



EMERGENCY MANAGEMENT PROGRAM (EMP)

Project Title: Synapse Data Center
Description: Ten 140 MW (Nominal) 2x1 Phased
Combined Cycle Power Plants
Ten 100 MW Data Center Campuses

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1. Introduction

1.1 Purpose

The purpose of this Emergency Management Program (EMP) is to establish the policies, governance structure, and operational framework used by Synapse to prevent, prepare for, respond to, and recover from emergency situations affecting its facilities, personnel, surrounding communities, or the environment. Emergency response activities conducted under this plan prioritize the protection of life and safety, followed by protection of the environment, protection of property and infrastructure, and restoration of normal operations.

This program provides a structured approach to emergency management using an all-hazards model, recognizing that incidents may originate from natural events, technological failures, human error, or external threats.

The EMP ensures that Synapse:

- Protects life and public safety
- Protects the environment and surrounding communities
- Protects the integrity of infrastructure and operational assets
- Maintains business continuity and operational resilience
- Complies with applicable regulatory requirements

This Emergency Management Plan (EMP) is developed in alignment with the Town of Olds Municipal Emergency Management Bylaw (Bylaw 2019-15) and is intended to integrate with the Town's Emergency Management Agency (EMA) and Incident Command structure. Synapse will coordinate with municipal authorities during any declared emergency and will operate within the Incident Command System (ICS) framework to ensure clear command, communication, and resource coordination. The EMP establishes the overarching framework within which facility-specific and pipeline-specific Emergency Response Plans (ERPs) are developed and maintained.

Emergency response at the Synapse facility is based on a scalable response model in which incidents are managed using a structured command system appropriate to the size and complexity of the event. Minor incidents may be managed by local supervisory personnel, while larger incidents will result in activation of the formal Incident Command structure described in this plan.

1.2 Regulatory and Legislative Framework

This Emergency Management Program has been developed to satisfy the requirements of relevant provincial legislation and regulatory directives governing emergency preparedness and response in Alberta.

Primary regulatory guidance for this program includes:

- Alberta Energy Regulator (AER) Directive 071 – Emergency Preparedness and Response
- Alberta Energy Regulator (AER) Manual 026 – Emergency Response Plan Guide
- Alberta Utility Commission (AUC) Rule 012 – Noise Control
- Town of Olds Bylaw 2019-15 – Municipal Emergency Management

These regulatory instruments require operators to maintain emergency management systems capable of:

- identifying credible emergency scenarios
- protecting the public and environment
- coordinating with local authorities and emergency responders
- maintaining effective response capability throughout the lifecycle of operations

Additional legislative frameworks informing this program include:

- Alberta Emergency Management Act
- Pipeline Act
- Environmental Protection and Enhancement Act
- Occupational Health and Safety Act
- Hydro and Electric Energy Act
- Alberta Fire Code
- Canadian Environmental Protection Act
- Environmental Emergency Regulations (Canada)

This program also aligns with recognized emergency management principles used across the energy sector and emergency management community. In addition to structured hazard identification methodologies such as Hazard and Operability Studies (HAZOP) and Layer of Protection Analysis (LOPA), Synapse adopts a risk-based approach that incorporates Quantitative Risk Assessment (QRA) where required to support regulatory expectations and informed decision-making.

QRA methodologies are applied selectively to scenarios with the potential for significant consequences, including those with possible off-site impacts, to quantify risk, support the development of emergency planning zones and exclusion distances, and demonstrate that risks to the public, personnel, and environment have been reduced to levels that are As Low As Reasonably Practicable (ALARP). This integrated approach ensures that emergency preparedness and response planning are supported by both qualitative and quantitative risk evaluation techniques consistent with industry best practices and regulatory guidance.

1.3 Program Scope

The Synapse Emergency Management Program applies to all operations, facilities, and infrastructure associated with the Synapse Data Center project and its supporting energy infrastructure.

The program covers all phases of facility lifecycle including:

- Construction
- Commissioning
- Normal operations
- Maintenance activities
- Outages and shutdowns
- Decommissioning

Assets within the scope of this EMP include:

i) **Power Generation Facilities**

Each Synapse campus includes a 140 MW combined-cycle power generation system consisting of:

- Two gas turbines

- A heat recovery steam generator (HRSG)
- A steam turbine generator
- Selective catalytic reduction (SCR) systems utilizing aqueous ammonia
- Electrical generation and distribution systems
- Cooling systems
- Water treatment and chemical systems

ii) **Data Center Infrastructure**

The EMP also covers emergency management associated with:

- Data center buildings and data halls
- Electrical distribution systems
- Uninterruptible power supply (UPS) systems
- Battery energy storage systems
- Network and telecommunications infrastructure

iii) **Natural Gas Pipeline Infrastructure**

Synapse will operate or rely upon multiple natural gas pipeline systems supplying fuel to the power generation facilities.

Pipeline systems within scope include:

- a) An 8-inch natural gas pipeline connecting LSD 06-18-32-01W5M (the Whitecap Energy facility), to LSD 04-33-1-W5M (the Synapse Data Center). This is the initial fuel supply infrastructure pipeline.

Each pipeline system will maintain its own Emergency Response Plan annex consistent with the framework established in this EMP. This list will continuously be updated as the gas delivery pipeline system is developed.

2. Emergency Management Philosophy

Synapse adopts an all-hazards emergency management philosophy that recognizes emergencies may arise from a wide range of causes and may escalate rapidly if not managed effectively. Emergency preparedness at Synapse is founded on the principle that prevention and preparedness significantly reduce the severity of incidents when they occur.

Emergency management activities at Synapse follow a continuous cycle consisting of:

- i) **Prevention:** Activities designed to eliminate or reduce the likelihood of emergency events through engineering design, operational controls, maintenance practices, and safety management systems.
- ii) **Mitigation:** Measures implemented to reduce the severity or consequences of incidents should they occur. Examples include:
- fire suppression systems
 - emergency shutdown systems
 - gas detection systems
 - pipeline monitoring and isolation systems

- iii) **Preparedness:** Planning and preparation activities ensure that Synapse personnel and external responders can respond effectively to emergencies. Preparedness activities include:
 - emergency response planning
 - training programs
 - emergency exercises
 - stakeholder coordination
- iv) **Response:** Response activities include the immediate actions taken to control, mitigate, and manage an emergency. This includes:
 - incident command activation
 - emergency communications
 - hazard control and containment
 - protection of personnel and the public
- v) **Recovery:** Recovery activities focus on restoring safe operations following an emergency event while addressing environmental remediation, equipment repairs, and operational recovery. Lessons learned from emergency incidents and exercises are incorporated into program improvements.

3. Emergency Management Governance

3.1 Organizational Responsibility

Emergency management is a shared responsibility across the Synapse organization. Executive leadership provides strategic oversight and ensures appropriate resources are available to maintain emergency preparedness capabilities.

Operational leaders are responsible for ensuring emergency preparedness measures are implemented within their areas of responsibility. The emergency management function coordinates the development, maintenance, and continuous improvement of the Emergency Management Program.

3.2 Emergency Management Roles and Responsibilities

Key roles within the Synapse emergency management structure include:

- i) **Executive Management**

Provides overall leadership, policy direction, and accountability for emergency management within the organization.

- ii) **Emergency Management Coordinator**

Responsible for:

- maintaining the Emergency Management Program
- coordinating emergency planning activities
- facilitating training and exercises
- ensuring regulatory compliance

- iii) **Operations Leadership**

Responsible for:

- implementing emergency response procedures at facilities
- ensuring personnel are trained in emergency response procedures
- coordinating response activities during incidents

iv) Pipeline Integrity and Operations Personnel

Responsible for:

- maintaining pipeline emergency response plans
- ensuring pipeline monitoring and isolation procedures are functional
- coordinating with regulatory authorities during pipeline incidents

v) Communications and Stakeholder Relations

Responsible for:

- coordinating communications with external stakeholders
- managing public communications during emergency events
- ensuring timely notifications to regulators and authorities

4. Hazard Identification and Risk Assessments

Effective emergency preparedness requires a systematic understanding of the hazards that could affect Synapse personnel, infrastructure, surrounding communities, and the environment. Hazard identification and risk assessment provide the analytical foundation for the development of emergency response plans and protective measures.

Synapse conducts structured hazard identification and risk assessments to identify credible emergency scenarios associated with its operations and supporting infrastructure. These assessments consider the full lifecycle of operations, including construction, commissioning, normal operations, maintenance activities, and shutdown conditions. Hazard identification processes consider both internal operational hazards and external hazards that could affect Synapse facilities or surrounding communities.

The results of these assessments are used to:

- identify credible emergency scenarios
- evaluate potential impacts to personnel, the public, and the environment
- determine appropriate emergency response strategies
- guide the development and maintenance of Emergency Response Plans (ERPs)

Quantitative Risk Assessments (QRA) will be undertaken, where required, to supplement qualitative and semi-quantitative hazard identification methods such as HAZOP, LOPA, and What-If analyses. While HAZOP and related methodologies are used to systematically identify hazards, causes, and safeguards, QRA is applied to selected scenarios where a higher level of analytical rigor is necessary to quantify potential consequences, frequencies, and societal or individual risk levels. QRA studies are conducted following the completion of detailed engineering design, once system configuration, inventories, and operating conditions are sufficiently defined to support defensible modelling. The outcomes of QRA studies are used to establish or validate emergency planning zones, exclusion zones, public protection strategies, and to confirm that risks have been reduced to levels that are As Low As Reasonably Practicable (ALARP). Scenarios requiring QRA are identified

through earlier hazard assessment processes and are prioritized based on potential off-site impact, hazardous material inventories, and escalation potential.

Synapse applies its corporate Risk Matrix, developed under its Risk Management Program, as the standard methodology for evaluating and prioritizing hazards associated with pipeline operations and emergency scenarios. The matrix integrates likelihood and consequence across health and safety, environmental, asset, reputational, and financial dimensions to assign a risk ranking of Minor, Moderate, Urgent, or Critical. This risk ranking is used to determine required safeguards, escalation thresholds, and response actions. The Risk Matrix is applied during design review, hazard and operability assessments, and emergency planning to ensure that all credible scenarios are systematically evaluated and mitigated to an acceptable level.

4.1 Hazard Identification

Hazard identification involves the systematic identification of conditions or events that could result in an emergency requiring coordinated response actions.

Hazard identification for the Synapse facility is conducted using multiple structured and operational risk assessment methods throughout the lifecycle of the project. These methods include formal process hazard analyses (PHA) such as HAZOP studies, Layer of Protection Analysis (LOPA), What-If analyses, Failure Modes and Effects Analysis (FMEA), construction hazard assessments, job hazard analyses (JHA), contractor tailgate meetings, and operational safety reviews.

Hazards identified through these activities are documented and consolidated within a centralized facility Risk Register. The Risk Register forms the basis for risk evaluation, mitigation planning, and emergency preparedness activities.

Hazards considered within the Synapse Emergency Management Program include natural hazards, operational hazards, infrastructure hazards, security threats, and hazards associated with supporting pipeline systems.

Hazard identification activities consider:

- facility design characteristics
- hazardous materials inventories
- operational processes
- surrounding land use
- proximity to communities and transportation corridors
- environmental conditions
- historical incident data within the energy sector

Synapse employs a comprehensive hazard identification and risk management framework designed to identify, assess, and mitigate risks associated with facility design, construction, commissioning, and operation. Hazard identification is conducted throughout the project lifecycle using a combination of formal engineering studies, operational risk assessments, and ongoing workplace hazard evaluations.

Hazard identification activities are conducted using established industry methodologies and structured review processes appropriate to each stage of the project lifecycle.

4.1.1 Design-Phase Hazard Identification

During facility design and engineering, structured Process Hazard Analyses (PHA) are conducted to identify potential hazards associated with process systems, equipment, and facility operations.

These analyses include:

- Hazard and Operability Studies (HAZOP) to systematically evaluate deviations from design intent and identify potential process hazards
- Layer of Protection Analysis (LOPA) to evaluate risk scenarios and determine whether adequate independent protection layers exist
- What-If Analyses to evaluate potential failure scenarios and operational deviations
- Failure Modes and Effects Analysis (FMEA) where appropriate for critical equipment systems

These studies are conducted by multidisciplinary teams including engineering, operations, safety, and subject matter experts. The outputs of these analyses form the primary screening mechanism for identifying scenarios that may require further quantitative evaluation. Where HAZOP, LOPA, or other structured analyses identify high-consequence or complex risk scenarios - particularly those involving potential off-site impacts, explosion overpressure, toxic dispersion, or cascading failures - these scenarios are advanced for Quantitative Risk Assessment (QRA). This staged approach ensures that detailed quantitative modelling is focused on scenarios where it provides meaningful insight into risk exposure and supports defensible emergency planning and design decisions.

4.1.2 Construction-Phase Hazard Identification

During construction and commissioning activities, hazard identification is conducted through:

- Daily tailgate safety meetings
- Job Hazard Analyses (JHA) conducted for specific work tasks
- Construction hazard assessments conducted by supervisors and safety personnel
- Contractor hazard identification programs

These processes ensure that hazards associated with construction activities, equipment installation, and commissioning activities are identified and controlled prior to work being performed.

4.1.3 Operational Hazard Identification

During facility operations, hazard identification is conducted through:

- Routine operational hazard reviews
- Maintenance risk assessments
- Management of Change (MOC) evaluations
- Incident and near-miss investigations
- Periodic revalidation of Process Hazard Analyses

Operational personnel are encouraged to actively identify hazards and report unsafe conditions as part of the facility's safety culture.

4.1.4 Risk Register and Continuous Risk Management

All identified hazards and associated risks are documented within the facility Risk Register. The Risk Register serves as the central repository for hazard tracking and risk management activities and includes:

- Description of identified hazards
- Risk ranking and evaluation
- Existing safeguards and mitigation measures
- Recommended risk reduction actions
- Responsible personnel and implementation timelines

The Risk Register is continuously reviewed and updated as part of the facility's ongoing risk management program.

The facility Risk Register functions as the central repository for hazard tracking and risk management. Hazards identified through engineering studies, construction safety programs, operational reviews, and incident investigations are continuously evaluated and updated within this register. Where hazards present credible emergency scenarios, the information is incorporated into emergency planning, response procedures, and training programs.

4.1.5 Integration with Emergency Management Planning

Hazards identified through the processes described above are evaluated to determine whether they require specific emergency response planning. Where applicable, identified hazards are incorporated into:

- The Emergency Management Program (EMP – this document)
- Emergency Response Plans (ERP)
- Emergency response procedures and training exercises

This integrated approach ensures that emergency planning is informed by the most current hazard identification and risk assessment activities.

Emergency response scenarios used within this Emergency Management Plan are derived directly from the hazard identification and risk evaluation process. Credible worst-case and most-likely scenarios are used to inform emergency response planning, training exercises, and resource allocation. Incident classification levels and response escalation procedures associated with these hazards are summarized in Appendix B – Incident Classification Levels.

4.2 Hazard Categories

Hazards evaluated within the Synapse Emergency Management Program fall into several broad categories.

- i) **Natural Hazards:** Natural hazards are environmental events that may affect Synapse facilities or surrounding areas. These events may occur independently of facility operations but may affect facility safety or emergency response capability.

Examples include:

- wildfires affecting surrounding lands
- flooding from extreme precipitation events
- severe winter storms or extreme cold

- tornadoes and high wind events
- lightning strikes
- geological events such as earthquakes or landslides

Natural hazards may disrupt operations, damage infrastructure, or affect access for emergency response personnel.

- ii) **Operational and Process Hazards:** Operational hazards arise from the industrial processes associated with power generation and supporting systems. The Synapse Data Center campuses include combined-cycle power generation systems utilizing natural gas as fuel and incorporating high-temperature, high-pressure steam systems and chemical treatment systems.

Operational hazards evaluated within the EMP include:

- natural gas leaks or releases from fuel systems
- gas turbine enclosure fires
- ammonia releases from selective catalytic reduction (SCR) systems
- steam system containment failures (i.e. process piping, turbine casing, HRSG tube ruptures, etc.)
- chemical releases from water treatment systems
- lube oil system fires
- loss of cooling or boiler feed water systems

These hazards are evaluated based on potential consequences including fire, explosion, toxic exposure, or loss of containment. Given the scale of ten 140 MW combined-cycle units, the cumulative inventory of aqueous ammonia required for the Selective Catalytic Reduction (SCR) systems represents a significant hazardous materials profile. The EMP incorporates engineered secondary containment systems, vapor suppression procedures, and formal plume dispersion modeling to guide emergency responder approach routes and define hazardous exclusion zones during a loss of containment event.

Detailed consequence analysis, including Quantitative Risk Assessment (QRA) where warranted, will be conducted for aqueous ammonia systems and other hazardous inventories following completion of detailed engineering design and formal Hazard and Operability (HAZOP) studies. These analyses will evaluate credible release scenarios, quantify potential toxic dispersion distances, and assess frequency and consequence to both on-site personnel and off-site receptors. The results will be used to define emergency response exclusion zones, inform responder approach strategies, and support the development of Emergency Response Plans. Where required, QRA outputs will also be used to demonstrate that risks to the public and environment meet regulatory expectations and have been reduced to ALARP levels.

- iii) **Pipeline Hazards:** Synapse operations rely on multiple natural gas pipeline systems supplying fuel to the power generation facilities.

Pipeline hazards evaluated within the EMP include:

- pipeline rupture resulting in large natural gas releases
- pipeline leaks from corrosion or mechanical damage
- third-party excavation damage
- equipment failures at valves or metering facilities
- overpressure events within the pipeline system

Pipeline incidents have the potential to affect both facility operations and surrounding areas depending on release magnitude and location. Separate Emergency Response Plans are maintained for pipeline systems to address these hazards.

- iv) **Infrastructure and Utility Hazards:** Synapse operations rely on critical infrastructure systems necessary to maintain safe and continuous operations. Disruptions to these systems may create emergency conditions requiring coordinated response.

Examples include:

- electrical system failures
- cooling system failures
- water supply disruptions
- telecommunications failures
- information technology system failures
- loss of control system functionality

Infrastructure disruptions may require rapid response actions to maintain safe facility conditions.

Note on Utility-Scale UPS and BESS Thermal Runaway. To support the 1 GW data center load, the Synapse campuses utilize extensive Lithium-Ion Uninterruptible Power Supply (UPS) and Battery Energy Storage Systems (BESS). A primary hazard identified is BESS thermal runaway. Unlike standard electrical fires, thermal runaway propagates cell-to-cell, resists conventional fire suppression, and generates highly toxic off-gassing, including Hydrogen Fluoride (HF) and explosive gases (H₂, CO). The EMP integrates specific mitigation tactics for thermal runaway, including specialized ventilation protocols to prevent explosive gas accumulation, HF gas detection monitoring, and defensive "let-burn" fire service coordination strategies to protect adjacent structural assets and personnel from toxic plume exposure.

- v) **Security and Human-Caused Hazards:** Human-caused hazards may arise from intentional or unintentional actions affecting Synapse facilities.

Examples include:

- unauthorized access to facilities
- vandalism or sabotage
- criminal activity affecting infrastructure
- cyber security incidents affecting operational technology systems
- transportation incidents affecting pipeline infrastructure

Security hazards are addressed through coordination between facility operations, corporate security functions, and law enforcement authorities where necessary.

Cyber security incidents affecting Operational Technology (OT) and SCADA / DCS systems, including ransomware, unauthorized remote access, or denial-of-service attacks. Due to the integration of 1 GW of data center infrastructure with 1.4 GW of power generation, the EMP accounts for simultaneous cyber-physical emergencies. Response procedures include protocols for severing remote access, isolating OT networks from IT networks, and safely transitioning affected generation blocks from automated control to manual, physical overrides to achieve a safe shutdown state.

- vi) **Multi-Plant and Cascading Hazards:** Due to the high-density configuration of the Synapse Data Center site, incorporating ten 140 MW generation blocks and ten 100 MW data center campuses within the site footprint, hazard identification explicitly accounts for cascading failures. A localized incident at one campus has the potential to compromise adjacent infrastructure.

Cascading scenarios evaluated include:

- Thermal radiation or overpressure from a gas turbine enclosure fire / explosion impacting adjacent generation blocks or cooling infrastructure.
- Catastrophic failure or fragmentation (e.g., turbine critical failure event) causing physical damage to shared high-voltage electrical interconnects or common fuel gas headers.
- Shared utility constraints during an emergency, such as concurrent draw on the fire water distribution system by multiple active fire suppression events.

Multi-plant and cascading hazards are addressed through equipment selection, safety layered design, and strict adherence to affiliated codes, standards, and best practices. None-the-less, Synapse considers all potential cascading hazard scenarios when developing response plans – not just isolated, single-plant or local incidents.

Formal hazard identification for Synapse facilities will be completed through structured Hazard and Operability (HAZOP) studies conducted during detailed engineering design. The HAZOP process will systematically evaluate process deviations, equipment failures, and loss-of-containment scenarios across generation systems, ammonia storage and handling systems, fuel gas infrastructure, and supporting utility systems. The results of these studies will identify credible emergency scenarios requiring emergency preparedness planning, and the findings will be incorporated into facility Emergency Response Plans and operational procedures. HAZOP revalidation exercises will be completed every 3-years to ensure compliance with latest regulations and updated to consider industry standards and best practices.

4.3 Risk Evaluation

Identified hazards are evaluated using the Synapse corporate risk assessment framework to determine the likelihood and potential consequences associated with each hazard scenario.

Risk evaluation considers the following factors:

- likelihood of occurrence
- potential impact to personnel and public safety
- potential environmental consequences
- potential impact to infrastructure and operations
- effectiveness of existing prevention and mitigation measures

Risk evaluations support the identification of credible emergency scenarios that must be addressed within facility and pipeline emergency response plans.

4.3.1 Emergency Planning Zones (EPZ)

In accordance with AER Directive 071, Emergency Planning Zones (EPZs) are established for applicable energy infrastructure hazards to define geographic areas where emergency response measures may be required to protect public safety. EPZ determinations for Synapse natural gas pipelines are based on

pipeline diameter, maximum operating pressure, and gas composition in accordance with Directive 071 methodologies.

For hazardous materials and process systems associated with facility operations, including aqueous ammonia and high-pressure fuel gas systems, Emergency Planning Zones (EPZs) and exclusion distances will be established based on detailed consequence modelling and, where required, Quantitative Risk Assessment (QRA). These assessments will be completed following detailed engineering design and will evaluate credible worst-case and representative release scenarios, including toxic dispersion, fire radiation, and explosion overpressure. QRA methodologies will be applied where qualitative or semi-quantitative methods are insufficient to characterize risk, particularly for scenarios with potential off-site impacts or complex escalation pathways. The results of these analyses will define protective action distances, inform public safety planning, and support regulatory compliance with AER and AUC expectations.

The results of these analyses will be incorporated into facility-specific Emergency Response Plans (ERPs), including site maps identifying protective action distances, emergency access routes, and receptor locations. These plans will be reviewed and updated periodically in accordance with Synapse emergency management procedures and regulatory expectations.

4.4 Prevention and Mitigation Measures

Engineering design and operational safeguards play a critical role in preventing emergencies and limiting their consequences.

Examples of prevention and mitigation measures incorporated within Synapse facilities include:

- fire detection and suppression systems
- gas detection systems
- emergency shutdown systems
- process control and monitoring systems
- pressure relief systems
- pipeline monitoring and isolation systems

These safeguards are evaluated during risk assessments to determine their effectiveness in reducing the likelihood or consequences of emergency events.

4.5 Risk Acceptance and ALARP Determination

Following risk evaluation, hazards are assessed to determine whether residual risks are reduced to a level that is As Low As Reasonably Practicable (ALARP). Where risks are determined to exceed acceptable thresholds, additional engineering, operational, or procedural controls are considered to further reduce risk. Risk acceptance decisions are documented within the Synapse risk management system and are subject to appropriate management review.

4.6 Periodic Risk Review

Hazard identification and risk assessments supporting emergency preparedness are reviewed periodically to ensure continued accuracy.

Reviews are conducted when:

- significant operational changes occur
- facility modifications are implemented
- new hazards are identified
- lessons learned from incidents or industry events become available

This review process ensures that emergency response planning remains aligned with current operational conditions and evolving risk profiles.

Quantitative Risk Assessments (QRA), where performed, will also be subject to periodic review and update to ensure continued validity as facility design, operating conditions, or surrounding land use evolve. Updates to QRA may be triggered by significant design changes, increases in hazardous material inventories, changes in nearby population density, or updated regulatory expectations. This ensures that emergency planning assumptions, exclusion zones, and public protection strategies remain accurate and defensible throughout the lifecycle of the facility.

5. Emergency Response Planning

Emergency response planning ensures that Synapse possesses the organizational capability, operational procedures, and physical resources necessary to manage emergency events associated with its facilities and supporting infrastructure. Emergency response plans are developed directly from the hazard identification and risk assessment process described in Section 4. Credible emergency scenarios identified during hazard assessments form the basis for response procedures, training programs, and emergency resource planning.

The emergency response planning framework adopted by Synapse is designed to ensure that:

- emergency situations are identified quickly and assessed accurately
- response actions are initiated immediately to control hazards at the source
- personnel and the public are protected from exposure to hazardous conditions
- operational infrastructure is stabilized and secured
- coordination with external responders and regulators occurs without delay

The emergency response planning structure is designed to address both facility-level incidents and multi-facility events affecting the broader Synapse campus or pipeline infrastructure.

During an event, the Synapse Risk Matrix is used to support incident classification and response prioritization. Events are assessed based on actual or potential consequences and likelihood, enabling alignment of response actions with the defined risk categories. Critical risks require immediate action and executive-level involvement, while Urgent and Moderate risks are managed through defined operational escalation pathways and timeframes. This ensures that emergency response actions are proportionate, consistent, and aligned with Synapse's enterprise risk tolerance and governance structure.

5.1 Planning Basis

Emergency response procedures are developed using scenario-based planning derived from the hazard identification process described in Section 4. Site layout drawings, access routes, and surrounding area mapping used for emergency response planning are provided in Appendix F – Facility Location and Access Maps.

Credible emergency scenarios considered during response planning are derived from structured hazard identification processes, including HAZOP and supporting analyses, and are further refined through

Quantitative Risk Assessment (QRA) where required. QRA is used to validate the severity, frequency, and spatial impact of high-consequence scenarios, including those with potential off-site effects. This ensures that emergency response procedures, exclusion zones, and public protection strategies are based on defensible, quantitatively supported risk evaluations. The resulting scenario set reflects both credible worst-case and most-likely events and forms the technical basis for emergency response procedures, training programs, and emergency resource planning.

At the design stage of the project, credible scenarios being assessed include but are not limited to:

i) Power Generation Systems

- gas turbine enclosure fire or explosion
- HRSG tube rupture or high-energy steam release
- hydrogen system leak or explosion associated with generator cooling
- lube oil system fire
- loss of turbine containment

ii) Chemical Systems

- ammonia release from selective catalytic reduction systems
- chemical release from water treatment systems
- hazardous material handling incidents

iii) Fuel Systems

- natural gas release from fuel gas piping systems
- natural gas ignition events within turbine or fuel systems
- fuel gas compressor or metering station failure

iv) Pipeline Infrastructure

- pipeline rupture or major gas release
- pipeline leak resulting from corrosion or mechanical damage
- third-party excavation damage to pipeline infrastructure
- valve station or metering facility failure

v) Infrastructure Disruption

- total loss of electrical distribution within a campus
- cooling water system failure
- fire within data center electrical infrastructure
- major telecommunications failure affecting operations

The potential emergency planning zone associated with facility operations has been evaluated as part of the project hazard identification and risk assessment process. Based on the nature of facility operations, the types and quantities of materials present, and the engineered safety systems incorporated into the design, emergency planning is focused primarily on on-site response capabilities. Off-site impacts are considered unlikely under credible operating scenarios, however coordination procedures with local emergency response agencies are maintained to ensure appropriate response should an off-site impact occur.

Emergency response plans identify response procedures tailored to these scenarios and establish response actions designed to rapidly control hazards and prevent escalation. Facility location maps, access routes, and surrounding area reference information used to support emergency planning are provided in Appendix F – Facility Location and Access Maps.

5.2 Emergency Response Plan Hierarchy

Because the Synapse project consists of multiple energy generation facilities and supporting pipeline infrastructure, emergency response planning is structured using a hierarchical system.

This ensures that emergency response procedures are appropriate for both localized incidents and large-scale events affecting multiple assets.

- i) **Corporate Emergency Management Framework:** The corporate emergency framework provides the strategic oversight necessary to coordinate response activities during significant events affecting multiple Synapse assets or requiring corporate-level coordination.

This framework establishes:

- corporate emergency leadership responsibilities
- regulatory communication protocols
- stakeholder communication procedures
- coordination with government agencies
- mobilization of corporate technical resources

The corporate framework supports operational response teams and ensures that strategic decisions and external communications are managed consistently.

- ii) **Campus Emergency Response Plans:** Each Synapse campus maintains a site-specific Emergency Response Plan addressing hazards associated with the operation of the combined-cycle power generation facilities and associated data center infrastructure.

Campus-level ERPs address:

- fire and explosion hazards associated with gas turbines and auxiliary systems
- ammonia releases from SCR systems
- electrical system fires or failures
- building evacuation procedures
- coordination with local fire departments

Campus ERPs translate the outputs of hazard identification and risk assessments, including QRAs, into actionable response procedures and responder guidance. Where QRA or detailed consequence modelling has been performed, ERP documentation will incorporate scenario-specific hazard information including, but not limited to, toxic dispersion contours, thermal radiation zones, overpressure effects, and defined exclusion distances. These outputs are used to establish site-specific isolation perimeters, emergency planning zones, responder approach strategies, and protective action recommendations for both on-site personnel and the public. ERP packages will include supporting materials such as site maps, hazard overlays, and scenario summaries that clearly communicate expected conditions during an incident. This information is provided to external emergency responders through pre-incident planning coordination, training exercises, and controlled distribution of ERP

documentation to ensure responders have a clear understanding of facility hazards, access routes, and safe operating limits prior to and during an emergency event. Such ERPs identify:

- emergency shutdown procedures
- facility isolation and venting (as applicable) procedures
- designated muster points and evacuation routes and exclusion zones (as applicable)
- location of fire suppression and emergency response equipment
- emergency access routes for responders

iii) **Pipeline Emergency Response Plans:** Pipeline systems supplying natural gas to the Synapse facilities maintain dedicated Emergency Response Plans addressing hazards specific to pipeline operations.

Pipeline ERPs include procedures for:

- identifying pipeline leaks or ruptures through monitoring systems
- confirming releases through operational inspection
- isolating affected pipeline segments through remote or manual valve closure
- coordinating with pipeline control centers
- protecting the public through evacuation or shelter-in-place where required
- coordinating with regulatory authorities

Pipeline ERPs also establish procedures for field response personnel and coordination with emergency services in the event of a significant release.

5.3 Incident Detection and Initial Response

Emergency situations may be identified through several mechanisms including automated monitoring systems, operational alarms, or direct observation by personnel.

Key detection systems supporting emergency identification include:

- gas detection systems
- fire detection systems
- pipeline pressure monitoring systems
- turbine and process monitoring systems
- facility control systems
- leak detection systems

When abnormal conditions are detected, operational personnel perform an immediate assessment to determine whether emergency response procedures must be activated.

Initial response actions focus on controlling hazards at their source whenever possible through:

- activation of emergency shutdown systems, either manually or automatically
- isolation of fuel or process systems
- activation of fire suppression systems
- evacuation of personnel from hazardous areas

5.4 Emergency Escalation and Response Activation

Emergency response procedures are activated when an event exceeds normal operational control capabilities or presents a credible threat to personnel, infrastructure, or the surrounding community.

Incident escalation procedures ensure that response activities are rapidly scaled to match the severity of the event.

Emergency escalation triggers may include:

- confirmed gas release or fire
- hazardous material release
- uncontrolled equipment failure
- incidents with potential off-site impacts
- incidents requiring external emergency assistance

Once escalation occurs, the appropriate response structure is activated and operational control transitions to the designated incident command structure.

5.5 Protection of Personnel and the Public

Protection of life is the highest priority during all emergency response activities. Emergency response procedures at Synapse facilities are designed to ensure the immediate protection of facility personnel, contractors, emergency responders, and members of the public who may be affected by an emergency event.

Protective actions implemented during emergency response operations may include:

- shelter-in-place procedures where evacuation could increase risk
- establishment of controlled access zones around hazardous areas
- shutdown and isolation of affected process systems
- coordination with local emergency authorities to implement community protective measures

Two designated muster locations are established on site to account for prevailing wind conditions and incident location. Personnel shall report to the upwind muster point as determined by wind direction indicators (windsocks located at elevated positions across the site). Muster point selection shall be dynamically communicated via site alarm systems and supervisory personnel. Due to the scale of the site and the high volume of personnel across ten distinct campuses, accountability is managed through an integration of the site-wide electronic access control / badging system and designated area wardens. This ensures rapid, accurate roll calls and identifies the last known location of missing personnel without relying solely on manual headcounts.

Each Synapse campus Emergency Response Plan identifies designated primary and secondary muster locations, evacuation routes, and accountability procedures to ensure all personnel can be safely accounted for during an emergency. Where emergency events present potential off-site impacts, Synapse will coordinate with local authorities to implement public protection measures.

These may include:

- temporary evacuation of nearby residences or businesses
- shelter-in-place advisories
- traffic control and road closures

- emergency public communications

Synapse will work directly with local emergency management authorities to ensure protective actions are implemented in a coordinated and effective manner. Public safety decisions will be made in consultation with emergency responders and the appropriate municipal or provincial authorities responsible for emergency management within the region.

5.6 Coordination with Emergency Responders

Synapse recognizes that effective emergency response requires close coordination with regional emergency services and government authorities responsible for public safety. Synapse facilities located near the Town of Olds and within Mountain View County will coordinate with the following emergency response organizations. Developed ERPs will provide scenario-based hazard summaries, including exclusion distances and expected hazard conditions, to responding agencies as part of pre-incident planning, joint training activities, and during emergency response.

i) **Fire Service**

Fire protection and emergency response services in the Olds region are provided by the Mountain View Regional Fire Service, which operates multiple stations within the county. They provide structural firefighting, industrial response capability, rescue services, and limited hazardous materials response for incidents occurring within Mountain View County.

Olds Fire Department – Station 1
Emergency: 911
Non-Emergency / Administration: 403-556-8880
Town of Olds Fire Department
5110 65 Avenue Unit B
Olds, Alberta T4H 1S2

The Mountain View Regional Fire Service provides response capabilities including:

- fire protection and prevention services
- fire inspections and investigations
- structural firefighting
- industrial firefighting support
- hazardous materials response (HAZMAT)
- rescue services
- vehicle extrication
- emergency medical services in support of Alberta Health Services

Synapse will coordinate with the Town of Olds Fire Department to ensure that facility emergency response plans are understood by local responders and that responders have access to site information necessary for safe response operations.

ii) **Emergency Medical Services**

Emergency medical response in the region is provided by Alberta Health Services Emergency Medical Services (AHS EMS).

Alberta Health Services EMS – Central Zone
Emergency: 911

Regional dispatch is coordinated through the provincial emergency communications system. Advanced life support and ambulance services are available through the regional EMS network serving the Town of Olds and surrounding communities.

Emergency medical responders provide:

- advanced life support medical care
- patient stabilization and transport
- coordination with regional hospitals

iii) Law Enforcement

Law enforcement services in the Olds region are provided by the Royal Canadian Mounted Police (RCMP).

Emergency: 911
Non-Emergency: 403-556-3324
Olds RCMP Detachment
5110 65 Avenue
Olds, Alberta T4H 1P6

RCMP support may be required during incidents involving:

- traffic control
- evacuation support
- security incidents
- criminal activity or sabotage

RCMP personnel may also assist with perimeter control during incidents affecting public safety.

iv) Municipal Emergency Management

Local emergency management coordination is provided through the Town of Olds Emergency Management Agency (Bylaw No. 2019-15).

Town of Olds Emergency Management Agency
Telephone: 403-556-6981
3501 70 Avenue
Olds, Alberta, T4H 1L7

The municipal emergency management organization is responsible for coordinating community emergency response activities and may activate municipal emergency operations centers if an incident requires regional coordination.

Synapse will coordinate with town of Olds Emergency Management personnel during emergency planning activities and during incidents with potential community impacts.

v) Environmental and Spill Response Services

Municipal fire departments do not provide environmental remediation or large-scale hazardous materials cleanup. As a result, Synapse shall obtain an active membership in the Western Canadian Spill Services (WCSS) cooperative and maintains pre-established master service agreements with specialized environmental emergency response contractors. These contracted services provide 24/7 deployment capabilities for:

- large-scale hydrocarbon spill containment and recovery
- aqueous ammonia plume suppression and remediation
- contaminated soil excavation and vacuum truck services
- post-incident environmental sampling and monitoring

vi) **Provincial Regulatory Authorities**

Synapse will notify the Alberta Energy Regulator (AER) in accordance with regulatory reporting requirements when incidents occur involving pipeline infrastructure or energy operations.

Alberta Energy Regulator – Energy and Environmental Emergency (24-Hour Line)
Emergency Reporting Line: 1-800-222-6514

Additional notifications may be required to other provincial authorities depending on the nature of the incident.

5.7 Emergency Response Resources

Synapse facilities are equipped with engineered safety systems and emergency response equipment designed to detect, control, and mitigate emergency events.

Emergency response resources are selected based on the hazards identified during facility risk assessments and are maintained in accordance with applicable engineering standards and maintenance programs.

Examples of emergency response resources available at Synapse facilities include:

i) **Fire Detection and Suppression Systems**

- turbine enclosure fire detection and suppression systems
- fire protection systems within data center facilities
- portable firefighting equipment
- fire water distribution systems where applicable

ii) **Gas Detection and Hazard Monitoring**

- fixed natural gas detection systems
- ammonia detection systems associated with SCR systems

iii) **Emergency Shutdown Systems**

- automated turbine shutdown systems
- fuel gas isolation systems
- pipeline isolation valve systems

iv) **Spill and Chemical Response Equipment**

- chemical containment equipment
- absorbent materials and spill kits
- emergency chemical isolation systems

v) **Communications Systems**

- emergency notification systems
- facility alarm systems
- redundant communications systems

Emergency response plans identify the location and use of these resources and establish procedures for deploying additional resources when required. In the event of a large-scale emergency requiring additional resources, Synapse may request assistance from regional emergency response organizations, industrial response contractors, or mutual aid partners.

5.8 Emergency Response Plan Maintenance and Continuous Improvement

Emergency response plans are maintained as controlled documents within the Synapse Emergency Management Program and are subject to regular review and improvement.

Plan reviews ensure that emergency procedures remain consistent with:

- facility design and operational conditions
- current regulatory requirements
- industry best practices for emergency management

Emergency response plans will be reviewed and updated when:

- significant facility modifications occur
- operational hazards change
- lessons learned from emergency incidents are identified
- emergency exercises identify opportunities for improvement
- regulatory requirements are updated

In addition to periodic reviews, Synapse conducts emergency preparedness exercises to validate response procedures and coordination with external responders. Exercise results are documented and evaluated to identify improvements to emergency procedures, training programs, and emergency response capabilities. Continuous improvement of the Emergency Management Program ensures that Synapse maintains a high level of emergency preparedness throughout the lifecycle of the project.

6. Incident Command and Emergency Operations

Effective emergency response requires a structured system for managing personnel, resources, and decision-making during emergency events. Synapse utilizes a formal incident management structure designed to ensure that emergency situations are managed safely, efficiently, and in coordination with external emergency responders.

The incident management system establishes clear command authority, defined operational roles, and structured communication pathways to ensure that response activities are coordinated effectively. The system adopted by Synapse is consistent with the Incident Command System (ICS) framework widely used by

emergency management organizations throughout Canada and internationally. The ICS structure provides a scalable command framework capable of managing incidents ranging from localized operational events to large-scale emergencies affecting multiple Synapse facilities or surrounding communities.

6.1 Incident Command Principles

The Synapse incident command system is built on several key principles designed to support effective emergency management.

i) **Clear Command Authority**

Every emergency response operation is directed by a designated Incident Commander, who is responsible for the overall management of the response. The Incident Commander establishes priorities, directs response operations, and ensures that appropriate resources are deployed to control the emergency situation.

ii) **Unified Coordination**

Where incidents require the involvement of external emergency services, Synapse will operate within a Unified Command structure, allowing facility leadership and external responders to coordinate response actions while maintaining clear operational authority.

iii) **Scalable Response Structure**

The incident command structure may be expanded or contracted depending on the size and complexity of the emergency event. Small incidents may be managed by a limited response team, while larger incidents may require a fully expanded command structure involving multiple operational and support roles.

iv) **Structured Communication**

The ICS structure establishes defined communication pathways between operational personnel, command staff, corporate leadership, and external responders. Clear communication channels are essential to ensuring that response activities remain coordinated and that critical information is shared rapidly.

6.2 Incident Command Structure

Emergency response at the facility shall be structured in accordance with the Incident Command System (ICS). Upon escalation of an incident, a designated Incident Commander will be established, with clear roles defined for Operations, Safety, Liaison, and Communications. Where municipal response is activated, command will transition or integrate with the Town of Olds Emergency Management Agency in accordance with ICS unified command principles.

During emergency events, response operations are organized under this Incident Command System. The ICS structure (figure 6.2) used by Synapse includes several key functional areas responsible for managing different aspects of the response. The emergency command structure used at the Synapse facility follows the standard incident management framework used by emergency responders across North America.



Figure 6.2 – ICS Structure

Within this structure, the Incident Commander maintains overall authority while section chiefs responsible for Operations, Planning, and Logistics report directly to the Incident Commander. The Public Information Officer, Safety Officer, and Liaison Officer function as command staff advisors and do not exercise operational authority over response sections.

A simplified representation of the emergency notification and command escalation pathway is illustrated in Appendix C – Emergency Notification Flowchart.

i) Incident Commander

The Incident Commander (IC) is responsible for overall management of the emergency response. Responsibilities include:

- Establish incident objectives, operational priorities, and ensure the safety of personnel and the public.
- directing response operations
- ensuring the safety of responders and personnel
- coordinating with external emergency responders
- authorizing public protection measures where required

The Incident Commander role will typically be assumed by the senior on-site operational authority until relieved by a designated emergency response leader. For larger or prolonged incidents, Synapse may activate an Emergency Operations Centre (EOC) to support the on-scene Incident Command structure. The EOC provides strategic coordination, external communications support, resource coordination, and corporate decision support while operational control of the incident remains with the Incident Commander at the site.

When external emergency responders assume jurisdiction or participate in incident management, a Unified Command structure may be established. Under Unified Command, Synapse representatives work jointly with responding agencies to coordinate incident objectives, resource deployment, and operational priorities while maintaining clear lines of authority within each participating organization.

ii) **Operations Section Chief**

Responsible for directing all tactical field operations to stabilize the hazard. This role is typically filled by a senior operations or engineering representative familiar with the affected equipment or infrastructure.

Responsibilities include:

- assessing the technical condition of affected systems
- directing equipment isolation or shutdown procedures
- evaluating escalation risks
- coordinating technical specialists required to control the incident
- providing technical guidance to the Incident Commander

Examples of technical response activities may include:

- isolation of fuel gas systems
- shutdown of turbines or process systems
- isolation of pipeline segments
- stabilization of pressure systems

iii) **Logistics Section Chief**

Responsible for providing facilities, services, equipment, and logistical support necessary to sustain the incident response. The Logistics Section Chief ensures that response personnel have access to required resources, communication systems, transportation, and supplies needed to support emergency operations.

Responsibilities include:

- arranging additional emergency equipment or specialized response resources
- coordinating transportation and site access for responders
- maintaining communications systems used during the response
- providing responder support services including food, shelter, and medical support where required
- ensuring adequate logistical support for sustained response operations

iv) **Planning Section Chief**

Responsible for collecting, evaluating, and disseminating operational information related to the incident, and for developing Incident Action Plans (IAPs) for extended response operations. The Planning Section Chief maintains situational awareness and ensures that incident information is properly documented and communicated.

Responsibilities include:

- maintaining incident status information and resource tracking
- developing and updating Incident Action Plans for operational periods
- documenting incident activities and operational decisions
- coordinating technical specialists and subject matter experts
- supporting the Incident Commander with situational analysis and forward planning

v) **Safety Officer (Advisor)**

The Safety Officer monitors response operations to ensure that emergency responders are not exposed to unnecessary hazards. The Safety Officer operates as a member of the Command Staff and has the unilateral authority to halt response operations if life-threatening or unsafe conditions are identified. Responsibilities include:

- evaluating hazards associated with tactical response operations
- ensuring appropriate Personal Protective Equipment (PPE) and gas monitoring devices are utilized
- developing the site-specific safety plan for the incident
- monitoring responder welfare and work/rest cycles during hazardous operations

vi) **Public Information Officer (PIO) and Liaison Officer (Advisors)**

The Public Information Officer (PIO) manages communication with the public and media during an emergency, ensuring that accurate and timely information is provided while protecting operational integrity. The Liaison Officer serves as the primary point of contact between Synapse and external agencies including regulators, municipal emergency management authorities, and emergency responders.

Responsibilities include:

- coordinating communication with regulators including the Alberta Energy Regulator and Alberta Environment and Protected Areas
- maintaining communication with municipal emergency management authorities
- coordinating public messaging and media communications where required
- ensuring consistent communication between Synapse leadership and external agencies

6.3 Incident Escalation Levels

Emergency events vary widely in severity and complexity. In strict alignment with AER Directive 071, Synapse classifies incidents according to a four-level escalation matrix that reflects the potential impact of the event and the required response. A summary of the incident classification structure and response expectations associated with each escalation level is provided in Appendix B – Incident Classification Reference.

Alert

An incident that can be handled on-site by Synapse personnel through normal operating procedures. The event is localized, and there is no danger outside the Synapse property. Examples include a localized equipment failure or a minor contained spill. No external emergency responders are required, though internal notifications are made.

Level 1 – Operational Emergency

There is no danger outside the Synapse property, there is no threat to the public, and potential environmental impacts are contained to the site. However, the situation requires immediate control actions, activation of the facility ERP, and may require assistance from local emergency responders (e.g., Town of Olds Fire Department for a contained equipment fire). AER notification is mandatory.

Level 2 – Facility Emergency

There is no immediate danger outside the Synapse property or the right-of-way, but there is the *potential* for the emergency to extend beyond Synapse property. Outside agencies must be notified, and the Emergency Operations Centre (EOC) is activated. Public protection measures (like localized sheltering) may be considered as a precaution.

Level 3 – Major Emergency

The safety of the public is in actual or imminent jeopardy from the hazard. There are significant environmental impacts or property damage occurring or imminent off-site. Full EOC activation, Unified Command with municipal and provincial authorities, and immediate implementation of public protection measures (evacuation/shelter-in-place) are required.

6.4 Emergency Operations Centre (EOC)

For major incidents requiring extended coordination, Synapse may activate an Emergency Operations Centre (EOC) to support response activities. The Emergency Operations Centre provides strategic coordination and resource management while allowing on-site responders to focus on tactical response activities.

Functions of the Emergency Operations Centre may include:

- coordinating corporate support resources
- managing communications with regulators and government agencies
- coordinating public communications
- supporting logistics and resource deployment
- monitoring incident progression and recovery activities

The EOC ensures that corporate leadership remains informed and that strategic decisions can be made rapidly during major incidents.

6.5 Integration with External Response Agencies

Where emergency events require support from external responders, Synapse will integrate response operations with regional emergency services using unified command principles. This approach allows Synapse operational leadership and external responders to coordinate response strategies while maintaining clear operational authority within their respective organizations.

External responders may include:

- Town of Olds Fire Department
- Alberta Health Services Emergency Medical Services
- Royal Canadian Mounted Police
- Town of Olds Emergency Management Agency

Integration with external responders ensures that emergency response activities are coordinated effectively and that public safety considerations are addressed appropriately.

6.6 Incident Documentation and Post-Incident Review

All emergency events are documented in accordance with Synapse incident management procedures.

Incident documentation includes:

- event timeline and operational actions
- resources deployed during response operations
- communications with external responders and regulators
- responder safety considerations

Following resolution of the incident, Synapse conducts a post-incident review to evaluate the effectiveness of response actions and identify opportunities for improvement. Lessons learned from incidents are incorporated into updates to emergency response plans, training programs, and operational procedures.

Lessons learned from incident reviews are incorporated into updates of the facility Risk Register, operating procedures, emergency response plans, and training programs. This process ensures that operational experience continuously strengthens the emergency preparedness capability of the facility.

7. Emergency Communications and Notification

Effective communication is essential to ensure that emergency situations are managed safely and that appropriate authorities are informed in a timely manner. Synapse maintains structured communication procedures to ensure that information related to emergency incidents is rapidly communicated to internal personnel, emergency responders, regulators, and other stakeholders as required. Emergency communications are coordinated through the incident command structure described in Section 6 to ensure that accurate information is transmitted and that communication activities remain consistent throughout the response.

In the event of an incident with potential off-site impact, Synapse will immediately notify the Town of Olds Emergency Management Agency. Notification triggers include, but are not limited to:

- Fire, explosion, or uncontrolled release
- Hazardous material release (including fuel gas or ammonia)
- Battery Energy Storage System (BESS) thermal events
- Any event requiring evacuation or public safety controls

Synapse will provide ongoing situational updates and coordinate response actions with municipal authorities as required.

7.1 Internal Emergency Communication

Internal communication during emergency situations ensures that personnel responsible for emergency response are informed and that operational leadership is aware of developing incidents.

The internal emergency notification process used by Synapse is illustrated in Appendix C – Emergency Notification Flowchart. The diagram identifies the escalation pathway from initial incident detection through notification of supervisory personnel, emergency response leadership, and corporate support resources. The guidance notes associated with each step of the flowchart provide additional operational direction to personnel responsible for initiating emergency notification. The flowchart provides a simplified reference identifying the escalation pathway from initial incident detection through notification of facility leadership, emergency response personnel, and corporate support resources.

Emergency notifications within Synapse may occur through several communication mechanisms, including:

- facility alarm systems
- control system alerts
- radio communications
- telephone communications
- digital notification systems

Operational personnel detecting abnormal conditions are required to immediately notify the facility control room or designated operational authority. The control room operator or senior operational authority will initiate emergency response procedures and notify appropriate members of the emergency response organization. Internal communications during emergency events are coordinated through the Incident Commander to ensure that operational personnel receive clear instructions and that response activities remain organized.

7.2 External Emergency Notification

When emergency situations occur that may affect public safety, the environment, or critical infrastructure, external emergency responders must be notified immediately. Emergency responders are contacted through the 911 emergency dispatch system, which provides access to fire, medical, and law enforcement services. A consolidated directory of emergency contact information for regulatory agencies, municipal authorities, and emergency services is maintained in Appendix A – Emergency Contact Directory.

Emergency responders serving the Synapse project area include:

- Town of Olds Fire Department
- Alberta Health Services Emergency Medical Services
- Royal Canadian Mounted Police (Olds Detachment)

Certain incidents may trigger mandatory regulatory reporting requirements. Depending on the nature of the incident, notifications may be required to provincial regulatory authorities, emergency management agencies, environmental regulators, or occupational health and safety authorities. Synapse will ensure timely notification and reporting in accordance with applicable legislation and regulatory requirements.

Synapse will coordinate emergency response planning activities with relevant municipal emergency management organizations and local emergency responders. Coordination activities may include sharing facility emergency response information, participating in joint planning discussions, and supporting emergency exercises where appropriate. These interactions are intended to ensure that external responders are familiar with facility hazards, access routes, and emergency response expectations.

Emergency response plans identify procedures for contacting these agencies and providing information regarding the nature and location of the emergency. Regulatory reporting thresholds and notification timelines are summarized in Appendix E – Regulatory Incident Notification Matrix.

7.3 Regulatory Notification

Certain incidents occurring at Synapse facilities or associated infrastructure must be reported to provincial regulatory authorities in accordance with applicable legislation and regulatory directives.

Notification obligations apply when incidents involve:

- uncontrolled releases of hydrocarbons or hazardous substances
- fires or explosions affecting energy infrastructure

- pipeline failures or significant gas releases
- environmental releases exceeding reportable thresholds
- incidents with potential off-site impacts to the public or environment
- exceedances of environmental approval limits
- operational events that result in non-compliance with regulatory approvals or operating conditions

Where reportable incidents occur, Synapse will notify the appropriate regulatory authority as soon as practicable after the incident has been identified and initial response actions have been initiated. Regulatory notifications will normally be initiated by the Incident Commander or designated Incident Communications Coordinator.

7.3.1 Alberta Energy Regulator (AER) Notification

Incidents involving energy infrastructure, including natural gas pipeline systems and energy generation facilities, must be reported to the Alberta Energy Regulator in accordance with applicable regulatory requirements, such as:

- Directive 071 – Emergency Preparedness and Response Requirements for the Petroleum Industry
- Directive 060 – Upstream Petroleum Industry Flaring, Incinerating, and Venting
- applicable pipeline and facility reporting requirements

Reportable incidents may include pipeline leaks or ruptures, uncontrolled gas releases, fires or explosions involving energy facilities, or incidents requiring public evacuation or shelter-in-place.

Initial notification will include available information regarding:

- location of the incident
- type of facility or infrastructure involved
- nature of the incident
- potential impacts to public safety or the environment
- actions taken to control the situation

Additional updates will be provided to the regulator as more information becomes available.

7.3.2 Environmental Release Reporting (EPEA)

Environmental releases must also be reported in accordance with the Environmental Protection and Enhancement Act (EPEA) administered by Alberta Environment and Protected Areas. Environmental reporting requirements apply to releases of substances that may cause adverse effects to the environment.

Reportable incidents may include:

- spills of hydrocarbons or chemicals
- releases affecting surface water or groundwater
- air emissions resulting from uncontrolled events

Environmental releases are reported through the provincial environmental emergency reporting system, which shares the same reporting line as the AER.

In strict accordance with the *Environmental Protection and Enhancement Act* (EPEA), any release that has caused, is causing, or may cause an adverse effect on the environment must be reported immediately via the 1-800-222-6514 emergency line. Synapse will issue a formal, written follow-up report detailing the root cause, exact release volumes, and remediation actions will be submitted to the AEPA Director within seven (7) days of the initial verbal notification, as legally mandated.

7.3.3 Alberta Utilities Commission (AUC) Reporting and Noise Protocol

Operational noise associated with facility operation is regulated under applicable approval conditions and regulatory guidance, including requirements administered by the Alberta Utilities Commission and other applicable authorities. Where operational noise levels exceed approved limits or generate substantiated community complaints, Synapse will investigate the cause of the exceedance and implement corrective measures.

Noise exceedances may occur during:

- abnormal equipment operation
- emergency venting or mechanical failure
- extended operation of auxiliary equipment

Synapse is committed to full compliance with AUC Rule 012 regarding noise control. To manage community impacts associated with the 1.4 GW generation facility, Synapse shall:

- Maintain a dedicated, monitored 24/7 Community Response Line for neighbors to report noise concerns or perceived exceedances.
- Initiate a formal investigation within 24 hours of receiving a substantiated noise complaint.
- Notify the AUC of any Substantiated Noise Complaint and provide a summary of the investigative findings and any implemented mitigation measures (e.g., equipment tuning, acoustic barrier deployment).
- Document all abnormal noise events, such as emergency steam venting or high-load auxiliary equipment testing, as part of the regulatory record, ensuring the AUC and the Town of Olds / Mountain View County are informed of the duration and cause of such events.

7.4 Municipal and Local Authority Notification

Where incidents have the potential to affect the surrounding community, Synapse will notify municipal authorities responsible for emergency management within the region.

Primary municipal coordination occurs with:

Town of Olds
3501 70 Avenue
Olds, Alberta T4H 1L7
Telephone: 403-556-6981

Municipal authorities may activate regional emergency management resources where incidents affect public safety or require coordinated response among multiple agencies. Synapse will provide municipal authorities with information regarding:

- the nature of the incident
- potential risks to nearby communities

- recommended protective actions where appropriate

Coordination with municipal emergency management personnel ensures that public safety decisions are made in cooperation with the appropriate authorities.

7.5 Communication with the Public and Stakeholders

During incidents that may affect the surrounding community, communication with the public must be managed carefully to ensure that accurate information is provided and that protective actions are clearly communicated.

Public communications may be coordinated through:

- Town of Olds Emergency Management Agency
- emergency responders
- official communications issued by Synapse

Public messaging may include information regarding:

- the nature of the incident
- potential impacts to the surrounding area
- recommended protective actions such as evacuation or shelter-in-place

Public communications will be coordinated with responding authorities to ensure that messaging remains consistent and supports public safety.

7.6 Communication Documentation and Incident Records

All regulatory notifications and communications will be documented as part of the incident record maintained by Synapse. Maintaining accurate documentation ensures that regulatory obligations are satisfied and supports post-incident review and continuous improvement of operational and emergency response procedures.

Incident documentation will include:

- time and method of notification
- regulatory authority contacted
- information provided during notification
- follow-up communication with regulators
- corrective actions taken following the incident

8. Emergency Training, Competency, and Exercises

Emergency preparedness at Synapse is founded on the principle that emergency response capability must be developed, demonstrated, and sustained through structured training, periodic validation, and continuous improvement. Emergency response plans are only effective when the personnel responsible for executing them understand their roles, are competent in their assigned duties, and can apply the plans under realistic operating conditions. Training expectations and exercise frequency guidelines supporting this Emergency Management Program are summarized in Appendix D – Emergency Training and Exercise Requirements.

The application of the Risk Matrix is embedded within Synapse's operational and safety culture. Personnel are trained in its use as part of the broader Risk Management Program, ensuring consistent understanding of risk evaluation, decision-making, and escalation requirements. The matrix is used not only during formal hazard assessments but also in day-to-day operational decision-making, incident response, and management of change processes, reinforcing a proactive and risk-informed culture across all levels of the organization

Synapse therefore maintains a formal emergency preparedness training and exercise program designed to ensure that all personnel with emergency management, incident response, technical support, communication, or regulatory notification responsibilities are capable of performing those duties safely and effectively.

The objectives of the Synapse training and exercise program are to:

- ensure personnel understand the hazards associated with Synapse facilities and pipeline infrastructure
- ensure emergency roles and responsibilities are clearly assigned and understood
- validate the functionality of emergency response procedures, communication pathways, and command structures
- demonstrate that Synapse can protect personnel, the public, and the environment during emergency situations
- identify and correct deficiencies in plans, training, equipment, coordination, or organizational readiness
- maintain regulatory compliance with all applicable emergency preparedness and response requirements

The program applies to corporate leadership, site leadership, operations personnel, maintenance personnel, control room personnel, contractors with emergency roles, and any persons who may be called upon to support incident command, technical response, public protection, regulatory communication, or recovery operations.

8.1 Training Program Overview

Synapse shall establish, implement, and maintain a formal emergency training program appropriate to the scale, complexity, and hazard profile of its operations. The training program shall be based on the hazards identified through the Synapse hazard identification and consequence analysis process and shall be structured to ensure that personnel are competent for the emergency functions they may be required to perform.

Directive 071 requires the approval holder to ensure personnel participating in the EMP are competent and have completed the training specified for their assigned roles. Manual 026 specifically identifies these factors as the basis for training frequency and content. Minimum training expectations and recommended exercise frequencies supporting this program are summarized in Appendix D – Training and Exercise Requirements.

Training shall not be limited to response personnel alone. It shall include all personnel whose decisions or actions may materially affect emergency outcomes, including those responsible for:

- incident command and emergency leadership
- technical control of hazards
- facility shutdown, isolation, and stabilization

- field response coordination
- communications and regulatory notification
- public protection and stakeholder coordination
- business continuity and recovery support

Training content, frequency, and depth shall reflect:

- the scope, size, and complexity of Synapse operations
- the hazards associated with combined-cycle generation, data center infrastructure, ammonia systems, hydrogen systems, fuel gas systems, and pipeline operations
- the specific duties assigned to each emergency response role
- the emergency response equipment and control systems available at each site
- regulatory requirements and approval conditions
- lessons learned from incidents, near misses, and prior exercises

8.2 Training Governance and Accountability

The Emergency Management Coordinator shall be responsible for developing, maintaining, and administering the Synapse emergency training and exercise program. Site leaders shall be responsible for ensuring that personnel under their authority complete required training and participate in designated exercises. Corporate leadership shall ensure that adequate resources, time, and organizational support are provided to maintain training and exercise readiness.

Training accountability shall be managed through documented training matrices identifying:

- each emergency role within the Synapse organization
- the mandatory training requirements for each role
- prerequisite training, where applicable
- refresher intervals
- exercise participation expectations
- qualification or competency verification requirements

No person shall be assigned a formal emergency response role unless they have received training appropriate to that role.

8.2.1 Mandatory Competency Standards

To ensure response effectiveness and seamless integration with external agencies during a Unified Command event, Synapse mandates the following minimum training competency levels for all personnel assigned to the Emergency Management Program (EMP), based on Alberta Emergency Management Agency (AEMA) curriculum standards:

i) **Incident Commander and Section Chiefs**

- Must be certified to a minimum of ICS-300 (Intermediate ICS for Expanding Incidents).

ii) **Deputy Section Chiefs and Field Supervisors**

- Must be certified to a minimum of ICS-200 (Basic ICS for Single Resources and Initial Action Incidents).

iii) **All Other Emergency Response Team (ERT) Personnel**

- Must be certified to ICS-100 (Introduction to ICS).

iv) **Public Information and Liaison Officers**

- Must complete role-specific training in accordance with AER Directive 071 expectations for media and stakeholder coordination.

8.3 Training Needs Analysis

Synapse shall conduct and maintain a documented training needs analysis for emergency preparedness and response. This analysis shall identify the knowledge, skills, and decision-making capabilities required for each emergency response position and shall be reviewed whenever:

- a new facility or pipeline asset is brought into operation
- a new hazard is identified
- a change in process, equipment, or layout affects emergency response procedures
- an incident or exercise identifies a competency gap
- regulatory requirements are revised

The training needs analysis shall consider both normal emergency functions and degraded conditions, including nighttime operation, adverse weather, partial staffing, contractor presence, simultaneous incidents, communications disruption, and loss of critical systems. Manual 026 recommends that training plans be built from hazard-based needs analysis and include scope, methods, materials, schedules, evaluations, and documented changes.

8.4 Core Emergency Training Requirements

At a minimum, the Synapse emergency training program shall include the following training categories.

8.4.1 Emergency Management Program Awareness

All employees and long-term contractors working at Synapse facilities shall receive basic awareness training on:

- the purpose of the Emergency Management Program
- site alarms and notification systems
- evacuation procedures and muster expectations
- emergency communication expectations
- visitor and contractor control during emergencies
- reporting of abnormal conditions and incident escalation expectations

This training shall be completed during onboarding and refreshed periodically.

8.4.2 Role-Specific Emergency Response Plan Training

Personnel assigned emergency response roles shall receive Emergency Response Plan procedures training that includes:

- all components of the applicable ERP and supporting tools or technology
- their assigned roles and responsibilities during an incident

- the public and environmental protection measures that may be required during a response
- the planned communication protocol and notification pathways

These training elements are specifically required by Directive 071.

8.4.3 Incident Command and Leadership Training

Personnel who may act as Incident Commander, Technical Response Lead, Site Response Coordinator, Resource and Support Coordinator, or Communications and Regulatory Coordinator shall receive structured training on:

- incident command principles
- emergency decision-making under uncertainty
- span of control and escalation management
- incident objectives and action planning
- interface with municipal responders, regulators, and external agencies
- recordkeeping and incident documentation

8.4.4 Technical Hazard Control Training

Personnel responsible for control of physical hazards shall receive technical training appropriate to the systems they may be required to isolate, shut down, or stabilize during an emergency. This may include:

- turbine emergency shutdown procedures
- fuel gas isolation procedures
- ammonia system isolation and containment procedures
- cooling water and chemical system isolation
- pipeline segment isolation and control room interface
- spill response and containment procedures

8.4.5 Communication and Notification Training

Personnel responsible for external communication shall be trained on:

- regulatory notification triggers
- emergency contact protocols
- information to be provided to responders and regulators
- public protection messaging support
- documentation of communications during incidents

8.4.6 Contractor and Third-Party Interface Training

Where contractors or third parties may be involved in emergency response or may materially affect emergency readiness, Synapse shall provide or require:

- emergency orientation appropriate to the work scope
- communication and alarm response expectations
- interface procedures with site command personnel
- participation in drills where appropriate

8.5 Spill Response Equipment and Training

Where Synapse maintains spill response capability for fuels, lubricants, chemicals, water treatment reagents, or pipeline-related releases, spill response training shall be conducted as a formal field-readiness activity rather than as classroom familiarization only.

Directive 071 requires annual spill response equipment training in the area of operations using the same field supervisory personnel and the spill response equipment intended for use and requires advance notice to the AER at least 30 days before the training. The notification must include the nature and date of the exercise, land description, mapping, access routes, municipal water intakes within three kilometres, any spill material to be used, and site-use considerations.

For Synapse, spill response equipment training shall be designed to verify that field personnel can:

- identify the release source and initial hazard boundary
- establish safe approach and exclusion distances
- protect drainage paths, culverts, ditches, and water conveyance routes
- deploy containment, diversion, and recovery equipment correctly
- coordinate with off-site support services where required
- document response actions and escalation decisions

Training scenarios shall be appropriate to Synapse's hazard profile and site conditions, including:

- transformer oil or lube oil releases within generation facilities
- water treatment chemical releases
- release of diesel or other support fuels used in emergency or maintenance service
- pipeline-related product releases affecting right-of-way drainage features, agricultural land, or environmentally sensitive receptors

Where third-party spill cooperatives, environmental contractors, or specialized response firms are relied upon, Synapse shall not treat membership or contractual availability alone as evidence of readiness. Synapse shall verify, through training or deployment drills, that:

- activation procedures are current
- response time assumptions remain realistic
- site access requirements are known
- internal and external roles are understood
- communications and handover procedures are functional

Training records shall identify the personnel involved, equipment deployed, scenario tested, deficiencies noted, and corrective actions assigned. Directive 071 requires records of spill response training to be completed within 60 days.

8.6 Exercise Program Design and Governance

Synapse shall maintain a formal exercise program under the authority of the Emergency Management Coordinator. The exercise program shall be risk-based, scheduled, documented, and traceable to the hazards identified in the Emergency Management Program and associated Emergency Response Plans. Such exercises include, but are not limited to:

- an annual tabletop or functional exercise for the corporate ERP

- an annual tabletop or functional exercise for each operation-specific ERP, except in years where a major exercise is conducted
- a major exercise in the first year of implementation and every three years thereafter for each operation-specific ERP, or every five years for a corporate ERP if no operation-specific ERP exists

Because the Synapse project includes multiple campuses, high-energy equipment, hazardous chemicals, and associated pipeline infrastructure, the exercise program shall be administered on the assumption that multiple plans and interfaces may need to be validated over a rolling multi-year cycle.

The exercise program shall therefore include:

- an annual corporate command-and-coordination exercise
- periodic campus-specific exercises tied to generation and data center hazards
- periodic pipeline-specific exercises addressing isolation, field verification, public protection, and regulator notification
- joint exercises with external responders where scenario complexity or public interface warrants it
- major multi-agency exercises at a frequency sufficient to demonstrate integrated response capability

The exercise calendar shall be approved annually and shall identify:

- the ERP or EMP element being tested
- the exercise type
- the principal scenario
- the participating groups
- notification requirements
- the exercise owner
- the evaluator(s)
- the due date for the final report and corrective actions

8.7 Exercise Standards and Minimum Performance Expectations

Exercises conducted by Synapse shall be planned to test actual response capability, not merely procedural awareness. Manual 026 states that exercises are intended to improve preparedness, test operational readiness, identify execution weaknesses, identify resource gaps, improve interagency coordination, clarify roles, evaluate plans and procedures, trial response equipment, and demonstrate response capability. It further states that the AER considers exercise quality based on realism, clearly defined scope and objectives, inclusion of required roles, attempted inclusion of agencies, and clear, concise, organized documentation.

Accordingly, every Synapse exercise shall be planned to test, at a minimum, the following where relevant to the scenario:

- detection and confirmation of the event
- incident classification and escalation
- activation of the response organization
- technical control of the hazard
- field coordination and site safety management
- internal communication and shift-to-shift continuity
- regulatory notification and communication with local authorities
- public protection decision-making, where applicable

- resource mobilization and support logistics
- documentation and incident recordkeeping

An exercise shall not be considered satisfactory unless it produces observable evidence that participants could perform their assigned duties under realistic conditions and within timeframes appropriate to the scenario.

For Synapse, minimum exercise standards shall include:

Tabletop exercises: These shall test judgment, escalation, notification, and command decision-making. They shall not be limited to narrative discussion alone. They shall require documented decisions, time-based injects, and explicit role participation.

Functional exercises: These shall involve live activation of selected processes such as callout, regulator notification, command structure activation, equipment mobilization, control room actions, or contractor interface. Manual 026 describes functional exercises as live actions testing integrated functions, including notification to the AER and deployment of service or equipment providers.

Major exercises: These shall test multi-party coordination, implementation of protective actions, longer-duration command support, and the ability to manage a level 2 or greater incident under pressure. Manual 026 describes major exercises as coordinated, potentially multiday events involving resource deployment and protection of the public and environment.

8.8 Synapse Scenario Library and Rotating Exercise Cycle

To prevent repetition and ensure that readiness is demonstrated across the full hazard profile, Synapse shall maintain a formal scenario library and multi-year rotating exercise cycle. The scenario library shall include both high-frequency / lower-consequence events and low-frequency / high-consequence events relevant to Synapse operations, including:

- gas turbine enclosure fire
- HRSG or steam-system loss of containment
- ammonia system leak or release
- natural gas release within plant boundaries
- natural gas pipeline rupture or major leak
- transformer fire or electrical room fire
- UPS battery bank fire (especially lithium ion)
- total loss of one campus combined-cycle block
- simultaneous infrastructure disruption affecting both power generation and data center systems
- severe weather or wildfire interface affecting access, staffing, or safe operations
- contractor-caused incident or third-party strike on buried infrastructure

The exercise cycle shall be structured so that no critical hazard category goes untested for an extended period. Scenarios involving potential public impact, municipal interface, or regulator notification shall be included routinely enough to demonstrate that those aspects of the program remain functional and current.

8.9 Participation, External Interface, and Multi-Agency Coordination

Synapse exercises shall include all internal persons with a defined role in incident management or emergency support relevant to the scenario. Directive 071 expressly requires inclusion of individuals acting on behalf of

the operator who have defined incident-management roles, and requires exercises to test a range of emergency scenarios, public safety and environmental protection procedures, and mutual aid or cooperative arrangements where applicable.

Participation shall therefore be role-based, not title-based. Depending on the scenario, required participants may include:

- site operations leaders
- control room or process operators
- maintenance and technical specialists
- corporate emergency leadership
- communications and regulatory coordinators
- pipeline operations personnel
- contractors or service providers with defined emergency roles
- environmental support personnel
- business continuity support personnel

Where external interface is relevant, Synapse shall invite or involve:

- Town of Olds Fire Department
- Alberta Health Services EMS
- RCMP
- Town of Olds Emergency Management Agency
- environmental response contractors
- pipeline response contractors or mutual aid partners
- other facility owners or operators where physically connected or operationally interdependent

Directive 071 requires that where multiple approval holders conduct a joint exercise as part of a synergy or mutual aid group, the relevant local authority and the Alberta Emergency Management Agency must be invited, and the exercise must test mutual aid procedures with all approval holders represented in incident-management positions.

For Synapse, joint exercises are to be used selectively to demonstrate:

- facility-to-municipal response integration
- pipeline-to-facility escalation and public protection interface
- contractor-supported response mobilization
- extended emergency management coordination across multiple campuses or assets

8.10 Exercise Notification, Invitations, and Regulatory Interface

Exercise planning shall include regulatory and authority notification controls sufficient to ensure compliance with Directive 071 and Manual 026. Directive 071 requires the approval holder to notify the AER of tabletop and major exercises, and to invite local authorities identified in the ERP no later than 30 days before a scheduled major exercise, including the emergency scenario details in the written invitation.

Exercise notifications shall include:

- location, date, and time
- the ERP registration number being tested

- an overview of the scenario
- a contact number for exercise coordination

Minor changes can be made up to 48 hours before the original exercise date without restarting the 30-day period, while more significant late changes require a new notification.

The Synapse exercise notification procedure identifies:

- which exercises require AER notification
- when local authority invitations are mandatory
- who is responsible for issuing the notice or invitation
- what information must be included
- how changes, cancellations, or rescheduling are controlled
- how proof of notice is retained

8.11 Evaluation Methodology and Readiness Assurance

Every exercise conducted by Synapse shall be evaluated against pre-established objectives and measurable performance criteria. An exercise shall not be closed on the basis that it occurred, rather it shall only be closed when its results have been analyzed and the consequences for readiness have been assessed.

Evaluation criteria shall address both procedural compliance and operational effectiveness. As applicable, evaluators shall assess:

- whether the scenario was correctly recognized and classified
- whether notifications occurred in the correct sequence and within expected timeframes
- whether command roles were assumed clearly and promptly
- whether hazard-control decisions were technically appropriate
- whether public and environmental protection measures were understood and implemented
- whether external interfaces functioned as intended
- whether documentation, communication discipline, and situational awareness were maintained

Manual 026 emphasizes that exercises are meant to identify resource gaps, coordination weaknesses, and weaknesses in planning execution. Synapse shall therefore treat exercise findings as evidence for management review, not merely as training observations.

Where an exercise reveals a material deficiency, Synapse shall assess whether that deficiency affects:

- immediate site readiness
- ERP adequacy
- staffing or competency requirements
- equipment availability
- regulatory compliance posture

If so, interim controls shall be implemented without waiting for the next annual review cycle.

8.12 Post-Exercise Review and Lessons Learned

Following completion of each exercise or major drill, Synapse shall conduct a structured post-exercise review to evaluate the effectiveness of the response and identify opportunities for improvement. The review process

shall include participation from the exercise facilitators, evaluators, and key response personnel involved in the scenario.

The purpose of the review is to determine:

- whether the exercise objectives were achieved
- how effectively emergency roles and responsibilities were carried out
- whether communication pathways functioned as intended
- whether response procedures were practical and clearly understood
- whether equipment, resources, and support services were adequate for the scenario

The review shall identify both strengths and areas requiring improvement in the Emergency Management Program. Where applicable, feedback from external participants such as emergency responders, municipal authorities, or service providers shall also be incorporated into the review process.

8.13 Improvement Actions and Program Updates

Where exercises identify deficiencies or opportunities for improvement, Synapse shall implement corrective actions to strengthen emergency preparedness.

Corrective actions may include:

- revisions to the Emergency Management Program or Emergency Response Plans
- updates to operating procedures or response guidance
- additional training for personnel assigned emergency response roles
- procurement or modification of emergency equipment or response resources
- improvements to communication or notification procedures
- clarification of responsibilities or coordination procedures with external agencies

Improvement actions shall be assigned to responsible personnel and tracked until completion. Updates resulting from exercises shall be incorporated into future training, exercises, and revisions of the Emergency Management Program to ensure that lessons learned contribute to continuous improvement of the organization's emergency preparedness capability.

8.14 Training and Exercise Records

Synapse shall maintain records of all emergency preparedness training and exercises conducted under this program.

Records shall include:

- training sessions completed and personnel attending
- exercise dates and locations
- exercise objectives and scenarios tested
- participating personnel and organizations
- summaries of post-exercise reviews
- identified improvement actions

Maintaining these records allows Synapse to demonstrate that emergency preparedness activities are conducted regularly and that the Emergency Management Program remains active and current. Training and

exercise records shall be retained in accordance with company document control procedures and made available to regulatory authorities upon request.

9. Emergency Response Plan Integration and Maintenance

The Synapse Emergency Management Program establishes the overall framework for emergency preparedness and response across all Synapse facilities and associated infrastructure. While the Emergency Management Program defines governance, roles, training requirements, and preparedness activities, asset-specific Emergency Response Plans (ERPs) provide detailed operational procedures for responding to emergencies affecting particular facilities or infrastructure systems. This structure ensures that emergency response procedures are both consistent across the organization and tailored to the specific hazards associated with each facility or asset.

9.1 Relationship Between the EMP and ERPs

The Synapse Emergency Management Program functions as the umbrella framework for emergency preparedness across the organization. Asset-specific Emergency Response Plans are developed under this framework to address operational hazards and emergency scenarios unique to particular facilities or infrastructure.

The EMP therefore provides:

- governance structure for emergency management
- incident command framework
- communication and notification protocols
- training and exercise requirements
- regulatory reporting guidance
- continuous improvement processes

Emergency Response Plans provide:

- site-specific hazard information
- emergency detection and response procedures
- facility isolation and shutdown procedures
- evacuation or shelter-in-place guidance
- resource deployment instructions
- maps and operational reference materials

This layered structure ensures that all Synapse emergency plans remain consistent with corporate emergency management principles while addressing the operational realities of each facility.

9.2 Synapse Emergency Response Plans

Emergency Response Plans will be developed and maintained for Synapse infrastructure where emergency scenarios require site-specific response procedures.

These plans may include ERPs for:

- Synapse combined-cycle generation facilities
- natural gas pipeline systems supplying Synapse facilities
- ammonia storage and handling systems

- large-scale data center campuses where emergency coordination with power generation infrastructure is required

Where appropriate, ERPs may be developed for individual campuses or for groups of facilities sharing similar hazards and operational interfaces. Each ERP shall contain sufficient operational detail to allow trained personnel to implement effective emergency response actions.

9.3 Pipeline Emergency Response Plans

Pipeline infrastructure associated with Synapse operations shall be supported by pipeline-specific ERPs addressing hazards associated with high-pressure natural gas transportation.

These plans will address the pipeline segments associated with the Synapse project, including:

- the 8-inch natural gas pipeline connecting the Whitecap Energy facility to the Synapse site
- the future pipelines connecting to the Synapse site

Pipeline ERPs shall include procedures for:

- leak detection and incident recognition
- pipeline isolation and shutdown
- emergency response coordination with upstream and downstream operators
- protection of nearby residents, landowners, and infrastructure
- coordination with municipal emergency responders
- regulatory notification and reporting

Pipeline emergency response procedures are developed in accordance with applicable regulatory requirements governing pipeline operations.

9.4 Coordination with Municipal Emergency Management

Synapse recognizes that certain emergency scenarios may require coordinated response involving municipal emergency services and regional authorities responsible for public safety. Accordingly, the Synapse Emergency Management Program is designed to integrate with the emergency management framework of the surrounding jurisdiction, including the emergency management system maintained by Mountain View County and the Town of Olds. Coordination with municipal authorities may occur where emergency events have the potential to affect public safety, transportation corridors, utilities, or neighbouring properties.

Examples of incidents that may require municipal coordination include:

- significant natural gas releases from pipeline infrastructure
- fires affecting generation or electrical infrastructure
- ammonia or chemical releases with potential off-site impacts
- emergency evacuation or shelter-in-place situations affecting nearby residents
- transportation incidents involving hazardous materials associated with Synapse operations

Where emergency events have the potential to affect the surrounding community, Synapse will coordinate with municipal authorities and emergency responders to support protective actions such as:

- public notification
- evacuation or shelter-in-place guidance

- traffic control and road closures
- establishment of safety perimeters
- coordination of emergency medical response

Synapse will maintain awareness of the regional emergency management structure and is dedicated to cooperating fully with municipal authorities during emergency situations affecting the surrounding community.

9.5 Integration with External Response Organizations

Effective emergency response often requires coordination with external response organizations possessing specialized expertise, equipment, or jurisdictional authority. The Synapse Emergency Management Program therefore anticipates cooperation with a range of external agencies and service providers.

These may include:

- municipal fire departments and emergency medical services
- provincial law enforcement agencies
- environmental response contractors
- pipeline response contractors
- hazardous materials response specialists
- equipment suppliers and technical service providers

External organizations may provide support for activities such as:

- fire suppression
- hazardous materials containment and recovery
- environmental monitoring and remediation
- technical inspection of damaged equipment
- transportation control or road closures

Where appropriate, Synapse will maintain working relationships with key external organizations and will incorporate these interfaces into training activities and emergency exercises to ensure that coordination procedures remain effective.

9.6 Emergency Management Program Review and Plan Maintenance

The Synapse Emergency Management Program and associated Emergency Response Plans shall be reviewed periodically to ensure that they remain accurate, effective, and aligned with current operations.

Plan reviews shall consider:

- changes to Synapse facilities or infrastructure
- changes to operational processes or hazard profiles
- new pipeline infrastructure associated with Synapse operations
- lessons learned from emergency exercises or actual incidents
- changes in regulatory requirements
- feedback from emergency responders or regulatory authorities

Reviews shall verify that emergency plans continue to reflect:

- current facility configurations
- current organizational roles and contact information
- current communication procedures
- current emergency response resources

Where revisions are required, the Emergency Management Coordinator shall ensure that updated plans are issued and that personnel responsible for emergency response are informed of the changes. Maintaining accurate and current emergency response documentation is essential to ensuring that Synapse personnel and external responders have reliable guidance during emergency situations.

9.7 Distribution and Accessibility of Emergency Plans

Emergency plans must be readily available to personnel responsible for emergency response and to those who may require access during an incident. Synapse therefore maintains controlled distribution of the Emergency Management Program and associated Emergency Response Plans.

Controlled copies may be maintained:

- within facility control rooms or operations centers
- within emergency response coordination locations
- within secure electronic document systems accessible to authorized personnel

Emergency plans shall be structured so that key operational information can be accessed quickly during emergency conditions. Where appropriate, emergency responders and relevant authorities may be provided with access to appropriate portions of emergency planning documentation necessary to support coordinated response. Ensuring that emergency plans remain accessible and current is an essential component of emergency preparedness. For rapid use during emergency response, a condensed operational reference derived from this program is provided in Appendix G – Emergency Response Quick Reference Guide.

10. Program Oversight, Review, and Continuous Improvement

The Synapse Emergency Management Program is intended to remain a living management system that evolves as facilities expand, infrastructure changes, and new operational risks emerge.

To ensure the continued effectiveness of the program, Synapse maintains formal oversight, review, and improvement processes designed to verify that emergency preparedness measures remain appropriate for the hazards associated with Synapse operations.

These processes ensure that emergency preparedness remains aligned with:

- operational conditions at Synapse facilities
- applicable regulatory requirements
- best practices in industrial emergency management
- lessons learned from incidents, exercises, and industry experience

10.1 Program Governance

Overall responsibility for the Synapse Emergency Management Program rests with senior management of Synapse.

Senior management is responsible for ensuring that:

- adequate resources are allocated to support emergency preparedness
- the Emergency Management Program remains aligned with company operations
- personnel assigned emergency response roles receive appropriate training
- emergency planning requirements are incorporated into operational decision-making

The Emergency Management Coordinator is responsible for the day-to-day administration of the program, including:

- maintaining emergency planning documentation
- coordinating training and exercise activities
- monitoring regulatory requirements
- supporting emergency preparedness initiatives across Synapse operations

Facility management personnel remain responsible for implementing the program within their respective areas of authority and ensuring that personnel under their supervision understand emergency procedures.

10.2 Periodic Program Review

The Emergency Management Program and associated Emergency Response Plans shall be reviewed periodically to ensure that they remain accurate and effective.

Program reviews shall evaluate whether the EMP continues to reflect:

- the current configuration of Synapse facilities and infrastructure
- the current organizational structure and emergency response roles
- the current hazard profile of operations
- applicable regulatory requirements
- lessons learned from exercises or operational incidents

Reviews may be triggered by events such as:

- expansion of Synapse facilities or infrastructure
- installation of new process equipment or systems
- development of new pipeline connections or energy infrastructure
- changes in regulatory requirements
- identification of deficiencies during emergency exercises
- operational incidents requiring emergency response

Where program improvements are identified, updates to the EMP or associated Emergency Response Plans shall be completed and communicated to relevant personnel.

10.3 Internal Preparedness Verification

Synapse shall periodically verify the effectiveness of emergency preparedness measures through internal evaluation activities.

These evaluations may include:

- reviews of emergency planning documentation
- verification of training completion for personnel assigned emergency roles
- confirmation that emergency equipment remains available and operational

- review of exercise results and corrective actions
- verification that emergency contact information remains current

These activities ensure that emergency preparedness measures remain functional and that emergency plans continue to reflect current operational conditions.

10.4 Incident and Exercise Learning

Operational incidents, near-miss events, and emergency exercises provide valuable information regarding the effectiveness of emergency preparedness arrangements. Synapse shall review the results of these events to identify lessons that may improve emergency preparedness and response capability.

Following any significant incident or emergency activation, Synapse will conduct a post-incident review to evaluate the effectiveness of the response, identify lessons learned, and implement corrective actions where necessary. Findings from these reviews will be incorporated into updates of the Emergency Management Plan, operational procedures, and training programs.

Examples of improvements resulting from lessons learned may include:

- revisions to emergency procedures
- updates to training programs
- improvements to communication protocols
- enhancements to emergency response equipment or resources
- clarification of roles and responsibilities within the incident command structure

Incorporating lessons learned ensures that the Emergency Management Program evolves in response to operational experience.

10.5 Regulatory Compliance Monitoring

Synapse shall monitor regulatory requirements related to emergency preparedness and response to ensure ongoing compliance with applicable legislation and regulatory directives. Where changes to regulatory requirements occur, Synapse will review the Emergency Management Program and implement any modifications necessary to maintain compliance. Monitoring regulatory expectations ensures that Synapse emergency preparedness practices remain aligned with provincial requirements and industry best practices.

10.6 Continuous Improvement of Emergency Preparedness

Emergency preparedness is not a static activity. As Synapse operations evolve and new technologies or infrastructure are introduced, emergency preparedness measures must adapt accordingly.

Synapse therefore applies a continuous improvement approach to emergency management to strengthen the Emergency Management Program over time, using information from:

- operational experience
- emergency exercises
- regulatory guidance
- feedback from emergency responders
- industry best practices
- incident investigation findings and lessons learned

Through these processes, Synapse seeks to maintain a high level of readiness to respond effectively to emergency situations and to protect personnel, the public, and the environment.

10.7 Emergency Management Program Governance

Synapse maintains an Emergency Management Program in accordance with AER Directive 071 requirements.

Program governance includes:

- annual review of the Emergency Response Plan
- management-of-change review when facility modifications occur
- periodic emergency response exercises and training
- completion of the AER Emergency Management Program Declaration Form where required
- periodic program self-assessment to verify program effectiveness

These measures ensure that emergency preparedness remains aligned with evolving operational conditions and regulatory expectations.

Appendix A – Emergency Contact Directory

The following directory identifies the primary internal and external organizations that may be involved in emergency response or regulatory notification related to Synapse operations.

Table A1. On-Site Emergency Contacts	
Role	Responsibility
Facility Manager	Overall emergency authority and external liaison
Operations Manager	Operational control of plant response
Health, Safety & Environment (HSE) Lead	Environmental and safety incident coordination
Control Room Supervisor	Initial incident assessment and dispatch coordination
Security Supervisor	Site access control and evacuation coordination

A detailed internal contact list including mobile phone numbers and shift contacts is maintained separately within the facility emergency management system and updated quarterly.

Table A2. Municipal Emergency Contacts	
Organization	Contact
Town of Olds Fire Department	911
Alberta Health Services – EMS	911
Royal Canadian Mounted Police – Olds Detachment	403-556-3324

These agencies may be contacted through the provincial 911 emergency dispatch system.

Table A3. Provincial Regulators		
Regulator	Purpose	Contact
Alberta Energy Regulator (AER)	Pipeline and energy infrastructure incidents	1-800-222-6514
Alberta Environment and Protected Areas (AEPA)	Environmental releases, spills, emissions exceedances	1-800-222-6514
Alberta Utilities Commission (AUC)	Power plant compliance matters including noise complaints	403-592-4418

The Alberta Emergency Reporting Line (1-800-222-6514) is shared by the AER and AEPA.

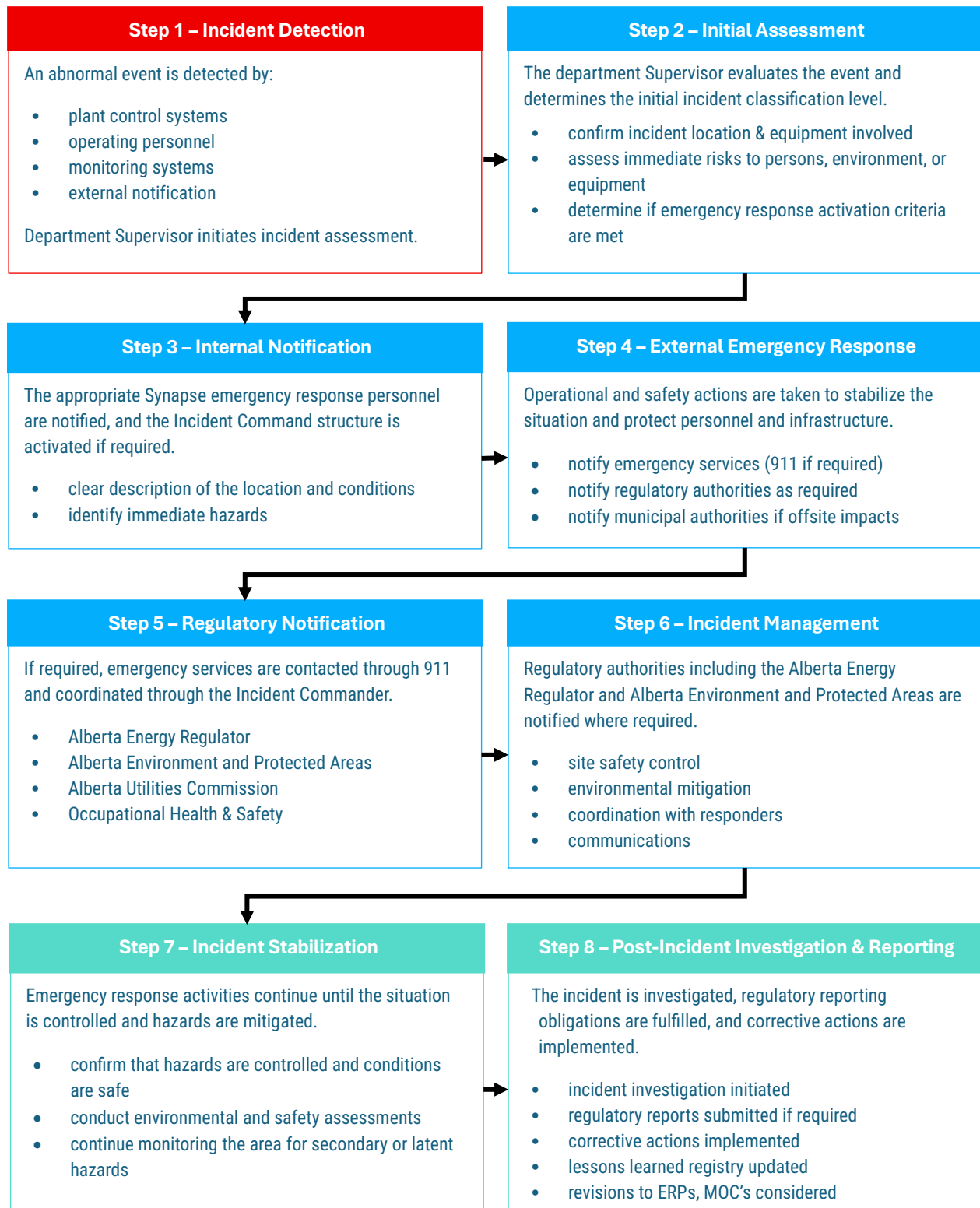
Appendix B – Incident Classification Levels

To ensure consistent response and escalation, Synapse incidents are categorized into four levels based strictly on AER Directive 071 requirements.

Level	Alert	1	2	3
Description	Minor operational events managed by on-site personnel. No danger outside personnel.	Minor operational events that can be managed by on-site personnel without external assistance.	An event requiring activation of the Synapse emergency response organization and possible involvement of external responders.	A Major event with potential off-site consequences or requiring coordinated response with municipal authorities.
Examples	Localized equipment failure; minor contained spill; electrical trip; unplanned shutdown.	Localize equipment failure; minor oil or chemical spill contained within plant systems; electrical trip without damage; temporary equipment malfunction.	Equipment fire; significant natural gas leak within the plant; ammonia system leak; major equipment failure affecting plant safety systems.	Large natural gas release or explosion; major chemical release; large fire affecting critical infrastructure; environmental release with potential off-site impact.
Characteristics	No off-site impact; no public safety risk; liquid release contained on lease; gas release impact on lease only.	No threat to the public; no off-site impact; liquid release not contained on lease but no threat to the public; gas release impact has potential to extend beyond lease.	Potential risk to the public; liquid release off lease not contained; gas release impact extends beyond lease; regional media interest.	Actual risk to the public; fatality; liquid release impacting water or sensitive terrain; public health/safety jeopardized.
Response	Handled by plant operations; documented internally; internal notifications only.	Handled by plant operations personnel; documented in the internal incident reporting system.	Activation of the facility incident command structure; possible coordination with fire services; regulatory notifications initiated as required.	Full emergency command activation; coordination with municipal authorities; immediate regulatory reporting.

Table B1 – Incident Classification Levels

Appendix C – Emergency Notification Flowchart



Appendix D – Training and Exercise Requirements

Synapse maintains a structured emergency preparedness program to ensure personnel are trained to respond effectively to incidents.

Activity	Frequency
Emergency response orientation	At onboarding
Emergency procedures refresher	Annual
Spill response training	Annual
Incident command training (key personnel)	Every 2 years
Hazardous material awareness	Annual
Table D1 – Training Requirements	

Exercise Type	Frequency
Tabletop emergency scenario	Annual
Facility emergency response drill	Annual
Major Exercise (Multi-Agency / Full-Scale)	First year of operation; Every 3 years thereafter (managed on a rotating cycle across all campuses to fulfill AER Directive 071 requirements)
Exercises evaluate: <ul style="list-style-type: none"> • response coordination • communication systems • emergency equipment readiness • regulatory notification procedures 	
Table D2 – Emergency Exercises	

Appendix E – Regulatory Incident Notification Matrix

Scenario No.	Event Type	Primary Regulator	Notification Method	Timing
1	Pipeline leak or rupture	AER	Emergency reporting line	Immediate
			Written report submission	Within 7 days
2	Major natural gas release	AER	Emergency reporting line	Immediate
			Written report submission	Within 7 days
3	Fire or explosion affecting energy infrastructure	AER	Emergency reporting line	Immediate
4	Environmental spill or release	AEPA	Emergency reporting line	Immediate
			Written report submission	Within 7 days
5	Chemical release(s) (e.g. ammonia)	AEPA / AER	Emergency reporting line	Immediate
6	Major emissions exceedance	AEPA	Regulatory reporting	As soon as practicable
7	Noise exceedance confirmed through investigation	AUC	Compliance reporting	As required
8	Emergency generator operation beyond permitted limits	AEPA / AUC	Compliance reporting	As required

Table E1 – Regulatory Incident Notification Matrix

Appendix F – Facility Location Maps

The Emergency Management Plan includes facility location maps to assist emergency responders and regulatory authorities.

F1. Regional Location Map

Shows:

- Synapse Data Center campus location
- proximity to Olds, Alberta
- major transportation routes
- surrounding land uses

F2. Site Layout Map

Includes:

- generation blocks
- HRSG units
- SCR systems and ammonia storage
- cooling infrastructure
- gas supply pipelines
- diesel generators
- pipeline Emergency Shutdown (ESD) block valve locations.

F3. Emergency Access Map

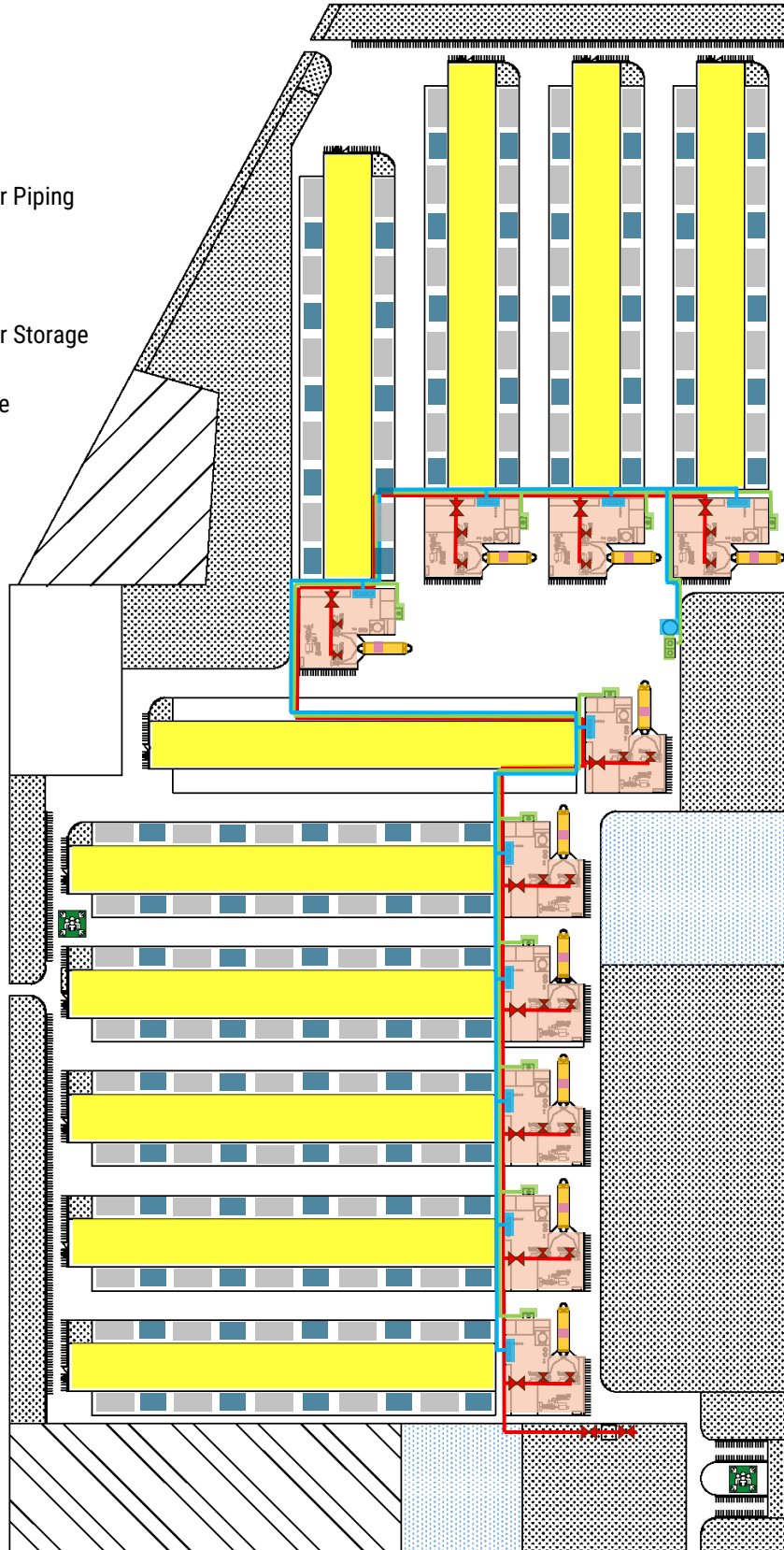
Identifies:

- primary and secondary site access routes
- emergency vehicle staging areas
- fire water infrastructure
- muster points and evacuation routes

F2. Site Layout Map

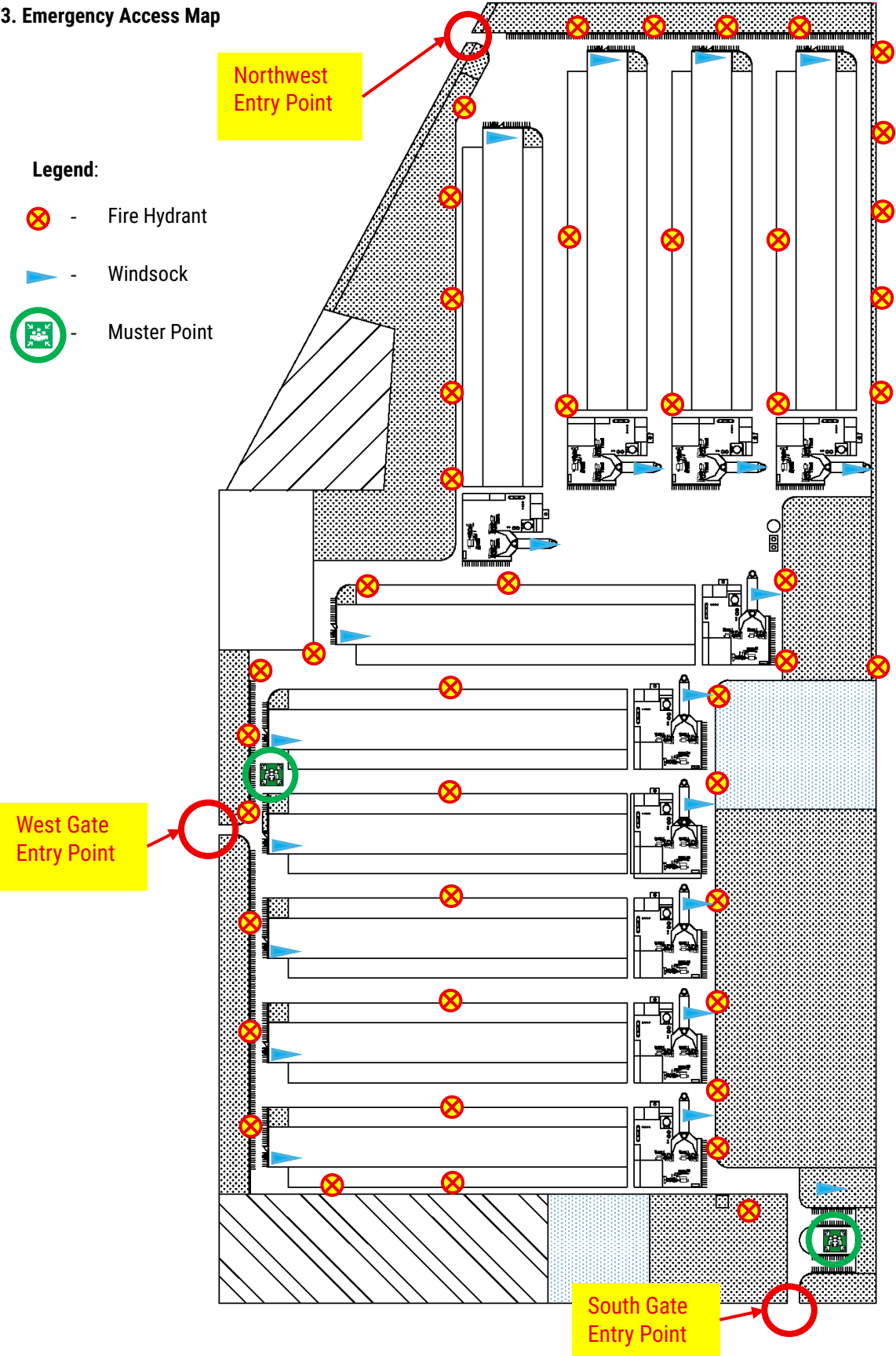
Legend:

- Fuel Gas Piping
- Boiler Feed Water Piping
- Ammonia Piping
- Boiler Feed Water Storage
- Ammonia Storage
- HRSG
- Power Block
- SCR Blocks
- Data Campus
- X ESD Valve
- Chillers
- Generators



F3. Emergency Access Map

- Legend:**
- ⊗ - Fire Hydrant
 - ▶ - Windsock
 - ⊕ - Muster Point



Appendix G – Quick Guide

