

T-36 Review External Leak Protection System.



## TransCanada Keystone, LP

### Keystone Pipeline

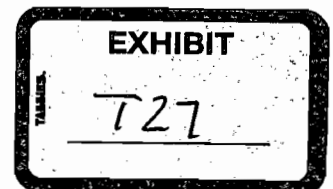
### Emergency Response Plan

### (Oil Spill Response Plan)

24 Hour Emergency No.  
1(XXX) XXX-XXXX

Manual No: \_\_\_\_\_

Assigned to: \_\_\_\_\_



## OIL SPILL RESPONSE PLAN DESCRIPTION

The Oil Spill Response Plan as prescribed under 49CFR§194 is divided into the following two parts, which function as an integrated document:

### Core Plan (Sections 1 through 8)

The Core Plan (Sections 1 through 8) contains general information outlining Company oil spill response procedures.

### Response Zone Appendices (Sections 9 through 11)

The response zone appendices contain the individual Oil Spill Response Plans for each zone which are to be followed in the event of an oil spill.

Prior to completing the Response Zone Appendices, Keystone will also review the National Contingency Plan (NCP) and each applicable Regional Integrated Contingency Plan (RICP), to ensure the Keystone Oil Spill Response Plan is consistent with the applicable Environmental Protection Agency RICP and the NCP.



## LIST OF ACRONYMS

API	American Petroleum Institute
CE	Cushing Extension
EOC	Emergency Operations Center
EMS	Emergency Management System
EPA	Environmental Protection Agency
ESM	Emergency Site Manager
FOSC	Federal On Scene Coordinator
GPS	Global Positioning System
HAZWOPER	Hazardous Waste Operations and Emergency Response Standard
ICS	Incident Command System
MP	Mile Post
NCP	National Contingency Plan
NFPA	National Fire Protection Association
OCC	Operations Control Center
OSRO	Oil Spill Response Organization
PHMSA	Pipeline and Hazardous Material Safety Administration
PREP	National Preparedness for Response Exercise Program
QI	Qualified Individual
RICP	Regional Integrated Contingency Plan
SCADA	Supervisory Control and Data Acquisition

# TABLE OF CONTENTS

1.0 CORE PLAN INFORMATION SUMMARY .....	1
1.1 Operator Information .....	1
1.1.1 Pipeline System Description .....	1
1.2 MSDS Information .....	3
1.3 Response Zone Summaries .....	3
1.3.1 Response Zone One – North Dakota, South Dakota, Nebraska (part).....	3
1.3.2 Response Zone Two – Nebraska (part), Kansas, Oklahoma.....	4
1.3.3 Response Zone Three – Nebraska (part), Kansas, Missouri, Illinois.....	4
1.4 Certification .....	5
2.0 NOTIFICATION PROCEDURES.....	6
2.1 Notification Requirements.....	6
2.2 Prioritized Notification Checklist for Key Individuals .....	7
2.2.1 First Responder.....	7
2.2.2 Regional EOC Manager (QI).....	7
2.2.3 Emergency Site Manager (QI).....	7
2.3 Notification Contacts .....	8
2.3.1 Keystone.....	8
2.3.2 Agency.....	8
2.3.3 Emergency Services .....	9
2.4 Procedures for Notifying Qualified Individuals.....	9
2.5 Information Reported to Agencies .....	10
3.0 SPILL DETECTION AND ON-SCENE SPILL MITIGATION PROCEDURES.....	11
3.1 Methods of Initial Discharge Detection .....	11
3.2 On Scene Spill Mitigation and Recovery Procedures .....	12
3.2.1 Spills on Water .....	12

3.2.2	Spills on Land .....	13
3.2.3	Spills in Sensitive Areas.....	13
3.3	Equipment for Response Activities .....	13
3.4	Personnel for Response Activities .....	13
3.5	Oil Transportation and Reclamation Facilities and Services .....	14
4.0	RESPONSE ACTIVITIES .....	14
4.1	Oil Spill Initial Response.....	14
4.2	Oil Spill Response Organization, Responsibilities, Roles and Authority .....	14
4.2.1	First Responder.....	15
4.2.2	Regional EOC Manager (QI) .....	16
4.2.3	Regional EOC Roles.....	16
	Regional EOC Communications.....	16
	Regional EOC Security.....	17
	Regional EOC Resource Mobilization.....	17
	Regional EOC Environmental / Technical.....	18
	Regional EOC Media Contact .....	18
	Regional EOC Documentation .....	18
	Regional EOC Community Evacuation Leader .....	19
	Regional EOC Administrative Support.....	19
4.2.4	Emergency Site Manager (QI).....	19
4.2.5	Command Post.....	20
	Site Security .....	20
	Resource Mobilization.....	21
	Staging Leader.....	21
	Environmental / Technical .....	21
	Safety.....	22
	Media Contact .....	22

Documentation .....	22
Community Evacuation Coordinator .....	23
4.3 Federal On-Scene Coordinator Coordination Process .....	24
5.0 LIST OF CONTACTS.....	25
5.1 Qualified Individuals for Each Response Zone .....	25
5.2 Agency Contacts .....	25
5.3 Corporate Financial Contact for each Response Zone.....	26
5.4 Oil Spill Response Organizations and Contractors, Services and Resources.....	26
5.5 Oil Transportation and Reclamation Facilities and Services .....	26
6.0 TRAINING PROCEDURES .....	27
6.1 On Site Personnel .....	27
6.2 Regional EOC.....	28
6.3 Training Records .....	29
7.0 EXERCISE PROCEDURES .....	30
7.1 Debriefing and Documentation .....	32
8.0 RESPONSE PLAN REVIEW AND UPDATE PROCEDURES.....	33
9.0 RESPONSE ZONE ONE APPENDIX .....	34
9.1 Information Summary .....	34
9.2 Qualified Individuals .....	35
9.3 Determination of Harm .....	35
9.4 Notification Procedures .....	35
9.4.1 Prioritized Notification Checklist for Key Individuals .....	36
First Responder .....	36
Regional EOC Manager (QI).....	36
Emergency Site Manager (QI) .....	36
9.4.2 Notification Contacts .....	37
Keystone.....	37

Agency .....	37
Emergency Services.....	38
9.4.3 Information Reported to Agencies.....	39
9.5 Spill Detection and Mitigation Procedures.....	40
9.6 Oil Spill Response Organizations and Contractors, Services and Resources.....	40
9.7 Oil Transportation and Reclamation Facilities and Services .....	40
9.8 Type of Oil, Volume and Calculation Method for Worst Case Discharge Volume .....	41
9.9 Maps and Drawings.....	41
9.9.1 Location of Worst Case Discharge .....	41
9.9.2 Location of Potentially affected Public Drinking Water Intakes .....	41
9.9.3 Potentially affected environmentally sensitive areas .....	41
9.9.4 Control Points and access descriptions .....	41
9.10 Piping Diagram and Plan Profile .....	41
10.0 RESPONSE ZONE TWO APPENDIX .....	42
10.1 Information Summary.....	42
10.2 Qualified Individuals .....	43
10.3 Determination of Harm .....	43
10.4 Notification Procedures .....	43
10.4.1 Prioritized Notification Checklist for Key Individuals .....	44
First Responder .....	44
Regional EOC Manager (QI).....	44
Emergency Site Manager (QI) .....	44
10.4.2 Notification Contacts .....	45
Keystone .....	45
Agency .....	45
Emergency Services.....	46
10.4.3 Information Reported to Agencies.....	47

10.5	Spill Detection and Mitigation Procedures.....	48
10.6	Oil Spill Response Organizations and Contractors, Services and Resources.....	48
10.7	Oil Transportation and Reclamation Facilities and Services .....	48
10.8	Type of Oil, Volume and Calculation Method for Worst Case Discharge Volume.....	49
10.9	Maps and Drawings.....	49
10.9.1	Location of Worst Case Discharge.....	49
10.9.2	Location of Potentially affected Public Drinking Water Intakes .....	49
10.9.3	Potentially affected environmentally sensitive areas .....	49
10.9.4	Control Points and access descriptions .....	49
10.10	Piping Diagram and Plan Profile.....	49
11.0	RESPONSE ZONE THREE APPENDIX.....	50
11.1	Information Summary.....	50
11.2	Qualified Individuals .....	51
11.3	Determination of Harm .....	51
11.4	Notification Procedures .....	51
11.4.1	Prioritized Notification Checklist for Key Individuals .....	52
	First Responder .....	52
	Regional EOC Manager (QI).....	52
	Emergency Site Manager (QI) .....	52
11.4.2	Notification Contacts .....	53
	Keystone .....	53
	Agency .....	53
	Emergency Services.....	54
	Information Reported to Agencies .....	55
11.5	Spill Detection and Mitigation Procedures.....	56
11.6	Oil Spill Response Organizations and Contractors, Services and Resources.....	56
11.7	Oil Transportation and Reclamation Facilities and Services .....	56

11.8 Type of Oil, Volume and Calculation Method for Worst Case Discharge Volume..... 57

11.9 Maps and Drawings..... 57

    11.9.1 Location of Worst Case Discharge..... 57

    11.9.2 Location of Potentially affected Public Drinking Water Intakes ..... 57

    11.9.3 Potentially affected environmentally sensitive areas ..... 57

    11.9.4 Control Points and access descriptions ..... 57

11.10 Piping Diagram and Plan Profile..... 57

# LIST OF FIGURES

Figure 1: Keystone Pipeline System and Oil Spill Response Zones.....	1
Figure 2: Basic Oil Spill Response Initial Notification Process .....	6
Figure 3: Keystone Oil Spill Response Team Organization Chart .....	15
Figure 4: Basic Unified Command Structure .....	24

# LIST OF TABLES

Table 1: Preliminary High Consequence Areas – Zone One.....	3
Table 2: Preliminary High Consequence Areas – Zone Two.....	4
Table 3: Preliminary High Consequence Areas – Zone Three.....	5
Table 4: Keystone Notification .....	8
Table 5: Agency Notification .....	8
Table 6: Emergency Services Notification.....	9
Table 7: Contact Information for Qualified Individuals .....	25
Table 8: Agency Contacts .....	25
Table 9: Corporate Financial (Insurance).....	26
Table 10: OSRO Contacts .....	26
Table 11: Oil Transportation and Reclamation Facilities .....	26
Table 12: Training Requirements – On Site Personnel .....	27
Table 13: Training Requirements - Regional EOC .....	28
Table 14: Exercise Program Type and Frequency .....	30
Table 15: Response Zone One Keystone Notification.....	37
Table 16: Response Zone One Agency Notification.....	37
Table 17: Response Zone One Emergency Services Notification .....	38
Table 18: Response Zone One OSRO Contacts .....	40
Table 19: Response Zone One Oil Transportation and Reclamation Facilities .....	40
Table 20: Response Zone Two Keystone Notification.....	45
Table 21: Response Zone Two Agency Notification.....	45
Table 22: Response Zone Two Emergency Services Notification .....	46
Table 23: Response Zone Two OSRO Contacts .....	48
Table 24: Response Zone Two Oil Transportation and Reclamation Facilities .....	48
Table 25: Response Zone Three Keystone Notification .....	53

Table 26: Response Zone Three Agency Notification ..... 53

Table 27: Response Zone Three Emergency Services Notification..... 54

Table 28: Response Zone Three OSRO Contacts ..... 56

Table 29: Response Zone Three Oil Transportation and Reclamation Facilities ..... 56

# 1.0 CORE PLAN INFORMATION SUMMARY

The TransCanada Keystone, LP (hereafter referred to as Keystone) Core Plan (Sections 1 through 8) provides the base information utilized to develop the specific Oil Spill Response Plans. These Oil Spill Response Plans are to be followed in the event of a spill and are found in each Response Zone Appendix.

## 1.1 Operator Information

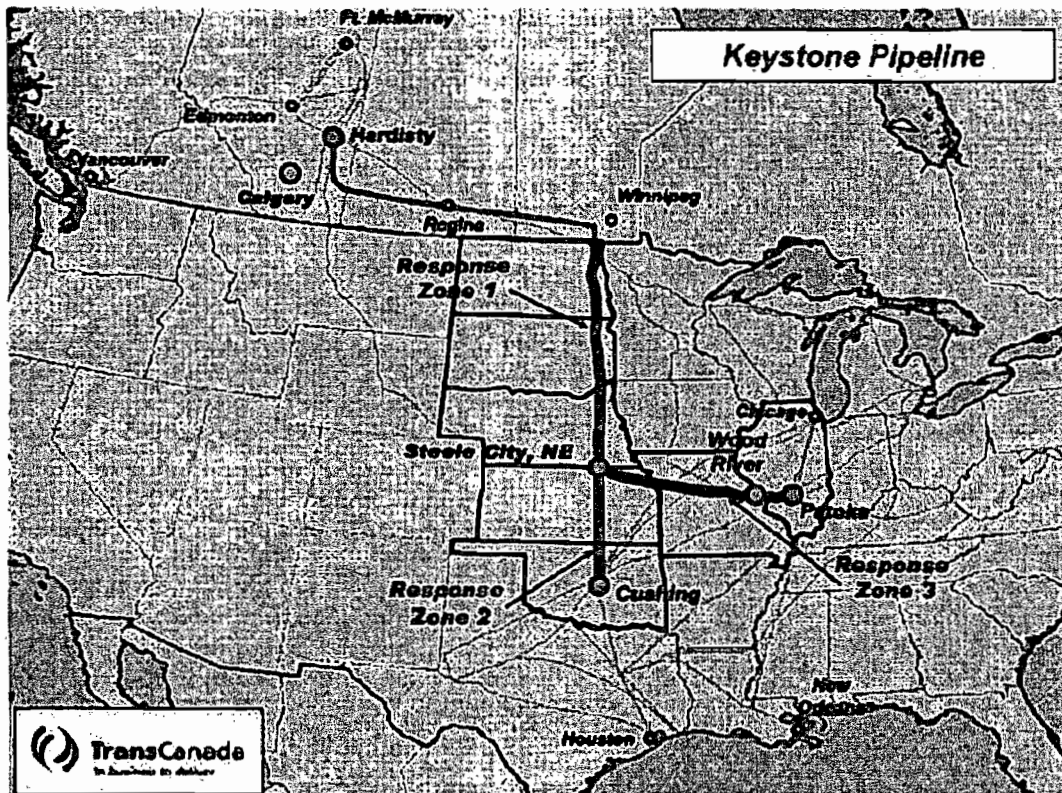
TransCanada Keystone, LP  
450 – 1<sup>st</sup> Street S.W.  
Calgary, Alberta, Canada T2P 5H1

### 1.1.1 Pipeline System Description

This document provides a preliminary Oil Spill Response Plan and outlines Keystone's processes and procedures established to comply with 49CFR§194. This plan will be updated upon completion of the detailed design of this project.

This Oil Spill Response Plan is intended to cover the U.S. segment of the pipeline system operated by Keystone. Three preliminary Response Zones have been established considering mileage and distribution of high consequence areas. Figure 1 provides a pipeline system map and illustrates the specific Response Zones.

Figure 1: Keystone Pipeline System and Oil Spill Response Zones.



The U.S. portion of the Keystone Pipeline consists of approximately 1,309 miles of 30-inch-diameter pipeline and 55 miles of 24-inch-diameter pipeline (located from Wood River to Patoka, Illinois). Crude oil receipts will initiate from an oil supply hub near Hardisty, Alberta, Canada for movement to delivery sites in Cushing, Oklahoma, as well as Wood River and Patoka, Illinois. For the purposes of developing this Oil Spill Response Plan and associated worst case discharge calculations, the maximum design capacity of 657,000 bpd will be utilized.

Primarily, crude oil transported by Keystone Pipeline will be derived from the Alberta oil sands region. The oil extracted from the sands is called bitumen. The bitumen is upgraded either through additional processing or by combining the bitumen with diluents. The upgraded product is then classified as synthetic crude oil. While the precise composition of synthetic crude will vary by shipper, and is considered proprietary information, Keystone expects to transport crude oils in the range of 12 to 45° API (American Petroleum Institute).

The Keystone Pipeline is controlled from the Operations Control Center (OCC), located in Calgary, Alberta, Canada. The OCC is staffed 24 hours per day 7 days a week, and utilizes a computer based Supervisory Control and Data Acquisition (SCADA) System to continuously monitor and control pipeline operations.

Keystone's 24 hour emergency contact phone number is 1 (XXX) XXX-XXXX and is posted on all pipeline marker posts and facility signs.

## 1.2 MSDS Information

*This section will provide MSDS information on the slate of crude oils transported by Keystone.*

## 1.3 Response Zone Summaries

For this preliminary Oil Spill Response Plan, the pipeline system has been segmented into 3 Response Zones. The specific Oil Spill Response Plans and information for each Response Zone is provided in the Appendices.

Changes to both the number and location of Response Zones are anticipated as the design is further developed and refined. For the purposes of this document Response Zones are defined as follows:

### 1.3.1 Response Zone One – North Dakota, South Dakota, Nebraska (part)

Milepost (MP) = 0 at U.S./Canadian Border to MP = 535

**North Dakota** (MP 0 to ≈ MP 215)

Counties:

Pembina, Cavalier, Walsh, Nelson, Steele, Barnes, Ransom, and Sargent

**South Dakota** (MP 215 to ≈ MP 431)

Counties:

Marshall, Day, Clark, Beadle, Kingsbury, Miner, Hanson, McCook, Hutchinson, and Yankton

**Nebraska** (MP 431 to ≈ MP 535)

Counties:

Cedar, Wayne, Stanton, Platte, Colfax

**Table 1: Preliminary High Consequence Areas – Zone One**

Each entry in the table below represents a unique location.

State	Miles (Approximate)		
	Population	Drinking Water	Sensitive Areas
North Dakota	0	6.96	2.03
South Dakota	0	1.96	9.36
		5.87	5.95
			7.15
Nebraska	0	5.38	6.19
			0.99
<b>TOTAL</b>	<b>0</b>	<b>20.17</b>	<b>31.67</b>

### 1.3.2 Response Zone Two – Nebraska (part), Kansas, Oklahoma

Milepost (MP) = MP 535 to MP 634 and Cushing Extension (CE), CE MP 0 to CE MP 291

**Nebraska** (MP 535 to ≈ MP 634, CE MP 0 to ≈ CE MP 4)

Counties:

Butler, Seward, Saline and Jefferson

**Kansas** (CE MP 4 to ≈ CE MP 212)

Counties:

Washington, Clay, Dickinson, Marion, Butler, and Cowley

**Oklahoma** (CE MP 212 to ≈ CE MP 291)

Counties:

Kay, Noble, and Payne

**Table 2: Preliminary High Consequence Areas – Zone Two**

Each entry in the table below represents a unique location.

State	Miles (Approximate)		
	Population	Drinking Water	Sensitive Areas
Nebraska	0	0.70	2.13
Kansas	0	4.14	23.16
		7.89	9.12
		9.73	15.41
		15.52	
		8.06	
Oklahoma	0	9.11	7.71
		9.17	
<b>TOTAL</b>	<b>0</b>	<b>64.32</b>	<b>57.53</b>

### 1.3.3 Response Zone Three – Nebraska (part), Kansas, Missouri, Illinois

Milepost (MP) = MP 634 to MP 1073

**Nebraska** (MP 634 to ≈ MP 649)

Counties:

Jefferson, Gage

**Kansas** (MP 649 to ≈ MP 743)

Counties:

Marshall, Nemaha, Brown, and Doniphan

Missouri (MP 743 to = MP 1016)

Counties:

Buchanan, Clinton, Caldwell, Carroll, Chariton, Randolph, Audrain, Montgomery, Lincoln, and St. Charles

Illinois (MP 1016 to = MP 1073)

Counties:

Madison, Bond, Fayette, and Marion

**Table 3: Preliminary High Consequence Areas – Zone Three**

Each entry in the table below represents a unique location.

State	Miles ( Approximate)		
	Population	Drinking Water	Sensitive Areas
Nebraska	0	1.86	0
Kansas	0	3.49	12.59
		4.91	5.68
Missouri	0	4.82	5.76
		12.01	12.08
			9.31
			7.38
			24.48
Illinois	0.64	1.08	5.22
	3.24	6.79	2.09
		3.10	
		5.67	
<b>TOTAL</b>	<b>3.88</b>	<b>43.73</b>	<b>84.59</b>

## 1.4 Certification

Pending completion of the final engineering design, Keystone will certify that it has obtained, through contract or other means, the necessary personnel and equipment to respond to the maximum extent practical, to the worst case discharge, or to the substantial threat of such a discharge.

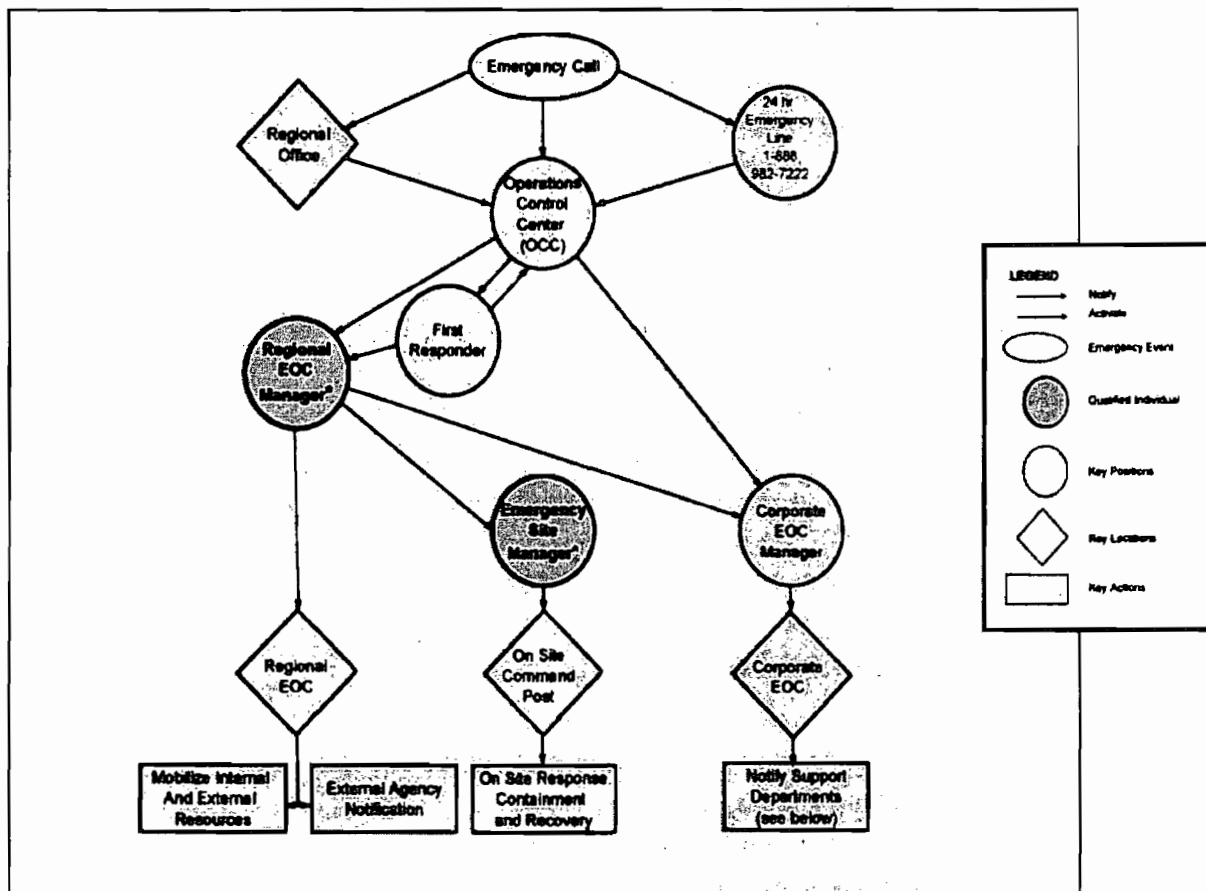
## 2.0 NOTIFICATION PROCEDURES

### 2.1 Notification Requirements

Figure 2 outlines the notification process for reporting and evaluating a potential oil spill, as well as activation of the Oil Spill Response Plan.

The Regional EOC Manager (Qualified Individual) is the key individual responsible for evaluating and activating the Oil Spill Response Plan.

Figure 2: Basic Oil Spill Response Initial Notification Process



\* designated Qualified Individual (QI)

EOC = Emergency Operation Center

Corporate EOC Support Departments (from above) include but are not limited to:

- |                                            |                                 |                                     |
|--------------------------------------------|---------------------------------|-------------------------------------|
| ○ Asset Protection                         | ○ Regulatory Compliance         | ○ Facility Services and Real Estate |
| ○ Communications                           | ○ Corporate Security            | ○ Information Systems               |
| ○ Land, Community and Aboriginal Relations | ○ Customer Services             | ○ Human Resources                   |
| ○ Health Safety and Environment            | ○ Operations Control Center     | ○ Administration Support            |
| ○ Legal                                    | ○ Asset Reliability             |                                     |
|                                            | ○ Insurance and Risk Management |                                     |

## 2.2 Prioritized Notification Checklist for Key Individuals

### 2.2.1 First Responder

- Notification of potential spill and dispatch received from OCC
- SPILL VERIFIED
- Notification of Emergency Services, if required
  - Verify with OCC:
    - Pipeline shutdown and status
    - Pipeline segment isolation
- Regional EOC Manager (QI) notified

### 2.2.2 Regional EOC Manager (QI)

- Notification received from OCC
- Notification of spill details received from First Responder
- OIL SPILL RESPONSE PLAN ACTIVATED
- Emergency Site Manager (QI) notified
- Regional EOC activated
- Mobilize response resources requested by Emergency Site Manager (QI)
- Corporate EOC Manager contacted
- Agency contacts initiated as per Section 2.3

### 2.2.3 Emergency Site Manager (QI)

- Notification received from Regional EOC Manager (QI)
- On site First Responder contacted to obtain briefing on spill
- On Site Command Post activated
- Regional EOC advised of resource requirements
- First Responder relieved

## 2.3 Notification Contacts

The contact list is currently incomplete but identifies the key contact positions required for activation of the Oil Spill Response Plan. Specific data fields will be completed when Keystone's personnel organization structure is finalized and State and Local requirements and contacts have been determined.

### 2.3.1 Keystone

**Table 4: Keystone Notification**

Position Making Call	Keystone Contacts	Primary Telephone No.	Secondary Telephone No.
<b>OCC</b>	<b>First Responder</b>		
	<b>Regional EOC Manager (QI)</b>		
	- Primary		
	- Alternate		
	<b>Corporate EOC</b>		
<b>Regional EOC Manager (QI)</b>	<b>Emergency Site Manager (QI)</b>		
	- Primary		
	- Alternate		
	<b>Corporate EOC Manager</b>		

### 2.3.2 Agency

**Table 5: Agency Notification**

Position Making Call	Agency Contact List	Telephone	Other Telephone/Fax
<b>Regional EOC Manager (QI)</b>	<b>Federal</b>		
	National Response Center	1-800-424-8802	
	<b>State</b>		
	<b>Local</b>		

### 2.3.3 Emergency Services

Table 6: Emergency Services Notification

Position Making Call	Emergency Contact List	Telephone	Other Telephone/Fax
Emergency Site Manager (QI)	Emergency Services		
	Fire/Ambulance		
	Police/Sheriff		
	Hospital		

### 2.4 Procedures for Notifying Qualified Individuals

In the event of a suspected leak, the OCC activates the communications process and contacts the Regional EOC Manager (QI), as illustrated in Figure 2: Basic Oil Spill Response Initial Notification Process, Page 6. Qualified Individuals are available on call 24/7 and on call list are maintained by the OCC. The Regional EOC Manager (QI) is responsible for activating the Oil Spill Response Plan and contacting the Emergency Site Manager (QI).

The Regional EOC Manager (QI) will be contacted primarily on a land line phone (home or office) or by cellular telephone backup. In the event that land and cellular communication are not functional, satellite phones are available. All on call Regional EOC Managers and Emergency Site Managers are equipped with cellular telephones.

## 2.5 Information Reported to Agencies

### Communication Report (Call) Record

Regional EOC Manager (QI)

The following agency mandatory information, *as identified in bold italic*, will be provided initially with subsequent notifications to complete the required mandatory criteria or advise of any changes.

**Name of Pipeline:** \_\_\_\_\_

**Time of Discharge:** \_\_\_\_\_

**Location of Discharge (MP):** \_\_\_\_\_

(GPS): \_\_\_\_\_

**Type of Oil:** \_\_\_\_\_

**Reason of Discharge:** \_\_\_\_\_

**Estimated Volume of Oil Spill:** \_\_\_\_\_

**Weather Condition on Scene:** \_\_\_\_\_

**Action taken/ Planned by Person on Scene:** \_\_\_\_\_

**Injuries:** \_\_\_\_\_

**Extent of Injuries:** \_\_\_\_\_

**Evacuation:** \_\_\_\_\_

**Public Consequence:** \_\_\_\_\_

## 3.0 SPILL DETECTION AND ON-SCENE SPILL MITIGATION PROCEDURES

### 3.1 Methods of Initial Discharge Detection

*The following outlines the concepts and philosophies currently under consideration at this preliminary stage in the design of the Keystone Pipeline. Upon completion of the required design details, this section of the document will be revised and updated accordingly.*

Keystone will utilize a comprehensive SCADA system to monitor and control the pipeline. Data provided by the SCADA system may alert the OCC operator to an abnormal operating condition which may signify a possible spill or leak. A back-up communication system will also be available should SCADA communications fail between field locations and the OCC.

In addition, Keystone will utilize a dedicated Leak Detection System to alert the OCC operator of a potential leak or spill.

The SCADA system will continuously monitor pipeline conditions and update information provided to the OCC operator. Data received via the SCADA system will also be directed to the dedicated Leak Detection System, capable of independently alarming to the OCC operator.

Standard operating and response procedures will be utilized by OCC operator in responding to abnormal pipeline conditions including leak alarms. The OCC operator will have the full and complete authority to execute a pipeline shutdown.

Notification of a possible initial pipeline release may be received by the OCC operator as follows:

1. Employee reported
2. Abnormal pipeline condition observed by OCC operator
3. Leak Detection System alarm
4. Third party reported

Upon receipt of notification as outlined above, the OCC operator will execute the following procedures:

1. Follow prescribed OCC operating and response procedures for specific directions on abnormal pipeline condition or alarm response
2. Dispatch First Responder
3. Shutdown pipeline within a predetermined time threshold if abnormal conditions or leak alarm can not be positively ruled out as a leak
4. Complete internal notifications as outlined in Figure 2: Basic Oil Spill Response Initial Notification Process, page 6.

## 3.2 On Scene Spill Mitigation and Recovery Procedures

*This section of the document provides a listing of response strategies and techniques currently contemplated for use on the Keystone pipeline system. Those selected will be fully developed within the final Oil Spill Response Plan.*

*Keystone recognizes that certain River crossings along the pipeline route are considered high volume areas and will ensure the final Oil Spill Plan delivers the resources to respond to a potential release, in a more rapid fashion as required.*

### 3.2.1 Spills on Water

- o Small Creeks, Ponds and Bogs
- o Large Rivers and Floodplains
- o Large Lakes
- o Beach Berming
- o Beach Sumps
- o Boom Techniques
- o Calm Water Containment Booms
- o Flowing Water Containment Booms
- o Open Water Containment Booms
- o Marine Diversion Booming
- o Exclusion Booms
- o Cascading Booms Calm
- o Skimmers
- o Rotating Discs
- o Weir Devices
- o Dam Techniques
- o Blocking Dams
- o Flowing Water Dams
- o Sorbent Booms and Barriers
- o Spills on Ice
- o Spills under Ice

- Spill during Freeze-up or Break-up

### 3.2.2 Spills on Land

- Open Land and Forests
- Streets and Highways
- Earth Containment Berms
- Street Containment
- Culvert Blocking
- Storm Drain Blocking
- Interception Barriers
- Heavy Equipment
- Suction Devices
- Rotating Discs
- Spills on Sensitive Areas

### 3.2.3 Spills in Sensitive Areas

- Historical or Archaeological Sites
- Natural Areas
- National, State and Local Parks
- Protected Waterways
- Recreational Sites
- Water Supply Intakes
- Wetlands
- Wildlife Refuges

## 3.3 Equipment for Response Activities

See Section 5.4 for a listing of equipment for response activities.

## 3.4 Personnel for Response Activities

See Section 5.4 for a listing of personnel for response activities

### 3.5 Oil Transportation and Reclamation Facilities and Services

See Section 5.4 for a listing of oil transportation and reclamation facilities and services.

## 4.0 RESPONSE ACTIVITIES

### 4.1 Oil Spill Initial Response

All Keystone employees are authorized to communicate directly with the OCC should they observe conditions that may signify a possible spill (see Figure 2: Basic Oil Spill Response Initial Notification Process, page 6).

OCC operators have the full and complete authority to shutdown the pipeline and proceed with pipeline segment isolation in the area of the leak. The OCC can designate any qualified Keystone field employee as a First Responder in order to mitigate the early impacts of the spill. The First Responder is required to immediately respond and investigate the suspected location.

The First Responder serves as the Emergency Site Manager until relieved of this task by the assigned Emergency Site Manager (QI).

### 4.2 Oil Spill Response Organization, Responsibilities, Roles and Authority

The Organizational Chart for the Keystone Oil Spill Response Team is presented in Figure 3: Keystone Oil Spill Response Team Organization Chart, Page 15. The Emergency Site Manager (QI) in conjunction with the Regional EOC Manager (QI) is responsible for creating an oil spill response organization to effectively manage the incident. Role assignments for the Regional EOC and the Command Post represent the specific functional areas that the Emergency Site Manager (QI) and Regional EOC Manager (QI) determine are necessary to address a specific spill.

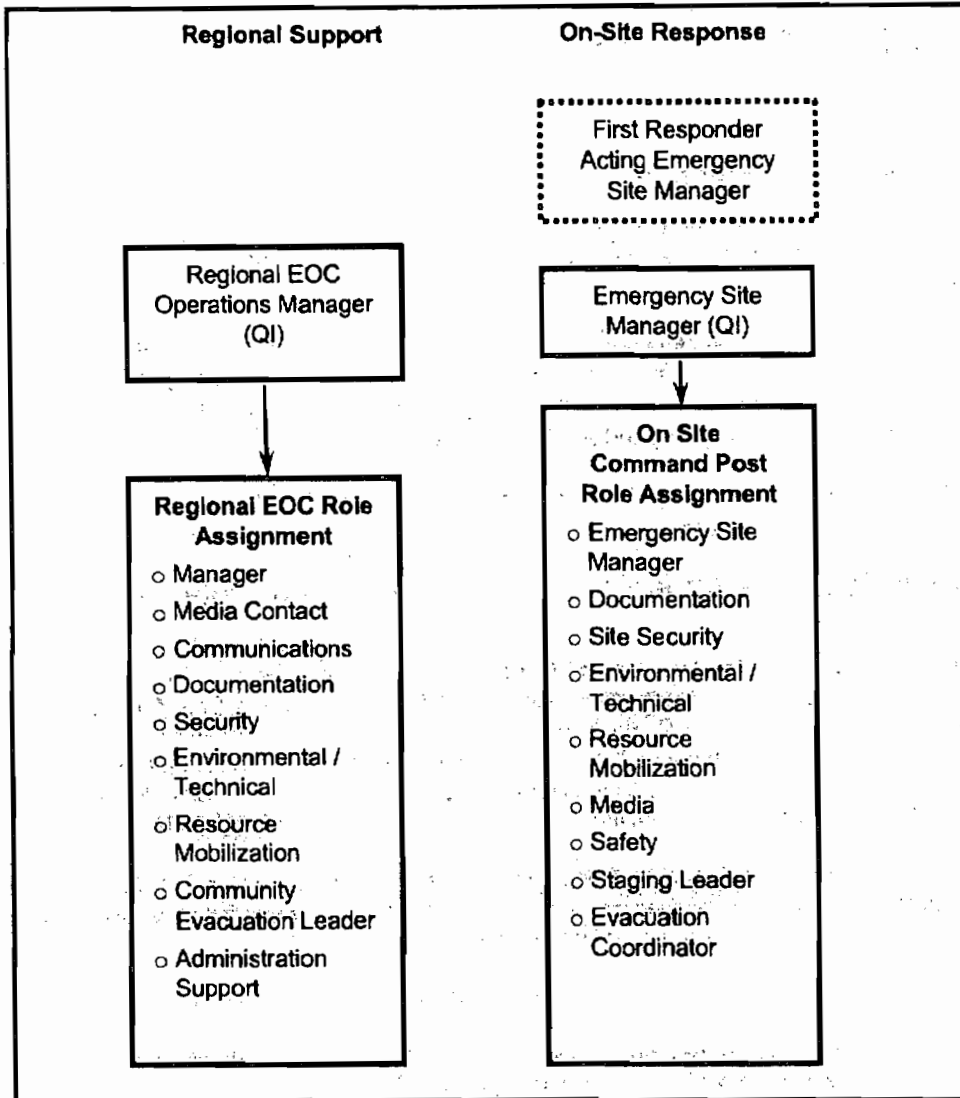
Procedures are established within Keystone outlining regular signing and financial authority limits. It is recognized that these standard authorities may not apply in an emergency due to the requirement to immediately contain and control the emergency situation.

Keystone has established the following policy related to Financial Authority in an emergency:

The Emergency Site Manager (QI) or Region EOC Manager (QI) has financial authority to obtain any and all resources necessary to contain and control the emergency situation.

Receipts, bills and invoices must be obtained for all supplies, services, equipment and contractors engaged as a result of the emergency, and submitted to the Emergency Site Manager (QI) or designated individual for cost management.

Figure 3: Keystone Oil Spill Response Team Organization Chart



#### 4.2.1 First Responder

Responsibilities of the First Responder in priority include:

- o Not putting yourself at risk
- o Provide confirmation of emergency event and ensure pipeline isolation with the OCC
- o Request emergency response personnel at the scene and advise the local authorities of a possible need for evacuation, as required
- o Rescue if safe to do so
- o Evacuate immediate area if necessary to preserve life and health
- o Attempt to notify people at risk without entering the hazard area
- o Secure the area and establish a perimeter at a safe distance

- Act as the Emergency Site Manager until relieved by the assigned Emergency Site Manager (QI)
- Work cooperatively with emergency response personnel and municipal authorities at the scene
- Instruct people not to touch or move anything
- Do Not disturb the scene except to preserve life or prevent injury

#### 4.2.2 Regional EOC Manager (QI)

Following notification from the Operations Control Center of a possible oil spill, the Regional EOC Manager (QI) gathers information to assess the incident and is responsible for activation of the Oil Spill Response Plan.

The Regional EOC Manager (QI) determines the amount of resources required to address the emergency within the Regional EOC. Not all roles will be activated, or others may be added, in any given spill event. Furthermore, one person may take on several roles, and conversely one role may take several people.

The Regional EOC Manager (QI) contacts the Operations Control Center (OCC) to ensure that the Corporate EOC has been established. Specific responsibilities of the Regional EOC Manager (QI) in priority include, but are not limited to:

- Activate the Oil Spill Response Plan
- Establish and maintain contact with the Emergency Site Manager (ESM)
- Ensure all Regulatory notifications have been made
- Provide support as requested to the Command Post
- Document all actions using the Emergency Incident Log
- Establish contact with the Corporate EOC and communicate updates
- Remain advised of repair and restoration, accident and incident investigations, and other activities on site
- Assume financial authority to contain and control the emergency
- Ensure work order and other processes are established to track financial commitments

#### 4.2.3 Regional EOC Roles

##### Regional EOC Communications

The Regional EOC Communications Role may make regulatory notifications if requested by the Regional EOC Manager (QI) and responds to requests for information. Notifications must be assigned a high priority. Specific responsibilities include but are not limited to:

- Document all actions using the Emergency Incident Log.
- Have available all required contact lists for the specific incident in progress
- Assemble confirmed facts about the incident although it may not be possible to answer all the following questions:
  - Name of Pipeline:
  - Time of Discharge:
  - Location of Discharge:
  - Type of Oil:
  - Reason of Discharge:
  - Estimated Volume of Oil Spill:
  - Weather Condition on Scene:
  - Action taken/ Planned by Person On Scene:

- Injuries:
  - Extent of Injuries:
  - Evacuation:
  - Public Consequences:
- Assemble information on relevant products
  - Local municipal authorities must be advised immediately of any Keystone emergency in their area if:
    - A landowner or community is being evacuated (notifications must also be made to the evacuating community and receiving community)
    - Local services such as power, water or gas supply is disrupted as a result of the emergency
    - Media attention is occurring or likely to occur
    - When there is a 3<sup>rd</sup> party injury or death
    - Members of the community called to report incident or incident is visible to the community
  - Log any requests for information and follow-up

### Regional EOC Security

The Regional EOC Security priorities at the EOC are to prevent unauthorized entry into the center, to facilitate any requests from the Command Post including requests to obtain contract security forces in a timely manner and to liaison with law enforcement agencies. Specific responsibilities include but are not limited to:

- Document all actions taken using the Emergency Incident Log
- Prevent unauthorized entry
- Ensure you identify yourself as Keystone's EOC Security to any Emergency Services or municipal emergency personnel attending the EOC
- Staff the entrance door to the EOC at all times
- Provide those working in the EOC with Identification cards (e.g., clipped to their shirts / chains around neck) to identify them as being a part of the Regional EOC response
- Refer all media inquiries to Media Relations
- Verify the identity of everyone entering the EOC and record those persons on the Visitor Log
- Maintain a list of authorized personnel attending the emergency site
- Notify the Security person at the Emergency Site of all persons authorized to attend the site

### Regional EOC Resource Mobilization

The Regional Mobilization Role coordinates the movement to the site of equipment and materials, assembles and activates the relevant Mutual Aid agreements. Specific responsibilities include but are not limited to:

- Document all actions using the Emergency Incident Log
- Assemble and activate any relevant Mutual Aid agreements
- Coordinate the movement of personnel, material and equipment to site with the Resources contact at site
- Advise the Resources contact at site of any changes in resource availability or scheduled arrival
- Advise suppliers of any changes in the requirement for particular resources, or changes to the schedule of arrival at site

- Track hours worked by personnel at the EOC and at the site
- Advise the Regional EOC Manager (QI) of anticipated needs for relief personnel, etc.
- Setup work order structure to collect costs and prepare reports

### Regional EOC Environmental / Technical

The Regional EOC Environmental / Technical role is to provide support and technical expertise to personnel at site. Specific responsibilities include but are not limited to:

- Document all actions using the Emergency Incident Log
- Provide specific technical expertise such as environmental, water management etc., depending on the nature of the emergency, to contain and control hazards
- Provide support to Environmental / Technical personnel at site
- Coordinate with Resources personnel in the EOC, identifying and mobilizing environmental resources to the site and other technical support as required
- Coordinate work with the Operations Control Center

### Regional EOC Media Contact

The Regional EOC Media Contact responds to any media located at EOC and provides support to Media Contact working at the Command Post. Corporate Media Training is required for this position. Specific responsibilities include but are not limited to:

- Document all actions using the Media Contact Log and forward completed logs to documentation personnel in the EOC
- Document all requests for additional information on the Media Contact Log and forward to Corporate Communications
- Advise the media that Communications will respond as soon as possible to their inquiries
- Log all phone and personal contacts with media using Media Contact Log and provide to Corporate Communications
- Serve as media contact until advised of a Corporate Communications or Community Representative name and contact number off-site to which all media inquiries can be directed
- Ensure all telephone media inquiries go to Corporate Communications
- Maintain contact with Command Post Media Contact for regular factual updates, if no corporate media relations representative is in place
- Ensure Media representatives are not allowed into the EOC
- Provide factual updates to Media representatives, only when a corporate media relations representative is not in place

### Regional EOC Documentation

The Regional EOC Documentation role consolidates information for electronic distribution, gathers and files all paper documentation. Specific responsibilities include but are not limited to:

- Prepare status reports for distribution on an electronic medium using information provided from EOC personnel logs
- Edit and consolidate the log information using the following general guidelines:
  - Major events and responses
  - Summary of actions taken by personnel
  - What is happening?
  - Who is involved?
  - Are there injuries?

- Is the public at risk?
  - Where is the emergency?
  - What is the magnitude of the situation?
  - What has been done, so far?
  - Obtain approval for status report from the Regional EOC Manager (QI) before sending
- Ensure all written instructions, logs, reports, telephone logs and related documentation are recorded and filed

### Regional EOC Community Evacuation Leader

The Regional EOC Community Evacuation Leader coordinates and implements any resident notifications for evacuations. Specific responsibilities include but are not limited to:

- Document all conversations and activities using the Emergency Incident Log
- Determine whether residents should be initially alerted or evacuated (in consultation with the Regional EOC Manager (QI) and local Emergency Services
- Have available information on municipal evacuation centers and evacuee care should evacuation seem likely
- For evacuations:
  - Determine the priority for contacting the public taking into account the incident, the potential for the situation to deteriorate, weather conditions and potential sensitivities of neighbors
  - Determine best method of contacting the public (phone, personal visits or through municipal authority)
  - After contacting the public, initiate and coordinate the ongoing communications with neighbors and the public outside of the emergency awareness zone who may have been impacted by the incident

### Regional EOC Administrative Support

The Regional EOC Administrative Support person provides general support to all Regional EOC personnel. Specific responsibilities include but are not limited to:

- Document all actions using the Emergency Incident Log
- Support all EOC personnel as required
- Record time, date and name of each person notified on the Emergency Incident Log
- Word-processing
- Telephones, faxing, etc
- Assist with gathering and distributing information

#### 4.2.4 Emergency Site Manager (QI)

The Emergency Site Manager (QI) coordinates and manages all aspects of emergency operations including site security, site access, containment, control point selection, recovery and clean-up operations.

The Emergency Site Manager (QI) In conjunction with the Regional EOC Manager (QI) determines the amount of resources within the Command Post. Not all roles will be activated, or others may be added, in any given spill. Furthermore, one person may take on several roles, and conversely one role may take several people.

Specific responsibilities in priority include but are not limited to:

- Establish emergency organization (command post), assign and brief personnel on key tasks
- Ensure that all parties can clearly identify the Keystone Emergency Site Manager (QI)
- Assign the Documentation Role and determine what other roles are required
- Maintain primary contact with the Federal On Scene Coordinator (FOSC)
- Conduct an Emergency Incident Assessment, based on the information available about the incident, and identify priority issues and objectives
- Determine manpower and equipment resources required, based on the nature of the spill
- Notify and maintain contact with local emergency response agencies (e.g., police, fire, ambulance, government, etc.) and citizens or landowners immediately affected by incident
- Notify Regional EOC Manager (QI) regarding incident status and maintain contact, as required, throughout incident
- Assume duties and responsibilities related to the incident which have not been assigned to other emergency personnel
- Ensure documentation is kept related to incident costs, product recovery and a log of incident activities
- Anticipate potential changes to the incident, and identify any additional resources required (e.g., additional equipment or supplies, relief or back-up personnel, lighting for night operations, etc.)
- Work in conjunction with emergency response personnel and municipal authorities at the scene
- Determine when the emergency is over in consultation with the Corporate EOC Manager and the Regional EOC Manager (QI)

#### 4.2.5 Command Post

##### Site Security

Security is responsible to secure the scene, preserve evidence, and prevent theft.

Site security should be established and routes into the site should be sealed to prevent unauthorized access, and protect the safety of the public. Site security personnel may be Company personnel, hired contractors or local police authorities who assist in the incident. Specific responsibilities include but are not limited to:

- Document all actions using the Emergency Incident Log
- Maintain and monitor a security perimeter established around the site
- Ensure the protection of equipment or supplies stored at the site
- Preserve and protect evidence related to the incident for investigation and follow-up
- Check-in of authorized personnel coming into the site
- Convey necessary information to authorized personnel entering the site
- Post signs, warnings or barricades on-site
- Supervise the contract security personnel
- Identify yourself as Keystone's Site Security to any Fire, Police, or Ambulance personnel at the scene
- Refer all media inquiries to the Media Contact person
- Staff the entry point at all times with a minimum of two people
- Record all personnel entering the emergency site using Visitor Log
- Restrict entry to the site to authorized persons only

- Once the perimeter is secure preserve any items (evidence) which you feel may be used in investigations of the emergency
- Photograph the area where any items are located prior to moving if area must be disturbed
- Prevent unauthorized persons from examining or photographing evidence items
- Cover the evidence items with plastic, tarps, cardboard, plywood, etc. to prevent damage if weather is inclement

## Resource Mobilization

The Resource Mobilization person determines requirements for personnel, equipment and materials. This position also records hours worked by personnel on site and provides this information to the Regional EOC Resources contact as well as the Emergency Site Manager (QI). Specific responsibilities include but are not limited to:

- Document all actions using the Emergency Incident Log
- Serve as the "single window" contact at the site for all personnel requiring resources (e.g., safety equipment, technical supplies)
- Advise the Emergency Site Manager (QI) immediately of any cancellations or schedule changes
- Advise the Resources contact in the Regional EOC of any changes in the need for resources, or in the mobilization schedule

## Staging Leader

The Staging Leader locates a suitable staging area, upwind from the emergency site and ensures the orderly deployment of equipment to the site. Specific responsibilities include but are not limited to:

- Document all actions using the Emergency Incident Log
- Document all resources entering or leaving staging area using the Emergency Incident Log
- Direct resources to proper locations
- Work closely with the Regional EOC Resources contact to ensure accurate information about the type, quantity, and arrival times of resources to the staging area
- Communicate to the Regional EOC Resources contact any difficulties, delays, etc. in supplying resources to the scene from the Staging Area

## Environmental / Technical

The Environmental / Technical Roles work with the Regional EOC Environmental / Technical persons and provide technical expertise needed to contain and control hazards. This will require various areas of expertise depending on the type of emergency event being managed. Specific responsibilities include but are not limited to:

- Document all actions using the Emergency Incident Log
- Provide specific technical expertise such as environmental, water management etc., depending on the nature of the emergency, to contain and control hazards
- Conduct an environmental assessment to identify potential environmental issues or concerns, through review of environmental sensitivity information, site reconnaissance, and liaison with government officials
- Identify short term and long term environmental issues and recommend appropriate environmental procedures to the Emergency Site Manager (QI) for minimizing or mitigating environmental impacts at the site
- Coordinate environmental sampling, protection and clean-up efforts

- Advise Keystone personnel and contractors on environmental concerns or constraints related to site activities
- Coordinate post emergency site assessment and development of a site specific remediation plan
- Evaluate technical resources requirements and advise Resource Role of requirements

## Safety

The Safety Role ensures safety of personnel, and use of safe practices on site. Specific responsibilities include but are not limited to:

- Document all actions using the Emergency Incident Log
- Ensure the site is initially inspected and monitored to ensure it is safe for workers, based on the product hazards involved and site conditions
- Monitor the safety of personnel at the emergency site by ensuring safe work practices are being followed and safety precautions are being taken
- Prepare and implement the site safety/evacuation plan for the site
- Identify the nearest medical facilities and transport method
- Ensure all personnel receive a site safety orientation identifying hazards and control measures including a product hazard briefing, prior to undertaking any emergency response activity
- Ensure all new contractors (i.e., contractors who have not worked for the company before, and are unfamiliar with company safety procedures), have completed the Contractor Safety Orientation and have a valid confirmation card
- Ensure proper safety equipment is available for workers and is used in a proper manner
- Ensure site monitoring is continued on a regular basis
- Ensure safety precautions are in place to protect the public
- Evaluate site safety operations on a continuous basis, and report concerns or recommendations to the Emergency Site Manager (QI)

## Media Contact

The Media Contact responds to various media questions and ensures the safety of all media personnel. Completion of Media training is a requirement of this position. Specific responsibilities include but are not limited to:

- Document all actions using the Emergency Incident Log
- Gather media personnel in a single location at a safe, reasonable distance from the emergency site
- Work with the media until Keystone's media specialist arrives
- Maintain contact with Communications in the Corporate EOC to determine what is to be released to media
- Maintain a list of all media personnel on site using Media Contact Log
- Log all questions and requests for information from media using the Media Contact Log
- Maintain contact with Media Contact in the Regional Emergency Operations Center and provide regular factual updates
- Clear all requests for photo opportunities through the Emergency Site Manager (QI)

## Documentation

The Documentation person works directly with the Emergency Site Manager (QI) and documents all activities on site. Specific responsibilities include but are not limited to:

- Document all actions of the Emergency Site Manager (QI), using the Emergency Incident Log
- Provide direct support to the Emergency Site Manager (QI)
- Log and handle all communications for the Emergency Site Manager (QI), as requested

### **Community Evacuation Coordinator**

The Community Evacuation Coordinator works with the Regional EOC Community Evacuation Leader and the local authorities with evacuation at or near the emergency site. Specific responsibilities include but are not limited to:

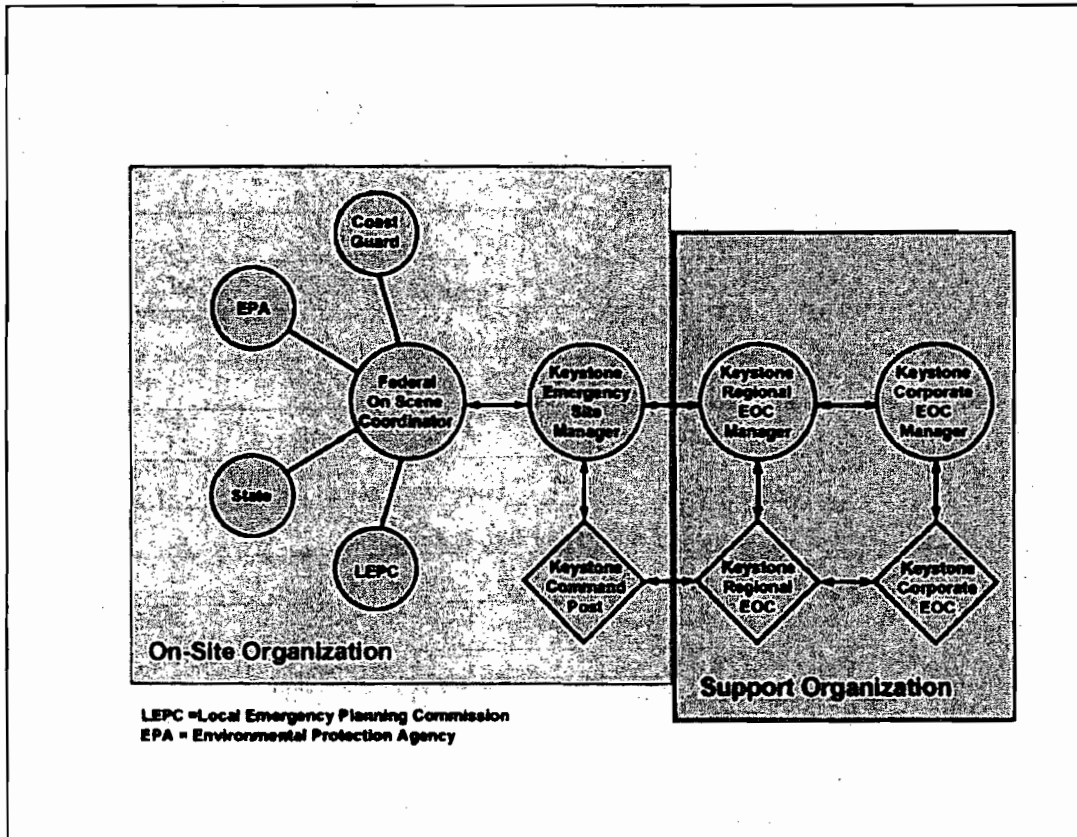
- Document all actions using the Emergency Incident Log
- Keep the Evacuation Leader at the Regional EOC informed of the evacuation center status and issues
- Work with local authorities who are managing the evacuation and evacuation center(s)
- Obtain a record of the evacuees' arrival at the designated evacuation center
- Keep the Regional EOC Evacuation Leader briefed on the status of the arrival of evacuees at the center
- In conjunction with Community Relations, provide information to the evacuees on the status of the incident
- Ensure there is a record kept of temporary destinations when evacuees leave the center
- Do not put yourself at risk

### 4.3 Federal On-Scene Coordinator Coordination Process

The Emergency Site Manager (QI) is the primary contact for the Federal On Scene Coordinator (FOSC). The FOSC is the lead agency and is responsible for monitoring and directing activities related to the spill.

A flow diagram outlining the action and communication paths under a Unified Command structure to be utilized in oil spill response is shown in Figure 4.

Figure 4: Basic Unified Command Structure



## 5.0 LIST OF CONTACTS

*The contact list is currently incomplete but identifies the key contact positions required for activation of the Oil Spill Response Plan. Specific data fields will be completed when Keystone's personnel organization structure is finalized, State and Local requirements and contacts along with contract resources and contacts have been determined.*

### 5.1 Qualified Individuals for Each Response Zone

**Table 7: Contact Information for Qualified Individuals**

<b>Position</b>	<b>Regional EOC Manager (QI)</b>
Name	
Address	
Telephone	Secondary Telephone
<b>Position</b>	<b>Alternate Regional EOC Manager</b>
Name	
Address	
Telephone	Secondary Telephone
<b>Position</b>	<b>Emergency Site Manager (QI)</b>
Name	
Address	
Telephone	Secondary Telephone
<b>Position</b>	<b>Alternate Emergency Site Manager</b>
Name	
Address	
Telephone	Secondary Telephone

### 5.2 Agency Contacts

**Table 8: Agency Contacts**

Agency/Company	Contact	Telephone Numbers
<b>Federal</b>		
National Response Center		800-424-8802
<b>State</b>		
<b>Local</b>		

### 5.3 Corporate Financial Contact for each Response Zone

**Table 9: Corporate Financial (Insurance)**

Name	Company	Telephone Numbers

### 5.4 Oil Spill Response Organizations and Contractors, Services and Resources

**Table 10: OSRO Contacts**

OSRO/Contractor	Contractor Responsibility	Resource Capability for First 7 Days	Quantity of Equipment or Service Available
<b>Name:</b>			
<b>24 Hour Contact No.:</b>			
<b>Address:</b>			
<b>Response Time:</b>			

### 5.5 Oil Transportation and Reclamation Facilities and Services

**Table 11: Oil Transportation and Reclamation Facilities**

Contractor	Service Provided	Capacity	Availability
<b>Name:</b>			
<b>24 Hour Contact No.:</b>			
<b>Address:</b>			

## 6.0 TRAINING PROCEDURES

The requirements listed identify specialized training for individuals prior to taking on responsibilities under the Oil Spill Response Plan.

### 6.1 On Site Personnel

**Table 12: Training Requirements – On Site Personnel**

<b>Position</b>	<b>Specialized Training to Meet Oil Spill Response Duties</b>
First Responders	<ul style="list-style-type: none"> <li>○ HAZWOPER Training to Hazmat Technician Level 3 with annual refresher as required</li> <li>○ Keystone Emergency Management System (EMS) training</li> <li>○ National Fire Protection Association (NFPA) training</li> </ul>
Emergency Site Manager – Qualified Individual	<ul style="list-style-type: none"> <li>○ HAZWOPER Training to Hazmat Level 4 Specialist with annual refresher as required</li> <li>○ Incident Command System (ICS) Communication training</li> <li>○ Keystone Emergency Management System (EMS) training</li> <li>○ National Fire Protection Association (NFPA) training</li> </ul>
Command Post Media	<ul style="list-style-type: none"> <li>○ Keystone Emergency Management System (EMS) training</li> <li>○ Keystone Media Relations training</li> </ul>
Command Post Safety	<ul style="list-style-type: none"> <li>○ Keystone Emergency Management System (EMS) training</li> <li>○ Advanced safety related training</li> </ul>
Command Post Documentation	<ul style="list-style-type: none"> <li>○ Keystone Emergency Management System (EMS) training</li> </ul>
Command Post Site Security	
Command Post Resource Mobilization	
Command Post Technical	
Command Post Staging Leader	
Command Post Evacuation Coordinator	

## 6.2 Regional EOC

**Table 13: Training Requirements - Regional EOC**

Position	Specialized Training to Meet Oil Spill Response Duties
Regional EOC Manager – Qualified Individual	<ul style="list-style-type: none"> <li>○ HAZWOPER Training to the Level of Hazardous Materials Specialist with annual refresher as required</li> <li>○ Incident Command System (ICS) training</li> <li>○ Keystone Emergency Management System (EMS) training</li> </ul>
Regional EOC Media Contact	<ul style="list-style-type: none"> <li>○ Keystone Emergency Management System (EMS) training</li> <li>○ Keystone Media Relations training</li> </ul>
Regional EOC Communications	<ul style="list-style-type: none"> <li>○ Keystone Emergency Management System (EMS) training</li> </ul>
Regional EOC Documentation	
Regional EOC Security	
Regional EOC Technical	
Regional EOC Resource Mobilization	
Regional EOC Community Evacuation Leader	
Regional EOC Administration Support	

### 6.3 Training Records

Keystone will utilize an electronic system to track and maintain records of training, including refresher training, for all employees. The system will be located at Keystone's head office.

Contractors are responsible for maintaining all training records for their employees. Periodic audits will be conducted by Keystone, to ensure contractors training records comply with emergency training requirements: Audit documentation will be retained in Keystone's files.

## 7.0 EXERCISE PROCEDURES

Keystone's exercise program is designed to meet the exercise requirements as outlined in the National Preparedness for Response Exercise Program (PREP) Guidelines developed by the U.S. Coast Guard and adopted by the Pipeline and Hazardous Materials Safety Administration (PHMSA), the Minerals Management Service (MMS), and the U.S. Environmental Protection Agency (EPA). Participation in this program ensures that the Company meets all federal exercise requirements mandated by OPA '90.

The primary elements of the exercise program are notification exercises, table top exercises, Company owned equipment deployment exercises, contractor exercises, unannounced exercises by government agencies and area-wide exercises up to and including actual field drills conducted by industry and the government agencies.

Keystone will ensure that operating personnel participate in exercises or responses on an annual basis in order to ensure they remain trained and qualified to operate the equipment in the operating environment and to ensure the Oil Spill Response Plans are effective, if ever needed. However, personnel and equipment that are assigned to multiple Response Zones will participate in only one deployment exercise per year.

The exercise year for all Company facilities will be from January 1 to December 31.

In addition to the exercise program as outlined in Table 14, Keystone will also participate in both unannounced Federal Agency led exercises and Area exercises when requested.

**Table 14: Exercise Program Type and Frequency**

<b>Exercise Type (for each Response Zone)</b>	<b>Exercises Conducted in Triennial Cycle</b>
Qualified Individual Notification Exercises (one per year to be conducted during non-business hours)	12
Spill Management Team Tabletop Exercises (one must involve a worst case discharge scenario)	3
Equipment Deployment Exercises (using either internal and/or external)	3
Unannounced Exercise (any of the above Exercises, with the exception to the Qualified Individual Notification Exercise, if conducted unannounced, satisfy this requirement)	3

The terms referenced in the above Table are defined as follows:

- o Tabletop exercise is an exercise of the response plan and the spill management team's response efforts without the actual deployment of equipment.
- o Spill management team is the group of personnel identified to staff the appropriate organizational structure to manage spill response implementation in accordance with the response plan.

- o Internal exercises are those that are conducted wholly within the plan holder's organization. Internal exercises include personnel such as the qualified individual and those affiliated with the plan holder's spill management team, including OSRO's. The internal exercises do not involve other members of the response community.
- o External exercises are those that extended beyond the internal focus of the plan holder's organization, and involve other members of the response community. The external exercises are designed to examine the response plan and the plan holder's ability to coordinate with the response community to conduct an effective response to an incident.

## 7.1 Debriefing and Documentation

At the conclusion of an actual spill event or a field exercise, a debriefing will be conducted to evaluate the response, local procedures and the overall Emergency Management System (EMS). All company personnel involved in responding, managing, or performing a support function during an actual spill event or exercise will participate in their respective debriefing. This debriefing should take place the same day or as soon as practical thereafter. At the discretion of the Regional EOC Manager (QI), and when appropriate, debriefing sessions will be organized as follows:

- o Internal Debriefings are to discuss all aspects of Keystone's emergency preparedness and response.
- o External debriefings are designed to discuss only those aspects related to Keystone and agency interaction with respect to communications.
- o Media debriefings will be held separately from all other debriefings. Media debriefings will focus on Keystone's interaction with the media.

Representatives from each of the debriefing sessions will then meet to discuss the results of their session and combine information, presenting a complete review of the event. When appropriate, the information derived from these debriefing sessions will be incorporated into the Oil Spill Response Plan.

Lists of exercises conducted, the objectives met, and the results of the debriefing sessions identified above will be documented. This documentation will be in writing and signed by the individual having responsibility for the facility conducting the exercise. All spill response exercise documentation records will be maintained on file at the facility for a minimum of five years.

## 8.0 RESPONSE PLAN REVIEW AND UPDATE PROCEDURES

All sections of the Oil Spill Response Plan will be reviewed at least annually and revised as required by the Keystone Emergency Management Specialist, or as required, based on new data, additions and modifications to the pipeline system or new government regulatory requirements.

Revisions will incorporate recommendations from training drills or actual spills, industry research into spill countermeasures, new equipment information and updated emergency contact information.

In the event of a worst case discharge, the response will be reviewed and assessed against the Oil Spill Response Plan to evaluate and record the Plan's effectiveness.

The Oil Spill Response Plan will be resubmitted every 5 years from the date of last submission in accordance with 49CFR§194.121, for the areas of the pipeline that have been designated as potentially causing significant and substantial harm.

If a new or different operating condition or information would substantially affect the implementation of the Response Plan, Keystone will immediately modify its Response Plan to address such a change and resubmit to the Pipeline and Hazardous Material Safety Administration (PHMSA) within 30 days of making the change.

## 9.0 RESPONSE ZONE ONE APPENDIX

### 9.1 Information Summary

Response Area Location	Milepost (MP) = 0 at Canadian Border to MP = 535 in mid-Nebraska, south end of Colfax County
State	North Dakota (MP 0 to ≈ MP 215)
Counties	Pembina, Cavalier, Walsh, Nelson, Steele, Barnes, Ransom, and Sargent
State	South Dakota (MP 215 to ≈ MP 431)
Counties	Marshall, Day, Clark, Beadle, Kingsbury, Miner, Hanson, McCook, Hutchinson, and Yankton
State	Nebraska (MP 431 to ≈ MP 535)
Counties	Cedar, Wayne, Stanton, Platte, Colfax
Owner	Keystone
Emergency Telephone	1 (XXX) XXX-XXXX
Owner Location (Street)	450 - 1 <sup>st</sup> Street SW
City: Calgary	Province: Alberta      Postal Code: T2P 5H1

## 9.2 Qualified Individuals

*The contact list is currently incomplete but identifies the key contact positions required for activation of the Oil Spill Response Plan. Specific data fields will be completed when Keystone's personnel organization structure is finalized.*

<b>Position</b>	<b>Regional EOC Manager (QI)</b>
<b>Name</b>	
<b>Address</b>	
<b>Emergency Telephone</b>	<b>Secondary Telephone</b>
<b>Position</b>	<b>Alternate Regional EOC Manager</b>
<b>Name</b>	
<b>Address</b>	
<b>Emergency Telephone</b>	<b>Secondary Telephone</b>
<b>Position</b>	<b>Emergency Site Manager (QI)</b>
<b>Name</b>	
<b>Address</b>	
<b>Emergency Telephone</b>	<b>Secondary Telephone</b>
<b>Position</b>	<b>Alternate Emergency Site Manager</b>
<b>Name</b>	
<b>Address</b>	
<b>Emergency Telephone</b>	<b>Secondary Telephone</b>

## 9.3 Determination of Harm

The operator expects that Response Zone One will meet the "significant and substantial" harm criteria due to the proximity of high consequence areas. However, a final determination is reserved pending completion of the design details required to perform the analysis. For the purposes of this preliminary document, Keystone has assumed the aforementioned criteria will be met.

## 9.4 Notification Procedures

The Regional EOC Manager (QI) is the key individual responsible for evaluating and activating the Oil Spill Response.

## 9.4.1 Prioritized Notification Checklist for Key Individuals

### First Responder

- Notification of potential spill and dispatch received from OCC
- SPILL VERIFIED
- Notification of Emergency Services, if required
- Verify with OCC:
  - Pipeline shutdown and status
  - Pipeline segment isolation
- Regional EOC Manager (QI) notified

### Regional EOC Manager (QI)

- Notification received from OCC
- Notification of spill details received from First Responder
- OIL SPILL RESPONSE PLAN ACTIVATED
- Emergency Site Manager (QI) notified
- Regional EOC activated
- Mobilize response resources requested by Emergency Site Manager (QI)
- Corporate EOC Manager contacted
- Agency contacts initiated as per Section 2.3

### Emergency Site Manager (QI)

- Notification received from Regional EOC Manager (QI)
- On site First Responder contacted to obtain briefing on spill
- On Site Command Post activated
- Regional EOC advised of resource requirements
- First Responder relieved

## 9.4.2 Notification Contacts

The contact list is currently incomplete but identifies the key contact positions required for activation of the Oil Spill Response Plan. Specific data fields will be completed when Keystone's personnel organization structure is finalized and State and Local requirements and contacts have been determined.

### Keystone

Table 15: Response Zone One Keystone Notification

Position Making Call	Keystone Contacts	Primary Telephone No.	Secondary Telephone No.
OCC	First Responder		
	Regional EOC Manager (QI)		
	- Primary		
	- Alternate		
	Corporate EOC		
Regional EOC Manager (QI)	Emergency Site Manager (QI)		
	- Primary		
	- Alternate		
	Corporate EOC Manager		

### Agency

Table 16: Response Zone One Agency Notification

Position Making Call	Agency Contact List	Telephone	Other Telephone/Fax
Regional EOC Manager (QI)	Federal		
	National Response Center	1-800-424-8802	
	State		
	Local		

## Emergency Services

**Table 17: Response Zone One Emergency Services Notification**

<b>Position Making Call</b>	<b>Emergency Contact List</b>	<b>Telephone</b>	<b>Other Telephone/Fax</b>
<b>Emergency Site Manager (QI)</b>	Emergency Services		
	Fire/Ambulance		
	Police/Sheriff		
	Hospital		

### 9.4.3 Information Reported to Agencies

#### Communication Report (Call) Record

Regional EOC Manager (QI)

The following agency mandatory information, *as Identified in bold Italic*, will be provided initially with subsequent notifications to complete the required mandatory criteria or advise of any changes.

**Name of Pipeline:** \_\_\_\_\_

**Time of Discharge:** \_\_\_\_\_

**Location of Discharge (MP):** \_\_\_\_\_

(GPS): \_\_\_\_\_

**Type of Oil:** \_\_\_\_\_

**Reason of Discharge:** \_\_\_\_\_

**Estimated Volume of Oil Spill:** \_\_\_\_\_

**Weather Condition on Scene:** \_\_\_\_\_

**Action taken/ Planned by Person on Scene:** \_\_\_\_\_

**Injuries:** \_\_\_\_\_

**Extent of Injuries:** \_\_\_\_\_

**Evacuation:** \_\_\_\_\_

**Public Consequence:** \_\_\_\_\_

## 9.5 Spill Detection and Mitigation Procedures

*Response Zone specific procedures will be identified and described following completion of the necessary design details.*

## 9.6 Oil Spill Response Organizations and Contractors, Services and Resources

*The contact lists below are currently incomplete and will be updated as Keystone identifies contract resources and contact information.*

**Table 18: Response Zone One OSRO Contacts**

OSRO/Contractor	Contractor Responsibility	Resource Capability for First 7 Days	Quantity of Equipment or Service Available
<b>Name:</b>			
<b>24 Hour Contact No.:</b>			
<b>Address:</b>			
<b>Response Time:</b>			

## 9.7 Oil Transportation and Reclamation Facilities and Services

*The contact lists below are currently incomplete and will be updated as Keystone identifies contract resources and contact information.*

**Table 19: Response Zone One Oil Transportation and Reclamation Facilities**

Contractor	Service Provided	Capacity	Availability
<b>Name:</b>			
<b>24 Hour Contact No.:</b>			
<b>Address:</b>			

## **9.8 Type of Oil, Volume and Calculation Method for Worst Case Discharge Volume**

*Pending completion of the necessary engineering design details a worst case discharge calculation will be undertaken.*

Keystone expects to transport crude oils in the range of 12 to 45° API.

## **9.9 Maps and Drawings**

### **9.9.1 Location of Worst Case Discharge**

*Pending completion of engineering design details this information will be provided.*

### **9.9.2 Location of Potentially affected Public Drinking Water Intakes**

*Pending completion of engineering design details this information will be provided.*

### **9.9.3 Potentially affected environmentally sensitive areas**

*Pending completion of engineering design details this information will be provided.*

### **9.9.4 Control Points and access descriptions**

*Pending completion of engineering design details this information will be provided.*

## **9.10 Piping Diagram and Plan Profile**

*Pending completion of engineering design details this information will be provided.*

## 10.0 RESPONSE ZONE TWO APPENDIX

### 10.1 Information Summary

Response Area Location	(MP) = MP 535 to MP 634 and Cushing Extension (CE), CE MP 0 to CE MP 291
State	Nebraska (MP 535 to ≈ MP 634) and Cushing Extension (CE) MP 0 to ≈ MP 4
Counties	Butler, Seward, Saline and Jefferson
State	Kansas (CE MP 4 to ≈ CE MP 212)
Counties	Washington, Clay, Dickinson, Marion, Butler, and Cowley
State	Oklahoma (CE MP 212 to ≈ CE MP 291)
Counties	Kay, Noble, and Payne
Owner	Keystone
Emergency Telephone	1 (XXX) XXX-XXXX
Owner Location (Street)	450 - 1 <sup>st</sup> Street SW
City: Calgary	Province: Alberta      Postal Code: T2P 5H1

## 10.2 Qualified Individuals

*The contact list is currently incomplete but identifies the key contact positions required for activation of the Oil Spill Response Plan. Specific data fields will be completed when Keystone's personnel organization structure is finalized.*

<b>Position</b>	<b>Regional EOC Manager (QI)</b>
Name	
Address	
Emergency Telephone	Secondary Telephone
<b>Position</b>	<b>Alternate Regional EOC Manager</b>
Name	
Address	
Emergency Telephone	Secondary Telephone
<b>Position</b>	<b>Emergency Site Manager (QI)</b>
Name	
Address	
Emergency Telephone	Secondary Telephone
<b>Position</b>	<b>Alternate Emergency Site Manager</b>
Name	
Address	
Emergency Telephone	Secondary Telephone

## 10.3 Determination of Harm

The operator expects that Response Zone Two will meet the "significant and substantial" harm criteria due to the proximity of high consequence areas. However, a final determination is reserved pending completion of the design details required to perform the analysis. For the purposes of this preliminary document, Keystone has assumed the aforementioned criteria will be met.

## 10.4 Notification Procedures

The Regional EOC Manager (QI) is the key individual responsible for evaluating and activating the Oil Spill Response.

## 10.4.1 Prioritized Notification Checklist for Key Individuals

### First Responder

- Notification of potential spill and dispatch received from OCC
- SPILL VERIFIED
- Notification of Emergency Services, if required
- Verify with OCC:
  - Pipeline shutdown and status
  - Pipeline segment isolation
- Regional EOC Manager (QI) notified

### Regional EOC Manager (QI)

- Notification received from OCC
- Notification of spill details received from First Responder
- OIL SPILL RESPONSE PLAN ACTIVATED
- Emergency Site Manager (QI) notified
- Regional EOC activated
- Mobilize response resources requested by Emergency Site Manager (QI)
- Corporate EOC Manager contacted
- Agency contacts initiated as per Section 2.3

### Emergency Site Manager (QI)

- Notification received from Regional EOC Manager (QI)
- On site First Responder contacted to obtain briefing on spill
- On Site Command Post activated
- Regional EOC advised of resource requirements
- First Responder relieved

## 10.4.2 Notification Contacts

The contact list is currently incomplete but identifies the key contact positions required for activation of the Oil Spill Response Plan. Specific data fields will be completed when Keystone's personnel organization structure is finalized and State and Local requirements and contacts have been determined.

### Keystone

**Table 20: Response Zone Two Keystone Notification**

Position Making Call	Keystone Contacts	Primary Telephone No.	Secondary Telephone No.
OCC	First Responder		
	Regional EOC Manager (QI)		
	- Primary		
	- Alternate		
	Corporate EOC		
Regional EOC Manager (QI)	Emergency Site Manager (QI)		
	- Primary		
	- Alternate		
	Corporate EOC Manager		

### Agency

**Table 21: Response Zone Two Agency Notification**

Position Making Call	Agency Contact List	Telephone	Other Telephone/Fax
Regional EOC Manager (QI)	Federal		
	National Response Center	1-800-424-8802	
	State		
	Local		

## Emergency Services

**Table 22: Response Zone Two Emergency Services Notification**

<b>Position Making Call</b>	<b>Emergency Contact List</b>	<b>Telephone</b>	<b>Other Telephone/Fax</b>
<b>Emergency Site Manager (QI)</b>	Emergency Services		
	Fire/Ambulance		
	Police/Sheriff		
	Hospital		

### 10.4.3 Information Reported to Agencies

#### Communication Report (Call) Record

Regional EOC Manager (QI)

The following agency mandatory information, *as identified in bold italic*, will be provided initially with subsequent notifications to complete the required mandatory criteria or advise of any changes.

**Name of Pipeline:** \_\_\_\_\_

**Time of Discharge:** \_\_\_\_\_

**Location of Discharge (MP):** \_\_\_\_\_

(GPS): \_\_\_\_\_

**Type of Oil:** \_\_\_\_\_

**Reason of Discharge:** \_\_\_\_\_

**Estimated Volume of Oil Spill:** \_\_\_\_\_

**Weather Condition on Scene:** \_\_\_\_\_

**Action taken/ Planned by Person on Scene:** \_\_\_\_\_

Injuries: \_\_\_\_\_

Extent of Injuries: \_\_\_\_\_

Evacuation: \_\_\_\_\_

Public Consequence: \_\_\_\_\_

## 10.5 Spill Detection and Mitigation Procedures

*Response Zone specific procedures will be identified and described following completion of the necessary design details.*

## 10.6 Oil Spill Response Organizations and Contractors, Services and Resources

*The contact lists below are currently incomplete and will be updated as Keystone identifies contract resources and contact information.*

**Table 23: Response Zone Two OSRO Contacts**

<b>OSRO/Contractor</b>	<b>Contractor Responsibility</b>	<b>Resource Capability for First 7 Days</b>	<b>Quantity of Equipment or Service Available</b>
<b>Name:</b>			
<b>24 Hour Contact No.:</b>			
<b>Address:</b>			
<b>Response Time:</b>			

## 10.7 Oil Transportation and Reclamation Facilities and Services

*The contact lists below are currently incomplete and will be updated as Keystone identifies contract resources and contact information.*

**Table 24: Response Zone Two Oil Transportation and Reclamation Facilities**

<b>Contractor</b>	<b>Service Provided</b>	<b>Capacity</b>	<b>Availability</b>
<b>Name:</b>			
<b>24 Hour Contact No.:</b>			
<b>Address:</b>			

## **10.8 Type of Oil, Volume and Calculation Method for Worst Case Discharge Volume**

*Pending completion of the necessary engineering design details a worst case discharge calculation will be undertaken.*

Keystone expects to transport crude oils in the range of 12 to 45° API.

## **10.9 Maps and Drawings**

### **10.9.1 Location of Worst Case Discharge**

*Pending completion of engineering design details this information will be provided.*

### **10.9.2 Location of Potentially affected Public Drinking Water Intakes**

*Pending completion of engineering design details this information will be provided.*

### **10.9.3 Potentially affected environmentally sensitive areas**

*Pending completion of engineering design details this information will be provided.*

### **10.9.4 Control Points and access descriptions**

*Pending completion of engineering design details this information will be provided.*

## **10.10 Piping Diagram and Plan Profile**

*Pending completion of engineering design details this information will be provided.*

## 11.0 RESPONSE ZONE THREE APPENDIX

### 11.1 Information Summary

Response Area Location	Milepost (MP) = MP 634 to MP 1073	
State	Nebraska (MP 634 to ≈ MP 649)	
Counties	Jefferson, Gage	
State	Kansas (MP 649 to ≈ MP 743)	
Counties	Marshall, Nemaha, Brown, and Doniphan	
State	Missouri (MP 743 to ≈ MP 1016)	
Counties	Buchanan, Clinton, Caldwell, Carroll, Chariton, Randolph, Audrain, Montgomery, Lincoln, and St. Charles	
State	Illinois (MP 1016 to ≈ MP 1073)	
Counties	Madison, Bond, Fayette, and Marion	
Owner	Keystone	
Emergency Telephone	1 (XXX) XXX-XXXX	
Owner Location (Street)	450 - 1 <sup>st</sup> Street SW	
City: Calgary	Province: Alberta	Postal Code: T2P 5H1

## 11.2 Qualified Individuals

*The contact list is currently incomplete but identifies the key contact positions required for activation of the Oil Spill Response Plan. Specific data fields will be completed when Keystone's personnel organization structure is finalized.*

<b>Position</b>	<b>Regional EOC Manager (QI)</b>
Name	
Address	
Emergency Telephone	Secondary Telephone
<b>Position</b>	<b>Alternate Regional EOC Manager (QI)</b>
Name	
Address	
Emergency Telephone	Secondary Telephone
<b>Position</b>	<b>Emergency Site Manager (QI)</b>
Name	
Address	
Emergency Telephone	Secondary Telephone
<b>Position</b>	<b>Alternate Emergency Site Manager</b>
Name	
Address	
Emergency Telephone	Secondary Telephone

## 11.3 Determination of Harm

The operator expects that Response Zone Three will meet the "significant and substantial" harm criteria due to the proximity of high consequence areas. However, a final determination is reserved pending completion of the design details required to perform the analysis. For the purposes of this preliminary document, Keystone has assumed the aforementioned criteria will be met.

## 11.4 Notification Procedures

The Regional EOC Manager (QI) is the key individual responsible for evaluating and activating the Oil Spill Response.

## 11.4.1 Prioritized Notification Checklist for Key Individuals

### First Responder

- Notification of potential spill and dispatch received from OCC
- SPILL VERIFIED
- Notification of Emergency Services, if required
- Verify with OCC:
  - Pipeline shutdown and status
  - Pipeline segment isolation
- Regional EOC Manager (QI) notified

### Regional EOC Manager (QI)

- Notification received from OCC
- Notification of spill details received from First Responder
- OIL SPILL RESPONSE PLAN ACTIVATED
- Emergency Site Manager (QI) notified
- Regional EOC activated
- Mobilize response resources requested by Emergency Site Manager (QI)
- Corporate EOC Manager contacted
- Agency contacts initiated as per Section 2.3

### Emergency Site Manager (QI)

- Notification received from Regional EOC Manager (QI)
- On site First Responder contacted to obtain briefing on spill
- On Site Command Post activated
- Regional EOC advised of resource requirements
- First Responder relieved

### 11.4.2 Notification Contacts

The contact list is currently incomplete but identifies the key contact positions required for activation of the Oil Spill Response Plan. Specific data fields will be completed when Keystone's personnel organization structure is finalized and State and Local requirements and contacts have been determined.

#### Keystone

**Table 25: Response Zone Three Keystone Notification**

Position Making Call	Keystone Contacts	Primary Telephone No.	Secondary Telephone No.
OCC	First Responder		
	Regional EOC Manager (QI)		
	- Primary		
	- Alternate		
	Corporate EOC		
Regional EOC Manager (QI)	Emergency Site Manager (QI)		
	- Primary		
	- Alternate		
	Corporate EOC Manager		

#### Agency

**Table 26: Response Zone Three Agency Notification**

Position Making Call	Agency Contact List	Telephone	Other Telephone/Fax
Regional EOC Manager (QI)	Federal		
	National Response Center	1-800-424-8802	
	State		
	Local		

## Emergency Services

**Table 27: Response Zone Three Emergency Services Notification**

<b>Position Making Call</b>	<b>Emergency Contact List</b>	<b>Telephone</b>	<b>Other Telephone/Fax</b>
<b>Emergency Site Manager (QI)</b>	Emergency Services		
	Fire/Ambulance		
	Police/Sheriff		
	Hospital		

## Information Reported to Agencies

### Communication Report (Call) Record

Regional EOC Manager (QI)

The following agency mandatory information, *as identified in bold italic*, will be provided initially with subsequent notifications to complete the required mandatory criteria or advise of any changes.

**Name of Pipeline:** \_\_\_\_\_

**Time of Discharge:** \_\_\_\_\_

**Location of Discharge (MP):** \_\_\_\_\_

(GPS): \_\_\_\_\_

**Type of Oil:** \_\_\_\_\_

**Reason of Discharge:** \_\_\_\_\_

**Estimated Volume of Oil Spill:** \_\_\_\_\_

**Weather Condition on Scene:** \_\_\_\_\_

**Action taken/ Planned by Person on Scene:** \_\_\_\_\_

**Injuries:** \_\_\_\_\_

**Extent of Injuries:** \_\_\_\_\_

**Evacuation:** \_\_\_\_\_

**Public Consequence:** \_\_\_\_\_

## 11.5 Spill Detection and Mitigation Procedures

*Response Zone specific procedures will be identified and described following completion of the necessary design details.*

## 11.6 Oil Spill Response Organizations and Contractors, Services and Resources

*The contact lists below are currently incomplete and will be updated as Keystone identifies contract resources and contact information.*

**Table 28: Response Zone Three OSRO Contacts**

OSRO/Contractor	Contractor Responsibility	Resource Capability for First 7 Days	Quantity of Equipment or Service Available
<b>Name:</b>			
<b>24 Hour Contact No.:</b>			
<b>Address:</b>			
<b>Response Time:</b>			

## 11.7 Oil Transportation and Reclamation Facilities and Services

*The contact lists below are currently incomplete and will be updated as Keystone identifies contract resources and contact information.*

**Table 29: Response Zone Three Oil Transportation and Reclamation Facilities**

Contractor	Service Provided	Capacity	Availability
<b>Name:</b>			
<b>24 Hour Contact No.:</b>			
<b>Address:</b>			

## **11.8 Type of Oil, Volume and Calculation Method for Worst Case Discharge Volume**

*Pending completion of the necessary engineering design details a worst case discharge calculation will be undertaken.*

Keystone expects to transport crude oils in the range of 12 to 45° API.

## **11.9 Maps and Drawings**

### **11.9.1 Location of Worst Case Discharge**

*Pending completion of engineering design details this information will be provided.*

### **11.9.2 Location of Potentially affected Public Drinking Water Intakes**

*Pending completion of engineering design details this information will be provided.*

### **11.9.3 Potentially affected environmentally sensitive areas**

*Pending completion of engineering design details this information will be provided.*

### **11.9.4 Control Points and access descriptions**

*Pending completion of engineering design details this information will be provided.*

## **11.10 Piping Diagram and Plan Profile**

*Pending completion of engineering design details this information will be provided.*