



The Sundre Petroleum Operators Group (SPOG) is an organization consisting of 20 industry members and 14 Community representatives in the Sundre/Caroline area. SPOG covers 600 square miles with the North boundary Hwy 54, East Hwy 766, South Hwy 582 and West Range 8. Since 2000, SPOG has been conducting a landowner/resident visit program on behalf of SPOG member companies. The goal of the joint visit program is to minimize resident disruption when companies are fulfilling their Alberta Energy Regulator (AER) requirements.

What YOU and YOUR FAMILY need to know in an Emergency:

- If you suspect you smell hydrogen sulfide (H₂S) (a pungent rotten egg smell), shelter-in-place by going inside, closing all doors and windows, turning down the furnace thermostat immediately or all air conditioning. For more information on Shelter-In-Place, please refer to page 4 of this pamphlet.
- **Call the SPOG 24hr Emergency # 1-800-567-0818** to report H₂S odours or unusual activity. (vapours, spills, noises etc.)
- Monitor the radio or television for explanation and instructions. You may also receive a call from the SPOG call centre, the licensee responsible for the H₂S odour, the local authority, or the AER providing further information.
- Before you consider leaving the area, contact the SPOG emergency number, the licensee representative, the municipality, or the AER for evacuation instructions.
- If environmental monitoring indicates that the H₂S release may impact members of the public, an evacuation will be carried out under the direction of authorized emergency personnel.
- If you are directed to evacuate (see Evacuation on pg. 5 of this package), follow the instructions that will safely move you away from the H₂S source. You will also be provided with instructions to check in and register at a reception center that is located in a secure and safe area.
- Be familiar with industry facilities in your area.
- Should any **personal information change**, please notify SPOG immediately by email admin@spog.ab.ca or by phone @ 403-638-5117

SPOG 24hr Emergency Number

1-800-567-0818

EMERGENCY RESPONSE PLAN INFORMATION

Potential Identified Hazards

- Fire / Explosion
- Hydrogen Sulphide (H₂S) release
- Sulphur Dioxide (SO₂) formed when H₂S is burnt
- Automotive Accident
- Hazardous Material Spill

Recognizing an Emergency

- Smell - rotten egg, hydrocarbon, burnt match
- Sound - hissing noise, bang
- Sight - visual abnormalities (fire, explosions, spill, vapour cloud)
- Patches of dead plants or grass on pipeline right-of-ways
- Liquid or gas leaking from below ground, piping, tanks etc.
- Explosions or fire (not to be confused with routine or controlled flaring)

If You Suspect an Oil & Gas Emergency

- Call the SPOG 24 Hour Emergency Number 1-800-567-0818.
- Shelter in your home until safe evacuation route has been established.
- If you cannot shelter in a building, you will be requested to evacuate when a safe route is established based on weather conditions and information available.
- If you do not have shelter or a telephone, immediately move away from the area, travel upslope and upwind at right angles from the source.
- If you have shelter, but no telephone wait for an emergency response team to arrive and provide guidance.
- **Do not try to find or investigate the situation yourself; wait for a company representative to arrive.**

Emergency Pre-Planning

- It is important that you be familiar with the information provided and feel free to question our staff.
- Please advise us of any change to your family status (new person to the residence, change in health conditions, etc.) or alternate contacts.
- Be aware of oil & gas activities in your area.
- Keep this information easily accessible for quick reference.
- Discuss this information with other family members, friends, and guests and ensure they know what to do.

Emergency Procedure

- Upon receipt of complaint at the SPOG 24 hour emergency phone line, located in the Shell Canada Limited Caroline Gas Plant control room, Shell will begin the investigation immediately by notifying all companies with facilities within 4km of the complaint.
- If a problem is identified, the responsible company will activate their Emergency Response Plan. Other SPOG companies may support.
- Emergency Response Teams, the AER, local oil & gas companies, and other government agencies, will respond immediately to the public with the hazard zone.
- Public in the hazard zone will be notified to shelter (See Shelter-in-Place pg. 4) or evacuate (See Evacuation Procedures pg. 5) as required.
- Other public protection measures may include possible ignition of the source, air monitoring in the area, and notification of the public by whatever means appropriate i.e. Telephone, radio broadcast, helicopter, or in person.
- Company representatives and/or the RCMP will secure the area of the evacuated residents.
- If you are sheltering, it is very important to stay indoors until an Emergency Response Team representative has confirmed a safe evacuation route.
- In an evacuation you will be directed to proceed to an evacuation reception centre.
- Please report to the reception centre. You will be registered and any necessary arrangements and information will be provided at that time.

DO NOT PROCEED TO THE SITE OF THE EMERGENCY

Communication

- In an emergency, a company's first priority is public safety.
- Emergency response actions elevate with the escalation of an emergency. Emergency Management Alberta (EMA) and the Alberta Energy Regulator (AER) outline these actions in AER Directive 71: Emergency Preparedness and Response Requirements for the Petroleum Industry supported by the Upstream Petroleum Incident Support Plan. A company's response to these requirements are outlined in their specific Emergency Response Plans and include as an example:
 - Notification of public who have self-identified as "Specials Needs" within the potential hazard zone early in an emergency.
 - Further notification of residents within potential hazard zone by phone and/or in person, as appropriate to defined level of emergency.
- A company representative will inform the residents contacted of the current emergency status, along with precautions to be taken during the emergency.
- A communication plan will be established to inform other public and stakeholders as the situation warrants.
- After being alerted, do not use your telephone unless absolutely necessary.
- If the emergency impacts a larger area, companies may broadcast updated information on the Red Deer radio stations: 95.5 FM (CKGY), 98.9 FM (Z99), 105.5 FM (Big 105), 104.5 and Olds 96.5 CKFM.

Shelter-In-Place Instructions

Shelter-in-place is the practice of going or remaining indoors during a release as opposed to evacuating the area. It is recommended that you initially stay indoors (Shelter) until you receive instruction to evacuate. If you are advised to stay sheltered, do not leave your house or attempt to start any vehicle until a company representative advises you that it is safe to do so.

- ◆ Immediately gather everyone in doors and stay there.
- ◆ Close and lock all windows and outside doors.
 - If convenient , tape the gaps around the exterior door frames.
- ◆ Extinguish all indoor flames.
 - Wood burning stoves
 - Fireplaces
 - If possible close all flue dampers
 - Hot water tank pilot and burner
 - Furnace pilot and burner
 - Gas Stoves
- ◆ Turn off appliances or equipment that either:
 - Blow outside air into the building such as:
 - * Bathroom and kitchen fans
 - * Built-in vacuum systems
 - Draws in outside air such as:
 - * Fireplace
 - * Furnaces
 - * Clothes dryers
 - * Air Conditioners
 - * Fans for heat recovery ventilators or energy recovery ventilators (HRV/ERV)
- ◆ Turn down thermostats by at least 5 degrees Celsius to minimize on-time of furnaces and leave open all inside doors.
- ◆ Avoid using the telephone, except for emergencies, so you can be contacted by company emergency response personnel.
- ◆ **Call the Company emergency number that you have been provided:**
 - If you are experiencing symptoms or smelling odours (so that we can address your concerns and adjust our response priorities)
 - If you have contacted fire, police or ambulance (so that we can coordinate our response) or if you are unable to follow these instructions please notify the Company's emergency response personnel.
- ◆ Stay tuned to local radio and television for possible dates
- ◆ Even if you see people outside do not leave until told to do so.
- ◆ After the hazardous substance has passed through the area you will receive an "all clear" message. You may also receive, if required, instructions to:
 - Ventilate your buildings by opening all windows and doors: turning on fans and turning up thermostats.

EVACUATION INSTRUCTIONS

- ◆ Should emergency response personnel contact you and recommend evacuation from your residence or place of business, please do so immediately.
- ◆ Although you may not appear to be in any immediate danger, a shift in wind direction or increased concentration of gas could change the situation.
- ◆ If there is no answer to our telephone calls, we will dispatch personnel to your residence or place of business to verify if you are at home and inform you of the situation.
- ◆ If you have no means of transportation, we will dispatch a vehicle to assist you.
- ◆ If evacuation procedures are implemented, a Reception Center will be established and you will be advised of the location
- ◆ Please proceed to the Reception Center by the designated route, if you choose to go elsewhere, please indicate this to the person contacting you.

Things to do when evacuating:

- ◆ Only evacuate if you have been instructed to do so.
- ◆ Follow the instructions provided by the company representatives.
- ◆ Vacate the building when advised-ignoring an evacuation warning may jeopardize your safety.
- ◆ Lock the building if possible.
- ◆ Notify a family contact about your location.

Things to do when you are in your vehicle:

- ◆ Close all windows and air vents.
- ◆ Shut off the heater or air conditioner so that they are not bringing outside air to the interior of the car.

Hydrogen Sulfide (H2S) Characteristics and Effects

| PPM | EFFECTS OF H2S |
|-----------|--|
| 0.02-0.03 | Odour threshold |
| 1 | Odour may cause stress or health symptoms in individuals as having special needs. Nausea, tearing of the eyes, or headaches. VOLUNTARY EVACUATIONS OF SENSITIVE INDIVIDUALS OR ANYONE EXPERIENCING DIFFICULTIES. |
| 10 | Personal protective equipment required. |
| 20 | Can cause eye and lung irritation, loss of appetite, mandatory evacuation for public |
| 50 | May cause eye damage after several days of exposure, may cause digestive upset. |
| 100 | Deadens the sense of smell in 3-15 minutes, slight eye and lung irritation |
| 200 | Rapidly deadens sense of smell, burns eyes and throat |
| 500 | Destroys sense of reasoning and balance, respiratory malfunction in 2-15 minutes, need artificial resuscitation |
| 700 | Leads to rapid loss of consciousness, breathing stops, requires immediate artificial respiration |
| 1000 | Immediate loss of consciousness, chances of recovery are very poor |

Characteristics of H2S (Sour Gas)

- ◆ Colourless & flammable - forms SO₂ when burned.
- ◆ Heavier than air - collects in low-lying areas.
- ◆ Found in decaying organic matter - bogs, sewers, silos, natural gas and oil.
- ◆ Odour of rotten eggs and extremely toxic
- ◆ Low concentrations - irritates eyes, nose, throat, and lungs. It may cause headaches, nausea and fluid on the lungs.
- ◆ High concentrations - causes paralysis of respiratory tract, suffocation and death can occur.

Sulfur Dioxide (SO₂) Characteristics and Effects

| PPM | EFFECTS OF SO ₂ |
|-----------------------------------|---|
| 0.3 / 24 hrs 0.3 - 1.0 / 3 hrs | VOLUNTARY EVACUATION OF SENSITIVE INDIVIDUALS OR ANYONE EXPERIENCING DIFFICULTIES |
| 2 | 8 hour occupational exposure limit |
| 3-5 | Odour threshold - MUST EVACUATE EPZ IF LEVEL PERSISTS FOR 15 MINUTES |
| 5 | 15 - minute occupational exposure limit |
| 8-12 | Throat irritation, coughing, constriction in the chest, tearing and smarting of the eyes |
| 6-50 | Exposure 5-15 minutes: increased irritation of the eyes, throat, choking, coughing, and in some cases, wheezing as a sign of narrowing of the airways |
| 50-100 | Short term endurance lost due to severe eye irritation and because of the effects on the membranes of the nose, throat and lungs |
| 1000-2000 | Immediate feeling of suffocation, may be fatal with continued exposure |

Characteristics of SO₂

- ◆ Colourless & non-flammable - formed when H₂S is burned.
- ◆ Odour - smells like a match as it is ignited.
- ◆ Highly irritating - dissolves in water to form sulfuric acid.
- ◆ Low concentrations - irritates eyes, nose, throat and lungs.
- ◆ High concentrations - causes fluid in the lungs may be fatal.
- ◆ Effects on heavy smokers are more severe.

DEFINITIONS

Sundre Petroleum Operators Group (SPOG)

A non-profit organization. SPOG has Working Groups dealing with Emergency Response, Environment and Community Affairs issues. Community representatives and public members sit on various sub-committees to ensure that information is shared and problems are addressed. The SPOG office is located in Sundre just east of the Old Hotel. Phone: 403-638-5117. www.spog.ab.ca

Parkland Air shed Management Zone (PAMZ):

PAMZ exists under the umbrella of Alberta Environment's Clean Air Strategic Alliance. PAMZ's mission is to look at the emissions in the parkland area of Alberta as a total air shed, addressing the issue of cumulative impacts of air emissions. Air data collected is reviewed by multi-stakeholder board and information shared with the public. www.pamz.org

Emergency Response Plan (ERP):

Is a predetermined procedure and plan adopted by the company to protect the public, employees, and environment in the event that an emergency may occur.

Emergency Planning Zone (EPZ):

Is the predefined area surrounding a potential source of gas from which that public may be evacuated or shelter if there is a release.

Awareness Planning Zone (APZ):

Is the predefined area surrounding the emergency planning zone in which the public is notified if there is a release within the (EPZ).

Emergency Planning Zone Calculation:

Is the volume of H₂S released from a section of line or wellhead in cubic meter per second applied to a AER release chart. This indicates how large the EPZ will be around the effected area.

Alberta Energy Regulator (AER):

Is the Government agency, whose mandate is to guide, regulate, monitor and discipline the oil and gas industry within Alberta.
General Inquires: 1-855-297-8311, Emergency: 1-800-222-6514.

Parts per Million/PPM:

1 ppm = 1 part gas in 1,000,000 parts air. 10,000 ppm = 10,000 parts gas in 1,000,000 part air (10,000 ppm = 1%). One in a million i.e. One family out of Alberta's population; 30 seconds in one year; or 1 eyedropper of water in a bathtub.

Parts Per Billion/PPB:

One in a billion i.e. One family out of the earth's population; 5 years in the life of the Earth; or 2 seconds in a lifetime.

Mandatory Evacuation:

If H₂S or SO₂ concentrations reach a predefined level you must evacuate the area for your own safety.

PERSONAL INFORMATION

WHAT IS PERSONAL INFORMATION?

Personal information means information about an identified individual.

WHAT PERSONAL INFORMATION DO WE COLLECT?

We collect and maintain information needed in the event of an emergency. This includes but is not limited to;

- ◆ The legal and description of the property, the people who live there, telephone numbers, email addresses, what structures are on the property, and if you live there full time.
- ◆ In the event of an emergency we need to know if there are school age children, infants, persons with special needs who may require specialized assistance, livestock and/or pets.

WHY DO WE COLLECT, USE AND DISCLOSE PERSONAL INFORMATION?

Personal information is gathered for the purpose of public safety, emergency response and communication by SPOG, including industry notifications. Your personal information will be accessed by SPOG and participating SPOG member companies who require the information for their emergency response data and to notify residents of upcoming Oil and Gas related initiatives. The information will be released in an emergency situation to companies directly involved to protect public safety. *Confidential and Notification*

HOW IS YOUR PERSONAL INFORMATION PROTECTED?

We endeavor to maintain safeguards that are appropriate to the sensitivity of the personal information in question. These safeguards are designed to prevent your personal information from loss and unauthorized access.

UPDATING YOUR PERSONAL INFORMATION

Because this information is used in case of an emergency it is imperative that the information contained in our records is current and accurate. **Should any of your personal information change please notify SPOG by email (admin@spog.ab.ca) or by phone (403-638-5117).**

