

**SPECTRA ENERGY TRANSMISSION WEST**  
**FIELD EMERGENCY RESPONSE PLAN**

**SECTION 7.0 - SITE-SPECIFIC INFORMATION**

SITE SPECIFIC	DIVISION
Dawson Plant	Gathering and Processing

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**SPECTRA ENERGY TRANSMISSION WEST**  
**FIELD EMERGENCY RESPONSE PLAN**  
**SITE-SPECIFIC INFORMATION**

SITE SPECIFIC	DIVISION
Dawson Plant	Gathering and Processing

**Any errors or omissions in this site-specific information section should be brought to the attention of the OHS&E Emergency Response Subcommittee Chairperson, Dawson Plant.**

To ensure this site-specific information remains current, record any revisions you receive on the following record form:

REVISION RECORD		
Number	Date	Details
1	August 2011	Initial Plan Development – Dawson Plant/Bessborough Pipeline.
2	October 2011	Dawson Plant – Update.
3	April 2012	NEB 24/7 Contact Update.
4	December 2012	Phase II Update.
5	June 2013	Annual update including revised Incident Notification Report.
6	September 2014	Annual update to include Field Emergency Response Plan Revision Request Form, Field Emergency Response Team Assignments Form and Incident Action Plan Form.
7	June 2015	Annual update
8	May 2016	Annual Update including Entry into a Hazardous Atmosphere (Section 7.2, Appendix A)
9		
10		
11		
12		
13		
14		
15		

# SPECTRA ENERGY TRANSMISSION WEST

## FIELD EMERGENCY RESPONSE PLAN

### SITE-SPECIFIC INFORMATION

SITE SPECIFIC	DIVISION
Dawson Plant	Gathering and Processing

### DISTRIBUTION LIST

Manual Number	Title	Location
<b>External</b>		
X-1	National Energy Board	Calgary, AB
X-6	Ministry of Environment (BC)	Fort St. John, BC
X-13	Emergency Management BC	Prince George, BC
X-24	Peace River Regional District	Dawson Creek, BC
X-61	RCMP	Dawson Creek, BC
X-84	Fire Department	Dawson Creek, BC
<b>Spectra Energy – Dawson Plant</b>		
1001	Director – Dawson Plant	Dawson Creek, BC
1002	Manager – Operations	Dawson Creek, BC
1003	Dawson Plant Control Room	Dawson Creek, BC
<b>Spectra Energy – Support Personnel</b>		
501	Fort St. John Gas Control	Charlie Lake, BC
502	Calgary Gas Control	Calgary, AB
503	Emergency Preparedness Manager	Charlie Lake, BC
505	Charlie Lake Emergency Response Centre	Charlie Lake, BC

Manual Number	Title	Location
<b>Spectra Energy - Calgary</b>		
700	President – SET West	Calgary, AB
701	Director – Public Affairs	Calgary, AB
702	Crisis Management Centre	Calgary, AB
703	Vice President – Operations & EHS	Calgary, AB

**SPECTRA ENERGY TRANSMISSION WEST  
FIELD EMERGENCY RESPONSE PLAN  
SITE-SPECIFIC INFORMATION**

SITE SPECIFIC	OPERATING COMPANY
Dawson Plant	Gathering and Processing

**REVISION REQUEST FORM**

Section: _____	Page(s): _____
<b>RECOMMENDED REVISION:</b>	
<b>REASON FOR REVISION:</b> _____	
Recommended By: _____	Approved by: _____
Date Recommended: _____	Date Approved: _____

**Forward to the Manager of Emergency Preparedness and Security**

**SPECTRA ENERGY TRANSMISSION WEST**  
**FIELD EMERGENCY RESPONSE PLAN**  
**SITE-SPECIFIC INFORMATION**

SITE SPECIFIC	DIVISION
Dawson Plant	Gathering and Processing

**INTRODUCTION**

**Purpose of the Plan**

To prepare and assist those who may be required to respond to an emergency associated with the Dawson Plant and connected pipelines. Risk assessments have been performed to address the likelihood of failures. This Emergency Plan addresses the consequences of failure of the Dawson Plant.

The initial responsibilities of the Dawson Plant staff in an emergency are:

- To determine the nature of the emergency.
- To determine any existing or likely to exist hazards associated with the emergency.
- To take action to limit or reduce the impact of the emergency on the public and the environment.

**Use of the Plan**

This plan is intended to be used for training before an emergency and as a guide during significant emergencies.

**Update of the Plan**

The Dawson Plant staff shall review this plan annually and, in conjunction with the Spectra Energy Emergency Preparedness Manager, arrange for regular testing of the plan and revise as necessary. Response plan updating and testing policy is defined in the Emergency Management Manual, Section 1.0, Subsections 1.6 and 1.7 respectively.

**Administration of the Plan**

Revisions are to be recorded in Revision Record,

Plan distribution is in accordance with the Distribution List,

**Coordination with other Plans**

This plan must be read in conjunction with the *Emergency Management Manual*, Sections 1.0 to 7.0.

## Facility Information

### a) Facility Location

**RR#2 Redacted. This section is protected from publication under Clause 1(a) ii. of Order MO-006-2016. This information is security sensitive and will impair the security of the facility.**

### b) Facility Description

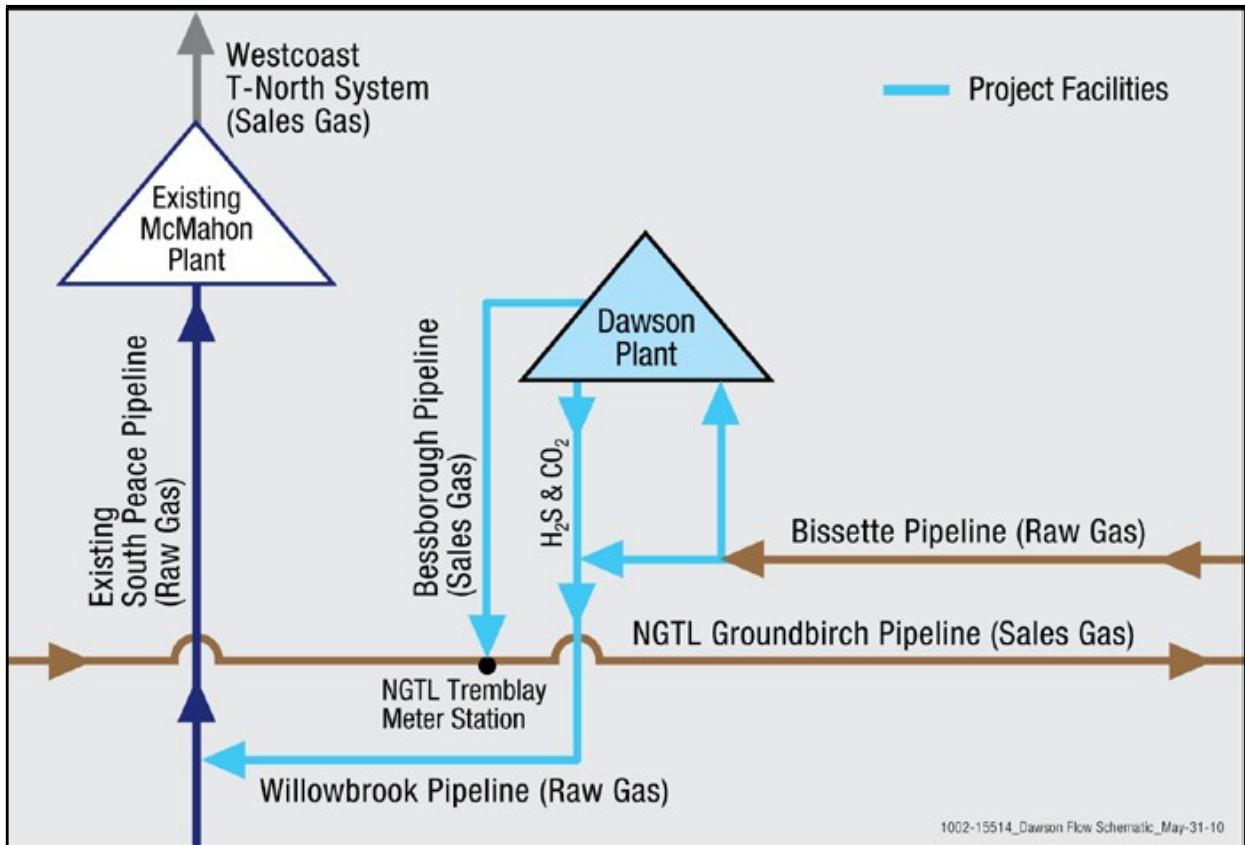
**RR#3 Redacted. This section is protected from publication under Clause 1(a) iii of Order MO-006-2016 as it would provide a competitor with details of facility that may provide competitive advantage over Spectra Energy Transmission West.**

- Inlet piping.
- Inlet gas heating and separation.
- Gas sweetening.
- Amine regeneration.
- Hydrocarbon dew point control.
- Acid gas compression and dehydration.
- Condensate and natural gas liquids handling facilities.
- Utility systems including on-site gas fired power generation facilities.
- Sales gas compression.
- Outlet piping.
- Metering facilities and control systems.

A portion of the raw gas delivered to the Plant inlet will bypass the processing facilities and be blended with the acid gas recovered at the Plant and then transported in the South Peace Pipeline for processing at the McMahan Plant.

- **RR#2 Redacted. This section is protected from publication under Clause 1(a) ii. Of Order MO-006-2016. This section contains security sensitive information that if it is disclosed could cause a real and substantial risk that will impair the security of Spectra Energy Transmission West' pipelines, buildings, structures or communication systems.**





### c) Material Safety Data Sheets

Material safety data sheets are included in Appendix H:

- Sour Natural Gas.
- Acid Gas.
- Sweet Natural Gas (Pipeline Quality).
- Natural Gas Liquids.

### d) Emergency Planning Zone

#### • Emergency Planning Zone (EPZ) Definition

The Emergency Planning Zone (EPZ) is a priority area surrounding the facility or pipeline where immediate response actions are required in the event of an emergency. The Emergency Planning Zone distances stated are scientifically predicted maximum values, modeled over a large range of meteorological conditions, using maximum expected volumes of H<sub>2</sub>S release.

When Emergency Responders arrive at the scene, the actual area of risk will be determined using portable gas monitoring equipment (multi gas detectors). The criteria for action to protect downwind personnel or occupants will be:

- Greater than 10 ppm of H<sub>2</sub>S.
- Greater than 4 ppm of SO<sub>2</sub>.

- Greater than 20% of the Lower Explosive Limit

\*Safety consideration for responder safety during responses refer to Emergency Management Manual, Appendix B: Responder Safety (page 5 of 53).

- **Gas Plant**

For the Dawson Plant the principal hazard is exposure to H<sub>2</sub>S that is contained in the inlet and outlet gas stream. Other hazards such as thermal radiation, vapour cloud, explosion and damage from projectiles pose a lesser safety hazard. The Emergency Planning Zone is based on the maximum expected distance to an H<sub>2</sub>S concentration of 100 parts per million (ppm) over 60 minutes.

The emergency planning zone (EPZ) for the Dawson Plant is circular in area with a radius equal to the EPZ of the Willowbrook pipeline sized at 3.9 km's and 1.6 km for the Natural Gas Liquids stored on the site.

- **Gathering Pipelines**

**Sour Gas Pipelines**

There are two pipelines with sour gas content connected to the Dawson Plant. The Bissette Pipeline, which will feed raw sour gas to the Dawson Plant for processing. The EPZ for the segment that connects to the plant is 631 meters. The Willowbrook will be on the discharge of the Dawson Plant and deliver manufactured sour gas to the South Peace pipeline that is west of the plant. The EPZ for this pipeline is 3.9 kilometers.

**Sweet Gas Pipeline**

For the sweet gas pipeline, the principal offsite public safety hazard is thermal radiation resulting from ignition of a gas release. Other hazards such as vapour cloud explosion and damage from projectiles poses a lesser public safety hazard. The Emergency Planning Zone is the boundary outside of which an individual is not expected to be exposed to instantaneous thermal radiation higher than 5 Kw/m<sup>2</sup>. It is measured perpendicular to the centre line of the pipeline. For the sweet pipeline, the Emergency Planning Zone is 600 meters. This distance was calculated by a third party consultant using appropriate industry accepted computer modeling.



## SPECTRA ENERGY TRANSMISSION WEST

### FIELD EMERGENCY RESPONSE PLAN

## SECTION 7.1 – GAS PLANT RESPONSE

SITE SPECIFIC	DIVISION
Dawson Plant	Gathering and Processing

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## 1.0 IMMEDIATE ACTIONS AND NOTIFICATIONS

### 1.1 Initial Actions for Dawson Plant Control Centre Operator

Upon indication that there may be an emergency, use this checklist to confirm that all necessary initial actions have been taken.

Monitor Control Board indications and take any immediate action to reduce the hazards.

Confirm safety of the Dawson Plant site.

Assume Incident Command (in the Control Room if it is safe; if not, evacuate to the McMahon Plant) until relieved.

Notify the On-Call Team Leader and additional staff if required.

Appoint the On-site Supervisor for the incident site and maintain communication with him/her.

Record available information – using the *"Initial Incident Notification Form"*

Maintain a log of critical activities – using the *"Time and Event Log"*.

### 1.2 Investigate and Assess

#### 1.2.1 Investigate

The Control Centre Operator, with assistance from the "On-site Supervisor", will investigate and record the nature of the existing and potential hazards associated with the emergency using the following hazard checklist indicating which hazards are known to exist and which are unconfirmed but likely.

Facility Failure:

- Hydrogen sulphide leak.
- Other leakage of hazardous material (gas or liquid).
- Pipeline failure.
- Valve failure.
- Pipeline freeze-up.
- Communication system failure.

External:

- Forest fire.
- Geological instability.
- Extreme weather.
- Terrorism.
- Third party damage.

### 1.2.2 Assess

**Determine Level of Alert** using the “Levels of Alert” definitions at page 7.

### 1.3 Notify

**RR#1 Redacted. This section is protected from publication under Clause 1(a) i. of Order MO-006-2016. This section contains employee contact information including office, home and cell phone numbers.**

### 1.4 Incident Commander Action Checklist

Once the On-Call Team Leader has been notified, he will take over the Incident Command from the Plant Control Centre Operator and activate the Incident Command Post at the Plant or other suitable location.

The Incident Commander will be responsible for the following action, not necessarily in the order written:

Notify and assign members to an Emergency Response Team and deploy equipment as required. See Telephone Directory Contact List in Appendix B, Sections 1.6.7 to 1.6.10, for Spectra Energy response personnel.

Confirm VHF channel to be used.

Establish an **Incident Specific** Emergency Planning Zone (EPZ) and arrange to staff its key access locations. See Appendix A - Emergency Planning Zone Security.

Identify those who may be in danger. See Appendix A – Emergency Planning Zone Data, for EPZ residences and businesses.

Consider notification, in priority order those who may be in danger to either evacuate or shelter depending on circumstances. If evacuation is required, give the safe direction for the evacuation. *(For more information on evacuation and sheltering, see "Evacuation and Sheltering" in the Emergency Management Manual, Appendix D.*

Establish a staging area for community emergency response people who may be needed at the site of the emergency. Notify them to hold at the staging area until otherwise directed. See Appendix A – Emergency Planning Zone Data, for identified Staging Areas.

Call out required community response people.

Secure the incident area (see Appendix A). *(For more information, refer to the Field Emergency Response Plan, Section 4.0, Subsection 4.3)*

- Roadblocks.
- Area isolation.

- Air space.

Use gas-monitoring equipment to determine and maintain safe areas. Gas monitoring readings above 10 ppm H<sub>2</sub>S and/or 4ppm SO<sub>2</sub> and/or 20% LEL means the area is unsafe and emergency responders will implement actions to evacuate/shelter in place personnel and public downwind from this point.

\*Safety considerations for responder safety during responses, refer to Emergency Management Manual , Appendix B: Responder Safety (page 5 of 53)

If danger to the public is imminent, appropriate action will be taken to minimize it. The ICP staff will also arrange for any necessary public safety warnings to be issued by the local news media.

Use appropriate means to notify all those who may be affected by the emergency:

- *Radio and Television (see Appendix B, Section 1.6.13).*
- *Roadblocks (see Appendix A).*
- *School Districts (see Appendix B, Section 1.6.12).*

Notify appropriate lead agencies and supporting agencies and services. Refer to the Notification Matrix in Appendix G and Lead Agencies and Supporting Agencies and Services contact lists in Appendix B, Subsections 1.6.4 and 1.6.5, respectively.

Continue to monitor the situation and adjust public protection measures as required.

Ensure a Communications Officer is appointed.

Continue emergency response activity until the incident is made safe.

When the incident is made safe, communicate the “all clear” to all agencies.

Stand down all emergency response activity.

Implement post-incident procedures. *(For more information, see Post Incident Procedures in the Emergency Management Manual, Section 6.0).*

## **1.5 Response Plan Forms**

The following forms are to be used by the Control Centre Operator and the Incident Commander, as appropriate:

- 1.5.1 Incident Notification Report**
- 1.5.2 Time and Event Log**
- 1.5.3 Level of Alert**
- 1.5.4 Field Emergency Response Team Assignments**
- 1.5.5 Incident Action Plan Form**

SECTION 5.1 AI RESPONDERS

1.5.1

INCIDENT NOTIFICATION REPORT

Incident Notification #: \_\_\_\_\_

Date: \_\_\_\_\_ Time reported: \_\_\_\_\_ Time occurred: \_\_\_\_\_

**SECTION A: CALLER IDENTIFICATION**

Callers name: \_\_\_\_\_ Phone: \_\_\_\_\_

Callers Present Location: \_\_\_\_\_

911 Address (If Applicable): \_\_\_\_\_



Does caller believe their safety is at risk?  No  Yes

Does call responder feel that the caller's safety is at risk?  No  Yes

If either is yes, explain and give recommendations (e.g. shelter in place):

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

If yes, has caller already phoned 911 or emergency services?  No  Yes

Does caller request Spectra Energy to call 911 or emergency services?  No  Yes



**TYPE OF INCIDENT:**  Odor  Irregular flare  Explosion

Fire  Sour gas release  Sweet gas release

Spill (see Section E)  Other:

**INCIDENT LOCATION:** (Use information available such as GPS coordinates, land marks, highway numbers, etc.)

\_\_\_\_\_

Describe incident area (e.g. forest, muskeg, valley):

\_\_\_\_\_

Confined to company property:

\_\_\_\_\_

Special environmental concerns (e.g. waterways):

\_\_\_\_\_

Access to the incident area (e.g. ATV, helicopter, road conditions):

\_\_\_\_\_

\_\_\_\_\_

**SECTION D: INJURIES/MEDICAL EMERGENCIES**

Injuries/medical emergencies:  No  SET West #:  Public #:  Contractor#:
Fatalities:  No  SET West #:  Public #:  Contractor#:
Assistance required:  No  Yes - description:

**SECTION E: SPILLS**

Type of spill:  Transportation spill  Other:
Name of product (attach MSDS if possible):
Carrier/trucker:
Consigner / Point of origin:
Estimated volume release (eg. cubic meters, litres, kilograms)

**SECTION F : CALL RESPONSE ACTIONS**

EPASS Incident notification  No  Yes
On-Call Incident Supervisor notified:  No  Yes Time: \_\_\_\_\_

Name of On-Call Incident Supervisor: \_\_\_\_\_

Immediate actions taken (e.g. referred to Pipeline, referred to Lands): \_\_\_\_\_

Follow-up required: \_\_\_\_\_ No Yes
Assigned to: \_\_\_\_\_ Due Date: \_\_\_\_\_

**ADDITIONAL COMMENTS/NOTES**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Name (Print) \_\_\_\_\_ Signature \_\_\_\_\_



**1.5.2 Time and Event Log**

**Spectra Energy Transmission West**

**SECTION 5.1 ALL RESPONDERS**

**TIME AND EVENT LOG**

Date:	Prepared by:
Page: of	Response Team Position:

Time	Call To	Call From	Telephone Number	Remarks

NOTE: Document all key events, conversations and meetings on this form. If lengthy notes are necessary, use additional copies of the back of the page.

CONTACT NUMBERS ARE LOCATED IN AREA SITE-SPECIFIC EMERGENCY RESPONSE PLANS

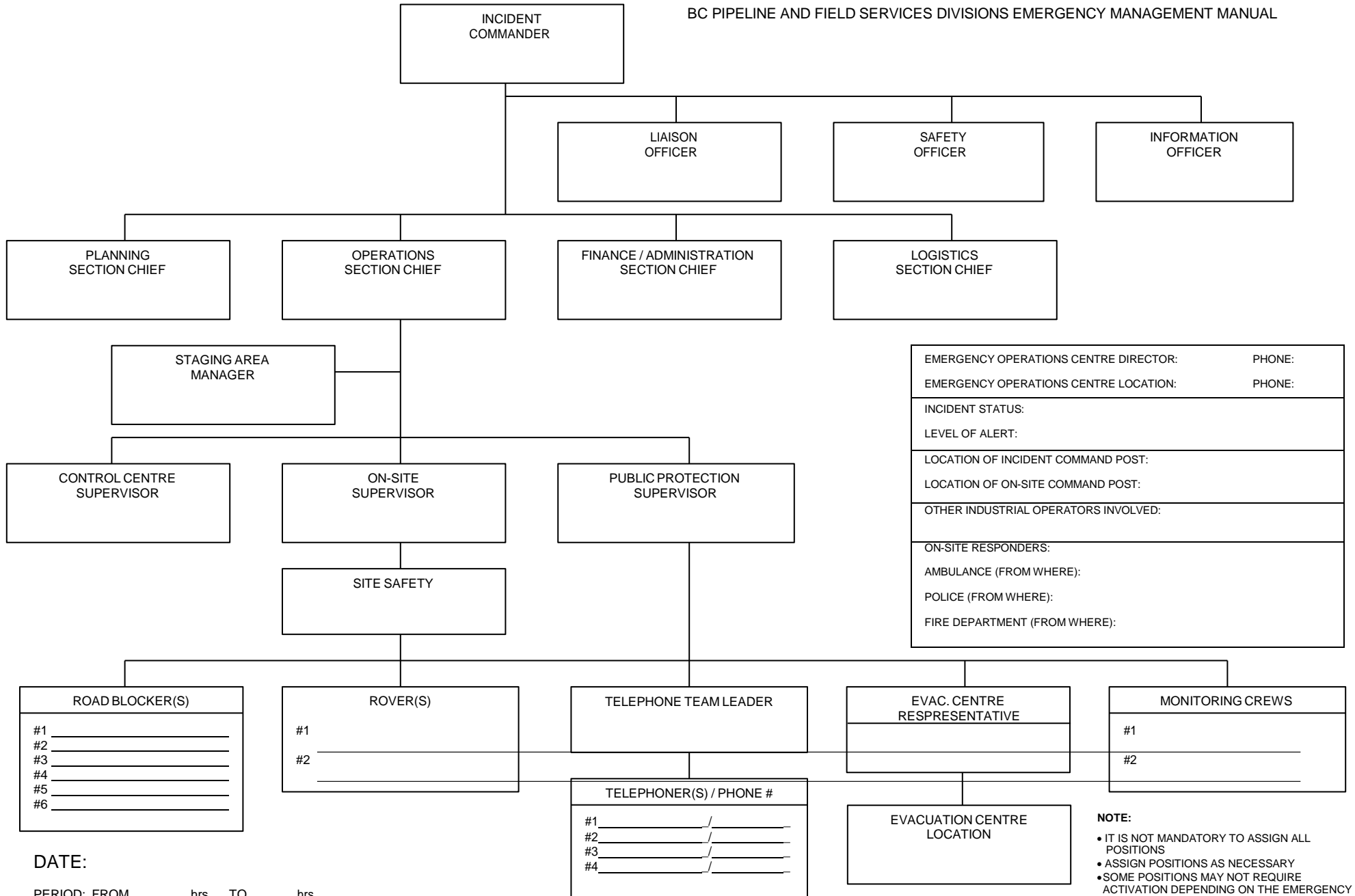
### 1.5.3 Levels of Alert

	Criteria	Example Responses
Level One Alert	<ul style="list-style-type: none"> <li>• An emergency which has the potential to escalate, does not meet any Level Two or Three Alert criteria, but meets <b>ALL</b> of the following conditions:               <ul style="list-style-type: none"> <li>❑ No serious threat to health and safety of workers; however, personal protective equipment may be required.</li> <li>❑ Minimal environmental impact</li> <li>❑ Impact confined to company property</li> <li>❑ Little or no media interest in the incident</li> <li>❑ Handled entirely by company or contract personnel</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• The On-site Supervisor and the Incident Commander will assess and confirm the situation.</li> <li>• Additional company personnel may be placed on standby.</li> <li>• External notifications are made as required, complying with appropriate regulated reporting.</li> <li>• Responders prepare for Level Two or Three Alert responses.</li> </ul>
Level Two Alert	<ul style="list-style-type: none"> <li>• An emergency that does not meet any Level Three Alert criteria, but meets <b>ANY</b> of the following conditions:               <ul style="list-style-type: none"> <li>❑ Presents a definite risk to the public, workers or the environment</li> <li>❑ Requires significant involvement of external emergency services, federal and/or provincial agencies</li> <li>❑ Requires some assistance from local response agencies, mutual aid partners and regulatory authorities</li> <li>❑ Causes moderate environmental impact that extends or has the potential to extend beyond company property</li> <li>❑ Creates local/regional media interest</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Responders prepare for Level Three Alert response. Level One Alert duties are continued as appropriate.</li> <li>• Additional internal and external resources are activated.</li> <li>• Lead regulatory agencies are notified and involved.</li> <li>• Additional notifications are made as required.</li> <li>• Sheltering or evacuation may be required.</li> <li>• Planned ignition of the product may be required.</li> <li>• The Emergency Operations Centre Team is activated.</li> </ul>
Level Three Alert	<ul style="list-style-type: none"> <li>• An emergency that meets <b>ANY</b> of the following conditions:               <ul style="list-style-type: none"> <li>❑ Causes serious threat to the public, workers and/or the environment</li> <li>❑ Requires extensive involvement of external emergency services, federal and/or provincial agencies</li> <li>❑ Requires a great deal of assistance from outside parties</li> <li>❑ Causes significant and ongoing environmental impact which extends beyond company property</li> <li>❑ Creates national media interest</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Level One and Two Alert responses are continued as appropriate.</li> <li>• The Field Emergency Response Plan is fully activated (including executive involvement).</li> <li>• External government agencies are extensively involved.</li> <li>• The company continues to liaise with key government agencies and sends representative(s) to the government's command centres if established.</li> </ul>

**1.5.4 Spectra Energy Transmission  
SECTION 5.1 ALL RESPONDERS**

**FIELD EMERGENCY RESPONSE TEAM ASSIGNMENTS**

BC PIPELINE AND FIELD SERVICES DIVISIONS EMERGENCY MANAGEMENT MANUAL



DATE:

PERIOD: FROM      hrs. TO      hrs.

**NOTE:**  
 • IT IS NOT MANDATORY TO ASSIGN ALL POSITIONS  
 • ASSIGN POSITIONS AS NECESSARY  
 • SOME POSITIONS MAY NOT REQUIRE ACTIVATION DEPENDING ON THE EMERGENCY

## INCIDENT ACTION PLAN

<b>EVENT:</b>		<b>Date:</b>	<b>Time:</b>
<b>Operational Period:</b>	From: _____ hrs	<b>Prepared by:</b>	
	To: _____ hrs		

**Goals & Priorities for Operational Period:**

<input type="checkbox"/> Provide for Safety and Health Responders <input type="checkbox"/> Save Lives (public) <input type="checkbox"/> Isolation of Incident <input type="checkbox"/> Protect Property <input type="checkbox"/> Protect the Environment
--

**Priorities:**

1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

Task Assignment	Responsibility	Completion Time	
		Estimated	Actual

Approved by: \_\_\_\_\_  
 \_\_\_\_\_ Incident Commander

## 1.6 Telephone Directory Contact Lists

**RR#1 Redacted. This section is protected from publication under Clause 1(a) i. of Order MO-006-2016. This section contains information that may identify individuals by contact information including office, home and/or cell phone numbers.**

## 2.0 EMERGENCY INDICATORS

The following are the expected indicators that an emergency condition may exist at the Dawson Plant. The Dawson Plant staff will automatically investigate them.

- Reports of odour or the observation of a pipeline rupture or leak received by the Dawson Plant staff from the public or employees.
- Hydrogen sulphide alarms from within the plant.
- Fire alarms from within the plant.
- Combustible gas alarms from within the plant.
- Process control limit alarms.
- Any unusual and potentially serious situation.

## 3.0 ESTIMATED RESPONSE TIMES

- Begin the response to an initial call from outside sources or an Alarm – 0 to 5 minutes.
- Confirmation of the existence of an incident by the Responders with the Control Room Operator - 5 to 60 minutes.
- Initiation of Public and Employee Safety warnings – 5 to 60 minutes.
- Full response to the incident (meaning ICP staffed and Response Team dispatched) – 1 to 2 hours.

## **4.0 EMERGENCY RESPONSE EQUIPMENT**

Attached, as Appendix E, is a list of the emergency response equipment that is available for response to a Dawson Plant emergency.

Contractor services for emergency response equipment are listed in Appendix B, Section 1.6.11 "Contract Services".

## **5.0 MUTUAL AID AGREEMENTS**

Mutual Aid Agreements are described in detail in Appendix C. The Mutual Aid Telephone Directory Contact List is provided in Appendix B, Section 1.6.6.

## **6.0 COMMUNICATIONS**

### **6.1 Telephone**

Telephone directories are provided in Appendix B, Section 1.6.1 for:

- Dawson Plant Control Room.
- McMahon Plant and Fort St John area Incident Command Post.
- Fort St. John Gas Control Centre.

The Gas Control centres monitor the pipeline 24 hours a day. Communication between the Dawson Plant staff and Gas Control centres is by telephone or two-way radio.

### **6.2 Emergency Notification Equipment**

Spectra Energy provides on-call and support personnel for the Dawson area with cellular telephones, mobile radios and paging equipment.

### **6.3 Radio**

Spectra Energy operates a company-wide VHF radio network. See Appendix D for the VHF radio frequencies and the designated applications used in the Fort St John/Dawson Creek area. (Transmit/Receive frequencies are shown from the mobile set perspective.)

## **7.0 INCIDENT COMMAND POST**

### **7.1 Staffing**

The ICP staff will be kept as close as practical to that in place for normal operations. However, in a major emergency the main focus will be to respond to and recover from that emergency. To provide that focus on a continuous basis during the emergency, special staff roles must be performed. For more information, refer to Section 2.0 and Section 3.0 of the Emergency Management Manual for ICP activation, staffing, roles and responsibility guidelines.

Any ICP staff member may be required to handle more than one of these staff roles based on the decision of the Incident Commander. Also, any ICP staff member may acquire assistance as necessary.

## **7.2 Extended incident ICP Staffing**

Staffing will be planned to cover two shifts per day (two 12-hour shifts or one of 16 hours followed by an 8-hour shift) depending on the needs of the response and recovery plan. The Incident Commander will determine the level of staffing required to meet the needs of the response to the emergency situation that the ICP is handling.

## **7.3 Location**

The primary site for the Dawson Plant ICP will be the Control Room. Should the primary site not be accessible or become untenable, the Incident Commander will relocate to the McMahon Plant ICP and advise all concerned.

**SPECTRA ENERGY TRANSMISSION WEST  
FIELD EMERGENCY RESPONSE PLAN**

**SECTION 7.2 – APPENDICES**

SITE SPECIFIC	DIVISION
Dawson Plant	Gathering and Processing

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# APPENDIX A – EMERGENCY PLANNING ZONE DATA

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- 1.1 Emergency Planning Zone Definition
- 1.2 Staging Areas
- 1.3 Roadblocks

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- 2.1 Public Notification within the Emergency Planning Zone
- 2.2 Communication with Regional Authorities
- 2.3 Map Numerical List - Residents / Businesses
- 2.4 Trappers
- 2.5 Guides and Outfitters
- 2.6 Other Key Contacts in the Area

## 1.0 EMERGENCY PLANNING ZONE SECURITY

### 1.1 Emergency Planning Zone (EPZ) Definition

- The Emergency Planning Zone (EPZ) is a priority area surrounding the facility or pipeline where immediate response actions are required in the event of an emergency. The Emergency Planning Zone distances stated is a scientifically predicted maximum value, modeled over a large range of meteorological conditions, using maximum expected volumes of H<sub>2</sub>S release.

When Emergency Responders arrive at the scene, the actual area of risk will be determined using portable gas monitoring equipment (multi gas detectors). The criteria for action to protect downwind personnel or occupants will be:

- Greater than 10ppm of H<sub>2</sub>S.
- Greater than 4 ppm of SO<sub>2</sub>.
- Greater than 20% of the Lower Explosive Limit.

\*Safety consideration for responder safety during responses, refer to Emergency Management Manual, Appendix B: Responder Safety (page 5 of 53).

The EPZs for the sour pipelines have been calculated by an external third party consultant using an appropriate industry computer model to determine the concentration and consequences of uncontrolled H<sub>2</sub>S releases. Volumes are at standard reference conditions of 15 ° C and 101.325 kPa. Consistent with industry standards, it is assumed that the size of the opening in the pipe when an accidental release occurs is equal to the pipe area. The transit times for the pipeline block valves to close have been considered in the EPZ calculations.

- **Gas Plant**

The Dawson Plant emergency planning zone for the Natural Gas Liquid storage on site will be 1.6 km, as specified in the 2012 North American Emergency Response Guidebook. See Appendix F for emergency planning zone maps.

- **Pipelines**

Each of the sour and sales gas pipelines delivering and discharging natural gas products to and from the Dawson Plant has a defined emergency planning zone. The portion of these pipeline emergency planning zones within the radius of the Dawson Plant emergency planning zone is considered to be the responsibility of the Dawson Plant for initial emergency response. See Appendix F for emergency planning zone maps for each of these pipelines within the Dawson Plant emergency planning zone.

After initial notification and response to a pipeline incident, responsibility for subsequent response will be coordinated under the direction of the pipeline Incident Commander.

Spectra Energy-operated pipelines within the Dawson Plant Area and their related emergency planning zones are listed in the following table:

Spectra Energy Number	Pipeline	Inside Diameter mm	H <sub>2</sub> S (%)	Segment Code	Section Length (km)	EPZ (km)
<b>Sour Gas Gathering Pipelines</b>						
PL 21600	Bissette (SEMC)	384.2	.02	PL 21600-4	5.065	.631
PL-20600	Urquart	38.2	.02	PL-20600-1	1.5	.63
PL21500	Willowbrook	384.2	5.0	PL21500-1	4.162	3.90
<b>Sweet Gas Pipelines</b>						
PL 20900	Bessborough	384.2	0.0	PL20900-01	.899	.600

All gas leaks are considered to contain H<sub>2</sub>S (sour gas) until proven otherwise. Discharge pipelines contain sweet gas suitable for delivery to market (but could contain traces of H<sub>2</sub>S, up to 16 ppm).

## 1.2 Staging Areas

The following staging areas will be utilized by non-Spectra Energy first responders, who will stop and await instructions from Spectra Energy regarding safe routes into the incident site and any requirement for protective clothing and equipment:

- Highway 97 North (Alaska Highway).
- Highway 97 South (Hart Highway).

If these locations are not safe, alternate locations will be chosen and communicated to First Responders.

## 1.3 Roadblocks

Roadblocks may be required at all or some of the following locations to prevent accidental access into the hazardous zone:

- Highway 97 North (Alaska Highway).
- Highway 97 South (Hart Highway).

Closure of the Alaska and Hart Highways will be coordinated by the RCMP with the Peace River Regional District Municipal Emergency Program and the Ministry of Transportation. Refer to Appendix B – Telephone Directory Contact Lists 1.6.2, 1.6.4 and 1.6.5, respectively. The above roadblock locations may require adjustment to account for unsafe conditions.

## 2.0 NOTIFICATION OF POTENTIAL OCCUPANTS

### 2.1 Public Notification within the Emergency Planning Zone

#### 1. *Within a Designated Regional or District Municipality*

##### a) Level 1 Alert

- Inform First Responders of the situation (refer to Appendix B, Subsection 1.6.2).
- Muster facility employees and complete accountability check.

##### b) Level 2 or 3 Alert

The public within the Emergency Planning Zone must be sheltered in place or evacuated.

- Advise the designated Regional or District Incident Commander of the recommendation to shelter in place or evacuate.
- Advise MEP (Municipal Emergency Program) (refer to Appendix B, Subsection 1.6.4) and request their assistance in designating a Registration/Evacuation Centre.
- Once the Registration/Evacuation Centre has been designated by the Incident Command Post, inform Spectra Energy facility muster station(s) to evacuate employees to the designated evacuation centre.

#### 2. *Within a Rural Area*

##### a) Level 1 Alert

- Inform First Responders (refer to Appendix B, Subsection 1.6.2).
- Muster facility employees and complete accountability check.

##### b) Level 2 or 3 Alert

The public within the Emergency Planning Zone must be sheltered in place or evacuated.

- Advise First Responders of recommendation for sheltering in place or evacuation.
- Advise MEP (Municipal Emergency Program) (refer to Appendix B, Subsection 1.6.4) and request their assistance in designating a Registration/Evacuation Centre.
- Advise EMBC (Emergency Management British Columbia) (refer to Appendix B, Subsection 1.6.4) of the recommendation for sheltering in place or evacuation.
- Advise affected residents/businesses to shelter in place or evacuate to the designated Registration/Evacuation Centre.
- Advise affected residents/businesses route of travel to the designated Registration/Evacuation Centre.
- Advise Spectra Energy facility muster station(s) to evacuate employees to the designated Registration/Evacuation Centre.

## **2.2 Communication with Regional Authorities**

Spectra Energy will ensure that government agencies such as EMBC (Emergency Management BC)) (refer to Appendix B, Subsection 1.6.4) and other key agencies are notified of the incident.

When a Level 2 or 3 incidents occur inside the boundaries of a specific regional/municipal area, notification of the adjacent districts are to be made to ensure they are aware of the incident and the possible implications to their district (road closures, registration/evacuation centres, etc.).

## **2.3 Residents / Businesses**

**RR#1 Redacted. This section is protected from publication under Clause 1(a) i. of Order MO-006-2016. This section contains employee contact information including office, home and cell phone numbers.**

## **2.4 Trappers**

**RR#1 Redacted. This section is protected from publication under Clause 1(a) i. of Order MO-006-2016. This section contains employee contact information including office, home and cell phone numbers.**

## **2.5 Guides and Outfitters**

**RR#1 Redacted. This section is protected from publication under Clause 1(a) i. of Order MO-006-2016. This section contains employee contact information including office, home and cell phone numbers.**

## **2.6 Other Key Contacts in the Area**

**RR#1 Redacted. This section is protected from publication under Clause 1(a) i. of Order MO-006-2016. This section contains information that may identify individuals by contact information including office, home and/or cell phone numbers.**

## **APPENDIX B – TELEPHONE DIRECTORY CONTACT LISTS**

**RR#1 Redacted. This section is protected from publication under Clause 1(a) i. of Order MO-006-2016. This section contains information that may identify individuals by contact information including office, home and/or cell phone numbers.**

## **APPENDIX C – MUTUAL AID AGREEMENTS**

### **CONTENTS**

1. BC Mutual Assistance Agreement

## BC MUTUAL ASSISTANCE AGREEMENT

Mutual Aid Partners: Fortis BC, Pacific Northern Gas Ltd., Fortis BC Gas Vancouver Island and Spectra Energy Transmission West

### ACTIVATION

- Spectra Energy's Incident Commander, in consultation with the Crisis Manager, will make the decision to activate this mutual aid agreement as required.
- Spectra Energy's Incident Commander will most likely delegate activation to the Logistics Supervisor.
- The Requesting Party MUST contact the Responding Company personnel who have the authority to activate the Responding Company personnel.
- Refer to Appendix B, Subsection 1.6.6, Mutual Aid Partners contact list.

### TERMINOLOGY

Requesting Company: Party requesting assistance

Responding Company: Company providing aid (personnel and/or equipment)

### KEY COMPONENTS OF THE AGREEMENT

- Personnel and equipment are provided on a voluntary basis to other mutual aid partners.
- Responding Company provides its own transportation.
- Responding Company personnel remain under the supervision and control of their company.
- The Responding Company supervisor having authority over loaned personnel must be clearly identified to loaned personnel and to the responding company.
- Responding Company wages, hours and other terms and conditions of employment including work procedures and/or safety rules, will be those of the Responding Company.
- The Responding Company has the right to withdraw any or all personnel and equipment at any time.
- The Requesting Company will reimburse the Responding Company for all expenses.
- The Responding Company or its employees (including loaned employees) are not held liable for any loss or damage, including loss because of the negligence or other fault of the responding company.
- The Responding Company will provide the Requesting Company with a detailed statement in quadruplicate for all costs and expenses paid or incurred. The Requesting Company will pay the statement within 30 days.
- Each company must provide other mutual aid partners with an up-to-date contact list.
- Any party can withdraw from the agreement upon at least 30 days written notice.
- No party can withdraw from the agreement while using loaned personnel or equipment.

### COMMUNICATIONS

Mutual aid partners use individual company communication equipment and frequencies.



## **APPENDIX D – VHF RADIO COMMUNICATION**

### **Dawson Area VHF Radio Frequencies**

**RR#2 Redacted. This section is protected from publication under Clause 1(a) ii. of Order MO-006-2016. This section contains security sensitive information that if it is disclosed could cause a real and substantial risk that will impair the security of Spectra Energy Transmission West' pipelines, buildings, structures or communication systems.**

**APPENDIX E**  
**EMERGENCY RESPONSE EQUIPMENT LIST**

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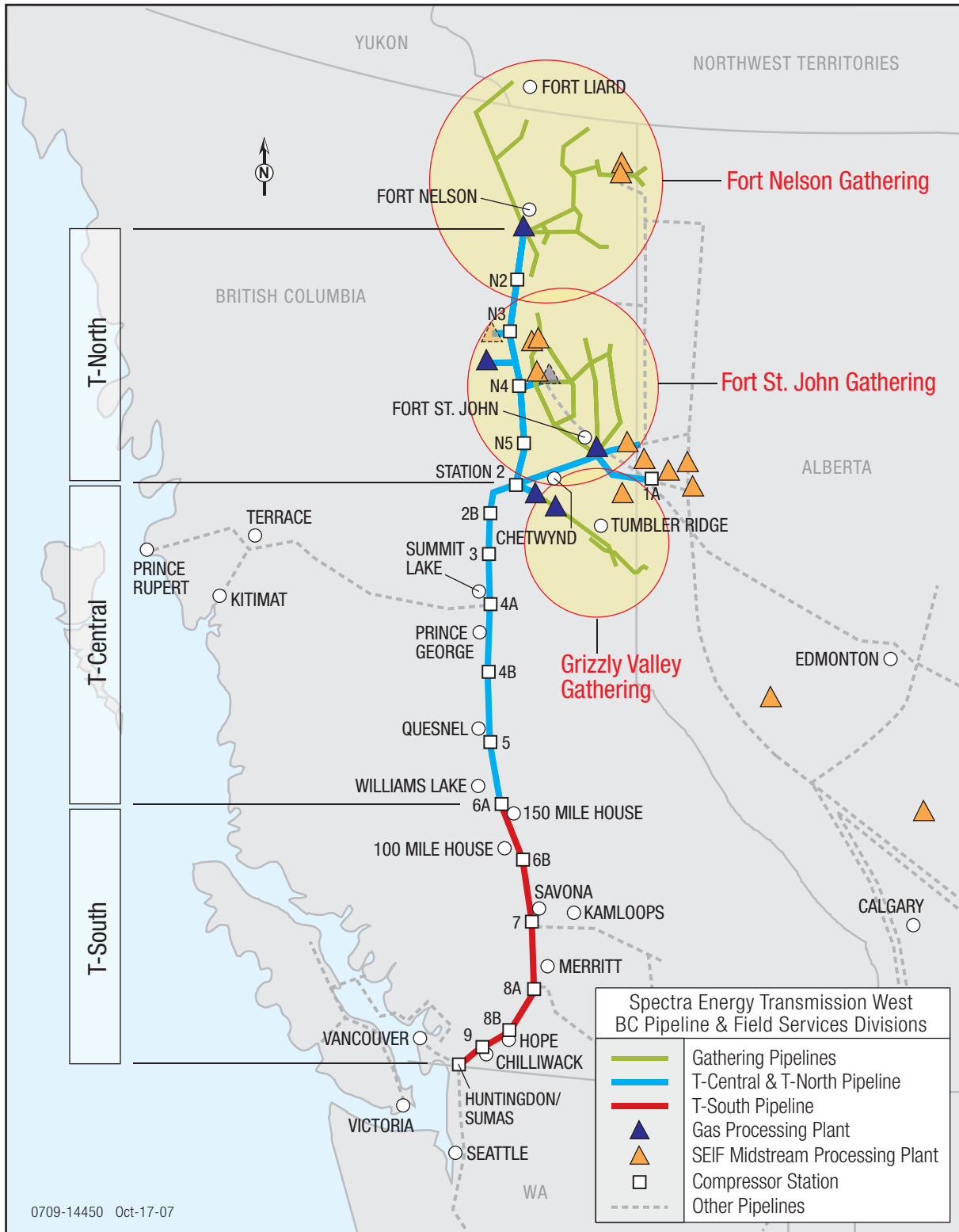
## APPENDIX F – MAPS

### CONTENTS

1. Dawson Plant Plot Plan (RR#2)
2. Dawson Plant Emergency Planning Zone Map(RR#2)
3. Bissette Pipeline Emergency Planning Zone Map(RR#2)
4. Spectra Energy Transmission BC Pipeline Regions Map

**RR#2 Redacted. This section is protected from publication under Clause 1(a) ii. of Order MO-006-2016. This section contains security sensitive information that if it is disclosed could cause a real and substantial risk that will impair the security of Spectra Energy Transmission West' pipelines, buildings, structures or communication systems.**

# Spectra Energy Transmission BC Pipeline Regions Map



## **APPENDIX G**

### **NOTIFICATION MATRIX – PROVINCE OF BRITISH COLUMBIA**

TABLE 2.1.6 (a)

**SPECTRA ENERGY TRANSMISSION WEST  
PROVINCE OF BRITISH COLUMBIA  
Emergency Notification Requirements for Lead Government Agencies and Support Services**

AGENCY OR RESOURCE	First Responders		Lead Agencies					Supporting Agencies and Services										
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
Sour gas release	√	√				√	√											
Chlorine gas release	√	√																
Sweet Combustible gas release	√	√				√	√											
Reportable unrefined product spill (1)	√	√				√	√											
Reportable refined product spill (1)	√	√																
Serious injury or death (including vehicle accidents)	√	√																
Fire / explosion	√	√																
Pressure vessel or piping incident																		
Electrical incident																		
Motor vehicle accident (no injuries)																		
Security incidents																		
Damage affecting the safe operation of the pipeline or plant																		
Interruption in the operation of a pipeline or pipeline removed from service																		
Pipeline or plant operated beyond designed limits																		
Obstruction of a roadway, railway, or seaway																		
Structural integrity reduced or threatened to be reduced below designed limit																		
Precautionary shutdown due to a hazardous condition																		
Activation of the emergency response plan																		

**LEGEND**

√ Compulsory contact

- A) Contact the local fire department, forest or industrial fire fighting service if there is potential for secondary fires resulting from the ignition of spilled liquids or escaping gases.
  - B) The TSB Board **Occurrence Hot Line** is the single window reporting contact for TSB and NEB for pipeline occurrence. (3) (4)
  - C) Notify EMBC (spill report line) if the incident involves a spill of EMBC reportable quantities (Section 4.6) including a transportation of dangerous goods occurrence.
  - D) If the incident involves an LPG release and support is required, contact the LPG Emergency Response Corporation to mobilize a Remedial Measures Advisor to the site. NOTE: The first responders (fire, police) may have already notified and activated the LPG Emergency Response Corporation.
  - E) Contact the OGC for incidents occurring at facilities regulated by the OGC.
  - F) Request EMBC officer to notify MOE, for all spills or releases that have harmed or could potentially harm the environment.
  - G) Contact WorkSafe BC if there is a potential for or an actual serious injury or death of a provincially regulated (non-Spectra Energy) worker or responder (worker or workplace-related issues) NOTE: Make a courtesy notification of a potential or an actual serious injury or death of federally regulated (Spectra Energy) workers.
  - H) Request EMBC official to notify MOT of incidents affecting rural roadways except for industrial roads (or to close the Alaska Highway Milepost 0.0 to Milepost 83.6) as required. (5)
  - I) Request EMBC officer to notify Public Works & Government Services Canada to close the Alaska highway north of Milepost 83.6 to the Yukon border as required. (5)
  - J) Request EMBC official to advise MOF of incidents where a fire has resulted or there is a potential for fire that could affect Crown timber. (5)
  - K) Request EMBC official to advise MOAL of incidents that affect agricultural land. (5)
  - L) Contact the local public health unit if the incident affects the health of the public e.g. contamination of drinking water.
  - M) Contact the Oil Spill Cooperative / Western Canadian Spill Services Ltd. (WCSS) equipment custodian as required e.g. hydrocarbon spill into a water source.
  - N) Contact CANUTEC if information about handling procedures is required for toxic material releases.
  - O) To get weather information or to isolate airspace above the release, contact the nearest NAV Canada flight service station and request a NOTAM (notice to airmen). The EMBC officer may provide assistance in contacting the flight service station as required. (5)
  - P) Contact Environment Canada for incidents involving PCBs or any spills on Aboriginal lands, in national parks, into river or lake systems with fish or onto railway right-of-ways.
  - Q) Contact DFO if any hydrocarbons have entered a waterway frequented by fish or occupied by waterfowl.
- \*NOTE: Canadian Coast Guard is part of DFO and must be notified if incident is impeding shipping or navigable waters.
- R) Activate mutual aid partner agreements and support services as required.

**NOTES**

- (1) If in doubt as to whether a spill is reportable or not - REPORT IT! This includes transportation (rail/trucking) related spills. (Refer to the Regulatory Incident Reporting Guidelines)
- (2) For a fatality, request that the RCMP contact the local coroner.
- (3) NEB notification (through the TSB) is required for federally regulated facilities. (NEB is responsible for occupational safety and health for federally regulated workers.)
- (4) Ensure that the TSB Occurrence Coordinator will notify the NEB. (for incidents at federally regulated facilities)
- (5) EMBC is designed to automatically contact the appropriate government agencies. Nonetheless, it is prudent, when contacting EMBC, to identify the agencies that should be advised. The local EMBC coordinator may provide assistance in contacting some or all of the local authorities and may implement emergency services as required.
- (6) Any gas release or spill which may impact the public should be reported to the OGC.
- (7) Local authorities include municipal disaster services, affected schools, school bus authorities and First Nations governments and local police.

Refer to Area Site-Specific Emergency Response Plans for telephone directory contacts of above agencies and support services.

## **APPENDIX H**

### **SAFETY DATA SHEETS**

- Sour Natural Gas
- Acid Gas
- Sweet Natural Gas (Pipeline Quality)
- Natural Gas Liquids