

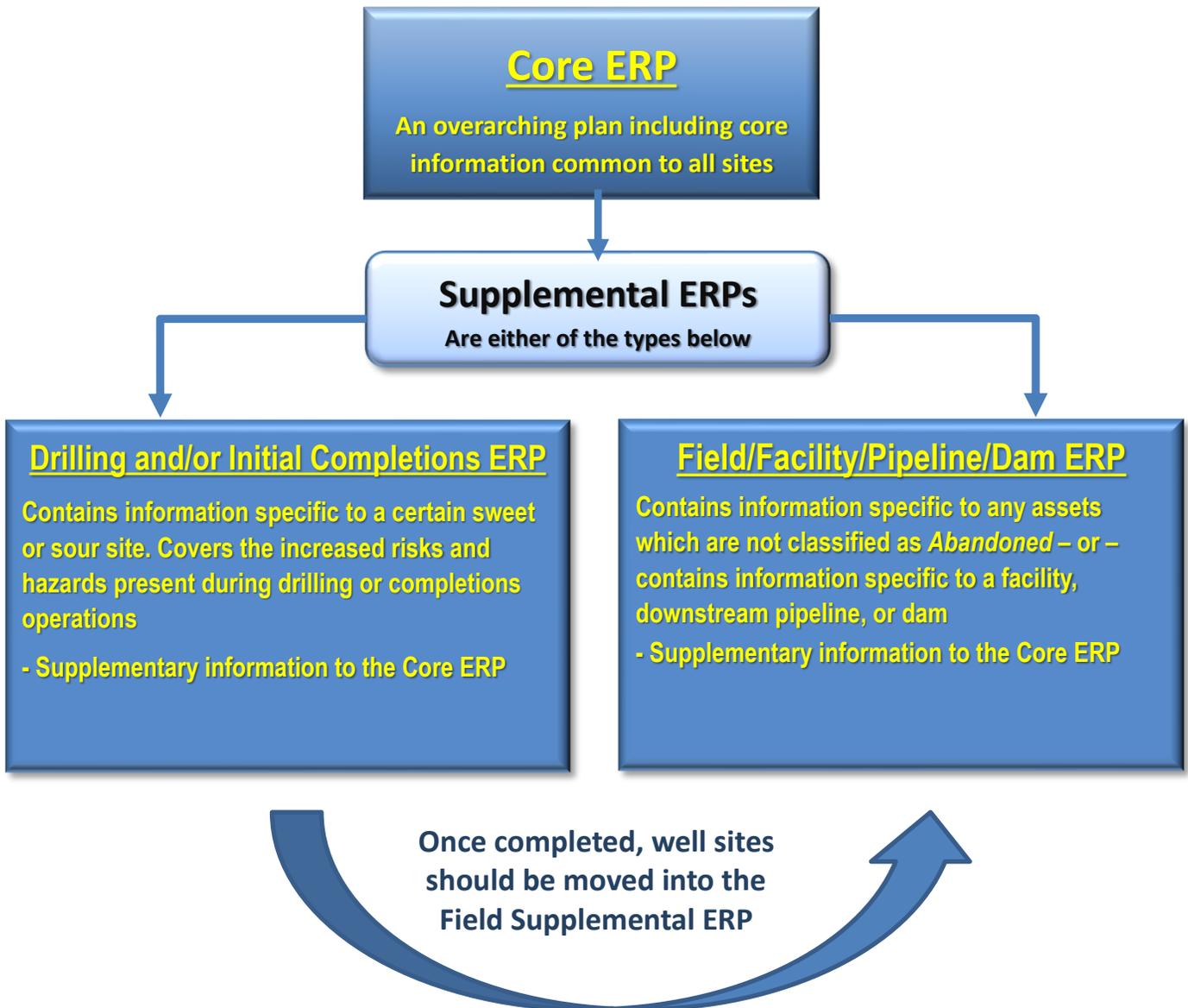


Field / Facility / Pipeline  
ERP Supplement  
Content Checklist  
Guidance Document

November 2023

Version 2.2

## ERP System - Relationships between Plan Types



Please Note: This guidance is limited in scope to the authorities and requirements established within the [Energy Resource Activities Act](#) (ERAA), or specified enactments established thereunder. Carrying out oil, gas, geothermal 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.

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## Manual Revisions

The Regulator is committed to the continuous improvement of its documentation. Revisions to the documentation are highlighted in this section and are posted to the [Documentation Section](#) of the Regulator’s website. Stakeholders are invited to provide input or feedback on BCER documentation to [ServiceDesk@bc-er.ca](mailto:ServiceDesk@bc-er.ca) or submit feedback using the [feedback form](#).

Version Number	Posted Date	Effective Date	Chapter Section	Summary of Revision(s)
2.1	August 8, 2018	September 1, 2018	Various	This document has been updated to include information regarding Dams.
2.2	Nov.28, 2023	Nov.28, 2023	Various	Replace BCOGC with BCER; OGAA with ERAA; new logos, references and associations

## Submission of Plans

The permit holder is required to develop and maintain a field/facility/downstream pipeline supplemental plan for **ALL** assets and operations other than abandoned assets. Plan requirements for drilling and initial completions operations are noted in the “Drilling & Initial Completions ERP Supplement Content Checklist Guidance Document.” In the case where a permit holder’s asset is a stand-alone facility or a downstream pipeline not encompassed by a pre-determined field, the facility ERP will follow the guidelines for and have the same requirements as a field ERP. The field/facility/pipeline supplemental plan must be used in conjunction with the Core plan. The supplemental plan must be maintained until the permit holder no longer holds the facility or assets in this field.

A plan must be updated:

- prior to new assets being brought into production e.g. pipelines, facilities, and dams
- when drilling and initial completion operations for a well have been completed
- when there is new information that is instrumental to implementing the plan
- annually, by the anniversary date unless an extension has been granted

Plans must be reviewed and an annual update submitted to confirm information remains accurate and relevant. When annual updates are submitted, along with the associated checklist, the **permit holder must indicate that the submission is for the annual update** for record of compliance purposes. Other updates may be submitted at other times but will not be considered as the annual update unless indicated. When sending in electronic ERP updates, the complete manual must be submitted each time.

In some cases, there may be no changes required to the plan. When this occurs, the Regulator will allow permit holders to re-submit their plans in electronic format only, with a new revision page showing:

- The date the review was completed (for the current year’s plan) and that no revisions are necessary, and
- The person responsible for the review; this includes the person’s position within the company, and their contact information. This responsibility typically rests at a manager or above level, reflecting the need to understand the regulatory requirements, and the potential consequences should there be inaccuracies that affect life and safety.
- A checklist will not be required if no updates have been made.

All supplemental emergency response plans (ERPs) on file with the BC Energy Regulator (Regulator or BCER) must be submitted in both electronic and hard copy formats. At this time, the Regulator can only accept ERP electronic submission through our Secure File Transfer Protocol Site (SFTP). In order to submit electronic ERP’s through the SFTP, please email [ServiceDesk@bc-er.ca](mailto:ServiceDesk@bc-er.ca) for a user ID, password, and URL.

Hard copies can be mailed to the BC Energy Regulator, 6534 – 100<sup>th</sup> Ave., Fort St. John BC V1J 8C5, ATTN: Security and Emergency Management Branch

Each Field Supplemental ERP is to be submitted separately from the Core as follows:

Field Supplemental ERP (PDF format), including the maps, and named as follows:

*[Company Name] [Field / Facility/Pipeline Name] Supplement [created date YYYY-MM-DD]*

e.g. *ABC Ltd Altares Supplement 2016-06-25*

*ABC Dawson Prince George Mainline 2016-06-25*

*ABC Kitimat LNG 2016-06-25*

Field Supplemental HPZ map only (in Shape file format only), and named as follows:

*[Company Name] [Field /Facility Name] Map [created date YYYY-MM-DD]*

e.g. *ABC Ltd Altares Map 2016-06-25*

*ABC Dawson Prince George Mainline Map 2016-06-25*

*ABC Kitimat LNG Map 2016-06-25*

## Workover Supplemental Plan

The permit holder is required to develop a workover supplemental plan only when the nature of operations being performed causes the HPZ to become temporarily larger than originally specified in the field supplemental plan. The checklist for the drilling & initial completions supplement can be used to develop the plan. The workover supplemental plan expires after the workover operations have ceased. All assets should then be placed into a field supplemental plan.

## Contents of a Supplemental Plan

The permit holder is expected to determine the level of detail required to address each item in the field (including dams) / facility / downstream pipeline Supplement based on the hazards and potential consequences of the emergency. As a minimum, the permit holder must include the following information in its field plan (where applicable)

### 1. Cover Page

The cover page of each binder must include:

- The legal name of the permit holder in BC under which the assets are registered. If the permit holder operates under multiple names, one ERP may be used if all legal names are listed on the binder.

- The permit holder’s 24-hour emergency phone number. The number must be the same as the number on the site location signs. Any changes to this number must be made to both the plan and all facility signage.
- The Regulator’s 24-hour incident reporting phone number line.
- Name and type of the ERP supplement (must include that it is the field (including any dam) / facility / downstream pipeline Supplement and the name of the field(s) e.g. Northeast BC Field ERP Supplement).
- Date the ERP Supplement was created.
- Field /facility / downstream pipeline ERP Supplement manual distribution number.

## 2. Table of Contents

A Comprehensive Table of Contents must be included at the beginning of each manual in an easy-to-use format.

## 3. Document Controls

### Supplementary ERP Distribution List

A list of supplementary ERP numbers and the names of the ERP holders, where applicable, should be included.

### Record of Revisions/Updates Page

A chronological list or table of Supplement revisions, which include information as shown in the table below. The “Date Inserted into Supplement” and “Signature” is completed by the Supplement holder upon insertion of revisions into the Supplement.

**Revision Table**

<b>Table of Revisions</b>					
Annual Review Date: MM-DD					
Annual Update Date: MM-DD					
Date	Revision #	Revision Highlights	Annual Update Y or N	Date Inserted into ERP YYY-MM-DD	Signature
3/12/16	1	Update AQM	N	16 / 12 / 16	S Jones

All updates must be accompanied with clear instructions on how to insert and remove pages from the Supplement. A sample can be found below.

**Update Instructions Table**

Type of Update: <input type="checkbox"/> Annual Update <input type="checkbox"/> General Update		
Name of Field:		Date:
Contact Name and Phone number for questions:		
<b>LOCATION</b>	<b>REMOVE/DESTROY PAGES</b>	<b>INSERT PAGES</b>
Table of Contents	Pages i to iv	Page i to iv
Section 5 – Government Roles & Responsibilities	Pages 5-1 to 5-10	Pages 5-1 to 5-12
Section 8 – Map (green tab)	Rev. 6 2009-06-09	Rev. 7 2010-07-19

## 4. Supplement Sections

(If more than one field or type of facility/downstream pipeline is inserted into a region ERP)

Each Supplement **section** must include a cover page with:

- Field / facility / downstream pipeline/ dam name.
- Permit holder’s 24-hour emergency number (only if it is different from the 24-hour number previously included on the cover page).
- Date the Field section was created.
- Unique binder tab (hard copy version)

## 5. General Field/Facility/Downstream Pipeline or Dam Description

A general description of the field operations, facility type, general land use, including population density in the area, number of residents, level of transient use, type of use, and public facilities.

## 6. Field Specific procedures for contacting and evacuating/sheltering affected public

Field / Facility / Downstream Pipeline or dam specific procedures of who to contact, when to contact, and how to contact the affected public. Plans with residents’ personal information must be protected to safeguard privacy.

Reference the core plan for other procedures.

## 7. Field Specific Procedures for isolating the HPZ or Inundation Zone

Field/facility/Downstream Pipeline or dam specific procedures describing where and how the HPZ or Inundation Zone will be isolated, such as roads, waterways, railroad lines, pipeline right of ways, etc. Reference the core plan for other procedures.

## 8. Field Specific Contact Information

List the field specific contact names and numbers for the following entities:

- Field Specific Permit holder contacts.
- Corporate EOC / incident management contacts.
- Rights holders, non-resident land owners/renters, and industrial operators.
- External Emergency Response Services phone numbers.
- Government Agencies 24 hour phone numbers.
- School District (if applicable).
- Reference the core plan for other contact numbers.

## 9. Maps

The permit holder must ensure that maps are sized to provide a clear representation of the entire mapped area. Details on digital map file requirements can be found at [INDB 2016-17](#) and mirror the AMS submission standards.

### Regional Map

Regional map should be a representation of the general area surrounding the assets to show the nearby centres, airports, waterways, reception centres, highlighted route showing directions to site from main response centre.

### Hazard Planning Zone or Inundation Zone Map

NOTE: Downstream pipelines will only be required to submit a 1:500,000 map (for hard copy version) showing the full representation of the pipeline.

For longer pipelines, the map may be divided into several maps.

Block valves and ESD's must be indicated, and locations of any major spill response caches (not including WCSS sites) should be included.

When urban areas are part of an HPZ or Inundation Zone, it is only necessary to show it is a populated area.

The emergency planning zone map must include all surface development and must be ground-truthed for accuracy.

Planning zone maps must include the following within the HPZ as applicable:

- Operator's assets including labelled surface locations and access roads;
- Locations and reference numbers of residences within the HPZ or Inundation Zone, including residences adjacent to the HPZ or Inundation Zone, or on dead-end roads requiring egress through the HPZ or Inundation Zone;
- Lakes, rivers, streams and any elevation feature that could impact emergency response in the HPZ or Inundation Zone (such as slopes likely to direct spillage into a watercourse);
- Campgrounds, recreation areas, public facilities (churches, schools, hospitals, etc.) and any other public developments;
- Trapping areas, grazing lease, range allotment, and any other rights holders' boundaries, including their reference numbers;
- Industrial operations including all oil and gas operations labelled with asset name and surface location;
- Railways and airports;
- Municipal / settlement area (town, hamlet, etc.) boundaries;
- Legend, measurement scale, map scale and north arrow;
- Numbered or lettered potential roadblock locations;
- Labelled roads with numbered or named provincial, local, and access roadways and dead end roads in the HPZ or Inundation Zone;
- Any roads that extend past the map must indicate if the roads are continuous;
- NTS and/or DLS mapping grids.
- For dams, a topographic map with contour lines must be shown to represent elevations and help determine water dispersion in a full dam breach situation.

## 10. List of field specific emergency response and safety equipment

The list should detail items such as (but not limited to):

- Communication equipment (primary & secondary) and radio frequencies.
- Roadblock kits.
- Air monitors.
- Ignition kits.
- First aid.
- Breathing apparatuses.
- Spill containment, etc.
- Heavy equipment (for berming, bell-holes, etc.) available at short notice.

The permit holder must ensure that equipment identified is available and located where specified in the Supplement for any operation. If including spill cooperative equipment in the plan, permit holders should be members in good standing.

The type of air monitoring units and the number of monitors necessary will be based on the following field-specific information:

- Access and egress points.
- Population density and proximity to settlement areas.
- Local conditions.

## 11. Asset Data

All permit holder assets must be listed in the Supplement and include the following information. When submitting updates to asset lists, permit holders should specify which assets have been removed or added to the plan in a separate document to assist in compliance and to support the timely review of your ERP.

### Pipelines

- BCER License Project #.
- From and to location of Pipeline Segments.
- Location of ESD - coordinates in UTM NAD 83 (shown on map as well).
- Length of pipeline between ESD's.
- Calculated HPZ.
- Operational status.
- Licensed H<sub>2</sub>S content (if applicable)

### **Recommended (as applicable):**

- Maximum release rate and volumes (gas or liquid) for all segments.
- Maximum licensed operation pressure (MOP).
- Maximum operating temperatures.
- Compressibility factor.
- Pipe internal diameter.
- Actual H<sub>2</sub>S content (if applicable)

### Facilities

- BCER facility license #.
- Facility type.

- Location of facility (UTM NAD 83).
- Size of the calculated HPZ.
- Operational status.
- Distance in kilometers to the nearest resident or public facility.
- Maximum H<sub>2</sub>S release and volumes within the system if applicable.

**Recommended Additional Information:**

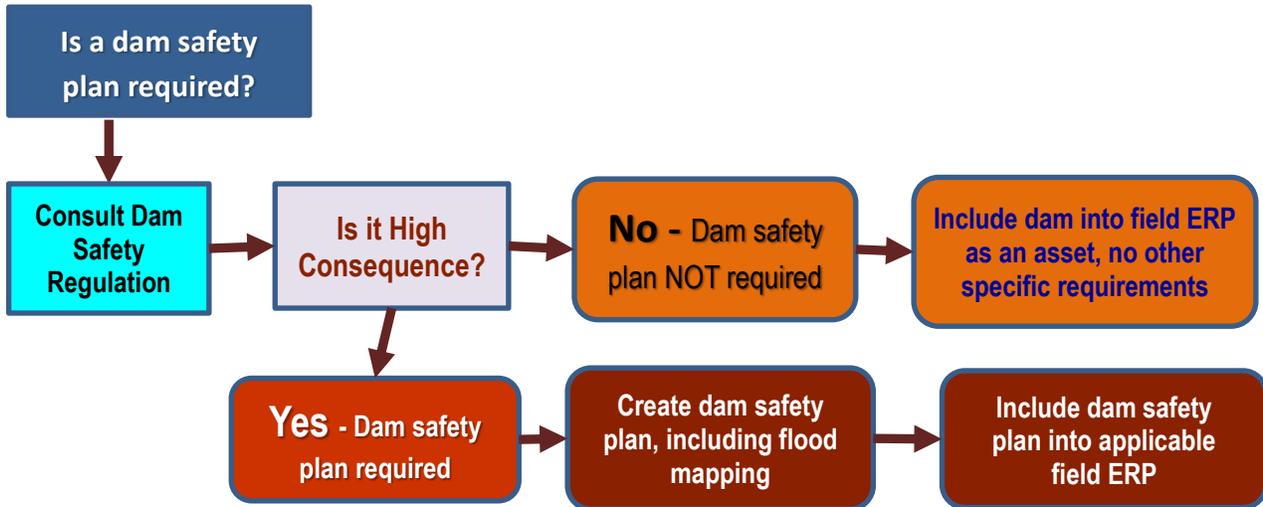
- Maximum hydrocarbon volumes and types stored on site (i.e. battery sites).
- Number/location of ESD's, including in/out of the site.
- List of other permit holders with pipeline directly connected to/from facility.

**Wells**

- BCER Well Authorization #.
- Well name and type (production, water source, disposal, etc.).
- Surface location of well.
- Maximum potential H<sub>2</sub>S in ppm (release rate and/or volumes are optional).
- Size of calculated HPZ in meters.
- Location coordinates (UTM NAD 83).
- Operational status e.g. cased, completed, active, suspended, etc.
- Distance in kilometers to the nearest resident or public facility.

## Dams

Only high consequence dams require a dam safety plan, which should be included into the applicable field or facility supplemental ERP as a new tab / section.



- Dam name and Facility ID number (Dam Permit number).
- Surface legal location of the dam (NTS/DLS).
- Location coordinates (UTM NAD 83).
- Size of the Inundation Zone in meters.
- Water volume at the dam's maximum fluid capacity.
- Operational Status.
- Distance in kilometers to the nearest resident, public facility or numbered road.

## 12. Mutual Aid/Bridging Statement Agreements

Additional guidance on mutual aid and bridging can be found in the [Emergency Management Manual](http://www.bc-er.ca/industry-zone/documentation/Emergency-Response-and-Safety) on the Regulator's website at <http://www.bc-er.ca/industry-zone/documentation/Emergency-Response-and-Safety>

### Mutual Aid Agreements

Mutual aid should be considered by the permit holder where the permit holder may not have the capacity or resources to respond promptly and effectively to a worst-case situation, or wishes to enhance the response capacity for their operation in any given area.

Where a permit holder's response is dependent upon other permit holders for assistance during an incident or emergency, the nature of the assistance must be set out in an agreement. A summary of the agreement, including procedures for activating mutual aid must be included in the Supplement. Mutual aid agreements should define each participant's commitment to provide aid and support during an incident or emergency, and may include other responsibilities agreed to during response. If a mutual aid agreement is terminated or significantly altered, all affected emergency response plans must be promptly updated to reflect the changes.

### **Bridging Statements of Responsibilities**

If assets owned by the permit holder are operated and maintained by a third party, a bridging statement is required to be included in the Supplement.

If another permit holder is contract operating an asset, a bridging statement summary must be included in both permit holders Supplement's in an easy to find location.

A Bridging statement is a document that outlines each party's involvement before and during an incident or emergency.

The bridging statement should address the following key areas, as a minimum:

- Define which ERP/Supplement will be used during an emergency.
- Outline which company would respond during an emergency, to what capacity, and which company is the lead during the response.
- Define specific, clear responsibilities, lines of communication and authorities for all parties.
- List the assets that the bridging statement applies to.

## **13. List of Affected Parties' Information within the HPZ or Inundation Zone (as applicable)**

Where there are affected public in the HPZ or Inundation Zone, the Field Supplement must include the following.

Information about residents, businesses and public facilities within the HPZ or Inundation Zone:

- All required information collected during the Public Involvement phase must be included in the Field Supplement.
  - Legal description and 911 address of the residence, business, or public facility, including evacuation route issues.
  - Name of the primary contact and a 24-hour contact telephone number (home, business, cell or other).

- Names and telephone numbers of all residents at the location and the names of the school(s) any children attend.
- Names and requirements of residents with special needs or requiring special provisions.
- General information about animals, including pets or livestock.
- Other concerns or issues raised; for example, the security of the premises during an emergency.
- Information should be arranged in such a manner that it corresponds with the markings on the map and is easy to locate.
- All resident information must be labeled and managed as confidential.

#### 14. Field Specific Hazards and Risks

The permit holder must list the hazard and risks identified in the site hazard/risk analysis for the field/facility/downstream pipeline. The field personnel would refer to core plan for specific hazard/risk procedures.

#### 15. Description of Specific Hazardous Products and General Health Effects

A comprehensive table of hazardous products for the site listing general health effects similar to the format found in the table below.

## On Site Hazardous Products Table

Hazardous Product	General Description	Health Effects	Minimum PAZ <sup>1</sup>
Methane	Odorless; colorless; often referred to as “sweet gas”; flammable; lighter than air	Oxygen narcosis (displaced oxygen)	400m (small spill) 5400m (large spill)
Sulphur Dioxide (SO <sub>2</sub> )	Non-flammable, toxic and corrosive gas	Choking effect, poisonous gas, IDLH at 100ppm, 400-500 ppm are immediately life threatening; can cause skin and respiratory tract burns; may be inhaled or absorbed.	400m (small spill) 5,400m (large spill)
Hydrogen Sulphide (H <sub>2</sub> S)	Flammable-explosive when mixed with air- forms SO <sub>2</sub> when combusted; Rotten egg” smell at low concentrations- inhibits olfactory senses at high concentrations; Heavier than air; will tend to disperse slower in sheltered or low lying areas Extremely toxic;	Moderate to strong offensive odour; may cause nausea, burning of the eyes, headaches, or loss of sleep upon prolonged exposure; Moderate to severe irritation to the eyes and lungs; may cause indigestion and loss of appetite; Severe lung and eye irritation; Loss of smell; Serious damage to lungs and eyes ensues within 30 minutes of exposure leading to loss of consciousness; death within four to eight hours after exposure	400m (small spill) 5,400m (large spill)

## 16. Copy of most recent Public Protection Information Package to Affected Parties

A copy of the most recent Public Protection Information Package must be included in the Field Supplemental. The following information should be included in the information package:

- The name and contact information for the permit holder.
- A map that shows the location of the hazard planning zone in relation to roads, dwellings, schools and public facilities, and private property potentially used by public.
- A description of site-specific hazards and risks of the activity or activities.
- A description of how the permit holder’s response to an emergency may affect the person or entity receiving the information.
- How the permit holder will notify the person or entity receiving the information if, and when the permit holder thinks they should shelter in place or evacuate.

<sup>1</sup> Values listed in Table 1 of the 2016 CANUTEC Guide. The guide is one option for defining an EPZ.

- If evacuating, how the person or entity receiving the information can get to safety in an emergency.
- A statement requesting that the person or entity receiving the information provide to the permit holder:
  - Name(s) and preferred contact information for the recipient address.
  - A description of how the person or entity may be affected by an emergency [such as any medical conditions or transportation issues.]

For further assistance, please consult the latest version of the Emergency Management Manual, available in the documentation section of the Regulator’s website, or by emailing the Security and Emergency Management Branch at [EMP@BC-ER.CA](mailto:EMP@BC-ER.CA).