ONTARIO ENERGY BOARD

IN THE MATTER OF the *Ontario Energy Board Act, 1998*, S.O. 1998, c.15 (Schedule B);

AND IN THE MATTER OF an application by Imperial Oil for an Order or Orders pursuant to section 90(1) of the *Ontario Energy Board Act, 1998* for leave to construct 63 kilometers of 12-inch diameter pipeline for transportation of refined petroleum products and from its facility in the City of Hamilton to its facility in the City of Toronto and permission for an adjustment of the route of the pipeline

1112308 ONTARIO INC. and 2394561 ONTARIO INC. OVERVIEW OF EVIDENCE

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TO: All parties registered in EB-2020-0219

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TAB 1

ONTARIO ENERGY BOARD

IN THE MATTER OF the *Ontario Energy Board Act, 1998*, S.O. 1998, c.15 (Schedule B);

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1112308 ONTARIO INC. and 2394561 ONTARIO INC.
OVERVIEW OF EVIDENCE

1. Our client, 1112308 Ontario Inc. and 2394561 Ontario Inc. (Abell Properties) are the owners of lands municipally known as 1 & 7 Meridian Road and 151 Skyway Avenue in the City of Toronto.

2. The evidence submitted herein relates to the existing use on our client's property for the Ontario Energy Board to consider in assessing the notice of motion by Imperial Oil to substantially vary the route alignment of its proposed project. Please see the attached index of documents and enclosures as evidence of our client for the OEB's consideration.

3. In brief summary, the evidence comprises of documents to demonstrate the unique fire safety risks to the proponent and the public at large associated with including additional pipeline infrastructure on our client's property.

4. Our client's tenant, Gardex Chemicals Ltd., operates a facility with a substantial collection of chemicals that are flammable and combustible liquids used in the structural and pesticide industry at 1 and 7 Meridian Road; please see the listing and description contained Gardex Chemicals Ltd. product storage summary, (Tab 12 and each tab for the warehouses). Please see the layout of the subject warehouses and storage of identified chemicals (July 26, 2020, Tab 11).

5. As a result of the storage, processing and chemical management activities on our client's properties at 1 and 7 Meridian Road, our client and its tenant have had specialized fire safety plans and emergency response plans prepared for their site (see Tabs 6, 9 and 10). In particular, please see page 9 of the emergency response plan (Tab 6), which provides at page 9:

> **There is a fire hydrant within 10 meters of the site. Should the chemical storage area become involved in fire, the Fire Chief at the scene should let the room(s) burn and use the water only to protect the adjoining warehouse and offices. All run-off water should be contained, even if water is not applied to the chemical storage area.**

- **This provision has been discussed with the Fire Chief.**

- **This eventuality has been discussed with insurers of the facility.**

6. Our client has been advised that in the event of a chemical fire, however caused, the fire suppression technique is to “let burn” rather than use water to put out the flame.

7. The “let burn” approach and specific fire safety plans for our client’s property relate to MOE requirements to notify and work with local fire safety authorities. Please see Tab 3 - the Ministry of Labour Ontario Fire Service Section 21 Advisory Committee, Fire Fighters Guidance Note # 6-30 regarding Pesticide Storage and Pesticide Storage Fires MOE Fire Department Notification Requirements as the genesis of the above noted fire safety plans.

8. The fire safety plans and approach are in accordance with the Agrichemical Warehouse Safety Standards, nationally developed standards for the pesticide and agricultural industry. Please see Tab 5 for a summary document of AWSA considerations for a chemical fire and related suppression techniques. In addition, please see Tabs 2 and 4 regarding fire incidents related to properties with similar characteristics to our client’s property.

9. To be dealt with in more detail during written submissions, our client requests the OEB to take into account the enclosed documents in making its determination with respect to approval of the substantial re-routing proposed by the proponent, Imperial Oil, and whether it is appropriate to impose further conditions on Imperial’s project in proximity to our client’s property, including providing an unqualified indemnity to our client and appropriate procedures to safeguard against the elevated risk posed by the use on our client’s property and fire safety considerations.

TAB 2

JG Henderson & Associates

Fire Service Studies & Evaluations – Fire Investigations

Fire Risk Assessments & Audits – Fire Expert (Litigation) Services

Mr. Don Earl, A. Assistant Director
Program Services Unit, Central Region
5775 Yonge St., 8th Floor, North York,
ON M2M 4J1

December 22, 2008

Re: The Biedermann Fire

Dear Mr. Don Earl:

The following are my responses to the questions raised in your email of November 20, 2008.

Question 1:

> *Assess the adequacy of the Emergency Response Plan (ERP) Biedermann Packaging Inc. and their preparedness in the context of the nature of their facility and type of chemicals/materials handled in the plant as it relates to the fire that occurred at 36 Head St., Dundas on July 26, 2007, including measures to address the management of the firefighting runoff water and secondary containment, as well as the location of material to implement the ERP in the event of a fire.*

This question encompasses not only the ERP but also the compliance of the Biedermann facility to the applicable codes; namely, the Ontario Building Code (OBC) and the Ontario Fire Code (OFC). Therefore, my response includes a discussion of these references.

Upon conducting a Building and Fire Code compliance audit, I have concluded that the Biedermann Plant was in compliance with both the OBC and the OFC. In fact, the facility exceeded the minimum requirements of these Codes in several areas that ought to have had a very positive impact on mitigating the extent of fire and environmental damage during this fire. These additional risk mitigation measures included:

1. A firewall that divided the Biedermann Plant. Although a firewall was not required in the design of the plant, a 4-hour firewall was incorporated. This passive fire protection measure had a significant positive impact on the fire incident as it significantly reduced and even prevented the fire from spreading to the north building where a considerable amount of pesticide product was located.

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If the fire had of spread to the south building and in the absence of an environmental mitigation plan by the IC, it could be anticipated that the contamination would have been much more severe as more than double the amount of fire flow would have most likely been used to contain the fire. The south side of the plant represented less than 50 percent of the total area of the plant; hence, less than fifty percent of the building's total fire-load. The inclusion of this fire protection measure would make the fire much easier to contain and much safer on the fireground for the attending responders.

2. Biedermann initiated and funded HES-Fire to conduct a Code compliance audit. Rarely do the managers of a low hazard industrial occupancy (Group F, Division Occupancy) request and fund such a safety audit. This provided the HES-Fire an opportunity to identify and request (issue a compliance order if necessary) the correction of any non-code-compliance issues that may have existed. However, HES-Fire reported that only minor non-code-compliance issues were observed and corrected. This demonstrates the safety culture that was practiced by management and their employees.

3. Facility familiarization tours were provided by Biedermann to the HES-Fire. This is a significant risk reduction measure although it appears that the full benefits were not achieved as the information appeared not to have been passed from HES-Fire (Fire Prevention) to the HES-Fire Operations. Even though this would have been an ideal opportunity for HES-Fire to develop a pre-incident plan to this facility for their responses to this facility, they failed to take this opportunity to better prepare for a response to the Biedermann facility.

4. An inventory of the pesticide products was provided to the HES-Fire. (It appears that the inventories were passed to the Fire Prevention Cell who may not have passed it on to operations, however, this has not been confirmed).

5. Biedermann installed a spill containment system that was capable of containing approximately 210,000 gallon of liquids (This containment was not required by the applicable Building and Fire Code). Such a system is rarely incorporated unless it is required by applicable codes.

6. An ERP was developed in 1999 and the Plan was revised in 2005. Neither an ERP nor a Fire Safety plan was required for this facility by the applicable codes. This Plan had all of the elements normally found in such plans where they are required, plus the above noted actions of Biedermann complimented their ERP.

Therefore, based on the foregoing I can only and objectively conclude:

- Although an EMP was not required by the applicable Building and Fire Codes, Biedermann developed an ERP. In conducting an analysis of the adequacy of the plan, I found it to be a comprehensive document that addresses all of the critical elements of an ERP.

- Although the Biedermann facility did not require (by Codes) a containment system, they incorporated one into their plant that has a capacity of approximately 216,000 gallon. This was a very significant conservation mitigation measure as it would give the IC additional time to set-up their conservation containment strategy.

- Containing runoff (fire flow) water from a firefighting operation is the sole responsibility of the attending fire department. (with the assistance of other specialist when available and requested by the IC).

Question 2:

- *Assess the implementation of the ERP by Biedermann at the time of the fire at 36 Head St., Dundas on July 26, 2007.*

- *Did Biedermann take sufficient action to control the firefighting runoff water?*

The third operational priority of a fireground operation is property (environmental) conservation. Protecting air, ground, and water is an integral component of all hazard material responses by the attending fire department. During a fire emergency operation, the fire department's IC is in charge of the scene. Non-emergency personnel do not take part in such operations unless under the direct supervision and authority of the IC. Therefore, it is my opinion that the responsibility for mitigating the run-off water from the operation was solely that of the IC. However, in many similar incidents, an IC will liaison with a building owner for the purpose of: gaining insight into the facility's design and construction type, its layout, the fuel loading, gaining an understanding of the operation including the type and quantity of hazardous materials located on the property. Often where such occurs, the IC gains a more in-depth understanding of the hazard, and knowledge of the resources and expertise that the building owner may have that can assist in the fireground operation. Even when lists of the HAZMAT materials are supplied and/or available to an IC, this contact is made with plant managers/operators as such inventories are never static. Therefore, contact is made to confirm current quantities and location of the various products.

It is **never** the responsibility of a building owner to *take action to control the firefighting runoff water* while a fire emergency is in progress unless a specific action is requested and directed by an IC.

During all fires and hazardous material emergencies, the IC is in full and complete charge of the fireground perimeter. However, after liaison with other specialists including building owners, the IC may request and direct a specific action to be taken. Where such may occur, it is under the direct authority and supervision of the IC.

Question 3:

Did Biedermann adequately advise the Incident Commander of the products that were stored in the south building (particularly Diazinon)?

The IC stated in his report that he knew at the front end of the operation that he was fighting a fire in a pesticide plant. Moreover, the IC's personnel (fire prevention and operational tours) visited the plant and knew or ought to have known that the plant contained pesticide materials that could be harmful in large quantities to the environment. As a result, the IC ought to have been addressing the contaminated firefighting runoff when he developed his initial fire attack plan notwithstanding his full knowledge of a particular pesticide that may or may not be directly involved. Therefore, as the IC knew that this was a HAZMAT operation from the very beginning it was his responsibility to address it as such in his strategic operational plan.

Again, if an IC feels she / he does not have sufficient information regarding a HAZMAT operation, contact is made with HAZMAT specialists and other personnel including building owners and plant specialist that may provide the required information. This process is common practice as ICs attending a HAZMAT operation routinely seek out the plant specialist and managers to obtain all of the information that is possible.

It is my understanding that plant personnel were available at the very front-end of this incident.

Question 4:

Was it foreseeable by Biedermann that HES-Fire would use 5,000,000 L of water to extinguish the fire at their facility?

Under no circumstances was it foreseeable by Biedermann personnel that HES-Fire would use 5,000,000 L of water to contain and extinguish this fire. In fact, if a fireground specialist, in the preparation of a pre-incident plan and using one of the industries accepted methodology to determine the fire flow requirement for this facility, less than one-quarter of fire flow that was used would have been identified in the calculation. Moreover, as the fire was fought in a defensive mode of operation, all that was necessary with respect to fire flow, was containing the fire from spreading – not extinguishment.

Question 5:

If Biedermann had of informed the Incident Commander that Diazinon was stored in the south building and was informed of the increased environmental risk of this product, is it likely that the IC would have altered or used a different fire attack plan?

No. For reasons as discussed in question 3, IC knew that he was attending a hazardous material incident. If additional information was required, he ought to have sought out that information. However, notwithstanding the above, once having established that the incident was a HAZMAT pesticide response, even though one product may be more harmful to the environment than another, an IC

does not have anyway of knowing how much runoff water of the lesser hazardous product is required before serious or even equal damage occurs. Containing fire flow runoff is a concern at all HAZMAT operations and the strategic attack plan that is developed by the IC at the very beginning of the operation must address this operational requirement. The failure to address this issue at the time the attack plan is developed is to ignore one of the basic and fundamental requirements of the fireground operational priorities.

It must be remembered that the IC sets the objectives, decides on the tactics necessary to achieve those objectives, and then assigns crews to complete the tasks associated with each objective and tactic.

It is obvious that conservation was not an objective of the fire attack plan used in this fire incident even though *conservation* is one of the three operational priorities of all fireground operations. In this regard it is noted that the three operational priorities are:

1. Life-safety (occupant and attending firefighter)
2. Fire Extinguishment
3. Conservation

With respect to the first priority, this incident posed an extremely low risk to life-safety. Firstly, there were no personnel in the building at the time of the incident; hence, no rescue operation required. Secondly, the fire was declared a defensive mode of operation. This means that firefighters were not placed inside the structure where they would be exposed to toxic, superheated smoke and heat, no potential for flashover, draft, or roll-over, and no exposure to the potential of structural failure. Therefore, minimum resources and planning was required for this operational priority.

With regards to the second operational priority, fire extinguishment, this was also a low demand operational priority. When a defensive mode of operation is declared by an IC, he has made a decision that the building of fire origin is lost to the fire; that it is beyond saving. Operational efforts then are directed at preventing the fire from spreading to the exposed building(s). As the exposed building (the south building) was separated from the north building by a 4-hour firewall that had a parapet extending above the roof of the two buildings, the potential for fire extending from the south building was greatly reduced. As a result, only several aerial monitors would be required to prevent the fire from spreading to the south building. (This does not mean that the aerial monitors had to flow water constantly – only to wet down and to reduce the initial heat flux).

Therefore, as the first two operational priorities were "low demand" in both strategy requirements and in the fireground resources, it is my opinion that the IC had adequate opportunity to address the requirements of the third operational priority; *conservation,* and it ought to have been addressed from the beginning when the strategic plan was developed and implemented.

Therefore, it is my opinion that whereas the IC knew he was attending a pesticide fire and whereas the same conservation tactics were required for all pesticide contaminated runoff water, specific knowledge of one product would not have altered his tactical plan.

Question 6:

Assess the actions of Biedermann at the fire scene including the management of the potential for, and actual, firefighting runoff water. (More specifically, assess the actions of Biedermann once it was known that there was a risk of firefighting runoff water, as well as the actions taken when the water first began to leave the site at 36 Head St., Dundas.

As previously stated in the above answers, conservation is the third operational priority of a fireground operation. Therefore, it is my opinion that the Biedermann personnel did not have a responsibility for the containment of the fire flow runoff.

However, when an owner has knowledge of a specific hazard when a fire occurs in their facility, it is reasonable to expect that the information would be passed to the IC. However, I do not have any knowledge of the information that was passed to the IC or his accessibility or receptiveness.

These are my objective answers to the posed questions. If additional information or clarification is required, please contact me at your convenience.

Respectfully submitted,

Jack Henderson, Manager
Senior Fire Protection Specialist

JG Henderson & Associates

TAB 3

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FIRE FIGHTERS GUIDANCE NOTE # 6-30

ISSUE: PESTICIDE STORAGE AND PESTICIDE STORAGE FIRES

MOE Fire Department Notification Requirements

The Ontario Ministry of the Environment (MOE) has amended a regulation made under the Pesticides Act. Section 112 of O. Reg. 63/09 requires that persons who store certain pesticides provide annual notice to the local fire department in the jurisdiction in which the pesticide is stored on an MOE supplied form indicating that pesticides are stored on the site. The form provides the local fire department with information about the identity of the pesticides, where the pesticides are located within the facility, conditions of storage and the identity of the person responsible for the pesticides.

The regulation applies to pesticide storage locations such as manufacturers and formulators of pesticides, MOE licensed vendors who sell pesticides and MOE licensed operators of a pest control business. Some pesticide storage locations such as golf courses, farms, municipal works departments and utility operations are not covered by O. Reg. 63/09 and do not require MOE operator licenses.

Pesticide classification is different from standard Dangerous Goods (UN) or Workplace Hazardous Materials Information System (WHMIS) classifications normally referenced by fire departments at dangerous goods incidents. More information on pesticide classification is available from MOE.

It is recommended that when an MOE Fire Department Pesticide Notification Form is received by the local fire department that they coordinate a site inspection to assist these facilities with a fire safety plan. MOE Pesticides Specialists are available to accompany local fire departments on joint inspections of pesticide facilities upon request.

Some pesticide manufacturers and some large vendors already have these fire pre-plans in place based on standards from the "CropLife Canada Manufacturing Code" and the “Agrichemical Warehousing Standards Association (AWSA)". The sites would be classed as manufacturing or farm retailers and agricultural distributors. There are approximately 4 sites in Ontario that follow the CropLife Canada Manufacturing Code and 254 sites in Ontario that comply with the standards of the AWSA. Those sites store inventory in compliance the Ontario Fire Code and National Fire Code according to the hazard of the product. Included in these standards is the requirement for a site to prepare an Emergency Response Plan along with the storage layout and quantities of

the hazardous and non-hazardous products in the warehouses. A yearly sign off by the local Fire Chief is required for them to meet these industry standards.

Fire departments should also consider inspections of other facilities that may store pesticides such as farms, golf courses, public utilities, etc.

Fire Department Pre-Plans for Pesticide Storage Fires

It is recommended that fire departments develop a fire pre-plan for each pesticide storage site and that a “Controlled Burn” strategy be considered by fire departments for fires that have spread into pesticide materials at these locations. This should be discussed with the owner and the insurance company providing coverage for that property.

Retail vendors who are selling ‘domestic’ pesticides will be limited in the type of pesticides available and therefore limited quantities would probably be found as part of a larger home improvement retail business. Due to the limited quantities at these retail locations, there may not be a need for a detailed pre-plan that would apply to the larger manufacturing or warehousing operations.

LIFE SAFETY CONCERNS

- Protection of first responders and the public is a major concern with fires involving pesticides.
- The management of airborne contaminants at ground level hinges on the temperature of combustion, and the exit temperature from a structure. Where fires have been allowed to burn at high temperatures, the risk has been lowered significantly.
- First responders at an incident involving pesticides must be protected with self-contained breathing apparatus and standard turn-out gear at a minimum.

FIRE CONTROL CONSIDERATONS

- Where an incident cannot be addressed at the incipient (initial) stage, and where it is possible to ventilate and let burn, this approach should be given serious consideration.
- If a facility is fully involved or free burning, life safety is greatly enhanced by remaining outside the structure upwind of smoke and exhaust gases while the pesticides structure burns itself out.

ENVIRONMENTAL CONCERNS

- Environmental damage, resulting from fires involving pesticides, increases in proportion to the volume of water used in an attempt to control and extinguish the fire.
- The resulting effluent is normally heavily contaminated with toxic compounds and is extremely difficult to contain with diking (other than very heavy clay soils).
- Products of incomplete combustion, due to low temperature burns, tend to be substantially more toxic and less stable than the original compounds.
- Air quality during a pesticide fire, at or near ground level, will deteriorate dramatically as the combustion temperature is reduced. A combustion temperature of 982° Celsius, for example, provides complete thermal decomposition of pesticides with resulting emissions of primarily carbon and water. At this temperature, all contaminants are carried high into the atmosphere where dispersion ensures that toxic levels at or near ground level does not occur.

Please see attached MOE Form “Fire Department Pesticide Storage Notification” on the next page.

Additional information is available from the following websites:

http://www.ene.gov.on.ca/en/contact/regionalmap.php A contact list for MOE Regional and District Offices. Ask to be directed to the Pesticide Specialists.

http://www.croplife.ca

http://www.awsacanada.com

Fire Department Pesticide Storage Notification

Ontario Ministry of the Environment

Fire Department Pesticide Storage Notification (For reference in case of an emergency)

Ontario Regulation 63/09 under the *Pesticides Act* requires that:

- Any person who stores a Class 1 pesticide **MUST** give a written notice annually to the fire department responsible for the area in which the pesticide is stored.
- Every manufacturer[1], licensed operator or licensed vendor who stores a Class 2, 3, 4, 5, 6, 7, or 8 pesticide **MUST** give a written notice annually to the fire department responsible for the area in which the pesticide is stored.

This form, when completed and **forwarded to the local fire department**, serves as the notification required under Section 112 of O. Reg. 63/09 under the *Pesticides Act*. **Retain a copy for your records.** Please notify the fire department if any of the information below changes.

Part A

Name of Fire Department (to which notification is being made)			Date
Address of Fire Department			Fire Department Telephone No.(s) Emergency No.
City	Prov.	Postal Code	Business No. (non-emergency)
Business Name			Operator[2] or Vendor[3] Licence Number *(if applicable)*
Address *(street number and name or 911 emergency identification number & street name)*			
City	Province		Postal Code
Business Telephone No.			Business Fax No.
Name of Person Responsible[4] for the Storage of Pesticides *(please print)*			After Hours Contact Telephone No.
Name of Alternate Contact *(please print)*:			After Hours Contact Telephone No.

This business has a fire pre-plan on file with the local fire department under the CropLife Canada Certified Manufacturing Code or Agricultural Warehousing Standards Association audit program. **Yes__ No__.** If yes, continue to Part B only.
If No, please describe the specific location of pesticide storage and conditions of storage (e.g. separate or attached facility, temporary or permanent structure, access to facility, location of nearby buildings and water sources, etc.) on the diagram of the storage area(s) in the section on the reverse side of this form. Continue to Part B and C.

Part B.

Pursuant to Section 112 of O. Reg. 63/09 under the *Pesticides Act*, I am providing annual notification to the local fire department that the following pesticides are stored at the address indicated on this form.

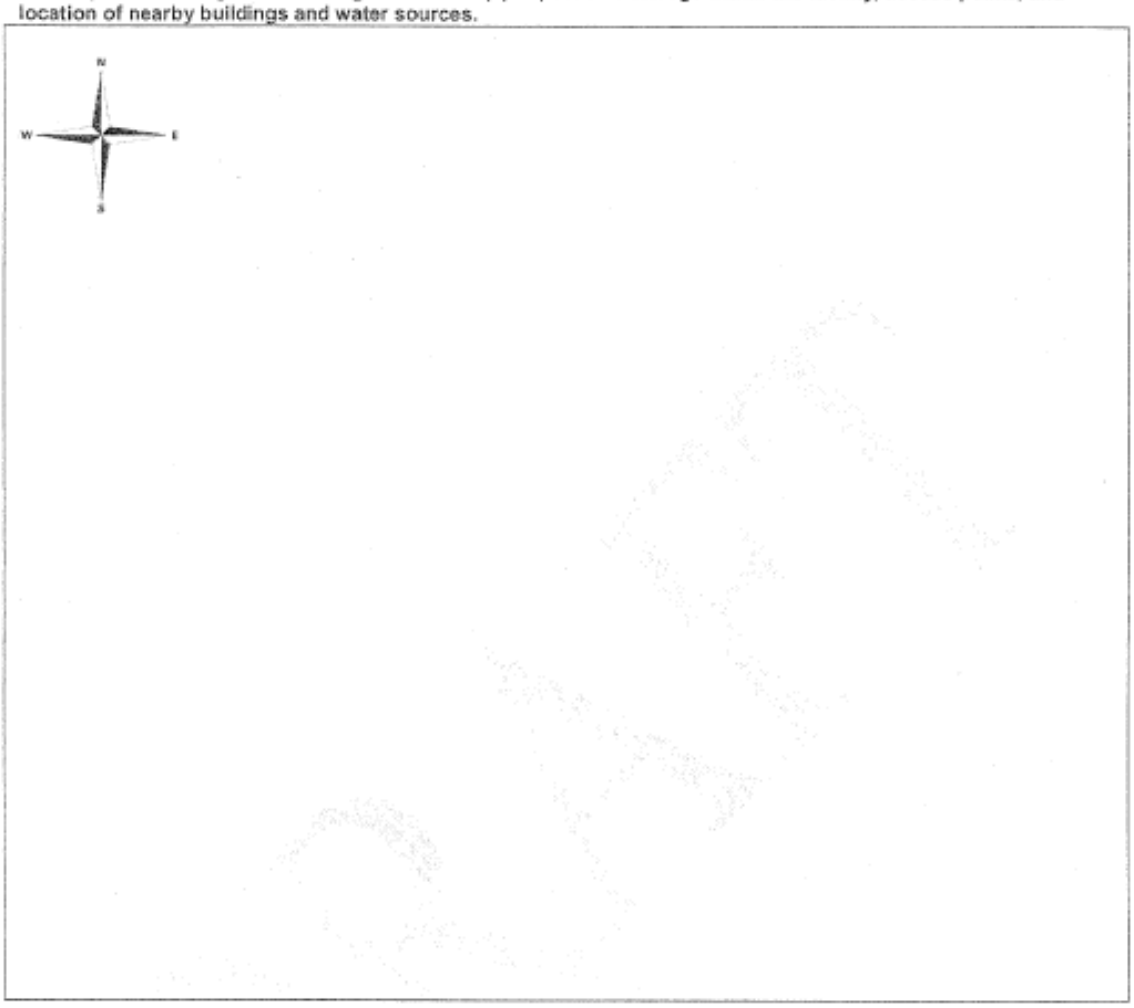
In storage (check all that apply)	Pesticide Federal Class	Federal Description	Ontario Classification under O. Reg. 63/09
	Manufacturing	For use in the manufacture of a pest control product or a product regulated under the *Fertilizers Act*.	(Class 1)
	Commercial or Restricted	For use in commercial activities that are specified on the label or the restricted class when the label specifies essential conditions respecting the display, distribution or limitations on the use of, or qualifications of persons who may use the product.	(Class 2, 3 or 4)
	Domestic	To be distributed primarily to the general public for personal use in or around their homes	(Class 4, 5, 6, 7 or 8)

1. A manufacturer means a person who carries on business respecting the:
   i. Formulation of a Class 1 pesticide into another pesticide,
   ii. Manufacturing of a pesticide into a product,
   iii. Incorporation of a pesticide into a product,
   iv. Packaging or distribution of a pesticide or product containing a pesticide.
2. Operator means: the person(s) who has the control and management of an extermination business.
3. Vendor means: a person that is the holder of a General vendor licence allowing for the sale of any pesticide to an authorized person or the holder of a Limited vendor licence allowing for the sale of domestic pesticides to an authorized person.
4. Person responsible means: a certified outlet representative of a General vendor licence holder; or a person who is the owner or person having the charge, management or control of storage of a pesticide at a manufacturing or formulation plant; or a person having the charge, management or control of storage or display of a pesticide as a holder of a Limited vendor licence.

Part C

Pesticide Storage Location(s)

Please provide a diagram indicating the location(s) of pesticide storage within the facility, access points, and location of nearby buildings and water sources.



TAB 4

UNIVAR® Agriculture

Kelowna Incident

July 31, 2010

Rick Pierson – Vice President Agriculture

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Stewart Centre up in Flames

- Fire broke out at 9:37 pm Saturday

  July 31, 2010.
- Began with what appeared to be a series of small explosions.
- Firemen hooked up as many as 6 hydrants.
- Water overflowed the property and into the streets.

- *Photo by Daniel Hayduk*

UNIVAR® Agriculture

Quantum Murray sent in to Respond

- We were contacted at 3:00 am to by the fire department to tell us there was an incident and they had called in Hazco.
- Univar sent in our emergency responders, Quantam Murray, at 3:57 am – Quantum informed us that Hazco didn't have specific hazardous chemical capability.
- We began pumping water from the creek leading to the river and also the river while we awaited the environmental consultants to arrive and test the contaminated water.
- At the end of Day 1 the crews had taken 29 truckloads of water away, the intention is to remove another 120,000 litres from the creek. We have a SHE rep on site.
- Quantum are working on removal and complete containment of the site so that nothing more moved.

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Blue color in the water appears to be a chemical reaction between glycols and nitrates

All products in the warehouse had been identified

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Monday Aug 2nd.

- Site was reviewed and it was decided to use carbon filters to filter out the organic matter from the creek until lab results confirmed contents.
- City meeting was held where Quantum Murray explained the plans currently in place. Everyone from the city up to the ministry officers seemed happy with the steps we had taken.
- A press conference was held later in the day where our president and Quantum Murray commented on the efforts. Univar made it clear that we would use all of our resources to help the community even though we were only one of the tenants in the complex.
- The fire department finished their investigation and could not determine the cause so handed the investigation to the RCMP.

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August 3rd.

- MOE is considering stopping our pumping of the creek at the point where the storm sewer enters the creek.
- There is no coloration in the creek or the lake and there are no more dead fingerling fish.
- Water from the creek has been contained and stored locally while water from the fire site has been transported for treatment at the coast.
- The fire site is boomed off and nothing is leaving the site.
- The city and the MOE are happy with all our efforts.
- We are slipping into “project mode” from “emergency mode.”
- The property owner has still not become involved.
- Once the Univar site is clean, we will be stepping aside.

August 4th

- Quantum Murray ER staff are leaving the site and their remediation personnel with take over.
- Several small areas of contamination have been discovered during our checks and they will be cleaned up.
- A media event was held and was not adversarial in the least. The city announced the re-opening of the beach and made it very clear they were thankful for our quick response. The MOE were also thankful.
- After the media event, a reporter contacted us to talk about storage and we spoke about Responsible Distribution, the AWSA audit protocol and our internal SHE audits and that the Kelowna branch complied with all these programs.

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City of Kelowna News Release – Aug 6th.

- The Okanangan beaches that were closed are now open. A major wake boarding event Aug 1st had to be cancelled.
- Lab analysis show below detectable limits of more than 500 chemical compounds. Among the compounds tested were: pesticides, herbicides, glycols, nutrients, metals, volatile organics, chlorinated and petroleum hydrocarbons from runoff water that entered the Mill Creek from the storm drain system.
- The Emergency Operation Centre is extremely pleased with the incredible cooperation and response from Univar Canada and its expert environmental consultants for the resources deployed and action taken since the fire Saturday night.

August 10th. – Univar Internal Comments

- Cause and origin of the fire are unknown at this time but there seems to be a consensus that the fire did not originate in our facility, and likely started in the welding supply.
- We were one of 7 tenants in the building including a welding supply shop (tanks of acetylene and oxygen), irrigation supply shop, stone and tile supply shop, and offices (mainly the Interior Health Authority.) The compressed gas tanks rocketed into the sky causing a serious hazard.
- The fire department used millions of litres of water. There is nothing left.
- What the site could not contain went down the storm sewers in the street, into a creek which flows into the lake.

PMRA Incident Report

- Univar does not agree with the classification made under the Pest Control Products Incident Reporting Regulations (“major effects on the environment”); we feel it was premature and unfounded to classify the incident as stated.
- The classification was apparently made from media reports on fish mortality and not in consultation with Univar or any of its environmental consultants hired for investigation and remediation.
- There is no information to say that the fingerling fish died as a result of pesticides. The fish may have died from oxygen depletion from one of the “industrial substances” released into the water.

PMRA Incident Report (continued)

- There has been no investigation results to establish cause of death or are there any other indicators which lead to the classification.
- We had this discussion with PMRA and they agreed with our assessment of the situation.

- The request for reports is the result of an erroneous report from one of the registrants we deal with. It has sparked this request from PMRA to all registrants who have sold Univar product. It is a procedure that PMRA regrettably has to follow.

Kelowna City Report – October 30, 2010

- Some 1500 businesses in the Kelowna area could have materials that could create varying risks in a fire.
- The city should look at having an environmental disaster response firm on a retainer.
- The fire department was aware of the risk of water being used to fight the blaze being contaminated but the intensity of the fire required high volumes to be used in dealing with the fire and protecting nearby properties.
- Univar Canada had a “prompt and comprehensive” response and the spill was handled as promptly and effectively as possible under the circumstances.

Conclusion

- Univar is in the “Chemical Business.”
- Univar has 10 full time SHE staff members across Canada.
- Audits are conducted regularly for AWSA, SHE, Responsible Distribution, and ISO

- **Other Facts: (A full report is forthcoming)**
- The Kelowna fire cost in excess of $4 million for ER and environmental.
- Over 2 million litres of water was trucked to treatment facilities
  - Fire fighting water
  - Water from Mill Creek
  - Storm sewer flushing water.

TAB 5

What YOU need to know about agrichemical warehouse fires:

- The three operational priorities of fire departments are:
    1. **Life Safety** (occupants and attending firefighters)
    2. **Fire Extinguishment**
    3. **Conservation**

- Experience from documented incidents involving pesticides in structural fires has shown that standard fire fighting techniques (the use of water) can create additional and more serious problems than those posed by the original fire.

- The vast majority of pesticides (99%+) indicate **FOAM** as the manufacturers means of extinguishment in the event of a fire (See the Product Classification Chart at **www. awsacanada.com** under the **Resources** tab)

Resources:

AWSA Bulletin 6 – Agrichemical Products: Fire Control Tactics

Overview of pesticide related firefighting situations. Highlights include:

- Environmental damage, as a result of a fire involving pesticides, increases in proportion to the volumes of water used in an attempt to control and extinguish the fire.
- Effluent resulting from excessive use of water is normally heavily contaminated with toxic substances and is very difficult to contain upon breaching facility dyking.
- Air quality during a pesticide fire will deteriorate dramatically as the temperature is reduced. A combustion temperature in excess of 982 °C provides complete thermal combustion of pesticides with resulting emissions of primarily carbon and water. As the combustion temperature is reduced, various noxious and toxic gases can be created. Steam generated from the addition of water to the fire also has the potential to carry contaminated particles into lower levels of the atmosphere resulting in increased ground level contaminants.
- Fire control tactics where pesticides are involved should follow protocols developed by the manufacturers of the products in compliance with the National Fire Code classifications.

Additional information on fire control tactics including the **Ontario Ministry of Labour – Fire Fighters Guidance Note #6-30** and **JG Henderson Fire Evaluation Report** can be found at **www.awsa.com** under the **Resources** tab.

AWSA Recommended Agrichemical Products Fire Control Tactics

- Fire control tactics when pesticides are involved should follow generally accepted fire control tactics.
- Fire control mediums should comply with National Fire Code class and manufacturer recommendations, which is normally **FOAM**.
- Where an incident cannot be extinguished immediately and where it is possible to safely ventilate, a **'let burn'** policy should be given serious consideration.
- These approaches and guidance documents including the AWSA's – **Fire Control Tactics – Bulletin 6** should be discussed with the local fire department and insurance carrier, and should be recommended for their consideration in the event of a fire.

A list of CropLife Canada member products and associated fire fighting mediums are available on the AWSA website under the **Resources** tab. The list contains all products that are registered for use in Canada by CropLife member companies. Within the document are product classifications for TDG, UN codes, flashpoints, National Fire Code Classes and recommended extinguishing mediums. The list is available for download in Excel format and can be customized to only show the products that you have in your warehouse. This is also the list of products and associated fire management information that AWSA provides CANUTEC annually.

USE THIS TOOL!

Call to action:

- Ensure that a representa tive from your local fire department visits your facility and knows about your emergency response plan (**protocol G2**) – including what processes would occur in the event of a large agrichemical warehouse fire. Ensure that your local fire department has the knowledge to deal with a potential emergency at your facility.
- Have the discussion with your local fire department:
  - Use FOAM in the event of a fire – NOT WATER!
  - Implement a '**let burn'** policy in the event of a fire after all other priorities have been addressed

AWSA has and will be undertaking an outreach initiative throughout the year to ensure that municipal and volunteer fire departments are aware of:

- **Potential environmental risks associated with the use of water to extinguish agrichemical warehouse fires**
- **Presence of potential fire extinguishing alternatives, such as foam that are recommended by the manufacturers**
- **Air quality and toxicological benefits of a 'let burn' policy when life safety concerns have been addressed**

TAB 6

November 6, 2019

Table of Contents

EMERGENCY RESPONSE PLAN

THE PLAN

This Emergency Response Plan gives specific instructions for responding and dealing with a variety of emergency events. These procedures will be used in training, indoctrination of new employees, and in practice sessions to develop the abilities of all employees to act responsibly and properly in any emergency.

The instructions are organized in the order in which they will be needed in the event of an emergency.

- The initial alarm
- An assessment of the magnitude of the incident
- Mobilization, assessment and response with all necessary resources increase in this response as needed
- Return to normal plant operations.

All users of this Emergency Response Plan manual must be thoroughly familiar with their own role and responsibilities in an emergency situation, they must be familiar with the emergency equipment and supplies and their location. Employees must know the location of the alarm pull stations, fire extinguishers, and protective equipment nearest to their normal work location.

The ERP can be activated in two ways:

1. By the activation of the fire and sprinkler system in the warehouse, which is monitored 24 hours a day. The fire alarm is the primary method for signaling the discovery of an emergency situation on the site.
2. By an employee reporting an incident at the warehouse who notifies the authorities because of the escape of hazardous materials (liquid, gas, unusual odour) when judged by those present to pose a hazard to those in the immediate area, other parts of the site or in neighbouring areas outside the plant.

Fire Alarm

The fire alarm will be activated in any of the following situations:

Typical incidents:

1. Fire - any sign of smoke or flame.
2. Explosion - likelihood of a subsequent fire, and the possibility of escape of toxic gases and potential personal injury.
3. Escape of hazardous materials (liquid, gas, solids, or unusual odour) - when judged by those present as being a concern or threat to those in the immediate area, in other parts of the plant site, or in neighbouring areas outside the plant.
4. Serious injuries or fatalities.

5. Natural disasters, threats or external accidents, when judged by those present as being an immediate hazard or concern to personnel and operations.

   The individual who activates the alarm will then announce the location and nature of the emergency via voice or phone to the Meridian Road office.

The emergency announcement should be repeated if possible.

Assessment:

An evaluation of the seriousness of the emergency must be made quickly, in order to bring sufficient and appropriate resources into action to deal with it, yet to avoid serious over-reaction. It is better to over-react than to fall short in response.

Factors involved in an ER assessment:

a) Is the immediate risk small or large?
b) Should an attempt be made to handle the emergency locally?
c) Who calls for outside assistance? Fire Department, Ambulance, Police, etc.
d) Who calls the Ministry of the Environment?
e) If injuries occur, who contacts the hospital and immediate family?

Action - Fire or Explosion:

1. In the event of a fire or explosion all persons on site will congregate at the front of the 7 Meridian Rd. warehouse building (northeast corner) where a head count will be taken. When all persons on the site at the time of the fire or emergency are accounted for, remedial action will be initiated.

Person who is at site of fire may stay at site to try and control the blaze.

For all other emergencies an assessment of the situation by the E.R. chief will be done before a decision is made to evacuate the premises.

2. The E.R. chief or the designate will call the appropriate authority(ies). (Fire, ambulance, police, MOEE) if this has not been done automatically or by another person.

The E.R. chief will make the decision about whether to activate the ERP.
A cellular phone is available on the manager or supervisor on duty, in the company vehicle if present or regular phones at the adjoining property. For after-hours emergencies the E.R. chief has a cell phone available at all hours.

3. **ERP sequence of events.**

   A. Fire is to be contained by extinguishers if small enough that risk of personal injury is low.
   B. Truck drivers will be asked to move their trucks away from the site.

   C. The liquid containment barriers will be moved to outside the southwest corner of the building so it is readily available if required.

   D. Cut power to warehouse if necessary.

4. The E.R. chief will instruct team members about appropriate action until the fire chief arrives. At that time the E.R. leader and the fire chief will decide if an evacuation of any nearby businesses is required.

5. The control centre will be located at 246 Attwell Drive, 0.5 miles away from Gardex.

6. Sprinkler system should be turned off after 14 minutes or as dykes over flow.

First Response To Spill or Inadvertent Release of Chemical:

1. Make sure all persons are removed from area where chemical contact can occur.
2. Evaluate the seriousness of the emergency.

   The assessment will be made on the basis of:

   Severity - the nature, size and extent of the problem
   Urgency - whether it has the potential to escalate quickly
   Threat - whether the effects and the risk of damage might become significant
   Impact - whether the effects are to people, the environment, property or the company

3. Assign person to contact MOEE if volume or impact are within provincial regulations
4. Put on appropriate protective equipment.
5. Provide containment, protect from escape of chemical into environment.
6. Once flow of chemical is under control, put clean-up plan into effect.

   A. Small leaks and spills, soak up with absorbent material; place leaking container, along with absorbent material, in an over pack.

   B. Large escapes of chemical; contain in diked area, remove with vacuum truck.

First Response to Accident:

1. Notify employee qualified in first aid.
2. Assign a person to contact fire department and ambulance.
3. Keep the injured person company. **Do not** move unless they are in a life threatening situation. Apply pressure to bleeding.

Evacuation:

1. The E.R. chief or substitute will make a decision about whether an evacuation of the site or surrounding area is required.

Evacuation will be ordered under any situation where close proximity to the danger of explosion, smoke or fumes will endanger health or life.

All businesses within 100 metres will be advised to be ready to evacuate in the event of an emergency. A list of contact names and their business telephone numbers will be available in the event of an emergency.

Fire Department and Rescue:

No injured person(s) should be moved or treated except as required to control a life-threatening situation, such as exposure to fire or heavy bleeding.

The Fire Department is the normal first line of response to all emergencies, including fires, explosions, gas releases and spills.

On arrival at the scene of an emergency, discuss with the local Fire Department who will be in charge of the emergency and what action they will take and what resources they will need from the site.

Security:

The person responsible for security will ensure that all non-authorized persons, including media, will be kept off the property.

Site Services:

The E.R. Chief will call up emergency supplies as required: ex-generators, vacuum trucks, earth moving equipment, etc.

Civil Emergencies:

Any group of emergency events which may affect the site, although their origin is not with Gardex, may initiate the Emergency Response system.

These include, but are not intended to be limited to the following:

Natural disasters:

flood, tornado, lightning, earthquake

External accidents:

airplane crash, train derailment

Or Others Such As:

off-site nearby fires, municipal power failure, evacuation requested as a result of off-site events

E.R. chief will be in charge during civil emergencies unless public authorities have jurisdiction. The E.R. team will be available to react as the situation develops.

Communications:

A communications centre will be set up outside at 246 Attwell Drive. The media contact will be available as soon as the situation is stable to provide a statement and answer questions.

On-Site Communications:

All on site communications will be via portable phones or by personal contact.

Communications with the Public:

The E.R. team must understand key action portions of crisis communications and the responsibility for implementation must be made.

External communications in any emergency are important.

The objectives of the external (and some of the internal) communications activities are to ensure that accurate information reaches the right people in order to:

- protect lives and property
- advise the proper government agencies
- alleviate speculation and rumour
- maintain the support for the warehouse and the company

Groups who will be receiving these messages are:

- Employees on-site and off-site concerning the nature and implications of the emergency. These contacts represent our front line with the off-site public, since employees are known to be related to the emergency.
- Civil authorities to co-ordinate public and media messages and contacts.
- Media - newspapers, radio, television and others to facilitate their legitimate interest in news to provide their audiences with comprehensive and accurate information.
- Community neighbours including nearby businesses.
- Other citizens.

Media Representatives:

Release of Statements:

Early in the schedule of activities, the employee in charge of communications will prepare a statement for release to the press and public; which could be one of the following preliminary statements, whichever is appropriate.

A. For situations in which no facts are available:

"We are currently investigating reports of a (fire, fatality, etc.) at our plant and will provide you with information as soon as it is available."

B. For situations in which only the general nature is known and no other details:

"We do have a (fire, fatality, etc.) at our plant, but no other details have been verified. As soon as we have additional information, I will contact you."

C. For situations in which details are known, but legal or other considerations prohibit making details public until the matter has been studied and a response approved:

"The situation is currently under investigation and it would not be appropriate to comment at this time. As soon as we have a statement to make, I will contact you."

D. For situations in which the owner prohibits a statement of any kind:

"It is not appropriate to comment on the subject at this time since it deals with fundamental operating policies of our Company. If it becomes appropriate to comment in the future, I will contact youwith a statement."

The above statements are not intended to be used under normal circumstances. They are to be released only when some statement must be made and no public relations assistance is available.

All Clear:

The decision that the emergency has been dealt with adequately to permit a return to normal operations will be made by the ER chief on the advice of the fire department, police or other public authority called to the scene.

IMPORTANT NOTE:

There is a fire hydrant within 10 meters of the site. Should the chemical storage area become involved in fire, the Fire Chief at the scene should let the room(s) burn and use the water only to protect the adjoining warehouse and offices. All run-off water should be contained, even if water is not applied to the chemical storage area.

- **This provision has been discussed with the Fire Chief.**
- **This eventuality has been discussed with insurers of the facility.**

Responsibilities of E.R. Members

The following is a list of responsibilities that must be reviewed by your E.R. team. From these responsibilities, pick those that are relevant and assign an employee the responsibility to carry it out during an emergency.

KAREN FURGIUELE

- overall co-ordination of emergency response function
- preparation of emergency response plan, system developing, equipping and maintaining
- director of training
- direct co-ordination/supervision of countermeasures during an emergency
- establish and equip control centre(s)
- make decisions concerning evacuation, shutting down operations, bringing in additional reinforcements
- evaluation and action on information received from all team members
- organization and restoration of facilities, investigations and other follow-up activity after emergency
- advise family of any injured workers requiring hospitalization or extensive emergency medical treatment
- selects central control site at time of emergency
- ensures training and familiarization in emergency procedures, evacuation procedures, and warehouse shutdown
- arranges engineering and environmental inspection of warehouse before authorizing return to normal operations
- ensures support staff are properly trained for an emergency
- assigns specific communication roles to other emergency staff

Responsibilities of E.R. Members

(K Furgiuele cont.')

- provision of all pertinent technical facts on all products involved, with emphasis on their special toxic and biological hazards

- supervises evacuation of site, when called for

- overall co-ordination and facilitation of medical assistance during an emergency if required

- provision of first aid treatment facilities including trained personnel

- arranges or otherwise ensures adequate training in first aid procedures for emergency response team members and on-site staff designated as back up

- co-ordinates spills control response with Fire Dept. Chief

- evaluates environmental emergency and advises when reporting to government agencies should be extended or updated

- co-ordinates on-site and off-site monitoring of air, water and other samples to track down any dispersion of material released

- provides continuing liaison contact with the Ministry of the Environment and Environmental issues after the initial notification telephone call

- directs fighting fire until Fire Department arrives, then provides sole company contact for assistance to them

- ensures adequate firefighting and rescue training for all employees

- ensures availability of water for fire fighting

NIGEL NAZARETH - SITE MAINTENANCE/SECURITY

- emergency lighting

- co-ordinates rapid, orderly, safe shutdown of all site operations in the event of an emergency, including closing of all doors

- overall control and co-ordination of site access (and departure) and physical security of the site during an emergency, arranges search of all buildings

- supervises withdrawal of all employees on site to safe assembly Areas; records names of all persons entering and leaving the site during an emergency

- ensures that site surface water collection system and controls are set to ensure no contaminated water leaves site

- ensures site is secure against entry by unauthorized people; controls vehicle and pedestrian traffic to and from, and on, site

- provision of first line response for firefighting, rescue, and spill control

- carries out spill and other material release containment response to arrest and prevent further escape of hazardous materials

- ensures provision of electric power and other utilities for vital services, including on-scene emergency lighting

- provision for isolating damaged portions of utilities supply system, and for cutting off utilities and services for whole site

- facilitates emergency repairs to buildings, utilities, etc; equips and maintains stock of emergency medical supplies, firefighting and pollution control equipment

ROBERT PERCY – DIRECTOR OF OPERATIONS

- ensures that emergency communication systems are in constant readiness

- provide information to President, communicate with municipal services, and provide/facilitate additional support to the field operations

- arranges transportation of injured to local hospitals as required

- telephones; communications remain intact

- ensures all outside agencies are contacted

- facilitation of all means of communication both on and off site, during an emergency

- ensures all required communications are done on a timely basis

- assist other emergency personnel in arranging call-in of support staff during an emergency

- notifies hospitals and medical support people as appropriate about nature of the emergency

- ensure an up-to-date base on all the Company's products, i.e. Safety Data Sheets, which will help make initial information on toxicological and chemical hazards readily available

- co-ordinates the procurement and updating of pertinent printed, technical literature

- communicates with Manufacturers as needed

- communicate with medical aid as required to obtain special information on medical, hygiene, toxicological and environmental matters

- contact local police to request assistance when off-site road traffic control is appropriate

- requests ambulance service if required

JOHN ABELL - MEDIA REPRESENTATIVE

- official spokesperson for the Company

- if needed, establishes contact with necessary elected officials and government Agencies
- prepares releases of information to the public during the incident and after

- assists with calls to needed personnel or other resources

- co-ordinates head count to ensure all staff and visitors on site are accounted for

- receives new visitors to site (such as government officials)

- obtains authorization for entry and arranges escorts

DISTRIBUTION OF E.R. PLAN

The following have a copy of the Gardex, Meridian Road, Emergency Response Plan and as this plan is updated and upgraded, copies will be forwarded to these people.

Copy #	Name	Location
1	**Karen Furgiuele**	Meridian Rd. office
2	**John Abell**	Attwell Dr. office
3	**Nigel Nazareth**	Meridian Rd. warehouse
4	**Robert Percy**	Meridian Rd. warehouse
5	**Office Administration**	Meridian Rd. office
6	**Fire Department**	Local station

November 6, 2019

PROCEDURE FOR POST-EMERGENCY RESPONSE EVALUATION

It will be required to perform a thorough investigation after each incident where any employee of the company has utilized the Emergency Response Plan.

1. The ER Chief (or designee) and ERP committee will gather all pertinent information on events leading up to the activation of the ERP. This will include a de-briefing of all employees, suppliers, etc., involved in the incident.

2. The ER Chief will ensure that all necessary reporting of accurate information to the proper authorities and/or governing agencies are completed within the time frames required.

3. The cause of any incident requiring use of the ERP must be fully investigated to ensure such an incident does not re-occur.

4. After all necessary documentation is completed, all employees will convene to evaluate how well the following were completed:

    a. Timeliness of activating the ERP
    b. Communications procedures (all parties) as outlined in the ERP
    c. Evacuation procedures, if required
    d. First-aid administration, if required
    e. Assistance to fire and medical emergency personnel
    f. Containment and minimizing the extent of the emergency
    g. Clean-up procedures
    h. Any other related items

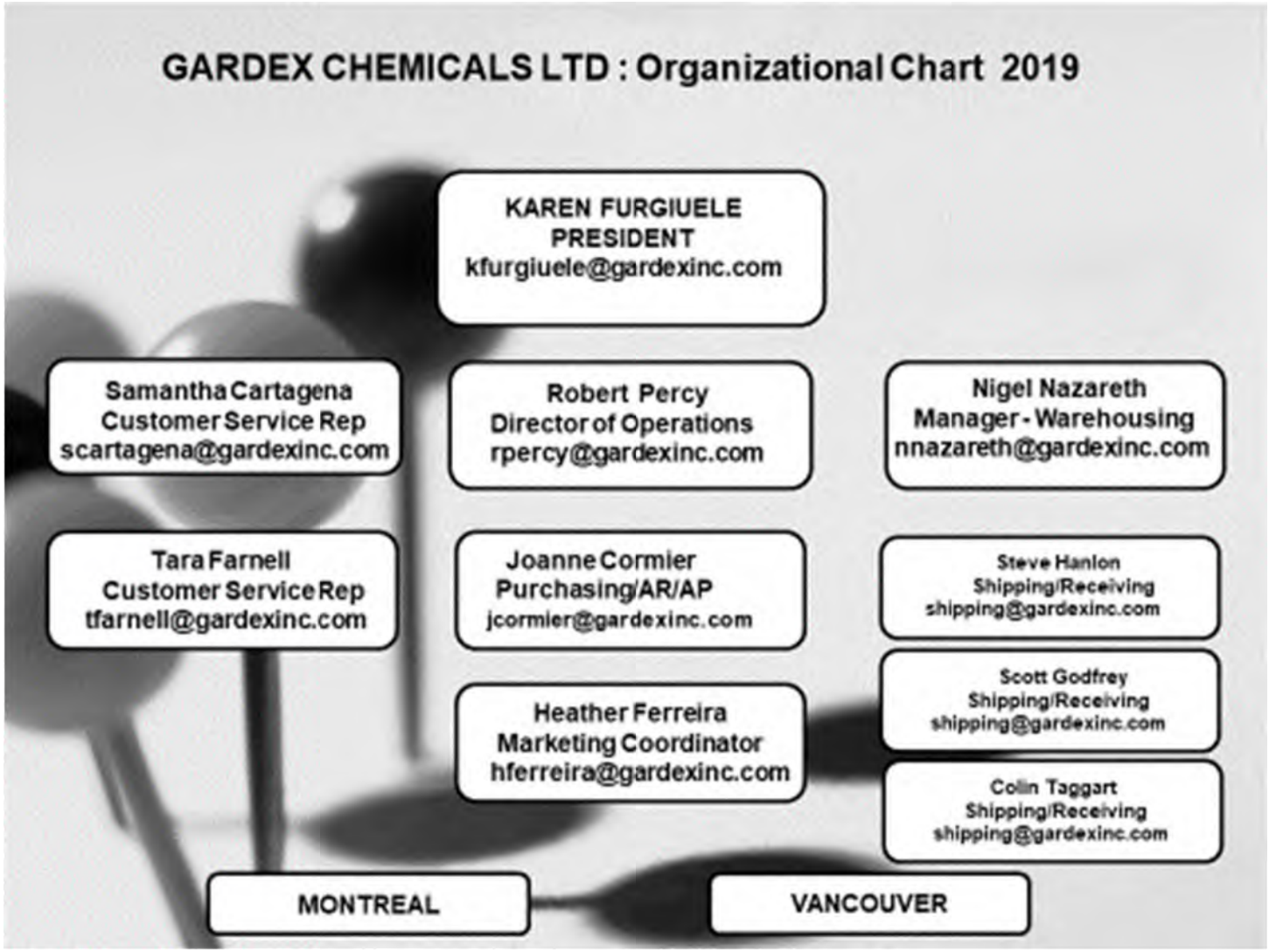
5. Any areas found to be inefficient will require additional investigation by the ER committee, including a written action plan on how to improve (further training, etc).

6. After each incident, as well as on an on-going basis, all employees will be encouraged to give input on how to improve the ERP.

November 6, 2019

Emergency Response Organizational Chart

POSITION	
Central Control Coordinator	**Karen Furgiuele**
Alternate	**John Abell**
Technical Support	**Karen Furgiuele**
Alternate	**Robert Percy**
Site Readiness	**Robert Percy**
Alternate	**Nigel Nazareth**
Site Maintenance	**Nigel Nazareth**
Alternate	**Robert Percy**
Media Contact	**John Abell**
First Aid Officer	**Scott Godfrey**
External Medical Support	**Etobicoke General Hospital**



Filed: 2020-10-29
EB: 2020-0219
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GARDEX CHEMICALS LTD : Areas of Interaction

(The following denotes the first line of contact where follow up and action is required)

General Inquiries

Required	Resp. Party
Ordering	CSR
MSDS/LABEL (supplying)	Cartagena/ Farnell
Part numbers	CSR/ Percy
Non-stock item Quote	Nazareth/Cormier
Special order	Nazareth/Cormier
New Products	Percy
Supplier contact	Furgiuele/Percy
Purchasing	Nazareth/Cormier
AR/AP	Cormier
Website	Percy/Ferreira
Marketing	Percy/Ferreira
Performance Issues	Percy/Furgiuele

Logistic Inquiries

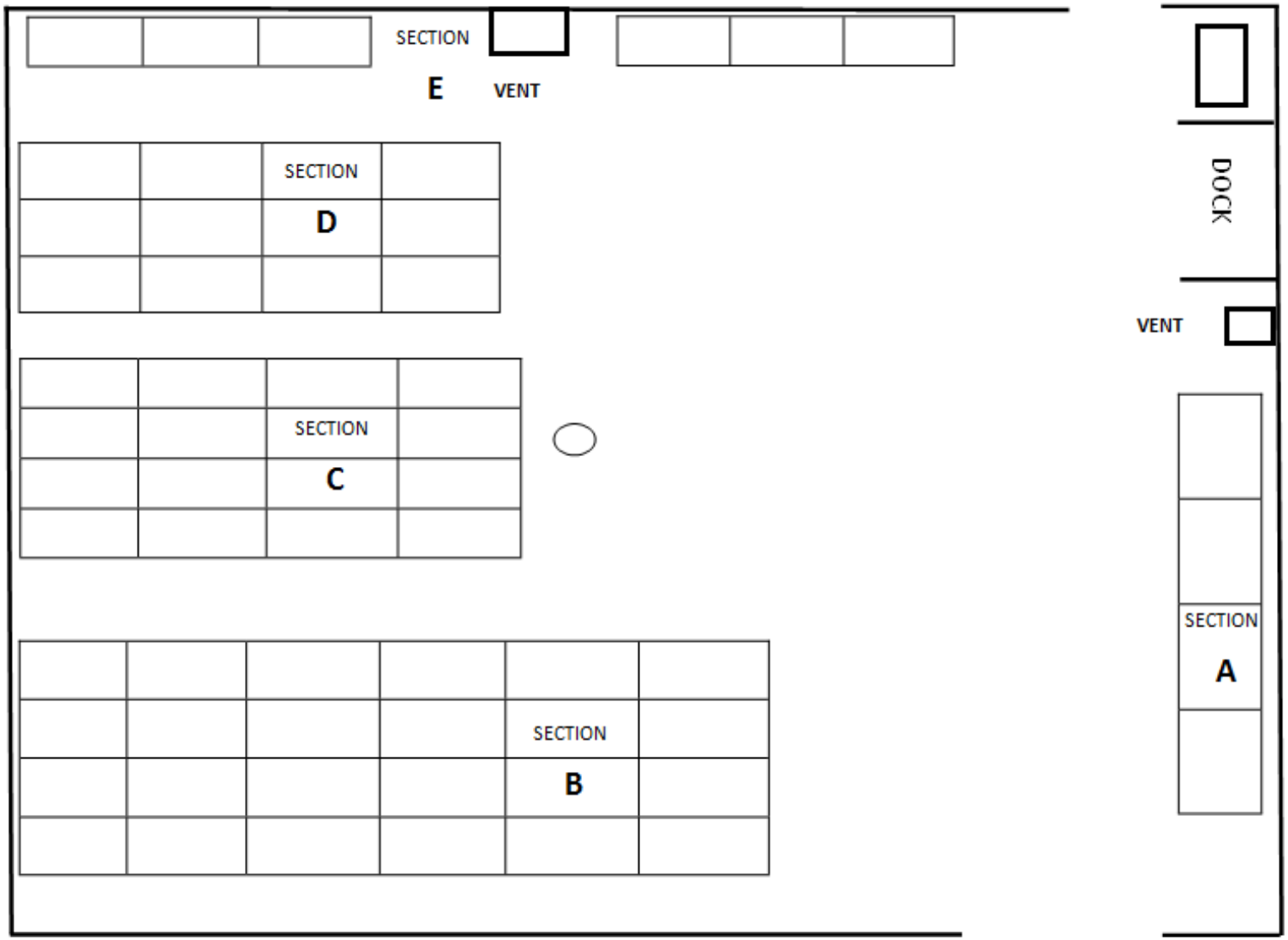
Required	Resp. Party
Form order status	Shipping
Branch order status	Nazareth/ Shipping
Tracking	Shipping
Return Authorization	Percy
Credit/re-bills	CSR
Order add-ons	System/CSR
TDG requirements	Nazareth/ Percy
Order Entry System Management	Percy/Furgiuele
Inventory levels/ availability	Nazareth/ CSR
Carrier Selection	Percy/ Nazareth
Stock outs	Nazareth
U.S. mgmt	Furgiuele/ Cormier

Technical Inquiries

Required	Resp. Party
Repair parts	Nazareth/ Shipping
Replacement parts	Nazareth/ Shipping
Specialized equip.	Nazareth/Percy
Label rates/ restrictions	CSR/ Furgiuele Percy
New registrations	Furgiuele/ Percy
Regulatory	Furgiuele
Alternative pesticides	Furgiuele/Percy
Insect ID	Percy
Fumigants	Furgiuele
Defective goods	Percy/Furgiuele
MSDS mgt.	Ferreira/Percy
Web function	Ferreira

GARDEX CHEMICALS—WAREHOUSE 7 - 1

PRODUCT STORAGE



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GARDEX CHEMICALS—WAREHOUSE C7 - 1
PRODUCT STORAGE

Section A.	Key Products	PCP Regulated	TDG	QTY
Weatherblok XT	cases	Y	N/R	1 Skid
Ratak 20x8x50g	cases	Y	N/R	1 Skid
Demand	cases	Y	N/R	1 Skid

Section B.	Key Products	PCP Regulated	TDG	QTY
Phostoxin		Y	Y	6 Skids
Contrac Blox		Y	N/R	6 Skids

Section C.	Key Products	PCP Regulated	TDG	QTY
OVER FLOW	MISCELLANEOUS GOODS	N	N/R	7 Skids

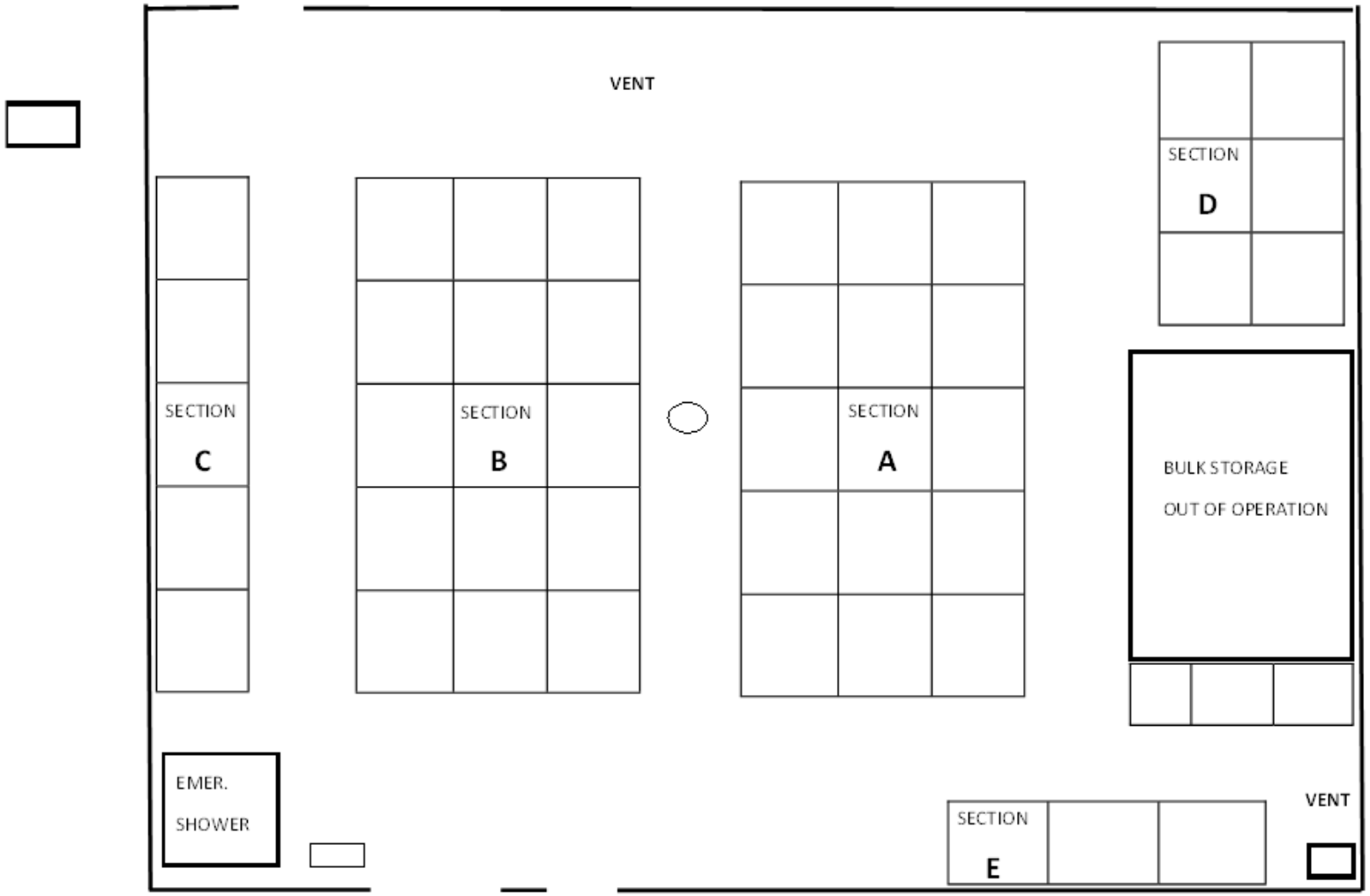
Section D.	Key Products	PCP Regulated	TDG	QTY
OVER FLOW	MISCELLANEOUS GOODS	N	N/R	7 Skids

Section E.	Key Products	PCP Regulated	TDG	QTY
Bird Barrier	nets	N	N/R	7 Skids

GARDEX CHEMICALS—WAREHOUSE 7 - 2

PRODUCT STORAGE

Blending & Fill Station—out of operation



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GARDEX CHEMICALS—WAREHOUSE C7 - 2
PRODUCT STORAGE

Section A.	Key Products	PCP Regulated	TDG	QTY
Knock Down Products		Y	N/R	8 Skids

Section B.	Key Products	PCP Regulated	TDG	QTY
Niban	bags	Y	N/R	1 Skid
Timbor	cases	Y	N/R	1 Skid
Blue Diamond	cases	Y	N/R	1 Skid
Scorpio	bags	Y	N/R	1 Skid
Boradicate	pails	Y	N/R	1 Skid
Tracking Powder	pails	Y	N/R	1 Skid

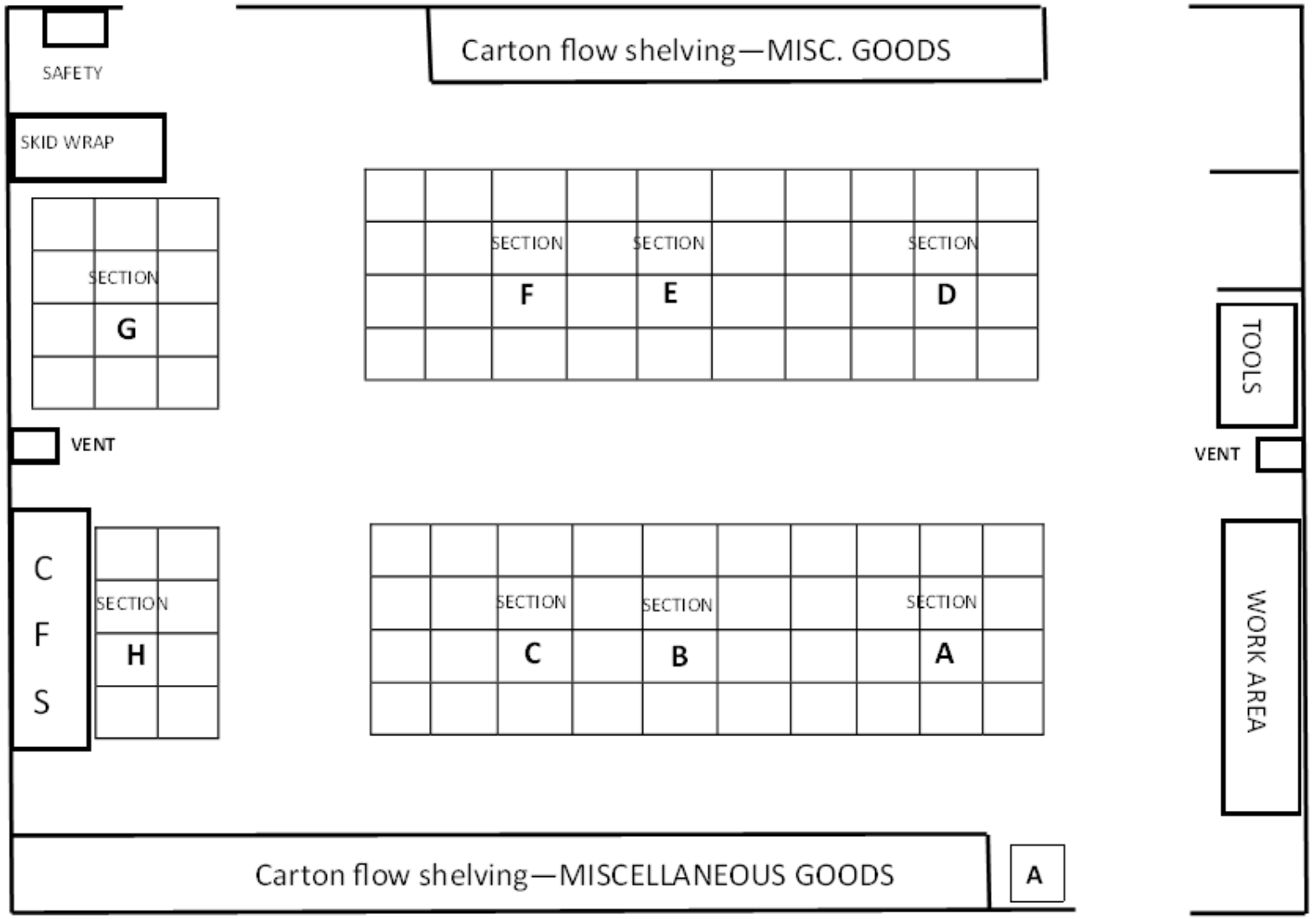
Section C.	Key Products	PCP Regulated	TDG	QTY
Base Oil	pails	N	N/R	1 Skid
Insecticidal Soap	cases	Y	R	1 Skid
Pyrethrin 5-25	pails	Y	R	1 Skid
Vapona 5%	pails	Y	R	1 Skid
Pyrocide 7369	pails	Y	R	1 Skid
Industrial Micro Spray	cases	Y	N/R	1 Skid
Bora-Care	jugs	Y	N/R	1 Skid

Section D.	Key Products	PCP Regulated	TDG	QTY
Abell Summer Glueboards	cases	N	N/R	3 Skids
Abell Pro-Ketch	cases	N	N/R	4 Skids
Abell B&G stations	cases	N	N/R	4 Skid

Section E.	Key Products	PCP Regulated	TDG	QTY
OVER FLOW	MISCELLANEOUS GOODS	N	N/R	8 Skids

GARDEX CHEMICALS—WAREHOUSE 7 - 3

PRODUCT STORAGE



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GARDEX CHEMICALS—WAREHOUSE C7 - 3
PRODUCT STORAGE

Section A.	Key Products		PCP Regulated	TDG	QTY
Demand CS		cases	Y	N/R	162 L
Dragnet 1 L		cases	Y	N/R	408 L
Drione		cases	Y	N/R	220 Kg
Contrac Blox		pails	Y	N/R	720 Kg
Final Blox		cases	Y	N/R	680 Kg
Bedlam		cases	Y	N/R	349 Kg

Section B.	Key Products		PCP Regulated	TDG	QTY
Ground Force		pails	Y	N/R	225 Kg
Generation BlueMax		pails	Y	N/R	306 Kg
Generation Mini P/P		cases	Y	N/R	162 Kg
Contrac Super Blox		cases	Y	N/R	425 Kg
C/M Gold Sticks		cases	N	N/R	288 Kg
Contrac Soft Bait		pails	Y	N/R	420 Kg
Brigand Soft Bait		pails	Y	N/R	420 Kg
FirstStrike 7Kg		cases	Y	N/R	560 Kg
Pyrocide 300		cases	N	N/R	576L
Prelude		cases	Y	N/R	576 L
Optigard		cases	Y	N/R	324 Kg
Altosid		cases	Y	N/R	360L
Temprid		cases	Y	N/R	576L

Section C.	Key Products		PCP Regulated	TDG	QTY
Konk Products		cases	Y	L/Q	2120 Kg

Section D.	Key Products		PCP Regulated	TDG	QTY
C/M Glueboards		cases	N	N/R	1350 Kg
Bell Labs Bait Stations		cases	N	N/R	1216 Kg
Lipha Bait Stations		cases	N	N/R	386 Kg

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GARDEX CHEMICALS—WAREHOUSE C7 - 3
PRODUCT STORAGE

Section E. F.	Key Products		PCP Regulated	TDG	QTY
	Pro-Ketch Station	cases	N	N/R	162 Kg
	J. T. Eaton Station	cases	N	N/R	361 Kg
	Woodstream Station	cases	N	N/R	291 Kg
	Kness Snap-E Traps	cases	N	N/R	126 Kg
	Woodstream Traps	cases	N	N/R	263 Kg

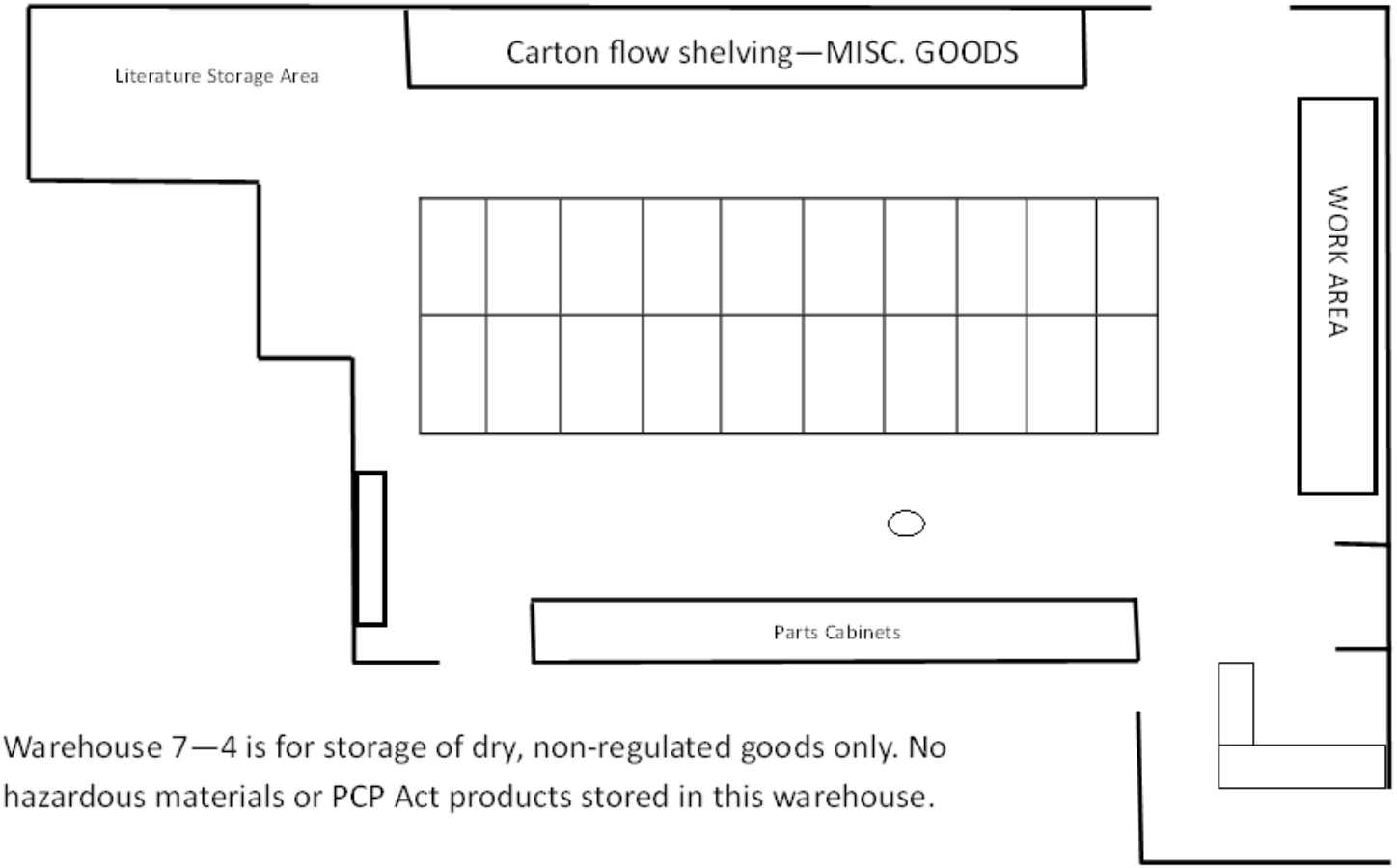
Section G.	Key Products		PCP Regulated	TDG	QTY
	Genus Fly Lights	each	N	N/R	7 Skids
	Gilbert Fly Lights	each	N	N/R	10 skids
	C/M Fly Glueboards	cases	N	N/R	4 Skids

Section H.	Key Products		PCP Regulated	TDG	QTY
	Ona Gel	cases	N	N/R	122 Kg
	Bio Plus	cases	N	N/R	108 Kg
	ProFoam Platinum	cases	N	N/R	68 Kg
	NPD Odor Counteractant	cases	Y	N/R	62 Kg
	TC Products	cases	N	N/R	12 Skids
	Tempo	cases	N	N/R	1 Skid

Shelving	Key Products		PCP Regulated	TDG	QTY
	TC Products	cases	N	N/R	20 cases
	Verifi Products	cases	N	N/R	2 Skids
	C/M Fly Bags	cases	N	N/R	1 Skid

GARDEX CHEMICALS—WAREHOUSE 7 - 4

PRODUCT STORAGE



Warehouse 7—4 is for storage of dry, non-regulated goods only. No hazardous materials or PCP Act products stored in this warehouse.

November 6, 2019

GARDEX CHEMICALS—WAREHOUSE 7 - 4
PRODUCT STORAGE

Section A.	Key Products	PCP Regulated	TDG	QTY

NON - REGULATED GOODS ONLY

No hazardous, flammable, toxic or TDG materials stored

CHEMICALS STORED

RE: 7 MERIDIAN
DATE: November 6, 2019

WAREHOUSE #1:

*	PHOSTOXIN	4.3 (6.1)
*	WEATHER BLOK XT	N/R
*	RATAK	N/R
*	CONTRAC BLOX	N/R
*	DEMAND	N/R

CHEMICALS STORED

RE: 7 MERIDIAN
DATE: November 6, 2019

WAREHOUSE #2:

- BULK TANK – ISOPAR M EMPTY
- VAPONA 5% 3
- BORADICATE (Boric Acid) N/R
- SCORPIO (Spinosad) N/R
- INDUSTRIAL MICRO SPRAY N/R
- PYRETHRIN 5-25 N/R
- NIBAN (Boric Acid) N/R
- KNOCK DOWN (Consumer Commodity) N/R
- TRACKING POWDER N/R
- TIMBOR N/R
- BORA-CARE N/R
- PYROCIDE 7369 9
- INSECTICIDAL SOAP N/R

November 6, 2019

CHEMICALS STORED

RE: 7 MERIDIAN
DATE: November 6, 2019

WAREHOUSE #3:

- WASHROOM CARE N/R
- KONK (Consumer Commodity) N/R
- PRELUDE (permethrin) N/R
- PYROCIDE 300 (various actives) N/R
- DEMAND (Lambda-cyhalothrin) N/R
- DRAGNET (Permethrin) N/R
- DRIONE (various actives) N/R
- OPTIGARD (Thiamethoxam) N/R
- BEDLAM (various actives) N/R
- MAXFORCE (Imidacloprid) N/R
- RODENTICIDES (various actives) N/R

CHEMICALS STORED

RE: 7 MERIDIAN
DATE: November 6, 2019

WAREHOUSE #4:

* WAREHOUSE MAIN ENTRANCE
* DRY GOOD STORAGE ONLY
* NO REGULATED PRODUCTS STORED

EMERGENCY RESPONSE

IN THE EVENT OF AN EMERGENCY AT THIS SITE INVOLVING SPILLS, LEAKS, FIRES, EXPOSURE, VANDALISM, ACTS OF GOD, OR ACCIDENTS, PHONE:

Fire Department:		911
Police:		911
CANUTEC:		1-613-996-6666
M.O.E.E	24 HR:	1-800-268-6060

OTHER TELEPHONE NUMBERS:

EMERGENCY RESPONSE CHIEF WAREHOUSE MANAGER

Name: Karen Furgiuele
Telephone: 416-675-1638
Home: 416-239-5439
Cell: 416-931-0597

24 hours

416-675-1638 – Option #1
Emergency Response

November 6, 2019

EMERGENCY RESPONSE

PHONE NUMBERS

EMERGENCY RESPONSE TEAM **Karen Furgiuele** CONTROL CENTRE CO-ORDINATOR	HOME: 416-239-5439
ADT (1 Meridian)	Business: 416-226-5240
PCS Security Systems (7 Meridian):	Business: 1-877-526-8221
FIRST AID CHIEF **Karen Furgiuele**	HOME: 416-239-5439
COMMUNICATIONS & TECHNICAL SUPPORT **Karen Furgiuele**	HOME: 416-239-5439
SITE SECURITY **Robert Percy**	HOME: 416-239-5439
SITE MAINTENANCE **Robert Percy**	HOME: 416-239-5439
MEDIA CONTACT **John Abell**	OFFICE: 416-675-1635
EXTERNAL MEDICAL SUPPORT	
ETOBICOKE GENERAL HOSPITAL	PHONE: 416-747-3528
FIRE DEPARTMENT	PHONE: **911**
POLICE DEPARTMENT	PHONE: **911**
AMBULANCE	PHONE: **911**
HOSPITAL - ETOBICOKE GENERAL	PHONE: **911**
POISON CONTROL CENTRE: -HOSPITAL FOR SICK CHILDREN	PHONE: 416-813-5900
MEDICAL INFORMATION -TELEHEALTH	PHONE: 1-866-797-0000
EMERGENCY MEASURES ORGANIZATION	PHONE: 416-314-3723 FAX: 416-212-3498
SPILL CONTROL CENTRE	**24 HOUR:** 1-800-268-6060 **LOCAL:** 416-325-3000
HYDRO ONE - 24 HOUR Emergency Line	PHONE: 1-800-434-1235
CANUTEC	PHONE: 888-226-8832
CLEAN-UP & CONTAINMENT SPECIALISTS: TRI-WASTE SERVICES INC.	PHONE: 416-243-7000

MANAGEMENT & EMPLOYEES

KAREN FURGIUELE	416-239-5439
ROBERT PERCY	416-239-5439
NIGEL NAZARETH	647-646-4475
SAMANTHA CARTAGENA	647-221-9537
HEATHER FERREIRA	416-419-7262
TARA FARNELL	647-278-5532
JOANNE CORMIER	905-872-8056
STEVE HANLON	647-861-0254
COLIN TAGGART	416-347-4828
SCOTT GODFREY	647-746-8663

VENDOR EMERGENCY NUMBERS

In case of a fire, leaky or damaged containers or other emergencies, report at once by telephone to the company. If a company cannot be reached after hours or weekends, call:

CANUTEC OR CHEMTREC	613-996-6666 (COLLECT IN CANADA) 800-424-9300 (USA & Canada)

COMPANY NAME	**TELEPHONE NUMBERS**
BAYER CROP SCIENCE	800-334-7577
BASF CANADA	800-454-2673
BAYER INC.	800-334-7577
BELL LABS (US)	952-852-4636
CyTec	1-905-356-9000
K.G. PACKAGING	905-669-9855
LIPHATECH (US)	1-800-351-1476 (Business Hours) or after business hours: 1-800-424-9300
NISUS (US)	800-264-0870
WELLMARK INTERNATIONAL	800-263-2740
UNITED AGRI PRODUCTS (Chemcheck Transportation Chemical Emergency Centre)	800-561-8273
SYNGENTA PRODUCTS	800-327-8633

All Telephone Numbers Verified **October 10, 2019**

November 6, 2019

GARDEX CHEMICALS - MERIDIAN STREET WAREHOUSE

CONTAMINATED WATER - CONTAINMENT CALCULATIONS

There are two storage rooms with a 15 cm curb for retaining spills and contaminated water.

The rooms are 14.63 M x 18.29 M and 31.70 M x 21.95 M. The total liquid holding Capacity is:

14.63 M x 18.29 M x .15 M = 40.75 m^3 31.70 M x 21.95 M x .15 M = 104.37 m^3

Total containment volume is 145.12 m^3. (145,120 litres)

The maximum volume of stored product is 35,000 litres in the blending area, including the bulk tank.

The maximum volume of stored product is 40,000 litres in the warehouse area.

There is internal containment to manage up to 143,000 litres.

There are 70,000 litres of holding capacity for firefighting water.

The fire department has been advised that the sprinkler system has the capacity to deliver 1068 gallons/minute (4855L/min).

At full release of water and total release of chemical the sprinkler system can be operated for 14 minutes before the diking system will be breached.

The fire department should monitor the outside of the building and the diking system and be prepared to shut off the sprinkler system if the water holding capacity of the building is exceeded.

It is cheaper and safer for the environment to allow the contents of the building to burn then it is to clean up water contaminated with pesticide residue that leaves the property.

In the event there is danger of contaminated water escaping the building, a sand dyke will be put in place to contain the contaminated water in the low spot at the southwest corner of the building.

November 6, 2019

RISK ASSESSMENT

GARDEX CHEMICALS LTD., MERIDIAN WAREHOUSE

UNWANTED EVENT:

1. **FIRE:**

Causes: Sabotage, electrical equipment, over loaded motor, careless smoking

Immediate Consequences: Loss of property, release of toxic vapours, escape of toxic liquids.

Methods to Reduce Risk: Modern Construction, non-flammable building materials, inspect electrical system monthly. Fire suppression system in production area. Notify neighbours about what to do in an emergency. Train in ERP.

Actions to Control: An ERP is in place, as well as a containment plan. Fire suppression system installed.

2. **SPILL:**

Causes: Leaky valve, hose failure, leaky container, coupling failure

Immediate Consequences: Contamination of premises, human exposure.

Methods to Reduce Risk: Dike around the bulk tank and curb around production and warehouse area plus floor treatment to prevent absorption by cement.

Actions to Control: Equipment and safety features to lower risk of accident. Design of building to prevent release to environment. Spill clean-up procedures. Sand Snakes available to prevent any liquid which escapes from the building from entering the environment.

3. **MAJOR INJURY:**

Cause: Explosion, falling product, chemical exposure.

Immediate Consequences: Burned, crushed, splashed or killed

Methods to Reduce Risk: Training, equipment maintenance, shower, explosion wall.

Actions to Control: Training, emphasis on safe work practices.

November 6, 2019

RISK ASSESSMENT PROFILE

DATE UPDATED: November 6, 2019

COMPANY: GARDEX CHEMICALS LTD.	
PLANT/SITE ADDRESS: 1 MERIDIAN ROAD, ETOBICOKE, ONT M9W 4Z6	
TYPE OF BUSINESS: Structural Pest Control	TELEPHONE # 416-675-1638
LOCATION (BY STREET): 1 MERIDIAN ROAD	SECURITY GUARD: NO
EMERGENCY ACCESS FROM: FRONT: YES REAR: YES	
HOURS OF OPERATION: 7 A.M. TO 6 P.M.	

CONTACT NAME	**TITLE**	**BUSINESS PHONE #:**	**HOME PHONE #:**
KAREN FURGIUELE	PRESIDENT	416-675-1638	416-239-5439

MAJOR HAZARDS AT ABOVE LOCATION (Attach ext) ATTACHED: YES NO

A. HAZAROUS MATERIAL	T.D.G. CLASS OR P.I.N. NO.	QUANTITY ON SITE	RISK (fire, explosion, toxic, corrosive)
SA	**FE**	**FE**	**TO**
SL	**TEW**	**TWE**	**ROE**
DKD	**KDKDK**	**DKDK**	**RFEF**
SDL	**ISKD**		
DKD			
DKDK			
SAS			
SDLDKJ			
SDJD			

B. OTHER MAJOR HAZARDS (CONSIDER FIRE, GAS RELEASE, EXPLOSION SPILLS, ENERGY, (HEAT PRESSURE, ELECTRICAL) AND OTHER HAZARDS).	QUANTITY/SIZE/ETC. QUANTITY/SIZE/ETC.	RISK
Fire Spills	Bulk Tanks, 12,000L Tank or hose rupture	N/A Low, good containment, small amounts of containment

PROTECTIVE SYSTEMS ON SITE

	YES NO	
SPRINKLERS	X	
HYDRANTS	X	
FIRE SUPPRESSION	X	
FIRE HOSES	X	Central Offices
FOAM	X	Extinguishers
FIRE CREW	X	
FIRE WATER CONTAINMENT	X	
SECURITY SYSTEMS	X	
S.C. BREATHING APP.	X	
EMERGENCY RESPONSE PLAN (location of Command Centre on site plan).	X	
FIRST AID STAFF	X	
SITE COMMUNICATIONS (Radios, etc.)	X	Cell Phones, Paging System
OTHER EMERGENCY EQUIPMENT OR SERVICES	X	

MUTUAL AID - Equipment and services available to Emergency Services for emergencies at other locations.

	DIRECTION
FIRE EQUIPMENT	
RESPIRATORS	IN EMERGENCY RESPONSE EQUIPMENT LOCKER
RESCUE EQUIPMENT	
PROTECTIVE CLOTHING	IN EMERGENCY RESPONSE EQUIPMENT LOCKER
SPILL CONTAINMENT (Diking, adsorbents, pumps, etc.)	Sand Snakes, Fire Department available within 6 minutes
EARTH MOVING/EVACUATION	
LIFTING/CRANES ETC.	
LABORATORY/ANALYTICAL SERVICES	Local labs. Available
CHEMICAL HAZARD/SAFETY INFORMATION OR EXPERTISE	M.S.D.S., CANUTEC VENDOR EMERGENCY
OTHER EMERGENCY EQUIPMENT OR SERVICES	CANUTEC

November 6, 2019

Thursday, October 31, 2019	**Description of Dangerous Goods**	
	7 Meridian Rd, Etobicoke ON	
Class Code	**Class Description**	**Dangerous Goods**
FUMI CELL / FUMI STRIP	UN 2011 Magnesium Phosphide Class 4.3 (6.1) P.G. 1 "Labeled inAccordance with 49 CFR" Placards - 4 x Class 4 All Quantities	Y
PHOSTOXIN PRODUCTS	UN 1397 Aluminum Phosphide Class 4.3 (6.1) P.G. I "Labelled in Accordance with 49 CFR" Placards 4 x Class 4 All Quantities	Y
VAPONA 5%	UN 1993 Flammable, Liquid (Petroleum Distillates Mixture) Class 3 P.G. III	Y
TROUNCE	UN 1170 Ethanol Solution with more than 24% ethanol, by volume CLASS 3 PG II	Y
PYROCIDE 7369	UN3082, Environmentally Hazardous Substance, Liquid, N.O.S., RQ (Pyrethrins) Class 9 P.G. III	Y
AEROSOL	Aerosols Limited Quantity exemption	N
CONSUMER COMMODITY	Consumer Commodity - Limited quantity exemption	N
NON-REGULATED GOODS	NON-REGULATED GOODS	N
INSECTICIDAL SOAP CONC.	UN 1170 FLAMMABLE LIQUID N.O.S.(Ethanol Solution with more than 24% ethanol, by volume) CLASS 3 P.G. II	Y
TRANSPORT ONLY: NO WAREHOUSING		
(Direct Ship To use site)		
ECOFUME	UN3162, phosphene, Liquefied gas, toxic, n.o.s. Hazard Class: 2.3 P.G. I	Y
	Transport Label Required: Toxic Gas Technical Name (N.O.S.): Contains phosphine Placards: 4 x 2.3	

November 6, 2019

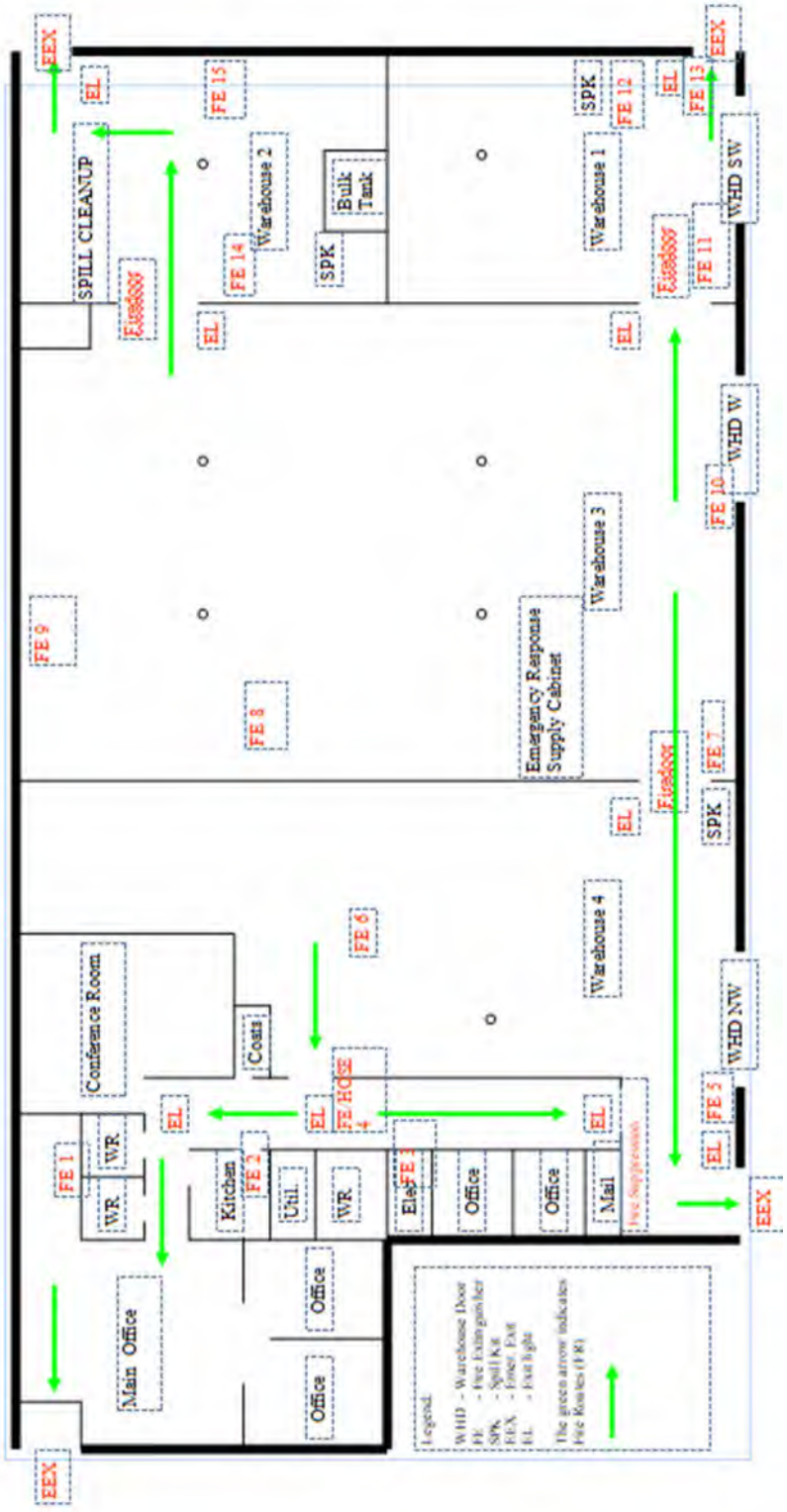
Site Locations: 1 Meridian Rd

Command Center
246 Attwell Drive
416 – 675 – 1635
Media Contact: John Abell

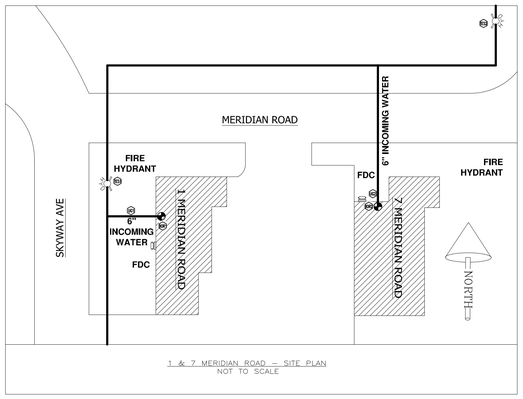
Gardex Chemicals: 1 Meridian Road
Chemical Storage Location
Emergency Meeting Point:
7 Meridian Front Door Sidewalk, on street

November 6, 2019

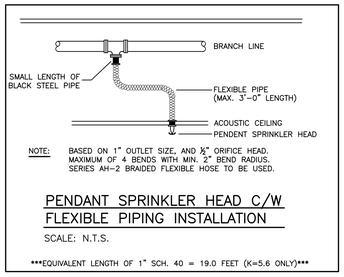
Gardex – Emergency Evacuation Plan Map



TAB 7



1 & 7 MERIDIAN ROAD – SITE PLAN
NOT TO SCALE



NOTE: BASED ON 1" OUTLET SIZE, AND ½" ORIFICE HEAD. MAXIMUM OF 4 BENDS WITH MIN. 2" BEND RADIUS. SERIES AH-2 BRAIDED FLEXIBLE HOSE TO BE USED.

PENDANT SPRINKLER HEAD C/W FLEXIBLE PIPING INSTALLATION

SCALE: N.T.S.

EQUIVALENT LENGTH OF 1" SCH. 40 = 19.0 FEET (K=5.6 ONLY)

Filed: 2020-10-29
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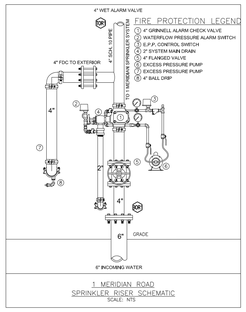
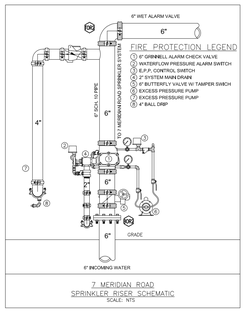
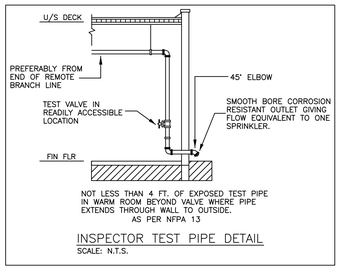


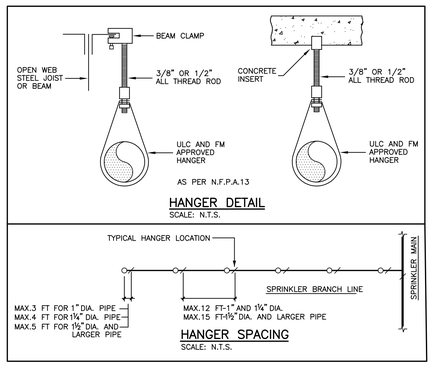
1 MERIDIAN ROAD
SPRINKLER RISER SCHEMATIC
SCALE: NTS



7 MERIDIAN ROAD
SPRINKLER RISER SCHEMATIC
SCALE: NTS

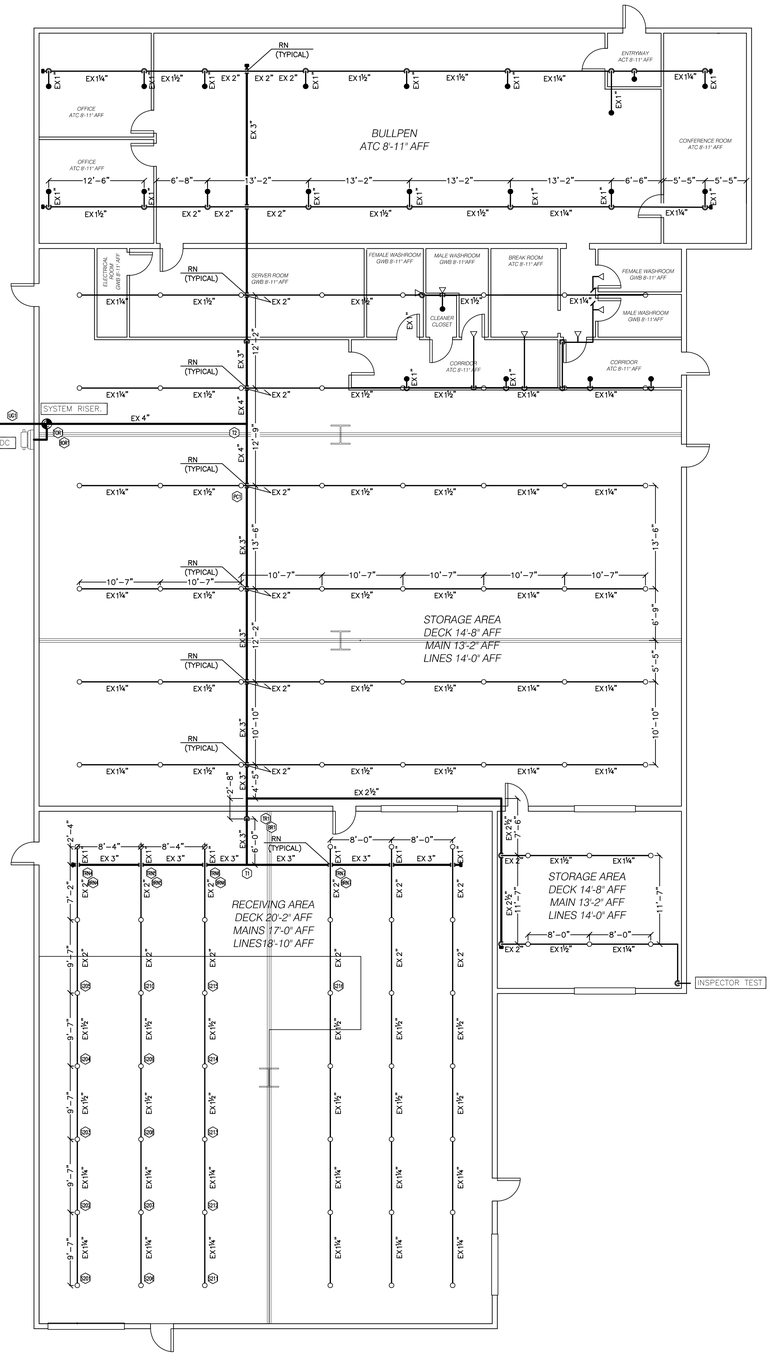


INSPECTOR TEST PIPE DETAIL
SCALE: N.T.S.

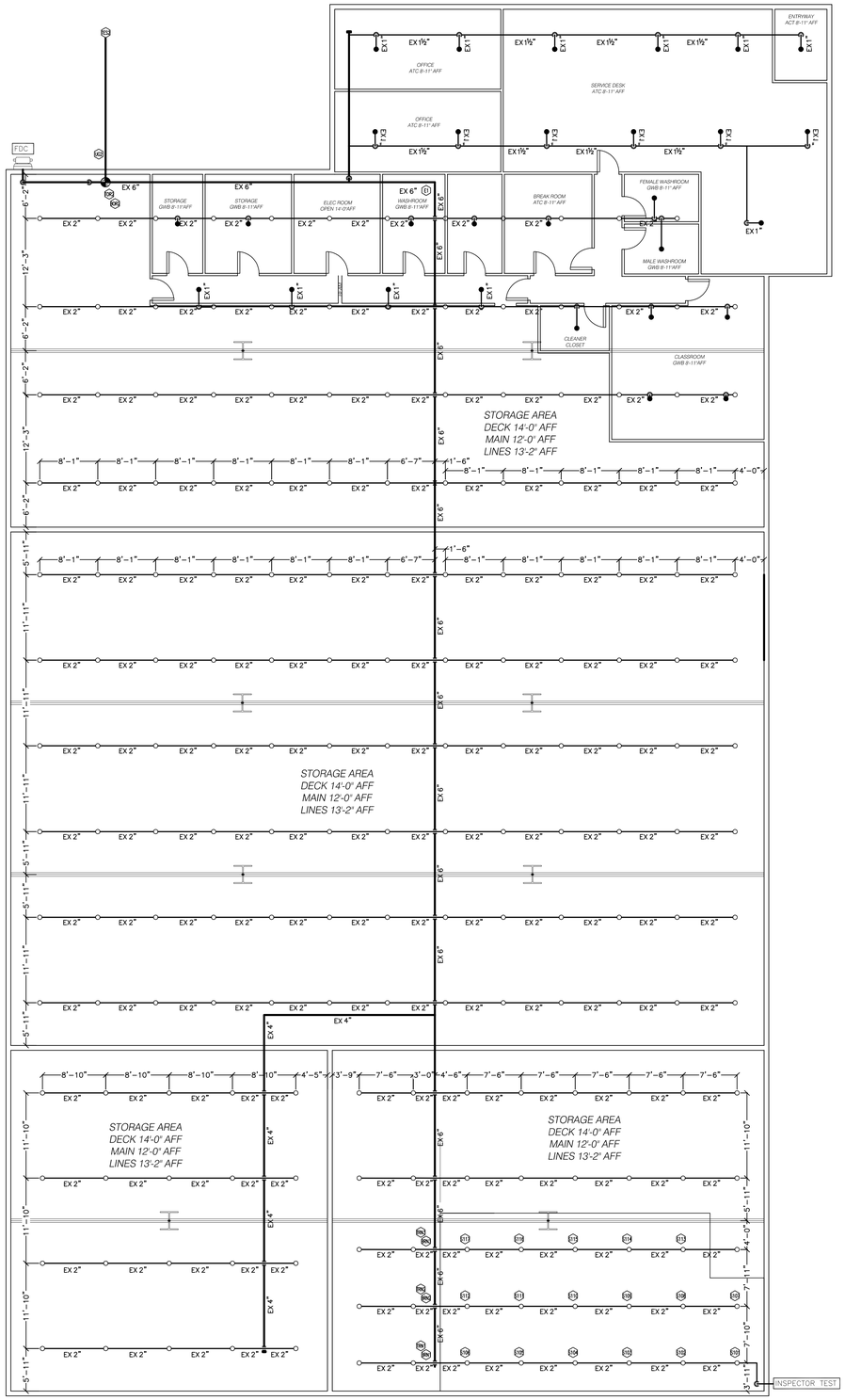


HANGER DETAIL
SCALE: N.T.S.

HANGER SPACING
SCALE: N.T.S.



1 MERIDIAN ROAD – SPRINKLER LAYOUT
SCALE: 1/8" – 1'-0"



7 MERIDIAN ROAD – SPRINKLER LAYOUT
SCALE: 1/8" – 1'-0"

SUBMITTALS

NO	DATE	DESCRIPTION	DWN	CHD
1	SEPT. 08/2020	ISSUED FOR HYDRAULIC CALCULATIONS	CSF	AA

NOTES

CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS AND BE RESPONSIBLE FOR SAME, REPORTING ANY DISCREPANCIES TO THE OWNER, BEFORE TENDER CLOSING.

LATEST APPROVED DRAWINGS ONLY TO BE USED FOR CONSTRUCTION.

THIS DRAWING ASSOCIATED CALCULATIONS AND SPECIFICATIONS ARE THE PROPERTY OF THE DESIGNER AND MUST BE RETURNED AT THE COMPLETION OF THE WORK OR UPON REQUEST.

DIMENSIONS TAKE PRECEDENT OVER SCALE.

THE SPRINKLER SYSTEM IS TO BE INSTALLED AS PER N.F.P.A. 13 STANDARD AND LATEST VERSION OF THE O.B.C. (WHERE APPLICABLE)

ALL MATERIALS TO BE U.L.C. LISTED AND APPROVED BY LOCAL AUTHORITIES.

UNDERGROUND WATERMAIN TO BE INSTALLED ACCORDING TO LOCAL AUTHORITIES AND INSURANCE CO. STANDARDS. (IF APPLICABLE)

OWNER (OR OTHERS) TO PROVIDE ADEQUATE HEAT IN ALL AREAS OF BUILDING SUBJECT TO FREEZING THAT ARE PROTECTED BY A WET TYPE SPRINKLER SYSTEM.

ALL GLASS BULB TYPE SPRINKLERS TO BE OF RECENT ISSUE, MANUFACTURE DATE OF AT LEAST YEAR 2018.

OWNER (OR OTHERS) TO PROVIDE ADEQUATE HEAT IN ALL AREAS OF BUILDING SUBJECT TO FREEZING THAT ARE PROTECTED BY A WET TYPE SPRINKLER SYSTEM.

ANY FIRE STOPPING, ACOUSTIC SEALANT AND MATERIALS USED IN THIS PROJECT WHICH COME IN CONTACT WITH CPVC SPRINKLER PIPING IS TO BE COMPATIBLE WITH CPVC PIPING.

DESIGN CRITERIA

SPRINKLER SYSTEM DESIGNED FOR:
OCCUPANCY ORDINARY 2 HAZARD
DESIGN DENSITY – 1500 @ .20 GPM/FT/SQ (1 MERIDIAN)
DESIGN DENSITY – 990 @ .20 GPM/FT/SQ (7 MERIDIAN)
STATIC PRESSURE – 60 PSI
RESIDUAL PRESSURE – 52 PSI
RESIDUAL FLOW – 1216 GPM
HOSE ALLOWANCE – 250 GPM

HEAD COUNT

S/R=STANDARD RESPONSE Q/R=QUICK RESPONSE
○ C/W GUARD

1 MERIDIAN

●	1/2" 200°F STANDARD COVERAGE CONCEALED PENDENT (K=5.6) Q/R	22
○	1/2" 165°F STANDARD COVERAGE UPRIGHT (K=5.6) Q/R	132
◁	1/2" 165°F STANDARD COVERAGE SIDEWALL (K=5.6) Q/R	8

7 MERIDIAN

●	1/2" 200°F STANDARD COVERAGE CONCEALED PENDENT (K=5.6)	29
○	1/2" 165°F STANDARD COVERAGE UPRIGHT (K=5.6) Q/R	237
		–
		–
		–
		–
		–

ANC®
Fire Protection and Life Safety Specialists
Abedini Norris Consulting Incorporated
7676 Woodbine Avenue, Suite 200,
Markham, ON L3R 2N2
Tel: (289) 661-0930; www.anconsultinginc.com
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PROJECT NORTH

LICENSED PROFESSIONAL ENGINEER
A. ABEDINI
100220666
SEPT. 08/20
PROVINCE OF ONTARIO

GARDEX CHEMICALS
1 & 7 MERIDIAN ROAD
ETOBICOKE, ONTARIO M9W 4Z6

GARDEX CHEMICALS
1 & 7 MERIDIAN ROAD
ETOBICOKE, ONTARIO M9W 4Z6

DRAWING TITLE

FIRE PROTECTION SYSTEM
SPRINKLER LAYOUT

JOB. NO. 20-0206
SCALE: 1/8" = 1'-0"
DRAWN BY: CSF
CHECKED BY: AA
DWG NO.: FP–1

Hydraulic Calculations by HydraCALC

ABEDINI & NORRIS CONSULTING
200-7676 WOODBINE AVENUE
Your Street Address 2
MARKHAM, ONTARIO
1-289-661-0930

LICENSED PROFESSIONAL ENGINEER
A. ABEDINI
100220666
SEPT 08/20
PROVINCE OF ONTARIO

Job Name	:	20-0206 1 MERIDAN ROAD GARDEX
Drawing	:	FP-1
Location	:	1 MERIDIAN ROAD
Remote Area	:	1
Contract	:	20-0206
Data File	:	20-0206 1 MERIDIAN RD HYDRALIC CACULATIONS.WXF
Date/Time	:	09/08/2020 - 02:01 PM

HYDRAULIC CALCULATIONS
for

Project name: 20-0206 1 MERIDIAN ROAD GARDEX
Location: 1 MERIDIAN ROAD
Drawing no: FP-1
Contract number: 20-0206
Date: 4 SEPT 2020

Design

Remote area number: 1
Remote area location: REAR STORAGE AREA
Occupancy classification: ORDINARY HAZARD 2
Density: .20 - Gpm/SqFt
Area of application: 1559 - SqFt
Coverage per sprinkler: 100 - SqFt
Type of sprinklers calculated: UPRIGHTS
No. of sprinklers calculated: 16
In-rack demand: N/A - GPM
Hose streams: 250 - GPM
Total water required (including hose streams): 594.9 - GPM @ 40.8 - Psi
Type of system: WET
Volume of dry or preaction system: N/A - Gal

Water supply information

Date: 06 JUNE 19
Location: SKYWAY DRIVE
Source: TORONTO

Name of contractor: ABEDINI & NORRIS CONSULTING
Address: 200-7676 WOODBINE AVENUE / Your Street Address 2 / MARKHAM,
Phone number: 1-289-661-0930
Name of designer: CHRIS FITZGERALD
Authority having jurisdiction: TORONTO FIRE SERVICE
Notes: (Include peaking information or gridded systems here.)

Water Supply Curve

ABEDINI & NORRIS CONSULTING
20-0206 1 MERIDAN ROAD GARDEX

City Water Supply:
- C1 - Static Pressure : 60
- C2 - Residual Pressure: 52
- C2 - Residual Flow : 1216

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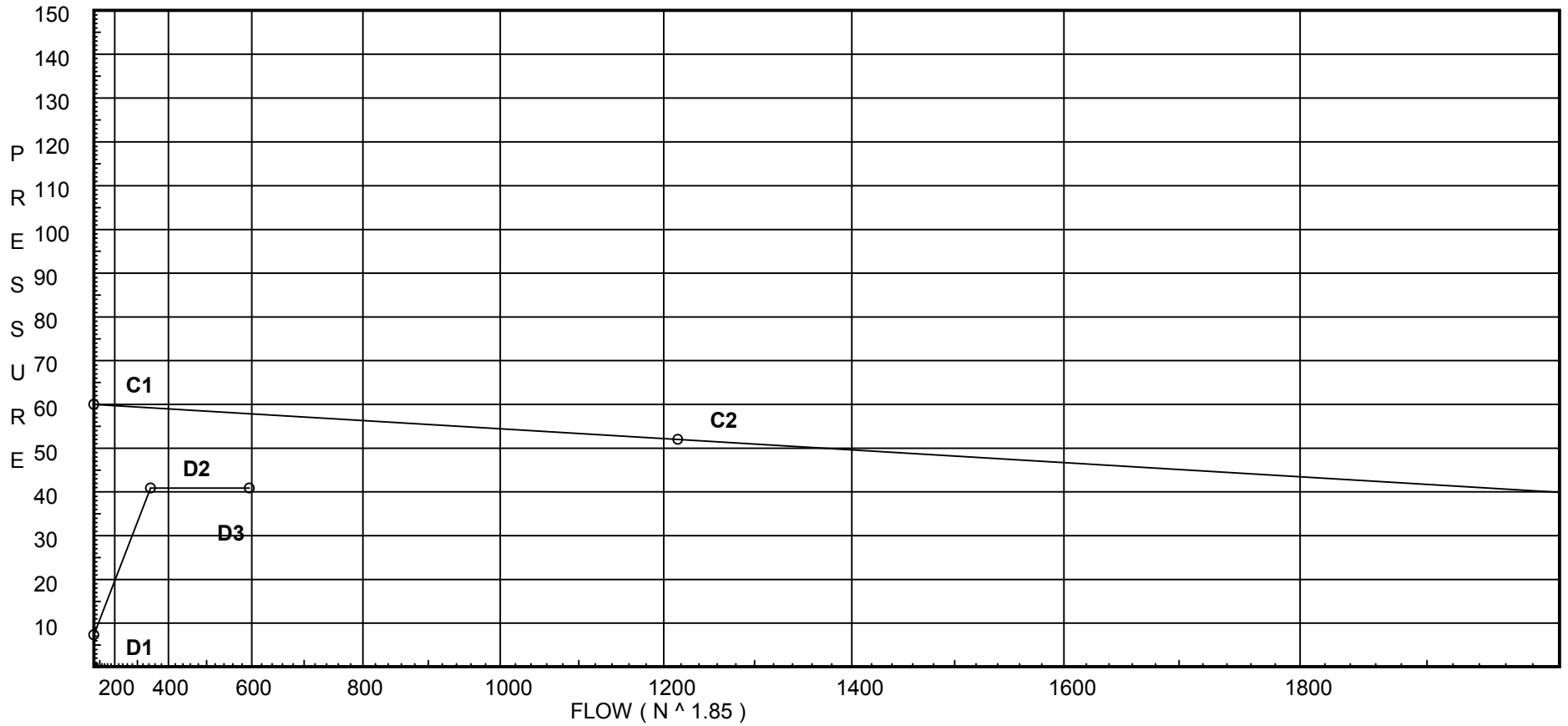
Demand:
- D1 - Elevation : 7.363
- D2 - System Flow : 344.96
- D2 - System Pressure : 40.874
- Hose (Demand) : 250
- D3 - System Demand : 594.96
- Safety Margin : 16.994



Fittings Used Summary

Fitting Legend

Abbrev.	Name	½	¾	1	1¼	1½	2	2½	3	3½	4	5	6	8	10	12	14	16	18	20	24
Aty	Alarm Tyco AV-1							14			23		24	23							
B	NFPA 13 Butterfly Valve	0	0	0	0	0	6	7	10	0	12	9	10	12	19	21	0	0	0	0	0
E	NFPA 13 90' Standard Elbow	1	2	2	3	4	5	6	7	8	10	12	14	18	22	27	35	40	45	50	61
G	NFPA 13 Gate Valve	0	0	0	0	0	1	1	1	1	2	2	3	4	5	6	7	8	10	11	13
T	NFPA 13 90' Flow thru Tee	3	4	5	6	8	10	12	15	17	20	25	30	35	50	60	71	81	91	101	121

Units Summary

Diameter Units	Inches
Length Units	Feet
Flow Units	US Gallons per Minute
Pressure Units	Pounds per Square Inch

Note: Fitting Legend provides equivalent pipe lengths for fittings types of various diameters. Equivalent lengths shown are standard for actual diameters of Sched 40 pipe and CFactors of 120 except as noted with *. The fittings marked with a * show equivalent lengths values supplied by manufacturers based on specific pipe diameters and CFactors and they require no adjustment. All values for fittings not marked with a * will be adjusted in the calculation for CFactors of other than 120 and diameters other than Sched 40 per NFPA.

SUPPLY ANALYSIS

Node at Source	Static Pressure	Residual Pressure	Flow	Available Pressure	Total Demand	Required Pressure
TES1	60.0	52	1216.0	57.868	594.96	40.874

NODE ANALYSIS

Node Tag	Elevation	Node Type	Pressure at Node	Discharge at Node	Notes	
S201	19.0	5.6	12.76	20.0	0.2	100
S202	19.0	5.6	13.02	20.21	0.2	100
S203	19.0	5.6	13.98	20.94	0.2	100
S204	19.0	5.6	14.97	21.67	0.2	100
S205	19.0	5.6	16.71	22.89	0.2	100
TRN4	19.0		18.64			
S206	19.0	5.6	12.82	20.05	0.2	100
S207	19.0	5.6	13.08	20.26	0.2	100
S208	19.0	5.6	14.05	20.99	0.2	100
S209	19.0	5.6	15.04	21.72	0.2	100
S210	19.0	5.6	16.79	22.94	0.2	100
TRN5	19.0		18.73			
S211	19.0	5.6	13.04	20.22	0.2	100
S212	19.0	5.6	13.31	20.43	0.2	100
S213	19.0	5.6	14.3	21.17	0.2	100
S214	19.0	5.6	15.31	21.91	0.2	100
S215	19.0	5.6	17.08	23.14	0.2	100
TRN6	19.0		19.05			
S216	19.0	5.6	22.24	26.41	0.2	100
TRN7	19.0		22.39			
BRN4	17.0		20.71			
BRN5	17.0		20.8			
BRN6	17.0		21.14			
BRN7	17.0		23.35			
T1	17.0		23.38			
TR1	17.0		24.93			
BR1	14.0		27.48			
PC1	14.0		31.88			
T2	14.0		32.83			
TOR1	12.0		34.77			
BOR1	2.0		40.7			
UG1	-4.0		43.37			
TES1	2.0		40.87	250.0		

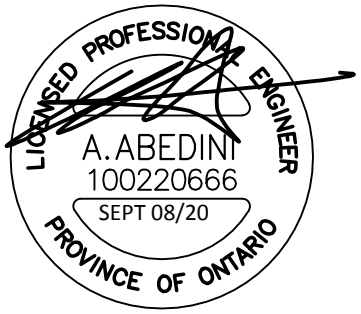
Node1 / to / Node2	Elev1 / Elev2	K / Fact	Qa / Qt	Nom / Act	Fitting or Eqiv	Len	Pipe Ftngs Total	CFact / Pf/Ft	Pt / Pe / Pf	******* Notes ******
S201	19	5.60	20.00	1.25			9.583	120	12.755	
to									0.0	
S202	19		20.0	1.442			9.583	0.0277	0.265	Vel = 3.93
S202	19	5.60	20.21	1.25			9.583	120	13.020	
to									0.0	
S203	19		40.21	1.442			9.583	0.1006	0.964	Vel = 7.90
S203	19	5.60	20.94	1.5			9.583	120	13.984	
to									0.0	
S204	19		61.15	1.682			9.583	0.1032	0.989	Vel = 8.83
S204	19	5.60	21.67	1.5			9.583	120	14.973	
to									0.0	
S205	19		82.82	1.682			9.583	0.1808	1.733	Vel = 11.96
S205	19	5.60	22.88	2	E	6.153	16.750	120	16.706	
to							6.153		0.0	
TRN4	19		105.7	2.157			22.903	0.0846	1.938	Vel = 9.28
TRN4	19		0.0	2	T	12.307	1.833	120	18.644	
to							12.307		0.866	
BRN4	17		105.7	2.157			14.140	0.0846	1.196	Vel = 9.28
			0.0							
BRN4			105.70						20.706	K Factor = 23.23
S206	19	5.60	20.05	1.25			9.583	120	12.818	
to									0.0	
S207	19		20.05	1.442			9.583	0.0278	0.266	Vel = 3.94
S207	19	5.60	20.25	1.25			9.583	120	13.084	
to									0.0	
S208	19		40.3	1.442			9.583	0.1010	0.968	Vel = 7.92
S208	19	5.60	21.00	1.5			9.583	120	14.052	
to									0.0	
S209	19		61.3	1.682			9.583	0.1036	0.993	Vel = 8.85
S209	19	5.60	21.72	1.5			9.583	120	15.045	
to									0.0	
S210	19		83.02	1.682			9.583	0.1817	1.741	Vel = 11.99
S210	19	5.60	22.94	2	E	6.153	16.750	120	16.786	
to							6.153		0.0	
TRN5	19		105.96	2.157			22.903	0.0850	1.947	Vel = 9.30
TRN5	19		0.0	2	T	12.307	1.833	120	18.733	
to							12.307		0.866	
BRN5	17		105.96	2.157			14.140	0.0849	1.201	Vel = 9.30
			0.0							
BRN5			105.96						20.800	K Factor = 23.23
S211	19	5.60	20.22	1.25			9.583	120	13.043	
to									0.0	
S212	19		20.22	1.442			9.583	0.0283	0.271	Vel = 3.97
S212	19	5.60	20.44	1.25			9.583	120	13.314	
to									0.0	
S213	19		40.66	1.442			9.583	0.1026	0.983	Vel = 7.99
S213	19	5.60	21.17	1.5			9.583	120	14.297	
to									0.0	
S214	19		61.83	1.682			9.583	0.1054	1.010	Vel = 8.93

Node1 / to / Node2	Elev1 / Elev2	K / Fact	Qa / Qt	Nom / Act	Fitting or Eqiv	Len	Pipe Ftngs Total	CFact / Pf/Ft	Pt / Pe / Pf	******* Notes ******
S214	19	5.60	21.91	1.5			9.583	120	15.307	
to									0.0	
S215	19		83.74	1.682			9.583	0.1846	1.769	Vel = 12.09
S215	19	5.60	23.14	2	E	6.153	16.750	120	17.076	
to							6.153		0.0	
TRN6	19		106.88	2.157			22.903	0.0864	1.978	Vel = 9.38
TRN6	19		0.0	2	T	12.307	1.833	120	19.054	
to							12.307		0.866	
BRN6	17		106.88	2.157			14.140	0.0864	1.221	Vel = 9.38
			0.0							
BRN6			106.88						21.141	K Factor = 23.25
S216	19	5.60	26.41	2	E	6.153	16.750	120	22.243	
to							6.153		0.0	
TRN7	19		26.41	2.157			22.903	0.0065	0.149	Vel = 2.32
TRN7	19		0.0	2	T	12.307	1.833	120	22.392	
to							12.307		0.866	
BRN7	17		26.41	2.157			14.140	0.0065	0.092	Vel = 2.32
			0.0							
BRN7			26.41						23.350	K Factor = 5.47
BRN4	17		105.70	3			8.333	120	20.706	
to									0.0	
BRN5	17		105.7	3.26			8.333	0.0113	0.094	Vel = 4.06
BRN5	17		105.97	3			8.333	120	20.800	
to									0.0	
BRN6	17		211.67	3.26			8.333	0.0409	0.341	Vel = 8.14
BRN6	17		106.88	3	T	20.159	5.500	120	21.141	
to							20.159		0.0	
T1	17		318.55	3.26			25.659	0.0871	2.236	Vel = 12.24
			0.0							
T1			318.55						23.377	K Factor = 65.88
BRN7	17		26.41	3	T	20.159	10.917	120	23.350	
to							20.159		0.0	
T1	17		26.41	3.26			31.076	0.0009	0.027	Vel = 1.02
			0.0							
T1			26.41						23.377	K Factor = 5.46
T1	17		344.96	3	E	9.408	6.000	120	23.377	
to							9.408		0.0	
TR1	17		344.96	3.26			15.408	0.1009	1.555	Vel = 13.26
TR1	17		0.0	3	E	9.408	3.000	120	24.932	
to							9.408		1.299	
BR1	14		344.96	3.26			12.408	0.1010	1.253	Vel = 13.26
BR1	14		0.0	3			43.583	120	27.484	
to									0.0	
PC1	14		344.96	3.26			43.583	0.1010	4.401	Vel = 13.26
PC1	14		0.0	4	T	26.334	8.083	120	31.885	
to							26.334		0.0	
T2	14		344.96	4.26			34.417	0.0274	0.944	Vel = 7.76

Node1 / to / Node2	Elev1 / Elev2	K Fact	Qa / Qt	Nom / Act	Fitting or Eqiv	Len	Pipe Ftngs Total	CFact Pf/Ft	Pt / Pe / Pf	******* Notes ******
T2	14		0.0	4	E	13.167	26.167	120	32.829	
to							13.167		0.866	
TOR1	12		344.96	4.26			39.334	0.0274	1.079	Vel = 7.76
TOR1	12		0.0	4	Aty	30.284	12.000	120	34.774	
to					B	15.8	46.084		4.331	
BOR1	2		344.96	4.26			58.084	0.0274	1.594	Vel = 7.76
BOR1	2		0.0	6	E	23.412	2.000	140	40.699	
to							23.412		2.599	
UG1	-4		344.96	6.357			25.412	0.0029	0.074	Vel = 3.49
UG1	-4		0.0	6	G	5.017	6.000	140	43.372	
to					E	23.412	28.429		-2.599	
TES1	2		344.96	6.357			34.429	0.0029	0.101	Vel = 3.49
			250.00							Qa = 250.00
TES1			594.96						40.874	K Factor = 93.06

Hydraulic Calculations by HydraCALC

ABEDINI & NORRIS CONSULTING
200-7676 WOODBINE AVENUE
Your Street Address 2
MARKHAM, ONTARIO
1-289-661-0930



Job Name	:	20-0206 7 MERIDIAN ROAD GARDEX
Drawing	:	FP-1
Location	:	7 MERIDIAN ROAD
Remote Area	:	1
Contract	:	20-0206
Data File	:	20-0206 7 MERIDIAN RD HYDRALIC CACULATIONS.WXF
Date/Time	:	09/08/2020 - 02:04 PM

Filed: 2020-10-29
EB-2020-0219
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HYDRAULIC CALCULATIONS
for

Project name: 20-0206 7 MERIDIAN ROAD GARDEX
Location: 7 MERIDIAN ROAD
Drawing no: FP-1
Contract number: 20-0206
Date: 4 SEPT 2020

Design

Remote area number: 1
Remote area location: REAR STORAGE AREA
Occupancy classification: ORDINARY HAZARD 2
Density: .20 - Gpm/SqFt
Area of application: 1044 - SqFt
Coverage per sprinkler: 130 - SqFt
Type of sprinklers calculated: UPRIGHTS
No. of sprinklers calculated: 17
In-rack demand: N/A - GPM
Hose streams: 250 - GPM
Total water required (including hose streams): 703.9 - GPM @ 35.1 - Psi
Type of system: WET
Volume of dry or preaction system: N/A - Gal

Water supply information

Date: 06 JUNE 19
Location: SKYWAY DRIVE
Source: TORONTO FIRE

Name of contractor: ABEDINI & NORRIS CONSULTING
Address: 200-7676 WOODBINE AVENUE / Your Street Address 2 / MARKHAM,
Phone number: 1-289-661-0930
Name of designer: CHRIS FITZGERALD
Authority having jurisdiction: TORONTO FIRE SERVICE
Notes: (Include peaking information or gridded systems here.) DUE TO THE DECK BEING AT 14'-0 NFPA 13: 11.2.3.2.3.1 ALLOWS FOR WET SYTEM IN AN ORDINARY HAZARD WIT QR HEADS TO HAVE IT DESIGN AREA REDUCES. IN THIS CASE BY 34% NEW DESIGN AREA WAS NOT LESS THAN 990 SQ/FT

Water Supply Curve

City Water Supply:
- C1 - Static Pressure : 60
- C2 - Residual Pressure: 52
- C2 - Residual Flow : 1216

Filed: 2020-10-29
EB-2020-0219
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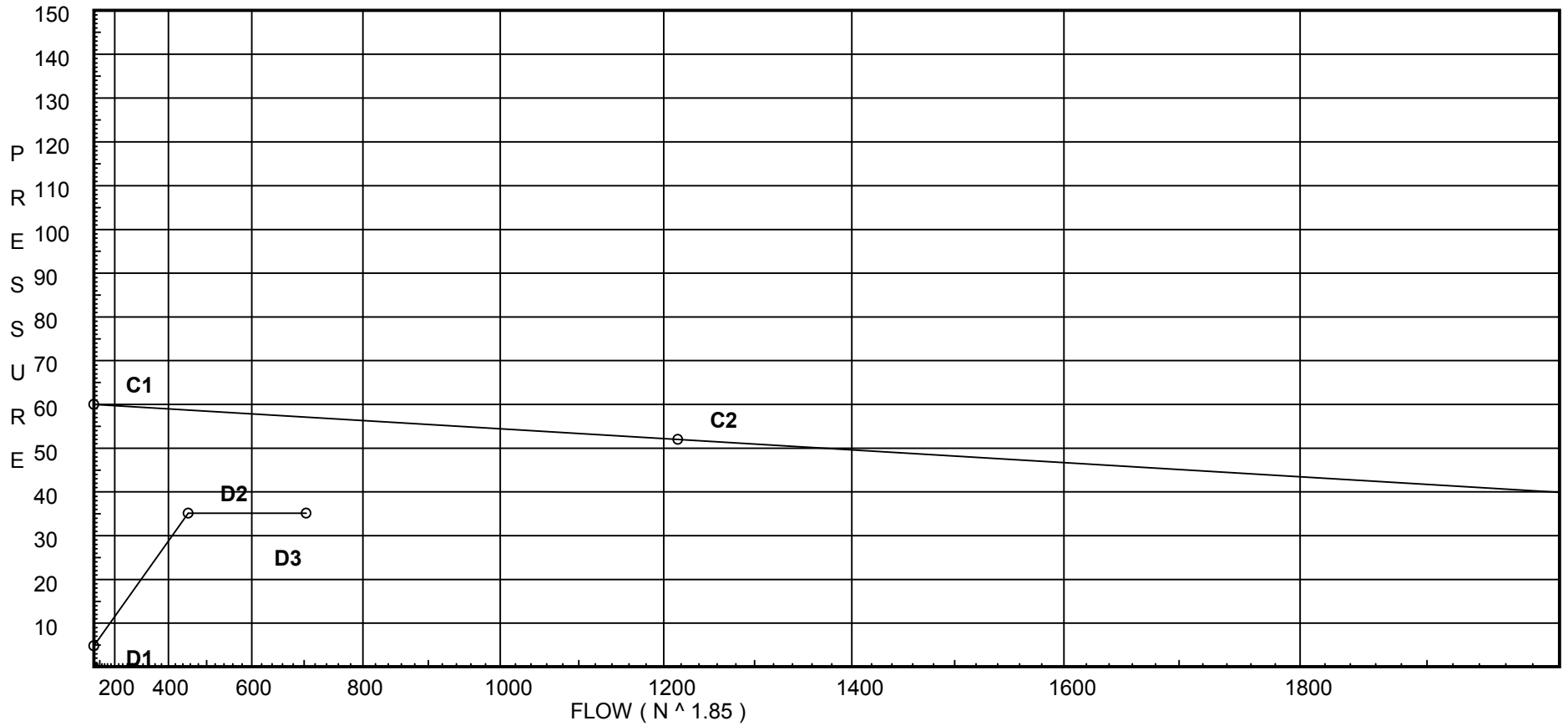
Demand:
- D1 - Elevation : 4.836
- D2 - System Flow : 453.896
- D2 - System Pressure : 35.119
- Hose (Demand) : 250
- D3 - System Demand : 703.896
- Safety Margin : 21.971



Fittings Used Summary

Fitting Legend

Abbrev.	Name	½	¾	1	1¼	1½	2	2½	3	3½	4	5	6	8	10	12	14	16	18	20	24
Aty	Alarm Tyco AV-1							14			23		24	23							
B	NFPA 13 Butterfly Valve	0	0	0	0	0	6	7	10	0	12	9	10	12	19	21	0	0	0	0	0
E	NFPA 13 90' Standard Elbow	1	2	2	3	4	5	6	7	8	10	12	14	18	22	27	35	40	45	50	61
G	NFPA 13 Gate Valve	0	0	0	0	0	1	1	1	1	2	2	3	4	5	6	7	8	10	11	13
T	NFPA 13 90' Flow thru Tee	3	4	5	6	8	10	12	15	17	20	25	30	35	50	60	71	81	91	101	121

Units Summary

Diameter Units	Inches
Length Units	Feet
Flow Units	US Gallons per Minute
Pressure Units	Pounds per Square Inch

Note: Fitting Legend provides equivalent pipe lengths for fittings types of various diameters. Equivalent lengths shown are standard for actual diameters of Sched 40 pipe and CFactors of 120 except as noted with *. The fittings marked with a * show equivalent lengths values supplied by manufacturers based on specific pipe diameters and CFactors and they require no adjustment. All values for fittings not marked with a * will be adjusted in the calculation for CFactors of other than 120 and diameters other than Sched 40 per NFPA.

SUPPLY ANALYSIS

Node at Source	Static Pressure	Residual Pressure	Flow	Available Pressure	Total Demand	Required Pressure
TES2	60.0	52	1216.0	57.09	703.9	35.119

NODE ANALYSIS

Node Tag	Elevation	Node Type	Pressure at Node	Discharge at Node	Notes	
S101	13.167	5.6	21.56	26.0	0.2	130
S102	13.167	5.6	21.6	26.03	0.2	130
S103	13.167	5.6	21.77	26.13	0.2	130
S104	13.167	5.6	22.14	26.35	0.2	130
S105	13.167	5.6	22.76	26.72	0.2	130
S106	13.167	5.6	23.71	27.27	0.2	130
TRN1	13.167		25.61			
S107	13.167	5.6	21.56	26.0	0.2	130
S108	13.167	5.6	21.61	26.03	0.2	130
S109	13.167	5.6	21.78	26.13	0.2	130
S110	13.167	5.6	22.14	26.35	0.2	130
S111	13.167	5.6	22.76	26.72	0.2	130
S112	13.167	5.6	23.71	27.27	0.2	130
TRN2	13.167		25.62			
S113	13.167	5.6	23.46	27.13	0.2	130
S114	13.167	5.6	23.51	27.16	0.2	130
S115	13.167	5.6	23.7	27.26	0.2	130
S116	13.167	5.6	24.09	27.49	0.2	130
S117	13.167	5.6	24.76	27.87	0.2	130
TRN3	13.167		26.22			
BRN1	12.0		28.53			
BRN2	12.0		28.54			
BRN3	12.0		28.56			
E1	12.0		29.64			
TOR2	12.0		30.05			
BOR2	2.0		34.72			
UG2	-4.0		37.47			
TES2	2.0		35.12	250.0		

Final Calculations : Hazen-Williams

ABEDINI & NORRIS CONSULTING
20-0206 7 MERIDIAN ROAD GARDEX

Node1 / to / Node2	Elev1 / Elev2	K / Fact	Qa / Qt	Nom / Act	Fitting or Eqiv	Len	Pipe Ftngs / Total	CFact / Pf/Ft	Pt / Pe / Pf	******* Notes ******
S101	13.167	5.60	26.00	2			7.500	120	21.556	
to									0.0	
S102	13.167		26.0	2.157			7.500	0.0064	0.048	Vel = 2.28
S102	13.167	5.60	26.03	2			7.500	120	21.604	
to									0.0	
S103	13.167		52.03	2.157			7.500	0.0227	0.170	Vel = 4.57
S103	13.167	5.60	26.13	2			7.500	120	21.774	
to									0.0	
S104	13.167		78.16	2.157			7.500	0.0484	0.363	Vel = 6.86
S104	13.167	5.60	26.35	2			7.500	120	22.137	
to									0.0	
S105	13.167		104.51	2.157			7.500	0.0829	0.622	Vel = 9.18
S105	13.167	5.60	26.71	2			7.500	120	22.759	
to									0.0	
S106	13.167		131.22	2.157			7.500	0.1261	0.946	Vel = 11.52
S106	13.167	5.60	27.27	2	E	6.153	4.500	120	23.705	
to							6.153		0.0	
TRN1	13.167		158.49	2.157			10.653	0.1790	1.907	Vel = 13.92
TRN1	13.167		0.0	2	T	12.307	1.167	120	25.612	
to							12.307		0.505	
BRN1	12		158.49	2.157			13.474	0.1790	2.412	Vel = 13.92
			0.0							
BRN1			158.49						28.529	K Factor = 29.67
S107	13.167	5.60	26.00	2			7.500	120	21.562	
to									0.0	
S108	13.167		26.0	2.157			7.500	0.0063	0.047	Vel = 2.28
S108	13.167	5.60	26.04	2			7.500	120	21.609	
to									0.0	
S109	13.167		52.04	2.157			7.500	0.0228	0.171	Vel = 4.57
S109	13.167	5.60	26.13	2			7.500	120	21.780	
to									0.0	
S110	13.167		78.17	2.157			7.500	0.0484	0.363	Vel = 6.86
S110	13.167	5.60	26.35	2			7.500	120	22.143	
to									0.0	
S111	13.167		104.52	2.157			7.500	0.0829	0.622	Vel = 9.18
S111	13.167	5.60	26.72	2			7.500	120	22.765	
to									0.0	
S112	13.167		131.24	2.157			7.500	0.1263	0.947	Vel = 11.52
S112	13.167	5.60	27.27	2	E	6.153	4.500	120	23.712	
to							6.153		0.0	
TRN2	13.167		158.51	2.157			10.653	0.1790	1.907	Vel = 13.92
TRN2	13.167		0.0	2	T	12.307	1.167	120	25.619	
to							12.307		0.505	
BRN2	12		158.51	2.157			13.474	0.1790	2.412	Vel = 13.92
			0.0							
BRN2			158.51						28.536	K Factor = 29.67
S113	13.167	5.60	27.13	2			7.500	120	23.463	
to									0.0	
S114	13.167		27.13	2.157			7.500	0.0068	0.051	Vel = 2.38

Node1 to Node2	Elev1 Elev2	K Fact	Qa Qt	Nom Act	Fitting or Eqiv	Len	Pipe Ftngs Total	CFact Pf/Ft	Pt Pe Pf	******* Notes ******
S114	13.167	5.60	27.15	2			7.500	120	23.514	
to									0.0	
S115	13.167		54.28	2.157			7.500	0.0247	0.185	Vel = 4.77
S115	13.167	5.60	27.26	2			7.500	120	23.699	
to									0.0	
S116	13.167		81.54	2.157			7.500	0.0524	0.393	Vel = 7.16
S116	13.167	5.60	27.49	2			7.500	120	24.092	
to									0.0	
S117	13.167		109.03	2.157			7.500	0.0896	0.672	Vel = 9.57
S117	13.167	5.60	27.87	2	E	6.153	4.500	120	24.764	
to							6.153		0.0	
TRN3	13.167		136.9	2.157			10.653	0.1365	1.454	Vel = 12.02
TRN3	13.167		0.0	2	T	12.307	1.167	120	26.218	
to							12.307		0.505	
BRN3	12		136.9	2.157			13.474	0.1366	1.840	Vel = 12.02
			0.0							
BRN3			136.90						28.563	K Factor = 25.62
BRN1	12		158.49	6			7.833	120	28.529	
to									0.0	
BRN2	12		158.49	6.357			7.833	0.0009	0.007	Vel = 1.60
BRN2	12		158.51	6			7.917	120	28.536	
to									0.0	
BRN3	12		317.0	6.357			7.917	0.0034	0.027	Vel = 3.20
BRN3	12		136.90	6	E	17.603	148.250	120	28.563	
to							17.603		0.0	
E1	12		453.9	6.357			165.853	0.0065	1.076	Vel = 4.59
E1	12		0.0	6	E	17.603	45.750	120	29.639	
to							17.603		0.0	
TOR2	12		453.9	6.357			63.353	0.0065	0.411	Vel = 4.59
TOR2	12		0.0	6	Aty	30.176	10.000	120	30.050	
to					B	12.573	42.749		4.331	
BOR2	2		453.9	6.357			52.749	0.0065	0.342	Vel = 4.59
BOR2	2		0.0	6	E	23.412	6.000	140	34.723	
to							23.412		2.599	
UG2	-4		453.9	6.357			29.412	0.0049	0.144	Vel = 4.59
UG2	-4		0.0	6	G	4.304	20.000	140	37.466	
to					E	20.084	24.388		-2.599	
TES2	2		453.9	6.16			44.388	0.0057	0.252	Vel = 4.89
			250.00							Qa = 250.00
TES2			703.90						35.119	K Factor = 118.78

TAB 8

SCHEDULE B

INDIVIDUAL OWNERSHIP PLAN

TORONTO, ONTARIO

Filed: 2020-10-29
EB-2020-0219
Tab 8
Page 1 of 2

Proposed Permanent Easement	0.03 AC
Proposed Temporary Workspace	0.17 AC
Existing Easement (estimated):	0.00 AC

LEGEND

- Proposed Temporary Workspace
- Proposed Permanent Easement
- Existing Permanent Easement
- Property Boundary

THIS MAP IS FOR INFORMATION PURPOSES. DISTANCES AND AREAS IN THIS MAP ARE APPROXIMATIONS ONLY AND SHOULD NOT BE USED FOR AUTHORITATIVE DEFINITION OF LEGAL BOUNDARY OR PROPERTY TITLE.

Imperial

SPPL WATERDOWN TO FINCH PROJECT
WTFN4076
2394561 ONTARIO INC.

NO	REVISION	DATE	APPR
0	ISSUE FOR INFORMATION	05/26/2020	JAW

SCALE	DATE	DRAWN	CHECKED	APPROVED	PROJ. NO.	DRAWING NUMBER	SHEET
1 cm = 6 m	05/26/2020	JCW	HMC	JAW	24255	24255-250-PSK-19320	1 OF 2

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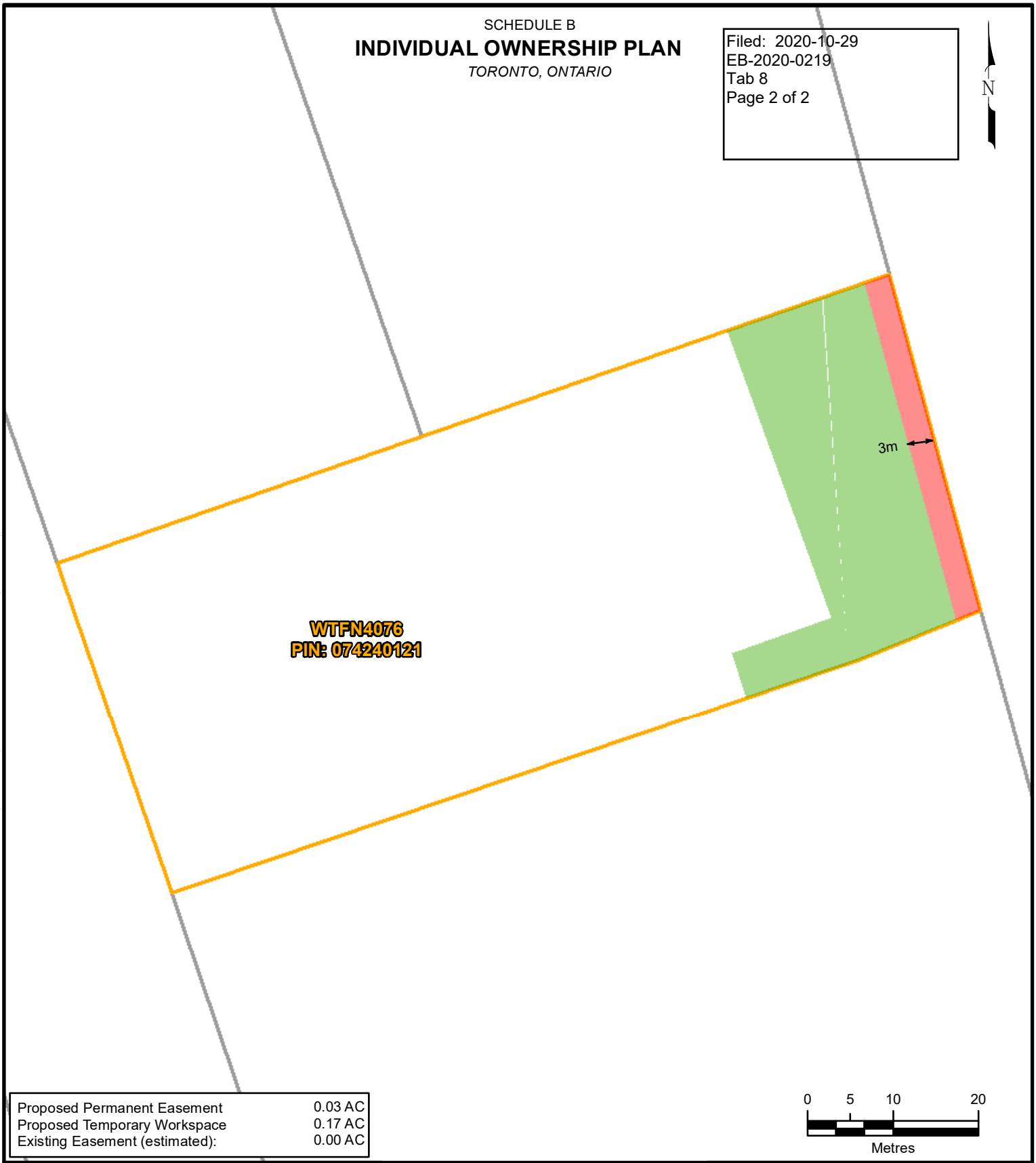
SCHEDULE B

INDIVIDUAL OWNERSHIP PLAN

TORONTO, ONTARIO

Filed: 2020-10-29
EB-2020-0219
Tab 8
Page 2 of 2



Proposed Permanent Easement	0.03 AC
Proposed Temporary Workspace	0.17 AC
Existing Easement (estimated):	0.00 AC

0 5 10 20
Metres

LEGEND

- Proposed Temporary Workspace
- Proposed Permanent Easement
- Existing Permanent Easement
- Property Boundary

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Document Path: P:\24255\0500_ENG-DSN\508_GIS_WRKNG\MAP-Maps\Sketches\IOP\24255-250-PSK-19320_(WTFN4076)_HONI\24255-250-PSK-19320_(WTFN4076)_Rev0.mxd

TAB 9

FIRE SAFETY PLAN

Filed: 2020-10-29
EB-2020-0219
Tab 9
Page 1 of 39

FOR

GARDEX CHEMICALS LTD.

1 MERIDIAN ROAD
TORONTO, ONTARIO
M1W 4Z6

PREPARED BY Christian Burghart **DATE** JULY 15 **2020**

APPROVED BY _____ **DATE** _____ **2020**

1st Place Fire Protection Inc.
4141 Sladeview Cr. Unit 18, Mississauga, Ontario, L5L 5T1
Phone: 905-565-0799 Fax: 905-565-1689
Prepared By: Christian Burghart
firstplacefire@sympatico.ca

TABLE OF CONTENTS

1. FIRE SAFETY PLAN OVERVIEW

1.1 Introduction

The Ontario Fire Code Section 2.8 requires the implementation of a FIRE SAFETY PLAN for this Building/occupancy. The plan is to be kept in the building in an approved location.
The implementation of the Fire Safety Plan helps to ensure effective utilization of the life safety features in a building to protect people from fire. The required Fire Safety Plan should be designed to suit the resources of each individual building or complex of buildings.

The Fire Protection and Prevention Act Part VII, Section 28, (3) (b) states that in the case of an offence for contravention of the fire code, an individual is liable to a fine of not more than $50,000 for the first offense and not more than $100,000.00 for a subsequent offense, or imprisonment for a term of not more than one year or both, A corporation is liable of a fine of not more than $500,000.00 for a first offense and not more than $1,500,000.00 for a subsequence offense.

The Fire Code requires the owner to be responsible for carrying out the provisions for fire safety, and defines the "owner" as "any person, firm or corporation controlling the property under consideration." Consequently, the owner may be any one of, or a combination of parties, including building management, maintenance staff and tenant groups.

This official document is to be kept readily available at all times for use by the staff and fire officials in the event of an emergency.

1.2 Distribution and Records

Distribution of Fire Safety plan:
1 copy for the Fire Department
1 copy for the Director of Operations
1 copy for the Warehouse Manager
1 copy for the Fire Plan Box

Staff will receive all pertinent information specific to their individual duties.

1.3 Records

- A written record will be kept of all tests and corrective measures for a period of two (2) years. The record will be made available to the Chief Fire Official or his representative, upon request.
- A permanent record, containing the maintenance date, the examiner's name and a description of any maintenance work or hydrostatic testing carried out, will be prepared and maintained for each portable fire extinguisher. All other required maintenance as listed in the MAINTENANCE PROCEDURES section will also have written records kept.
- It is the building owner's responsibility to maintain the fire safety plan document. When the information pertaining to the building is altered or changed in any way, the information within the fire plan document must be revised to reflect these changes. All applicable copies must then be amended.
- The fire plan shall be reviewed as often as necessary, but at intervals not greater than 12 months, to ensure that it takes into account of changes in the use and other characteristics of the building.

1.4 Fire Plan Annual Review

The Ontario Fire Code made under Reg 213/07 as amended requires that your building Fire Safety Plan be reviewed as often as necessary but in intervals not greater than 12 months. Below is a sign off sheet to be completed accordingly.

In conformance with Ontario Fire Code and sentence 2.8.2.1 (4) I have reviewed the attached Fire Safety Plan for Gardex Chemicals Inc. to ensure that it takes account of changes in the use and other characteristic of the building. Where major changes occur re-approval may be warranted.

DATE	NAME	POSITION	SIGNATURE

2. AUDIT OF BUILDING RESOURCES

2.1 Building Description

This building is a single tenant unit. The building is a single storey with no basement. The building is constructed of non-combustible materials. This tenant is a Group F, Division 1 high hazard industrial occupancy.

Warehouse area #1 contains flammable liquids, aerosols and materials requiring environmental precautions. These areas are identified in Section 11 and Section 12.

Hours of operation are 8:30 AM to 4:30 PM. Monday to Friday.

2.1.1 Fire Alarm

This is building is equipped with a Summit single stage fire alarm system. The main fire alarm control panel is in the electrical room of the server room. The fire alarm annunciator is located in the main entrance at the northeast corner of the building. There are manual pull stations at all exits from the building. There are smoke detectors within the server room. Bells are the choice of audibility. See Section 12 for locations.

2.1.2 Emergency Lighting

Emergency lighting is provided through the use of remotely located battery type packs. All exit doors are illuminated in the event of power loss. Emergency lighting shall have illumination of at least 30 minutes.

2.1.3 Automatic Sprinkler Systems

This building is protected with a fire sprinkler system. The sprinkler valve is in the northwest corner of the warehouse. The fire department siamese connection is located outside the sprinkler room facing west. The sprinkler valve is zoned on the base building fire alarm system for alarm flow, low pressure and tamper trouble conditions. See Section 12 for location.

2.1.4 Portable Fire Extinguishers

There are ABC multi-purpose dry chemical fire extinguishers located throughout the office and warehouse areas. See Section 12 for location.

2.1.5 Fire Hose

There is a fire hose cabinet located in the rest room hallway. The cabinet contains a 100 foot fire hose with shut off nozzle. See Section 12 for location.

2.1.6 Fire Hydrant Location

There are municipal fire hydrants along Meridian Road. The closest fire hydrant is at the corner of Meridian Road and Skyway Avenue. See Section 12 for location.

2.1.7 Fire Department Access

The fire department has access to the property from the north along Meridian Road. See Section 12 for location.

2.1.8 Exit Locations

The main entrance / exit is at the northeast corner of the building. There are five emergency exits located on the perimeter of the warehouse. See Section 12 for location.

2.1.9 Fire Doors

There are roll up fire doors located in the warehouse area. These doors are activated by the melting of fusible links allowing the doors to close. See Section 12 for location.

2.1.10 Natural Gas Shut-Off Valve

The natural gas shut off valve is located at the northwest corner of the building. See Section 12 for location.

2.1.11 Domestic Water Shut-Off Valve

The domestic water shut off valve is located adjacent to the sprinkler valve at the northwest corner of the warehouse. See Section 12 for location.

2.1.12 Electric Shut-Off Switch

The main electrical panel is located at the northwest corner of the warehouse. See Section 12 for location.

2.1.13 Warehouse Products

The warehouse contains various flammable and aerosol products. See Section 11 and 12 for location.

3. AUDIT OF HUMAN RESOURCES

3.1 Building Owner

Business Name	2313625 Ontario Inc.
Address	1 Meridian Road
City, Province	Toronto, Ontario
Postal Code	M9W 4Z6
Phone Number	416-675-1638

3.2 Business Owner

Business Name	Gardex Chemicals Ltd.
Address	7 Meridian Road
City, Province	Toronto, Ontario
Postal Code	M9W 4Z6
Phone Number	416-675-1638

3.3 Building Service Providers

Service	Company Name	Phone#
Natural Gas	Enbridge Gas	1-800-266-3939
Fire Monitoring	ADT	416-226-5240
Fire Alarm	Lumar Fire	905-855-9993
Fire Sprinklers	Lumar Fire	905-855-9993
Hazardous Spill	Clean Harbours Canada Inc.	905-227-7872
Water	City of Toronto	416-395-7737
Hydro	Toronto Hydro	1-800-434-1235

3.4 Emergency Contact Information

EMERGENCY CONTACT PERSONNEL SHOULD BE LISTED FROM CLOSEST TO WORK TO FURTHEST FROM WORK, AT ANY GIVEN TIME.

Full Name	Position	Phone	After Hrs. Phone
Karen Furgiuele	President	416-675-1638	416-931-0597
Robert Percy	Dir. Of Operations	416-675-1638	647-284-4192
Nigel Nazareth	Whse. Manager	416-675-1638	647-646-4475

4. EMERGENCY PROCEDURES

4.1 Instructions to Occupants

The actions to be taken by occupants in emergency situations will be posted at each pull station and/or at exits and will read as follows:

Single Stage

IN CASE OF FIRE

UPON DISCOVERY OF FIRE
LEAVE FIRE AREA IMMEDIATELY
AND CLOSE DOORS

SOUND FIRE ALARM

CALL FIRE DEPARTMENT
DIAL: «911»

LEAVE BUILDING VIA NEAREST EXIT

UPON HEARING FIRE ALARM

LEAVE BUILDING VIA NEAREST EXIT

CLOSE DOORS BEHIND YOU

CAUTION

IF YOU ENCOUNTER SMOKE IN THE STAIRWAY, USE ALTERNATE EXIT

REMAIN CALM

This building is equipped with a single stage fire alarm system. The fire alarm system is to be activated to alert occupants of an emergency and to put into operation the Fire Safety Plan. The Fire Department is to be notified by calling **911** and given the correct address and the exact location of the fire.

5. APPOINTMENT AND ORGANIZATION OF SUPERVISORY STAFF

5.1 Responsibilities of the Director of Operations

- Establishment of emergency procedures to be followed at the time of an emergency.
- Be in complete charge of the approved Fire Safety Plan, and be aware of the specific responsibilities of the personnel involved in the Plan.
- Assign and train adequate assistants to act in the position of person-in-charge of the Fire Safety Plan, when absence from the building is necessary.
- Educate and train all building personnel and advise occupants in the use of fire safety equipment and in the action to be taken under the approved Fire Safety Plan.
- Appointment and organization of designated supervisory staff to carry out fire safety duties.
- Instruction of supervisory staff and other occupants to ensure that they are aware of their responsibilities for fire safety.
- Ensure that regular fire drills are carried out every 12 months.
- Control of fire hazards in the building.
- Maintenance of building facilities provided for safety of the occupants.
- Keep access roadways, fire routes and fire department connections (if applicable) clear and acceptable for fire department use
- Maintain the fire protection equipment in good operating condition at all times.
- Provisions of alternate measures for safety of occupants during shut down of fire protection equipment.
- Assuring that checks, tests and inspections as required by the Ontario Fire Codes are completed on schedule, and records are retained for a minimum period of two (2) years.
- Post and maintain one (1) copy of the fire emergency procedures.
- Keep a copy of the approved Fire Safety Plan on the premises in the fire plan box.
- Notification of the Chief Fire Official regarding changes in the Fire Safety Plan.

5.2 Responsibilities of the Chief Fire Warden

- Ensure that provisions set out in the Fire Safety Plan are carried out.
- Assign and train adequate assistants to act in the position of person-in-charge of the Fire Safety Plan, when absence from the building is necessary.
- If you locate a fire sound the fire alarm by activating a manual pull station, all personnel to evacuate the building via the nearest exit – if this exit is inaccessible due to smoke proceed to the nearest alternate exit.
- In case of a fire alarm, stop work and report to the front of the building to await arriving fire department.
- Upon the arrival of the firefighters, inform the chief fire officer of the conditions in the building and co-ordinate the efforts of the Supervisory staff with those of the Fire Department.
- Provide access keys and vital information to the firefighters.
- Keep a record of the location of any persons in need of assistance to evacuate.
- Participate in annual fire drill.

5.3 Responsibilities of the Fire Wardens

- If you locate a fire sound the fire alarm by activating a manual pull station, all personnel to evacuate the building via the nearest exit – if this exit is inaccessible due to smoke proceed to the nearest alternate exit.
- In case of a fire alarm, all personnel to evacuate the building via the nearest exit – if this exit is inaccessible due to smoke proceed to the nearest alternate exit.
- Supervise the evacuation of the occupants.
- Advise co-workers to provide assistance to those persons needing help to evacuate.
- Direct occupants to Assembly Area located at the northeast corner of the parking lot.
- Do not allow anyone to reenter the building until the all clear is given by the fire department.
- Participate in annual fire drill.

5.4 Responsibilities of the Staff

- If you locate a fire sound the fire alarm by activating a manual pull station, all personnel to evacuate the building via the nearest exit – if this exit is inaccessible due to smoke proceed to the nearest alternate exit.
- In case of a fire alarm, all personnel to evacuate the building via the nearest exit – if this exit is inaccessible due to smoke proceed to the nearest alternate exit.
- Report to the Assembly Area located at the northeast corner of the parking lot.
- Participate in annual fire drill.

5.4.1 Related Staff Duties

- Keep hallways and EXITS, inside and outside, clear of any obstructions at all times.
- Do not permit combustible materials to accumulate in quantities or locations that would constitute a fire hazard.
- Promptly remove all combustible materials that begin to accumulate in quantities or locations that would constitute a fire hazard.
- Promptly remove all combustible waste from areas where waste is placed for disposal, if applicable.

5.5 Responsibilities of the Building Maintenance Staff

- Have a working knowledge of the fire alarm and sprinkler systems.
- Have knowledge of emergency equipment, and when they would operate in an emergency.
- In the event of a normal shutdown of the fire sprinkler system (e.g., for repairs or service) notify the Fire Department at **416-338-9000.**

5.6 Responsibilities of Various Contractors

To ensure that the building is adequately maintained and serviced, the Director of Operations will employ the use of various contractors who specialize in maintenance, inspection checks and test of the services present in the building.

The Director of Operations will be responsible for ensuring that aisles are clear of obstructions and access to exit doors is clear. They will also ensure that combustibles or debris do not accumulate in any area of egress, or any area where it can constitute a fire hazard.

The Director of Operations will have contracts with relevant services to perform check, test, and inspections as described in Section 9 of this document.

5.7 Training Acknowledgement

THIS DOCUMENT MUST BE REVIEWED & SIGNED ANNUALLY BY ALL MEMBERS OF THE MANAGEMENT TEAM.

_____ **Review Year:** _____

I hereby acknowledge that I have read and understand the Gardex Chemical Ltd. Fire Safety Plan and expectations in the event of an emergency. I understand my responsibilities and agree to comply with all information outlined for the purpose of ensuring the safety of my co-workers and myself.

Director of Operations: Name: _____Robert Percy_____ Date: _____

Signature: _____

Name: _____ Date: _____

Signature: _____

Name: _____ Date: _____

Signature: _____

Name: _____ Date: _____

Signature: _____

5.8 Record of Supervisory Staff Training

Date:

The undersigned have been trained by the Director of Operations for their responsibilities under the fire safety plan.

Training records shall be retained for at least two years.

NAME	SIGNATURE

6. FIRE EXTINGUISHMENT, CONTROL OR CONFINEMENT

6.1 Suggested operation of portable fire extinguisher

REMEMBER THE PASS!

P – Pull the safety pin
A – Aim the nozzle
S – Squeeze the trigger handle
S – Sweep from side to side (watch for fire restarting)

Never reinstall extinguishers after use.

Installation, maintenance and testing of fire extinguishers shall be in accordance with NFPA 10 and Part 6 of the Ontario Fire Code. Monthly and yearly testing records shall be kept on site for a minimum of two years.

Keep extinguishers in a visible area without obstructions around them.

Using a fire extinguisher to fight the fire is a Voluntary Act.

If the fire is small and you feel you can control its spread by use of the extinguisher, first activate the fire alarm pull station, and then attack the fire. Use common sense and caution at all times. If in any doubt, leave the fire area. Do not attempt to extinguish the fire unless you have been trained to do this and you feel that it is safe to do so.

In the event that the fire you discover cannot be extinguished with the use of the fire extinguisher or smoke presents a hazard to the operator, close the door to the area so as to confine or contain the fire. Leave the fire area. Ensure that the Fire Department has been notified, and if safe to do so, wait outside the building at the designated meeting area to give arriving fire fighters information about the exact location of the fire.

6.2 Storage, Handling, Processing and use of Flammable & Combustible Liquids

- A device operation or activity that produces open flames, sparks or heat shall not be permitted unless controlled in a manner that will not create a fire or explosion hazard.
- Smoking is not permitted in the building.
- Electrical equipment shall conform to the Electrical Safety Code.
- Cleaning rags shall be stored in approved receptacles.
- Maintenance of any equipment involved in the storage, handling, processing and use of flammable or combustible liquids, whose failure would significantly increase the fire or explosion hazard shall be maintained in accordance with its listed requirements with the manufacturer's recommendations or good engineering practice.
- Maintenance and operating procedures shall be established to prevent the escape of flammable or combustible liquids to areas where they could create a fire or explosion hazard.
- Flammable combustible liquids when not in use shall be held in closed containers and stored inside approved safety cabinets.

6.3 Combustible Materials

A high standard of good housekeeping methods and preventative maintenance of building facilities are the most important factors in the prevention of a disastrous fire.

- Combustible waste materials in buildings should not be allowed to accumulate to the point where the amounts constitute a fire hazard. No material should be permitted to be stored or to accumulate in corridors or in front of exits.
- Combustible materials shall not be used to absorb large flammable liquid spills within the building. Granular type absorbent material is preferred.
- In the event that combustible material was used to absorb flammable liquid spills, the materials, such as greasy or oily rags, are subject to spontaneous combustion, and should be deposited in a proper safety container, or promptly removed from the premises.
- Store ashes in a proper safety container. Do not put combustible material in the ash storage container.
- Do not use flammable liquids for cleaning purposes.
- Do not store combustible material on any roof or in areas adjacent to the building.

7. FIRE HAZARDS

7.1 General

Occupants are advised that, to prevent a serious fire hazard, the following should be understood and practiced.

- Burning material, such as cigarettes, ashes and like material, should not be put into the garbage bins.
- Do not dispose of aerosol cans or flammable liquids in the garbage bins.
- Practice safe cooking measures.
- Do not use unsafe electrical appliances. Frayed extension cords, nor over load circuitry.
- Extension cords shall not be used as a permanent source of power.
- Be fully acquainted with the fire protection that is provided for your safety.
- Know where the fire extinguishers are located, as well as the Emergency Air Horns, and fire exits.
- Call the Fire Department at **911** if you need emergency assistance.
- Know the address of the building.
- **Smoking is not permitted in the building.**

8. FIRE DRILLS

8.1 General

The purpose of the fire drill is to ensure that the occupants and staff are fully and totally familiar with emergency evacuation procedures. This will result in an orderly evacuation with efficient use of exit facilities.

The fire drill procedures shall be prepared in consultation with the Chief Fire Official.

Fire drills are to be held every 12 months.

Notices are to be posted 48 hours in advance at entrances and locker rooms. Signs shall be removed following the fire drill.

Supervisory staff are required to participate as per 2.8.3.1.(1)(c) of the Ontario Fire Code.

Appointed Supervisory Staff will meet one half-hour prior to the drill for a briefing, at which time they will decide the method of activating the alert.

Contact the monitoring company **ADT** at **416-226-5240** prior to and after the completion of the fire drill.

Contact the **fire department** at **416-338-9000** prior to and after the completion of the fire drill.

After the drills, the Supervisory Staff will meet to discuss and analyze the operation and address any deficiencies noted, with a view to remedy.

Soon after the drill and after all alarms are reset and all modes are at normal, the Supervisory Staff will meet to complete a RECORD OF FIRE DRILL REPORT, which will consist of the following information:

- Date of fire drill
- Time of fire drill
- Was the alert properly activated
- Reports of deficiencies
- Names of Supervisory Staff present, and
- General Comments

8.2 Fire Drill and / or Incident Report

Date:		Time:		Location			
Comprehensive Drill		Silent Drill		Table Talk		Other	

Instructions:
Each department head, manager or designate is responsible for monitoring employee responses and assessing building features during every fire drill and at any time the fire alarm audible signal activates. Forward this completed form after each drill to Director of Operations.

Section 1	Assessment of persons discovering / responding to fire				
Describe fire drill scenario, fire incident or fire alarm occurrence:					
Simulated or Actual Activities	Yes	No		Yes	No
Were people in immediate danger evacuated			Zone of origin evacuated?		
Were doors closed and latched to confine the fire and reduce smoke spread?					
Was the fire alarm activated if the scenario required this action?					
Was the fire department called or switchboard notified as required by procedures?					
Was an attempt made to extinguish the fire?			Was attempt appropriate?		
Did sufficient staff respond and evacuate endangered occupants in an organized and timely manner?					
Was scene supervision appropriate?			Were instructions clear?		
Comments / observations / recommendations on emergency responses:					

Assessment of specialized Supervisory Staff responses	Yes	No
Was the fire department notified by phone promptly and correctly?		
Did designated staff respond correctly to provide fire department assistance and access?		
If "No" was answered for question(s) above, provide comments/observations/ recommendations:		

Section 2	Did the following features operate properly in your area:	Yes	No
A	Fire Alarm		
B	Fire extinguishers and/or sprinklers (where applicable)		
Section 3	Did employees respond properly upon hearing the fire alarm	Yes	No
A	Checked rooms and area for fire and closed doors immediately		
B	Designated staff responded to the fire area to assist with evacuation		
C	Hazardous equipment safely shut down where appropriate		
D	Corridors were clear and unobstructed		
If "No" was answered for question(s) above, provide comments/observations/ recommendations:			

Fire Safety Plan

Fire Drills

Fire drills will be held at least once every twelve months to ensure efficient execution of the Fire Safety Plan. Fire drill records are required to be retained for a period of one year.

Fire Drill Record

DATE: _____ TIME: _____

MANAGER/SUPERVISOR ON DUTY: _____

STAFF PRESENT: _____

DEFICIENCIES NOTED: _____

GENERAL COMMENTS: _____

9. MAINTENANCE AND INSPECTION PROCEDURES FOR FIRE PROTECTION SYSTEMS

9.1 General

The following are checks, inspections, and tests, which are required for the equipment and facilities. It is required that you read over the list and assign personnel or retain contractors to perform the necessary checks, test, or inspections.

The fire code requires that records of all tests and corrective measures are retained for a period of two years on site and available upon the request of the Fire Department.

This list has been prepared for purposes of convenience only. For accurate reference the fire code is to be consulted " O. Reg. 213/07 Division B".

Definitions for key words are as follows:

CHECK	Means the visual observation to ensure the device or system is in place and is not obviously damaged or obstructed.
TEST	Means to operate the device or system to ensure that it will perform in accordance with its intended operation or function.
INSPECT	Means to physically examine the device or system to determine that it will apparently perform in accordance with its intended function and design.

9.2 Maintenance and Inspection Frequency Chart

O – OWNER	FPC – FIRE PROTECTION CONTRACTOR	C - CONTRACTOR

9.2.1 Fire Alarm		Frequency	Responsibility
1.	Check fire alarm A/C power lamp and trouble light	Daily	O
2.	Check trouble conditions	Daily	O
3.	Check all fire alarm components	Monthly	O
4.	Test fire alarm system	Monthly	O
5.	Test in accordance with ULC requirements	Yearly	FPC

9.2.2 Emergency Lighting Equipment		Frequency	Responsibility
1.	Emergency lighting units shall be checked to ensure that the units operate in case of power failure	Monthly	O
2.	The emergency lighting unit equipment shall be tested to ensure that the units will provide emergency lighting for duration equal to the design criteria during simulated power failure conditions.	Annually	FPC
3.	After completion of the duration, test the charging conditions for voltage and current. The recovery period shall be tested to ensure that the charging system is in accordance with the manufacturer's specifications.	Annually	FPC

9.2.3 Sprinklers		Frequency	Responsibility
1.	Check that sprinkler control valve (unless electrically supervised) have not been tampered with, and are in the open position	Weekly	FPC
2.	Water supply pressure and system air or water pressure shall be checked	Weekly	FPC
3.	The alarm on all sprinkler systems shall be tested by flowing water through the test connection located at the sprinkler valve.	Monthly	FPC
4.	Test sprinkler supervisory transmitters and water flow devices	Every 2 months	FPC
5.	Test gate valve supervisory switches and other sprinkler and fire protection system supervisory aids	Every 6 months	FPC
6.	Check exposed sprinkler system piping, hangers, and heads	Annually	FPC
7.	Remove plugs or caps on Fire Dept. pumper connections and inspect for rust or obstructions	Annually	FPC
8.	Test wet pipe sprinkler systems by flowing water through the Inspector's test connection	Annually (Alarm Testing)	FPC
9.	Test public water supply flow, using main drain valve on all sprinkler systems (wet and dry)	Annually	FPC

9.2.4 Portable Fire Extinguishers		Frequency	Responsibility
1.	Inspect all portable units	Monthly	O
2.	Perform maintenance Inspection	Annually	FPC
3.	Hydrostatically test carbon dioxide and water type extinguishers	Every 5 years	FPC
4.	Perform 6 year maintenance on applicable stored pressure type extinguishers	Every 6 years	FPC
5.	Hydrostatically test dry chemical extinguishers	Every 12 years	FPC
6.	Promptly recharge extinguisher after use or as indicated by inspection or maintenance	As Required	FPC

9.2.5 Fire Hoses		Frequency	Responsibility
1.	Inspect and re-rack fire hose.	Annually	FPC
2.	Inspect fire hose valve for leaks.	Annually	FPC
3.	Hydrostatic test fire hose.	Every 5 years, thereafter every 3 years	FPC

9.2.6 Overhead Fire Doors		Frequency	Responsibility
1.	Inspect operation of fire door and replace fusible links	Annually	C

9.2.7 Means of Egress		Frequency	Responsibility
1.	Ensure all aisles clear	Daily	O
2.	Inspect all doors in fire separations	Monthly	O
3.	Check all doors in fire separations to ensure they are closed	As Required	O
4.	Maintain exit lights to ensure they are clear and legible	As Required	O
5.	Maintain exit lights to ensure they are illuminated and in good repair.	As Required.	O
6.	Maintain corridors free of obstructions	As Required	O

9.2.8 Fire Department Access		Frequency	Responsibility
1.	Ensure streets, yard and roadways designated as fire routes are clear and sign posts are in good, readable order	As required	O

9.3 Fire Alarm

9.3.1 General

- Daily checks shall be conducted by the owner/manager.
- Annual and Monthly tests shall be conducted by a person acceptable to the Fire Department.
- When the system or any part of it is shut down the supervisory staff are to be notified and alternative measures are to be followed as outlined in this approved fire safety plan in accordance with Section 2.8 of the Fire Code
- Once activated, a fire alarm system shall not be manually silenced unless it has been confirmed by the fire department that no fire exists. This shall be done in accordance with the procedures as outlined in this approved fire safety plan.
- The repair or cleaning of equipment and the periodic replacement of components must be completed as per manufacturer's specifications and recommendations and must not reduce the level of performance of the equipment.
- Access to the fire alarm system components requiring inspection or servicing shall be kept unobstructed.

9.3.2 Daily CAN/ULC-S536 Tests

The following daily checks shall be conducted. If a fault is established, appropriate corrective action shall be taken:

- Visually check the principal trouble lights for trouble indication.
- Inspect the AC power-on light to ensure its normal operation.

9.3.3 Monthly CAN/ULC-S536 Tests (Records Required)

- One manual alarm-initiating device (i.e. pull station) is to be operated on a monthly basis to initiate an alarm condition. The system is to be checked for operation.
- The annunciator shall be checked to ensure that the tested device annunciated correctly.
- All alarm audible devices (i.e. bells) shall be checked to ensure they are audible and functioning correctly.
- The intended function of the audible and visual trouble signals shall be observed. The lamp test switch can be used.
- The standby batteries shall be inspected to ensure terminals are clean and lubricated and terminal clamps are secure.

9.3.4 Annual CAN/ULC-S536 Tests (Records Required)

- Every year these tests shall be conducted and if a fault is established, appropriate corrective action shall be taken.
- Inspection and maintenance shall be conducted In accordance with CAN/ULC-S536.
- All devices, which are connected into the fire alarm panel, such as, flow switches, bells, heat detectors, smoke detectors, supervisory alarms and manual pull stations are tested for correct function.
- The control panel is put through a number of tests, such as ground and trouble indication, supervision, etc. to ensure proper operation.
- The back-up batteries are cleaned and tested for performance.
- The annunciator is tested.
- Test to assure the trouble alarm and other required signals are received at the monitoring station.

A record of all tests shall be kept. The inspections and test record should be similar to the one laid out in CAN/ULC-S536.

10. ALTERNATIVE MEASURES FOR OCCUPANT FIRE SAFETY

10.1 Fire Alarm Shutdown

In the event of a shutdown of the Fire Alarm System, the Fire Department will be notified @ **416-338-9000** and all occupants will be notified by the posting of notices. The notices will explain the extent and duration of the shutdown. Fire department is to be notified in writing if the shutdown of fire protection systems is to exceed 24 hours.

Occupants will be instructed to advise the Fire Department immediately of any fire situation and to verbally warn other occupants of imminent danger, whenever possible.

During these shutdowns, the Director of Operations will arrange for patrol of unprotected areas by Security Personnel. Patrols will be hourly until the impairment is fixed and the systems put back into service. Patrol Personnel shall have immediate access to a telephone to communicate with the Fire Department in case of an emergency and to be trained and able to use the existing paging system to evacuate the occupants in the building. A Patrol Log shall be kept.

10.2 Fire Sprinkler Shutdown

In the event of a shutdown of the Fire Sprinkler System, the Fire Department will be notified immediately @ **416-338-9000**. They will be informed of the extent and the expected duration of the shutdown. They will be informed immediately of the return to service of the systems. Fire department is to be notified in writing if the shutdown of fire protection systems is to exceed 24 hours. In the event of an emergency sound the fire alarm by activating the nearest pull station.

All occupants will be notified of the extent and duration of the shutdown by the posting of notices. Occupants will be instructed to use portable fire extinguishers. During these shutdowns the Director of Operations will arrange for patrol of unprotected areas by Security Personnel. Patrols will be hourly until the impairment is fixed and the systems put back in service. A Patrol Log shall be kept.

NOTE:

ALL SHUTDOWNS WILL BE CONFINED TO AS LIMITED AN AREA AS POSSIBLE, AND THE DURATION OF THE SHUTDOWN WILL BE AS SHORT AS POSSIBLE. CALL THE APPLICABLE SERVICE COMPANY FOR IMMEDIATE REPAIR OF SYSTEMS.

10.3 Fire Watch Log

Site Address is:

DATE: 1 Meridian Road

REASON FOR WATCH:

FIRE ALARM SYSTEM IS INOPERATIVE YES_____ NO _____
FIRE SPRINKLER SYSTEM IS INOPERATIVE YES_____ NO _____

OTHER: _____

#	NAME OF PERSON (S) CONDUCTING FIRE WATCH
1	
2	
3	
4	

DATE	TIME	AREAS PATROLLED	INITIALS

SUPERVISORY STAFF CONDUCTING FIRE WATCH PATROL SHALL HAVE ACCESS TO A PHONE TO CONTACT THE FIRE DEPARTMENT IMMEDIALTEY IN THE EVENT OF DISCOVERY OF A FIRE.

10.4 Fire Alarm System Out of Service

POST ON ALL FLOOR AREAS.

FIRE ALARM SYSTEM OUT OF SERVICE

A FIRE WATCH IS PATROLLING THE BUILDING

IN CASE OF FIRE CALL 911

FOLLOW EMERGENCY PROCEDURES

10.5 Sprinkler System Out of Service

POST ON ALL FLOOR AREAS.

SPRINKLER SYSTEM OUT OF SERVICE

A FIRE WATCH IS PATROLLING THE BUILDING

IN CASE OF FIRE CALL 911

FOLLOW EMERGENCY PROCEDURES

10.6 Fire Drill Notice

POST ON ALL FLOOR AREAS.

48 HOURS PREVIOUS TO EVERY FIRE DRILL

FIRE DRILL NOTICE

The Site Manager of this building is performing a fire drill in accordance with the fire safety plan and the Ontario Fire Code on:

Date:

Time:

The Fire Alarm will sound continuously until the fire drill is completed. Please do not call the fire department when you hear the Fire Alarm at the time specified above.

Please notify the Fire Warden in your area or the Site Manager if you have difficulty hearing the Fire Alarm in your area.

Should you hear the Fire Alarm at any other time of the day, please treat it as an emergency and follow the emergency procedures accordingly.

11. SPILL CONTROL PROCEDURES

- Always ensure that the proper protective clothing is available and worn so any person involved in the spill management is not contaminated by any means. The inventory of the cabinet / spill kits shall be updated regularly.
- Spill cleanup should be handled by the Director of Operations and/or head of Logistics & Warehousing. Notify them immediately of any known spill or leak.
- Person performing the initial containment shall wear the proper PPE, primarily gloves and respirator.
- Contain the spill from further spreading and then refer to the SDS on the product involved. Contain the leak / spill from further movement using absorbent materials such as pads, socks and kitty litter.
- If the spill is too large a scale to be handled effectively by on site personnel, call Provincial Emergency Service for that area.
- If on-site staff cannot manage the spill, and after the proper authorities have been notified, evacuate the building and wait for the Environmental Emergency service to arrive and await their instruction. If on-site staff determines the spill is minor and can be managed with on-site equipment and supplies, notify other workers to vacate the immediate area while clean up is being completed.
- Isolate the container in either a plastic bag, pail or in the spill recovery kit / drum provided. Remove the absorbent material and isolate in a plastic bag and seal shut.
- Follow the SDS recommendations on which product to use (i.e. bleach, soap and water) to further decontaminate the area as needed.
- Notify Gardex management and the Director of Operations to manage the disposal of any materials. Replenish all spill and safety equipment used in the cleanup.

I have read the above procedures and understand my role in this process.

NAME (PRINT)	SIGNATURE	DATE

11.1 GARDEX CHEMICALS ADDENDUM

12. DRAWINGS

TAB 10

FIRE SAFETY PLAN

Filed: 2020-10-29
EB-2020-0219
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FOR

GARDEX CHEMICALS LTD.

7 MERIDIAN ROAD
TORONTO, ONTARIO
M1W 4Z6

PREPARED BY Christian Burghart **DATE** JULY 15 **2020**

APPROVED BY _____ **DATE** _____ **2020**

1st Place Fire Protection Inc.
4141 Sladeview Cr. Unit 18, Mississauga, Ontario, L5L 5T1
Phone: 905-565-0799 Fax: 905-565-1689
Prepared By: Christian Burghart
firstplacefire@sympatico.ca

TABLE OF CONTENTS

1. FIRE SAFETY PLAN OVERVIEW

1.1 Introduction

The Ontario Fire Code Section 2.8 requires the implementation of a FIRE SAFETY PLAN for this Building/occupancy. The plan is to be kept in the building in an approved location.
The implementation of the Fire Safety Plan helps to ensure effective utilization of the life safety features in a building to protect people from fire. The required Fire Safety Plan should be designed to suit the resources of each individual building or complex of buildings.

The Fire Protection and Prevention Act Part VII, Section 28, (3) (b) states that in the case of an offence for contravention of the fire code, an individual is liable to a fine of not more than $50,000 for the first offense and not more than $100,000.00 for a subsequent offense, or imprisonment for a term of not more than one year or both, A corporation is liable of a fine of not more than $500,000.00 for a first offense and not more than $1,500,000.00 for a subsequence offense.

The Fire Code requires the owner to be responsible for carrying out the provisions for fire safety, and defines the "owner" as "any person, firm or corporation controlling the property under consideration." Consequently, the owner may be any one of, or a combination of parties, including building management, maintenance staff and tenant groups.

This official document is to be kept readily available at all times for use by the staff and fire officials in the event of an emergency.

1.2 Distribution and Records

Distribution of Fire Safety plan:
1 copy for the Fire Department
1 copy for the Director of Operations
1 copy for the Warehouse Manager
1 copy for the Fire Plan Box

Staff will receive all pertinent information specific to their individual duties.

1.3 Records

- A written record will be kept of all tests and corrective measures for a period of two (2) years. The record will be made available to the Chief Fire Official or his representative, upon request.
- A permanent record, containing the maintenance date, the examiner's name and a description of any maintenance work or hydrostatic testing carried out, will be prepared and maintained for each portable fire extinguisher. All other required maintenance as listed in the MAINTENANCE PROCEDURES section will also have written records kept.
- It is the building owner's responsibility to maintain the fire safety plan document. When the information pertaining to the building is altered or changed in any way, the information within the fire plan document must be revised to reflect these changes. All applicable copies must then be amended.
- The fire plan shall be reviewed as often as necessary, but at intervals not greater than 12 months, to ensure that it takes into account of changes in the use and other characteristics of the building.

1.4 Fire Plan Annual Review

The Ontario Fire Code made under Reg 213/07 as amended requires that your building Fire Safety Plan be reviewed as often as necessary but in intervals not greater than 12 months. Below is a sign off sheet to be completed accordingly.

In conformance with Ontario Fire Code and sentence 2.8.2.1 (4) I have reviewed the attached Fire Safety Plan for Gardex Chemicals Inc. to ensure that it takes account of changes in the use and other characteristic of the building. Where major changes occur re-approval may be warranted.

DATE	NAME	POSITION	SIGNATURE

2. AUDIT OF BUILDING RESOURCES

2.1 Building Description

This building is a single tenant unit. The building is a single storey with no basement. The building is constructed of non-combustible materials. This tenant is a Group F, Division 1high hazard industrial occupancy.

Warehouse area #1,2 & 3 contain flammable liquids, warehouse are 3 contains some aerosols. Warehouse area 2 contain materials requiring environmental precautions. These areas are identified on the drawings in Section 11 and Section 12.

Hours of operation are 8:30 AM to 4:30 PM. Monday to Friday.

2.1.1 Evacuation Air Horns

This is building is not equipped with a fire alarm system. In the event of an evacuation there are Emergency Air Horns located throughout the building. These Emergency Air Horns shall be activated to alert occupants of the need to evacuate the building. See Section 12 for locations.

2.1.2 Emergency Lighting

Emergency lighting is provided through the use of remotely located battery type packs. All exit doors are illuminated in the event of power loss. Emergency lighting shall have illumination of at least 30 minutes.

2.1.3 Automatic Sprinkler Systems

This building is protected with a fire sprinkler system. The sprinkler valve is in the northwest corner of the warehouse. The fire department siamese connection is located at the northwest corner of the building. The sprinkler valve is monitored off site. See Section 12 for location.

2.1.4 Portable Fire Extinguishers

There are ABC multi-purpose dry chemical fire extinguishers located throughout the office and warehouse areas. See Section 12 for location.

2.1.5 Fire Hose

There is a fire hose cabinet located in the office hallway. The cabinet contains a 100 foot fire hose with shut off nozzle. See Section 12 for location.

2.1.6 Fire Hydrant Location

There are municipal fire hydrants along Meridian Road. The closest fire hydrant is at the corner of Meridian Road and Skyway Avenue. See Section 12 for location.

2.1.7 Fire Department Access

The fire department has access to the property from the north along Meridian Road. See Section 12 for location.

2.1.8 Exit Locations

The main entrance / exit is at the northeast corner of the building. There are three emergency exits located on the perimeter of the warehouse. See Section 12 for location.

2.1.9 Fire Door

There are roll up fire doors located in the warehouse area. These doors are activated by the melting of fusible links allowing the doors to close. See Section 12 for location.

2.1.10 Natural Gas Shut-Off Valve

The natural gas shut off valve is located at the east side of the building. See Section 12 for location.

2.1.11 Domestic Water Shut-Off Valve

The domestic water shut off valve is located adjacent to the sprinkler valve at the northwest corner of the warehouse. See Section 12 for location.

2.1.12 Electric Shut-Off Switch

The main electrical panel is located at the northwest corner of the warehouse. See Section 12 for location.

2.1.13 Warehouse Products

The warehouse contains various flammable and aerosol products. See Section 11 and Section 12 for location

3. AUDIT OF HUMAN RESOURCES

3.1 Building Owner

Business Name	1112308 Ontario Inc.
Address	7 Meridian Road
City, Province	Toronto, Ontario
Postal Code	M9W 4Z6
Phone Number	416-675-1638

3.2 Business Owner

Business Name	Gardex Chemicals Ltd.
Address	7 Meridian Road
City, Province	Toronto, Ontario
Postal Code	M9W 4Z6
Phone Number	416-675-1638

3.3 Building Service Providers

Service	Company Name	Phone#
Natural Gas	Enbridge Gas	1-800-266-3939
Fire Monitoring	PCS Security	1-519-650-2009
Fire Sprinklers	Lumar Fire	905-855-9993
Hazardous Spill	Clean Harbours Canada Inc.	905-227-7872
Water	City of Toronto	416-395-7737
Hydro	Toronto Hydro	1-800-434-1235

3.4 Emergency Contact Information

EMERGENCY CONTACT PERSONNEL SHOULD BE LISTED FROM CLOSEST TO WORK TO FURTHEST FROM WORK, AT ANY GIVEN TIME.

Full Name	Position	Phone	After Hrs. Phone
Karen Furgiuele	President	416-675-1638	416-931-0597
Robert Percy	Dir. Of Operations	416-675-1638	647-284-4192
Nigel Nazareth	Whse. Manager	416-675-1638	647-646-4475

4. EMERGENCY PROCEDURES

4.1 Instructions to Occupants

The actions to be taken by occupants in emergency situations will be posted at each exit and will read as follows:

Single Stage

IN CASE OF FIRE

UPON DISCOVERY OF FIRE
LEAVE FIRE AREA IMMEDIATELY
AND CLOSE DOORS

SOUND EVACUATION AIR HORN

CALL FIRE DEPARTMENT
DIAL: «911»

LEAVE BUILDING VIA NEAREST EXIT

UPON HEARING EVACUATION AIR HORN

LEAVE BUILDING VIA NEAREST EXIT

CLOSE DOORS BEHIND YOU

CAUTION

IF YOU ENCOUNTER SMOKE IN THE STAIRWAY, USE ALTERNATE EXIT

REMAIN CALM

This building is equipped with Evacuation air Horns. The Evacuation Air Horns are to be activated to alert occupants of an emergency and to put into operation the Fire Safety Plan. The Fire Department is to be notified by calling **911** and given the correct address and the exact location of the fire.

5. APPOINTMENT AND ORGANIZATION OF SUPERVISORY STAFF

5.1 Responsibilities of the Director of Operations

- Establishment of emergency procedures to be followed at the time of an emergency.
- Be in complete charge of the approved Fire Safety Plan, and be aware of the specific responsibilities of the personnel involved in the Plan.
- Assign and train adequate assistants to act in the position of person-in-charge of the Fire Safety Plan, when absence from the building is necessary.
- Educate and train all building personnel and advise occupants in the use of fire safety equipment and in the action to be taken under the approved Fire Safety Plan.
- Appointment and organization of designated supervisory staff to carry out fire safety duties.
- Instruction of supervisory staff and other occupants to ensure that they are aware of their responsibilities for fire safety.
- Ensure that regular fire drills are carried out every 12 months.
- Control of fire hazards in the building.
- Maintenance of building facilities provided for safety of the occupants.
- Keep access roadways, fire routes and fire department connections (if applicable) clear and acceptable for fire department use
- Maintain the fire protection equipment in good operating condition at all times.
- Provisions of alternate measures for safety of occupants during shut down of fire protection equipment.
- Assuring that checks, tests and inspections as required by the Ontario Fire Codes are completed on schedule, and records are retained for a minimum period of two (2) years.
- Post and maintain one (1) copy of the fire emergency procedures.
- Keep a copy of the approved Fire Safety Plan on the premises in the fire plan box.
- Notification of the Chief Fire Official regarding changes in the Fire Safety Plan.

5.2 Responsibilities of the Chief Fire Warden

- Ensure that provisions set out in the Fire Safety Plan are carried out.
- Assign and train adequate assistants to act in the position of person-in-charge of the Fire Safety Plan, when absence from the building is necessary.
- If you locate a fire sound the Evacuation Air Horn, all personnel to evacuate the building via the nearest exit – if this exit is inaccessible due to smoke proceed to the nearest alternate exit.
- If you hear the Evacuation Air Horn, stop work and report to the front of the building to await arriving fire department.
- Upon the arrival of the firefighters, inform the chief fire officer of the conditions in the building and co-ordinate the efforts of the Supervisory staff with those of the Fire Department.
- Provide access keys and vital information to the firefighters.
- Keep a record of the location of any persons in need of assistance to evacuate.
- Participate in annual fire drill.

5.3 Responsibilities of the Fire Wardens

- If you locate a fire sound the Evacuation Air Horn, all personnel to evacuate the building via the nearest exit – if this exit is inaccessible due to smoke proceed to the nearest alternate exit.
- If you hear the Evacuation air Horn, all personnel to evacuate the building via the nearest exit – if this exit is inaccessible due to smoke proceed to the nearest alternate exit.
- Supervise the evacuation of the occupants.
- Advise co-workers to provide assistance to those persons needing help to evacuate.
- Direct occupants to Assembly Area located at the northwest corner of the parking lot.
- Do not allow anyone to reenter the building until the all clear is given by the fire department.
- Participate in annual fire drill.

5.4 Responsibilities of the Staff

- If you locate a fire sound the Evacuation Air Horn, all personnel to evacuate the building via the nearest exit – if this exit is inaccessible due to smoke proceed to the nearest alternate exit.
- If you hear the Evacuation Air Horn, all personnel to evacuate the building via the nearest exit – if this exit is inaccessible due to smoke proceed to the nearest alternate exit.
- Report to the Assembly Area located at the northwest corner of the parking lot.
- Participate in annual fire drill.

5.4.1 Related Staff Duties

- Keep hallways and EXITS, inside and outside, clear of any obstructions at all times.
- Do not permit combustible materials to accumulate in quantities or locations that would constitute a fire hazard.
- Promptly remove all combustible materials that begin to accumulate in quantities or locations that would constitute a fire hazard.
- Promptly remove all combustible waste from areas where waste is placed for disposal, if applicable.

5.5 Responsibilities of the Building Maintenance Staff

- Have a working knowledge of the sprinkler system.
- Have knowledge of emergency equipment, and when they would operate in an emergency.
- In the event of a normal shutdown of the fire sprinkler system (e.g., for repairs or service) notify the Fire Department at **416-338-9000.**

5.6 Responsibilities of Various Contractors

To ensure that the building is adequately maintained and serviced, the Director of Operations will employ the use of various contractors who specialize in maintenance, inspection checks and test of the services present in the building.

The Director of Operations will be responsible for ensuring that aisles are clear of obstructions and access to exit doors is clear. They will also ensure that combustibles or debris do not accumulate in any area of egress, or any area where it can constitute a fire hazard.

The Director of Operations will have contracts with relevant services to perform check, test, and inspections as described in Section 9 of this document.

5.7 Training Acknowledgement

THIS DOCUMENT MUST BE REVIEWED & SIGNED ANNUALLY BY ALL MEMBERS OF THE MANAGEMENT TEAM.

_____ **Review Year:** _____

I hereby acknowledge that I have read and understand the Gardex Chemical Ltd. Fire Safety Plan and expectations in the event of an emergency. I understand my responsibilities and agree to comply with all information outlined for the purpose of ensuring the safety of my co-workers and myself.

Director of Operations: Name: _____Robert Percy_____ Date: _____

Signature: _____

Name: _____ Date: _____

Signature: _____

Name: _____ Date: _____

Signature: _____

Name: _____ Date: _____

Signature: _____

5.8 Record of Supervisory Staff Training

Date:

The undersigned have been trained by the Director of Operations for their responsibilities under the fire safety plan.

Training records shall be retained for at least two years.

NAME	SIGNATURE

6. FIRE EXTINGUISHMENT, CONTROL OR CONFINEMENT

6.1 Suggested operation of portable fire extinguisher

REMEMBER THE PASS!

P – Pull the safety pin
A – Aim the nozzle
S – Squeeze the trigger handle
S – Sweep from side to side (watch for fire restarting)

Never reinstall extinguishers after use.

Installation, maintenance and testing of fire extinguishers shall be in accordance with NFPA 10 and Part 6 of the Ontario Fire Code. Monthly and yearly testing records shall be kept on site for a minimum of two years.

Keep extinguishers in a visible area without obstructions around them.

Using a fire extinguisher to fight the fire is a Voluntary Act.

If the fire is small and you feel you can control its spread by use of the extinguisher, first activate the Evacuation Air Horn, and then attack the fire. Use common sense and caution at all times. If in any doubt, leave the fire area. Do not attempt to extinguish the fire unless you have been trained to do this and you feel that it is safe to do so.

In the event that the fire you discover cannot be extinguished with the use of the fire extinguisher or smoke presents a hazard to the operator, close the door to the area so as to confine or contain the fire. Leave the fire area. Ensure that the Fire Department has been notified, and if safe to do so, wait outside the building at the designated meeting area to give arriving fire fighters information about the exact location of the fire.

6.2 Storage, Handling, Processing and use of Flammable & Combustible Liquids

- A device operation or activity that produces open flames, sparks or heat shall not be permitted unless controlled in a manner that will not create a fire or explosion hazard.
- Smoking is not permitted in the building.
- Electrical equipment shall conform to the Electrical Safety Code.
- Cleaning rags shall be stored in approved receptacles.
- Maintenance of any equipment involved in the storage, handling, processing and use of flammable or combustible liquids, whose failure would significantly increase the fire or explosion hazard shall be maintained in accordance with its listed requirements with the manufacturer's recommendations or good engineering practice.
- Maintenance and operating procedures shall be established to prevent the escape of flammable or combustible liquids to areas where they could create a fire or explosion hazard.
- Flammable combustible liquids when not in use shall be held in closed containers and stored inside approved safety cabinets.

6.3 Combustible Materials

A high standard of good housekeeping methods and preventative maintenance of building facilities are the most important factors in the prevention of a disastrous fire.

- Combustible waste materials in buildings should not be allowed to accumulate to the point where the amounts constitute a fire hazard. No material should be permitted to be stored or to accumulate in corridors or in front of exits.
- Combustible materials shall not be used to absorb large flammable liquid spills within the building. Granular type absorbent material is preferred.
- In the event that combustible material was used to absorb flammable liquid spills, the materials, such as greasy or oily rags, are subject to spontaneous combustion, and should be deposited in a proper safety container, or promptly removed from the premises.
- Store ashes in a proper safety container. Do not put combustible material in the ash storage container.
- Do not use flammable liquids for cleaning purposes.
- Do not store combustible material on any roof or in areas adjacent to the building.

7. FIRE HAZARDS

7.1 General

Occupants are advised that, to prevent a serious fire hazard, the following should be understood and practiced.

- Burning material, such as cigarettes, ashes and like material, should not be put into the garbage bins.
- Do not dispose of aerosol cans or flammable liquids in the garbage bins.
- Practice safe cooking measures.
- Do not use unsafe electrical appliances. Frayed extension cords, nor over load circuitry.
- Extension cords shall not be used as a permanent source of power.
- Be fully acquainted with the fire protection that is provided for your safety.
- Know where the fire extinguishers are located, as well as the Emergency Air Horns, and fire exits.
- Call the Fire Department at **911** if you need emergency assistance.
- Know the address of the building.
- **Smoking is not permitted in the building.**

8. FIRE DRILLS

8.1 General

The purpose of the fire drill is to ensure that the occupants and staff are fully and totally familiar with emergency evacuation procedures. This will result in an orderly evacuation with efficient use of exit facilities.

The fire drill procedures shall be prepared in consultation with the Chief Fire Official.

Fire drills are to be held every 12 months.

Notices are to be posted 48 hours in advance at entrances and locker rooms. Signs shall be removed following the fire drill.

Supervisory staff are required to participate as per 2.8.3.1.(1)(c) of the Ontario Fire Code.

Appointed Supervisory Staff will meet one half-hour prior to the drill for a briefing, at which time they will decide the method of activating the alert.

Contact the **fire department** at **416-338-9000** prior to and after the completion of the fire drill.

After the drills, the Supervisory Staff will meet to discuss and analyze the operation and address any deficiencies noted, with a view to remedy.

Soon after the drill, the Supervisory Staff will meet to complete a RECORD OF FIRE DRILL REPORT, which will consist of the following information:

- Date of fire drill
- Time of fire drill
- Was the alert properly activated
- Reports of deficiencies
- Names of Supervisory Staff present, and
- General Comments

8.2 Fire Drill and / or Incident Report

Date:		Time:		Location			
Comprehensive Drill		Silent Drill		Table Talk		Other	

Instructions:
Each department head, manager or designate is responsible for monitoring employee responses and assessing building features during every fire drill and at any time the Evacuation Air Horn is activated. Forward this completed form after each drill to Director of Operations.

Section 1	Assessment of persons discovering / responding to fire					
Describe fire drill scenario, fire incident or Evacuation occurrence:						
Simulated or Actual Activities	Yes	No		Yes	No	
Were people in immediate danger evacuated			Zone of origin evacuated?			
Were doors closed and latched to confine the fire and reduce smoke spread?						
Was the Evacuation Air Horn activated if the scenario required this action?						
Was the fire department called or switchboard notified as required by procedures?						
Was an attempt made to extinguish the fire?			Was attempt appropriate?			
Did sufficient staff respond and evacuate endangered occupants in an organized and timely manner?						
Was scene supervision appropriate?			Were instructions clear?			
Comments / observations / recommendations on emergency responses:						

Assessment of specialized Supervisory Staff responses	Yes	No
Was the fire department notified by phone promptly and correctly?		
Did designated staff respond correctly to provide fire department assistance and access?		
If "No" was answered for question(s) above, provide comments/observations/ recommendations:		

Section 2	Did the following features operate properly in your area:	Yes	No
A	Evacuation Air Horns		
B	Fire extinguishers and/or sprinklers (where applicable)		
Section 3	Did employees respond properly upon hearing the fire alarm	Yes	No
A	Checked rooms and area for fire and closed doors immediately		
B	Designated staff responded to the fire area to assist with evacuation		
C	Hazardous equipment safely shut down where appropriate		
D	Corridors were clear and unobstructed		
If "No" was answered for question(s) above, provide comments/observations/ recommendations:			

Fire Safety Plan

Fire Drills

Fire drills will be held at least once every twelve months to ensure efficient execution of the Fire Safety Plan. Fire drill records are required to be retained for a period of one year.

Fire Drill Record

DATE: _____ TIME: _____

MANAGER/SUPERVISOR ON DUTY: _____

STAFF PRESENT: _____

DEFICIENCIES NOTED: _____

GENERAL COMMENTS: _____

9. MAINTENANCE AND INSPECTION PROCEDURES FOR FIRE PROTECTION SYSTEMS

9.1 General

The following are checks, inspections, and tests, which are required for the equipment and facilities. It is required that you read over the list and assign personnel or retain contractors to perform the necessary checks, test, or inspections.

The fire code requires that records of all tests and corrective measures are retained for a period of two years on site and available upon the request of the Fire Department.

This list has been prepared for purposes of convenience only. For accurate reference the fire code is to be consulted " O. Reg. 213/07 Division B".

Definitions for key words are as follows:

CHECK	Means the visual observation to ensure the device or system is in place and is not obviously damaged or obstructed.
TEST	Means to operate the device or system to ensure that it will perform in accordance with its intended operation or function.
INSPECT	Means to physically examine the device or system to determine that it will apparently perform in accordance with its intended function and design.

9.2 Maintenance and Inspection Frequency Chart

O – OWNER	FPC – FIRE PROTECTION CONTRACTOR	C - CONTRACTOR

9.2.1 Evacuation Air Horn		Frequency	Responsibility
1.	Check Evacuation Air Horns for fullness	Annually	O

9.2.2 Emergency Lighting Equipment		Frequency	Responsibility
1.	Emergency lighting units shall be checked to ensure that the units operate in case of power failure	Monthly	O
2.	The emergency lighting unit equipment shall be tested to ensure that the units will provide emergency lighting for duration equal to the design criteria during simulated power failure conditions.	Annually	FPC
3.	After completion of the duration, test the charging conditions for voltage and current. The recovery period shall be tested to ensure that the charging system is in accordance with the manufacturer's specifications.	Annually	FPC

9.2.3 Sprinklers		Frequency	Responsibility
1.	Check that sprinkler control valve (unless electrically supervised) have not been tampered with, and are in the open position	Weekly	FPC
2.	Water supply pressure and system air or water pressure shall be checked	Weekly	FPC
3.	The alarm on all sprinkler systems shall be tested by flowing water through the test connection located at the sprinkler valve.	Monthly	FPC
4.	Test sprinkler supervisory transmitters and water flow devices	Every 2 months	FPC
5.	Test gate valve supervisory switches and other sprinkler and fire protection system supervisory aids	Every 6 months	FPC
6.	Check exposed sprinkler system piping, hangers, and heads	Annually	FPC
7.	Remove plugs or caps on Fire Dept. pumper connections and inspect for rust or obstructions	Annually	FPC
8.	Test wet pipe sprinkler systems by flowing water through the Inspector's test connection	Annually (Alarm Testing)	FPC
9.	Test public water supply flow, using main drain valve on all sprinkler systems (wet and dry)	Annually	FPC

9.2.4 Portable Fire Extinguishers		Frequency	Responsibility
1.	Inspect all portable units	Monthly	O
2.	Perform maintenance Inspection	Annually	FPC
3.	Hydrostatically test carbon dioxide and water type extinguishers	Every 5 years	FPC
4.	Perform 6 year maintenance on applicable stored pressure type extinguishers	Every 6 years	FPC
5.	Hydrostatically test dry chemical extinguishers	Every 12 years	FPC
6.	Promptly recharge extinguisher after use or as indicated by inspection or maintenance	As Required	FPC

9.2.5 Fire Hoses		Frequency	Responsibility
1.	Inspect and re-rack fire hose.	Annually	FPC
2.	Inspect fire hose valve for leaks.	Annually	FPC
3.	Hydrostatic test fire hose.	Every 5 years, thereafter every 3 years	FPC

9.2.6 Overhead Fire Doors		Frequency	Responsibility
1.	Inspect operation of fire door and replace fusible links	Annually	C

9.2.7 Means of Egress		Frequency	Responsibility
1.	Ensure all aisles clear	Daily	O
2.	Inspect all doors in fire separations	Monthly	O
3.	Check all doors in fire separations to ensure they are closed	As Required	O
4.	Maintain exit lights to ensure they are clear and legible	As Required	O
5.	Maintain exit lights to ensure they are illuminated and in good repair.	As Required.	O
6.	Maintain corridors free of obstructions	As Required	O

9.2.8 Fire Department Access		Frequency	Responsibility
1.	Ensure streets, yard and roadways designated as fire routes are clear and sign posts are in good, readable order	As required	O

10. ALTERNATIVE MEASURES FOR OCCUPANT FIRE SAFETY

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10.1 Fire Sprinkler Shutdown

In the event of a shutdown of the Fire Sprinkler System, the Fire Department will be notified immediately @ **416-338-9000**. They will be informed of the extent and the expected duration of the shutdown. They will be informed immediately of the return to service of the systems. Fire department is to be notified in writing if the shutdown of fire protection systems is to exceed 24 hours. In the event of an emergency sound the fire alarm by activating the nearest pull station.

All occupants will be notified of the extent and duration of the shutdown by the posting of notices. Occupants will be instructed to use portable fire extinguishers. During these shutdowns the Director of Operations will arrange for patrol of unprotected areas by Security Personnel. Patrols will be hourly until the impairment is fixed and the systems put back in service. A Patrol Log shall be kept.

NOTE:

ALL SHUTDOWNS WILL BE CONFINED TO AS LIMITED AN AREA AS POSSIBLE, AND THE DURATION OF THE SHUTDOWN WILL BE AS SHORT AS POSSIBLE. CALL THE APPLICABLE SERVICE COMPANY FOR IMMEDIATE REPAIR OF SYSTEMS.

10.2 Fire Watch Log

Site Address is:

DATE: 7 Meridian Road

REASON FOR WATCH:

FIRE SPRINKLER SYSTEM IS INOPERATIVE YES_____ NO _____

OTHER: _____

#	NAME OF PERSON (S) CONDUCTING FIRE WATCH
1	
2	
3	
4	

DATE	TIME	AREAS PATROLLED	INITIALS

SUPERVISORY STAFF CONDUCTING FIRE WATCH PATROL SHALL HAVE ACCESS TO A PHONE TO CONTACT THE FIRE DEPARTMENT IMMEDIALTEY IN THE EVENT OF DISCOVERY OF A FIRE.

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POST ON ALL FLOOR AREAS.

SPRINKLER SYSTEM OUT OF SERVICE

A FIRE WATCH IS PATROLLING THE BUILDING

IN CASE OF FIRE CALL 911

FOLLOW EMERGENCY PROCEDURES

10.4 Fire Drill Notice

POST ON ALL FLOOR AREAS.

48 HOURS PREVIOUS TO EVERY FIRE DRILL

FIRE DRILL NOTICE

The Site Manager of this building is performing a fire drill in accordance with the fire safety plan and the Ontario Fire Code on:

Date:

Time:

The Evacuation Air Horn will sound continuously until the fire drill is completed. Please do not call the fire department when you hear the Evacuation Air Horn at the time specified above.

Please notify the Fire Warden in your area or the Site Manager if you have difficulty hearing the Evacuation Air Horn in your area.

Should you hear the Evacuation Air Horn at any other time of the day, please treat it as an emergency and follow the emergency procedures accordingly.

11. SPILL CONTROL PROCEDURES

- Always ensure that the proper protective clothing is available and worn so any person involved in the spill management is not contaminated by any means. The inventory of the cabinet / spill kits shall be updated regularly.
- Spill cleanup should be handled by the Director of Operations and/or head of Logistics & Warehousing. Notify them immediately of any known spill or leak.
- Person performing the initial containment shall wear the proper PPE, primarily gloves and respirator.
- Contain the spill from further spreading and then refer to the SDS on the product involved. Contain the leak / spill from further movement using absorbent materials such as pads, socks and kitty litter.
- If the spill is too large a scale to be handled effectively by on site personnel, call Provincial Emergency Service for that area.
- If on-site staff cannot manage the spill, and after the proper authorities have been notified, evacuate the building and wait for the Environmental Emergency service to arrive and await their instruction. If on-site staff determines the spill is minor and can be managed with on-site equipment and supplies, notify other workers to vacate the immediate area while clean up is being completed.
- Isolate the container in either a plastic bag, pail or in the spill recovery kit / drum provided. Remove the absorbent material and isolate in a plastic bag and seal shut.
- Follow the SDS recommendations on which product to use (i.e. bleach, soap and water) to further decontaminate the area as needed.
- Notify Gardex management and the Director of Operations to manage the disposal of any materials. Replenish all spill and safety equipment used in the cleanup.

I have read the above procedures and understand my role in this process.

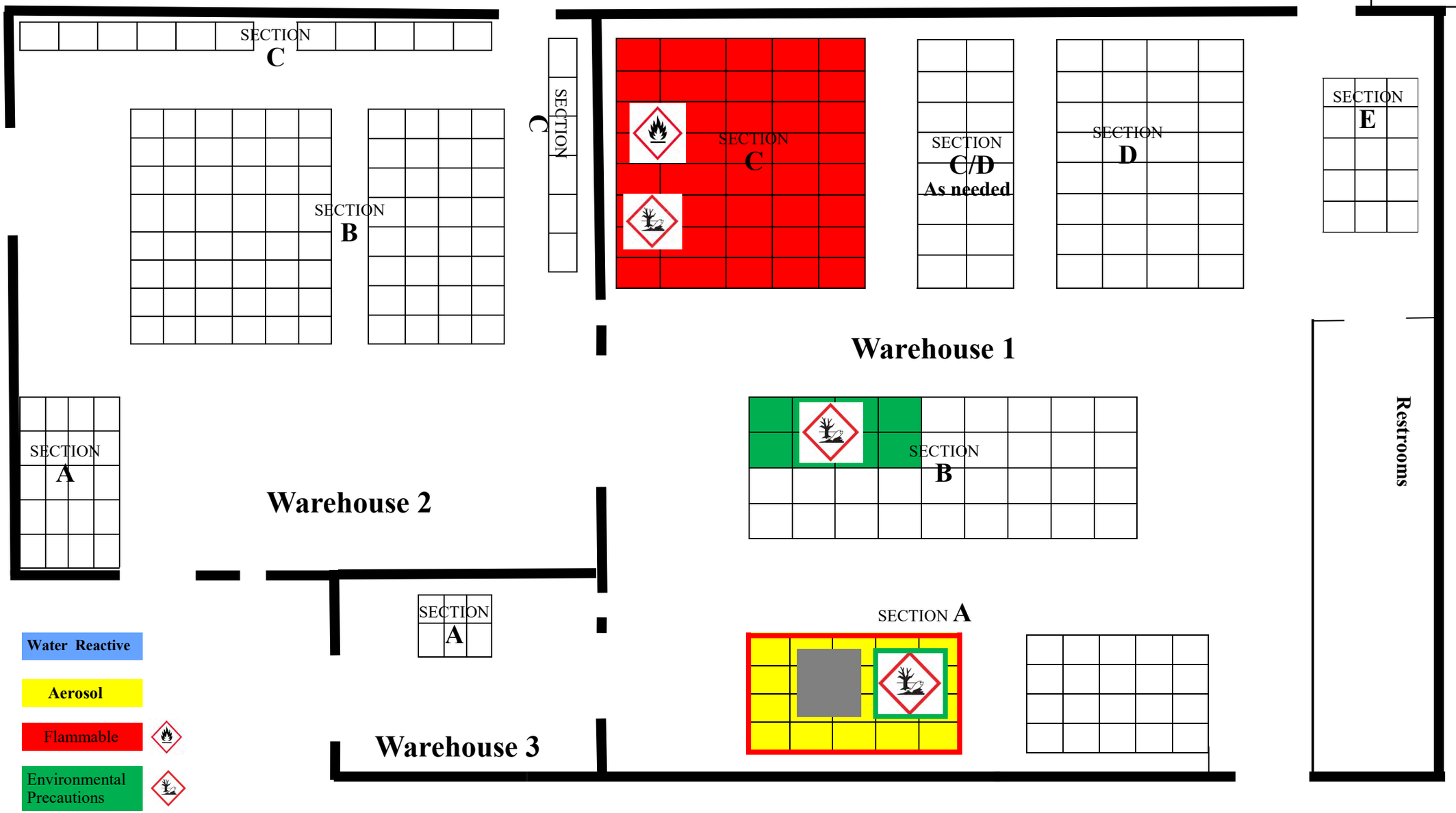
NAME (PRINT)	SIGNATURE	DATE

11.1 GARDEX CHEMICALS ADDENDUM

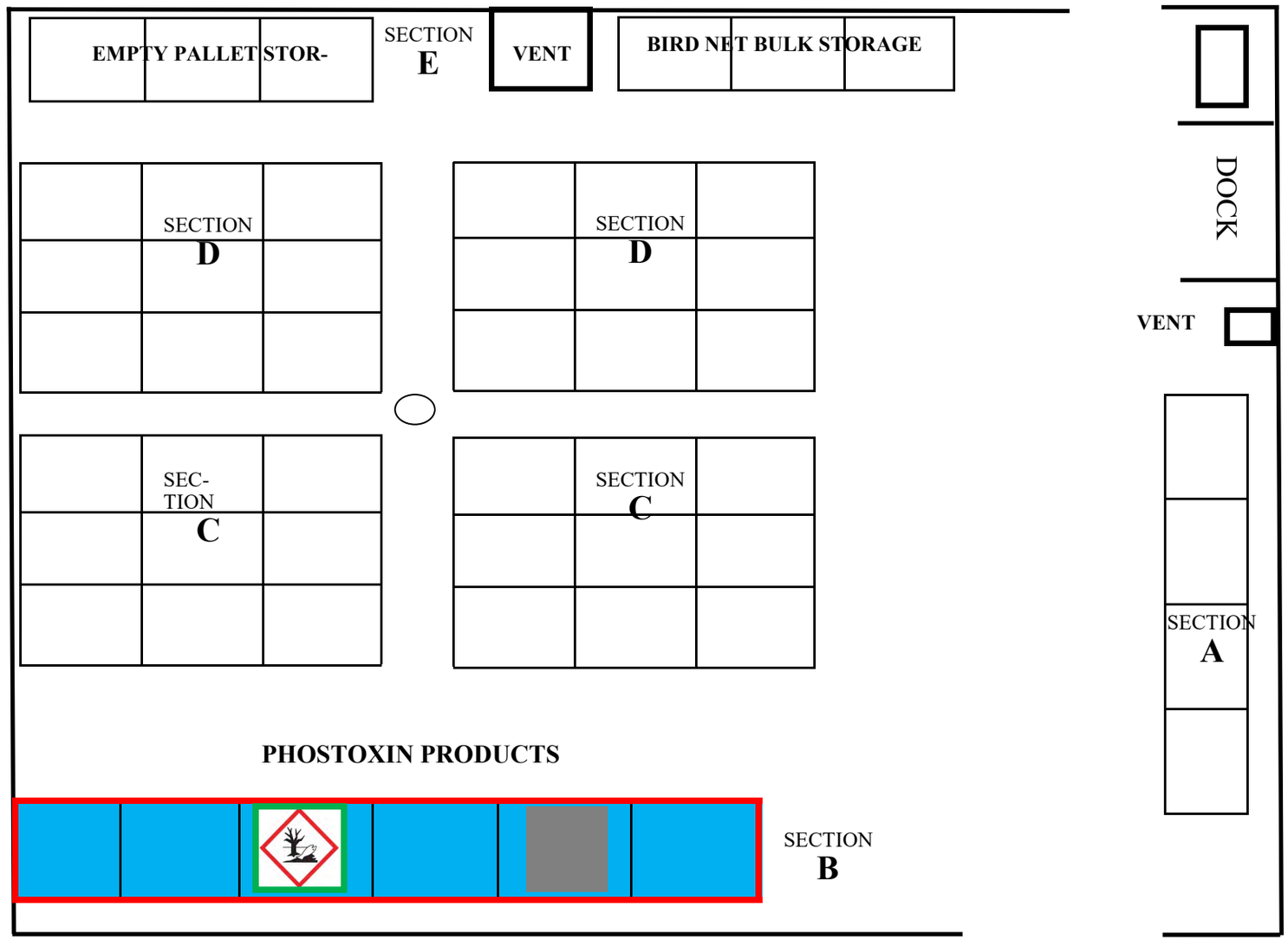
12. DRAWINGS

TAB 11

Gardex 1 Meridian Road



GARDEX CHEMICALS—WAREHOUSE 7 - 1
PRODUCT STORAGE: Temporary Receiving/Shipping Total 46 Skids



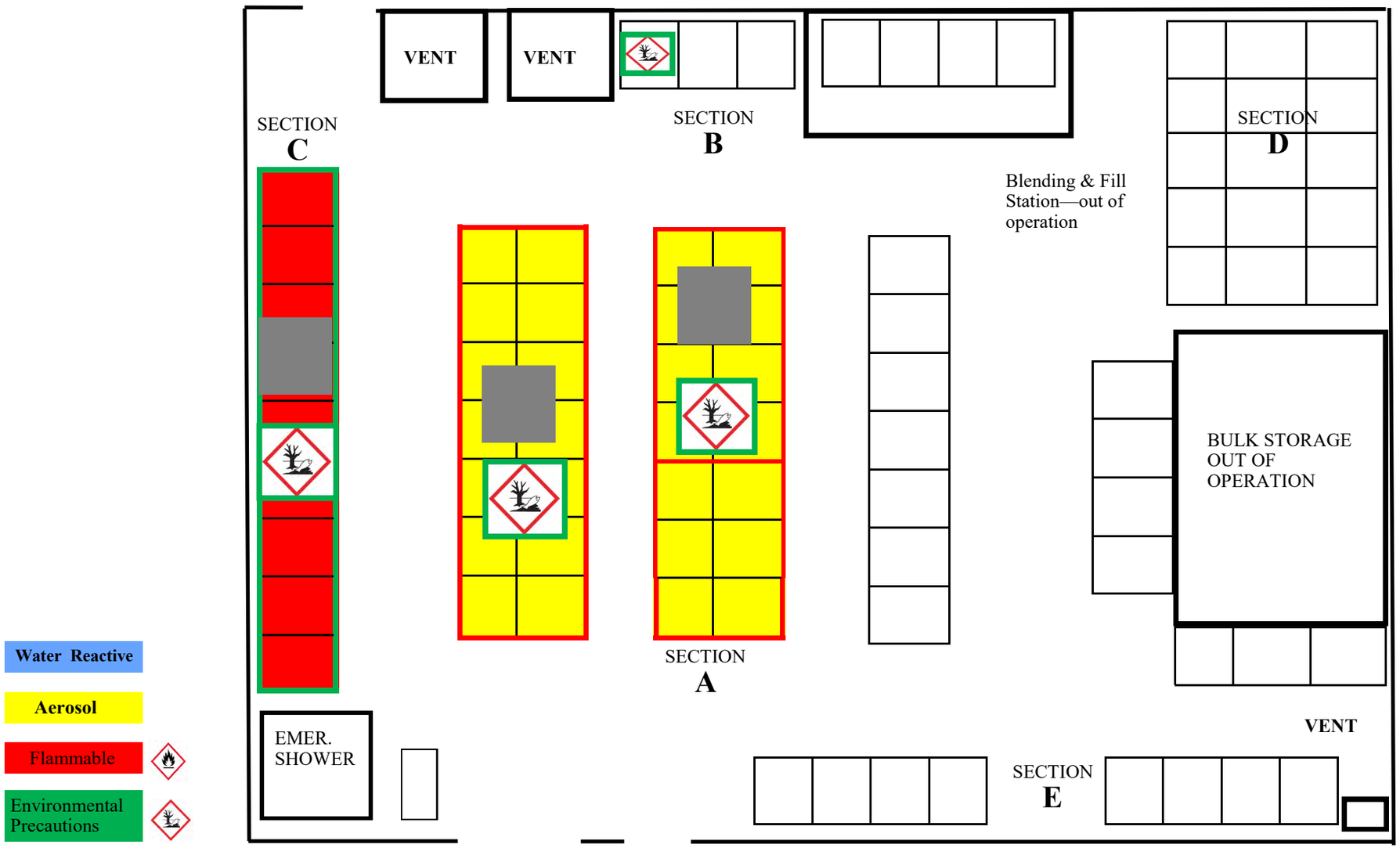
Water Reactive

Aerosol

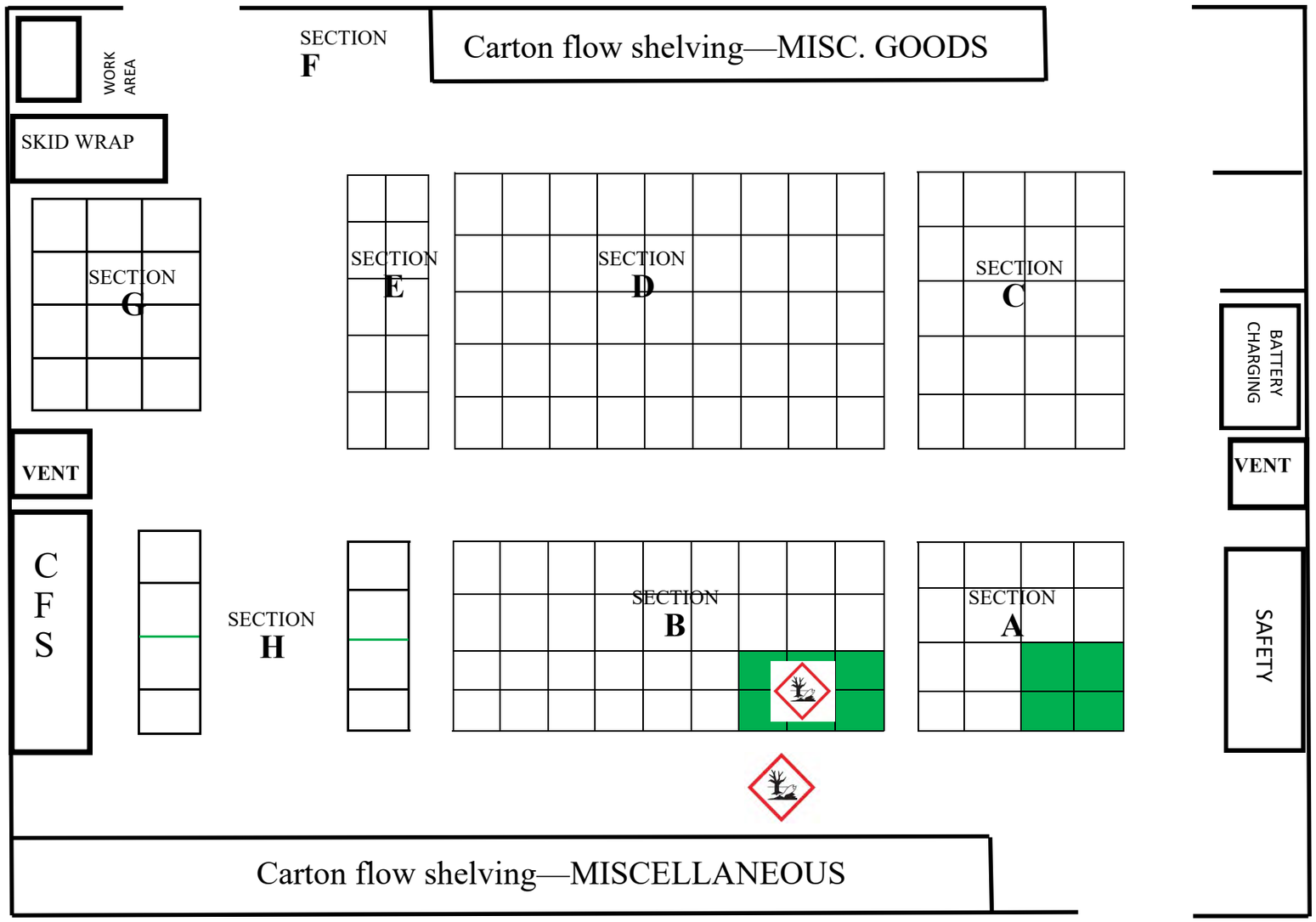
Flammable

Environmental Precautions

GARDEX CHEMICALS—WAREHOUSE 7 - 2
PRODUCT STORAGE Total Skids: 69



GARDEX CHEMICALS—WAREHOUSE 7 - 3
PRODUCT STORAGE Total Skids: 151



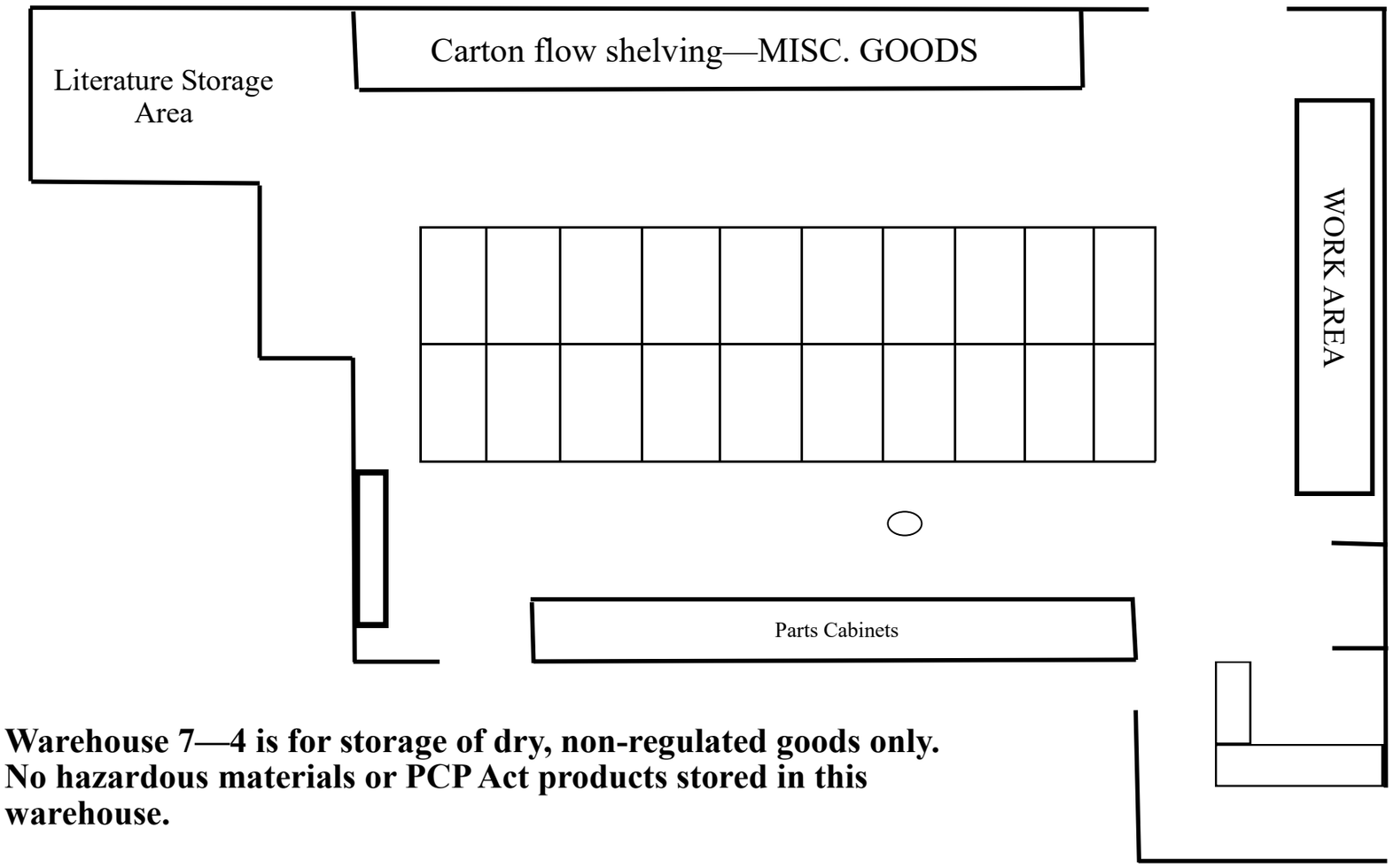
Water Reactive

Aerosol

Flammable

Environmental Precautions

GARDEX CHEMICALS—WAREHOUSE 7 - 4
PRODUCT STORAGE Total on Skid Storage: 32
First Tier Under Shelving



Warehouse 7—4 is for storage of dry, non-regulated goods only. No hazardous materials or PCP Act products stored in this warehouse.

TAB 12

GARDEX CHEMICALS—WAREHOUSE 1 - 1 Meridian Rd

Storage Summary		Typical	Max
	Class 3	6,816	11,296
	Class 2 aerosol	4,410	8,820
	Class 9	5,216	6,776

Section A.	Key Products	PCP Regulated	TDG	HPR	Inventory	L/kg	Skids	MAX. QTY	Skids	Boiling Point	Flash Point	Type	Comments
Bugkill Aerosol	cases	Y	Class 2	Danger	1960	L	4	3920	8	205-255ºC	77ºC	aerosol	Extremely flammable
Konk Products	cases	Y	Class 2	Danger	1960	L	4	4410	9	N/A	(-104.4 °C)	aerosol	Extremely flammable
Seclira Pressurized Insecticide	cases	Y	Class 2	Danger	490	L	1	490	1	56-57°C	< -20 °C	aerosol	Extremely flammable. Explosive.
Total					4410		9	8820	18				

Section B.	Key Products	PCP Regulated	TDG	HPR	Inventory	L/kg	Skids	MAX. QTY	Skids	Boiling Point	Flash Point	Type	Comments
Ratak	cases	Y	N/R				36		36	N/A	> 190 °C		
Weather Blok	bags	Y	N/R				11		11	N/A	> 191 °C		
Prelude	cases	Y	Class 9	Warning	4320	L	8	5400	10	N/A	> 100 °C	liquid	Very toxic to aquatic life with long lasting effects
Total					4320		8	5400	10				

Section C.	Key Products	PCP Regulated	TDG	HPR	Inventory	L/kg	Skids	MAX. QTY	Skids	Boiling Point	Flash Point	Type	Comments
Demand	cases	Y	Class 9	Warning	1456	L	16	1456	16	100 °C.	> 100 °C	liquid	Very toxic to aquatic life with long lasting effects
Dragnet	cases	Y	Class 3	Danger	4896	L	12	4896	12	N/A	42 °C	liquid	Flammable liquid.
Hydropy 300	cases	Y	Class 9	Warning	3240	L	6	3240	6	100 °C	> 85 °C	liquid	Very toxic to aquatic life with long lasting effects
Vapona [illegible]	pails	Y	Class 3	Danger	1920	L	3	6400	10	N.E.	45.0º C	liquid	Handle as a flammable liquid fire
Pyrethrin 5-25	cases	Y	Class 9		520	L	1	2080	4	N.E.	45.0º C		
Total Class 3					6816	L	15	11296	22				
Total Class 9					5216	L	23	6776	26				
Total Liquid					12032	L	38	18072	48				
Drione	cases	Y	Class 9		800	kg	4	800	4	N/A	N/A	solid	Environmental precautions. Do not allow to get

Section D.	Key Products	PCP Regulated	TDG	HPR	Inventory	L/kg	Skids	MAX. QTY	Skids	Boiling Point	Flash Point	Type	Comments
Boradicate	pails	Y	N/R		4		4			N/A	Not applicable		
Final Blox	pails	Y	N/R		2		2			N/A	No Data		
Niban	bags	Y	N/R		3		3			N/A	>233 °C		
Brigand Soft Bait	pails	Y	N/R		15					N/A	No Data		

Section E.	Key Products	PCP Regulated	TDG	HPR	Inventory	L/kg	Skids	MAX. QTY	Skids	Boiling Point	Flash Point	Type	Comments
Misc. Non-Regulated Storage													Flammable liquid. Harmful to aquatic organisms.

GARDEX CHEMICALS—WAREHOUSE 2 - 1 Meridian Rd

Section A.	Key Products	PCP Regulated	TDG	HPR	Inventory	L/kg	Skids	MAX. QTY Skids	Boiling Point	Flash Point	Comments
OVER FLOW MISCELLANEOUS GOODS	cases	N	N/R	N/A	10 Skids				N/A	N/A	

Section B.	Key Products	PCP Regulated	TDG	HPR					Boiling Point	Flash Point	
Ditrac Blox	pails	Y	N/R		2 Skids	kg			No Data	No Data	
Contrac Blox	pails	Y	N/R		12 Skids	kg			No Data	No Data	
Resolv Soft Bait	pails	Y	N/R		2 Skids	kg			Not determined	>150 oC	
First Strike Soft Bait	pails	Y	N/R		1 Skid	kg			Not determined	>150 oC	
Bell Final Blox	pails	Y	N/R		3 Skids	kg			No Data	No Data	

Section C.	Key Products	PCP Regulated	TDG	HPR					Boiling Point	Flash Point	
EVO Stations	cases		N/R	N/A	28 skids				N/A	N/A	
OVER FLOW MISCELLANEOUS GOODS	cases	N	N/R	N/A	70 Skids				N/A	N/A	

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GARDEX CHEMICALS—WAREHOUSE 3 - 1 Meridian Rd

Section A.	Key Products	PCP Regulated	TDG	HPR	Inventory	L/kg	Skids	MAX. QTY	Skids	Boiling Point	Flash Point	Comments
OVER FLOW	MISCELLANEOUS GOODS	N	N/R	N/A	8 Skids					N/A	N/A	

GARDEX CHEMICALS—WAREHOUSE 7 - 1

		Typical	Max
Storage Summary	Class 4.3 kg	4500	9000

Section A.	Key Products	PCP Regulated	TDG	HPR	Inventory	L/kg	Skids	MAX. QTY	Skids	Boiling Point	Flash Point	Type	Comments
Weatherblok XT	cases	Y	N/R		1 Skid					N/A	> 191 °C		
Ratak 20x8x50g	cases	Y	N/R		1 Skid					N/A	> 190 °C		

Section B.	Key Products	PCP Regulated	TDG	HPR	Inventory	L/kg	Skids	MAX. QTY	Skids	Boiling Point	Flash Point	Type	Comments
Phostoxin 	cases	Y	Class 4.3	Danger - Highly Toxic	4500	kg	6	9000	12	AIP = >1000 °C (AIP = >1832 °F) (PH3 = -87.7 °C)	Not determined	solid	ground water, water course or sewage system. Water-react. 1 H260 In contact with water releases flammable

Section C.	Key Products	PCP Regulated	TDG	HPR	Inventory	L/kg	Skids	MAX. QTY	Skids	Boiling Point	Flash Point
OVER FLOW	MISCELLANE(	N	N/R	N/R	7 Skids					N/A	N/A
Contrac Blox	pails	Y	N/R		6 Skids					No Data	No Data

Section D.	Key Products	PCP Regulated	TDG	HPR	Inventory	L/kg	Skids	MAX. QTY	Skids	Boiling Point	Flash Point
OVER FLOW	MISCELLANE(	N	N/R	N/A	7 Skids					N/A	N/A

Section E.	Key Products	PCP Regulated	TDG	HPR	Inventory	L/kg	Skids	MAX. QTY	Skids	Boiling Point	Flash Point
Bird Barrier	Bird Nets	N	N/R	N/A	7 Skids					N/A	N/A

GARDEX CHEMICALS—WAREHOUSE C7 - 2

		Typical	Max
Storage Summary litres	Class 3	2582	2582
	Class 2 aerosol	3245	3245
	Class 9	2156	2156

Section A.	Key Products	PCP Regulated	TDG	HPR	Inventory	L/kg	Skids	MAX. QTY	Skids	Boiling Point	Flash Point	Type
Aerosol Products	cases	Y	Class 2	Danger	3000	L	20	3000	20	N/A	(-104.4 °C)	aerosol
Seclira Pressurized Insecticide	cases	Y	Class 2	Danger	245	L	1	245	1	56-57°C	< -20 °C	aerosol
TC Products	cases	N	Class 3	Danger	450	L	9	450	9	N/A	32°C - 69°C	liquid
BT Hand Sanitizer	cases	N	Class 3	Danger	252	L	1	252	1	Estimated 78.3 °C	Estimated 13 °C	liquid
Total Aerosol					3245		21	3245	21			
Total Class 3					702		10	702	10			
Total Liquids					3947		31	3947	31			

Section B.	Key Products	PCP Regulated	TDG	HPR	Inventory	L/kg	Skids	MAX. QTY	Skids	Boiling Point	Flash Point	
Niban	bags	Y	N/R		1 Skid					Not determined	>233 °C	
Timbor	cases	Y	N/R		1 Skid					N/A	N/A	
Blue Diamond	cases	Y	N/R		1 Skid					N/A	N/A	
Scorpio	bags	Y	N/R		1 Skid					Not determined	Non combustible	
Boradicate	pails	Y	N/R		1 Skid					No information available	N/A	
Bora-Care	jugs	Y	N/R		1 Skid					>100°C	104°C	
Industrial Micro Spray	cases	Y	Class 9	Warning	520	L	1	520	1	N.E.	45.0° C	liquid
Pyrethrin 5-25	cases	Y	Class 9		520	L	1	520	1	N.E.	45.0° C	
Total liquid			Class 9		1040		2	1040	2			

Section C.	Key Products	PCP Regulated	TDG	HPR	Inventory	L/kg	Skids	MAX. QTY	Skids	Boiling Point	Flash Point	
Dragnet	cases	Y	Class 3	Danger	1240	L	2	1240	2	No Data	42 °C	liquid

Vapona 5%	pails	Y	Class 3	Danger		640	L		1	640	1	N.E.	45.0° C	liquid
Pyrocide 7369	pails	Y	Class 9	Warning		576	L		1	1152	1	N/A	> 93.3°C	liquid
Prelude	cases	Y	Class 9	Warning		540	L		1	540	1	N/A	> 100 °C	liquid
Total Class 3						1880			3	1880	3			
Total Class 9						1116			2	1692	2			
Base Oil	pails	N	N/R		1 Skid		L		1		1	218-257°C	> 94°C	

Section D.	**Key Products**	**PCP Regulated**	**TDG**	**HPR**	**Inventory**	**L/kg**	**Skids**	**MAX. QTY**	**Skids**	**Boiling Point**	**Flash Point**
Abell Summer Glueboards	cases	N	N/R	N/A	3 Skids					N/A	N/A
Abell Pro-Ketch	cases	N	N/R	N/A	4 Skids					N/A	N/A
Abell B&G stations	cases	N	N/R	N/A	4 Skids					N/A	N/A

Section E.	**Key Products**	**PCP Regulated**	**TDG**	**HPR**	**Inventory**	**L/kg**	**Skids**	**MAX. QTY**	**Skids**	**Boiling Point**	**Flash Point**
OVER FLOW	MISCELLANE(	N	N/R	N/A	8 Skids					N/A	N/A

Comments

Extremely flammable
Flammable. Contains Pyrethroids, which are toxic to fish and other aquatic invertebrates
Extremely flammable. Explosive.

Toxic to aquatic life with long lasting effects.

This product contains a petroleum distillate, which is moderately to highly toxic to aquatic organisms.

Flammable liquid. Environmental precautions.

Handle as a flammable liquid fire
This pesticide is toxic to fish. Do not apply directly to any body of water. Do not apply where runoff is likely to occur.
Very toxic to aquatic life with long lasting effects

GARDEX CHEMICALS—WAREHOUSE C7 - 3

		Typical	Max
Storage Summary	Class 9 Liquid	2608	2608
	Class 9 Solid	921	921

Section A.	Key Products	PCP Regulated	TDG	HPR	Inventory	L/kg	Skids	MAX. QTY	Skids	Boiling Point	Flash Point	Type
Demand	cases	Y	Class 9	Warning	1456	L	2	1456	2	100 °C.	> 100 °C	liquid
Drione	cases	Y	Class 9		800	kg	2	800	2	No Data	N/A	solid
Contrac Blox	pails	Y	N/R		720 Kg					No Data	No Data	
Final Blox	cases	Y	N/R		680 Kg					No Data	No Data	

Section B.	Key Products	PCP Regulated	TDG	HPR	Inventory	L/kg	Skids	MAX. QTY	Skids	Boiling Point	Flash Point	
Ground Force	pails	Y	N/R		225 Kg					Not determined	>190 oC	
Generation BlueMax	pails	Y	N/R		306 Kg					Not determined	>190 oC	
Generation Mini P/P	cases	Y	N/R		162 Kg					Not determined	>190 oC	
Contrac Super Blox	cases	Y	N/R		425 Kg					No Data	No Data	
C/M Gold Sticks	cases	N	N/R		288 Kg					No Data	No Data	
Contrac Soft Bait	pails	Y	N/R		420 Kg					No Data	No Data	
Brigand Soft Bait	pails	Y	N/R		420 Kg					No Data	No Data	
FirstStrike 7Kg	cases	Y	N/R		560 Kg					Not determined	>150 oC	
Pyrocide 300	cases	N	Class 9	Danger	576	L	1	576	1	No Data	83.3 °C	liquid
Optigard	cases	Y	N/R		324 Kg					N/A	N/A	
Altosid	cases	Y	N/R		360L					2230 °C	Not relevant	
Temprid	cases	Y	Class 9	Warning	576	L	1	576	1	No Data	> 93.3 °C	liquid

Section C.	Key Products	PCP Regulated	TDG	HPR	Inventory	L/kg	Skids	MAX. QTY	Skids	Boiling Point	Flash Point
C/M Glueboards	cases	N	N/R		1350 Kg					N/A	N/A
Bell Labs Bait Stations	cases	N	N/R		1216 Kg					N/A	N/A
Lipha Bait Stations	cases	N	N/R		386 Kg					N/A	N/A

Section D.	Key Products	PCP Regulated	TDG	HPR	Inventory	L/kg	Skids	MAX. QTY	Skids	Boiling Point	Flash Point
Live Animal Traps	cases	N	N/R	N/R						N/A	N/A
Pro-Ketch Station	cases	N	N/R	N/R	162 Kg					N/A	N/A

J. T. Eaton Station	cases	N	N/R	N/R	361 Kg					N/A	N/A	
Woodstream Station	cases	N	N/R	N/R	291 Kg					N/A	N/A	
Kness Snap-E Traps	cases	N	N/R	N/R	126 Kg					N/A	N/A	
Woodstream Traps	cases	N	N/R	N/R	263 Kg					N/A	N/A	
Section E.	**Key Products**	**PCP Regulated**	**TDG**	**HPR**	**Inventory**	**L/kg**	**Skids**	**MAX. QTY**	**Skids**	**Boiling Point**	**Flash Point**	
Mantis Fly Lights	each	N	N/R	N/R	7 skids					N/A	N/A	
Section F.	**Key Products**	**PCP Regulated**	**TDG**	**HPR**	**Inventory**					**Boiling Point**	**Flash Point**	
OVER FLOW	MISCELLANE(	N	N/R	N/R	7 Skids					N/A	N/A	
Section G.	**Key Products**	**PCP Regulated**	**TDG**	**HPR**	**Inventory**					**Boiling Point**	**Flash Point**	
Genus Fly Lights	each	N	N/R	N/R	7 skids					N/A	N/A	
Gilbert Fly Lights	each	N	N/R	N/R	10 skids					N/A	N/A	
C/M Fly Glueboards	cases	N	N/R	N/R	4 skids					N/A	N/A	
Section H.	**Key Products**	**PCP Regulated**	**TDG**	**HPR**	**Inventory**	**L/kg**	**Skids**	**MAX. QTY**	**Skids**	**Boiling Point**	**Flash Point**	
Ona Gel	cases	N	N/R		122 Kg					N/A	N/A	
Bio Plus	cases	N	N/R		108 Kg					100 °C	Not applicable.	
ProFoam Platinum	cases	N	N/R		68 Kg					N/A	N/A	
NPD Odor Counteractant	cases	Y	N/R		62 Kg					N/A	N/A	
Tempo 	cases	N	Class 9	Danger		121 kg	1	121	1	N/A	N/A	solid
Shelving	**Key Products**	**PCP Regulated**	**TDG**	**HPR**	**Inventory**	**L/kg**	**Skids**	**MAX. QTY**	**Skids**	**Boiling Point**	**Flash Point**	
Verifi Products	cases	N	N/R	N/R	2 skids					No data available	No data available	
C/M Fly Bags	cases	N	N/R	N/R	1 skid					N/A (Solid)	N/A	

Comments

Environmentally Hazardous
Environmental precautions. Do not allow to get into surface water.

Environmental precautions.

Environmental precautions.

Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent sites.

GARDEX CHEMICALS—WAREHOUSE C7 - 4

NON - REGULATED GOODS ONLY

No hazardous, flammable, toxic or TDG materials stored

TAB 13

Hydraulically Calculated System

This system as shown on ABERDINI & NORRIS INC.

company print no FP-1 dated 8 SEPT 20

for GARDEN

at 7 MERIDIAN ROAD contract no 20-0206

is designed to discharge at a rate of .20 gpm

(L/min) per sq ft (m2) of floor area over a maximum area of

990 sq ft (m2) when supplied

with water at the rate of 703 gpm (L/min)

at 35 psi (bars) at the base of the riser

Hose stream allowance of 250 gpm(L/min)

is included in the above.

Occupancy classification ORDWARY 2

Commodity classification

Maximum storage height 20 FEET

Installed by N/A

Hydraulically Calculated System

This system as shown on ABERDINI & NORRIS INC.

company print no FP-1 dated 8 SEPT 20

for GARDEN

at 7 MERIDIAN ROAD contract no 20-0206

is designed to discharge at a rate of .20 gpm

(L/min) per sq ft (m2) of floor area over a maximum area of

1560 sq ft (m2) when supplied

with water at the rate of 594 gpm (L/min)

at 40.8 psi (bars) at the base of the riser

Hose stream allowance of 250 gpm(L/min)

is included in the above.

Occupancy classification ORDINARY II

Commodity classification

Maximum storage height 20 FEET

Installed by N/A