

## Incident Reporting Requirements

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Directive PNG014

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April 2018

Revision 3.0

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### Governing Legislation:

Acts: *The Oil and Gas Conservation Act*

*The Pipelines Act, 1998*

Regulations: *The Oil and Gas Conservation Regulations, 2012*

*The Pipelines Regulations, 2000*

Order: 8/18

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**Record of Change**

<b>Revision</b>	<b>Date</b>	<b>Description</b>
0	September, 2015	Draft
1.0	February, 2016	Draft - revised based on public comments.
2.0	December, 2016	Live version, updated based on review of comments.
3.0	April, 2018	Update to reporting requirements for wells associated with potash mine sites and telephone notification process.

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## 1. Introduction

This Directive sets out the requirements of the Saskatchewan Ministry of Energy and Resources (ER) for regulating the reporting of spills and other incidents in relation to wells, facilities, flowlines and pipelines. It provides a listing of what constitutes a reportable incident and details of when and how an incident should be reported.

Questions on Directive PNG014 can be directed to the ER Service Desk at 1-855-219-9373 or [ER.servicedesk@gov.sk.ca](mailto:ER.servicedesk@gov.sk.ca).

### 1.1 Governing Legislation

The requirements outlined in this Directive are based on *The Oil and Gas Conservation Act (OGCA)*, *The Pipelines Act, 1998 (PA)*, *The Oil and Gas Conservation Regulations, 2012 (OGCR)* and *The Pipelines Regulations, 2000 (PR)*.

Please note that section 4.4 of this Directive deals with the immediate remediation and, where necessary, reclamation of land subject to an incident. Final reclamation of an abandoned well site or facility site is governed by the requirements of *Directive PNG016: Acknowledgement of Reclamation Requirements*. Operators should consult *Directive PNG016* to understand the difference between incident reclamation and final reclamation.

### 1.2 Notice to Operators

This Directive supersedes and replaces the requirements related to incident notification and reporting set out in:

- Sections 20 and 21 of the PR; and
- Subsection 62(5) and section 99 of the OGCR.

### 1.3 Potash Wells Exemption

This Directive does not apply to licensed wells associated with a potash mine site that has been permitted by the Ministry of Environment (ENV). These wells include the following:

- Brine Injection wells;
- Slurry Production wells;
- Brine Disposal wells;
- Shaft wells; and
- Freeze holes.

The exemption of these wells from this Directive is only for the purpose of reporting incidents. All other requirements under the OGCR relating to these wells must still be met.

This exemption does not apply to stratigraphic test wells or grout wells.

Incidents relating to the wells listed above are to be reported to ENV by calling the 24-hour Spill Control Centre at 1-800-667-7525.

## 1.4 Definitions

**Blow-out:** means a blow-out as defined in the OGCR.

**Certified third-party environmental reclamation professional:** means a professional with qualifications as defined in *Directive PNG016: Acknowledgement of Reclamation Requirements*.

**Condensate:** means a condensate as defined in the OGCR.

**Emergency Response Plan or ERP:** means an emergency response plan as defined in the OGCR or an emergency procedures manual described in section 14 of the PR.

**Emulsion:** means a mixture of two immiscible substances: a non-polar phase consisting of hydrocarbons such as crude oil or condensate, and a polar phase consisting of water or salt water. One substance (the dispersed phase) is dispersed in the other (the continuous phase).

**Field office:** means the ER regional office responsible for a geographic area as shown in Appendix 2.

**Fire:** means any unplanned fire or explosion at any well, facility, pipeline or flowline.

**Flowline:** means a flowline as defined in the PA.

**Kick:** means a controlled diversion of gases from a wellbore to a rig tank or flare system during drilling, workover, or completion activities.

**Licensed pipeline:** means a pipeline licensed pursuant to the PA.

**Natural gas liquids:** means ethane, propane, butane and pentanes-plus, or any combination of these substances.

**Off-lease:** means any location that is not on-lease.

**Oil:** means oil as defined in the OGCR.

**On-lease:** means:

- a) the area of a well or facility site that is surrounded by a berm or a dike or that is within a contoured area so that any release of liquid, semi-solid or solid is contained within the described area.
- b) if a dike or contoured area does not exist, the surveyed boundary of the surface lease for the well site or facility site; or
- c) a pipeline terminal.

**Operator:** means:

- a) an operator of a well or facility as defined in the OGCR.
- b) an operator of a pipeline, including a flowline, as defined in the PR.

**Pipeline:** means a pipeline as defined in the PA.

**Pipeline Terminal:** means the area within the surveyed boundary of land leased or owned by a licensed pipeline operator on which a pipeline terminal resides as it relates to, is incidental to, or used in connection with a licensed pipeline.

**Product:** means a product of oil and gas as defined in the OGCA.

**Refined chemical:** means any substances designated as a hazardous substance or a waste dangerous good pursuant to *The Hazardous Substances and Waste Dangerous Goods Regulations*.

**Regulatory closure:** means the later of the date that the applicable reclamation criteria are met by the licensee or the date that the reclamation actions were approved by ER.

**Salt water or Produced water:** means formation water produced in association with crude oil or natural gas or any fluid that does not meet the criteria of unrestricted discharge as per Appendix 3 of *Directive S-01: Saskatchewan Upstream Petroleum Industry Storage Standards*.

**Spill:** is the unintentional release of any substance, fluid, gas, semi-solid or solid.

## 2. Incident Response Overview

### 2.1 Incidents Subject to this Directive

Appendix 1 sets out the types of incidents that are subject to notification and reporting requirements of this Directive. The table encompasses five general types of incidents:

- Those related to the general operation of a well, facility, flowline or pipeline;
- Those specific to the operation of a pipeline or flowline;
- Those that occur during horizontal directional drilling related to pipeline or flowline installation;
- Those that occur during the drilling or fracturing of a well; and,
- Those specific to the operation of a well or facility.

**Note:** *It is recommended that operators address each type of incident in Appendix 1 in their ERPs and incorporate the procedures set out in this Directive in their notification and reporting plans.*

### 2.2 Incident Response Process

An operator must carry out the following actions in relation to any of the listed incidents:

1. **NOTIFY** ER in accordance with the requirements of this Directive;
2. **ACTIVATE** its ERP where required and take immediate steps to resolve the incident;
3. **REMEDiate** or, where necessary, reclaim the affected area to the satisfaction of ER officials; and,
4. **SUBMIT** detailed information and reports in the Integrated Resource Information System (IRIS) on the incident and the actions taken to resolve the matter.

Appendix 3 shows a flow chart of the incident response reporting process and time lines. Once an operating event occurs, the operator must first determine whether it is an incident subject to this Directive (see Appendix 1). If it is a reportable incident the operator must implement its ERP and provide immediate telephone notification where required by this Directive (see section 3.1). In addition, the operator is required to submit a notification in IRIS within five (5) business days (see section 3.2) and a detailed incident report in IRIS within 90 days (see section 3.3). Depending on the nature of the incident, the operator may be required to submit an incident reclamation report (section 4.4, 4.5 and 4.6) or a metallurgical report (section 4.7).

### **3. Initial Incident Notification**

#### **3.1 Immediate Telephone Notification by Operator**

An operator is required to immediately notify ER's Emergency Support line at 1-844-764-3637 of the discovery of any incident listed in Appendix 1 except for the following types of incidents:

- Contact damage to a flowline or pipeline that does not result in a break or leak; or
- Any on-lease release of oil, condensate, emulsion or salt water that is less than 10.0 m<sup>3</sup>.

On-lease releases or contact damage that are exempt from immediate telephone notification still require ER notification using IRIS in accordance with section 3.2.

***Note:** The Emergency Support line is available 24 hours per day, seven days per week. Operators are to call this number as soon as they discover an incident subject to immediate telephone notification.*

#### **3.2 IRIS Notification by Operator**

All incidents listed in Appendix 1 must be promptly reported in IRIS not later than five (5) business days after the discovery of the incident. This requirement is in addition to the requirement for immediate telephone notification as set out in subsection 3.1.

*Note: Operators reporting incidents into IRIS are responsible for the detailed incident reporting as outlined in section 4.3 and incident reclamation reporting as outlined in section 4.4 unless the well site, facility site or pipeline is transferred to another party. Once an incident is recorded in IRIS, the operator must comply with reporting requirement timelines set out in this Directive as established from the date of discovery.*

#### **3.3 Notification by Person Other than an Operator**

If a spill or other incident occurs while a product or waste is being transported, the owner of the product or waste must report the incident in accordance with section 3.1 and 3.2.

In the event of an incident of unknown origin, any person who witnesses or has information on the incident may provide notification to the Emergency Support line at 1-844-764-3637.

## **4. Incident Reporting Requirements and Time Lines**

### **4.1 Immediate Telephone Notification**

The following information is required when providing immediate telephone notification of an incident:

- The name and contact information of parties involved in the incident (e.g., well owner, well operator, contractor, etc.);
- A description of the incident and location (LSD-SEC-TWP-RGE-M);
- The substance(s) involved in the incident;
- The action undertaken to mitigate the incident;
- Has an ERP been triggered?
- Have emergency services been notified or are en route?
- Are any injuries/fatalities known to have occurred in connection with the incident? (not necessary to provide any personal information);
- Is the incident known to have affected a significant water body (i.e. lake, river, stream or slough)?
- Is the incident known to have impacted any wildlife?
- Has the incident occurred on First Nation reserve lands?
- Has the incident resulted in the evacuation of the local area or notification to residents to stay indoors?
- Does the incident involve fire of free phase product not yet contained?
- Is an incident command required?

Please note that providing ER with information relating to the above bullet list does not absolve an operator of their responsibility to also notify the proper authorities in accordance with other regulations or as required pursuant to their ERP.

### **4.2 Initial Incident Notification in IRIS**

Within five (5) business days of the discovery of incident, an operator must submit the following information in IRIS:

- The name of the ER Field Office responsible for the geographic area in which the incident occurred (see map in Appendix 2);
- The date the incident occurred (if known);
- The date the incident was discovered;
- Information on whether the ERP was initiated and whether the field office was notified;
- Information on whether any substances were spilled or released;
- Information on whether a reclamation report is required for the incident (see section 4.4);
- A brief description of the incident;
- The name of the company contact, their job title, business phone number and email address who is responsible for dealing with the incident;
- The surface location of the incident (LSD-SEC-TWP-RGE-M);
- Surface coordinates (latitude and longitude, in rads or degrees) described in accordance with North American Datum 83 (NAD83) with the zone indicated; and



- Information about any surface water impacted by the incident and the type of surface water affected.

#### **4.3 Detailed Incident Report**

Within 90 days of the submission of the initial incident report notification, the operator must provide the following details in IRIS:

- Impacted Surface Information:
  - size of spill (m<sup>2</sup>)
  - percentage (%) off-lease that was impacted by the incident
- Substance Information:
  - substance type(s)
  - amount of substance spilled or released (m<sup>3</sup>)
  - amount of substance recovered (m<sup>3</sup>)
  - amount and type of other materials recovered during remedial activities
- Source Information:
  - source of the incident – well, pipeline, facility, flowline, other
  - licence identifier – licence number of the source
  - incident cause (e.g., break, malfunction, human error, act of nature, etc.)
- Attachments:
  - site sketch, photos, report, lab results

#### **4.4 Incident Reclamation Report (IRR)**

When an incident occurs, whether on-lease or off-lease, the operator is required to:

1. Immediately treat or dispose of any contaminated material;
2. Remediate, or where necessary, reclaim the impacted area to the satisfaction of the minister; and
3. Subject to section 4.5, submit an incident reclamation report (IRR) in accordance with this section documenting the actions of the operator to resolve the incident and providing evidence demonstrating the successful resolution of the incident.

The scope and complexity of incidents will vary significantly depending on the nature of the incident (minor versus major spill events for example) and therefore, so too will the reclamation reporting requirements. For this reason, IRIS allows for the submission of more than one IRR per incident. For example, in many instances, such as a minor reportable spill, the incident may be closed with the submission of a single IRR which includes the following information:

- Sampling information and analytical lab test results (prior to reclamation) as well as confirmatory sampling and test results (after reclamation)- note that sampling for on-lease spills is not required unless ordered by the minister;
- Excavation details including areas/volumes, fill material details, contaminated soil disposal information (disposal location, volumes);
- Details of any treatment of soil that took place;

- Restoration information; and
- Any additional information required by the minister.

The IRR must be submitted within 6 months of completing the reclamation. If the incident occurred on-lease at a well or facility site (except in the case of a line break), the IRR does not require the signature of a certified third party environmental reclamation professional. The IRR submission for all other incidents, including line breaks whether on or off lease, must be signed by a certified third party environmental reclamation professional.

Additional reporting is required where the magnitude or complexity of an incident has resulted in significant and/or long term environmental impacts. The reporting requirements generated by these types of incidents may typically include various phases of environmental site assessment (for delineation purposes), remediation reporting and periodic monitoring reports. For these types of incidents, multiple IRRs may be submitted as necessary for each of the various stages of remediation that may be required. ER will provide clarity on reporting requirements and the timing of such reporting on a site specific basis where necessary.

ER recognizes that on-site infrastructure will preclude the successful excavation of all impacted material in some cases. An IRR should still be submitted when the work has been completed to the extent possible at the time, but the IRR should specify that additional remediation will be required at time of site closure.

***Note:** The term “reclamation” is ordinarily understood to mean the remediation of impacts at a site as well as the restoration of the site back to the original condition or a state or that is equivalent with surroundings. Depending upon whether the incident occurred on an active site or off lease, the expectations will vary from minor spill remediation to full land reclamation.*

#### **4.5 Exceptions to IRR Submission Requirements**

An IRR is not required for the following incidents:

- A fire, blow-out or kick that results only in a release of a gas;
- A release of natural gas or hydrogen sulfide gas;
- Contact damage to a flowline or pipeline that does not result in a break or leak.

#### **4.6 Relief from IRR Submission Requirements**

In addition to the general exceptions listed in section 4.5, ER may relieve the operator of the requirement to submit an IRR pursuant to this Directive if it determines that a more extensive reclamation program is required to resolve the environmental impact. In these situations, ER will work with the operator to develop the program and to identify any site-specific actions or reporting requirements tied to the program.

#### **4.7 Root Cause Analysis Reports**

In the event of a break, leak or malfunction relating to a well, facility, pipeline or flowline or associated equipment, ER may require the operator to complete a written technical report

analyzing the root cause of the incident. This report, including any associated sub-reports and supporting documentation, must be submitted into IRIS and is in addition to an IRR submission.

**5. Compliance and Enforcement**

Failure to comply with the requirements in this Directive may result in enforcement actions under the OGCA (wells, facilities, flowlines) or the PA (licensed pipelines).

**Appendix 1: Incidents Subject to Notification and Reporting**

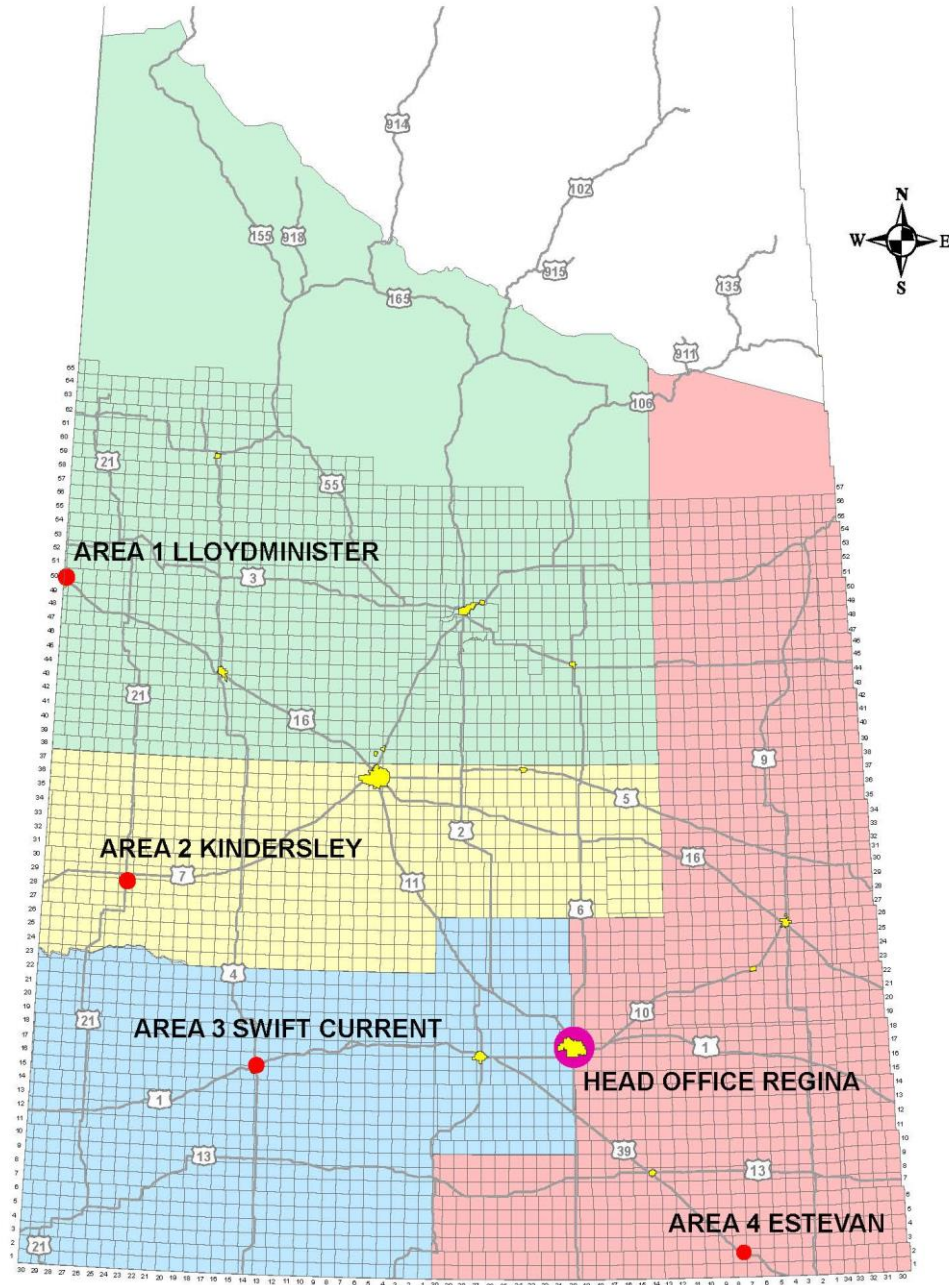
Type	Incident	Substance	Location	Description
General Field Operations	Fire	All	All	Any fires resulting from the operation of a licensed well, facility, pipeline or flowline.
	Release or Spill	Naturally Occurring Radioactive Materials (NORM)	All	Any volumes
		Oil by-products or oily produced sands	All	Any volume released that is not approved under GL97-02 <sup>1</sup>
	Blow-out	All	All	Any uncontrolled release of gases or fluid from a well
	Kicks	All	All	Any controlled diversion of gases or fluid from the well to a flare tank.
Pipeline or Flowline Operation	Contact Damage	All	All	Any contact damage to a flowline or pipeline
	Break	All	All	Any break to a flowline or pipeline
	Leak, malfunction of any equipment or a worker error resulting in the escape or release of a substance	Oil, salt water, condensate or other product	Off Lease	Any volume
			On Lease	All releases that are > 2.0 cubic meters (m <sup>3</sup> ) of fluid.
		Gas Containing Hydrogen Sulfide (H <sub>2</sub> S)	All	Any volume at any concentration.
		Natural Gas	All	Any volumes where: <ol style="list-style-type: none"> <li>1. the released volume exceeds 30 000 m<sup>3</sup>;</li> <li>2. the release is within a road or railway right-of-way; or</li> <li>3. the release is within 150 metres of any dwelling.</li> </ol>

Type	Incident	Substance	Location	Description
Horizontal Directional Drilling (Pipeline/Flowline Installation)	Release, Spill or Frac-Out	Drilling Fluid	All	Any volume
Drilling or Fracturing Operation	Release or Spill	Drilling wastes	All	Any volume released that is not approved under GL99-01 <sup>2</sup>
		Fracturing Wastes	All	Any volume released that is not approved under GL2000-01 <sup>3</sup>
Well or Facility Operation	Break, leak, malfunction of any equipment or intentional or unintentional action resulting in an escape or release	Oil, salt water, condensate, oil and gas waste, emulsion or product	On-lease	All volumes $\geq 2.0 \text{ m}^3$ or 2000 liters requires reporting but only volumes $\geq 10.0 \text{ m}^3$ or 10000 liters require notification
			Off-lease	Any volume
		Refined Chemical	On-lease	All volumes $\geq 0.5 \text{ m}^3$ or 500 liters
	Escape or Release	Gas Containing H <sub>2</sub> S	All	Any volumes where: <ol style="list-style-type: none"> <li>1. The concentration of H<sub>2</sub>S exceeds 0.1 % or 1000 ppm or 1.0 mole H<sub>2</sub>S/kilomole from solids, liquids or gas during production or transportation (truck or transmission via pipeline/flowline); or</li> <li>2. The released volume poses a danger to human health, domestic animals, wildlife or the environment.</li> </ol>

Note: Please refer to the following guidelines for reference in Appendix 1.

1. GL 97-02. *Guideline for the Application of Oily Byproducts to Municipal Roads in Saskatchewan* <http://www.publications.gov.sk.ca/details.cfm?p=75542>
2. GL 99-01. *Saskatchewan Drilling Waste Management Guideline* <http://www.publications.gov.sk.ca/details.cfm?p=75536>
3. GL 2000-01. *Saskatchewan Hydraulic Fracturing Fluids and Propping Agents Containment and Disposal Guidelines* <http://www.publications.gov.sk.ca/details.cfm?p=76209>

Appendix 2: Field Office Location and Areas



Appendix 3: Incident Reporting Flow Chart

