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July 28, 2008

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Reference: 9483/3637

Ontario Energy Board
P.O. Box 2319, 26th Floor
2300 Yonge Street
Toronto, Ontario
M4P 1E4

Attention: Ms. Kirsten Walli, Board Secretary

Re: Application for Variance of Tipperary Gas Corp. Conditions of Approval EB-2008-0075

Dear Ms. Walli:

On July 2, 2008 the Board issued its Decision and Order (the "Order") with respect to the application by Union Gas Limited ("Union") and Tipperary Gas Corp. ("Tipperary") for an order to vary certain Conditions of Approval in the Board's order in EB-2007-0159.

The Order requires Union to comply with conditions 1.1.2.1 and 1.1.2.2 in the Conditions of Approval in EB-2007-0159 by way of preparation and filing of a Summary of the Operations and Maintenance Procedures and Emergency Response Plan which Union shall utilize as operator of the Pools. Please find attached a copy of the required Summary. Union will also be serving the Summary on the Ministry of Natural Resources, all the parties to the proceeding and the affected Landowners as required by the Order.

Yours Truly,

Sharon Wong

Sharon Wong

encl.

sw/maem

21764358.1

Application by Union Gas Limited and Tipperary Gas Corp. for an Order to vary certain conditions of Board's Order EB-2007-0159
Summary of Union Gas Limited's Operating and Maintenance Procedures and Emergency Response Plan
As it relates to the Tipperary North and South Storage Pools
EB-2008-0075

This Summary is being provided to you pursuant to an order of the Ontario Energy Board (the "Board") issued on July 2, 2008 (the "Order") to file a summary of its Operations and Maintenance Procedures and Emergency Response Plan with the Board, the Ministry of Natural Resources, all parties to the proceeding and with all landowners within the designated storage area of the Tipperary North and South Storage Pools (the "Pools")

1. Compliance with Codes and Regulations

Union currently operates 20 underground natural gas storage reservoirs in south-western Ontario. Operations are carried out in accordance with the applicable codes and regulations as well as industry established best practices. It is Union's over arching goal that its operations not only comply with applicable regulatory and code requirements but are carried out in such a manner that public safety and operational efficiency are paramount.

Union will be operating the storage facilities, pipelines and wells associated with the Pools in compliance with the Oil, Gas and Salt Resources Act and its regulations, the most recent versions of both, CSA Z341, Z662 codes and applicable regulations under the Technical Standards and Safety Act. These regulations and CSA codes are applied to both the construction of the storage facility and, maintenance activities performed on the facilities, to ensure safe operation. Union's Integrity Management Program will be implemented, for this project. The Pools have been constructed and will continue to be operated in compliance with all applicable codes and regulations.

2. Operation of Pool

The Pools and related facilities will be operated in a manner similar to the operation of Union's other 20 storage pools. This includes security measures for the physical facilities that form part of the storage operations. Monitoring programs for the pipelines, wells and compression facilities are carried out on a regular basis to ensure the facilities are compliant with the applicable CSA codes and operating in accordance with planned operations. Union's Supervisory Control and Data Acquisition (SCADA), which is the control systems program Union utilizes to monitor activities at its other storage facilities, will also be part of the operation of the Pools. This system will identify any operational issues with the Pool and allow Union to take appropriate action to respond.

3. Emergency Response

Union has in place an Emergency Response Plan for all of its storage operations. The Pools have been added to and integrated into that plan. This plan has two primary components: i) education and notification component that provides storage pool landowners and landowners adjacent to Union's pipeline system with information about Union's system, and ii) a response component that is activated in the event an emergency situation arises.

Union has started the notification/education component by meeting with landowners in the Pool and along the pipeline system to provide them with safety and emergency information regarding the Pool. Union has also met with First Responders, in the area, who are already familiar with natural gas pipelines, to review and explain that a storage pool has been added to Union's integrated system. A copy of the presentation provided to Pool storage landowners, landowners adjacent to the Pool and first responders is attached to the Summary as Appendix 1 (the "Emergency Presentation"). Pages 14 to 22 of the presentation outline Union's Emergency Response Plan which Union utilizes not only for the Pool but for all facilities either owned or operated by Union. The Emergency Response Plan is constantly reviewed and updated to account not only for changes in applicable codes and regulations but also to include changes resulting from mock emergency exercises and actual incidents.

Union's education and incident response planning ensures that if an incident occurs appropriate measures would be taken.

4. Specific Requirements of the Order

The Board's Order requires that this Summary includes responses to the following specific matters:

1. *A schematic of pressure and flow diagram, instrumentation and equipment. This includes leak detection, high/low pressure alarms and emergency shutdown systems.*

A schematic is attached as Appendix 2.

2. *Confirmation that procedures are available on site for the Operating and Maintenance personnel.*

A full set of operating and maintenance manuals and procedures for the compressor for the Pools are kept at the site in a locked control room and for security reasons they are available to Union employees only. Union staff will also be on site on a regular basis and as part of their regular protocol they inspect the site for leaks, spills or other situations that are not part of the normal operations of a storage pool.

3. *For this particular application, evidence was presented regarding the proposed increase in injection pressures to bring the pool to its new design pressure. The operation procedure and any changes to the procedure for this operation should remain public.*

As part of the facilities hearing, a Proposed Storage Schedule was prepared and filed with the OEB. The summary of significant pressure events for the Pool has been reviewed and updated and is attached as Appendix 3.

4. *Confirmation that the operation is operated and maintained by qualified personnel who have been trained in the operating and maintenance procedures. Also that procedures are reviewed and updated as per CSA Z341.*

All facilities are operated and maintained by qualified personnel that Union has trained in the operations and maintenance of the facility. In addition, Union's Storage Superintendents are Certified Examiners under the Ontario Oil, Gas and Salt Resources Act and have been trained in CSA Z341, H2S Alive and First Line Supervisors Blowout Prevention. As part of the Technical Standards Safety Act regulations, the Plant Registration certificate is posted at the compressor station, along with emergency contact information of the Chief Operating Engineer and alternates. Evidence of all other certification is kept at the Dawn Operations Centre, which is the hub of Union Storage and Transmission operation. Union will continue to review and update procedure to ensure compliance with CSA Z341.

5. *Given the information that Union Gas as the new operator now intends to operate the facility from a remote location, the Summary should include information with respect to what additional monitoring and enhanced security methods will be employed – e.g. fencing, remote video monitoring, security patrols, daily visit by operational personnel.*

Due to the remoteness of the site, Union has a number of systems and procedures in place to safeguard the facilities. Specifically;

a) Compressor Station: The site is fenced and the building is locked. The station will be visited by a Union employee each day that the unit is in operation. Remote telemetry monitors gas flow, temperature, and pressure in the system; this is done from the Dawn Operations Centre. Remote operation and control of the station includes emergency shutdown. The compressor station is monitored and controlled by a licensed operator as required by the Technical Standards Safety Act Regulations.

b) Storage Pools: Storage wells at both pools are fenced. Remote telemetry monitors gas flow, temperature, and pressure in the wells and pipelines. Remote operation and control of the wells is done from the Dawn Operations Centre. Locally there is measurement and control at the wells.

6. *The maintenance procedure regarding the frequency of well testing for mechanical integrity as per CSA Z341 and the frequency of pipeline inspection in accordance with CSA Z662.*

Union conducts "well testing for mechanical integrity" every five years as per CSA Z341.1. Union inspects the pipelines it operates in accordance with CSA Z662. Union follows its Standard Operation Practice #7200-05, which stipulates the requirements for leakage surveys, and its Construction and Maintenance Manual Specification 11.3, which provides

detailed instructions on completing leakage surveys and general line patrol. Further, Union has developed an Integrity Management Program to manage the integrity of its storage wells and pipelines. A summary of Union's Integrity Management Program is attached as Appendix 4.

7. *A plan to deal with situations such as spills, leaks, blowouts and injuries and the contact information for such emergencies. A procedure on who should be contacted and the contract information in the event of any emergency – both internal to Union as well as the local, municipal and provincial agencies should be developed.*

Union has a plan to deal with potential emergencies at the compressor station and storage pools. The plans are components of Union's overall Emergency Response Plan (the "ERP"), which has been revised to include the Pool. The ERP is available to Union personnel for security reasons and copies are controlled. The ERP has been discussed and reviewed with the landowners and area First Responders and will be continue to be reviewed with these groups with regularity on a go-forward basis. In addition to the Emergency Presentation, landowners were also provided with a booklet entitled "Safety and Emergency Information for Landowners", a copy of which is attached as Appendix 5. The booklet reviews emergency preparedness, actions a landowner should take in the event of a leak, a review of Union's Emergency Response Plan. Although the booklet refers to pipeline incidents Union has designed its Emergency Response Plan to be applicable to all incidents whether pipeline, gas storage or third party initiated incidents. A summary of the actions which will be taken by Union in the event of an incident is included in the booklet.

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Union Gas Limited Emergency Preparedness

Appendix 1

Agenda

- About Union Gas
- Operating System
- Safety, Prevention and Training
- Contingency Plans
- Emergency Response Plan
- District Information

About Union Gas

- **Major Canadian natural gas company established in 1911.**
- **An integrated storage, transmission and distribution company.**
- **Serves over 400 communities in northern, southwestern and eastern Ontario.**
- **Approximately 1.3 customers with $3.9 billion in assets.**
- **Provides storage and transportation services for other utilities and energy market participants.**

Our Principles

Union Gas, a Spectra Energy company, highly values the health and safety of our employees, customers and communities.

Protecting and responsibly managing natural resources are critical to the quality of life in the areas we serve, the environment and Union Gas's long-term business success.

Our Values

Stewardship:

- Union Gas demonstrates a commitment to environmental responsibility and vibrant communities.

Initiative:

- We strive to have the courage, creativity and discipline to lead change and shape the future.

Union Gas
Franchise Area and Facilities

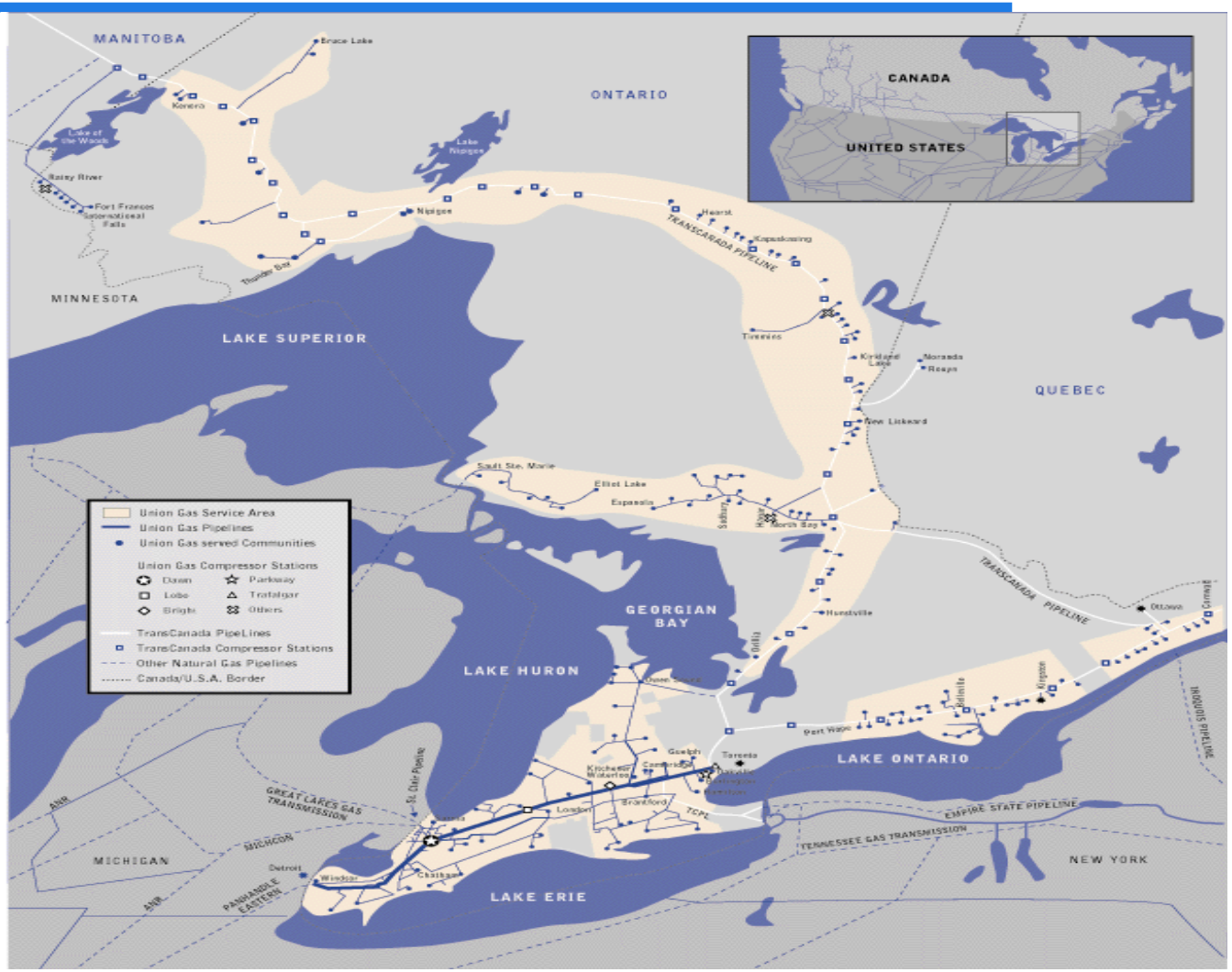
Total pipe –
34,800 km

Distribution pipe –
28,200 km

Throughput –
1.26 Tcf per year

Employees –
2200

www.uniongas.com



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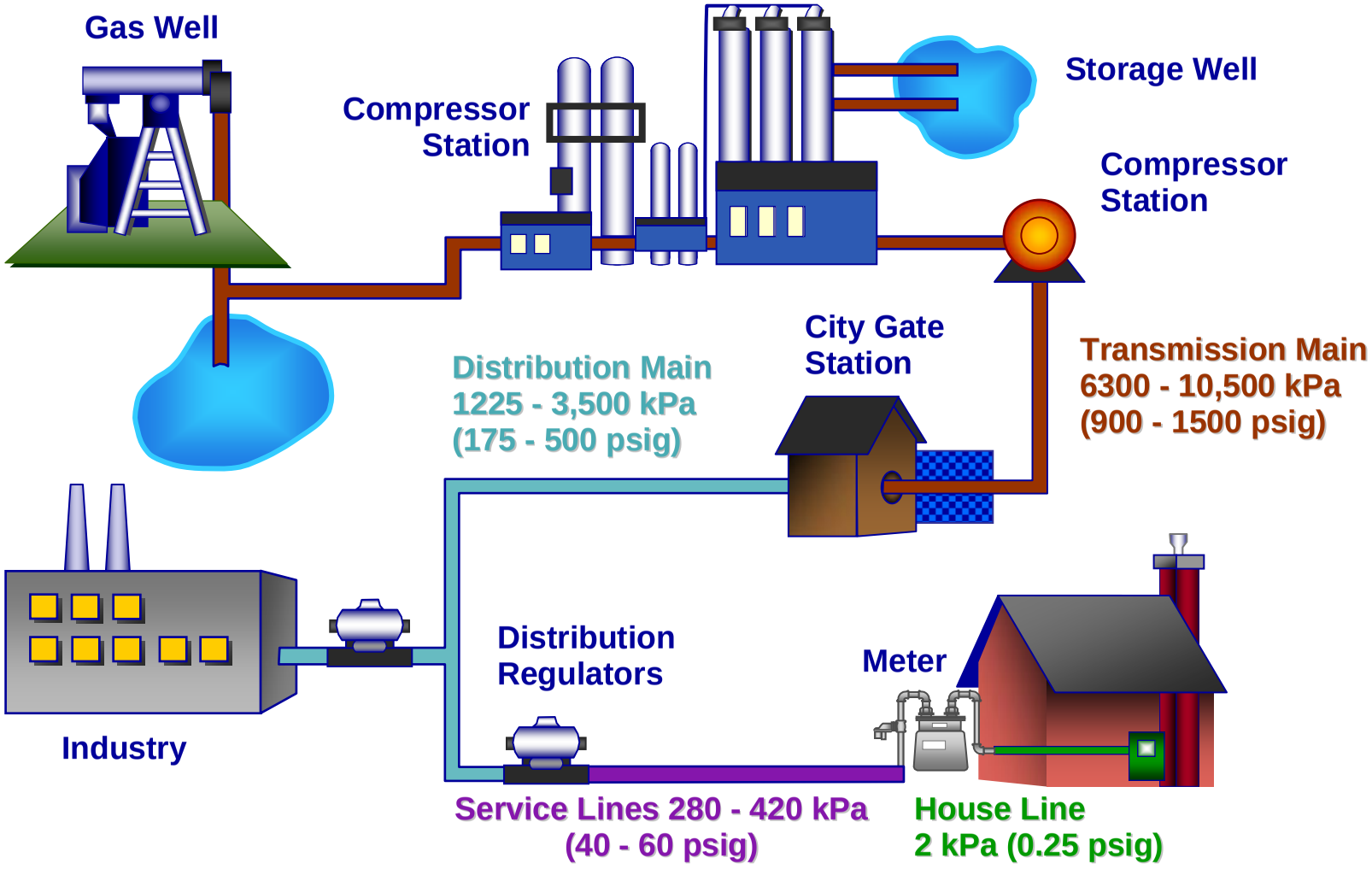
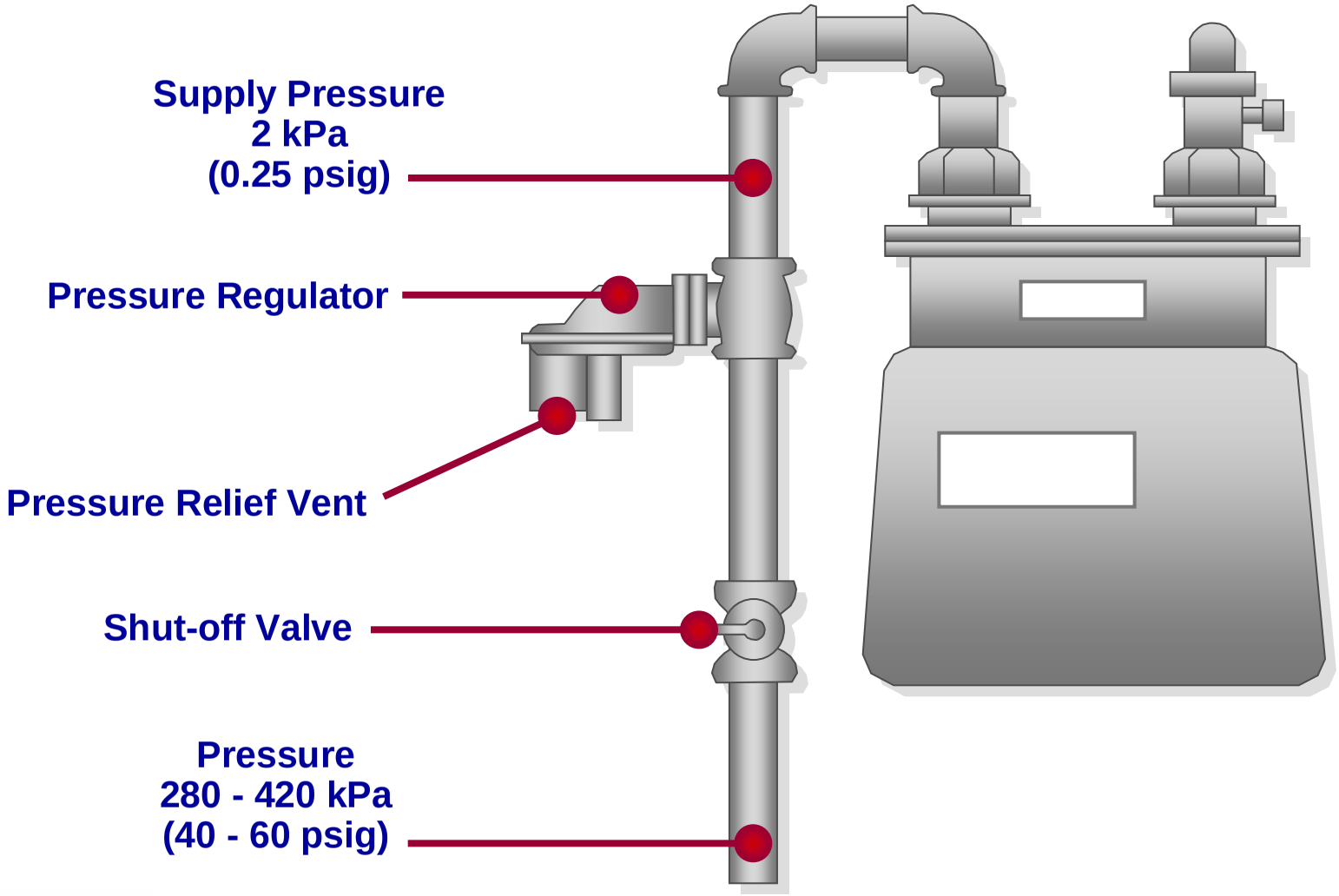
Natural Gas System



Residential Customer Station



System Safety Features

- 24-hour, fully staffed Emergency Call Handling and Dispatch Centres
- 24-hour fully staffed Gas Control Centre
- Pressure and flow transmitters strategically placed to monitor entire system
- Regular aircraft patrols of transmission pipeline systems

Emergency Prevention

Integrity Management System

Cathodic Protection Systems

Periodic Leak Surveys

Pipeline Markers

Extensive Training for all employees

Training Programs

Licenses:

- Gas Technician I, II and IMT
- Pipeline Inspector

Training:

- Safety Practices
- EH&S
- Leak Investigation – Inside and Outside
- Pipeline Installation & Repair
- Pipeline Locating
- Emergency Response
- Operations Management Training

Emergency Prevention

Members of Ontario Regional Common Ground Alliance (ORCGA)

- http://www.tssa.org/orcga/default.asp

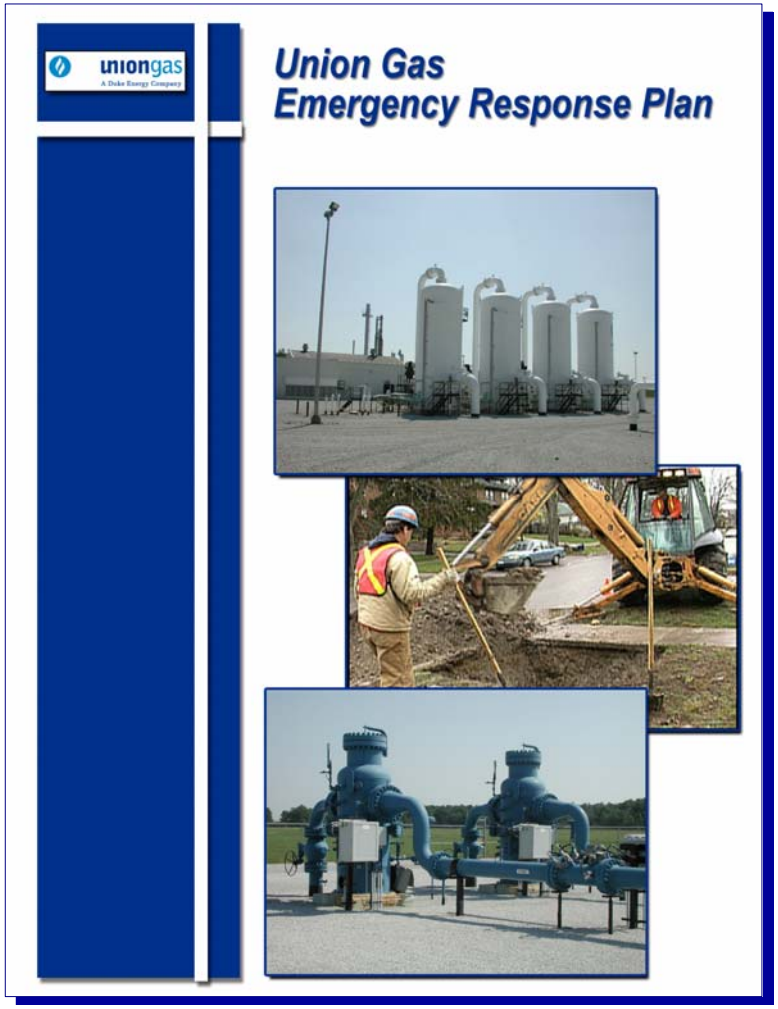
Members of Ontario One Call – "Call Before You Dig"

- 1-800-400-2255

Contingency Plans

- **Emergency Materials on hand**
- **Excavation & Repair Equipment**
- **Business Continuity Plans**
- **24-hour / 7-days a week stand-by rotation for Union Gas first responders**

Union Gas Emergency Response Plan



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Union Gas Emergency Response Plan

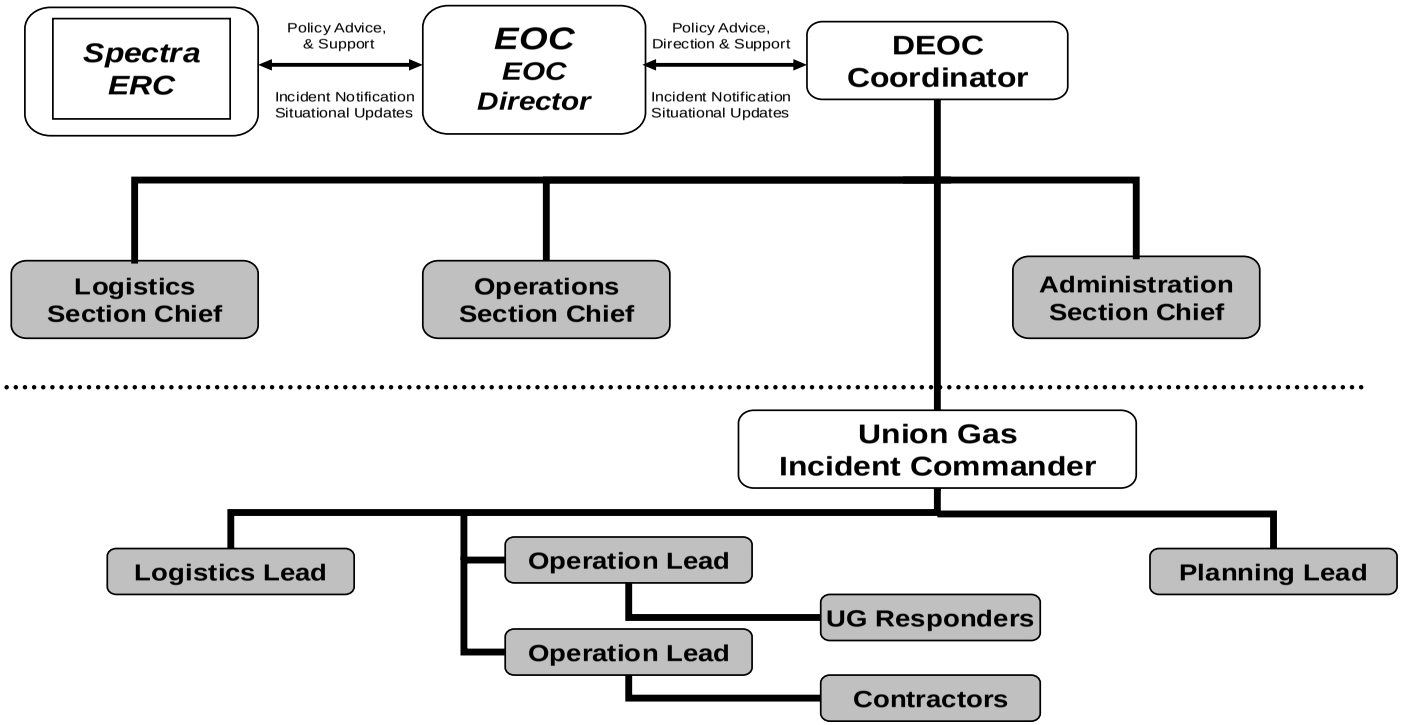
Union Gas utilizing a Company-wide Emergency Response Plan

Incorporated the Incident Command Structure

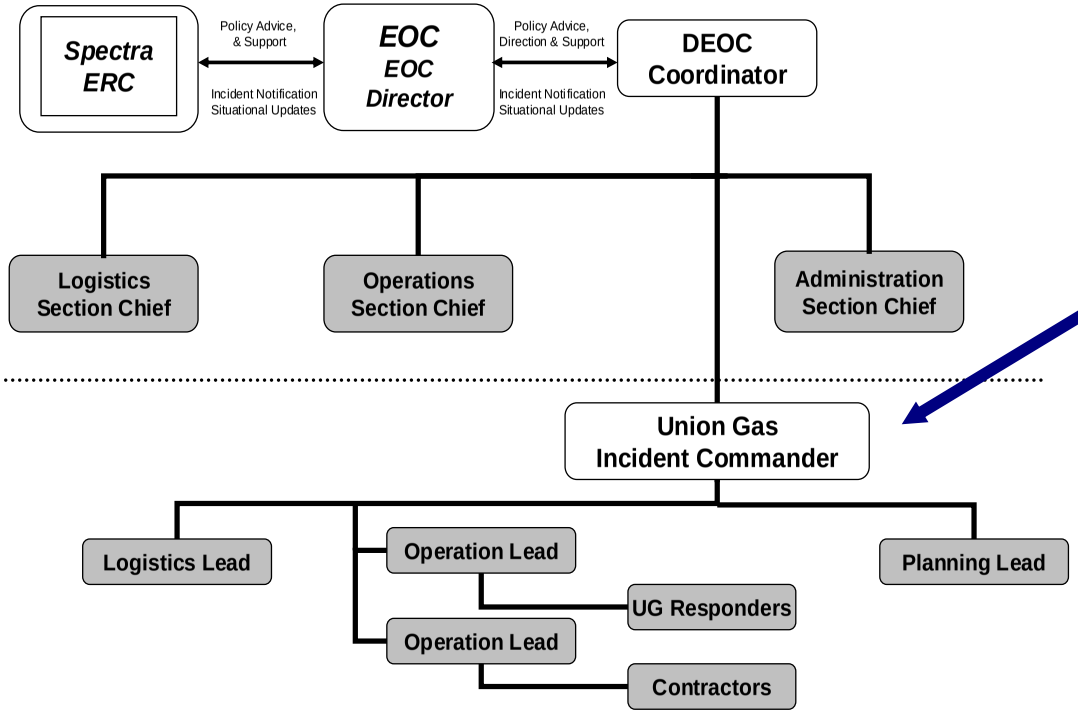
Plan includes:

- Periodical updates
- Training Programs
- Post Incident Reviews
- Mock Emergencies

Union Gas ERP Organization



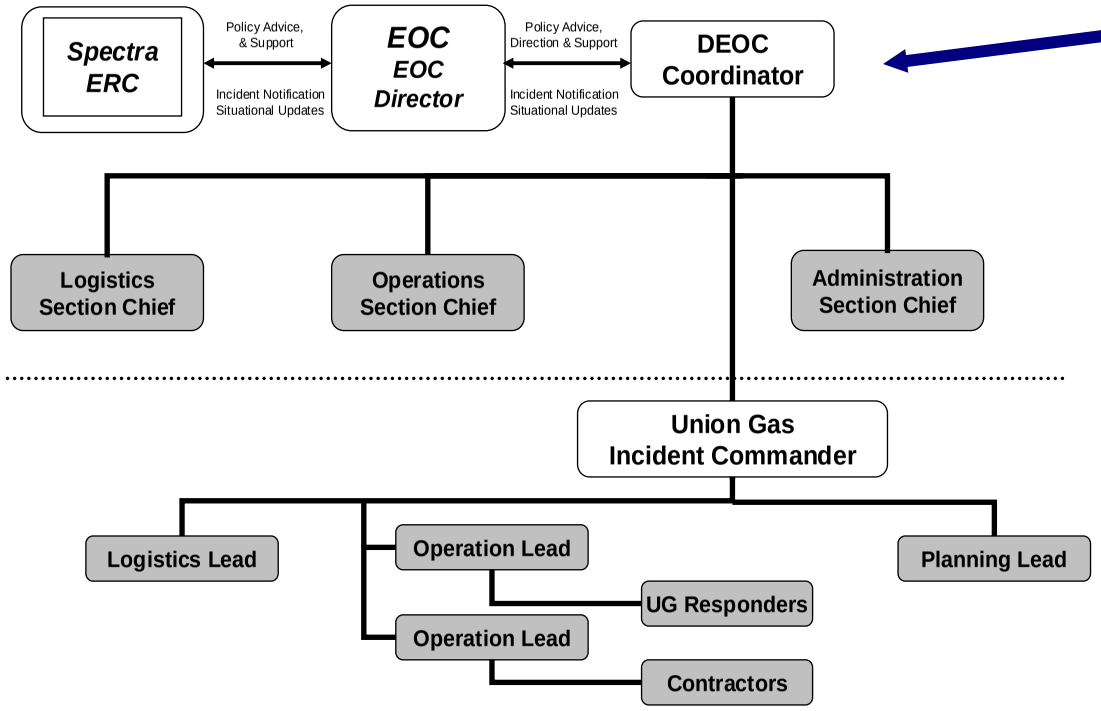
Union Gas ERP Organization



Union Gas Incident Commander and Team

- Located at or near incident site
- Provides on-site support to the response activities
- Works with Civic Services and First responders for coordinated response and information sharing

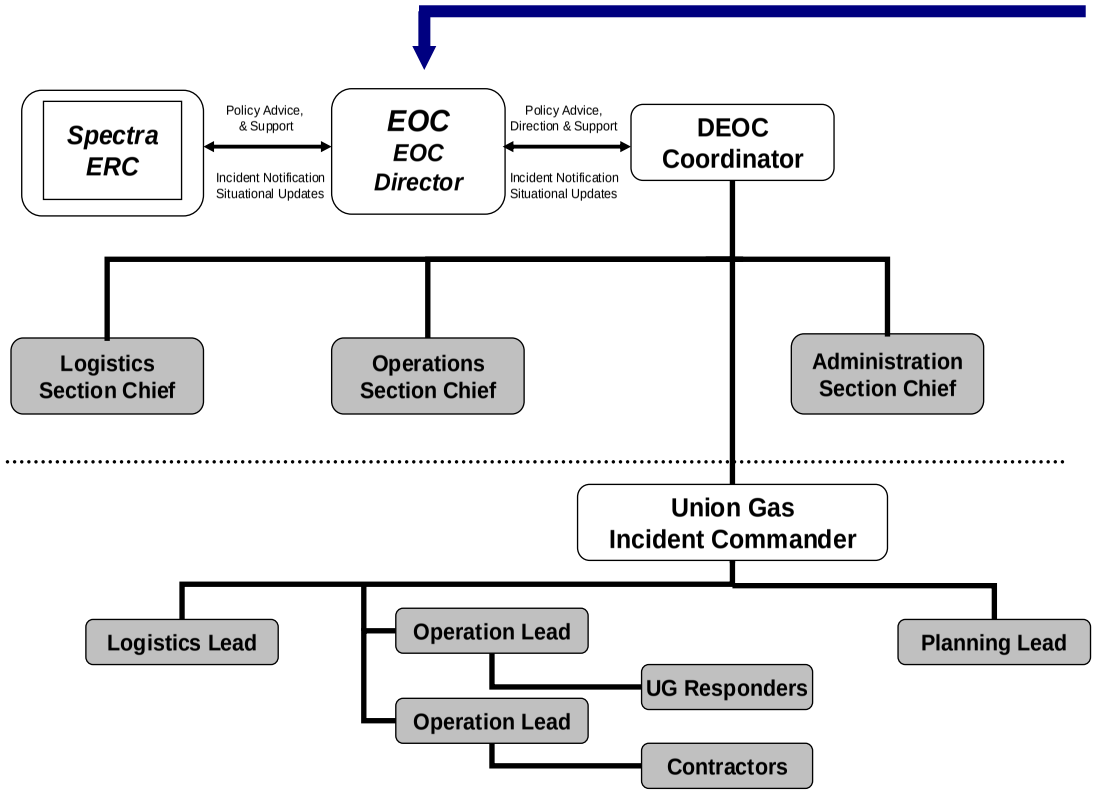
Union Gas ERP Organization



District Emergency Operations Centre Coordinator & Core Team

- Located at main district offices or alternate site
- Provides direct support to the UG ICP
- Maintains communications with local municipal officials and media
- Liaison with Head Office EOC

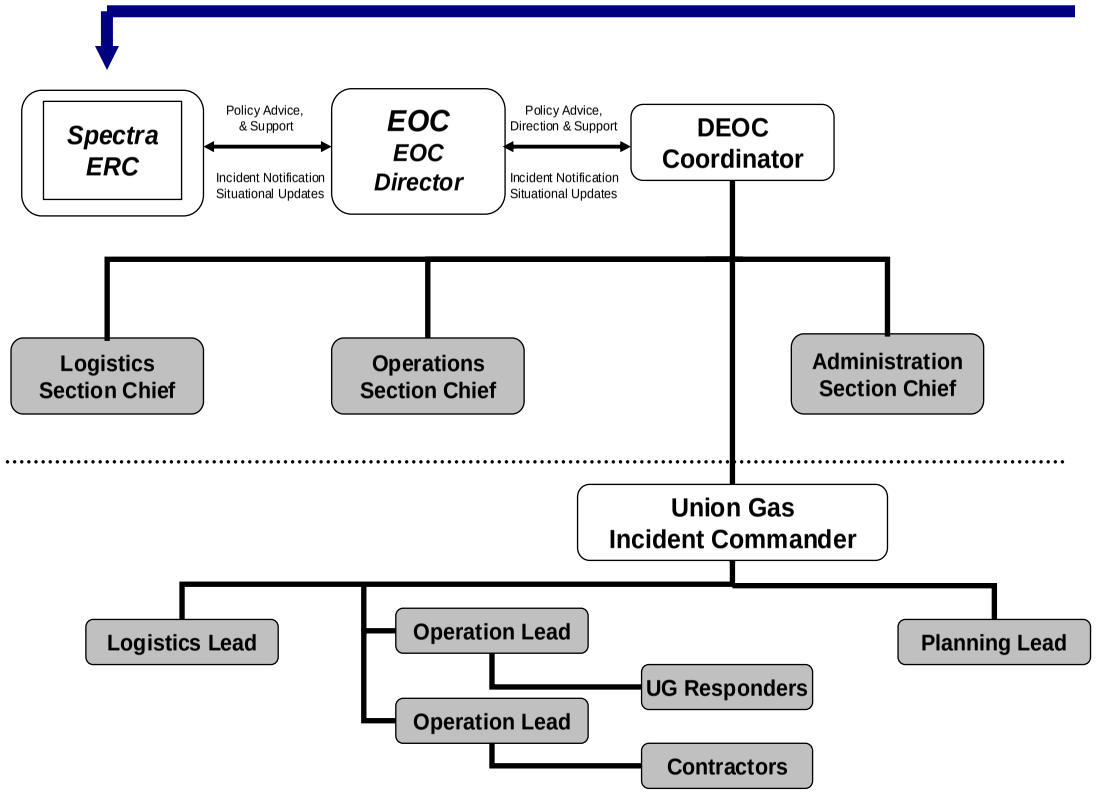
Union Gas ERP Organization



Emergency Operations Centre

- Located at Chatham Head Office or alternate site
- Provides senior decision making and support to District level emergency operations
- Serves in a liaison capacity with specific industry and government agencies who may be involved in the emergency

Union Gas ERP Organization



Emergency Response Centre

- Located in Houston, Texas
- Provides policy advice and support to Union Gas Crisis Leader
- Activated whenever the Union Gas EOC is fully activated

Emergency Response Plan Communication Policies

UG Incident Commander:

- On-site communications with first responders

UG District Emergency Operations Centre Coordinator:

- Local government officials, other local agencies and media

UG Emergency Operations Centre Communications Coordinator

- Federal/Provincial government officials and other agencies

Emergency Response Plan Readiness Levels

- Four internal Readiness Levels
- Range from ‘Normal’ day-to-day operations to ‘Full’ activation of the Union Gas Emergency Operations Centre
- Dependent on type and size of incident
- May be elevated or reduced as seen appropriate

Emergency Response Plan – Activation

Union Gas Emergency Line

24 hours a day, 365 days per year

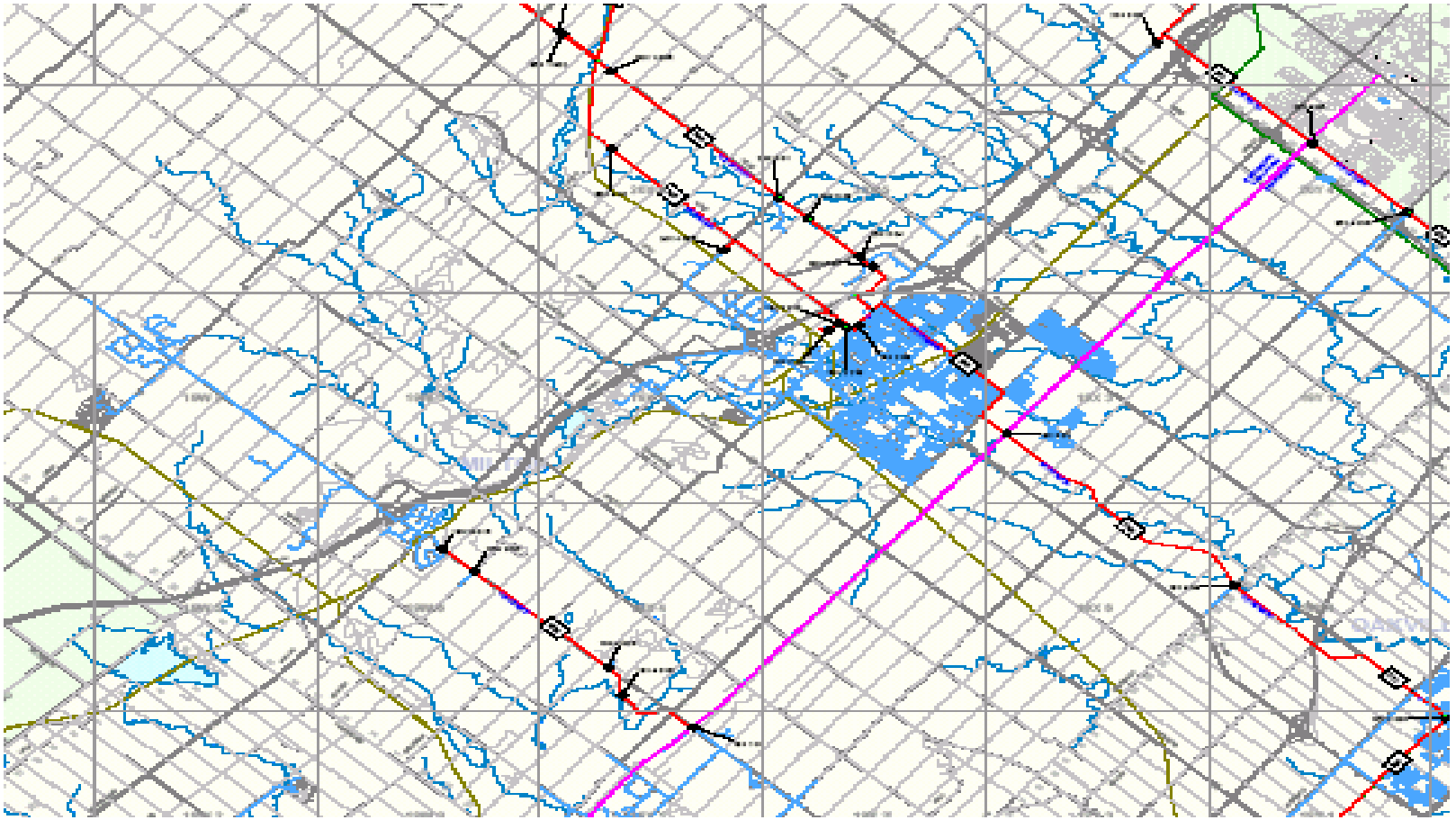
1-877-969-0999

Direct Line for Police & Fire Department:

1-877-215-6959

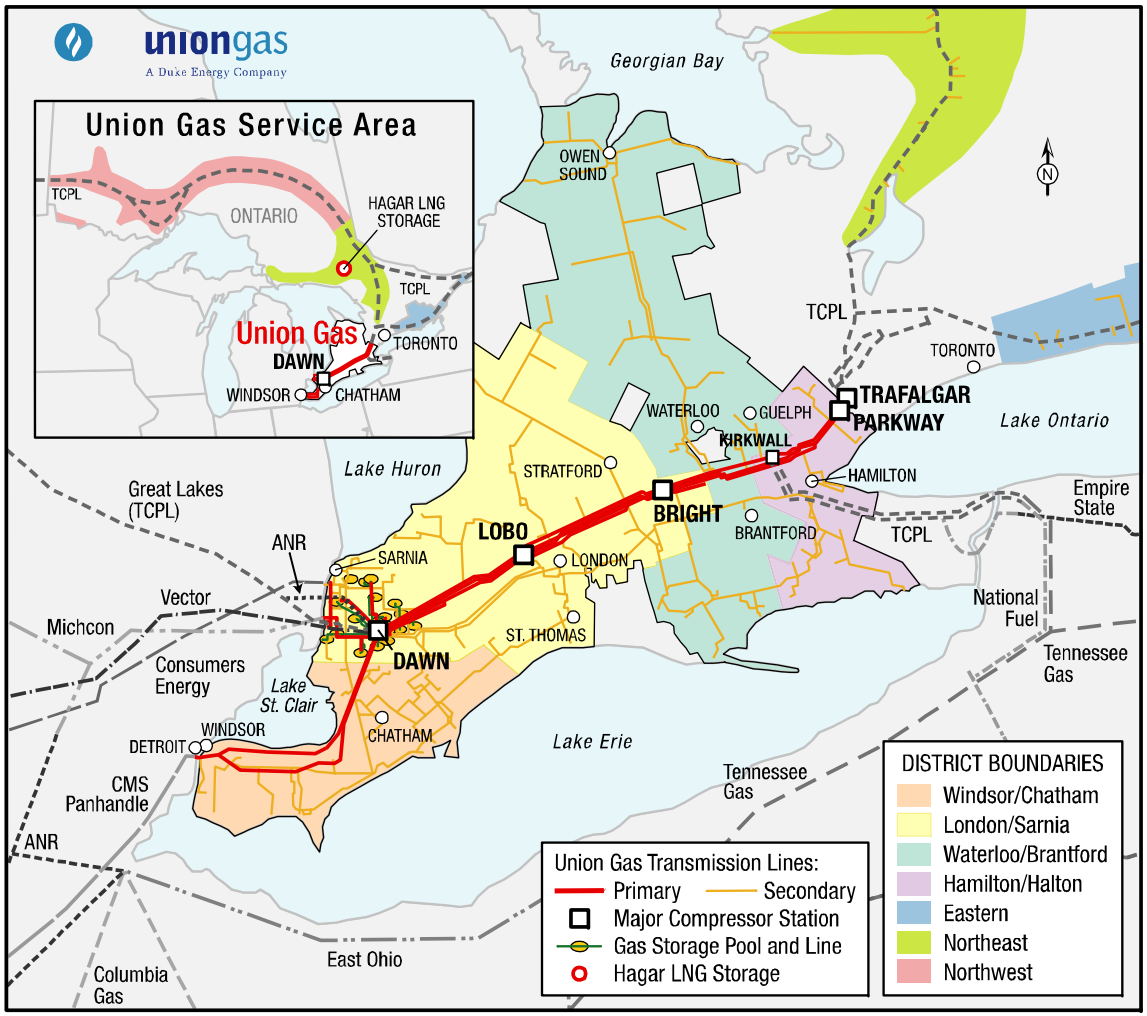
District Specific

Mapping Information

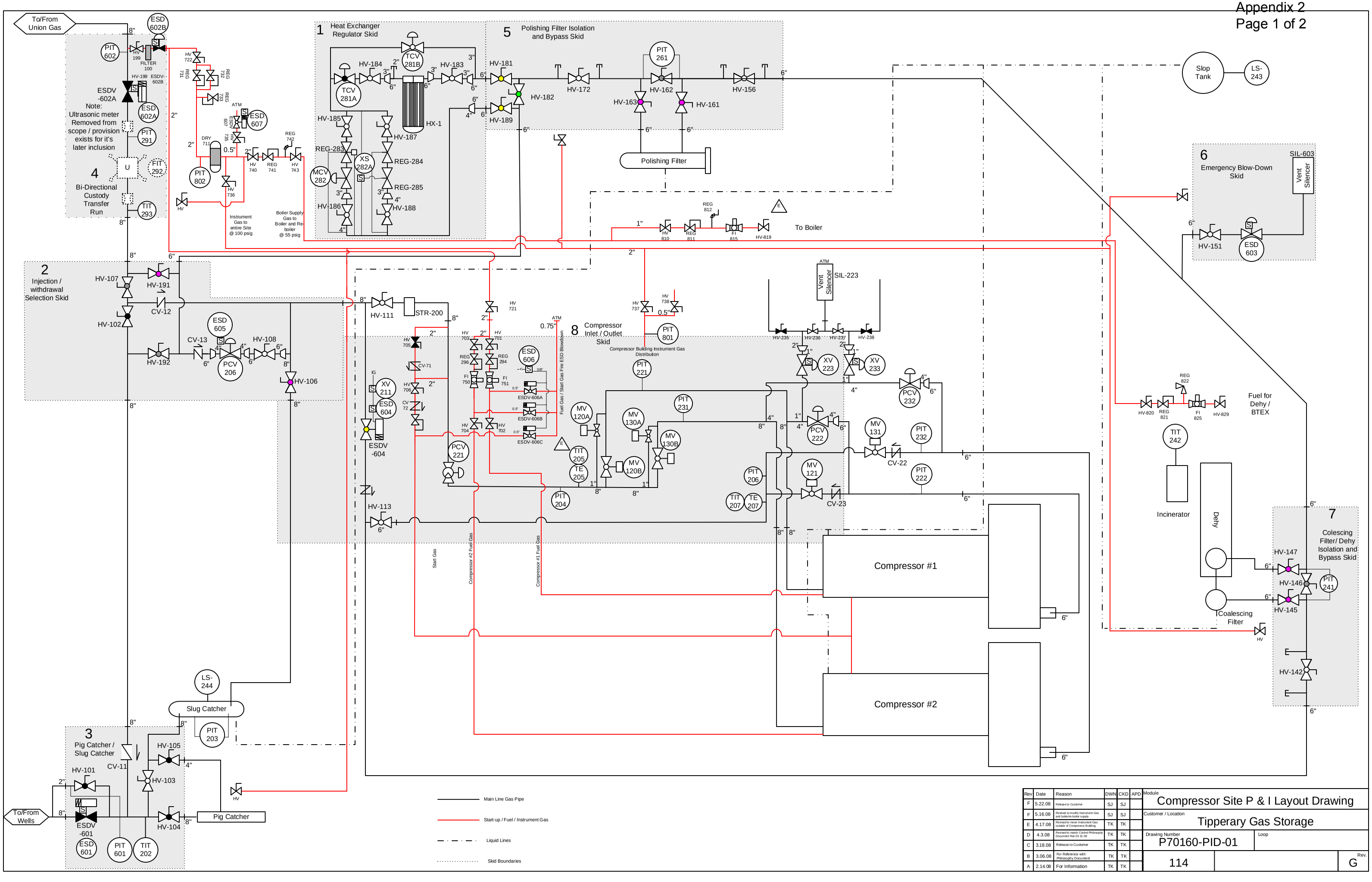


Questions . . .

Storage and Transmission Centres of Operation



- Dawn
- Lobo
- Bright
- Parkway, Trafalgar and Lisgar
- Hagar LNG
- Chatham Gas Control



Rev	Date	Reason	DWN	CKD	APD
F	5.22.08	Release to Customer	SJ	SJ	
F	5.16.08	Revised to modify Instrument Gas and boilerre-boiler supply	SJ	SJ	
E	4.17.08	Revised to move Instrument Gas outside of Compressor Building	TK	TK	
D	4.3.08	Revised to match Control Philosophy Document Rev 03 31 08	TK	TK	
C	3.18.08	Release to Customer	TK	TK	
B	3.06.08	Rv Reference with Philosophy Document	TK	TK	
A	2.14.08	For Information	TK	TK	

Module: Compressor Site P & I Layout Drawing

Customer / Location: Tipperary Gas Storage

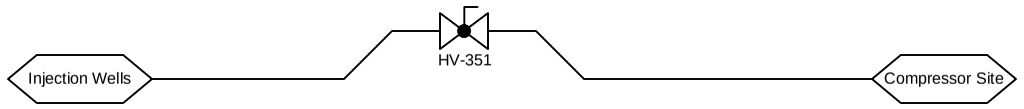
Drawing Number: P70160-PID-01

Loop:

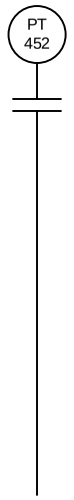
114

Rev. G

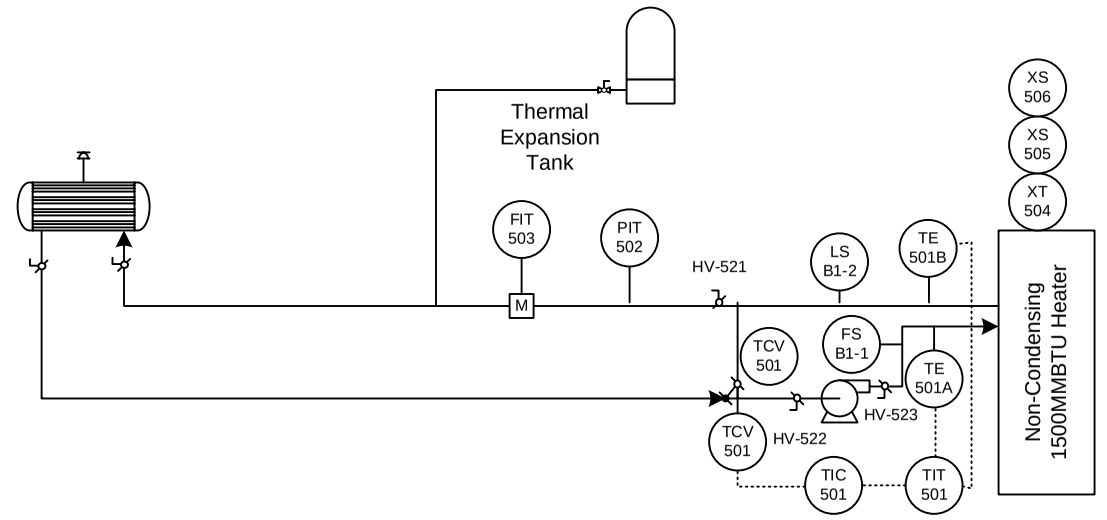
Road Shut-off Valve Nest

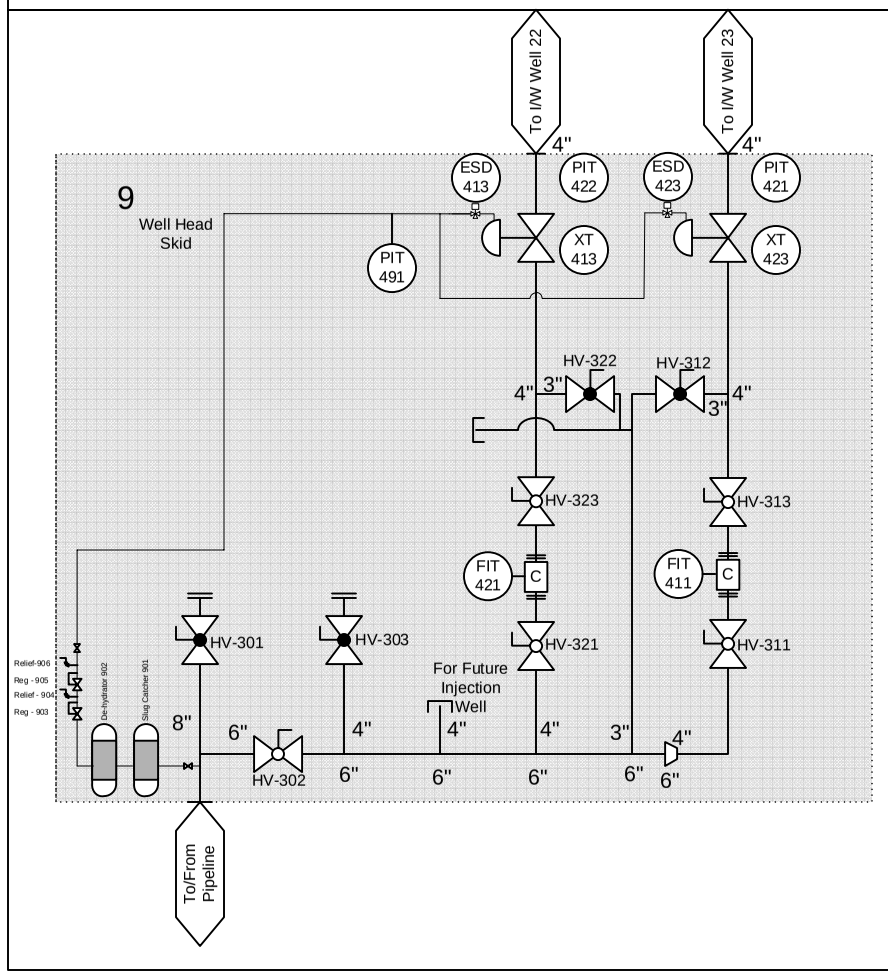


Monitoring Well #1



Boiler Circuit





Monitoring Well #2

Rev	Date	Reason	DWN	CKD	APD
F	5.22.08	Release to Customer	SJ	SJ	
F	5.16.08	Revised to modify Instrument Gas and boiler/hx boiler supply	SJ	SJ	
E	4.17.08	Revised to move Instrument Gas outside of Compressor Building	TK	TK	
D	4.3.08	Revised to match Control Philosophy Document Rev 03.31.08	TK	TK	
C	3.18.08	Release to Customer	TK	TK	
B	3.06.08	For Reference with Philosophy Document	TK	TK	
A	02.14.08	For Information Only	TK	TK	

Module: Well Site Piping and Instrumentation Layout

Customer / Location: Tipperary Gas Storage

Drawing Number: P70160-PID-2

Loop:

114

Rev.: G

Appendix 3

Proposed Storage Schedule

Date	Event	Pressure (psia)	Volume in Pool (MMscf)	Working Inventory (MMscf)
Apr. 24, 2008	Commence Injections	171	573	
June 1, 2008	Reach Cushion Level	300	697	
July 18, 2008	Reach Original Pool Pressure	433	1,130	266
October 31, 2008	End of First Injection Season	1,021	2,803	1,939

Integrity Management Program

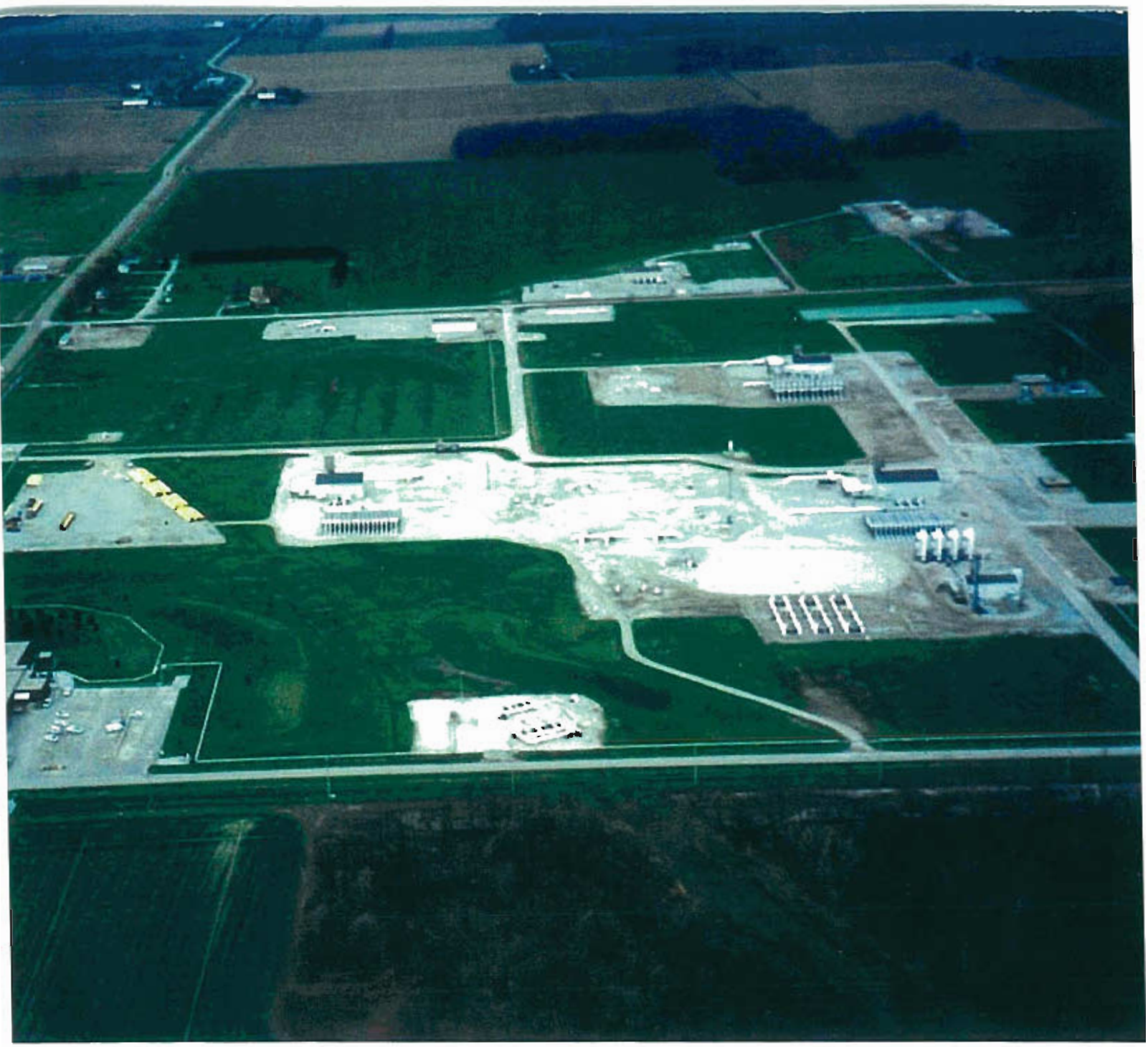
Union Gas Limited (Union Gas), a Spectra Energy Company, is an integrated natural gas delivery company that has been providing safe and reliable delivery of natural gas and related services throughout the province of Ontario since 1911. Union Gas operates as part of Spectra Energy Transmission (SET).

This management system document outlines the organizational structure, responsibilities, procedures, processes and resources that make up the Union Gas Integrity Management Program (IMP). The management system establishes the policy and objectives, and the means for achieving those objectives with regard to the Pipeline Integrity Program and the Downhole Integrity Program, collectively referred to as Integrity Programs. The goal of the IMP is to ensure safe, reliable and environmentally responsible operation of the company's pipelines and wells that fall within the scope of the program. Effective system integrity requires senior management commitment and qualified personnel using comprehensive, systematic and integrated processes to safely operate and maintain storage wells and pipeline systems. Union Gas is committed to meeting this goal and the requirements as set out by the requirements of *CSA Z662 Annex N - Guidelines for Pipeline Integrity Management Programs.*

The Integrity Management System ensures that findings from periodic reviews are incorporated into the Integrity Programs. This allows the Integrity Programs to take advantage of improved technologies and utilize the best set of prevention, detection and mitigation activities available for the conditions at that time. Additionally, the Integrity Management System ensures that as the Integrity Programs are implemented, activities are reassessed for effectiveness and modified as necessary to ensure continual improvement of the programs.

The Integrity Management System uses a performance based approach in which:

- Goals and objectives are set
- To achieve these goals and objectives, a plan is developed annually which itemizes the integrity work to be completed within the following calendar year
- The plan is implemented and progress is measured and monitored
- Continuous improvement is assured by making changes to the plan when problems are identified through regularly scheduled reviews.



SAFETY AND EMERGENCY INFORMATION FOR LANDOWNERS

uniongas

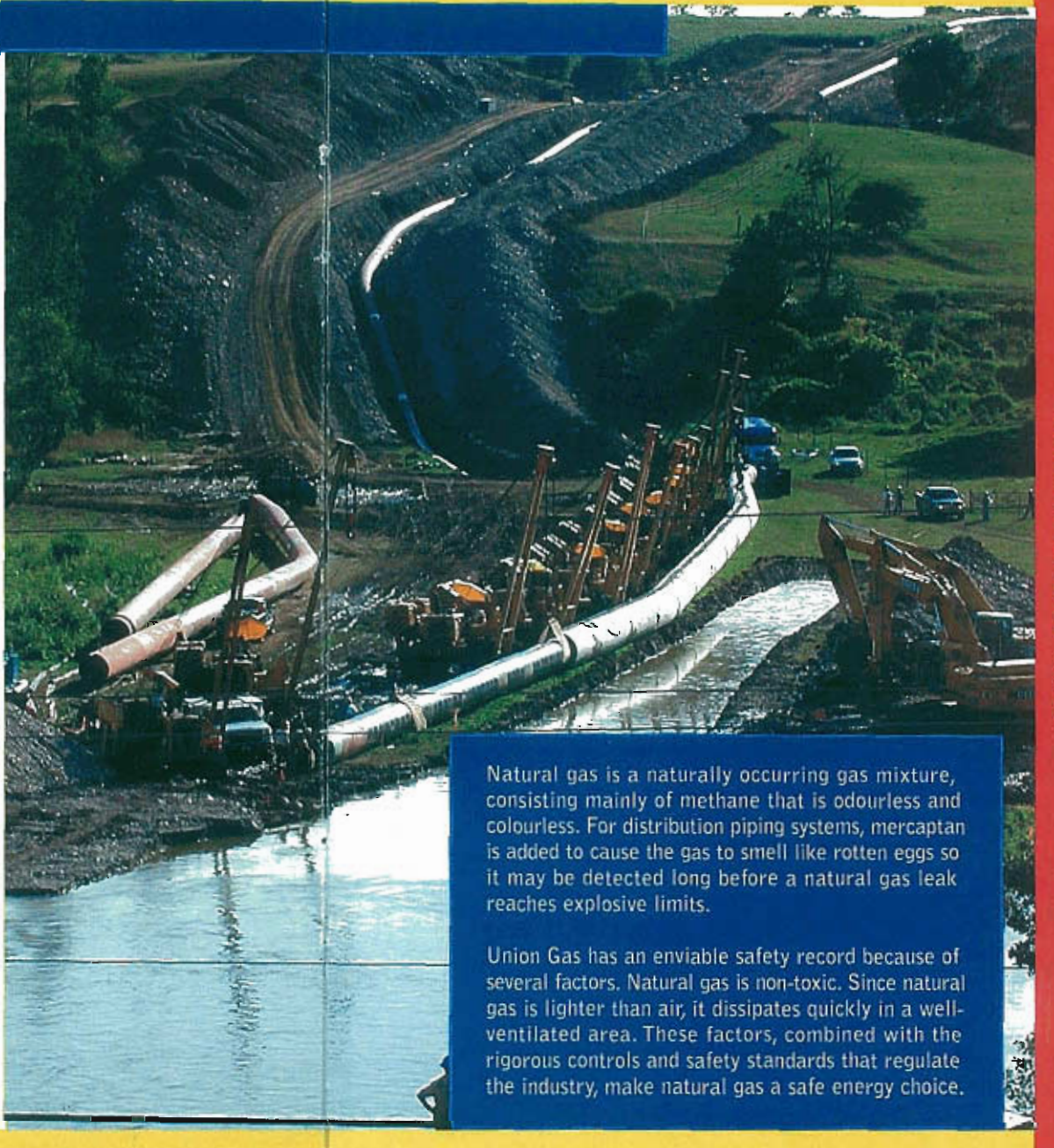
Who is Union Gas?

Union Gas Limited is a major Canadian natural gas utility that provides energy delivery and related services to approximately 1.2 million residential, commercial and industrial customers in over 400 communities in northern, southwestern and eastern Ontario. It also provides natural gas storage and transportation services for other utilities and energy market participants in Ontario, Quebec and the United States. Union Gas is a Duke Energy Company which is regulated by both the Ontario Energy Board (OEB) and the National Energy Board (NEB)

Union Gas has 34,000 km of pipe throughout Ontario of which 28,200 km being distribution piping. Our pipelines are designed, built and operated to meet or exceed the standards set by the NEB and OEB

Gas controllers monitor the pressure and flow of natural gas through the entire pipeline system 24 hours a day. We also complete routine aerial patrols of our transmission pipeline systems as part of our efforts to reduce damages to our pipelines

Union Gas employs gas technicians who are licensed through the Government of Ontario. We provide our employees ongoing training courses to ensure compliance to all current standards. Safely working and maintaining our pipelines is our employees' number one priority.



Natural gas is a naturally occurring gas mixture, consisting mainly of methane that is odourless and colourless. For distribution piping systems, mercaptan is added to cause the gas to smell like rotten eggs so it may be detected long before a natural gas leak reaches explosive limits.

Union Gas has an enviable safety record because of several factors. Natural gas is non-toxic. Since natural gas is lighter than air, it dissipates quickly in a well-ventilated area. These factors, combined with the rigorous controls and safety standards that regulate the industry, make natural gas a safe energy choice.

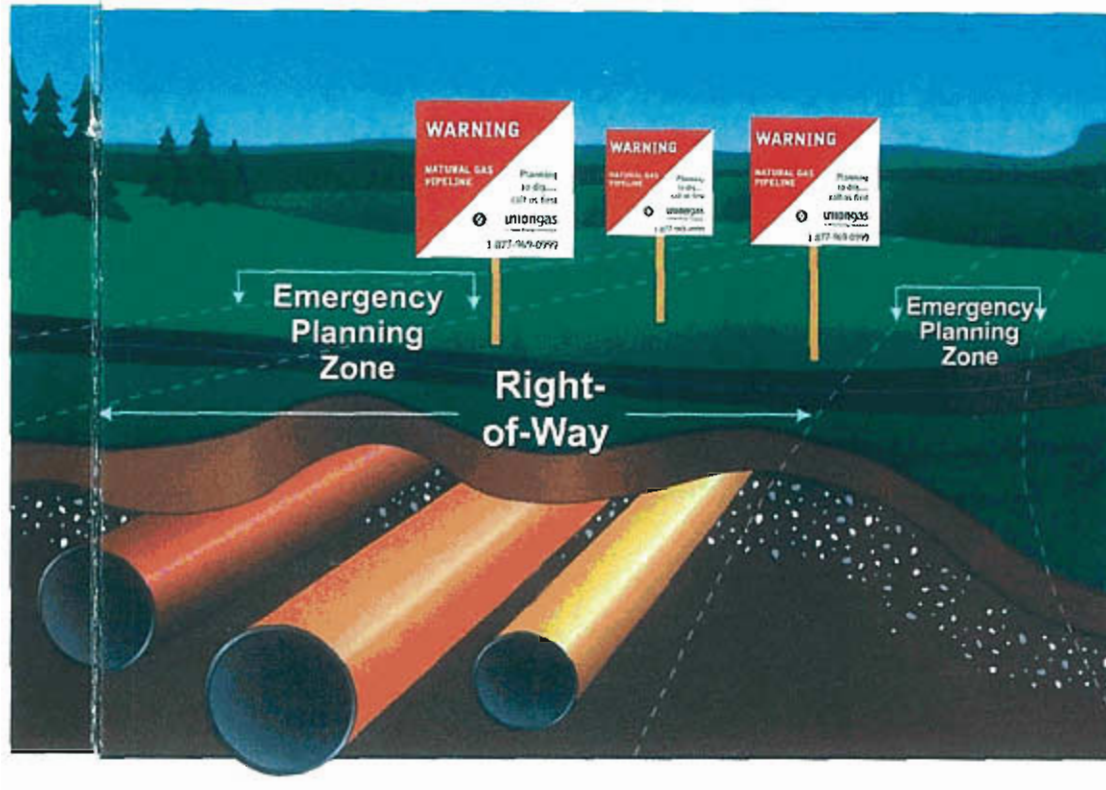
Emergency Preparedness

Your residence has been identified as being within an Emergency Planning Zone (EPZ). The EPZ is the area where public protection activities will be conducted to ensure safety in the event of a pipeline emergency. The EPZ is determined based on size and operating pressure of each pipeline. The zones range from 200 m to 900 m on either side of the pipeline. **This booklet has been developed to familiarize you with our emergency preparedness program.**

Our pipelines are marked with red and white signs as shown in the diagram to help identify where they are located

Union Gas conducts training sessions for first responders such as fire, police and emergency medical services who may respond to emergencies in your area. During these training sessions, participants are made aware of Union Gas's Emergency Preparedness plans, how to contact us and the steps they should take during an emergency.

If a pipeline emergency occurs, Union Gas will work closely with your local emergency first responders to ensure public safety is preserved. Public safety is our highest priority. It is important that the public cooperate fully with emergency response measures.



In the event of an emergency, please call: 1-877-969-0999.

How to Detect a Natural Gas Leak and What to Do If There is One

How to Detect a Natural Gas Leak:

- **Smell:** Transmission natural gas has a stale petroleum/hydrocarbon smell. Before it is delivered to your home, natural gas has mercaptan added which gives the gas a sulfur or "rotten egg" smell to help detect leaks.
- **Sight:** Natural gas is colourless, but vapour and "ground frosting" may be visible at high pressures. A gas leak may also be indicated by bubbles in wet or flooded areas, distinct patches of dead vegetation, dust blowing from a hole in the ground or flames if the leak has ignited.
- **Sound:** A hissing or roaring noise along the right-of-way of a pipeline could also indicate a natural gas leak

What to Do If You Suspect a Leak Inside:

- Evacuate your premises
- Open all doors and windows if you can do so safely
- Don't use electrical switches, telephones, appliances, garage door opener, etc.
- Call Union Gas immediately from a neighbour's home
- Don't use lighters or matches and do not smoke

What to Do If You Suspect a Leak Outside:

- Call Union Gas immediately
- Keep clear of the area
- Don't start any motors or motor vehicles near the area of the gas odour
- Don't use lighters or matches and do not smoke

In the event of an emergency, please call: 1-877-969-0999.

How to Detect a Natural Gas Leak and What to Do If There is One

How Union Gas will Respond

In the event of a natural gas emergency, the Union Gas emergency response team or local community authority will contact all residents who could potentially be affected by a natural gas emergency to advise you of the actions or precautions to take.

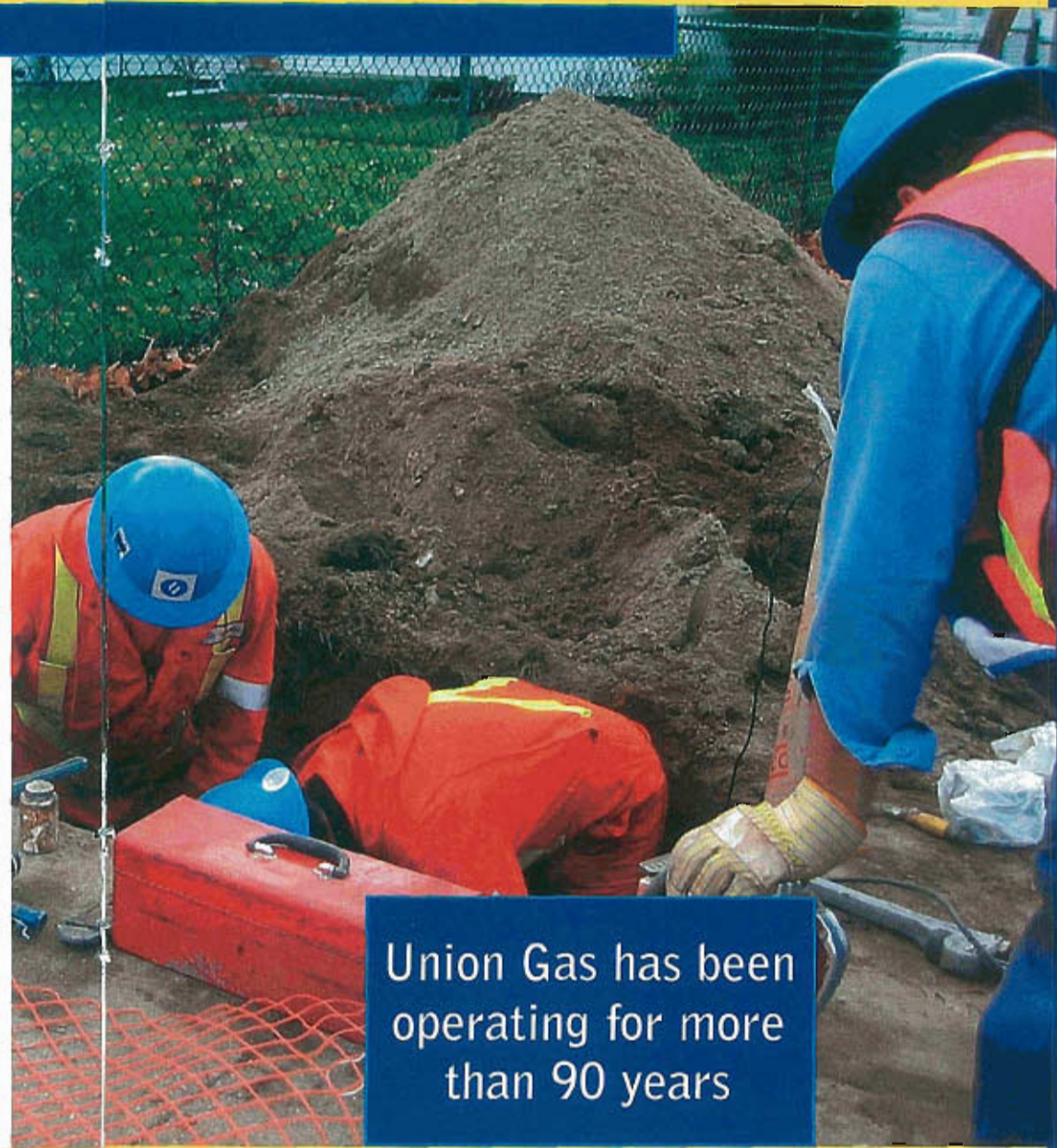
Notifying the community of an emergency may include:

- Telephone notification
- Emergency information carried by local media
- Door-to-door notification

You may be asked to:

- Stay indoors until the situation is under control
- Evacuate your residence in which case you will be directed to an emergency centre set up to accommodate you. Union Gas will have a representative on site to assist you and to answer any questions you may have.

Should the situation persist, information will be updated as it becomes available on our Union Gas website (uniongas.com) as well as through the media.



Call Before You Dig

Damage to pipelines occurs most often when third parties unknowingly dig, ditch, blast or drill in the area of the pipeline easement. Digging or excavating could damage the network of gas pipelines, telephone lines, hydro or cablevision lines and water pipes which extend through your property and may be located near the surface of your property.

Damage to pipes or utility lines can create a safety hazard or even disrupt utility services to an entire neighbourhood, when the system must be shut down to enable repairs to be carried out.

ON1CALL
CALL BEFORE YOU DIG

1-800-400-2255
Fax: 1-800-400-8876
www.On1Call.com

Landowners or their contractors who cause damage are liable for the cost of repairs and could incur a costly lawsuit if adjacent property is damaged or someone is injured as a result. Under Ontario regulations, it's against the law to dig without having natural gas lines located.

To arrange for free natural gas pipe location service at your site, call at least 48 hours in advance. Phone Ontario One Call Ltd. at 1 800 400-2255.

For more safety and emergency response information, please visit our website:

uniongas.com

Call Before You Dig

For More Information, please call or write our nearest Union Gas district office:

Halton:
4450 Paletta Court
Burlington, Ontario
L7L 5R2
(888) 464-4457 dial 0

Thunder Bay:
1211 Amber Drive
Thunder Bay, Ontario
P7B 6M4
(807) 684-8800 dial 0

London:
109 Commissioners Rd
London, Ontario
N6A 4P1
(888) 325-5587 dial 0

North Bay:
36 Charles Street East
Box 3040
North Bay, Ontario
P1B 8K7
(888) 401-6791 x 2389

Kingston:
520 Gardiners Road
Box 1087
Kingston, Ontario
K7L 4Y6
(800) 360-9203 x 204

Windsor:
650 Division Road
P.O. Box 700
Windsor, Ontario
N9A 6N7
(800) 265-5001 dial 0

Hamilton:
360 Strathearne Ave. N.
P.O. Box 10
Hamilton, Ontario
L8N 3A5
(888) 404-1356 dial 0

Waterloo:
603 Kumpf Drive
P.O. Box 340
Waterloo, Ontario
N2J 4A4
(888) 436-7204 dial 0

Dawn Operations Centre:
3332 Bentpath Line
P.O. Box 1180
Dresden, Ontario
N0P 1M0
(800) 265-5260 dial 0

For More Information about Union Gas, please visit uniongas.com

If you are a Union Gas Customer and have a question about your account, please visit uniongas.com or call our Customer Contact Centre at 1-888-774-3111.

uniongas