8.0 EMERGENCY RESPONSE AND PREPAREDNESS PLAN

Propane Energy has developed an Emergency Response and Preparedness Plan ("ERPP") which is designed to help prevent, manage, and mitigate emergencies involving propane at the Timmins facility. It is intended to protect the public, property and environment from the consequences of a propane emergency. The ERPP has been developed to comply with applicable provisions of Ontario Regulation 211/01, Environmental Emergency Regulations under the Canadian Environmental Protection Act, and CSA Z731-03 Emergency Preparedness and Response.

The ERPP considers two types of propane releases from the facility: on-site (generally small) releases and off-site or external releases.

Most aspects of the ERPP are associated with post-incident response and are not considered preventative. Some components of the ERPP however are designed to mitigate damage or prevent incident escalation. Where appropriate, these aspects of the ERPP have been factored into the quantitative risk assessment in Section 10.

8.1 Requirement for Emergency Response and Assistance Plan

Propane Energy Timmins is required to have an Emergency Response and Assistance Plan ("ERAP") approved by Transport Canada because it ships bulk propane in quantities above the threshold limit of 3,000 L (793 USWG) as specified in Part 7 of the TDG Regulations.

Propane Energy currently has ERAP, #2-0010-401, which is administered by Emergency Response Assistance Canada ("ERAC"), a subsidiary of the CPA.

8.2 Requirement for Environmental Emergency Plan

The bulk filling plant is required to file an Environmental Emergency ("E2") Plan with Environment Canada because the bulk storage quantity is above the threshold of 4.5 tonnes.

Propane Energy has adopted the ERPP as the E2 Plan, and will file the required notification schedules for the proposed filling plant.

8.3 Propane Energy Timmins On Site Emergency Response Plan

The ERPP has been developed to provide further direction and clarification of responsibilities to the staff and management of Propane Energy for propane releases and incidents. The plan outlines how the company personnel will notify external agencies and assemble key staff to communicate, collaborate, coordinate, manage, and recover from an emergency.

The plan includes the following components:

- duties and responsibilities of personnel involved in management of an emergency;
- hazards associated with handling and use of propane;
- facility information;
- propane emergency prevention measures;
- how to initiate an emergency shutdown to stop product flow and isolate power to electrical devices;
- a list of emergency equipment and resources available to Propane Energy during an emergency;

- training policy;
- evacuation procedures in case of a propane leak or fire;
- review and update of the ERPP; and
- a site plan.

The ERPP describes evacuation procedures, both internal and external, and what actions are to be taken during a propane leak or fire at or in the vicinity of the facility. The ERPP also includes how to stop a propane flow feeding a fire and the location of the emergency shut-down devices. A copy of the current ERPP is provided in Appendix H.

8.3.1 Activation

In the event of a propane emergency, the plan can be activated by placing a call to "911" with the option of calling the ERAC call centre.

8.4 First Responders

8.4.1 Municipal Fire Fighting

The closest fire station to the Propane Energy facility is operated by Timmins Fire Department, and located approximately 1.5 kilometers from the Propane Energy facility at 133 Cedar Street South.

The Timmins Fire Department services the City of Timmins including Mountjoy, South Porcupine, Schumacher, Whitney, Connaught and Timmins. Each area has one station to ensure appropriate coverage. The Timmins Fire Department is also equipped to handle airplane distress calls at the Victor M. Power Airport.

The Fire Department apparatus available includes:

- six pumpers and four tankers;
- one aerial apparatus; and
- one Aircraft Rescue and Firefighting (ARFF) truck.

During a first response, there are 6 career firefighters and volunteer brigades from the Timmins station that will be available to an incident at the Propane Energy Timmins facility with additional volunteer brigades from Schumacher and Mountjoy. The equipment dispatched may produce water flows of approximately 10,950 gallons per minute. The first response time is approximately 1 minute, and to assemble a full complement of crews will take approximately 7 to 10 minutes.

8.4.2 Emergency Medical Services

The Cochrane District Social Services Administration Board ("CDSSAB") has contracted with existing service providers to provide emergency medical services across the district including the City of Timmins, which is the largest service out of the 7 total services. The CDSSAB provides direct delivery of ambulance services to the City of Timmins as well as 71 full and part time fully certified primary care paramedics.

The service for Timmins is comprised of 3 ambulances that begin staggered 12 hour shifts from 6:00am to 8:00pm, along with two 12 hour night shifts. There are 20 full time and approximately 30 part time staff members.

The closest station is located in Timmins at 500 Algonquin Boulevard, approximately 3.5 km from the Propane Energy facility. This station also functions as the head office for CDSSAB.

The Timmins and District hospital is located approximately 6 km away from the Propane Energy Timmins facility.

8.4.3 Municipal Emergency Response Plan

The City of Timmins has an emergency plan as required under the *Emergency Management and Civil Protection Act, R.S.O 1990*. The plan developed by the City of Timmins is designed to:

> *"make provision for the extraordinary arrangements and measures that may have to be taken to protect the health, safety, welfare, environment and economic health of the residents, businesses and visitors of the City of Timmins when faced with an emergency."*

The City of Timmins Emergency Plan was made under the City of Timmins By-law 2019-8394.

The Emergency Plan requires the creation of an Emergency Management Program Committee, comprised of:

- Chief Administrative Officer ("CAO");
- Head of Council (Mayor);
- Deputy Mayor;
- Community Emergency Management Coordinator ("CEMC");
- Clerk;
- Communications Coordinator;
- Fire Chief;
- Police Chief;
- Public Information Coordinator;
- Director of Finance and Treasurer;
- Director of Public Works and Engineering;
- Director of Community and Development Services;
- Health Unit Emergency Planner Coordinator/Medical officer of Health;
- Paramedic Services Chief;
- CDDSAB Chief Administrative Officer;
- Red Cross Disaster Management Coordinator;
- General Manager Long Term Care Home;
- Conservation Authority General Manager;
- Office of the Fire Marshal and Emergency Management Field Officer;
- Ontario Provincial Police Staff Sergeant;
- Timmins and District CAO;
- Timmins Municipal Airport Manager; and
- Other persons or agencies as may be required.

The aim of the Emergency Management Program Committee is to oversee the development, implementation and continuous improvement of the Emergency Management Program. The program is reviewed on an annual basis.

The City of Timmins Fire Chief has been appointed as chair of the Emergency Management Program Committee, also referred to as the CEMC.

8.5 Emergency Planning – External

The following sections are included to address external emergency response and preparedness.

8.5.1 Names or Positions of Persons Authorized to Set Emergency Procedures In Motion

The person or persons identified in the ERPP as authorized to set emergency procedures "in motion", and to take charge and coordinate off-site action will be established through the "Emergency Services Unified Command Structure", as described in Table 3 – "Emergency Roles and Their Respective Responsibilities" of the ERPP in Appendix H of the RSMP.

8.5.2 Arrangements For Receiving Early Warning of Incidents, Alert and Call-Out Procedures

The Propane Energy Timmins facility will be staffed continuously during regular hours of operation. Early warning of incidents during an emergency can be completed by staff or neighbors calling "911" as described in Section 8.2 of the ERPP.

8.5.3 Arrangements for Coordinating Resources Necessary to Implement the External Emergency Plan

Equipment and resources that may be used in the event of a propane emergency can be obtained by activating the ERAC ERAP. Company Management may also requisition third-party resources at the request of the Technical Director. Activation of the ERPP, ERAP and the coordination of additional resources are described on pages 12, 13, 19-21, 25-28 of the ERPP.

8.5.4 Arrangements for Providing Assistance With On-Site or Off-Site Mitigation Actions

Equipment resources identified above, as well as designated Propane Energy personnel listed in Table 4 of the ERPP may be used to assist with on-site or off-site mitigation.

8.5.5 Arrangements for Providing the Public With Specific Information

As described in Figure 1- "Incident Command Organizational Chart" and in Table 3 – "Emergency Roles and Their Respective Responsibilities" of the ERPP, limited communication to the public may be provided by the Company Spokesperson. Additional communication may be provided as designated by the Emergency Services Unified Command Structure.

8.5.6 Arrangements for Provision of Information to the Emergency Services of Other Municipalities

The provision of information to other municipalities is to be coordinated by the Emergency Services Unified Command Structure, as described in Table 3 – "Emergency Roles and Their Respective Responsibilities" of the ERPP.

8.5.7 Public Notification or Alerting System

The public notification system in the ERPP consists of a verbal notification initiated by the Evacuation Warden. Door-to-door notification may also be used, as determined by the Emergency Services Unified Command Structure, depending on the nature and scope of the incident.

8.5.8 Off-Site Assistance Coordination with Municipal Evacuation Requirements

The provision of off site assistance for evacuation is to be coordinated through the Technical Director as described in Table 3 – "Emergency Roles and Their Respective Responsibilities" of the ERPP, in consultation with the Emergency Services Unified Command Structure so that assistance, if required, matches the municipal evacuation plan.

8.5.9 Internal and External Evacuation Plans

Internal evacuation plans are described in Figure 3 – "Activation and Notification Flow Chart", as well as the step-by-step procedure found on pages 26-28 of the ERPP.

External evacuation plans are situation specific and have not been included in the ERPP. Evacuation of external locations cannot be pre-determined, and are to be assessed by the Emergency Services Unified Command Structure based on conditions at the time of the incident.

8.5.10 Reception Information, Transportation, Evacuation Facilities, and Responsibilities for Coordinating Affected People

The internal evacuation plan specifies that the Evacuation Warden is to coordinate the evacuation, on foot, to one of the two pre-designated muster locations, as described in Table 3 - "Emergency Roles and Their Respective Responsibilities" of the ERPP.

External evacuation, if recommended by the Emergency Services Unified Command Structure, the municipal Emergency Response Plan may be activated. Evacuation may include shelter in place.

Hazard Distance = 606 m

(Google Earth 2021)

GPS co-ordinates:
474,518 m Easting, 5,368,618 m Northing, Zone 17U

Municipalities within the Hazard Distance:
City of Timmins

Municipal Clerk:
Cindy Welsh
City of Timmins, Community and Development Services
220 Algonquin Boulevard East
Timmins, Ontario
P4N 1B3

Facility Municipal Address:
100 Dalton Road
Timmins, Ontario

Facility Legal Description:
Mountjoy Con 2 Pt
Lot 1, RP 6R-8589
Parts 1 to 6

Largest Vessel Setback From Property Lines

(Google Earth 2021)

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FAX: 613-537-8523
www.stirlingengineering.ca

PROJECT: Level 2 Risk and Safety Management Plan, Propane Energy Solutions, 100 Dalton Road, Timmins, Ontario	TITLE: Supplementary Drawing for TSSA Advisory FS-162-09
PROJECT No: 20100 / REV: 00	DRAWN BY: R.D. / SHEET 1 OF 1
DATE: September 23, 2021 / SCALE: N.T.S.	DWG No: 20100-SK-003

Emergency Response and Preparedness Plan
Propane Energy Solutions
100 Dalton Road
Timmins, Ontario

Prepared by:

1435925 Ontario Limited
o/a Propane Energy Solutions
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Iroquois Falls, Ontario
P0K 1G0

Last Revised on:
September 23, 2021

List of Revisions

Date	Revision	Authorized Reviser	Authorization
June 15, 2021 (initial document)	• none		
September 23, 2021 (issued with RSMP)	• updated site plan • general revisions for addition of 30,000 USWG bulk tank	Robert Wilson (Stirling Engineering Inc.) authorized by Marc Carrière	

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APPENDICES

1.0 INTRODUCTION

The health and safety of its employees, the public, and protection of the environment are integral to Propane Energy Solution's business. To protect these interests, Propane Energy Solutions (Propane Energy) has developed this Emergency Response and Preparedness Plan ("ERPP").

1.1 Purpose

This ERPP is designed to help prevent, manage, and mitigate emergencies involving propane at the Propane Energy Timmins facility. It is intended to protect the public, property and environment from the consequences of a propane emergency. This ERPP has been developed to comply with applicable provisions of several provincial and federal statutes.

1.1.1 Ontario Regulation 211/01

This document has been developed primarily to comply with the applicable provisions of *Ontario Regulation 211/01* under the *Technical Standards and Safety Act* pertaining to Risk and Safety Management Plans ("RSMP"). *Ontario Regulation 211/01, "Propane Storage and Handling"* requires all propane retail outlets, filling plants, cardlock/keylock, private outlets, and container refill centres to develop and submit an Emergency Response and Preparedness Plan as part of a Risk and Safety Management Plan. This ERPP has been developed to meet the applicable provisions of *Ontario Regulation 211/01* for RSMPs.

1.1.2 Environmental Emergency Regulations

Under the *Environmental Emergency Regulations* of the *Canadian Environmental Protection Act, 1999*, propane installations having an individual storage container system equal to or greater than 4.5 metric tonnes (approximately 2,345 United States Water Gallons ("USWG")) must prepare an Environmental Emergency ("E2") Plan and submit the required Schedules to Environment Canada.

This ERPP has also been prepared to comply with the applicable provisions of the *Environmental Emergency Regulations* under the *Canadian Environmental Protection Act* pertaining to Environmental Emergency Plans for propane emergencies.

1.1.3 Transport of Dangerous Goods Regulations

The federal *Transportation of Dangerous Goods Regulations* requires every transporter, importer or consignor of propane to have an approved Emergency Response and Assistance Plan ("ERAP") if propane is contained in one or more means of containment, at least one of which has a storage capacity in excess of the ERAP threshold.

Propane Energy currently has approval for ERAP #2-0010-401 which has been registered, reviewed and accepted by Transport Canada.

1.1.4 CSA-Z731-03 (R2014): Emergency Preparedness and Response

Propane Energy has further designed this ERPP to meet applicable clauses of the voluntary standard, *CSA Z731-03 (R2014) Emergency Preparedness and Response*. The standard is directed towards the development of tools and systems to support emergency preparedness and response in industry. This ERPP meets the applicable clauses set out by *CSA Z731-03 (R2014)* for "Emergency Response Plans".

1.2 Scope and Limitations

This ERPP has been developed for propane emergencies only, including fires at Propane Energy's bulk propane plant facility in Timmins, Ontario. Coverage includes the general public surrounding the facility that may be affected by the consequences of a propane emergency occurring at the facility. This document is designed to address propane emergencies such as propane releases and on-site fires. Although this ERPP has been developed for propane emergencies, it provides no guarantee for the successful mitigation of all propane emergencies at Propane Energy.

1.3 Review and Update of the ERPP

This ERPP shall be updated as required to provide current propane emergency mitigation measures and to take into account any changes at the facility. Only a Program Coordinator listed in the table below may make changes to this ERPP.

Table 1: Authorized Person as Program Coordinator

Position	Name
President	Marc Carrière

Review of this ERPP will be performed at least annually, and subject to the following:

1. the company staffing structure changes;
2. there is a change or modification to the propane distribution systems;
3. following any activation of the ERPP; and
4. upon demand from the local Fire Department.

1.4 Distribution and Location of the ERPP

This ERPP has been distributed to internal and external parties listed in Table 2. When updated, any changes to the ERPP must be forwarded to the persons or organizations authorized to have a copy. This ERPP is site specific to the Propane Energy Timmins facility and its location(s) at the facility included in Table 2. Employees taking on roles in this ERPP acknowledge receipt and understanding of all sections of the ERPP and are aware of its on-site location(s) by signing the Distribution Form.

Table 2: Distributed Copies of the ERPP and their Locations

Number of ERPP Copies	Location	Contact Person
1 (electronic copy)	Timmins Fire Department 133 Cedar Street South Timmins, Ontario P4N 2G9	Fire Chief Tom Laughren (705) 360-2600 x4082 tom.laughren@timmins.ca
1 (electronic copy)	Propane Energy Head Office 750 Highway 67 Iroquois Falls, Ontario P0K 1G0	Marc Carrière, President (705) 232-4033 marcpropane@gmail.com
1 (electronic copy)	Propane Energy Timmins 100 Dalton Road Timmins, Ontario	Marc Carrière, President (705) 232-4033 marcpropane@gmail.com

2.0 DEFINITIONS AND ABBREVIATIONS

- **Accidental Release**: Unplanned discharge, emission, explosion, outgassing or other escape of propane.
- **ASME**: American Society of Mechanical Engineers
- **BLEVE**: Boiling Liquid Expanding Vapour Explosion
- **CANUTEC**: Canadian Transport Emergency Centre of the Department of Transport
- **CPA**: Canadian Propane Association
- **CSA**: Canadian Standards Association
- **Emergency Response Personnel**: All parties described herein under "Roles and Responsibilities" and any other personnel who may be appointed by authorities to participate in emergency response actions.
- **EMS**: Emergency Medical Services
- **ERAC**: Emergency Response Assistance Canada; entity which administers and implements the ERAP.
- **ERAC Response Centre, ERAP Emergency Number**: Phone number to activate the ERAP, 1 (800) 265-0212.
- **ERAP**: Emergency Response and Assistance Plan, under the *Transportation of Dangerous Goods Regulations*
- **ERPP**: Emergency Response and Preparedness Plan
- **Major Release**: Any sustained accidental release characterized by the rapid uncontrolled release of propane (e.g., a line break). These releases are characterized by the formation of fog and loud noises and may pose a threat to public safety. Sources for these releases include, but are not limited to, failed valves, fittings, piping.
- **Minor Release**: May be defined as a slow controlled release of propane (e.g., an improperly closed valve). These releases are characterized by a persistent smell of mercaptan, observation of frost patches forming on equipment, or a "hissing" noise. Finding the source may require the use of a leak detection fluid or gas detector. These releases are not considered to be propane emergencies if mitigated within 24 hours.
- **LFL**: Lower Flammable Limit
- **LPG**: Liquefied Petroleum Gas
- **Muster Area**: Designated assembly point during a propane emergency evacuation.
- **Propane Emergency**: Any emergency involving propane related hazards covered by this ERPP, including fires.
- **RSMP**: Risk and Safety Management Plan, under *Ontario Regulation 211/01*
- **SAC**: Spills Action Centre
- **SDS**: Safety Data Sheet
- **TDG**: Transportation of Dangerous Goods
- **TSSA**: Technical Standards and Safety Authority
- **UFL**: Upper Flammable Limit
- **USWG**: United States Water Gallons, a measure of volume
- **VCE**: Vapour Cloud Explosion

3.0 ROLES AND RESPONSIBILITIES

This ERPP specifies the scope of the participants' activities before and during a propane emergency. Their roles and responsibilities are defined in this section, which details what on-site actions are expected of them. An organization chart has been provided below to facilitate decision making and condenses the information provided by this section.

The following organization chart displays the command structure which is the system designed for the response to a propane emergency at Propane Energy. The Technical Director and Operations Lead will be under the direction of one or more parties within the external Emergency Services Unified Command Structure.

If personnel from Emergency Response Assistance Canada ("ERAC") have arrived on-site, they may assume the roles Operations Lead and Company Operations Team as appropriate. Remedial Measures Advisors and/or Response Team Leads may assume the role of Operations Lead, while Response Team Members will perform the duties of the Company Operations Team.

Figure 1: Incident Command Organization Chart

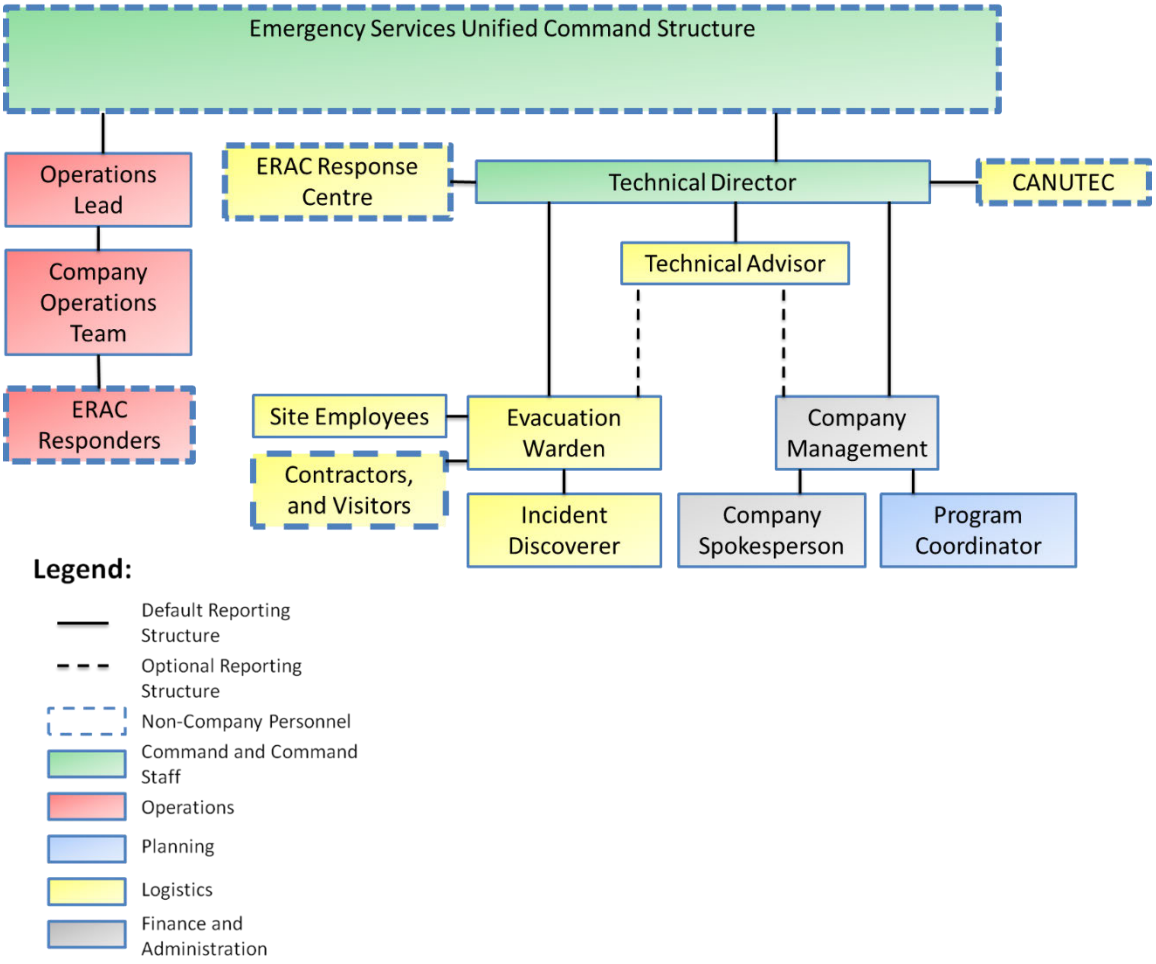


Table 3: Emergency Roles and Their Respective Responsibilities

Position	Preparedness	Response
Emergency Services Unified Command Structure	• As required	• As required
Company Spokesperson	• Know Propane Energy policies and mandate. • Know Propane Energy products and services. • Complete media training.	• Report to the Company Management. • Act as on-site media spokesperson • Receive public inquiries and concerns and communicate information to the public. • Consult with Emergency Services Unified Command Structure prior to **ALL** media releases. • Provide the media and public with details related to the propane emergency. • Issue public statements on behalf of Propane Energy. • Communicate the end of the propane emergency to the public as directed by the Emergency Services Unified Command Structure. • Simplify technical information when addressing the general public.

Position	Preparedness	Response
Program Coordinator	• Develop and maintain this ERPP. • Consult with local representatives (internal and external) from various technical backgrounds (fire, municipal emergency authority, CPA) in developing the ERPP. • Be the only authorized person to make changes to the ERPP and ensure that all copies are current. • Ensure all employees and personnel in the ERPP are familiar with the Plan and their expected roles. • Responsible for the distribution and tracking of the ERPP and forwarding any Plan updates to Plan holders as required. • Maintain and retain all records associated with this ERPP. • Verify and update internal and external emergency contacts as necessary. • Verify the inventory of emergency equipment and resources on-site against the list provided in this ERPP. • Inspect the emergency equipment and resources.	• Report to the Company Management as required.

Position	Preparedness	Response
Technical Director	• Have a current copy of this ERPP. • Be competent with this ERPP. • Be capable of mobilization and departure for a propane emergency within 1 hour, if practical, of being notified of such an emergency.	• Report to the Emergency Services Unified Command Structure. • Direct the Technical Advisor. • Be capable of providing a continuous response on a 24-hour day basis. • Travel to the location of the propane emergency if not already at site. • Serve as a liaison between the Emergency Services Unified Command Structure, Technical Advisor and Company Management. • Consult with the ERAC Response Centre continuously during a propane emergency and arrange requests for additional resources with the Emergency Services Unified Command Structure as needed. • Consult with the Emergency Services Unified Command Structure and provide advice regarding risks and appropriate steps to be taken at the emergency site to preserve public safety (i.e., advise on evacuation distances, if necessary). • Ensure that further transportation of LPG from the propane emergency site is done in a safe and legal manner. • Complete and submit a written ERPP debriefing report on the emergency within five days. • Attend regular meetings with the Emergency Services Unified Command Structure and other Directors as scheduled by the Emergency Services Unified Command Structure. • Attend the debriefing meetings.

Position	Preparedness	Response
ERAC Response Centre		• Answers calls to the 24-Hour Emergency Number 1 (800) 265-0212. • Maintain regular communications with the Technical Director or alternate as warranted. • Acquire additional resource people or equipment, as necessary. • Upon completion of the propane emergency, call all parties to close all reporting loops (including standby resources).
Technical Advisor	• Have a current copy of this ERPP. • Be competent with this ERPP. • Provide technical support to the Program Coordinator for the selection and maintenance of emergency equipment inventory.	• Report to the Technical Director. • Follow the instructions of the Technical Director. • Debrief and obtain any information from the person who initially discovered the emergency. • Assure the Emergency Services Unified Command Structure that the company is prepared to provide assistance with the propane emergency. • Assure the Emergency Services Unified Command Structure of their technical expertise in propane and familiarity with company equipment and procedures. • Attend internal debriefing meetings. • Record event milestones.

Position	Preparedness	Response

Company Management	• Designate the following roles to employees of the company:
	  ○ Program Coordinator;
	  ○ Technical Director;
	  ○ Technical Advisor;
	  ○ Operations Lead;
	  ○ Company Operations Team;
	  ○ Company Spokesperson; and
	  ○ Evacuation Warden.
	• Provide appropriate training to all employees taking on the roles listed above.
		• Report to the Technical Advisor.
		• Approve public statements issued to the public by the Company Spokesperson on behalf of Propane Energy.
		• Attend internal debriefing.
		• Advise the Technical Advisor if capable and requested to do so.
		• Approve any funds needed for propane emergency operations as requested by the company's Finance Personnel

Evacuation Warden	• Have a current copy of this ERPP and know its contents. • Maintain facility sign-in/sign-out sheet. • Know the location of the Muster Areas. • Understand the criteria for Muster Area selection during an emergency.	• Receive notification of a propane emergency from the person discovering it. • Check the wind direction and accordingly select the appropriate Muster Area from the defined locations. • Put on the white helmet and reflective vest and collect the Evacuation Kit. • Issue a call for evacuation, and communicate Muster Area selection to on-site personnel. • Obtain the sign-in/sign-out sheet and employee list. • Proceed to the chosen Muster Area with the Evacuation Kit and designate an individual to call 911, the ERAC Response Centre, CANUTEC, Spills Action Centre (SAC), TSSA, and Ontario Ministry of Labour as required (See Table 5). • Verify attendance against the facility sign-in/sign-out sheet and employee list to ensure all personnel have collected in the Muster Area. • Report results of attendance and the evacuation status to the Technical Advisor.
Employees, Contractors, and Visitors	• Be familiar with the evacuation areas, and evacuation procedure outlined in this ERPP	• Receive the call for evacuation from the Evacuation Warden • Follow the evacuation procedure outlined in this ERPP

Position	Preparedness	Response
Operations Lead	• Know the command structure as presented in this ERPP. • Be competent on the use of all emergency response equipment and emergency response procedures. • Be aware of the locations of emergency equipment on-site.	• Report to the Emergency Services Unified Command Structure. • Act as liaison between Emergency Services Unified Command Structure and the Company Operations Team. • Advise Emergency Services Unified Command Structure of available mitigation actions. • Direct mitigation actions of Company Operations Team as instructed by the Emergency Services Unified Command Structure. • Assist Company Operations Team with mitigation actions. • Request permission from Company Management to obtain additional resources that require additional funding.
Company Operations Team	• Know the command structure as presented in this ERPP. • Be competent on the use of all emergency response equipment and emergency response procedures. • Be aware of the locations of emergency equipment on-site.	• Follow instructions of Operations Lead. • Perform mitigation actions (e.g., emergency transfers, fixing releases) as instructed.

3.1 Emergency Contacts

Lists for internal and external emergency contacts have been compiled and provided in the following two tables:

Table 4: Internal Emergency Contacts at Propane Energy

ERPP Role	Name	Contact Information
Company Spokesperson Technical Director Technical Advisor Evacuation Warden	Marc Carrière Julie Génier-Carrière	Home Phone: Work Phone: (705) 232-4033 Cell Phone: [redacted] Email: marcpropane@gmail.com
Technical Director Technical Advisor Operations Lead Evacuation Warden	Dominic Palermo	Home Phone: Work Phone: (705) 288-7665 Cell Phone: Email:

Table 5: External Emergency Contacts

Organization	Description of Resource	Contact Information
Fire, Medical, Police	Emergency Services	911
Timmins Fire Department	Main Number	(705) 360-2626
ERAC Response Centre	ERAP Number (2-0010-401)	1 (800) 265-0212
TSSA	Regulatory Body – Fuel Safety	1 (877) 682-8772
CANUTEC	Canadian Transport Emergency Centre	(613) 996-6666
Spills Action Centre	Ontario Ministry of the Environment – Spill Reporting	1 (800) 268-6060
Ontario Ministry of Labour	Health & Safety Contact Centre	1 (877) 202-0008
WSIB	Workplace Safety and Insurance Board	1 (800) 387-0750

All the resources/contacts identified above have been advised of their inclusion and responsibilities as parties of this ERPP if required.

Regulatory reporting requirements include:

- for all spills or major releases of propane that are sustained for 10 minutes or more, or could pose a danger to public safety, the Spills Action Centre ("SAC") must be notified; reporting to SAC meets the reporting requirements for both the Ontario Ministry of the Environment and for the Technical Standards and Safety Authority ("TSSA");
- reporting an emergency involving dangerous goods to the police will satisfy immediate reporting requirements for Transport Canada, however any accidental release from a cylinder which has suffered a catastrophic failure must also be reported to CANUTEC;
- any incident that causes critical injury or death must be reported immediately to the Ministry of Labour; written notice must also be provided within 48 hours; and
- any workplace injury must be reported to the WSIB within 3 days of incidence.

4.0 TECHNICAL INFORMATION

4.1 Hazard Identification

Propane is a flammable gas that is stored and handled in a compressed liquid form. Propane is not considered a toxic substance, and impacts to the environment are limited to the hazards identified in the following subsections.

4.1.1 Compressed Gas

Propane is stored in its liquid form and can expand 270 times its size when converted to the gas phase. The proper shipping name of propane is Liquefied Petroleum Gas ("LPG") and the Transport of Dangerous Goods ("TDG") placard for LPG in large means of containment is illustrated below in Figure 2. The placard shows that LPG is a Class 2 flammable gas with a UN (United Nations) Number of 1075.

Figure 2: TDG Placard for Liquefied Petroleum Gas (LPG)

4.1.2 Flammable

Propane is regarded as a fire hazard since it can flash at temperatures as low as -104°C (-155.2°F), with an ignition source. At ambient conditions, the lower and upper flammable limits (LFL and UFL) of propane are 2.1% and 9.5%, respectively.

4.1.3 Frost Bite

Due to the significant drop in temperature when expanding from liquid to vapour phase, propane can cause frostbite on contact with skin and is capable of causing severe damage on contact with the eyes.

4.1.4 Asphyxiant

In the gas form, propane can act as an asphyxiant by displacing oxygen but otherwise is non-corrosive, non-toxic and non-irritating to the eyes. Propane vapours are also heavier than air and will seek low lying areas.

For additional physical and chemical characteristics of propane, consult the Safety Data Sheet ("SDS") provided in Appendix A.

4.2 Risks to Public

Typical hazards at a propane facility may pose a threat to public safety, property and the environment. Such events can occur due to human activities (i.e., operator/driver errors) or equipment failure and those addressed by this ERPP have been identified as follows:

- accidental releases of propane; and
- fires

4.2.1 Reasonable Worst-Case Scenario

A reasonable worst-case scenario for a propane facility would consist of a fire at a bulk tank leading to a Boiling Liquid Expanding Vapour Explosion ("BLEVE"). Such an event includes rupture of the pressure vessel, resulting in an explosion with a shockwave that can propel tank fragments.

4.2.2 Vapour Cloud Regime

The environmental emergency that is more likely to occur than a BLEVE and would impact off-site property would be a liquid propane release between 0.25" and 1" equivalent, leading to a Vapour Cloud Explosion ("VCE"), a jet fire, and possibly a BLEVE. It should be noted that this environmental emergency has been calculated to have a probability of less than 1 in 100,000 years.

A VCE can affect a large area surrounding a propane release. The following addresses the size of a vapour cloud. For the purposes of consequence analysis, the regime of a vapour cloud is considered to be the duration and dimensions of a vapour cloud. Potential for ignition of the vapour cloud in this analysis is considered to be within the region of the vapour cloud that has a concentration greater than or equal to half of the lower explosive limit of propane ("LEL"), approximately 1.05% by volume. A conservative estimate of the possible flash fire region can be considered using the same half LEL concentration.

The regime of a vapour cloud release is controlled by several factors. The most important factors are:

- leak size;
- initial bulk tank contents;
- terrain roughness; and
- weather conditions.

The difference between vapour cloud duration and dimensions can be large depending on the above factors. Examples of variations in the regime are described below were calculated using EFFECTS software.

The calculated vapour cloud dimensions for an initially 55% full bulk tank from a 0.25" diameter leak are approximately 6 m in length (downwind distance from release point) by 2 m in width (crosswind) distance from release point). Increasing the size of the leak to 3" will increase the dimensions to approximately 490 m in length and 320 m in width.

The calculated propane release duration time for an initially 55% full bulk tank system from a 0.25” diameter leak is approximately 32 hours under winter conditions. Increasing the initial fill percentage to 85% with the same 0.25” diameter leak will increase the release duration to approximately 50 hours. Increasing the size of the leak to 3” will reduce the release time to approximately 18 minutes from an initial 55% fill and under winter conditions.

The vapour cloud size dimensions are the steady state dimensions that are reached after approximately one to five minutes, depending on the regime of the cloud. Steady state conditions are reached when the dispersion of the cloud is in equilibrium with the amount of propane flowing through the leak. Because the amount of propane flowing through the leak is only marginally affected by the initial percentage fill of the bulk tank, the steady state dimensions of the vapour cloud are not considered to be affected by the contents of the bulk tank. The duration is the only factor that is considerably affected by the contents of the bulk tank.

The terrain roughness can be described by roughness factors of “R1”, “R2”, and “R3”. Open areas correspond to a relatively low degree of surface roughness characterized as a factor of “R1”. Areas consisting of brush and shrubs correspond to a relative degree of surface roughness are characterized as a factor of “R2”. Larger treed areas or buildings correspond to a relatively high degree of surface roughness, characterized as a factor of “R3”. The difference between a roughness factor of R1 and R3 can change the vapour cloud dimensions of a 3 inch diameter leak from 296 m in length and 75 m in width, to 172 m in length and 66 m in width, in summer conditions. An increase in roughness increases the dispersion of the vapour cloud, decreasing its overall dimensions.

Two weather conditions were considered to affect the dimensions of a vapour cloud during a release: the temperature and wind conditions. An increase in temperature will increase dispersion, decreasing the size of the vapour cloud; however, this effect is minimal. An increase in wind will increase dispersion and have a much greater effect of decreasing the size of the vapour cloud. Temperature conditions are described in degrees Celsius and wind conditions are described using “Pasquill Atmospheric Stability Classes”. The Pasquill Atmospheric Stability Class system uses letters to denote the stability of the atmosphere. The letters “A” through “F” are used with “A” being very unstable and “F” being stable. Calculated vapour cloud dimensions between weather conditions of atmospheric stability of F and a temperature of -10°C, and atmospheric stability of D and a temperature of 23°C can range from 489 m in length and 315 m in width to 296 m in length and 75 m in width.

Table 6 is given as a reference tool to determine the duration, length, and width of a cloud. Variables considered include:

- leak sizes of 0.25”, 1”, 2” and 3”;
- initial bulk tank content percentages of 55%, 70% and 85%;
- terrain roughness factors of R1, R2, and R3;
- winter conditions of atmospheric stability of F and a temperature of -10°C, and summer conditions of atmospheric stability of D and a temperature of 23°C

It should be noted that vapour cloud dimensions are independent of the initial fill percentage.

Appendix C gives a simplified version of this table using the most conservative terrain roughness factor which is suitable for quick reference.

Table 6: Full Vapour Cloud Regime Chart – 30,000 USWG

			Leak Size (Approximate Diameter)							
			0.25"		1"		2"		3"	
			Weather Condition							
Initial Bulk Tank Contents (%fill)			Winter (-10°C)	Summer (23°C)	Winter (-10°C)	Summer (23°C)	Winter (-10°C)	Summer (23°C)	Winter (-10°C)	Summer (23°C)
55%	Duration (hrs)		32	32	2	2	0.6	0.5	0.3	0.2
	Terrain Roughness	Vapour Cloud Dimensions (m)								
	R1	Length	5.6	15.3	105.4	86.5	281.8	187.9	489.4	296.4
		Width	2.0	1.9	56.0	16.7	172.6	43.0	315.2	75.0
	R2	Length	10.4	12.1	78.4	63.0	202.1	137.7	348.6	217.3
		Width	4.6	2.0	53.0	15.4	148.6	38.0	268.0	66.0
	R3	Length	8.6	8.1	57.3	48.4	150.7	107.8	264.6	171.7
		Width	5.6	2.4	51.0	15.7	138.0	39.0	241.0	66.0
70%	Duration (hrs)		40	35	3	2	0.7	0.6	0.3	0.3
	Terrain Roughness	Vapour Cloud Dimensions (m)								
	R1	Length	5.6	15.3	105.4	86.5	281.8	187.9	489.4	296.4
		Width	2.0	1.9	56.0	16.7	172.6	43.0	315.2	75.0
	R2	Length	10.4	12.1	78.4	63.0	202.1	137.7	348.6	217.3
		Width	4.6	2.0	53.0	15.4	148.6	38.0	268.0	66.0
	R3	Length	8.6	8.1	57.3	48.4	150.7	107.8	264.6	171.7
		Width	5.6	2.4	51.0	15.7	138.0	39.0	241.0	66.0
85%	Duration (hrs)		50	38	3	3	0.8	0.6	0.4	0.3
	Terrain Roughness	Vapour Cloud Dimensions (m)								
	R1	Length	5.6	15.3	105.4	86.5	281.8	187.9	489.4	296.4
		Width	2.0	1.9	56.0	16.7	172.6	43.0	315.2	75.0
	R2	Length	10.4	12.1	78.4	63.0	202.1	137.7	348.6	217.3
		Width	4.6	2.0	53.0	15.4	148.6	38.0	268.0	66.0
	R3	Length	8.6	8.1	57.3	48.4	150.7	107.8	264.6	171.7
		Width	5.6	2.4	51.0	15.7	138.0	39.0	241.0	66.0

How to use this table: There are four variables to select on this table: leak size, weather condition, initial bulk tank contents, and terrain roughness. These variables will determine the calculated leak duration, vapour cloud length, and vapour cloud width. An example is shown for the use of this table with the factors of a 1", winter release, initially 70% full bulk tank, and a terrain roughness of 2.

5.0 FACILITY INFORMATION

The Propane Energy Timmins facility is located at 100 Dalton Road in Timmins, Ontario and will have a total fixed storage capacity of 32,000 USWG of propane which is used for the storage of propane, the transfer of propane to and from bulk propane trucks, and the filling of portable propane cylinders. The maximum expected quantity of propane stored at the facility at any time during a calendar year is 218,000 USWG, which includes the largest bulk propane tank of 30,000 USWG.

A site plan has been included in Appendix B. This document includes the tank and storage locations as well as locations of access and egress routes to the facility, emergency equipment, emergency shutoff buttons, fire routes and on-site fire suppression equipment.

The Propane Energy Timmins facility can be accessed through an electric sliding gate, for which the gate code will be provided to fire services for emergency access.

Also included in Appendix B is an overhead view of the facility. This diagram illustrates the primary and secondary muster areas, local roads in the facility's vicinity and the fireball radius of 100 m for the facility.

5.1 Emergency Shutdown Equipment

In the event of an emergency, emergency shutoff buttons can be used to stop the flow of propane. Power can also be isolated from the breaker panel located on-site. The location of the emergency stops and breaker panel at the facility are shown in the site plan provided in Appendix B.

5.2 Emergency Equipment and Resources

For larger incidents requiring an emergency response, Propane Energy may request assistance from ERAC. Depending on the nature of the emergency, ERAC may dispatch a Remedial Measures Advisor and/or a Response Team. These responders may bring to the emergency equipment listed in

Table 7 and

Table 8, as stated in the ERAP #2-0010-401 document.

Table 7: ERAC Remedial Measures Advisor Equipment Standard

Quantity	Description of Resource
1	Hand-held flashlight (Class 1, Groups C & D, CSA or ULC approved)
1	Certified Bump or Calibration Gas
1	Container of leak detection liquid
1	Set Class 1, Zone 1 gas detection equipment which is capable of continuously monitoring lower explosive limits, oxygen and hydrogen sulphide maintained to manufacturer's recommendations
1	Set fire retardant clothing
1	Pair gloves, rubber
1	Pair gloves or mitts, leather
1	Hard hat with winter liner
1	Pair rubber safety boots
1	Pair safety boots
1	5 point reflective tear away safety vest with ERAC RMA logo
1	Rain suit, fire retardant
1	Set eye protection
1	Set hearing protection
1	Basic first aid kit
1	Mini tape recorder OR clipboard, paper and markers
1	Binoculars / Monocular
1	Roll barrier tape, 100 yards
1	Pipe wrench, 8"
1	Pipe wrench, 14"
1	Camera or cell phone with camera
1	Tape measure
1 each	Pressure gauge (0-30 psi, 0-100 psi, 0-300 psi)
1	Roll duct tape
1	Crescent wrench, 12"
1	Set pliers
1	Safety harness and lanyard
1	Cellular phone, with internet and email access
1	Set dissipative material
1	Emergency Response Guidebook, latest edition

Table 8: ERAC Response Team Equipment Standard

TRANSFER EQUIPMENT	
Quantity	**Description of Resource**
2	Pumps, or 1 pump and 1 compressor, for two simultaneous transfers, including power unit
350 ft.	Liquid hoses, 2", rated for LPG use (with spare gaskets), for two simultaneous transfers
150 ft.	Vapour hoses, 1 or 2", rated for LPG use (with spare gaskets), for two simultaneous transfers
8	"Snappy Joe" manual or pneumatic emergency remote shutoff valves, for two simultaneous transfers
2 sets	bonding and grounding equipment, including 6 50' cables, bonding clamps, grounding rods, plates or foil
1	typical multimeter
500 cubic feet	Nitrogen bottles
24	Rail tank car seals
1 each	Flare stack, minimum 2' flare pot (liquid flaring), with pilot or ignitor, and flame arrestor
2 each	Pressure gauges, 0-30 psi, 0-100 psi, 0-300 psi
SAFETY EQUIPMENT	
Quantity	**Description of Resource**
6	Class 1, Zone 1 gas detection equipment which is capable of continuously monitoring lower explosive limits, oxygen and hydrogen sulphide
1	Class 1, Zone 1 gas detection equipment which is capable of continuously monitoring butadiene in ppm
1 set	Certified bump/calibration gas (pentane) and calibration equipment, with manufacturer's instruction booklet
4	Self-contained breathing apparatus, high pressure or 30 minute industrial grade or better
4	Air bottles for self-contained breathing apparatus (spare)
8	Full face respiration masks
24	Organic vapour respiration mask cartridges
4	Harness and lanyard, for fall arrest
2	Air horn
1	Wind sock
1	Hard copy or ERAP and SDS/technical briefs (alternatively cell phone with access to internet and email)
4 sets	Rail tank car tank chocks
4	Blue flags or blue lights (to signal track closure)
3+	Fire extinguishers (20 lb), ABC
1 per vehicle	Fire extinguishers (10 lb), ABC
1	Binoculars
1	Cell phone with internet and email access, satellite phone to be rented if going to area with no cell coverage

Table 8: ERAC Response Team Equipment Standard (cont.)

SUPPORT EQUIPMENT	
Quantity	**Description of Resource**
4	Class 1 Div. 1 radios
1	Generator sufficient to power response trailer requirements, lights, battery chargers
4	Flood lights, minimum 500 Watt
1	Pipefitter's tripod or vice
2	Lifting bag and rope
1	Tool box, equipped with wire brush, scrapers, pipe tape, box wrenches, adjustable wrenches, measuring tape, pliers
3 each	Pipe wrenches, 24" and 36"
1	Emergency Response Guidebook
PERSONAL PROTECTIVE EQUIPMENT	
Quantity	**Description of Resource**
1 per responder	High visibility fire retardant clothing, appropriate for weather conditions
1 per responder	5 point tear away reflective safety vest
1 set per responder	Chemical and nitrile rubber gloves
1 set per responder	Leather work gloves or mitts
1 per responder	Hard hat
1 set per responder	Safety work boots
1 set per responder	Rubber safety boots with puncture resistant soles
1 set per responder	Eye protection, safety glasses, safety goggles, and face shields
1 set per responder	Hearing protection, plugs or ear muffs
1 per responder	Fire retardant rain suit
1 per responder	Flashlight, hand held or helmet mounted, Class 1 groups C&D

Once an evacuation of the premises is initiated, the Evacuation Warden shall bring the "Evacuation Kit" to the selected Muster Area. This Evacuation Kit can be found in each bulk truck and shall contain:

- up to date employee list with contact numbers;
- copies of this ERPP;
- hard hat;
- reflective vest; and
- charged cellular phone.

5.3 Communication System

Propane Energy has developed two primary communication systems for use in response to a propane emergency. The first is a verbal on-site notification system that sends the call for evacuation from the facility. The second system, consisting of 2-way radios and cellular phones, is used by emergency response personnel to maintain contact with each other while dealing with the emergency.

5.3.1 Evacuation Notification

The on-site notification system is comprised of a verbal notification initiated by the Evacuation Warden. In addition, most employees carry cell phones allowing for constant communication during an emergency.

5.3.2 Communication During Emergency

Communications between on-site emergency response personnel is facilitated by the efforts of Propane Energy. For communications with required company personnel who are either on- or off-site at the time of the propane emergency, telephone landlines or cellular telephones may be used for establishing emergency communications. The contact information for necessary company personnel is provided in Section 3.1 Emergency Contacts.

5.4 Muster Areas

Two muster areas where employees will evacuate in event of an emergency have been identified in this plan. Unless circumstances dictate otherwise, personnel should evacuate to the primary muster area. It is primarily the responsibility of the Evacuation Warden to decide which muster area is appropriate. The locations of the muster areas are as follows:

- primary muster area: Mascioli Construction, 359 Cameron Street South, Timmins, Ontario; and
- secondary muster area: Public Park Area, 303 Cameron Street South, Timmins, Ontario

Muster areas are also identified on the overhead view of the facility which can be found in Appendix B.

6.0 EMERGENCY PREPAREDNESS

6.1 Propane Emergency Prevention

Propane emergency prevention and overall safety is primarily achieved through facility design and construction, and compliance with applicable standards. The use and handling of propane, and procedures followed for the receipt of propane at the facility are according to the requirements of the Canadian Standards Association ("CSA") B149.2-20 *Propane storage and handling code*, as adopted by TSSA. In addition, the bulk propane tanks at Propane Energy's Timmins facility are designed and built according to the ASME Boiler and Pressure Vessel Code: Section VIII, Division 1.

Propane Energy also protects against propane emergencies or their escalation through the following measures:

- Preventative maintenance checks and programs;
- Operating procedures and maintenance of facility documentation;
- Selection of the proper mode of transport and transportation equipment suitable for the tasks or loads;
- Developing, maintaining and implementing Propane Energy Health and Safety policies (e.g., WHMIS, First Aid programs)
- Operator competence and training; and
- Processes and procedures to ensure that changes in design, service or staff are managed to minimize impacts on operations.

The elements above are described and documented in the Propane Energy Standard Operating Procedures.

The *Transportation of Dangerous Goods Regulations*, under the direction of Transport Canada, also plays a role in ensuring the safe handling, transport and delivery of propane. *Transportation of Dangerous Goods Regulations* require specific shipping documents, a level of driver training, product identification on shipping vehicles, and a registered company specific ERAP for certain installations.

As a member of the Canadian Propane Association ("CPA"), Propane Energy further achieves propane emergency prevention measures through initiatives outlined in the "Safe Transportation, Storage, and Handling" section of its ERAP.

6.2 Training

Employees at Propane Energy required to handle propane have received accredited training through the CPA. Similarly, bulk truck drivers have received approved TDG training.

7.0 PUBLIC AWARENESS AND EDUCATION

The properties that may be affected by an off-site emergency are identified in Table 9 below:

Table 9: Affected Public Contact Information

Name of Resident/Company	Address	Telephone Number
Cool Heat Timmins Mechanic Shop	339 Cameron Street South	(705) 267-2665
Confederation Multi Sports Facility	303 Cameron Street South	(705) 360-2621
Resident	265 Way Avenue	-
Resident	296 Cameron Street South	-
Resident	264 Wende Avenue	-

Propane hazards have been communicated to the City of Timmins and the Timmins Fire Department. Additional information is available to the public in an SDS for propane attached in Appendix A.

As a member of the CPA, Propane Energy is knowledgeable of the public safety campaign undertaken by the association. The following website provides information on propane safety:

http://www.propane.ca/en/about-propane/safety

In the event of an emergency, the designated Company Spokesperson at Propane Energy will facilitate initial and subsequent communications with the public and the media under the direction of the Emergency Services Unified Command Structure.

Through verbal contact and the publication of this ERPP, community members most likely to be affected by an emergency have been provided with important contact information that includes key personnel at Propane Energy and government/municipal organizations.

Notification of the end of an emergency to all those affected is the responsibility of the Company Spokesperson. The Company Spokesperson will proceed with announcing the end of an emergency when indicated to do so by the Emergency Services Unified Command Structure. Communication of such information is to be done by means of telephone or media.

8.0 EMERGENCY RESPONSE PROCEDURES

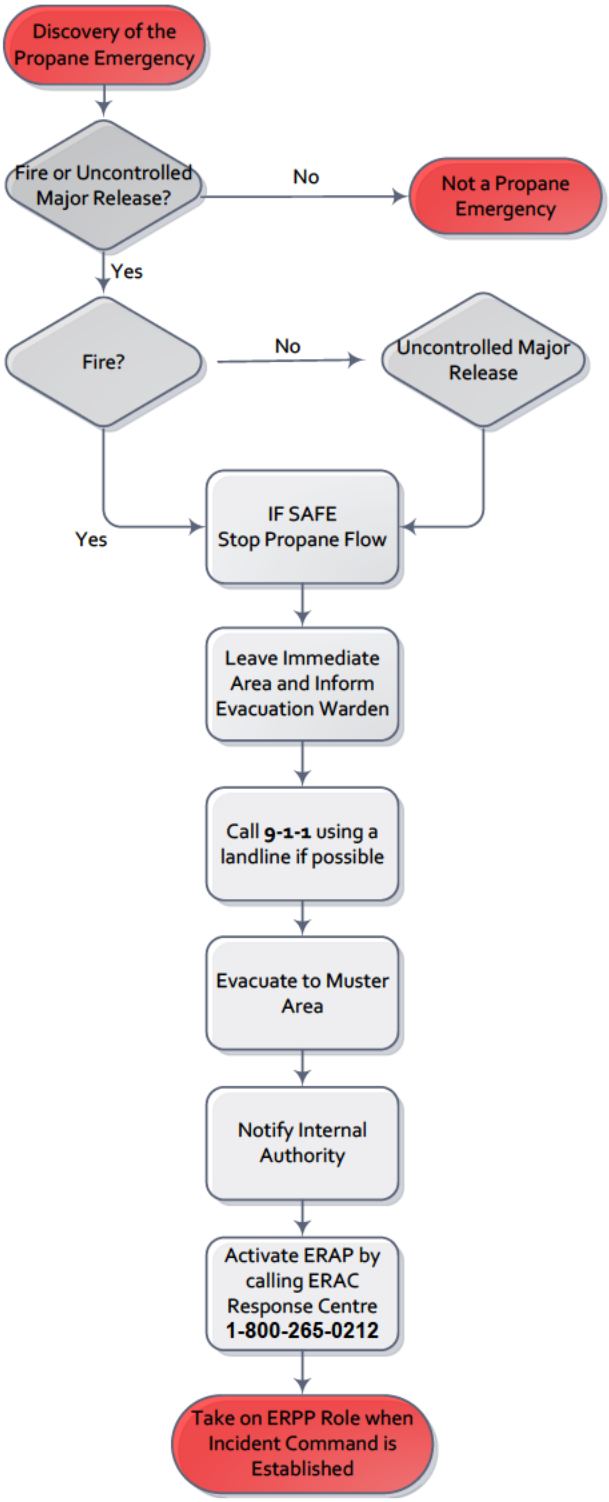
8.1 Activation of the ERPP, ERAP and Notification of the Emergency

In the event of a propane emergency, 911 will have been called unless there is a minor release. The ERPP and ERAP should be activated by an employee at Propane Energy. This employee is designated by the Evacuation Warden to activate the ERPP and ERAP and must do so by calling the ERAC Response Centre. Upon activation of the plans and after successfully evacuating, the designated employee should ensure that the proper authorities have been promptly notified. Contact information has been provided in Table 5. Examples of regulatory reporting requirements have also been provided in Section 3.1.

8.2 On-site Activation and Notification Procedures

An activation and notification flowchart has been provided below in Figure 3. The flow chart shows steps to take before and after activating the emergency plans. It also shows the proper authorities to notify after the discovery of a propane emergency. The flow chart summarizes actions to take from the beginning of a propane emergency until the Incident Command Structure is established.

Figure 3: Activation and Notification Flow Chart



The following is a generalized outline of activation, notification and emergency procedures to follow during a propane emergency.

Step 1 – Identify the situation

- For a frost bite, stop any activity being performed and seek first aid immediately.
- For a propane emergency such as fire or an accidental release, follow the steps below:

Step 2- **IF** it is possible to stop flow of product while evacuating,

- Stop product flow **IF SAFE** to do so by either:
  - Activating one of the emergency shut-off buttons;
  - Pressing the emergency stop button on the query system;
  - Shutting off the pump by cutting the power supply;
  - Relieving the pressure in the pneumatic system.

- Do **NOT** attempt to put out even a small propane-fed fire unless you are able to cut off the supply of gas to the flame.

Step 3 – Leave the immediate area

- Inform Evacuation Warden of location of fire or release
- Initiate the Evacuation Procedure
- Isolate area for at least 100 m in all directions
- Restrict access to isolated area

Step 4 – Call 9-1-1 using a landline if possible to speed up the dispatch of emergency resources

- Have emergency information ready:
  - Nature of emergency (fire or release);
  - Facility location;
  - Building name and address;
  - Call-back number;
  - Location of fire or release;
  - Duration of the fire or release; and
  - Any other relevant information

Step 5 – Proceed to designated Muster Area

- IF in doubt of Muster Area location, look for the Evacuation Warden identifiable through the “White” hat and reflective vest.
- DO NOT start any vehicle - walk, do not run to Muster Area

Step 6 – Notify Internal Authority

- Notify Technical Director/Advisor and/or Company Management.

Step 7 – Call ERAC Response Centre at **1 (800) 265-0212** and **ACTIVATE** the ERAP

- Have emergency information ready:
  - Nature of emergency (fire or release);
  - Facility location;
  - Building name and address;
  - Call-back number;
  - Location of fire or release;
  - Duration of the fire or release; and
  - Any other relevant information.

Step 8 – Take on ERPP role when the Incident Command Structure is established

8.3 On-site Evacuation Procedure

Evacuation to a safe area is necessary to protect employees in case of an emergency. Propane Energy has developed a system to communicate the requirement for evacuation to all employees on-site. Employees are to evacuate to one of two muster areas where they will be counted and given direction on how to proceed. The following instructions describe the evacuation procedures set out by Propane Energy for employees, contractors and visitors:

1. Obey the call for evacuation;
2. Follow instructions of the Evacuation Warden;
3. Proceed to the designated Muster Area. If in doubt of Muster Area location, look for the Evacuation Warden identifiable through the “White” hat and reflective vest then proceed to their location.
4. During evacuation personnel shall:
   a. NOT stop for valuables;
   b. shut off electrical appliances and fuel fired equipment;
   c. leave lights on;
   d. close doors and windows;
   e. WALK, never run while evacuating;
   f. evacuate via the shortest and safest route;
   g. remain in the Muster Area until instructed otherwise by the Evacuation Warden;
   h. assist the Evacuation Warden with the head count;
   i. give any information about the propane emergency or about persons who might still be in the facility to the Evacuation Warden or Emergency Services Unified Command Structure; and
   j. NOT re-enter the facility for any reason until told to do so by the Emergency Services Unified Command Structure or Evacuation

8.4 Off-site Evacuation Procedure

Members of the public that may be affected by a propane emergency are advised to wait for further instruction from municipal authorities and the Emergency Services Unified Command Structure.

9.0 RECOVERY

After a propane emergency, the following recovery procedure is to be followed:

- Adequately ventilate all areas that may have accumulated any gas to safe levels of propane concentration in air of less than 25% of the lower flammable limit ("LFL") of propane (<0.5%).
- Dispose of debris.
- Although propane is not considered to be an environmental hazard, spills and leaks of other hydrocarbon fuels stored at Propane Energy's Timmins facility must be cleaned up after an emergency.

9.1 Compensation

CPA member and non-member parties who participated in response to the Propane Energy propane emergency shall be compensated appropriately. Remedial Measures Advisors and Response Team Members shall be compensated according to the payment schedules found in the ERAP #2-0010-401 document.

10.0 APPENDICES

Appendix A

Propane SDS

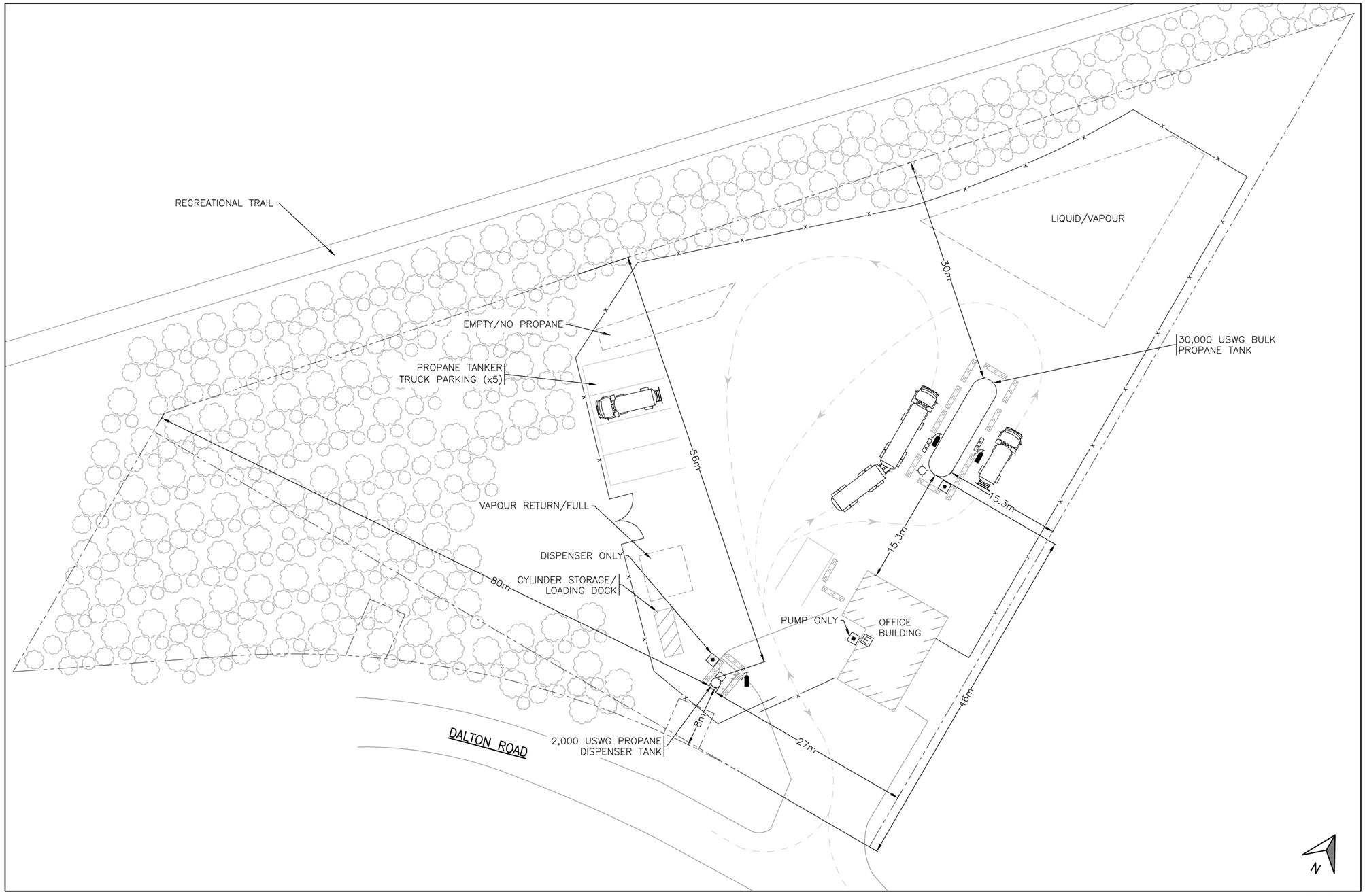
Appendix B

Site Plan and Muster Areas

Site Plan

- FIRE EXTINGUISHER
- LIGHT STANDARD
- EMERGENCY STOP
- EMERGENCY STOP (PUMP SHUTDOWN ONLY)
- EMERGENCY STOP (DISPENSER SHUTDOWN ONLY)
- ELECTRICAL SHUTDOWN
- JERSEY BARRIER
- TRUCK PARKING
- ASPHALT/GRAVEL BOUNDARY
- PROPERTY BOUNDARY
- TRUCK PATH
- FENCE
- SWING GATE
- SLIDING GATE
- BULKHEAD
- STRUCTURE
- PROPANE CONTAINER STORAGE AREA
- TREE

LEGEND



SITE PLAN

DRAWING STATISTICS: REVISION 0, DATED SEPTEMBER 23, 2021 ISSUED FOR RSMP

DATE	No.	REVISION
SEPT 23/21	0	ISSUED FOR FOR RSMP

NOTES

THIS DRAWING IS DIAGRAMMATIC IN NATURE AND INTENDED TO SHOW ONLY SITE FEATURES ASSOCIATED WITH PROPANE SAFETY. CONTRACTORS TO VERIFY ALL DIMENSIONS.

NOT FOR CONSTRUCTION

PROFESSIONAL SEAL

PROJECT MGR:	R. WILSON
DESIGNED:	T. MCRAE
DRAWN:	T. MCRAE
CHECKED:	R. TROUTMAN
APPROVED:	R. WILSON
SHEET SIZE:	ARCH D
SCALE:	1:250
UNITS:	METRIC

PROJECT
LEVEL 2 RISK AND SAFETY MANAGEMENT PLAN PROPANE ENERGY SOLUTIONS

TIMMINS, ONTARIO

DRAWING TITLE
BULK FILLING PLANT: SITE PLAN

DRAWING NUMBER
20100-SK-001

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Muster Areas


Secondary Muster
Location: Public Park Area
Fireball Radius 100m
Primary Muster Location:
Mascioli Construction
Google Earth
Image © 2021 Maxar Technologies
100 m
N

Appendix C

Quick Reference Chart for Vapour Cloud Regime – 30,000 USWG

		Leak Size (Approximate Diameter)							
		0.25"		1"		2"		3"	
		Weather Condition							
		Winter (-10°C)	Summer (23°C)	Winter (-10°C)	Summer (23°C)	Winter (-10°C)	Summer (23°C)	Winter (-10°C)	Summer (23°C)
Duration (hrs)	55% Initial Fill	32.2	31.5	2.2	2.0	0.6	0.5	0.3	0.2
	70% Initial Fill	40.4	34.7	2.6	2.2	0.7	0.6	0.3	0.3
	85% Initial Fill	49.7	37.6	3.1	2.5	0.8	0.6	0.4	0.3
Vapour Cloud Dimensions (m)	Length	5.6	15.3	105.4	86.5	281.8	187.9	489.4	296.4
	Width	2.0	1.9	56.0	16.7	172.6	43.0	315.2	75.0

Instructions for how to use this table:
There are three variables to select on this table: leak size, weather condition, and initial bulk tank contents. These variables will determine the calculated leak duration, vapour cloud length, and vapour cloud width.
An example is shown for the use of this table with the factors of a 1", winter release, and initially 70% full bulk tank:

		Leak Size (Approximate Diameter)							
		0.25"		1"		2"		3"	
		Weather Condition							
		Winter (-10°C)	Summer (23°C)	Winter (-10°C)	Summer (23°C)	Winter (-10°C)	Summer (23°C)	Winter (-10°C)	Summer (23°C)
Duration (hrs)	55% Initial Fill	32.2	31.5	2.2	2.0	0.6	0.5	0.3	0.2
	70% Initial Fill	40.4	34.7	2.6	2.2	0.7	0.6	0.3	0.3
	85% Initial Fill	49.7	37.6	3.1	2.5	0.8	0.6	0.4	0.3
Vapour Cloud Dimensions (m)	Length	5.6	15.3	105.4	86.5	281.8	187.9	489.4	296.4
	Width	2.0	1.9	56.0	16.7	172.6	43.0	315.2	75.0