



**Federal Aviation
Administration**

Great Lakes Region
Airports Division

2300 East Devon Avenue
Des Plaines, IL 60018

April 16, 2025

Mr. Torrance Richardson
Gerald R. Ford International Airport
5500 44th Street SE
Grand Rapids, MI 49512

Mr. Richardson,

Revision to Airport Certification Manual – Incorporation of Safety Management System (SMS) Manual

We have reviewed the attached SMS Manual submitted to our office dated April 16, 2025, and accept it for incorporation into the GRR Airport Certification Manual (ACM). Under 14 CFR 139.401(g), you are required to provide any changes to your SMS Manual to the FAA at least annually, or upon FAA request. Please distribute the SMS Manual as required, and record this revision in the ACM revision log, as appropriate. Each existing ACM should be updated in accordance with this revision.

Sincerely,

**NADER A
KHARAZI**

Digitally signed by
NADER A KHARAZI
Date: 2025.04.16
14:22:06 -05'00'

Nader Kharazi
Airport Certification Safety Inspector



Safety Management System Manual

Table of Contents

Record of Revisions	4
Section 1: Introduction	5
1.1 Safety Management System Defined	5
1.2 Purpose.....	5
1.3 Applicability	5
1.4 Scope.....	5
Section 2: Safety Policy	8
2.1 Accountable Executive	8
2.2 Safety Policy Statement	8
2.3 Safety Organizational Chart.....	9
2.4 Management Responsibilities and Accountability for Safety Issues	10
Accountable Executive	10
SMS Coordinator	11
Safety Review Committee	11
SRC Membership.....	12
2.5 Safety Objectives	12
Section 3: Safety Risk Management	13
3.1 Hazard Identification	13
3.2 SRM Process.....	14
Step 1: Describe the System	15
Step 2: Identify Hazards.....	15
Step 3: Analyze Risk.....	16
Step 4: Assessing Risk.....	19
Step 5: Mitigating Risk	20
3.3 Means for Ensuring Mitigations are Effective.....	21
3.4 Documentation and Record Retention	22
Section 4: Safety Assurance	23
4.1 Safety Performance Monitoring	24
4.2 Confidential Hazard Reporting System	24
4.3 Reporting Safety Information	25
Section 5: Safety Promotion	26
5.1 Safety Culture	26
5.2 Safety Training	26
5.3 Communication	27

Safety Management System Manual

List of Tables & Figures

Table 1: Severity Safety Matrix	17
Table 2: Likelihood Safety Matrix.....	18
Table 3: Predictive Risk Matrix.....	19
Table 4: Acceptable and Unacceptable Levels of Risk	20
Appendix 1: Definitions and Acronyms	29
Appendix 2: Safety Policy Statement	32
Appendix 3: Safety Objectives	33
Appendix 4: Cityworks Reporting Portal and QR code	34
Appendix 5: Safety Risk Assessment (SRA) Form	36

Record of Revisions

[illegible]

Section 1: Introduction

1.1 Airport Safety Management Systems (SMS) Defined

A Safety Management System (SMS) is a systematic approach to managing safety, including all necessary organizational structures, accountabilities, statements, processes, and procedures. SMS provides airport management with a set of tools to make safety-related decisions. SMS also helps airport management identify safety risks associated with airport operations, airport development, other changes, and to proactively address those issues before they result in accidents, incidents, injuries, or damages. It materializes through a series of complementary processes and procedures, which are closely coordinated by a well-defined safety organizational structure. The safety roles and responsibilities of everyone, including top management, should be clearly defined. Furthermore, safety objectives and data analysis will facilitate a continually improving safety environment throughout the airport. This SMS for the Gerald R. Ford International Airport Authority (*GFIAA*) closely follows the FAA direction provided in Advisory Circular 150/5200-37 (current edition).

1.2 Purpose

This SMS manual lays out a systematic approach to develop safety policies, procedures, and practices that will achieve the SMS objectives.

1.3 Applicability

This SMS applies to airport personnel for the sake of enforcing the SMS. Participants at the airport are encouraged to submit hazard reports or comments to the appropriate personnel as described in **Section 2.4** of this document. All Part 139 processes and procedures as described in the Airport Certification Manual (ACM) are included in this SMS by reference and in total.

All individuals with access to the Movement and Non-Movement areas of the airport must follow the policies and procedures identified in this manual. Every individual with access has a responsibility for safety. All tenants and stakeholders will ensure that employees with access to the areas identified in **Section 1.4** receive proper training or awareness of their roles and responsibilities under the airport's SMS.

1.4 Scope

The SMS manual supports the formal *GFIAA* SMS, including processes and procedures to manage and continuously update and refresh documents, software, references, and all other relevant SMS resources. The SMS manual is available to applicable employees supporting the

Safety Management System Manual

GFIAA SMS. GFIAA commits to publishing revisions to this SMS manual as necessary to ensure the content remains current and meets the needs of the SMS. Changes or modifications to the manual or related documents will be managed by the SMS Coordinator, or designee.

An integrated application of the recommended elements prescribed by Federal Aviation Administration (FAA) and International Civil Aviation Organization (ICAO) will increase an airport's resistance to unsafe acts and conditions. However, even with effective safety management processes, there are no guarantees that all accidents can be prevented.

There are many processes and procedures in place that are not described in the Airport Certification Manual (ACM), including but not limited to:

- Safety Risk Management (SRM) process and procedures
- Regularly scheduled Health and Safety Committee meetings
- Random Condition Inspections by Safety Management System Coordinator
- Non-punitive reporting system
- Airport badge holder SMS training
- Safety communication bulletins
- Safety promotion at airport stakeholder meetings
- FAA-Led Runway Safety Action Team (RSAT) meetings

For the sake of this manual the airport will be divided into 2 sections:

- Movement Area
- Non-Movement Area-Aprons/ Concourse/Service Roads

In **Figure 1**, the **Movement Area** includes all taxiways and runways as depicted in pink. The **Non-Movement Area** includes all aprons and the perimeter road within the Aircraft Operating Area (AOA), depicted in orange.



Figure 1: Movement and Non-Movement Areas

Safety Management System Manual

The SMS Program is structured around four components:

- Safety Policy
- Safety Risk Management
- Safety Assurance
- Safety Promotion

Section 2: Safety Policy

2.1 Accountable Executive

The Accountable Executive will be a single, identifiable employee of the airport who will assume full responsibility for the airport's ongoing compliance with SMS guidance established in AC 150/5200-37 (current edition). It is imperative that the correct person is identified as the Accountable Executive, and that individual understands and accepts the roles and responsibilities associated with that position.

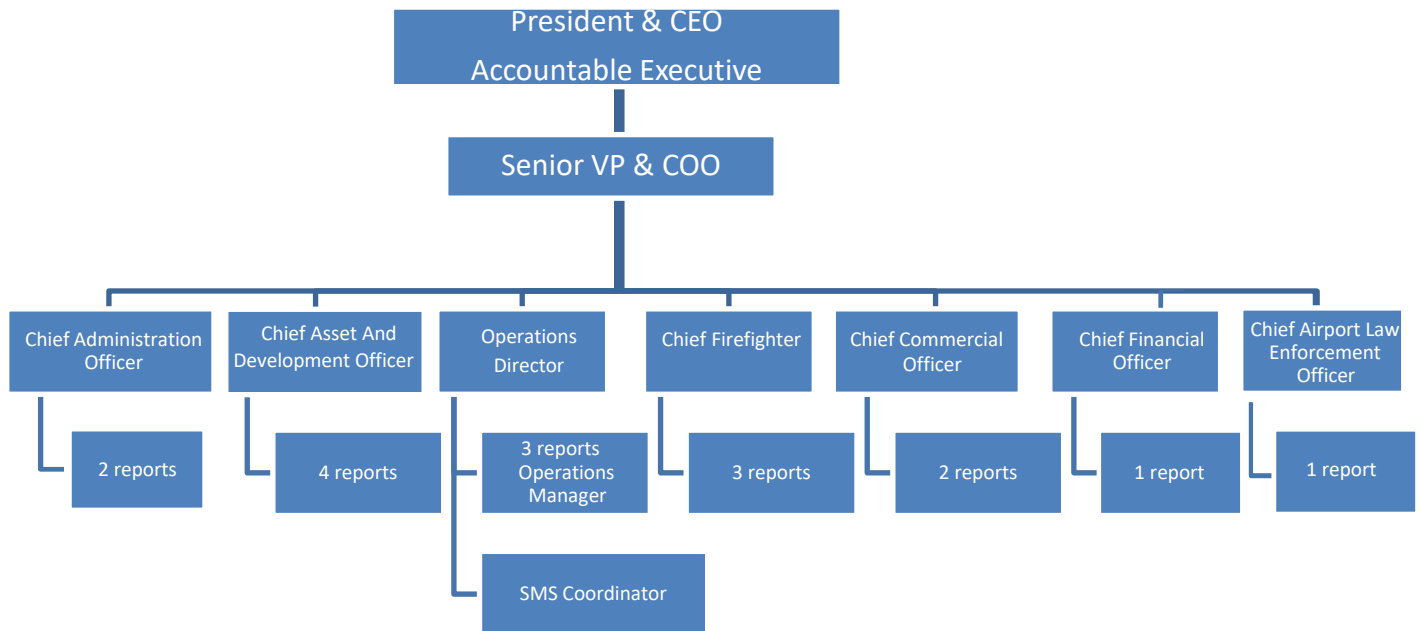
The President and CEO is the Accountable Executive for the *GFIAA* SMS. The *GFIAA* Operations Department has a designated SMS Coordinator.

2.2 Safety Policy Statement

The Gerald R. Ford International Airport Authority (GFIAA) safety policy statement can be referenced in **Appendix 2**.

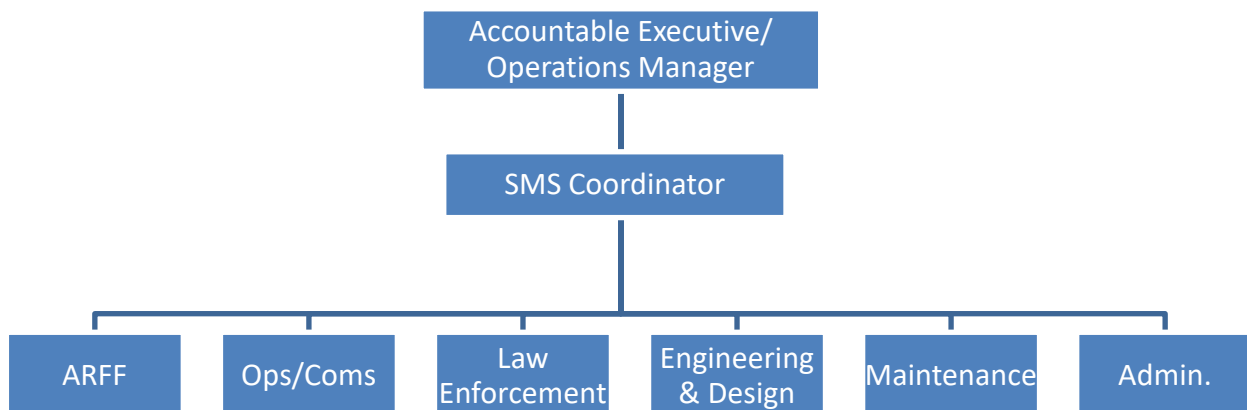
Safety Management System Manual

2.3 Safety Organizational Structure for Leadership



*Note: The names/titles within the airport are subject to change.

Safety Review Committee Structure



2.4 Management Responsibilities and Accountability for Safety Issues

All badged airport employees and tenants have a shared responsibility to ensure the safety of personnel and airport resources. These responsibilities include activities such as the safety of their immediate work environment, reporting safety hazards and safety concerns as quickly as possible, complying with safety regulations and policies, and other activities that support the SMS. All airport employees are highly encouraged to become active participants in airport safety. Additionally, key airport personnel have specific responsibilities, which are discussed in this section.

Accountable Executive

The *GFIAA* appoints an Accountable Executive to administer the affairs of the airport's SMS. The Accountable Executive is responsible to the *GFIAA* for the application of their policies including issues relating to safety and the prudent use of fiscal resources authorized in the annual budget. This ensures that the day-to-day operation of the airport and its assets are safe.

The Accountable Executive is responsible for the following activities to support the airport's SMS:

- Provide and allocate human, technical, financial, or other resources necessary for the effective and efficient performance of SMS
- Establishment and promotion of the safety policy
- Act as one of the organization's safety champions
- Have final responsibility for the resolution of all safety issues
- In conjunction with the Operations Manager appoint the SMS Coordinator

Operations Manager

The Operations Manager assists in the administration of the affairs for the airport's SMS program. The Operations Manager oversees the application of the airport's policies including issues relating to safety. The Operations Manager works closely with the SMS Coordinator to review and determine risks and hazards affecting the airport.

The Operations Manager is responsible for the following activities to support the airport's SMS:

- Act as one of the organization's safety champions
- Establishment of the organization's safety objectives alongside the SMS Coordinator
- Updating the Airport Certification Manual (ACM) for any SMS related changes
- Ensuring that all stakeholders are aware of and held accountable for their roles and responsibilities under the SMS

Safety Management System Manual

- Ensuring ongoing effectiveness of the SMS by facilitating, participating, or reviewing periodic evaluations with the SMS Coordinator.

SMS Coordinator

The Accountable Executive appoints the SMS Coordinator. The SMS Coordinator shall be under the supervision of the Operations Manager. Periodic review of management's responsibilities and accountabilities will be organized by the SMS Coordinator.

The SMS Coordinator is responsible for the following safety-related activities to support the SMS:

- Addressing all airport safety-related concerns
- Oversight of the SMS program
- Maintaining the currency and accuracy of SMS documents
- Promoting the SMS
- Internal safety audits
- Training activities outlined in the SMS Manual and ACM
- Facilitates SRM procedures when needed as described in **Section 3.2** of the SMS manual
- Completing random airport inspections
- Oversight of the Driver Training Program for airfield drivers
- Maintain records that identify SMS safety awareness orientation training and specialized SMS training programs
- Establish and maintain the organization's competence to learn from the analysis of data collected through its safety reporting system.

Safety Review Committee

The SMS Safety Review Committee (SRC) will hold monthly meetings at the airport. The SRC will be made up of the members listed below.

The SRC is responsible for the following activities to support the SMS:

- Addressing safety and operational concerns for the airport
- Reviewing airport related hazard reports
- Making recommendations to the Operations Manager and Accountable Executive for improvement to airport safety policies.
- Voice concerns or questionable situations for review
- Assisting the SMS Coordinator in SRM and safety training and promotion

SRC Membership

A representative from each of the following departments will be responsible for assisting the SMS Coordinator and will serve on the SRC:

- Aircraft Rescue Fire Fighting (ARFF)
- Operations
- Law Enforcement (LEO)
- Engineering & Design
- Maintenance
 - Facilities
 - Airfield
- Dispatch/Communications
- Administration

2.5 Safety Objectives

Establishing safety objectives is an integral aspect of a SMS. The purpose of safety objectives is to set a desirable outcome that is related to safety. Safety objectives should be connected to the Safety Assurance process. To make this connection, objectives should consist of the following qualities: specific, measurable, achievable, relevant, and time based. The Accountable Executive, or designee is responsible for setting the objectives for the SMS while the SMS Coordinator is responsible for meeting them. Safety objectives and goals shall be communicated to all employees during initial and recurrent badge holder training.

Refer to **Appendix 3** for the organization's safety objectives.

Section 3: Safety Risk Management

Safety Risk Management (SRM) provides management with a tool for identifying hazards, classifying their risk, and prioritizing their resolution. The SRM process is unique to the operations at the airport and organizational structure. *GFIAA* must continue to develop processes and procedures for hazard identification and analysis appropriate to the airport's operating environment (AC 150/5200-37, current edition). SRM is a core process behind SMS. It is through SRM that the *GFIAA* will be able to determine and classify risks to develop appropriate mitigation strategies. In addition to that, it is the responsibility of all badged airport employees and tenants to report hazardous conditions, accidents, incidents, or unsafe actions. If hazards are not reported, they cannot be mitigated or corrected. All personnel of the *GFIAA* team are integral to a successful SMS program.

The SRM process ensures the following:

- Hazards and other safety issues are identified and documented
- Risk is analyzed, assessed, and classified
- Associated hazards are mitigated and monitored
- Corrective actions are taken
- The effectiveness of risk mitigation strategies is monitored and assessed
- There is continuous progress toward improving safety

3.1 Hazard Identification

Effective hazard identification is essential to an effective SMS. The information collected during hazard identification processes enables analysis of airport operations to improve safety. The Safety Review Committee (SRC) will review information from a variety of sources and their departments to identify hazards. The committee representatives are champions for safety and a voice from their coworkers on what issues they face. The SMS Coordinator is responsible for the collection of hazard data and works with the SRC when further action under the *GFIAA*'s SRM processes are required.

Sources used to identify and communicate hazards at the airport include, but are not limited to, the following methods:

- Confidential Hazard Reporting System
- Part 139 Self-Inspection Program
- Maintenance Logs

Safety Management System Manual

- Categories of reporting found in CityWorks portal to include environmental, behavioral, near miss, and hazard
- Monthly SRC Meeting
- Tenant Meetings
- Local Air Traffic Control-Runway Safety Action Team (RSAT)
- Government Reports
- SRC reviews of existing safety programs
- SRC reviews of airport and industry trends

The SRC should review monthly the information received from, but not limited to, the previously listed sources. The purpose of the review is to identify the potential impact of hazards on airport operations or safety of employees and other airport stakeholders. Hazards will be reviewed by the SRC to identify safety-related trends at the airport.

3.2 SRM Process

Hazards identified in this process should be assessed using the SRM process to determine the most effective method to reduce or mitigate the risk.

The SRM process will be conducted under the following circumstances:

- New System Implementation (e.g. Obtain new snow equipment)
- Existing System Alterations (e.g. changes to ALP)
- Developing Operational Procedures
- Identifying Hazards and Ineffective Procedures

The SRC will utilize this 5-step SRM process:

1. Describing the System
2. Identify Hazards
3. Analyzing Risk
4. Assessing Risk
5. Mitigating Risk

The SRM process may be conducted by the SRC at the monthly meetings when reported hazards are being reviewed or triaged by the SMS Coordinator for hazard mitigation. The process may also be conducted by the SRC when initiated under any of the circumstances listed above. If a project involves bringing in a third-party to implement, alter, or develop a new system, the SRC

should include an individual from the third-party to act as a subject matter expert (SME) and to help carry out the 5-step SRM process. This group is considered the SRM panel.

Step 1: Describe the System

The first step in the SRM process requires the SRC panel to describe the components of the system by taking into consideration the activities and the conditions present at the time the hazard was identified. An individual with operational knowledge of the system should describe the system. A SME may assist with this step to discuss the system if a third-party contractor is involved. The *GFIAA* may implement a model to accurately and comprehensively describe the elements involved in the various systems at the airport.

The conditions as well as the activities should be listed and below are also some example questions to help guide this process:

- What are the meteorological conditions?
- Are seasonal conditions involved and are they abnormal?
- Are there known defects or deficiencies?
- Is time of day or night a factor?
- Is traffic volume involved (peak or low activity)?
- Do normal operations prevail or are there abnormal conditions like construction or a closed runway or taxiway?
- What type of infrastructure or media is involved?

Step 2: Identify Hazards.

The second step in the SRM process involves hazard identification. The FAA describes a hazard as “any condition with potential to cause injury to personnel, damage to equipment or structures, loss of material, or reduction of the ability to perform a prescribed function” (AC 150/5200-37, current edition). In this step, hazards to the system, which include hazards to operations, equipment, people, and procedures, are identified in a systematic, disciplined way.

There are three different ways hazards can be identified in the SMS. First, hazards can be identified in a reactive method in which airport management responds to hazards after they have been identified. The second method for identifying hazards involves proactively identifying threats to safety at the airport by reviewing processes and procedures that may induce unexpected hazards. The third and most advanced method for identifying hazards with the SMS uses a predictive approach to identify future, unforeseen safety problems by analyzing data collected as part of the SMS monitoring functions listed in **Section 3.1: Hazard Identification**.

Hazard identification must consider every potential source of system failure including, but not limited to:

- Equipment
- Operating Environment
- Maintenance Procedures
- External Services
- Organizational and Human Factors

Step 3: Analyze Risk.

The third step in the SRM process requires airport management to analyze the risk associated with the hazard identified in Step 2. Risk is defined as the potential ability of a hazard to result in injury or damage (ICAO 9859). In this step, each identified hazard is evaluated to determine what risks are associated with the hazard. One of the best methods of identifying risks associated with a hazard is through a brainstorming session with the SRC and SME, if necessary. Utilizing information obtained through conferences, workshops, and industry publications may also be helpful in determining risks associated with identified hazards. It is important that the SRC panel considers the worst credible outcome that is realistically possible for each hazard. Based on the worst credible outcomes of each hazard, the panel will determine the severity and likelihood of the outcome, using the quantitative and qualitative values in **Table 1** and **Table 2**. Generally, Severity is established first followed by Likelihood. The SRM Panel performs this step, like the other steps in the process.

Safety Management System Manual

Table 1: Severity Safety Matrix

Severity		
Level	Meaning	Value
Negligible	• No effect on airport operations • Inconvenience to people • Slight to moderate influence on airport reputation • Non-reportable impact	A
Minor	• Slight reduction in safety margin or functional capabilities, in regard to airport operations • Physical discomfort to people • Moderate influence on airport reputation at community level • Impact is reportable	B
Major	• Significant reduction in safety margin or functional capability, in regard to airport operations • Physical distress possibly includes injuries • Significant influence on airport reputation at regional level • Considerable impact consists of damage	C
Hazardous	• Significant reduction in safety margin (as determined by assessment) • Serious injury to people • Significant influence on airport reputation at state level • Considerable damage to people/facilities/equipment	D
Catastrophic	• Significant loss regarding airport operations • At least one fatality • Severe influence on airport reputation at national level • Loss of people/facilities/equipment	E

Safety Management System Manual

Table 2: Likelihood Safety Matrix

Likelihood		
Level	Meaning	Value
Frequent	• Likely to occur once a day or multiple times per week (occurred frequently) • Will be continuously experienced unless action is taken to change events	5
Probable	• Likely to occur multiple times per year or once per month (occurred infrequently) • The activity or event is expected to occur 50-99% of the time • Will occur often if events follow normal patterns of process or procedure. The event is repeatable and less sporadic • Auditor/Regulator likely to identify issue with minimal audit activity • Process performance failures are evident to trained auditors or regulators	4
Remote	• Unlikely, but possible to occur once a year or multiple times from 1 year to less than 5 years (occurred rarely) • An activity or event occurs infrequently, or irregularly, or 25-50% of the time • Potential for infrequent occurrence. Events are sporadic in nature. • Auditor/Regulator has limited potential of issue discovery during focused or specialized review • Process has degree of latent systems errors discovered with adequate controls	3
Extremely Remote	• Very unlikely to occur but possible once in every 5 to less than 10 years (not known it has occurred) • An activity or event that occurs intermittently, or 1-25% of the time • Auditor/Regulator has a low likelihood of issue identification during any general or focused review	2
Extremely Improbable	• Extremely remote likelihood, almost inconceivable, possible only once in 10 to 100 years that event will occur	1

Safety Management System Manual

Step 4: Assessing Risk.

The next step in the process is assessing risk. Risk assessment is a procedure used to combine the results of the Risk Analysis from the previous step. To assess the risk, the SRM panel will use the Severity and Likelihood values analyzed in the third step and place them in the Predictive Risk Matrix in **Table 3**. The panel will then compare the risk rating from **Table 3** to the acceptable and unacceptable levels of risk in **Table 4**. In **Table 4**, it can also be determined what action must be taken. This is considered initial risk since it does not account for any mitigation strategies.

Table 3: Predictive Risk Matrix

Risk Probability	Risk Severity				
	Negligible A	Minor B	Major C	Hazardous D	Catastrophic E
5 - Frequent	5A	5B	5C	5D	5E
4 - Probable	4A	4B	4C	4D	4E
3 - Remote	3A	3B	3C	3D	3E
2 - Extremely Remote	2A	2B	2C	2D	2E
1 - Extremely Improbable	1A	1B	1C	1D	1E

Table 4: Acceptable and Unacceptable Levels of Risk

Assessment Risk Index	Criteria
Extreme Risk 3E, 4D, 4E, 5C, 5D, 5E	Unacceptable under existing circumstances, requires immediate decision by Accountable Executive.
Substantial Risk 5A, 5B, 4B, 4C, 3D, 2D, 2E	Manageable under risk control and mitigation. Requires operational review by Safety Review Committee.
Moderate Risk 4A, 3B, 3C, 2C, 1D, 1E	Acceptable after review of the operation by SMS Coordinator. Requires continued tracking and recorded action plans.
Minimal Risk 1A, 1B, 1C, 2A, 2B, 3A	Acceptable with consistent data collection and continuous monitoring. Proceed with operation/activity.

Step 5: Mitigating Risk.

The final step of the process is mitigating risk. Risk mitigation is the implementation of a strategy to reduce the probability of occurrence, severity of consequences, or both.

There are four general ways to mitigate risk:

- *Risk avoidance* is the prevention of the risk by selecting a different approach or not participating in the operation, procedure, or system development (e.g., close the runway when rehabilitating the runway or go with off peak construction and close the runway during certain periods of the day).
- *Risk transfer* is the shifting of the ownership of risk to another party (NOTAMs).
- *Risk assumption* is accepting the likelihood and the consequences associated with a risk's occurrence (e.g., risk classified under acceptable level, no mitigation action required in short term).

- *Risk control* includes alternative actions that lower or eliminate the risk (e.g., policies or procedures, improving the airport infrastructure, developing redundant systems, improving training)

3.3 Means for Ensuring Mitigations are Effective

Upon determining that a hazardous condition exists, further preventive measures may be warranted to reduce the risk level. The *GFIAA shall* mitigate the risks that have a ‘frequent’ or ‘probable’ likelihood level. Risk with ‘remote’ or ‘extremely remote’ likelihood levels are acceptable, but an effort for mitigation *shall* still occur to ensure procedures are in effect to limit the occurrence of an incident. Effective mitigation of risk occurs by identifying the appropriate mitigation strategy and implementing an appropriate mitigation, which includes identification of the residual risk.

The following are examples of procedures that could be implemented to reduce likelihood of an accident or incident:

- Raising awareness and/or control (e.g., safety campaigns, NOTAMs, or briefings)
- Providing training (e.g., on-the-job training, recurrent training, or improving skills)
- Establishing procedures (e.g., avoid operations under certain conditions, develop or modify standard operating procedures, or intensify frequency of sweeping areas subject to Foreign Object Debris/FOD)
- Avoiding risk by ceasing activity (e.g., close taxiway for operations during maintenance activities)
- Increasing supervision (e.g., escorting non-airport employees or conducting additional inspections)
- Improving infrastructure (e.g., improved signage or taxiway layout)

Additionally, the following procedures could be employed to reduce severity:

- Improving emergency response (e.g., additional vehicles or positioning)
- Improving infrastructure (e.g., extending runway safety areas or removing obstacles)
- Establishing standard operating procedures (e.g., define procedures for strong wind conditions)
- Creating special programs (e.g., speed limits for non-movement areas)

Safety Management System Manual

Once mitigation strategies are established, the SMS coordinator assigns responsibility to ensure mitigation strategies are completed. Documentation will be developed and is shown in **Appendix 5**.

- Responsible person assigned – person to implement the mitigation system
- Due date – the date on which the mitigation system is to be implemented by
- Mitigating system – the course of action chosen
- Date completed – the date on which the mitigation system was actually implemented
- Review date – the date on which the safety committee will review the effectiveness of the mitigation system implemented

Residual risk is the risk that remains after all risk mitigations have been implemented and their completion verified. Residual risk is identified through conducting the process again to assess the risk after the mitigation. If the residual risk of the hazard's outcome still places it in an 'unacceptable' risk level, then the *GFIAA* shall identify additional mitigations, stop the operation, or change whatever is causing the hazard. The Safety Assurance process shall trigger continuous monitoring of the hazards if data or hazard reports indicate a mitigation is not effectively reducing the risk of a hazard's outcome. Each risk mitigation exercise is to be documented progressively.

3.4 Documentation and Record Retention

SRM documentation shall be maintained by the airport SMS Coordinator in a digital or written format. Records must be retained for the longer of 36 consecutive calendar months after a risk analysis of an identified hazard has been completed, or 12 consecutive calendar months after mitigations are completed. The airport's SMS Coordinator will document and evaluate the effectiveness of corrective and preventive measures that result in response to a verbal or written hazard report/concern. The SMS Coordinator can document and track corrective actions and will provide a monthly update to the Accountable Executive/Operations Manager to advise on of the status of mitigation strategies currently in use and communications from the SRC.

Section 4: Safety Assurance

Safety assurance is the third component of SMS. Safety assurance enables the management at the airport to establish processes and procedures to monitor the effectiveness of the SMS. The airport maintains a confidential hazard reporting system and procedures for reporting critical and time sensitive safety information to the Accountable Executive (AC 150/5200-37). Safety Assurance and SRM components are related because SRM ensures hazards and their risk factors are identified, analyzed, and assessed. Safety Assurance processes then use the data collected to evaluate that the risks assessed have been adequately mitigated.

There are several key safety assurance activities performed by GFIAA management to support the SMS.

Some of these include:

- Evaluate the continued effectiveness of implemented risk mitigation strategies under SRM
- Support the identification of new hazards
- Systematically provide evidence that the airport is meeting or exceeding the safety objectives through continuous improvement processes
- Continuous data collection, this increases the effectiveness of decision-making and evaluation metrics of the SMS processes

The SRC is required to define performance objectives and expectations for the SMS. Some of the steps to establish safety assurance performance objectives and expectations include:

- Develop and implement a means for monitoring safety performance
- Establish and maintain a hazard reporting system that provides a means for reporter confidentiality
- Develop and implement process reporting pertinent safety information and data to the Accountable Executive on a regular basis
- The *GFIAA* will monitor their systems to:
 - Identify new hazards
 - Measure the effectiveness of safety risk controls
 - Ensure compliance with regulatory requirements applicable to the SMS
 - Ensure the Safety Assurance function is based upon a comprehensive system description as described in the 5-step SRM process

4.1 Safety Performance Monitoring

The airport is a dynamic environment with changing risks and hazards. Therefore, SMS and safety assurance can only be effective when there is continuous evaluation of the SMS performance. Safety performance monitoring is one of the key activities required to maintain a quality SMS and limit complacency.

Data can be collected from the following sources:

- Confidential Hazard Reporting Program
- Post Incident or Accident Documentation
- Maintenance Logs
- Safety Self-Inspection Program
- Monthly SRC minutes
- Safety Culture Surveys
- Internal safety audits

It is the duty and responsibility of the SMS Coordinator to ensure that audits are conducted periodically and annually.

4.2 Confidential Hazard Reporting System

A primary source of information concerning safety issues and incident tracking for an SMS program is a confidential hazard-reporting program. This method for identifying hazards supports a proactive approach to hazard identification and provides information on activities that might otherwise be lost. Having this information is vital to the periodic SMS program reviews. The reporting system is confidential in nature to encourage participation from employees and tenants at the airport to raise safety concerns anonymously.

GFIAA employees and tenants at the airport are trained to be continually aware of their surroundings, with a focus on safety considerations. If they notice a situation or practice that raises a safety concern, they are encouraged to report it as a potential hazard. The SMS Coordinator will then review each report in a timely manner and investigate the safety concerns as necessary. The SMS Coordinator, in conjunction with the SRC, may choose to address the hazard reports before deciding whether to recommend mitigation to assess and control the risk. If mitigation is considered appropriate, the SMS Coordinator will present their recommendation to the Accountable Executive or Operations Manager for a final decision.

If the Accountable Executive or Operations Manager approves mitigation, the SMS Coordinator will then assist in implementing the modifications, communicate change as appropriate, and follow up to ensure compliance. Whether or not mitigation measures are implemented, the SMS

Safety Management System Manual

Coordinator will provide appropriate feedback to the employee that reported the hazard to commend the participation in the SMS.

Confidential hazard safety reporting and feedback system will:

- Be monitored to identify emerging hazards
- Measure performance of risk controls in the operational systems
- Be obtained from employees, tenants, and the public using the Airport
- Be checked by the SMS Coordinator for the quality of reporting
- Maintain all records
- Be an online reporting portal with no retribution for submissions
- Ensure the SMS Coordinator will periodically and annually distribute summaries based off the system findings

The SMS Coordinator will promote continuous improvement of the SMS through recurring application of SRM, Safety Risk Assessments (SRA), using safety lessons learned, and communicating them appropriately. The SMS Coordinator is responsible for the quality of the continuous improvement process.

GFIAA will be using the CityWorks platform for confidential hazard reporting through an intranet site, internet site, and or scanning of a QR code placed in each fleet vehicle. See **Appendix 4** for current portal and code.

4.3 Reporting Safety Information

The SMS Coordinator will report monthly, or as needed, to the Accountable Executive and or the Operations Manager regarding safety information. During the monthly Safety Review Committee meetings, several items may be discussed but are not limited to the items below. These items can be presented via charts, graphs, memorandums or other forms of reports per the SMS Coordinator.

- Continuous daily inspection violations
- Hazard Reports
- Movement Area Safety
- Status of current on-going mitigations
- Safety Recommendations
- SMS Goals/Objectives Review
- Status of SMS Implementation
- Department Reports
- Airport Entities Reports

Section 5: Safety Promotion

Safety promotion is the final component of SMS and combines communication and training on safety information to all involved at the airport. Through delegation the Accountable Executive will enhance safety performance through a positive safety culture and adherence to the SMS manual. The safety promotion at the airport will rely on developing and using SMS while effectively communicating safety information, changes, and resources available to everyone utilizing the airfield. All badged GFIAA employees, airport tenants, and third-party contractors with access to the airfield will receive training to promote safe practices and hazard reporting. Further, GFIAA management is committed to ensuring employees and tenants receive critical safety information in a timely manner.

5.1 Safety Culture

The *GFIAA* is committed to the development of a positive safety culture. The *GFIAA* defines its safety culture as the intrinsic adoption of safety conscious behavior and practices by all members of the organization. The *GFIAA* recognizes the dynamic relationship that exists between employees and their working environment. The *GFIAA* proactively seeks to reduce the level of risk associated with all the activities of the airport.

The essential goal of an SMS is to broaden and strengthen the airport safety culture. A shared safety mindset is crucial to the establishment of a safety culture. A shared safety mindset emphasizes safety education, safety situational awareness, communication, and participation by all members of the airport community.

5.2 Training

SMS training is an important step to the success of SMS. Safety awareness orientation training will be provided to all initial badged GFIAA airport employees, tenants, and third-party contractors upon hiring and during badge renewal. All GFIAA individuals and managers with operational roles under SMS will receive specific specialized SMS training. Additional training may also be provided periodically with changes to procedures, policy, the SMS manual, or if safety concerns arise. The SMS Coordinator is responsible for the safety awareness orientation and specialized SMS training programs.

Safety Management System Manual

Safety awareness orientation training should include the following areas:

- Hazard identification
- Airport safety policies
- How to use airport confidential hazard reporting system
- Anything the SMS Coordinator or SRC deems important

In addition to safety awareness training, GFIAA employees with SMS operational duties and members of the SRC will receive specialized SMS training. Specialized SMS training covers the following information:

- Comprehensive overview of the SMS manual
- Understanding your role in the Safety Culture
- Understanding the SMS
- Professional and responsible behavior
- SRM process
- Airfield operations
- Construction safety
- Anything the SMS Coordinator or the Accountable Executive deem important

Documentation of training records is a key part of an effective SMS program. The SMS Coordinator will maintain all SMS related training documents, assessments, training sessions, and rosters in accordance with Section 301(b)(1) of the ACM.

5.3 Communication

The *GFIAA* is committed to ensuring clear and continuous safety-related information. Communication of SMS roles and responsibilities are imperative to an effective SMS and is supported through feedback from safety hazard reports. The reports will be analyzed to communicate lessons learned to tenants and employees of the airport. Safety communication is promoted through a variety of channels and activities to ensure robust safety awareness at the airport. Records of communication will be maintained for 24 consecutive calendar months.

The following media are used to communicate safety information at the airport:

- Safety Bulletin boards
- Safety Flyers and Posters
- Monthly Pulse Calls
- Email

Safety Management System Manual

- Social Media
- Text Message- Everbridge
- Staff Meetings
- Monthly Tenant Meetings
- Newsletters

SRC members will review the SMS Manual annually and the SMS Coordinator will record any revisions or changes. On an annual basis, or upon FAA request, the Airport shall provide the FAA copies of any changes to the Airport SMS Manual. Should safety communication methods need updating, that will occur immediately based on severity. In addition, the SMS Coordinator will retain all methods of communication with stakeholders and employees in a shared drive folder for document retention.

Appendix 1: Definitions and Acronyms

Accountable Executive – An individual designated by the certificate holder to act on its behalf for the implementation and maintenance of the airport’s Safety Management System. The Accountable Executive has control of the certificate holder’s human and financial resources for airport operations conducted under an Airport Operating Certificate. The Accountable Executive has ultimate responsibility to the FAA, on behalf of the certificate holder, for the safety performance of operations conducted under the certificate holder’s Airport Operating Certificate.

Accident – An unplanned event or series of events that results in death, injury, damage to, or loss of equipment or property.

Airport Safety Management System – An integrated collection of processes and procedures that ensures a formalized and proactive approach to system safety through risk management.

Behavior- The way in which one acts or conducts oneself, especially toward others.

Common Cause Failure – A failure that occurs when a single fault results in the corresponding failure of multiple system components or functions.

Control – Anything that mitigates the risk of a hazard’s effect. Same as a safety requirement. All controls should be written in requirements language. There are three types of controls:

- Validated: Unambiguous, correct, complete, and verifiable.
- Verified: Objectively determined to meet the design solution.
- Recommended: Have the potential to mitigate a hazard or risk but are not yet validated as part of the system or its requirements.

Credible – Refers to a specific system state and sequence of events supported by data and expert opinion that clearly describes the outcome. It implies that it is reasonable to expect the assumed combination of extreme conditions will occur within the operational lifetime of the system.

Environmental- conditions are the physical, biological, and atmospheric factors that affect human activities.

Gap Analysis – A comparison between existing systems, processes, or procedures and SMS requirements.

Hazard – – A condition that could foreseeably cause or contribute to: (1) injury, illness, death, damage to or loss of system, equipment, or property, or (2) an aircraft accident as defined in 49 CFR 830.2.

Hazard Assessment – A systematic, comprehensive evaluation of a change, operation, system, or safety issue.

Safety Management System Manual

Incident – An occurrence other than an accident, which affects or could affect the safety of airport operations.

Likelihood – The estimated probability or frequency, in quantitative or qualitative terms, of a hazard's effect.

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.

Near Miss-a narrowly avoided collision or accident on the movement area

Non-Movement Area – The area, other than that described as the movement area, used for the loading, unloading, parking, and movement of aircraft on the airside of the airport (including ramps, apron areas, and on-airport fuel farms).

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

Risk Analysis – The process whereby a hazard is characterized for its likelihood and the severity of its effect or harm. Risk analysis can be either quantitative or qualitative analysis; however, the inability to quantify or the lack of historical data on a particular hazard does not preclude the need for analysis.

Risk Mitigation – Any action taken to reduce the risk of a hazard's effect.

Safety Assurance – The process within SMS that functions systematically to ensure that performance and effectiveness of risk controls or mitigations and that the organization meets or exceeds its safety objectives through the collection, analysis, and assessment of information.

Safety Evaluation – Procedures to monitor performance with safety objectives, SMS requirements, or initiatives.

Safety Issue – A concern of a condition that has an undesirable safety effect or outcome that may not rise to the level of a Hazard.

Safety Objectives – A measurable goal or desirable outcome related to safety.

Safety Policy – The certificate holder's documented commitment to safety, which defines its safety objectives and the accountabilities and responsibilities of its employees in regard to safety.

Safety Promotion –The combination of training and communication of safety information to support the implementation and operation of an SMS in an organization.

Safety Risk Management (SRM) – A process within the SMS composed of describing the system, identifying the hazards, and analyzing, assessing, and controlling or mitigating the risk.

Safety Management System Manual

Severity - The consequence or impact of a hazard's effect or outcome in terms of degree of loss or harm. Severity is determined by the worst credible outcome.

Single Point Failure – A failure of an item that would result in the failure of the system and is not compensated for by redundancy or an alternative operational procedure.

System – An integrated set of constituent pieces that are combined in an operational or support environment to meet a defined objective. These pieces include people, equipment, information, procedures, facilities, services, and other support services.

System State – An expression of the various conditions, characterized by quantities or qualities, in which a system can exist.

Validation – The process of proving the functions, procedures, controls, and safety standards are correct and the right system is being built (that is, the requirements are unambiguous, correct, complete, and verifiable).

Acronyms

AAS	Airport Safety and Standards
AC	Advisory Circular
ACM	Airport Certification Manual
ACRP	Airport Cooperative Research Program
AOA	Aircraft Operating Area
ARFF	Aircraft Rescue and Fire Fighting
FAA	Federal Aviation Administration
FBO	Fixed-base Operator
FOD	Foreign Object Damage or Foreign Object Debris
FOIA	Freedom of Information Act
GIS	Geographical Information Systems
GRR	Gerald R. Ford International Airport
ICAO	International Civil Aviation Organization
RA	Risk Assessment
RSA	Runway Safety Area
SME	Subject Matter Expert
SMS	Safety Management System
SRA	Safety Risk Assessment
SRC	Safety Review Committee
SRM	Safety Risk Management

Appendix 2: Safety Policy Statement

“The *Gerald R. Ford International Airport Authority (GFIAA)* considers safety to be a high priority as reflected in our core values, and it is committed to the development and implementation of a functional and effective Safety Management System (SMS) to improve safe airport operations. Safety in an airport environment requires deliberate effort and personal commitment from every member of the airport community. The *GFIAA*’s commitment is to work alongside each member to proactively improve the airport environment. The result is an environment in which the airport community feels comfortable identifying and reporting safety issues without the fear of retribution. The *GFIAA* is dedicated to creating an environment that minimizes exposure to hazards and risks and is committed to continuous safety improvement.

The *GFIAA* pledges to monitor safety performance and provide the appropriate amount of resources needed to proactively manage safety hazards and their risks, with the intent to eliminate unacceptable safety risks in our operations. The *GFIAA* will comply with regulatory safety requirements established by the Federal Aviation Administration and is committed to the establishment of a safety culture. The *GFIAA* is spearheading the adoption and promotion of a safety culture based on trust, shared ownership, and open participation. The ultimate objective of the *GFIAA* is to facilitate the development of a safety culture that permeates throughout every component of the organization.”

Torrance Richardson A.A.E., President, and CEO
Gerald R. Ford International Airport

Appendix 3: Safety Objectives

The following is a list of safety objectives for the SMS:

- **Safety Objective 1**
Analyze safety reports over time to identify recurring issues, trends, and potential hazards.
- **Safety Objective 2**
Complete the SMS audit process bi-annually in April and October to ensure compliance with applicable requirements and guidance contained within the SMS Manual and SMS Implementation Plan.
- **Safety Objective 3**
Conduct the specialized SMS training program as outlined in **Section 5.2** by November 2026.
- **Safety Objective 4**
Promote a proactive approach to safety by conducting three organized FOD walks by November 2026.
- **Safety Objective 5**
Begin conducting a recurrent non-movement driver training program June 2026.

Appendix 4: Cityworks Reporting Portal and QR Code

GRR SMS Hazard Report Form



SAFETY MANAGEMENT SYSTEM

Hazard Reporting at GRR

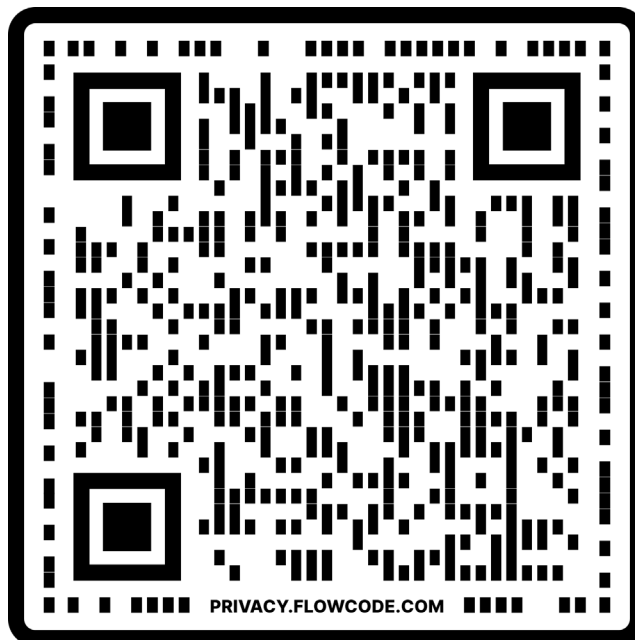
At Gerald R Ford International Airport (GRR), we commit to our employees, passengers, and stakeholders to provide a safe working and operating environment. The Airport maintains a Safety Management System (SMS) and devotes the time, staff, and resources to meet the highest safety standards. An integral part of the SMS is our reliance on you to participate in and improve safety practices at every level.

It is the responsibility of all staff, tenants, and contractors to immediately report hazardous conditions, accidents, incidents, or unsafe actions. If hazards are not reported, they cannot be corrected. Remember, no matter what role you have at the Airport, you play an integral part in maintaining GRR's Safety Management System.

This SMS Portal allows all staff, tenants, and contractors to report safety hazard to the Airport Program Safety Manager. Reported hazards will be managed and mitigated per the SMS objectives. You will have the option of reporting anonymously or providing contact information for feedback.

Next

Page 1 of 2



Safety Management System Manual

Cityworks

Search...

Inbox

Logbook

Inspection

Work Order

Reports

GIS Search

Events

MY WORK

P139 - TECHOPS

NON-139

CHARTS

OPS LOG

INSP

WILDLIFE

SMS Dashboard

SMS Logbooks

SMS LOGBOOKS OPEN

Open Print Expand Configure Map

Sr

DESCRIPTION

INITIATED BY

DATE INITIATED

WO ID

DETAILS

10040747

SMS BEHAVIOR

CWAPI, CWAPI

10/31/24 12:30

10030435

Safety Vests

10052454

SMS BEHAVIOR

CWAPI, CWAPI

02/04/25 10:57

Vehicles often travel the midfield tunnel without any headlights or strobe lights on. When this is the case oncoming traffic can be difficult to see depending on various factors such as bright sunlight at the tunnel entrances/exits, tunnel interior lights not on/run

10054097

SMS BEHAVIOR

CWAPI, CWAPI

02/17/25 08:57

Thursday, February 6th the airfield runway 26L lighting circuit was turned off when an AAL571 was on a half mile final into runway 26L. There were two employees working on the system in the airfield vault during the time of the event. As this impacted the m

10054098

SMS ENVIRONMENTAL

CWAPI, CWAPI

02/17/25 08:57

Requesting a review of the apron area from the tunnel between B1 and B2 where HMS trucks park and block views for tugs coming through tunnel.

10054398

SMS ENVIRONMENTAL

CWAPI, CWAPI

02/19/25 04:57

10033441

On 2/19, Ops 1 was contact by Comms for an employee filling a lav service truck with the potable water hose near baggage claim, a known OSHA concern/violation. Ops 1 observed Taylor Olson of Prospect filling the Delta lav service truck with the potable

Rows 101 - 5 of 5

SMS LOGBOOKS COMPLETED

Open Print Expand Configure Map

No Results

Rows 101 - 0 of 0

SMS Work Orders

SMS OPEN HAZARD WOs

Open Print Expand Configure Map

No Results

Rows 101 - 0 of 0

SMS OPEN MITIGATION WORK ORDERS

Open Print Expand Configure Map

Wo

DESCRIPTION

PRIORITY

DATE INITIATED

COMMENTS

10030432

SAFETY ASSESSMENT

3

11/11/24 08:08

Handed out additional Snapshot postings for this new procedure during monthly SRC meeting.
(Copied from Service Request 10040747): "10/13 - "I have a safety item regarding staff on

https://cityworks.gr.org/Cityworks/Inbox/InboxPage.aspx?NodeKey=2

35

Safety Management System Manual

Appendix 5: Safety Risk Assessment Form

4. Hazard Assessments						5. Root Cause and Action Plan				
#	Hazard	Consequence	Primary Area of Consideration	Existing Controls	Likelihood Severity	Initial Risk Assessment	Continue with mitigation?	Causal Codes or Root Cause	Mitigation	Controls used

Issue Statement Initial Hazards Risk Analysis **SRM and SA** Risk Summaries

SMS Risk Matrix

- MINIMAL RISK** Acceptable with consistent data collection and continuous monitoring. Proceed with operation/activity.
- MODERATE RISK** Acceptable after review of the operations by SMS Coordinator. Requires continued tracking and recorded action plans.
- SUBSTANTIAL RISK** Manageable under risk control and mitigation. Requires operational review by Safety Review Committee.
- EXTREME RISK** Unacceptable under existing circumstances, requires immediate decision by Accountable Executive.

SEVERITY	LIKELIHOOD LEVELS				
	(1) Extremely Improbable 10 to 100 years	(2) Extremely Remote 5 to less than 10 years	(3) Probable Remote 1 to 5 years	(4) Probable Likely multiple times per year	(5) Frequent Likely once per day
A					
B	MINIMAL RISK		MODERATE RISK		SUBSTANTIAL RISK
C					
D		SUBSTANTIAL RISK			
E					ELEVATED RISK

SEVERITY LEVEL	AREAS FOR CONSIDERATION				
Severity Index	REGULATORY COMPLIANCE	OPERATIONAL RELIABILITY	PHYSICAL INJURY	DAMAGE TO ASSETS	POTENTIAL INCREASED COST OR REVENUE LOSS
A (Negligible)	Non-reportable impact	Non-reportable impact	Inconvenience	None	None
B (Minor)	Impact is reportable	Slight reduction in safety margin or functional capability	Physical discomfort		
C (Major)		Significant reduction in safety margin or functional capability	Physical distress possibly includes injury	Considerable impact consists of damage	
D (Hazardous)		Significant reduction in safety margin	Serious injury	Considerable damage	
E (Catastrophic)		Significant loss	At least one fatality		

Likelihood Levels / Probability of Occurrence	
Qualitative Definition	Meaning
(5) Frequent	Likely to occur once a day or multiple times per week (occurred frequently). Will be continuously experienced unless action is taken to change events
(4) Probable	Likely to occur multiple times per year or once per month (occurred infrequently). The activity or event is expected to occur 50-85% of the time. Will occur often if events follow normal patterns of process or procedure. The event is repeatable and less periodic. Auditor/Regulator likely to identify issue with minimal audit activity. Process performance failure area evident to trained observers or regulators
(3) Remote	Unlikely, but possible to occur once a year or multiple times from 1 year to less than 5 years (occurred rarely). An activity or event occurs infrequently, or irregularly, or 25-50% of the time.
(2) Extremely Remote	Potential for infrequent occurrence. Events are sporadic in nature.

"H3D Serious Injury (an injury which requires hospitalization for more than 48 hours, commencing within 7 days from the date the injury was received, results in a fracture of any bone (except simple fractures of fingers, toes, or nose), causes severe hemorrhages or burns, muscle, or tendon damage, involves an internal organ, involves second, or third-degree burns, or any burns affecting more than 25% of the body surface)"

Likelihood Calculator	File in cells	Supported likelihood*
Events / Opportunities	1 1000000	