prior to allowing the activity to continue, so follow-up monitoring will occur from the time the CAP is implemented.

If the follow-up indicates that the risk has been controlled the issue can be closed.

Following the closure of an issue, the submitter of the original report will be advised of the outcome and the changes made as a result of their submission.

If the follow-up indicates that the risk has not been controlled, a new Hazard Report will be generated and processed through the SMS for further causal analysis and a new CAP.

There will be some CAPs that have multiple components, which may include short-term and long-term actions. When the short-term actions are completed and found to be effective in controlling the risk, those components of the CAP will be notated as closed. However, the Hazard Report line in the SMS tracking spreadsheet will not be closed until the long-term component of the CAP has been implemented and found to be effective in controlling the risk.

5.2 Hazard Tracking System

An SMS tracking spreadsheet will be used to monitor the progress of all hazards being processed within the SMS. Google Sheets will be used as the host for the spreadsheet. It will identify and name the hazard, allocate a group code and an SPI code for tracking

purposes. High risk safety performance indicators and low risk safety performance indicators will be identified in the spreadsheet. Target levels and alerts will be monitored within the spreadsheet on a monthly basis.

The spreadsheet will have columns for the date the risk was identified, the date of contact with the submitter, the planned date for the commencement of the causal analysis, the date the CAP is implemented and the planned CAP follow-up date. Each hazard identification form and each CACAW will be hyperlinked to the spreadsheet. If a Work Order was created as part of the CAP, the completed Work Order Report will also be hyperlinked to the spreadsheet.

The Airport Safety Officer will review all newly identified hazards on a daily basis, enter them into the spreadsheet and conduct an initial risk assessment to determine the Risk Index level. If the level is High, the hazard will be prioritized for immediate mitigation.

The Airport Safety Officer will then review all date fields in the spreadsheet to ensure that no target dates have passed.

The spreadsheet will have a new sheet for each calendar year, with a numbering system reflecting the year and the sequential number of the Hazard Report, e.g. 2019-001. This means that previous years' sheets may have Hazard Report lines at CAP IMPLEMENTED status for several years, and ensures that long-term CAPs are not forgotten.

## 5.3 Record Retention

SRM documents will be retained for the longer of Thirty-six consecutive calendar months after the risk analysis of identified hazards under 139.402(b)(2) or twelve consecutive calendar months after the mitigation required under 139.402(b)(2)(v) has been completed.

# Section 6:


Part 139 Compliance Items:
139.402 (C (1) - Section 6.1 covers this requirement
139.402(c (2) - Section 3.3 and 6.1.2.3 cover this requirement
139.402(c (3)(i) - Section 6.2 covers this requirement

6.1 Safety assurance uses several methods to ensure that the SMS is operating as expected and is providing the appropriate level of safety. These methods include:

- Identifying key Safety Performance Indicators (SPIs)
- Setting target levels for the identified key SPIs
- Developing alerts to forewarn of approaching a target level for an SPI
- Conducting monthly Internal Evaluation Program (IEP) audits of critical areas within the airport operation
- Conducting an annual audit of the SMS

6.1.1 Safety Performance Indicators (SPIs)

Key SPIs have been identified and divided into high-consequence SPIs (HCIs) and low-consequence SPIs (LCIs). These are tracked within the SMS tracking spreadsheet. The target levels established for calendar year 2019 are based on occurrence levels per 100,000 aircraft operations for 2018. Alert levels are based on the estimated average occurrences per month for 2018. Future years will be based on actual data collected from the beginning of 2019.

6.1.1.1 The Part 139 HCIs that are most likely to result in a High Risk situation are as follows:

- [ACDNT] A PWM controllable aircraft accident
- [AINCT] A PWM controllable aircraft serious incident
- [VPDIR] A PWM controllable VPD incident report
- [VPDOC] A VPD outside of PWM's control
- [RWYEX] A PWM controllable runway excursion
- [FODIR] A FOD incident report
- [WILDL] A wildlife incident
- [FUELO] A fuel spill over one gallon and / or entering a drain
- [HOTSP] A hotspot incident
- [SNOWR] A snow removal operation incident

- [CONST] A construction operation incident
- [HRNCF] A high risk regulatory non-conformance finding by the FAA

6.1.1.2 The non-Part 139 HCIs most likely to result in a High Risk situation are as follows:

- [LOSTC] BLS reportable injury case
- [LOSTD] BLS reportable lost-time days
- [TRANC] A BLS reportable transfer or restricted duty case
- [TRAND] BLS reportable transfer or restricted duty days
- [HRNCB] A high risk regulatory non-conformance finding by BLS
- [PPPHC] A PWM policy, process or procedure non-conformance

The target level for each of the HCIs is identified in the "Coding" tab of the SMS tracking spreadsheet. An alert occurs when the number of occurrences per 100,000 operations equals three consecutive months of one unit of standard deviation (SD) above the mean, or two consecutive months of two SDs above the mean, or a single occurrence of three SDs above the mean. Whenever an alert level is reached, the Airport Safety Officer must bring this to the attention of the Accountable Executive and call an extraordinary meeting of the Internal Safety Committee to identify the reason for the upward trend in occurrences. This would normally result in a Hazard Report being initiated and processed through the SMS to determine a root cause and develop a corrective action plan.

6.1.1.3 The Part 139 LCIs that have been identified for targets and alerts are as follows:

- [FUELS] A fuel spill less than one gallon not entering a drain
- [SPEVT] A Special Event
- [LRNCF] A low risk regulatory non-conformance finding by the FAA

6.1.1.4 The Non-Part 139 LCIs that have been identified for targets and alerts are as follows:

- [INCDT] An incident
- [LRNCF] A low risk regulatory non-conformance finding by BLS
- [PPPCF] A finding of non-conformance with PWM policy, process or procedure

While these LCIs are unlikely to result in a High Risk, they are considered worth tracking in the same way as HCIs. The same alert levels apply to LCIs, however, there is no need to report them to the Accountable Executive, nor is there a requirement to call an extraordinary meeting of the Internal Safety Committee. The Airport Safety Officer will create a Hazard Report in the event of an alert level being reached, and process it through the SMS in the same way as a HCI alert.

Target levels set at the beginning of each calendar year will generally seek an improvement of 10% over the average occurrence rate of the previous year, unless the occurrence rate is zero, in which case the target will be to maintain zero.

6.1.2 To effectively manage hazards in the workplace, Management needs to know what each and every employee sees as unsafe in the workplace. To achieve this, all employees must be willing to speak up when they are involved in an incident or accident or when they observe something that they consider to be potentially unsafe. EmployeesYou can do this by submitting a Hazard Report to the SMS. Management understands that accidents happen. Employees shallYou will not be disciplined for submitting a Hazard Report, but should an employee have concerns about notifying management of hazards, Hazard Reports may be submitted anonymously.

The strategy for approaching our SMS is as follows:

6.1.2.1 All badge holders at PWM, including employees, stakeholders, tenants, pilots, and airlines will be involved in the SMS.

6.1.2.2 Employee awareness, education and compliance with the SMS will be ensured by initial and yearly recurrent training on the SMS.

6.1.2.3 All employees will endeavor to identify, report and eliminate hazardous conditions, understanding that individuals who report hazardous conditions are confidential and may remain anonymous.

6.1.2.4 All hazardous events reported will be examined to determine a root cause and a corrective action plan will be developed, implemented and reviewed for effectiveness following implementation.

6.1.2.5 All proposed new equipment or changes in the way PWM conducts airport activities will be reviewed by the Airport Safety Officer in conjunction with the appropriate Deputy Director to identify any new risks or hazards as a result of the proposed change.

6.1.2.6 All employees will ensure that all applicable local, state and federal laws are complied with, including all Maine Department of Labor, Bureau of Labor Standards (BLS) requirements applicable to the job being performed.

6.1.3 Internal Evaluation Program (IEP)

The IEP is designed to ensure compliance with external regulatory requirements, identify non-conformance to internal airport policies and procedures and identify opportunities to improve organizational policies, processes and procedures.

The IEP identifies twenty-four key safety areas within airport operations. Each of these areas will be audited against the appropriate standard on a two-yearly cycle. The audit program is identified in Section 5 of this manual. Any audit finding below a level of "Satisfactory" will result in a Hazard Report being generated by the Airport Safety Officer. This will be processed through the SMS to establish a root cause of the failure and to create a corrective action plan.

The standards against which the IEP audits will be conducted include 14 CFR Part 139, the PWM ACM, BLS Regulations, 49 CFR 1542, NFPA Regulations and Industry Best Practice. Only the 14 CFR Part 139 audit elements are subject to regulatory oversight by the FAA.

The audit checklists for each component of the IEP will be created internally by the Airport Safety Officer in conjunction with the responsible airport Deputy Director.

The IEP audit of the Safety Management System will be conducted by a third party contractor or the City of Portland Director of Safety and Health to ensure objectivity.

Any findings identified in the SMS audit will require a review of the SMS Manual to ensure that it remains current, relevant and achieves its goals of improving safety.

6.2 Reporting to the Accountable Executive

The following information will be regularly reported to the Accountable Executive

(i) Compliance with the requirements under this subpart and subpart D of this part;

(ii) Performance of safety objectives established under Safety Policy of this document;

(iii) Safety critical information distributed in accordance with Safety Promotion of this document;

(iv) Status of ongoing mitigations required under the Airport's Safety Risk Management processes as described under Safety Risk Management of this program; and

(v) Status of a certificate holder's schedule for implementing the Airport Safety Management System as described under § 139.403.

## Section 7:

# Safety PROMOTION

| |
|---|
| Part 139 Compliance:<br>139.402(d)(1) - Section 7.1 covers this requirement<br>139.402(d)(2) - Section 7.1.7 covers this requirement<br>139.402(d)(3) - Section 7.1.3 and 7.1.4 covers this requirement<br>139.402(d)(4) - Section 7.1.6 covers this requirement<br>139.402(d)(5)(i) - Section 7.2 covers this requirement<br>139.402(d)(5)(ii) - Section 7.2 covers this requirement<br>139.402(d)(5)(iii) - Section 7.2 covers this requirement<br>139.402(d)(5)(iv) - Section 7.2 covers this requirement<br>139.402(d)(6) - Setion 7.2.1 covers this requirement |

Safety promotion is the fourth component of any Safety Management System. As early as 2009, ACRP defined safety promotion as *A combination of safety culture, training, and information sharing activities that supports the implementation and operation of an SMS in an organization.*

In the same document, safety culture is defined as *The product of individual and group values, attitudes, competencies, and patterns of behavior that determine the commitment to, and the style and proficiency of, the organization's management of safety. Organizations with a positive safety culture are characterized by communications founded on mutual trust, by shared perceptions of the importance of safety, and by confidence in the efficacy of preventive measures*.

In 2013, ICAO published Doc 9859, "Safety Management Manual". The definition of safety promotion contained in that document is as follows:

*Safety promotion encourages a positive safety culture and creates an environment that is conducive to the achievement of the service provider's safety objectives. A positive safety culture is characterized by values, attitudes and behavior that are committed to the organization's safety efforts. This is achieved through the combination of technical competence that is continually enhanced through training and education, effective communications and information sharing. Senior management provides the leadership to promote the safety culture throughout an organization.*

The recurring theme in safety promotion is that it has three components - safety culture, safety training and communication.

Safety culture must become ingrained in all PWM employees, starting from the senior management down. This can only be achieved if all employees fully understand the concepts of safety management and commit to adhering to them. To achieve this, a detailed training syllabus on this manual and the overarching principles of safety management has been developed and is attached at Appendix 8

When the safety culture has been instilled into the organization, open two-way communication must follow. Employees must be willing to report safety issues. Managers must accept the reports and act on them without any intent of retribution against the reporter.

It is important to keep disciplinary action separate from the SMS process. The SMS will not tolerate willful acts of destruction, gross negligence or intentional violations. These issues will continue to be dealt with in the same manner as they would have been prior to the implementation of the SMS. If a Hazard Report is submitted and found to be the result of a willful act of destruction, gross negligence or intentional violation, the SMS process will terminate and the matter will be referred to management for disciplinary action.

## 7.1 Safety Training

Safety training will be provided to all PWM employees during the implementation of the SMS. Under the SMS framework, four types of training will be provided: initial on-boarding training, job-specific safety training, SMS training for managers, and training for SMS staff. The syllabuses for all but the job-specific training are provided at Appendix 8. The job-specific training syllabuses are managed separately and all individual employees' job-specific training requirements are detailed in the spreadsheet titled "Employee Safety Training" on the PWM Safety Office Google Drive. This spreadsheet also serves as a record of completed training and recurrent training due dates. Job-specific training outlines are detailed in the folder on the PWM Safety Office Google Drive.

### 7.1.1 Initial On-boarding Safety Training / Annual Recurrent Training

As part of the on-boarding process for new PWM employees at all levels, SMS training will be provided. Attendance is mandatory and will cover PWM's safety policy and objectives, safety roles and responsibilities, how to report safety issues, familiarization with airport areas, rules and regulations, communication procedures, and general emergency procedures. The training will be coordinated by the Airport Safety Officer, who will conduct the SMS components, and the other components will be conducted by the new employee's supervisor. The planned duration of each training session is 60 minutes. Recurrent training on the same syllabus will occur annually.

### 7.1.2 Job-specific Safety Training

Due to the wide variety of activities carried out at the airport, each division will have specific training requirements to ensure a safe working environment. Many of these requirements will come from OSHA regulations which have been adopted by the Maine Bureau of Labor Standards. Every position at PWM has been associated with the required training and identified in the "Employee Safety Training" spreadsheet on the PWM Safety Office Google Drive. Training outlines, also saved on that Google Drive, provide the minimum content for the training syllabuses. However, some of these training sessions will be provided by a third party, so detailed syllabuses are not published. Some of the training will be conducted on-the-job, and some will be in a classroom setting. The duration of the training will be determined by the instructor. The requirement for recurrent training is detailed on the spreadsheet.

### 7.1.3 SMS Training for Managers

It is essential that the airport management team understands the principles on which the SMS is based. Their training syllabus covers SMS legal implications and the regulatory environment for SMS at airports, SMS roles and responsibilities, procedures for setting policy, the concept of safety performance indicators, safety communication, management commitment to the airport safety policy, the principles of safety risk management, change management, safety culture and promotion, and the concept of continuous improvement of the SMS. investigation and root cause analysis techniques; reviews, inspections and audit techniques; data collection and database management; trend analysis.

The training will be conducted by the Airport Safety Officer and the planned duration for each session is two hours. Recurrent training will be every 12 months.

| Job Title | Required SMS Training |
|---|---|
| Airport Director<br>Assistant Airport Director<br>Deputy Director Operations and Maintenance<br>Airport Operation Manager<br>Airport Maintenance Manager<br>Deputy Director Engineering and Facilities<br>Airport Facilities Manager<br>Airport Engineer<br>Airport Facilities Supervisor<br>Airport Maintenance Supervisors<br>Airport Operations Supervisor<br>Customer Experience Manager | SMS Policy Updates<br>Hazard Assessment and Reporting<br>Incident Investigation<br>Root Cause Analysis |

### 7.1.4 SMS Staff Training

At a minimum, airport staff shall review current SMS concepts; legislative requirements for SMS; safety risk management;

The training will be conducted by the Airport Safety Officer or designee and the planned duration for each session is 1 hour. Recurrent training will be every 12 months.

| Job Title | Required SMS Training |
|---|---|
| Deputy Director Finance and Administration<br>Senior Admin Officer I & II<br>Principal Admin Officer I<br>Customer Experience manager<br>Customer Relations Specialist<br>Airport Operations Coordinators<br>Airport Operations Duty Officer<br>Airport maintenance Workers I & II<br>Airport Airfield Electrician<br>Assistant Airport Engineer<br>Airport IT Manager<br>Facilities Tech Coordinator<br>Facilities Technician<br>Facilities Technician Assistant I & II<br>Master Electrician | SMS Policy Updates<br>Hazard Assessment and reporting |

### 7.1.5 SMS Training for Airport Safety Officer

The Airport Safety Officer must maintain a level of competence in line with current SMS principles. At a minimum, the syllabus of training should include: current SMS concepts; legislative requirements for SMS; safety risk management; investigation and root cause analysis techniques; reviews, inspections and audit techniques; data collection and database management; trend analysis. Recurrent training is required every 12 months.

### 7.1.6 SMS Training Records

Training courses at PWM are presented in person as well as via Computer Based Training (CBT) platforms. In person courses shall be documented with a sign in sheet signed by both attendee and trainer. CBT courses shall be documented with

a digital roster indicating employee name, date of completion, score, and printable certificate of completion when available.

All training records, including attendance sheets, completion certificates and test results will be saved, and a paper copy will also be filed on the master training file and the individual employee's training file, which are held in a secure cabinet in the PWM Safety Office.

#### 7.1.7 SMS Training Materials

Materials will be archived for at least 24 months.

## 7.2 Safety Communication

Communicating safety information is a critical part of safety promotion. PWM uses the following techniques for communication within the SMS environment:

- Confidential Hazard Reports
- Accident/incident/near miss reports
- Feedback to all report submitters when they provide their name
- Sharing of results of all Hazards Reports processed through the SMS with all employees
- Monthly Internal Safety Committee meetings
- Quarterly Safety Newsletters
- Quarterly meeting with the Accountable Executive
- Monthly Best Practices / Station Managers' Meeting
- Weekly Staff Meeting attended by all division managers and the Airport Safety Officer
- PWMSafety@portlandmaine.gov email address to report safety concerns, with a guaranteed response from the Safety Office

#### 7.2.1 Safety Communication Records

Materials will be archived for at least 12 consecutive calendar months.

## 7.3 Safety Culture

With all employees trained and fully aware of their responsibilities within the SMS, and a good two-way system of communicating safety issues and how those issues have been mitigated, we will see an overall safety culture grow out of the SMS. In order for that safety culture to flourish, certain elements need to be present. According to Professor James Reason, a safety researcher from the United Kingdom, a safety culture has five key characteristics: it is informed, reporting, learning, just and flexible.

In an **informed culture**, workers understand the hazards and risks involved in their tasks, which are the inherent dangers of their working environment. They also understand how their work may have an impact on the safety of other tasks and of the airport in general.

Employees continuously monitor operations to identify new or previously unrecognized hazards.

In a **reporting culture**, employees and other stakeholders are encouraged to report safety concerns. They do so without fear of being punished or ridiculed. When safety concerns are reported, they are analyzed, appropriate action is taken, and feedback is always provided.

In a **just culture**, management recognizes that most errors are unintentional and makes an effort to understand and correct the conditions of work that make errors more likely. However, when errors are the result of blatant disregard for rules, malicious intent or gross negligence, punishment is deliberate and fair. For this to work, airport employees must clearly understand what is punishable and what is not.

In a **flexible culture,** employees do not blindly apply procedures. They are capable of identifying the intent of the procedures and understanding the safety envelope. They are therefore able to adapt to changing situations while respecting the safety goals. They are also effective, with appropriate training, in responding to the introduction of new technologies or equipment.

A **learning culture** is one that is characterized by a questioning attitude aimed at continuous improvement. Employees at all levels constantly ask themselves and each other: 'How could we do this better?" All employees are encouraged and empowered to develop and apply their own experience and knowledge to enhance airport safety. Lessons from errors and incidents are identified, shared and learned. This means that lessons identified are analysed and that, when required, risk control actions are taken. It also means that management keeps employees updated on safety issues and risk control actions taken.

A strong safety culture depends on keeping the safety banner visible to all. Members of the Internal Safety Committee need to be champions of the SMS. They need to encourage their colleagues to report any safety concerns, no matter how small. Middle management needs to uphold all the principles of the SMS. Lead by example, and never ask an employee to do something that is unsafe. Always find a safe way to achieve the goal, whatever it is.

# Appendix 1: Definitions, Abbreviations & Acronyms

The following definitions apply to this manual:

*Accountable Executive*: A person designated by the airport to act on its behalf for the implementation and maintenance of the airport's Safety Management System. The accountable executive has sufficient control of the airport's human and financial resources for airport operations

*Aircraft Accident*: An occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight and all such persons have disembarked, and in which any person suffers death or serious injury, or in which the aircraft receives substantial damage, as defined in title 49 CFR 830.2

*Aircraft Serious Incident*: Damage to an aircraft which does not meet the definition of an aircraft accident

Days Away, Restricted, or Transferred rate (DART):A safety metric that measures the number of OSHA Recordable incidents that result in employees missing work or having restricted work activities.

*FOD Incident*: The presence of any foreign object or debris on a movement area which results in damage or potential damage to an aircraft

*Hazard*: A condition that could foreseeably cause or contribute to an aircraft accident as defined in title 49 CFR 830.2, or any other accident, incident or unsafe condition

*Hotspot*: An area identified on the Airport Diagram as having a high risk of a deviation

*Incident*: Minor damage to any equipment or minor injury to any person

*Lost-time Case:* A case required to be reported on the OSHA Form 300A

*Lost-time Days:* Total number of lost-time days reported on OSHA Form 300A

Movement Area: The runways, taxiways, and other areas of an airport that are used for taxiing, takeoff, and landing of aircraft, exclusive of loading ramps and aircraft parking areas, as defined in title 14 CFR 139.5

Risk: The composite of predicted severity and likelihood of the potential effect of a hazard

Runway Incursion: The unauthorized presence of an airplane, vehicle or person on a runway

Runway Excursion: The unintentional departure from the runway by an airplane during taxiing, landing or taking off

Serious Injury: Any injury to a PWM employee, however caused, which requires medical treatment or time off work

Special Event: Any short-term event within the airport that is outside of normal operations, including "JetEx", charity events and similar activities. These events will be planned by, and have the approval of, PWM.

Total Recordable Incident Rate (TRIR): A safety metric that measures the number of OSHA Recordable injuries and illnesses per 100 full-time employees in a year.

*Transfer or Restricted Case:* A case resulting in a job transfer or restricted duties, and reported on OSHA Form 300A

*Transfer or Restricted Days:* Total number of days of job transfer or restricted duties, and reported on OSHA Form 300A

*VPD*: The unauthorized presence of a vehicle or pedestrian on any movement area

*Wildlife Incident*: A collision between an aircraft and any form of wildlife

The following abbreviations and acronyms are used in this manual:

AC: Advisory Circular

ACM: Airport Certification Manual

ACRP: Airport Cooperative Research Program

BLS: Maine Department of Labor, Bureau of Labor Standards

FBO: Fixed-base Operator

FOD: Foreign Object Damage or Foreign Object Debris

GIS: Geographical Information Systems

ICAO: International Civil Aviation Organization

SMS: Safety Management System

# Appendix 2: Health and Safety Policy Statement

Portland International Jetport

*You're on your way.*

## Portland International Jetport Safety and Health Policy

The safety and health of our employees is the Portland International Jetport's (PWM) most important business consideration. No employee will be required to do a job that they consider unsafe. PWM will comply with all applicable Maine Bureau of Labor Standards (BLS) workplace safety and health requirements. PWM is committed to developing occupational safety and health standards that equal or exceed the best practices in the industry.

PWM has established a safety committee, consisting of management and labor representatives, whose responsibility will be identifying hazards and unsafe work practices, removing obstacles to accident prevention, and helping evaluate the company's effort to achieve an accident-and-injury-free workplace.

**PWM pledges to do the following:**

- Strive to achieve the goal of zero accidents and injuries.
- Provide administrative, mechanical and physical safeguards wherever they are necessary.
- Conduct routine safety and health inspections to find and eliminate unsafe working conditions, control health hazards, and comply with all applicable BLS safety and health requirements.
- Train all employees in safe work practices and procedures.
- Provide employees with necessary personal protective equipment and train them to use and care for it properly.
- Enforce Jetport safety and health rules and require employees and contractors to follow the rules as a condition of employment.
- Investigate accidents to determine the cause and prevent similar accidents.

**Managers, supervisors, and all other employees share responsibility for a safe and healthful workplace.**

- Management is accountable for preventing workplace injuries and illnesses. Management will consider all employee suggestions for achieving a safer, healthier workplace. Management also will keep informed about workplace safety-and-health hazards and regularly review the Jetport's safety and health program.
- Management will assure that contractors working on behalf of the Jetport will affirm to commit to this safety culture.
- Supervisors are responsible for supervising and training workers in safe work practices.
- Supervisors must enforce company rules and ensure that employees follow safe practices during their work.
- Employees are expected to participate in safety and health program activities including, immediately reporting hazards, unsafe work practices, and accidents to supervisors or a

safety committee representative, wearing required personal protective equipment, and, participating in and supporting safety committee activities.

- All employees are expected to follow safety procedures outlined for the work they have been trained to perform.
- Every employee is empowered "TO STOP" team members and tenants if they are not following safe practices.

Airport Director: _____ Date: 11/29/2018

# Appendix 3: Letter of Commitment from the Accountable Executive

Portland International Jetport

You're on your way.

Paul H. Bradbury, P.E.
*Airport Director*

Zachary R. Sundquist, A.A.E.
*Assistant Airport Director*

June 28, 2019

Dear Jetport Team Members,

The Portland International Jetport has chosen to implement a Safety Management System (SMS). There is no regulatory requirement for us to do so. This decision stems from our desire to create a safe environment for our employees, our tenants, the passengers who use our airport, and the aviation community. The SMS is a best practice that will provide continuous improvement of our safety policies and procedures. As Airport Director, I will assume the role of Accountable Executive for the SMS. This means that I wholeheartedly support the policies laid out in our Safety Management Manual. It also means that I undertake to provide the necessary resources, both financial and personnel, to ensure the success of the SMS.

We have a just-culture SMS, which means we will not punish individuals acting on behalf of the organization for actions, omissions or decisions taken which are commensurate with their experience and training. However, this does not mean that we will tolerate actions based on gross negligence, intentional violations or destructive acts.

We have a non-retribution policy. This means that we do not punish individuals who report hazards, incidents or concerns. Individuals should be comfortable to, and expected to, report all safety concerns, whether observed directly or foreseen indirectly.

Our core values of safety, service, teamwork and trust go hand-in-hand with our SMS objectives. An organization wide trust in the SMS will lead to each of us working together to create a safer environment, without fear of retribution. This can only lead to a higher level of service for our customers.

As our SMS matures over the coming years we will look for ways to continually improve our safety performance, and we will at all times comply with local, state and federal legislative and regulatory requirements.

I now ask for your full commitment to making safety our number one priority.

Sincerely,

Paul Bradbury
Airport Director

1001 Westbrook Street • Portland, ME 04102 • Tel: (207) 874-8877 • Fax: (207) 774-7240 • www.portlandjetport.org
*Owned by the City of Portland*

# Appendix 4: Safety Objectives

PWMs' high-level safety objective is have an SMS that accomplishes the following:

- identifies safety hazards;
- ensures the implementation of the corrective action plans necessary to maintain our agreed safety performance targets;
- provides for continuous monitoring and regular assessment of safety performance; and
- aims for continuous improvement of the overall performance of the SMS.

The high-consequence safety performance indicators (HCIs) identified in the SMS are listed below. They will be monitored to ensure that we reach our target occurrence levels, and alerts will be generated if a trend indicates that we are approaching an exceedance of our target level. These HCIs are our safety objectives for the calendar year . Table 1 represents the Part 139 HCIs which are regulated by the FAA. Table 2 represents all other HCIs, not regulated by the FAA.

We have chosen a group of peer airports for comparison purposes for some of our targets. Some of these targets PWM does not have direct control over and include events such as an aircraft accident caused by a mechanical issue with the airplane, or a VPD resulting from a traffic accident which resulted in a vehicle penetrating a boundary fence. There is little that PWM can do to prevent such incidents. However, if we see that we are well above the peer airport average, we will conduct an investigation to see if there is anything we can do to reduce the occurrence rate. The airports in the peer group are as follows.

Regional Peers

BOS, BGR, MHT, PVD, BDL, BTV.

National Peers

SYR, MYR, GRR, SAV, MSN, DAY, COS.

The peer airport data will look back over the previous five years for each of these airports to establish the average number of events per 100,000 operations. If PWM's number of incidents is above the peer group average, the Airport Safety Officer will conduct a review of the incidents to ascertain if we can improve our procedures to reduce the number of events.

The data will be drawn from the FAA ATADS and ASIAS sites, and will be updated annually as soon as the data is available.

Where the target level in the tables below is represented by a hard number, that target has been based upon previous years' events with a plan to improve our performance over time.

**Table 1**

| **Part 139 HCIs** | **Target Level** | **Goals** |
|---|---|---|
| PWM Controllable Aircraft Accident | Zero | Maintain zero |
| PWM Controllable Aircraft Serious Incident | Zero | Maintain zero |
| PWM Staff Controllable VPD | Zero | PWM to conduct driver training audit for all companies on the airport by 3/31/2019 |
| VPD Outside the Control of PWM | Zero | Monitor VPDs at selected peer airports and take appropriate action to ensure we meet our target |
| PWM Controllable Runway Excursions | Zero | Monitor runway excursions at selected peer airports and take appropriate action to ensure we meet our target |
| FOD Incident Report | Zero | Maintain zero |
| Wildlife Incident | Bird Strike; 1<br>Update to 2024 Numbers | Maintain hazing and check pond regularly |
| Fuel Spills over one Gallon and/or Entering Drains | 18 YTD 2024<br>Update to 2024 Numbers | FBOs to review their fuel procedures and spill policies and carry drain blockers |
| Hotspot Incident | Zero | Maintain zero |
| Snow Removal Incident | Zero | Maintain zero |
| Construction Operation Incident | Zero | Maintain zero |
| Regulatory Non-conformance by FAA | Zero | Establish an internal evaluation program with monthly audits to ensure compliance |

**Table 2**

| **Non-Part 139 HCIs** | **Target Level for** | **Goals** |
|---|---|---|
| OSHA Recordable Cases (Lost-time, Transfer or Restricted, Medical Treatment) | 1 | Put in place a more rigorous accident investigation program which includes root cause analysis and corrective action plans.<br><br>Improved Case Management |
| OSHA Total Recordable Incident Rate (TRIR) | < 2.0 | Put in place a more rigorous accident investigation program which includes root cause analysis and corrective action plan<br><br>Improved Case Management |
| OSHA Days Away, Restricted or Transfer Incident Rate (DART) | < 1.0 | Put in place a more rigorous accident investigation program which includes root cause analysis and corrective action plan<br><br>Improved Case Management |
| Lost-time Days | < 10<br>(10% less than preceding 3yr average) | Put in place a more rigorous accident investigation program which includes root cause analysis and corrective action plans.<br><br>Improve Case Management and Return To Work policy |
| Transfer or Restriction Days | < 70<br>(10% less than preceding 3yr average) | Put in place a more rigorous accident investigation program which includes root cause analysis and corrective action plans.<br><br>Improve Case Management and Return To Work policy |
| Regulatory Non-conformance | Zero | Obtain SHAPE accreditation |

| | | |
|---|---|---|
| by Maine BLS | | by 12/31/2025 |
| PWM Policy Non-conformance finding | Zero | Establish an internal evaluation program with monthly audits to ensure compliance |

**Table 3**

| **Part 139 LCIs** | **Target Level** | **Goals** |
|---|---|---|
| Fuel Spill greater than one Gallon and not Entering a Drain | Zero | FBOs to review their fuel procedures and spill policies and carry drain blockers |
| Special Events Incidents | Zero | Maintain zero |
| Low Risk regulatory Non-conformance by FAA | Zero | Establish an internal evaluation program with monthly audits to ensure compliance |

**Table 4**

| **Non-Part 139 LCIs** | **Target Level** | **Goals** |
|---|---|---|
| Incident | Zero | Maintain Zero |
| Low Risk Regulatory Non-conformance by BLS | Zero | Obtain SHAPE accreditation by 12/31/2025 |
| Low Risk Finding of Non-conformance with a PWM Policy, Process or Procedure | Zero | Establish an internal evaluation program with monthly audits to ensure compliance |

# Appendix 5: Hazard Report Form

Portland International Jetport

## HAZARD REPORT

TO BE COMPLETED BY THE RISK OBSERVER

| DATE / TIME OF RISK | TYPE OF REPORT | LOCATION OF RISK |
|---|---|---|
| | ☐ REACTIVE ☐ PROACTIVE ☐ PREDICTIVE | |

IS THE HAZARD ASSOCIATED WITH A PART 139 DISCREPANCY? ☐ YES ☐ NO

IDENTIFY AND DESCRIBE THE HAZARD

WAS THIS REPORT GENERATED AS A RESULT OF FATIGUE RISK?

☐ YES (INCLUDE 3-DAY SLEEP HISTORY AND INDICATE (1-9) THE MEASURE OF FATIGUE IMPARIRMENT[1])

☐ NO

OBSERVER PROPOSED CORRECTIVE ACTION

| NAME OF INDIVIDUAL WHO RECEIVED REPORT | DATE REPORT FILED | REPORT NUMBER | RISK MATRIX SCORE |
|---|---|---|---|
| | | | |

[1] FATIGUE IMPAIRMENT SCALE:

1 EXTREMELY ALERT : 3 ALERT : 5, NEITHER SLEEPY OR ALERT : 7 SLEEPY, BUT NO DIFFICULTY REMAINING AWAKE

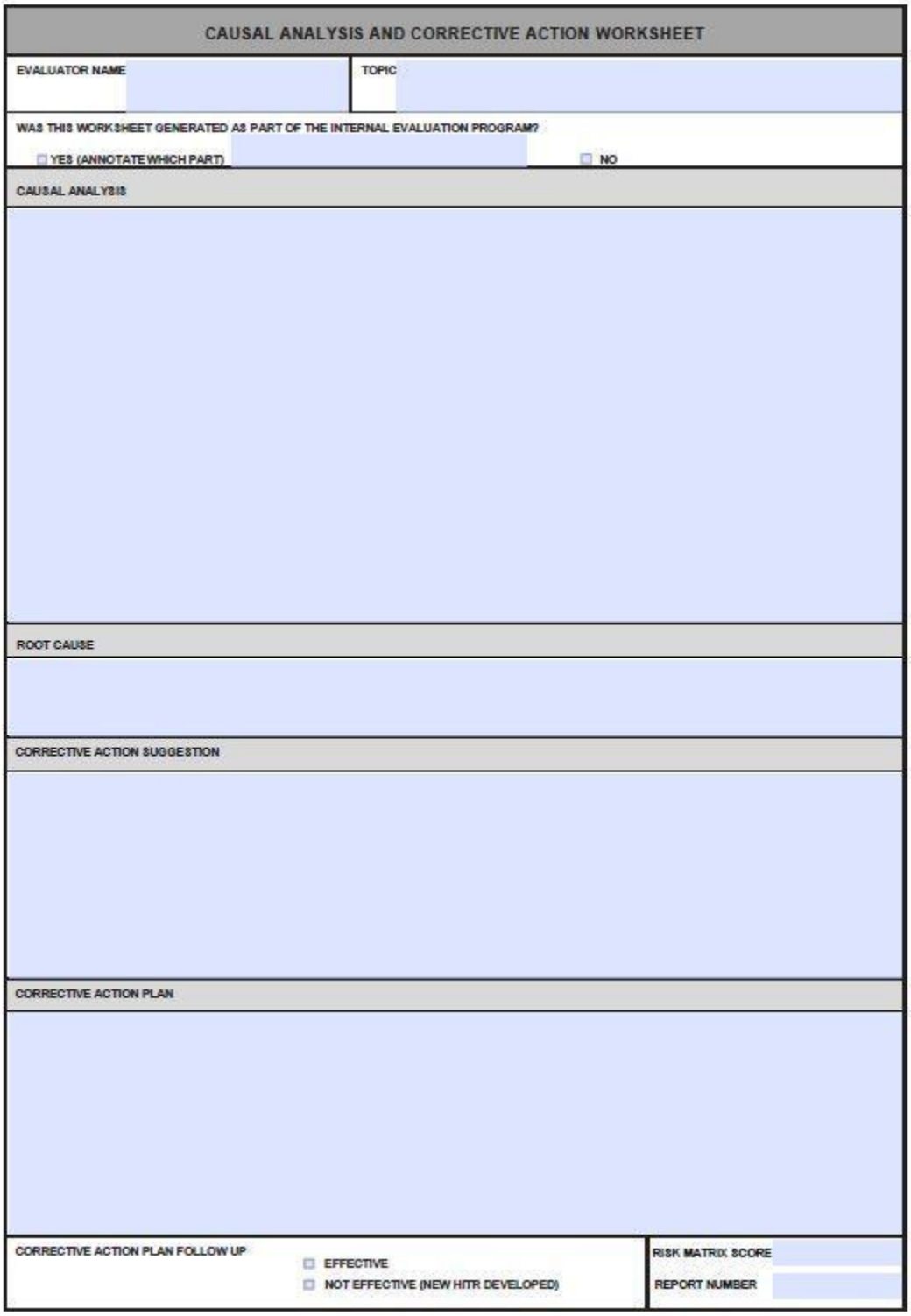
9 EXTREMELY SLEEPY, FIGHTING FATIGUE.

# Appendix 6: Change Management Worksheet


## CHANGE MANAGEMENT ANALYSIS WORKSHEET / [insert change]

| ASSESSMENT DATE | | | | ASSESSOR NAME | |
|---|---|---|---|---|---|
| UPDATE | | | | REASON | |
| RISK EXPOSURE | LOW | MED | HIGH | REMARK | MITIGATION |
| | | | | | |
| LIKELIHOOD | LOW | MED | HIGH | REMARK | MITIGATION |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| SEVERITY | LOW | MED | HIGH | REMARK | MITIGATION |
| | | | | | |
| | | | | | |
| | | | | | |

# Appendix 7: Causal Analysis and Corrective Action Worksheet



**CAUSAL ANALYSIS AND CORRECTIVE ACTION WORKSHEET**

| EVALUATOR NAME | TOPIC |
|---|---|
| | |

WAS THIS WORKSHEET GENERATED AS PART OF THE INTERNAL EVALUATION PROGRAM?

☐ YES (ANNOTATE WHICH PART) ☐ NO

**CAUSAL ANALYSIS**

**ROOT CAUSE**

**CORRECTIVE ACTION SUGGESTION**

**CORRECTIVE ACTION PLAN**

| CORRECTIVE ACTION PLAN FOLLOW UP | RISK MATRIX SCORE |
|---|---|
| ☐ EFFECTIVE<br>☐ NOT EFFECTIVE (NEW HITR DEVELOPED) | REPORT NUMBER |

# Appendix 8: SMS Training Syllabuses

SMS Syllabus - Initial On-boarding and Recurrent - All PWM Employees

1. Overview of SMS - The four pillars
    - 1.1. Safety Policy & Objectives
        - 1.1.1. Safety is highest priority / zero levels of preventable accidents
        - 1.1.2. AE Letter
        - 1.1.3. Responsibilities / Safety Committee
    - 1.2. Safety Risk Management
        - 1.2.1. Hazard Identification
        - 1.2.2. Hazard Analysis & Risk Assessment
        - 1.2.3. Risk Control
        - 1.2.4. Follow-up & Closure
        - 1.2.5. Feedback
    - 1.3. Safety Assurance
        - 1.3.1. Safety Performance Indicators
        - 1.3.2. Internal Evaluation Program Audits
        - 1.3.3. SMS Annual Audit
    - 1.4. Safety Promotion
        - 1.4.1. Training
        - 1.4.2. Communication
        - 1.4.3. Safety Culture
2. We need everybody on board!
3. How to identify and report a hazard
    - 3.1. Hazard Report
        - 3.1.1. Where to find it and how to file it
    - 3.2. Confidential Hazard Reports
        - 3.2.1. Where to find it and how to file it
    - 3.3. Accident/Incident/Near Miss Reports
        - 3.3.1. Where to find it and how to file it
    - 3.4. Change Management Analysis
4. What happens next?
    - 4.1. Acknowledgement
    - 4.2. Risk assessment via the Predictive Risk Index
    - 4.3. Prioritize the hazard
    - 4.4. Interview and investigation
    - 4.5. Root cause
    - 4.6. Corrective action plan
        - 4.6.1. Implementation / follow-up / closure
        - 4.6.2. Feedback to all

5. Safety Assurance
    5.1. Checks to ensure SMS is working
6. Safety Promotion
    6.1. Training for all
    6.2. Communication in both directions
    6.3. Safety Culture
        6.3.1. A non-punitive environment aimed at improving safety where everyone feels at ease submitting a hazard report / two-way communication channels to keep management and employees in the loop / management and employees trained and aware of the SMS process

SMS not required by FAA
ICAO recommends that the FAA applies SMS to all, currently just 14 CFR Part 121
Benefits - a safer workplace / better productivity / financial benefits
PWM's SMS includes OSHA aspects

<u>SMS Syllabus - SMS Training for Managers</u>

1. The syllabus for managers includes the Initial On-boarding and Recurrent - All PWM Employees syllabus with the additional components.
2. The SMS needs top level support - personnel and financial
3. Safety culture is very much follow-the-leader. It must be demonstrated at the highest levels.
4. The Accountable Executive (AE)
    4.1. The AE holds the ultimate responsibility for the SMS
    4.2. Provides / ensures appropriate resources for the implementation and maintenance
    4.3. Instills safety as a core value
    4.4. May be asked to make the final decision on accepting a certain level of risk
        4.4.1. Legal accountability / liabilities
            4.4.1.1. Governmental immunity statutes as a level of protection from tort actions resulting from AE decisions

5. Deputy Directors

5.1. The three Deputy Directors will be responsible for reviewing CACAWs and agreeing to, or developing, CAPs. They will then be responsible for implementing the CAPs. Response times are important for HIGH RISK HRs to ensure the risk is mitigated before exposure.