About Us

The BC Oil and Gas Commission is the single-window regulatory agency with responsibilities for regulating oil and gas activities in British Columbia, including exploration, development, pipeline transportation and reclamation.

The Commission’s core services include reviewing and assessing applications for industry activity, consulting with First Nations, cooperating with partner agencies, and ensuring industry complies with provincial legislation and all regulatory requirements.

The public interest is protected by ensuring public safety, respecting those affected by oil and gas activities, conserving the environment, and ensuring equitable participation in production.

For general information about the Commission, please visit www.bcogc.ca or phone (250) 794-5200.

Mission

We regulate oil and gas activities for the benefit of British Columbians. We achieve this by:

- Protecting public safety.
- Respecting those affected by oil and gas activities.
- Conserving the environment.
- Supporting resource development.

Through the active engagement of our stakeholders and partners, we provide fair and timely decisions within our regulatory framework.

We support opportunities for employee growth, recognize individual and group contributions, demonstrate accountability at all levels and instill pride and confidence in our organization.

We serve with a passion for excellence.

Vision

To provide oil and gas regulatory excellence for British Columbia’s changing energy future.

Values

Respectful  Accountable  Effective
Efficient  Responsive  Transparent
Table of Revisions

The Commission is committed to the continuous improvement of its documentation. The table below summarizes revisions to the Emergency Management Regulation Manual. Revisions are posted to the documentation section of the Commission’s website at the beginning of every month and are effective one month after posting, unless otherwise noted. For more information about the Commission’s monthly revisions, and for details of this month’s revisions, please visit the Documentation section of the Commission’s website. Stakeholders who would like to provide input or feedback on Commission documentation may send comments to OGC. Systems@bcogc.ca.

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<td>This document replaces the Emergency Response Plan Requirements Guideline and reflects the recent changes to the Oil and Gas Activities Act and the Emergency Management Regulation. Updates include: new guidelines for submission of plans and mapping, and a more comprehensive view of the B.C. emergency response model. For more information regarding these changes, refer to the Updates to Emergency Management Manual and Forms Information Bulletin, on the Commission’s website.</td>
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Preface

About
The Emergency Management Regulation Manual is intended to provide a reference document for oil and gas permit applicants and permit holders. The manual provides an overview of the regulatory requirements for emergency management in British Columbia’s oil and gas industry.

The manual has been prepared to be as comprehensive as possible; however it may not cover all situations. Where circumstances or scenarios arise and are not covered by the manual, contact one of the Commission’s Emergency Response and Safety staff for assistance.

Manual Structure
This manual guides the user through the requirements of the Emergency Management Regulation (EMR). The manual reflects both the regulatory requirements and processes companies can use to meet their accountabilities under provincial legislation. The appendices include documents to reference when compiling information to meet the requirements of the EMR.

Manual Scope
The manual is limited in scope to the authorities and requirements established within the Oil and Gas Activities Act (OGAA) or specified enactments established thereunder. Carrying out oil and gas and related activities may require additional approvals from other regulators or create obligations under other statutes. It is the permit holder’s responsibility to know and uphold all of their legal obligations.

Additional Guidance
Additional Commission manuals and guidelines are available in the Documentation section of the Commission’s website. The glossary page of the Commission’s website provides a comprehensive list of common terms, and OGAA and its regulations provide the primary source of legal definitions.

The Commission has developed a number of checklists which may be used to assist in the creation of emergency response plans, and as a guide for use during exercises of the plan. These checklists are not intended to address every situation, and each plan must fully consider any unique aspects of the proponents operation.
Compliance and Enforcement

This document does not replace legislation or affect legislative requirements. All permit holders are ultimately responsible for ensuring they understand and meet all requirements of the Oil and Gas Activities Act and their permits. Should a person not comply with the Oil and Gas Activities Act, the Commission may take compliance and enforcement actions. For more information regarding the Commission’s Compliance and Enforcement processes, please refer to the Compliance and Enforcement Manual.
1.1. Emergency Management in B.C.

Emergency management is a continuous and integrated process involving the efforts of individuals, private sector, local, provincial and federal governments to identify threats, determine vulnerabilities and ensure required resources are available and able to respond effectively to an emergency.

In British Columbia, all levels of government and their affiliated first response organizations use the internationally recognized Incident Command System (ICS) standard, which provides common terminology and processes and supports a coordinated approach to emergency response. Local authorities (i.e. municipalities, regional districts, First Nations and federal parks) are responsible for planning and responding to emergencies within their jurisdictional areas. Emergency Management British Columbia (EMBC) provides leadership in emergency management on behalf of the Province. EMBC works directly with local governments, provincial ministries, other jurisdictions and volunteers in a coordinated effort to prepare for, respond to and recover from emergencies. For more information refer to EMBC’s Emergency Management in BC: Reference Manual.

Emergency management in British Columbia is a community based, all hazards approach which begins with individuals. Depending on the nature and scope of the emergency, local government, provincial government, federal government, First Nations, industry and other agencies may be involved. However, the majority of emergencies are handled at the local level. Generally, emergency management responsibilities include:

- **Individuals**: Each citizen is responsible for their personal emergency preparedness. Knowing what to do when a major emergency occurs in the community and what personal preparedness measures are needed (such as a family emergency plan) will strengthen their ability to care for themselves.

- **Local government**: When an emergency extends beyond individual capability, it becomes the responsibility of the local government (i.e., municipality or regional district). Local governments lead the initial response to emergencies and disasters occurring within community
boundaries. Most emergencies in BC are managed by local governments with a first level of emergency response provided by fire and/or police services.

- **Provincial government**: Emergency management is by law carried out in all levels of government within British Columbia. EMBC is the lead coordinating agency in the provincial government for all emergency management activities. EMBC provides executive coordination, strategic planning, and multi-agency facilitation. Provincial agencies, such as the Commission also have legislated emergency management responsibilities. EMBC provides coordination with provincial ministries and crown corporations in support of local government response.

- **Federal Government**: At the federal government level, Public Safety Canada, through the *Emergency Management Act*, develops programs and policies to prepare for national disasters. Public Safety Canada oversees the country’s involvement in international emergency preparedness matters, and provides federal Disaster Financial Assistance Arrangements to help communities rebuild following a disaster.

- **First Nations**: Emergency management on reserves is managed through partnerships between aboriginal communities, Indian and Northern Affairs Canada, First Nations Emergency Services Society and provincial governments.

- **Industry**: Industry is responsible for planning for emergencies and initiating an emergency response arising from industrial activities. For the oil and gas sector in B.C., this includes complying with the EMR and developing emergency response programs encompassing:
  
  - Response contingency planning.
  - Training and emergency response exercise programming.
  - Programs to evaluate the response to an emergency.

### 1.2. Principles of emergency management

The principles of emergency management frame the key underlying beliefs and goals of emergency management. The principles aim to guide the design, implementation and ongoing improvement of frameworks, programs, procedures, guidelines and activities that taken together comprise the emergency management systems of Canada.

- **Responsibility** – all levels of society in Canada have responsibilities in regard to emergency management. Individuals, organizations, businesses and all levels of government have duties to prepare for, respond to and recover from emergencies or disasters.

- **Comprehensive** – a comprehensive approach to emergency management should be adopted across the prevention, mitigation, preparedness, response and recovery components. This comprehensive all-hazards approach
encourages and promotes partnerships across all areas of society and levels of response.

- **Partnerships** – Good partnerships, based on effective collaboration, coordination and communication, are key to effective emergency management.

- **Coherency of action** – emergency management requires collaboration, coordination and integration by all partners in order to most effectively apply emergency management resources and execute activities. Coherency of action relies on clear roles, responsibilities, authorities and capacities of all partners.

- **Risk-based** – a systematic assessment of hazards, threats, risks and vulnerabilities should be carried out before appropriate emergency management measures are developed. Risk management practices should facilitate improved decision-making by clarifying the types of risk, including the causes, likelihood of occurrence and severity of consequences.

- **All-Hazards** – hazards should be identified, assessed and then prioritized against potential vulnerabilities. Assessing the risks associated with all hazards in an integrated way helps reduce the vulnerability of people, property, the environment and the economy.

- **Resilience** – resilience is the capacity of a community or agency to bounce back or absorb the impact of emergencies or disasters and resume business. A community may even use the emergency to “build back better.”

- **Clear communication** – clear communication by appropriate authorities to all stakeholders is a critical and continuous process before, during and after an emergency. Authorities must continually support the use of common terminology, develop and maintain solid communication linkages during all phases of emergency management.

- **Continuous improvement** – lessons learned and knowledge generated from experiences, observations, and reflections should be used to continually improve practices and prevent the same challenges from recurring. Continuous improvement should be shared widely and form an integral part of every emergency management function.

- **Code of ethics** – while no single code of ethics has yet been agreed upon for the profession, the Code of Ethics of the International Association of Emergency Managers, with its emphasis on respect, commitment and professionalism is generally accepted as the standard for emergency managers.¹

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1.3. Role of the Commission

The Commission regulates oil and gas exploration, development, production and pipelines in B.C. Its mandate includes a responsibility to ensure operations are conducted in a socially and environmentally responsible manner.

The Oil and Gas Activities Act and its regulations include provisions regarding the safe operation of oil and gas activities and the prevention of uncontrolled or inappropriate release of substances in the environment. These provisions are complimented by the activities of other agencies, legislation and national safety standards to ensure adequate protection of people, property and the environment.

The Emergency Response and Safety Department is the lead department responsible for emergency management within the Commission. The Department oversees the administration of the EMR. This includes:

- Reviewing industry emergency management programs and plans.
- Participating in permit holder emergency response exercises.
- Providing 24 hour Emergency Officer services.
- Leading emergency and incident follow-up and investigation.
- Administering incident and complaint response services.

The Commission uses a combination of reviews, assessments, and field inspections to ensure permit holders maintain compliance with the requirements detailed in the Emergency Management Regulation and the Oil and Gas Activities Act. The audit and inspection program objectives are to ensure permit holders have adequate processes and procedures in place.

1.4. The Emergency Management Regulation

As British Columbia’s oil and gas regulator, the Commission ensures the province’s regulatory framework is comprehensive and upholds high standards for public safety and environmental protection.

The Oil and Gas Activities Act (s. 38 (1) (b)) requires a permit holder prepare and maintain an emergency response program and a response contingency plan (ERP) as prescribed in the Emergency Management Regulation (EMR). The objective of the EMR is to protect people, property and the environment by establishing a framework for emergency preparedness and planning. This planning provides the foundation for effective response to emergencies in the oil and gas sector.

The framework outlined in the EMR encompasses three main areas:
• Corporate emergency response programs. Corporate emergency response programs incorporate the policies and procedures companies use to create and manage emergency response plans and to coordinate responses to emergencies.

• Response contingency planning. The EMR outlines the activities and content applicants and permit holders must adhere to when developing an emergency response plan.

• Emergency and Incident Response. The EMR outlines the process a permit holder follows in the event of an emergency.

The EMR outlines the minimum requirements an applicant or permit holder must adhere to in developing and implementing an emergency management program. While the EMR does not require compliance with any national or international standard, the Commission recommends applicants or permit holders refer to a number of guidance documents to support the development of an emergency response program and emergency response plans. These include:

• ISO/CSA 31000 Risk Management, Principles & Guidelines.
• CSA Z731 Emergency Preparedness and Response.
• CSA Z1600 Emergency and Continuity Management Program.
• Federal Emergency Management Framework for Canada.

1.4.1. Activities subject to the EMR

The EMR applies to applicants and permit holders carrying out oil and gas activities as defined in the Oil and Gas Activities Act. However, in accordance with s. 3, the EMR does not apply to:

• Geophysical exploration.
• Drilling, operation or abandonment of a water source well.
• Construction or maintenance of an oil and gas road.
• Construction, operation or maintenance of a liquefied natural gas (LNG) facility. Holders of an LNG facility permit should refer to the Liquefied Natural Gas Facility Permit Application and Operations Manual for further information.

1.4.2. Exemptions

Section 18 of the EMR allows the Commission to exempt an applicant or permit holder from complying with one or more provisions of the regulation in cases where compliance with the provision (s) is not reasonably practicable or the exemption is in the public interest.

The exemption request can be made anytime as long as the request is provided to the Commission with sufficient time to render a decision. As
any exemption will require justification and must be approved by the Commission, requests should include an explanation of why the EMR cannot be followed.

The Deputy Commissioner, Compliance Operations will review this request and, in the event the exemption is granted, the provision in the EMR may be replaced with conditions. The oil and gas activity cannot proceed until the permit holder has received a written response from the Commission.

1.4.3. Status of existing plans

The EMR came into effect on October 1, 2014. Plans submitted to the Commission after this date must comply with the Regulation.

For plans submitted before October 1, 2014, s. 19 of the EMR provides a one year transition period for plans to comply with the legislation. These plans must be reviewed and updated in accordance with s. 10 of EMR on the earlier of:

- One year after the permit holder’s last review of the plan.
- October 1, 2015.

1.4.4. Submissions must be in writing

Unless otherwise identified, information required, given or submitted to the Commission or other parties pursuant to the EMR must be submitted in writing in paper or electronic form (s. 17 of the EMR).

Corporate Emergency Response Programs and Emergency Response Plans must be submitted in both paper and electronic formats\(^\textit{2}\). (s. 11 of the EMR). Supplementary plans may be submitted in electronic format only.

1.5. Worker safety

The requirements and processes described in the EMR are designed to create a framework for the protection of the public, property and the environment from emergencies arising out of oil and gas activities. Worker safety is also an important issue and is subject to the Occupational Health and Safety Regulation administered by WorkSafe BC. Specific questions regarding employer obligations under the Occupational Health and Safety Regulation should be referred to WorkSafe BC.

\(^{2}\) See Appendix F – Submission of Plans in Electronic Formats for further information on file types
Chapter 2: Emergency response management

2.0 Corporate Emergency Response Management Program

The purpose of a Corporate Emergency Response Management Program is to create and define the top level policies and procedures to guide the creation, management and implementation of an emergency response plan (ERP). Section 4 (2) of the EMR outlines the objectives of the program.

2.0.1 Preparation and maintenance of a program

Under s. 4 (2) of the EMR the permit holder must prepare and maintain an emergency response management program to:

2.0.1.1 Coordinates activities

The emergency management program outlines the permit holder’s framework for the development and implementation of emergency response contingency plan(s) and should coordinate activities such as research, training and education, disaster exercises, public information and the response to an emergency event.

2.0.1.2 Training and exercises

The emergency response management program must include provisions for training and emergency response exercise programs (ss. 4 (2) (b)). Training and emergency response exercises ensure response personnel understand the permit holder’s emergency response program, know their responsibilities in an emergency and understand the permit holder’s emergency response procedures.

Personnel training best practices should address issues such as:

- Permit holder's applicable emergency response program.
• Incident Command structure.
• Roles and responsibilities during an incident.
• Review of response actions.
• Public protection measures used during an emergency.
• Communication methods.
• Hazards and risks.
• Use of the Commission's incident classification matrix.
• Use of equipment.
• Map reading.

Personnel should also be trained with regard to Transport Canada’s Emergency Response Guidebook, which is designed to help responders make initial decisions when arriving at the scene of a transportation incident involving dangerous goods.

Emergency response exercises are designed to test the content of an emergency response plan and to train emergency response personnel in their duties. Response exercises can:

• Test a new emergency response plan or amendments to a plan.
• Reveal gaps in a plan.
• Reveal resource gaps.
• Improve coordination.
• Clarify role and responsibilities.
• Demonstrate operational capability.
• Train personnel in emergency duties.
• Test equipment.
• Test standard operating procedures.
• Promote the emergency response plan to the public.
• Promote emergency preparedness.
• Provide an opportunity to test a new process, best practice or tool.

Appendix A provides an overview of the types of emergency response exercises that can be included in a permit holder’s emergency response program. The Commission recommends
permit holders conduct emergency response exercises annually, with a full scale exercise conducted at least once every three years.

The Commission requires a minimum 30 days advance notice of all training and emergency response exercises, and may participate in an observer role. Whenever Commission staff attends an exercise, they may provide an evaluation of training exercises, identify new best practices and opportunities for improvement.

2.0.1.3 Evaluation of an emergency response
In accordance with ss. 4 (2) (c) the emergency response program must require the permit holder conduct an evaluation of any response to an emergency. The evaluation provides an opportunity for the permit holder to update emergency response plans, policies, procedures, resourcing and training in response to a real world emergency. A “Form D-Permit Holder Post Incident Report” is required for all level 1, 2 and 3 incidents, and may also be requested for some minor incidents.

2.0.2 Program Coordinator
In accordance with ss. 4 (3) of the EMR, a permit holder must designate a person within the organization who will be responsible for the emergency response program (program coordinator). The program coordinator will be the primary point of contact between the Commission and the permit holder on emergency management issues and should be accountable for ensuring the emergency response program, systems and processes are developed and maintained within the permit holder’s organization. The permit holder must:

- Ensure the program coordinator implements the program (ss. 4 (3) of the EMR).
- Submit the name and contact information of the program coordinator (ss. 4 (4) of the EMR).
- Submit updated contact information to the Commission in the event of a change in the name or contact information of the program coordinator (ss. 4 (5) of the EMR). Updates to contact
information should be sent to EMP@bcogc.ca and clearly identify the plan to which they are applicable.

2.0.3 Review and update
The emergency response management program must be regularly updated to ensure the contents are current and accurate. In accordance with ss. 4 (6) of the EMR the program must be updated:

- At least once every 3 years.
- As a result of a significant change in the types of hazards and risks arising from the oil and gas activity.
- After an evaluation of the response to a level 3 incident as classified in Schedule D of the EMR, and in accordance with s. 14 of the EMR, is completed.

2.0.4 Maintenance of records
Under ss. 4 (7) of the EMR, the permit holder must maintain written records of the emergency response program. Records can be kept in hard copy or digital form but should be readily available and maintained in a manner to ensure the document’s integrity until the permit holder ceases to carry out any oil and gas activities for which a plan is required.

2.1 Emergency response program
The purpose of an emergency response program is to ensure advance planning is in place, enabling a quick, effective response to emergencies. This ensures protection of the public, workers and the environment. An ERP should:

- Be well organized to ensure quick access to critical information.
- Coordinate activities among industry responders, emergency services, local authorities, governments, and others who have a role in providing an effective response.
- Ensure communication with all parties involved in or potentially affected by an emergency.
- Assist personnel in determining and performing remedial actions.
- Clearly establish roles and responsibilities of all responders.
- Identify response organizations and command control structures.
- Identify predetermined resources, required personnel, equipment, and services.
• Increase public confidence in the ability of industry to effectively respond to and manage emergencies.³

Chapter 3:
Response contingency plans

3.0 Emergency Response plans⁴

Under ss. 7 (2) of the EMR an applicant or permit holder must prepare an emergency response plan (ERP) for each of its oil and gas activities. The applicant or permit holder may prepare a single plan in the event that:

• Site-specific hazards and risks of each oil and gas activity that is the subject to a plan are the same.
• Emergency planning zones (EPZ) for each oil and gas activity that is the subject of the plan overlap.

A permit holder must not carry out an oil and gas activity until they have prepared a plan, or determined there is no EPZ (s. 6 of the EMR).

The purpose of an emergency response plan is to assist permit holders to effectively respond to emergencies. The site specific ERP is meant to be used at the site as a stand-alone document and should contain all information required to respond to an incident at the site. The plan demonstrates how emergency responses are initiated and coordinated and can include:

• Criteria for assessing an emergency.
• Procedures for responding to an emergency.
• Procedures for mobilizing response personnel and agencies.
• Procedures for communicating and coordinating between all affected parties.

3.1 Content of a plan

Under ss. 7 (3) of the EMR the following information must be included in the plan:

⁴ While legislation refers to Response Contingency Plans, the more commonly used term Emergency Response Plan or ERP are used throughout this document.
3.1.1 Name and contact information of the applicant or permit holder

The plan should include the legal name and address of the applicant or permit holder’s operations in B.C. and must include the applicant or permit holder’s 24-hour emergency phone number. Applicants or permit holders may also want to include the name and contact information of the program coordinator.

3.1.2 Description of the oil and gas activity

The description of the oil and gas activity must include:

- Geographical location(s) of the activity.
- Type of activities and/or nature of the work.
- Description of the operations, including start-up and completion timelines (if applicable).
- General description of physical assets, e.g. pipeline, facility or well.

Under ss. 7 (3) (b) (ii) of the EMR the description of the oil and gas activity must include site-specific hazards and risks, identified in an all-hazard risk assessment. This assessment should:

- Identify all hazards associated with the oil and gas activity and operations.
- Identify all hazards which will likely impact operations and assets.
- Identify values at risk: people, property, and environment.
- Prioritize hazard controls to mitigate risks to people, property, and/or environment.

3.1.3 Emergency response map

Under s. 15 of the EMR, an emergency response map must show all of the following applicable information:

- Location of the oil and gas activity that is the subject of the plan.
- EPZ.
- Location of roads, including oil and gas roads, within the EPZ.
The emergency response map must also show all of the following information if the area, feature, structure or location may be affected by an emergency or may affect the response to an emergency:

- Area adjacent to the EPZ.
- Surface and environmental features and structures, including stream crossings and lakes within the EPZ.
- Location of commercial or industrial operations within the EPZ.
- Location of a registered trapline, guiding territory or Crown range within the EPZ.
- Location of any other areas within the EPZ possibly used by the public, including, without limitation, dwellings, schools, churches, community centres and public facilities, campgrounds, fair grounds and recreation areas.

### 3.1.4 Emergency management system

An emergency management system is an operational framework for emergency response. The system facilitates communication, response activities and cooperation within and between organizations and allows for incidents to be managed in a cohesive manner.

Under ss. 7 (3) (d) of the EMR the plan must include an emergency management system identifying the specific roles and responsibilities of the personnel required to effectively respond to any emergency. The plan must:

- Describe the powers and duties of emergency response roles.
- Assign emergency response staff to the roles. Key personnel and responders and their alternates should be identified.

The plan should also include organizational charts showing key positions and reporting relationships and command structure, including the company's Incident Command System and Emergency Operations Centre. This could include:

- Field incident command.
- Public safety coordination, including evacuation and sheltering.
- Security (roadblocks, rovers, etc.).
- Air quality monitoring.
- On-site safety and ignition.
Communications with responders and media/public.

Applicants and permit holders are encouraged to refer to Emergency Management BC’s British Columbia Emergency Response Management System (BCERMS) for examples of the roles and responsibilities required to effectively respond to an emergency.

3.1.5 Emergency response resources

Under ss. 7 (3) (e) of the EMR an applicant or permit holder must identify and describe predetermined resources available for deployment in an emergency. The description should include the location of required personnel, equipment and services, and consider any challenges that may affect the timely arrival of any off-site resources, such as weather, forest fires, roadworks, etc.

Types of equipment may include, but is not limited to:

- Communications equipment (number, types of equipment, and radio frequencies).
- Roadblock kits (number and contents).
- Ignition equipment (maintained on site).
- Gas monitoring equipment (number and type).

3.1.6 Emergency communication system

Under s. 16 of the EMR the emergency communication system must be capable of enabling communications among:

- Permit holder.
- Emergency response staff.
- Public.
- Employees of the permit holder conducting air monitoring.
- Commission.
- Government agencies and authorities.

The emergency communication system must be tested annually to confirm the equipment is functional.

The plan should describe the internal and external methods of communication the applicant or permit holder will use to inform affected parties of the details of an emergency situation and to facilitate emergency communications between emergency responders. Appendix B provides an outline of issues to be addressed in the plan.
3.1.7 Deployment, monitoring and communication procedures

Under ss. 7 (3) (g) of the EMR, the plan must include a description of how the applicant or permit holder will:

- Deploy and monitor the emergency response resources in an emergency.
- Notify those persons and other entities that may be affected by an emergency.
- Provide information to those persons and other entities regarding an emergency, including shelter in place or evacuation decisions, if applicable.

3.2 Creating an emergency response plan

Preparing an emergency response plan (ERP) is a multi-step process beginning with an assessment of the hazards of the oil and gas activity allows for and considers public input and ultimately results in the submission of a plan to the Commission. The process for preparing and submitting an emergency response plan is outlined in Appendix C.

3.2.1 Determining hazard planning distances

Hazard planning distances are used to identify a geographical area (a hazard planning zone) within which persons, property or the environment may be affected by an emergency. The combined geographic areas of hazard planning zones are used by the applicant or permit holder to identify an EPZ where immediate response actions are required in the event of an emergency. The EPZ forms a basis of the applicant or permit holder's plan and is used to help identify persons or entities involved in emergency management planning in accordance with ss. 3 (1) of the EMR.

Section 5 of the EMR defines a hazard planning distance as a horizontal distance measured from the site of an oil and gas activity that is the subject of the plan. The applicant or permit holder must calculate the hazard planning distance for fluids containing hydrogen sulphide using Schedule A of the EMR (for facilities), Schedule B of EMR (for wells) or Schedule C of the EMR (for pipelines).
For hazards other than hydrogen sulphide, the permit holder must calculate the hazard planning distance by taking into consideration the types of hazards and risks arising from the oil and gas activity that is the subject of the plan.

Ultimately, the applicant or permit holder will identify an EPZ for an emergency response plan encompassing all hazard planning zones of the oil and gas activity that is the subject of the plan.

### 3.2.2 Share information with persons or entities in the EPZ

Information is needed to effectively manage emergencies. Persons or other entities that may be in harm’s way need to have information about applicant or permit holders emergency response programs and understand how an emergency response plan will affect them. Applicants and permit holders need information about persons or other entities in order to effectively develop an emergency response plan.

Under ss. 3 (1) of the EMR, before submitting a plan to the Commission, an applicant or permit holder must provide emergency management information to persons or other entities located within the EPZ regarding the potential hazards of the oil and gas activity. The applicant or permit holder must also request the person or other entity describe how they may be affected by an emergency.

The EMR requires the exchange of emergency management information in order to ensure all hazards possibly threatening public safety, infrastructure or the environment have been considered in the development of an emergency response plan. In addition, the exchange of information ensures there is a process to contact persons or other entities in an EPZ and if necessary, evacuate them in the event of an emergency.

The Commission encourages the use of informational meetings, particularly in advance of entering the sour zone, as a useful way of confirming contact information for persons within the EPZ, updating

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5 The exchange of emergency management information is not the same as consultation. The Oil and Gas Activities Act and the Consultation and Notification Regulation require oil and gas applicants to conduct consultation and/or notification prior to submitting an application for an oil and gas activity. Consultation and notification occurs during the application process and must be completed before an application is submitted.
emergency response plans (ERP’s) with any new or changed contacts, and considering any new factors within the community that may impact the way in which an ERP is implemented.

The EMR requires emergency management information is provided to the following persons or entities before the plan is submitted to the Commission:

3.2.2.1 A person who occupies land within the EPZ

It is important to know that persons are occupying land within the EPZ so emergency responders can effectively identify, communicate, and if necessary evacuate individuals in the event of an emergency. A person occupying land within the EPZ may include:

- Permanent and part-time residents, including those residing on dead-end roads beyond an EPZ, where occupants are required to egress through the EPZ.
- Business owners and/or operators and industrial operators, including oil and gas operators with manned facilities.
- Private and public recreational property owners and/or operators (e.g., campgrounds, trapper cabin, private cabins, etc.) in and adjacent to an EPZ.
- Users of public facilities, such as schools and community centres in or adjacent to an EPZ.
- Non-resident land owners or farmers renting land who do not dwell on the property but whose lands are within an EPZ. These persons should be considered in the development of the ERP and be advised their property lies within the EPZ.

Timing considerations are an important factor in identifying if a person occupies land within the EPZ. For example, an applicant or permit holder would provide emergency management information to a person who has a secondary residence or cabin in the EPZ, but who may only be at the residence during specific periods during a year.
3.2.2.2 A local authority

A local authority is a regional district or a municipality. Under the *Emergency Program Act* local authorities are accountable for the direction and control of emergency response within their jurisdiction. The applicant or permit holder must share emergency management information with local authorities to ensure coordination of emergency response activities and to ensure the applicant or permit holder is familiar with the local authority's communication procedures and chain of command.

Under ss. 3 (1) (f) of the EMR, a municipality must also be contacted when any part of the EPZ is located within the right of way of an arterial or municipal highway within the municipality. Applicant and permit holders should contact the local authority to determine which routes have been designated as a municipal highway within the local authority's area of jurisdiction. Arterial highways are designated by the Ministry of Transportation and Infrastructure (see 2.1.6 below).

3.2.2.3 The Government of Canada

When there is an existing federally owned installation or federally regulated land within the EPZ, emergency management information must be provided to the federal agency or organization. Applicants or permit holders should provide the information to the appropriate local federal government contact. Examples of federal installations and federally regulated land include:

- Office buildings or other structures.
- Harbour facilities.
- Military bases.
- First Nations reserves.
- Railways.
- National parks.

Locations of federal buildings and structures can be obtained from the federal government’s *Directory of Federal Real Property*. 
3.2.2.4 First Nations

First Nations have constitutionally protected aboriginal or treaty rights to practice traditional activities on Crown lands throughout British Columbia. These rights are practices, customs or traditions integral to the distinctive culture of a First Nation and they may be historically connected to a particular area of land. Examples may include hunting, fishing, plant gathering and use of wood for domestic purposes. More than one First Nation may have rights in the same area and the types of rights may vary across communities. First Nations may be able to assist the applicant or permit holder to identify First Nation activities on the landbase that should be considered in the development of an emergency response plan.

Under ss. 3 (1) (d) of the EMR if all or a portion of a First Nation’s reserve is located within the EPZ the applicant or permit holder must provide emergency management information to the First Nation. Applicants or permit holder should also contact the First Nation if a portion of the First Nation’s traditional territory is within the EPZ.

Applicants and permit holders can use GeoBC’s First Nations Consultative Areas Database to identify and find contact information for First Nations who may have interests within the EPZ. Applicants or permit holders may also contact the Ministry of Aboriginal Relations and Reconciliation or the Commission for assistance in identifying First Nations in the EPZ.

3.2.2.5 A rights holder

A rights holder is a person granted non-intensive occupation or use of Crown land by the Government of British Columbia by a permit, licence or other approval. For the purposes of this manual, a rights holder does not refer to a First Nation holding constitutionally protected aboriginal or treaty rights (as addressed in 3.2.2.4 above).

Applicants or permit holders must consider the activities of rights holders when developing an emergency response plan.
Rights holders may have buildings, structures or other facilities located within the EPZ, or may have workers operating within EPZ.

In accordance with the EMR, a rights holder is defined in s. 1 of the Consultation and Notification Regulation and holds any of the following rights:

Table 1: Rights holders under various legislation

<table>
<thead>
<tr>
<th>Legislation</th>
<th>Permission</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Land Act</strong></td>
<td>Temporary Occupation of Crown Land, non-intensive use</td>
</tr>
<tr>
<td></td>
<td>Licence of Occupation, non-intensive use</td>
</tr>
<tr>
<td><strong>Forest Act</strong></td>
<td>Forest Licence</td>
</tr>
<tr>
<td></td>
<td>Forestry licence to cut (major)</td>
</tr>
<tr>
<td></td>
<td>Community forest agreement</td>
</tr>
<tr>
<td></td>
<td>Timber sale licence</td>
</tr>
<tr>
<td></td>
<td>Tree farm licence</td>
</tr>
<tr>
<td></td>
<td>Woodlot licence</td>
</tr>
<tr>
<td><strong>Range Act</strong></td>
<td>Grazing permit</td>
</tr>
<tr>
<td></td>
<td>Grazing licence</td>
</tr>
<tr>
<td><strong>Wildlife Act</strong></td>
<td>Guide outfitter’s licence</td>
</tr>
<tr>
<td></td>
<td>Guiding territory certificate for Crown land</td>
</tr>
<tr>
<td><strong>Mineral Tenure Act</strong></td>
<td>Registered traplines (including traplines held by a member of a First Nation)</td>
</tr>
<tr>
<td><strong>Water Act</strong></td>
<td>Mineral claim</td>
</tr>
<tr>
<td></td>
<td>Water licence</td>
</tr>
</tbody>
</table>

Although not identified in the Regulation, the Commission considers recreation sites established under Section 56 of the Forest and Range Practices Act as tenure holders. Applicants or permit holders should contact the Ministry of Forests, Range and Natural Resource Operations for more information.

Information on rights holders in a particular area can be accessed through Front Counter BC and local Service BC locations.
3.2.2.6 The Ministry of Transportation and Infrastructure

Arterial highways are provincially regulated highways located within a municipality. Emergency management information must be provided to the Ministry of Transportation and Infrastructure if any part of the EPZ is located within the right of way of an arterial highway.

Locations of arterial highways are available from the Ministry of Transportation and Infrastructure and can be found on iMapBC.

3.2.3 Information to be shared

Under ss. 3 (2) of the EMR the applicant or permit holder must provide emergency planning information to a person or entity occupying or having jurisdiction over land within the EPZ before submitting the plan to the Commission. This allows the applicant or permit holder to identify key contacts and collect relevant information to be considered in the development of an emergency response plan.

The following information must be included in the emergency planning information package:

3.2.3.1 The applicant or permit holder’s name and contact information

The applicant or permit holder’s contact information should include a 24-hour emergency telephone number where an immediate emergency response action could be triggered if required.

3.2.3.2 A map of the EPZ

In accordance with ss. 3 (2) (b) of the EMR the map must show the location of the EPZ in relation to roads (including oil and gas roads), dwellings, schools and public facilities.

The map should include easily understandable labelling which could include compass orientation, a bar scale and legend explaining any map symbols. The map can be specifically drawn for inclusion in the information package, or the applicant or permit holder can use existing map as long as the
existing map is understandable to the target audience and clearly illustrates the requirements outlined above.

3.2.3.3  A description of hazards and risks
The intent of this requirement is to provide persons or other entities in the EPZ a realistic understanding of the nature of the hazards and risks of the oil and gas activity, how the hazards may impact the person or entity, and to provide relevant information on the actions to take in the event of an emergency. The description should be understandable to the target audience and can include drawings or pictorial representations to assist the person or other entity to understand the planned emergency response procedures.

The description must include:

- Site-specific hazards and risks of the oil and gas activity.
- How the applicant or permit holder’s response to an emergency may affect the person or other entity.
- How the applicant or permit holder will provide notification on whether the person or entity should shelter in place or evacuate in the event of an emergency.
- How the person or other entity can get to safety in an emergency.

3.2.4  Request information
Under ss. 3 (2) (d) of the EMR the applicant or permit holder must request the person or entity provide:

3.2.4.1  Name and contact information
Contact information used for ongoing communications and for contact in the event of an emergency. The applicant or permit holder should request the person or other entity identify a preferred method of contact for regular communications and emergencies. This can include:

- 24 hour telephone number for emergencies.
- Legal address of the residence, business or facility. In the event the legal address is not tied to the actual location being occupied (i.e. a post office box), the
applicant or permit holder should request the address or location to be used by emergency responders).

- Email address for non-emergency communications.
- Any other method as identified by the person or entity.

The applicant or permit holder can also request additional relevant information regarding other occupants at the location including family members or employees, their personal contact information, and information regarding patterns of attendance such as schooling.

3.2.4.2 A description of how the person or entity may be affected by an emergency

This requirement provides an opportunity for a person or entity to identify concerns, vulnerabilities or make requests regarding response procedures and individual emergency response requirements.

Issues considered in emergency planning include; health sensitivities, mobility issues, effects on and needs of pets and livestock, and concerns about security of the premises during an emergency.

Information collected from the person or other entity may be personal information as defined by the Personal Information Protection Act (PIPA)\(^6\). Private sector organizations collecting personal information in British Columbia are subject to the Act, which sets out the rules for how personal information may be collected, used or disclosed.

Applicants and permit holders should ensure compliance with PIPA when collecting information from persons or entities within the EPZ. Applicants and permit holders can contact the Office of the Information and Privacy Commissioner for British Columbia for more information.

As a public body, the Commission is subject to the Freedom of Information and Protection of Privacy Act (FOIPPA). Any personal information contained in plans submitted to the Commission will be subject to the protection and security requirements identified in FOIPPA.

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\(^6\) Personal information means information about an identifiable individual which includes but is not limited to their name, home address and phone number, medical information and employment information.
3.2.5 Consider the response

Under ss. 3 (3) of the EMR, the applicant or permit holder must consider the response of a person or entity to the emergency planning information package when preparing the plan.

Any responses received by a permit holder after the plan has been submitted to the Commission must be considered when the plan is reviewed and updated (ss. 10 (2) (c) of the EMR).

3.3 Submit plan to the Commission

Under s. 11 of the EMR the applicant or permit holder must submit an electronic and paper copy of the plan to the Commission. The applicant or permit holder must also provide a copy of any updates to the plan. Plans must be submitted before oil and gas activity occurs.

Plans and updates should be submitted electronically to the commission at EMP@bcogc.ca. When submitting paper updates to the Commission, all updates should be accompanied with clear instructions on how to insert and remove pages from the existing plan using the following sample table:

3.4 Access to plans

In accordance with s. 9 of the EMR an applicant or permit holder must have a copy of the plan, in paper or electronic form at the applicant’s or permit holder’s head office and the plans must be accessible by emergency response staff.

3.5 Review and update of plans

In accordance with good emergency management practices, plans should be regularly reviewed and updated to ensure contents are current and accurate. Under ss. 10 of the EMR plans must be reviewed and, if required, updated:

- At least once a year.
- After an emergency response evaluation as required under s. 14 of the EMR.
- If site-specific risks of the oil and gas activity change significantly. Significant changes can include:
  - Changes to the area (s) affected by the hazard.
  - Changes to affected parties (i.e. the construction of new facilities within the EPZ).
  - Identification of new hazards.
As part of the review process the permit holder must:

- Determine if persons or entities within the EPZ have changed.
- Ensure any new persons or entities within the EPZ have been provided with information about the hazards and risks of the oil and gas activity.
- Provide updated information on the oil and gas activity to persons or entities within the EPZ.
- Consider any responses provided by persons or entities after the plan or updated information was submitted to the Commission.

The permit holder’s review may identify gaps and incorrect or out of date information and trigger updates to the plan. Updates can be triggered by a combination of one or more of the following:

- Changes to emergency information.
- Changes to mapping information.
- Changes to resident information.
- Changes to response staff information or response capabilities.
- Changes or additions to assets.
- Changes to residents, businesses, renters, roads and ERP maps after ground trothing.
- Improvements to response procedures after responding to an incident or exercise.
- New technology.
- Changes to operations.
- Changes to the plan instrumental to implementing a response.
- Errors or omissions identified by the permit holder or the Commission.
Table 2: Sample update table

<table>
<thead>
<tr>
<th>Type of Update:</th>
<th>Name of Field:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>☑ Annual Update</td>
<td></td>
<td></td>
</tr>
<tr>
<td>❏ Update resulting from an emergency response evaluation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>❏ Update in response to significant changes in hazards and risks</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Contact Name and Phone number for questions: T. Smith, (403) 425-1111

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>REMOVE/DESTROY PAGES</th>
<th>INSERT PAGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table of Contents</td>
<td>Pages i to iv</td>
<td>Page i to iv</td>
</tr>
<tr>
<td>Section 5 – Roles &amp; Responsibilities</td>
<td>Pages 5-1 to 5-10</td>
<td>Pages 5-1 to 5-12</td>
</tr>
<tr>
<td>Section 8 – Map (green tab)</td>
<td>Rev. 6 2009-06-09</td>
<td>Rev. 7 2010-07-19</td>
</tr>
<tr>
<td>Section 10 – Standard Guidelines</td>
<td>NEW</td>
<td>Insert section 10 after Section 9 blue tab</td>
</tr>
</tbody>
</table>

### 3.6 Preparing a supplementary plan

In accordance with s. 8 of the EMR an applicant or permit holder who has previously submitted a plan to the Commission may prepare a supplementary plan for subsequent oil and gas activity. This provision applies if the site specific hazards and risks of the subsequent oil and gas activity will allow the applicant or permit holder’s existing plan to be applied with only minor adjustments. If the subsequent oil and gas activity will require major revisions to the plan a new emergency response plan must be submitted.

The supplementary plan must include any updates to:

- Description of the oil and gas activity in the original plan.
- Site-specific hazards and risks of the oil and gas activity in the original plan, identified in an all hazard risk assessment.
- Emergency response map (in accordance with s. 15 of the EMR).
- List and description of the applicant’s or permit holder's emergency response resources in the original plan, available for deployment in an emergency.
Chapter 4
Responding to incidents and emergencies

4.0 Introduction
During and oil and gas activity, an unanticipated incident may occur outside normal operations. Emergency response begins when an incident is imminent or immediately after an event occurs. Response includes the activities addressing the short-term, direct effects of an incident. Response also includes the execution of emergency plans and operational activities designed to protect persons, property and the environment. In the event of an incident involving a spill, permit holders must also comply with s.37 of OGAA.

Permit holders are the primary responders when emergencies or incidents occur, and must implement their emergency response plans immediately. As soon as practicable, the permit holder must inform the Commission, via EMBC. The Commission will provide oversight and monitor events during incident and emergency response.

An incident becomes an emergency if the incident requires actions by the permit holder to protect persons, property or the environment.

4.1 Responding to an incident or emergency
In an event of an incident, the permit holder must:

4.1.1 Implement the plan immediately
When an incident occurs that is the result of oil and gas activity, s. 13 of the EMR requires the permit holder:

- Implement the plan immediately.
- Take such other actions as necessary to respond effectively and adequately to the emergency.

The plan must be implemented in accordance with the following order of priorities:
• Protection of emergency response staff.
• Protection of the permit holder's employees.
• Protection of the public.
• Protection of property.
• Protection of the environment.

Permit holders are responsible for carrying out their response activities until the incident is resolved.

4.1.2 Classify the incident

In accordance with s. 12 of the EMR, when a permit holder becomes aware of an incident, the permit holder must immediately classify the incident. The classification of an incident is determined for each event or circumstance by identifying the probability of escalation or control of the event or circumstance using the Incident Classification Matrix contained in Schedule D of the EMR.

While Schedule D of the EMR does not classify seismic events, the Commission requires permit holders classify the following as a Level 2 or higher incident:

• A magnitude 4.0 or greater induced earthquake within 3 km of oil and gas operations.
• Any earthquake which is felt on surface within a 3 km radius of oil and gas operations.

Seismic activity has the potential to result in longer term damage to equipment. The reporting of seismic activity assists permit holders and the Commission to monitor equipment and prevent future incidents.

4.1.3 Report the incident

When an incident occurs caused by or affects an oil and gas activity, permit holders must notify the commission as soon as possible (s. 13 of the EMR). Permit holders should clearly identify the oil and gas activity affected by the event or circumstance.

While worker injuries or fatalities are used to classify an incident under Schedule D of EMR, permit holders are only required to report workplace injuries or fatalities to the Commission if the incident was the result of an oil and gas activity (i.e. equipment failure, spill or gas release). Worker injuries or fatalities caused by other events (such as a vehicle accident)
are addressed through Worksafe BC and do not need to be reported to the Commission.

In the event of a Level 1, 2 or 3 incident the permit holder will contact EMBC at 1-800-663-3456 within 1 hour of the incident. Emergencies are Level 1, 2 or 3 incidents, which require (further or ongoing) action by the permit holder to protect persons, property or the environment. Permit holders should also contact EMBC if the incident involves a leak or a spill.

Minor incidents should be reported through the Commission’s [Online Minor Incident Reporting System](#).

Appendix D provides an overview of the emergency and incident response process. The [incident reporting matrix](#) available on the Commission’s website can be downloaded and included in emergency response plans, and provides a quick reference guide to incident levels.

4.2 Evaluating the emergency response

Under s 14 of the EMR a permit holder must evaluate the response to an emergency as soon as the circumstances permit. An emergency response report must be prepared and maintained until the permit for the relevant oil and gas activity is cancelled or activities authorized under the permit are complete, and under Section 38 (1) of the OGAA, a copy may be requested by the Commission. The report must include:

- Description of the emergency, including the cause or suspected cause.
- Description of the permit holder's response to the emergency.
- Assessment of the permit holder's response.

The evaluation provides an opportunity for the permit holder to review the effectiveness its emergency response program and plans. The assessment should include an assessment of:

- Lessons learned.
- Outcomes.
- Changes, corrective actions and or recommend actions.
- Follow-up actions required.

Appendix E contains a sample template for a post emergency report.
Appendix A:

Emergency Response Exercises

A permit holder should conduct the following types of planned exercises to promote emergency response preparedness. For companies and organizations that have not previously been the lead response agency, it is highly recommended they engage in all three types of exercise as soon as practicable. For companies and organizations with experience as the lead response agency, table top and functional exercises, with a full-scale exercise at least every third year should provide a good foundation for effective response.

To assist in the development and evaluation of emergency response exercises, the Commission may post additional resources in the form of templates, checklists and lessons learned to the emergency response and safety section of our website.

Table top exercise

- Should be held annually for each area ERP, except in years where a full scale exercise is held.
- Is a discussion of an emergency situation in an informal stress-free environment.
- Is often the first exercise attempted.
- Focuses on training and familiarization of roles and responsibilities, plans, policies and procedures.
- Is controlled and lead by a facilitator.
- Is a discussion based on a described emergency situation supported by questions or problem statements to resolve.
- Allows for thorough discussion and analysis of actions taken and decisions made.
- Includes practice problem-solving with limited or no time pressures.
- Practices coordination of services.
- Does not involve deployment or actual use of equipment or resources.
- Includes a simulated interaction with an Emergency Operations Centre.

Functional exercise

- Should be held annually for each area ERP, except in years where a full scale exercise is held.
- Is a simulated interactive exercise.
• Usually occurs after a table top exercise has been attempted.
• Involves participants practicing a coordinated, effective response in a time-pressured, realistic emergency simulation.
• Includes a description of the situation, a timed sequence of messages, and communication between players and an external simulation team.
• Uses phones, radios and computers.
• Induces a moderate-high level of stress.
• Is designed to practice multiple emergency functions e.g. “direction and control”, “resource management” and “communications.”
• Evaluates individual and system performance.
• Includes a simulated interaction with an Emergency Operations Centre.
• Functional exercises are an opportunity to test the plan in a limited way with other agencies and local organizations, confirming communications links and procedures.

Full scale exercise

• Should be held at least once every three years.
• Induces high stress – realism is key.
• Adds a field component that interacts with a functional Emergency Operations Centre exercise through simulated and real messages.
• Coordinates actions of several agencies, tests several emergency functions and requires Emergency Operations Centre and field participation.
• Requires mobilization of emergency personnel equipment and resources.
• Evaluates the deployment of resources not regularly used.
• Involves all levels of personnel: policy, coordination, operations and field (site).

In situations where licensees have multiple area ERPs with the same response personnel and infrastructure, the ERPs can be tested simultaneously through one exercise.
Appendix B: Emergency Communication System

The plan should describe the internal and external methods of communication the applicant or permit holder will use to inform affected parties of the details of an emergency situation and to facilitate emergency communications between emergency responders. The description should include:

- Roles and responsibilities.
- Internal communications systems including:
  - Procedures for controlling and disseminating internal information about an emergency.
  - Procedures for internal communication between roles and command centres.
- Communication plans for government agencies including:
  - List of government agencies requiring notification of, or be involved in, the incident.
  - Procedures for contacting government agencies and regulatory authorities.
  - 24-hour telephone numbers for government agencies.
- Communication plans for emergency response resources including:
  - Procedures for who will contact and when to contact the external response resources.
  - List of the type of external resources to be used, including the services they provide, with 24-hour phone numbers for the resources (e.g., air monitoring, well control, fire suppression, safety companies, helicopters, etc.).
- Communications plans for the general public including:
  - Procedures for who will release what information, when and how to the general public.
Appendix C: Preparing a plan

Emergency Response Plan Preparation and Submission

Listed below are the requirements for preparing and maintaining an emergency response plan for an oil or gas activity:

- **Name and information of applicant/permit holder**
- **Description of activity and site-specific hazards identified in hazard risk assessment**
- **Emergency response map**
- **Emergency management system for control, command and coordination of the emergency**
- **List and description of applicant/permit holder’s emergency response resources**
- **Description of the emergency communication system**
- **Description of how applicant/permit holder will deploy and monitor resources, notify those affected, and provide information to those affected**
- **A copy of the Emergency Response Plan and any updates to the Commission**
- **Maintains a copy of the Emergency Response Plan and any updates to the Commission**
- **Provides updated information to people/entities located in EPZ or any subsequent people and/or entities present since creation or last review of plan**

The emergency response plan must be updated at least once per year. After an evaluation of the response to an emergency is completed, if the site-specific hazards or risks of the oil and gas activity change significantly.

Includes any changes in plan information, changes to people/entities located in EPZ or any subsequent people and/or entities present since creation or last review of plan.

**List of Acronyms:***
- EPZ: Emergency Planning Zone
- EDR: Emergency Response Plan
- GOC: Oil and Gas Commission
- RLC: Regulatory Lifecycle

**Emergency Response Plan Preparation and Submission:**

- **Determines hazard planning distance and conducts hazard risk assessment**
- **Prepares Emergency Response Plan for each oil and gas activity**
- **Considers any responses to information provided to those within the EPZ**
- **Submits written and electronic copy of Emergency Response Plan and any updates to the Commission**
- **Reviews Emergency Response Plan**
- **Determines if any changes have occurred since the Emergency Response Plan was created or last reviewed**
- **Updates Emergency Response Plan accordingly**
- **Includes any changes in plan information, changes to people/entities located in EPZ or any subsequent people and/or entities present since creation or last review of plan**

**Changes**

- **No EPZ**
- **Prepares Emergency Response Plan for each oil and gas activity**
- **Considers any responses to information provided to those within the EPZ**
- **Submits written and electronic copy of Emergency Response Plan and any updates to the Commission**
- **Reviews Emergency Response Plan**
- **Determines if any changes have occurred since the Emergency Response Plan was created or last reviewed**
- **Updates Emergency Response Plan accordingly**
- **Provides updated information to people/entities located in EPZ or any subsequent people and/or entities present since creation or last review of plan**
Appendix D: Emergency and Incident Response

<table>
<thead>
<tr>
<th>Implementing Emergency and Incident Response Plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incident occurs</td>
</tr>
<tr>
<td>Permit holder</td>
</tr>
<tr>
<td>Emergency Management Regulations 1.3</td>
</tr>
<tr>
<td>Oil and Gas Emergency Response</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Events</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

**List of Acronyms**
- DGR: Dangerous Goods Incident Report
- EMBC: Emergency Management British Columbia
- EMER: Emergency Management Regulation
- OGOC: Oil and Gas Commission
- RLSC: Regulatory Lifecycle Cycle

**Legend**
- Activity within task
- Gateway
- Manual Process
- Data Store
- Decision Point
- Start Process
- Process End
- Other symbols used in other Emergency Management Regulation process

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BC Oil & Gas Commission
Appendix E:
Post – Emergency Report

The emergency report \(^7\) should be structured as indicated below, with the outlined details included as appropriate. Form D, Permit Holder Post Incident Report is available on the Commission’s website.

Contents

Executive Summary

- Summary of events.
- Incident location; map of the area, including the unique well identifier, if applicable.
- Occurrence date and time.
- Duration of the incident.
- Contractor(s), if applicable.
- Estimated cost of the incident and control.
- Type and volume of lost production.

Recommendations

- Actions to improve existing operations.
- Actions to prevent future occurrences.
- Actions to inform affected public of outcomes and findings.

Background to the Incident

- Operator history in the area.
- Details of any previous nearby incidents.
- Summary and assessment of conditions and events immediately preceding the incident.
- Copy of the specific emergency response plan(s) if in effect or the corporate-level emergency response plan, with comment on how well the plan(s) worked or where improvements could be made.

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\(^7\) Based on EUB Guide 71: Emergency Preparedness and Response Requirements for the Upstream Petroleum Industry (June 2003)
Description of the Incident

- Summary of the event.
- Details of internal and external notification.
- Response and control measures.
- Details of any monitoring programs (air, water, soils), including their results.
- Security and safety measures for the site and potentially affected area.
- Use of contractors.
- Communications program and media involvement, including an assessment of their effectiveness, what worked well, and where improvements can be made.
- Actual or suspected cause, the rationale used to determine the cause, and if applicable, the progression from a kick to a blow to a blowout.

A copy of the drilling plan, if applicable, including an overview of geology relative to the well in question.

Also required is a summary sheet of well data, such as:

- STICK diagram.
- Mud weight at the time of incident.
- Formation name, depth, and pressure.
- H2S content.
- Reservoir releases (gas, oil, condensate, water) and flow rates.
- Initial release point at surface.
- Release geometry (horizontal, vertical, diffused, etc.).
- Restricted (valve partially closed, etc.) or unrestricted flow.
- Details of any relief wells.
- List of equipment losses.

Description of all potential impacts and steps taken during the incident to monitor and minimize the effects on:

- Public.
- Workers.
- Environment.
- Animals (domestic and wildlife).
A copy of or sufficient detail respecting appropriate maintenance and operating programs related to the incident

- (E.g., SCADA systems, pipeline corrosion program, ESD valve operating conditions and maintenance programs, tour reports, drilling recorder and mud volume information, blowout preventer test and inspection report, employee certifications).

All third-party analyses of any pipeline or equipment failures

- (E.g., metallurgical reports), if applicable.

Copy of personnel statements, if available

Conclusions respecting the incident

- Emphasize:
  - How the knowledge gained from this incident will be shared with other operators, the Commission and relevant industry associations.
  - Timeline to implement actions, including milestones to be used to ensure actions are followed up, resulting in lasting improvement.
Appendix F: Submission of Plans in Electronic Formats

Under Section 11 of the EMR, plans must be submitted in both paper and electronic formats. When updating plans, the complete revised version of the electronic plan must be submitted. The Commission accepts plans in the following file types:

- Portable Document Format (PDF) is the preferred file type.
- MS Word.
- Rich Text Format (RTF).

Maps accompanying plans can also be accepted in the following file formats:

- Shape is the preferred file type.
- GeoTIFF.
- PDF.

While not a requirement, mapping information in Shape files is preferred as it will enhance the Commission’s ability to identify areas and values at risk, and will support decision making when resources are being tasked in response to wide area emergencies such as wildfires and flooding.

To ensure compatibility, spatial data submitted to the Commission in shapefile format will need to be in Projection UTM83 Zone 9, 10 or 11.

Shape file spatial standards are outlined in the ESRI White Paper, ESRI Shapefile Technical Description. The White Paper can be found on the Commission’s FTP site.

Mapping should not be embedded in Word or RTF documents.