Potential Health Effects from HVP Products Exposure

SKIN	Irritation of skin may occur and progress to dermatitis. One component, benzene, may be absorbed through the skin.
EYES	Irritation of eyes may occur.
BREATHING	Breathing mists or vapours may cause accumulation in the lungs and/or central nervous system depression, dizziness, headaches, giddiness, drowsiness, fatigue, nausea, unconsciousness or death.
SWALLOWING	Swallowing mists or vapours may cause accumulation in the lungs and/or central nervous system depression, dizziness, headaches, giddiness, drowsiness, fatigue, nausea, unconsciousness or death.
LONG-TERM HAZARDS	Defatting and drying of skin may occur and cause dermatitis. Inhalation of one component, benzene, has been associated with blood disorders including anemia and leukemia. Repeated exposure to high vapour concentrations may cause eye and respiratory irritation, giddiness, staggered gait, nausea, abdominal pain, loss of appetite, liver damage, kidney damage, and damage to the bone marrow including cancer.
CARCINOGENICITY	Benzene is listed with IARC, NTP, ACGIH or OSHA as a carcinogen.

Potential Health Effects from LVP Products Exposure

SKIN	This product is a moderate skin irritant and repeated or prolonged contact may defat the skin.
EYES	This product is a moderate eye irritant and could cause (days) impairment to your vision.
BREATHING	Potential effects target the Central Nervous System, liver and kidneys. The benzene component is a known human carcinogen that may result in aplastic anemia and leukemia. Symptoms may include coughing, itchy throat, dizziness and drowsiness.
SWALLOWING	If ingested, abdominal cramping, vomiting and diarrhea may occur. Aspiration of liquid into the lungs may cause chemical pneumonia, severe lung damage.
CHRONIC EFFECTS	Potential chronic effects include peripheral neuropathy and blurred vision. Chronic exposure has resulted in aplastic anemia, acute myoblastic leukemia, bone marrow depression, corneal vacuolization erythroleukemia, and even death.
CARCINOGENICITY	Known Carcinogen NTP, Known Human Carcinogen IARC Group 1 proven and Confirmed Human Carcinogen ACGIH A1. Ethylbenzene is classified as a Possible Carcinogen IARC 2B.

Response Consideration

Environment, Health & Safety

Plains adheres to the highest environmental and safety standards throughout our organization. We provide a workplace that protects the health and safety of our employees, contractors and the communities surrounding our facilities.

Plains' operations are subject to stringent federal, provincial and local laws and regulations governing the discharge of materials into the environment or otherwise related to protecting the environment.

Our Environment, Health and Safety (EH&S) Management Programs are at the core of our operations. These programs include management commitment and leadership, employee training and awareness, inspections and audits, performance and achievement recognition, emergency preparedness and response, communications and continuous improvement.

Notification

If you are contacted by Plains Midstream Canada to advise you of an emergency situation, the caller will:

- Identify themselves by name.
- Announce that they are a Plains Midstream Canada representative.
- Describe the problem and what is being done.
- Give you instructions to protect your safety (shelter / evacuation).
- Verify the information you have provided.
- Address any concerns which you may have.
- Provide a telephone number which you can call to get additional information.

Emergency Contacts

If you suspect a problem at a Plains facility in your area, please call Plains Midstream Canada's 24-hour Emergency Response number:

1-866-875-2554

In the event of an emergency, Plains will be working with the TSB, CER, and local authorities.

Transportation Safety Board of Canada (TSB)

24 Hour Pipeline Emergencies Only 819-997-7887

Canada Energy Regulator (CER)

First call should be to the TSB (see above)

24 Hour Non-Pipeline Emergencies 403-299-2773

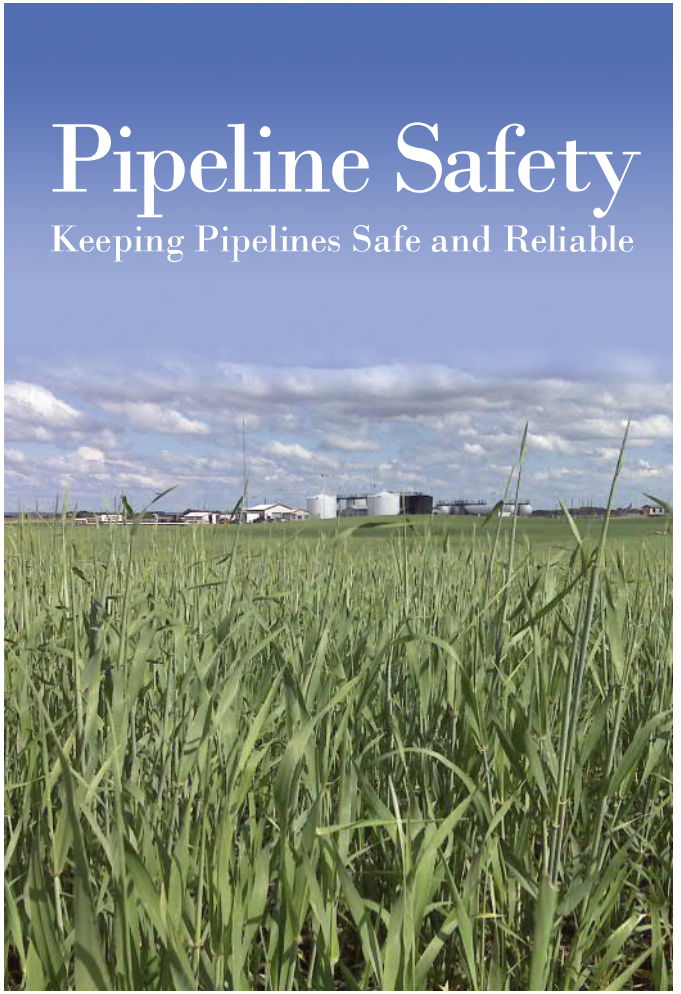
Local Authorities

Cardston County 403-653-4977

AMBULANCE/POLICE/FIRE 9-1-1

Pipeline Safety

Keeping Pipelines Safe and Reliable



Public Awareness Information for landowners and area residents related to Plains Midstream Canada's Aurora Pipelines.

- Emergency notification
- Public protection measures
- Pipeline safety: Call or Click Before You Dig

JUNE 2022

PLAINS MIDSTREAM CANADA

Our Operations in your Area

Plains Midstream Canada ULC (Plains) is the operator of the Aurora pipeline systems. The Aurora pipelines are licensed as High Vapour Pressure (HVP) and forms part of Plains Midstream Canada's Alberta pipeline network. The maximum Emergency Planning Zone (EPZ) is 1.1 km for the Aurora pipeline system. The Aurora Pipeline is essentially part of the Rangeland Pipeline system that is owned and operated by Plains Midstream Canada and forms the connecting link between the Rangeland system and Phillips 66's pipeline in the United States. The facilities consist of pipelines and block valve site.

High Vapour Pressure (HVP) Products

HVP products include propane, butane, pentane, and Natural Gas Liquids (NGLs). At atmospheric pressure, HVP products are gases. Under pressure, HVP products exist in a liquid state. In humid air, a leak of an HVP product may form a visible white cloud of cold vapour considerably heavier than air. Under extreme conditions, pools of super-cooled liquid may briefly form. When HVP products vapourize, they expand (70 to 300 times) and can form a plume, which may drift downwind from the source under moderate wind speed conditions. Under higher wind speed conditions, the vapour would dissipate faster.

Main Hazards:

- Potential explosion hazards from delaying ignition of drifting vapour cloud.
- Fire hazard from burning gas and radiant heat.
- Critical hazard because of oxygen deficiency as expanding gas cloud or plume displaces air at ground level.

Low Vapour Pressure (LVP) Products

LVP products are generally limited to hydrocarbon condensate which remains in a liquid state at atmospheric pressure. LVPs are heavier than air and collect in low places or depressions in the ground. LVPs are clear, pale golden flammable liquids with an odour similar to gasoline.

Main Hazards:

- Fire hazard and intense heat if condensate is ignited.
- Potential explosion hazards if condensate vapours seep into enclosed areas.
- Contamination of soil and water.
- Products can flow under snow or ice, making the actual spill area larger than it appears.
- Breathing mists or vapours may cause accumulation in lungs and/or central nervous system resulting in dizziness, headaches, depression, giddiness, drowsiness, fatigue, nausea, unconsciousness or death.

If You Suspect a Problem

Please call Plains Midstream Canada's 24-hour emergency number if you suspect a problem (1-866-875-2554).
While the chance of an uncontrolled spill or problem is remote, the Plains Emergency Response Plan (ERP) for this area is in place to ensure your safety. If a leak should occur, emergency crews will take immediate steps to minimize the risk to the public and environment. Additional emergency response personnel will be notified and dispatched to the area to safely manage the emergency.

UTILITY SAFETY PARTNERS

ALBERTA
Utility Safety Partners
(Click Before You Dig)
Call Toll Free: 1-800-242-3447
https://utilitysafety.ca/

Plains Midstream Canada's
24-hour emergency number
1-866-875-2554

Public Protection Measures
Evacuation, Shelter & Ignition Procedures

Evacuation Procedures

If it is necessary to evacuate, you will be contacted by telephone immediately. If there is no answer to our calls, we will proceed to your residence to inform you of the situation. The following steps should be taken if "Evacuation" procedures have been implemented:

- Gather all residents and bring any medicines required.
- Lock all windows and doors.
- Turn down thermostat and shut off any air exchange fans to outside.
- Drive safely on the route provided and proceed directly to the evacuation centre and check in with the representative.
- Wait for further instruction.

Shelter-in-Place Procedures

If you are advised to stay sheltered, do not leave your house or attempt to start any vehicles until a Plains representative advises you that it is safe to do so. The following steps should be taken if "Shelter-In-Place" procedures have been implemented:

- Immediately gather everyone indoors and stay there.
- Tightly close and lock all windows and outside doors, if convenient, tape any gaps around exterior door frames.
- Extinguish indoor wood-burning fires and close flue dampers if possible.
- Turn off appliances or equipment that either blows out or uses indoor air, such as:
  - furnaces
  - built-in vacuum systems
  - gas stoves
  - kitchen fans
  - clothes dryers
  - air conditioning
  - bathroom fans
  - gas fireplaces
  - ventilators
- Turn off appliances or equipment that suck in outdoor air, such as
  - Heating, ventilation, and air conditioning (HVAC) systems
  - Fans for heat recovery ventilators or energy recovery ventilators
  - Turn down furnace thermostats to the minimum setting, turn off air conditioners
- Leave all inside doors open.
- Wait in an interior room upstairs for further instruction.
- Avoid using the telephone, except for emergencies, so that you can be contacted by Plains emergency response personnel.
- Call Plains if you are experiencing symptoms, smelling odours or have contacted government agencies (so the response can be coordinated).
- Stay tuned to local radio and television for possible information updates.
- Even if you see people outside, do not leave until told to do so.
- If you are unable to follow these instructions, please notify Plains emergency response personnel.

After the hazardous substance has passed through the area you will receive an "all-clear" message from Plains emergency response personnel. You may also receive, if required, instructions to ventilate your building by:

- opening all windows and doors
- turning on fans
- turning up thermostats

During this time the air outside may be fresher and you may choose to leave your building while ventilating. Once the building is completely ventilated, return all equipment to normal settings and operation.

Ignition Procedures

If it is determined that ignition is required, the Incident Commander is fully authorized to ignite the release at the pipeline, facility or terminal. Ignition of the gas source would ensure your safety if evacuation was not practical.

Rge 26 W4M

Rge 26 W4M

Twp 1

Twp 1

RANGELAND 1100m EPZ

BOUNDARY CREEK

AER FIELD OPERATIONS- SOUTH

ALBERTA HEALTH SERVICES - Z1 SOUTH

CARDSTON COUNTY

RCMP - CARDSTON

WCSS COOP 2

PMC IS RESPONSIBLE FOR EMERGENCY RESPONSE
NORTH OF THE CANADA/UNITED STATES BORDER

1100m EPZ

WMU 300
MOUNTAIN VIEW

WMU 108
MILK RIVER RIDGE

CANADA BORDER
SERVICES AGENCY (CBSA)
CARWAY BORDER CROSSING

CARWAY

BV 01-03

ALBERTA

UNITED STATES

US CUSTOMS AND BORDER
PATROL SERVICES
PIEGAN, MT BORDER CROSSING

US CUSTOMS AND BORDER
PATROL SERVICES
PIEGAN, MT HOUSING AREA

PHILLIPS 66 IS RESPONSIBLE FOR EMERGENCY RESPONSE
SOUTH OF THE CANADA/UNITED STATES BORDER

BLACKFEET
INDIAN RESERVATION

GLACIER COUNTY
MONTANA HIGHWAY PATROL

AURORA

AURORA PIPELINE SYSTEM

PLAINS MIDSTREAM CANADA

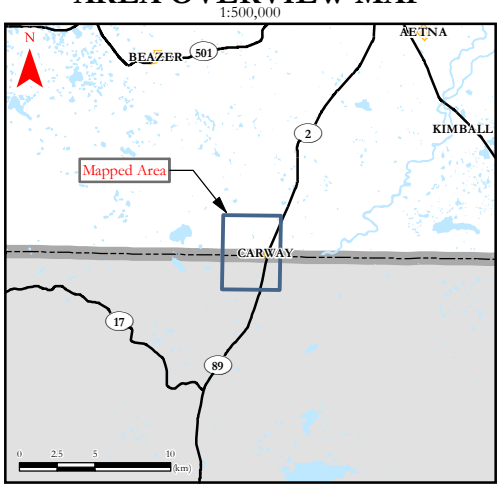
Draft Date: May 21, 2019 DS	Scale: 1:15,000	Map: 8782
Revision Date: June 29, 2022 GLG	UTM ZONE 12 NAD83	

0 0.5 1 (km)

MAP PRODUCED BY H2Safety h2safety.ca

AREA OVERVIEW MAP

1:500,000



- Third Party Facility
- HOV/MOV
- Manual
- Third Party Pipeline
- Oil Pipeline
- Discontinued Oil Pipeline
- Discontinued HVP Pipeline
- Main Hwy
- Railway
- Rail Crossing
- Surface Development
- Farm Use Area
- Locked Gate
- Hydrology
- Waterbody
- Urban Area
- AER Field Centre
- Health Authority
- Local Authority
- RCMP
- Wildlife Management Unit
- WCSS COOP
- Aurora Pipeline EPZ
- Other PMC System EPZ