

Environmental Act Proposal Report
Canadian Linen & Uniform Service Inc.
1860 King Edward Street, Winnipeg, MB
January, 2014



ENVIRONMENT ACT PROPOSAL REPORT

Canadian Linen & Uniform Service Inc.

1860 King Edward Street Winnipeg, Manitoba

Submitted to:

Canadian Linen & Uniform Service Inc.

1860 King Edward St., Winnipeg, MB, R2R 0N2

Attention: Mr. Ron Koswin, General Manager

Submitted by:

Industrial Waste Control Ltd., 487 Westney Rd. S., Unit 1, Ajax, ON L1S 6W7

20 January, 2014



Executive Summary

Canadian Linen & Uniform Service Inc. (Canadian Linen) authorized Industrial Waste Control Ltd (IWCL) to complete an Environmental Act (EA) Proposal Report for the existing industrial laundry facility located at 1860 King Edward St. in Winnipeg, Manitoba (the Site).

According to the City of Winnipeg Assessment and Taxation Department, the current facility at the Site was constructed in 1962 with subsequent additions to the Site building in 1971, 1975, 1976, 1982 and 2013. Prior to being purchased by Canadian Linen in 1997, the Site was operated as a dry cleaning facility and industrial laundry by Perth Services Ltd. The Site currently consists of a single industrial building of approximately 50,000 ft², housing the laundry operations and office space.

Detrimental environmental effects as a result of the facility activities are minimal or insignificant and all potential environmental effects are further reduced through the described mitigating measures. The following table is a summary of the environmental effects identified in the report.

Summary of Environmental Effects			
Potential Impacts			Mitigation Measures
Item	Not a Concern	Currently Being Mitigated	
Air Quality		X	Apart from heating and cooling equipment, sources of air emissions at the Site include steam from irons and drying equipment and VOCs from a dedicated solvent capturing washing machine and the air stripper component of the wastewater treatment system. Steam produced by the irons is captured and directed through rooftop vents. The dryers produce minimal volumes of steam, which is removed via the buildings ventilation system. Indoor VOC emissions are limited to the VOC washer area, which is physically separated from the main area and adequately ventilated. The VOC washer area is posted as authorized personnel only, with authorized personnel receiving appropriate training and personal protection equipment, including VOC-rated respirators.
Excessive Environmental Noise	X		Manufacturing operations at the facility are performed indoors. Typical indoor sound levels range from 75 to 80 decibels. Traffic is considered to be within the norm for the area. The Site is located within the Omand's Creek Industrial Park.
Geology/Soils	X		Based on available geological maps, the subsurface stratigraphy in this area of Winnipeg normally consists of topsoil and fill materials underlain by glacio-lacustrine silt and clay to a depth of approximately 9 to 12 m from grade. A deposit of silty till, typically a few metres or more in thickness, occurs between the clay and the underlying bedrock. The bedrock in this area consists of dolomitic limestone with abundant chert nodules in the upper limestone layer and is of the Selkirk Member (Baracos et al., 1983). Bedrock is estimated to occur between about 15 and 18 m below grade. Fractured zones in the bedrock comprise the major aquifer in the area. There are no aquifers above the bedrock. Given the substantial clay thickness, the potential for impacts to the aquifer, from on or off-site sources is considered to be low.



Industrial Waste Effluent		X	Wastewater from the laundry process is collected and treated on-site prior to discharge into the municipal wastewater system. The wastewater is treated for pH, BOD, volatile and semi-volatile organic compounds, solids and oil and grease using a treatment system comprising an equalization tank, dissolved air floatation system and an air stripper. After treatment, all wastewater discharged to the municipal system is in compliance with municipal sewer bylaw limits.
Sewage Disposal	X		The sanitary facilities from the Site are connected to the City of Winnipeg's municipal wastewater system.
Chemical Storage		X	All chemicals used and stored at the Site are effectively controlled and all personnel are WHMIS trained. General Site safe practices and procedures, as well as a Site emergency response plan have been developed.
Hazardous Materials		X	Hazardous materials stored on site are limited to wash chemicals, waste solvents (collected in the laundry process) and sulphuric acid (used in pH control). All dangerous goods are stored in an appropriate manner, either above concrete with spill containment, or in appropriate double walled tanks with devices to prevent accidental collisions with the tank. Based on the volume, type, and typical handling of hazardous materials expected on Site at any given time, there is little perceived risk of environmental effects at the Site.
Storm water Management	X		Stormwater collected at the Site is directed to the municipal storm sewer system, or to an overland drainage ditch located to the north of the property, adjacent to the railway tracks. Rooftop drainage is directed to the parking lot, where it flows either to catchbasins connected to the municipal system, or to the drainage ditch. The parking lot is paved, minimizing the potential for sediment transfer.
Plants / Forestry/ Wildlife / Fisheries/ Land-use	X		The Site is located in an industrial setting with industrial properties to the north, south, and east. The potential for impact to the surrounding environment is considered to be low as all site runoff is directed toward appropriate drainage systems and site emissions and noise originating from the indoor processes is minimal.
Heritage / Cultural Resources	X		The closest designated heritage sites to the Site are Brooklands School #1440, located approximately 650m east of the Site and the Brookside Cemetery, located approximately 1km southwest of the Site. Activities on the Site have no direct impact on these heritage locations. The nearest First nation community to the City of Winnipeg is the Swan Lake First Nation Reserve Land 8a, located in Rural municipality of Headingly, Manitoba. It should be noted that at the time of this application, the former Canadian Forces Base Kapyong Barracks, located at Kenaston Boulevard, is under negotiation with Treaty 1 First nations to be potentially redeveloped into an urban reserve. The Kapyong Barracks are located approximately 8 km from the Site.
Employment / Income / socio-economic	X		Canadian Linen offers economic benefits to the local area and City of Winnipeg in the form of employment and tax revenue. The facility provides 164 full time positions. As the Site is located in the industrial park area, there is limited to no socio-economic implications to the area.

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Based on the type and operation of the facility, limited potential for environmental impact and the controls that are currently in place, further follow-up plans are not required at this time. Based on IWCL's review, the importance of environmental compliance is well defined and acknowledged by Canadian Linen personnel. Company and site documentation appears to be generally well maintained and accessible. Chemicals and hazardous materials are clearly identified, properly located and stored, and MSDS and emergency information is easily accessible. Additionally, all personnel are Workplace Hazardous Materials Information System (WHMIS) trained.



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Introduction and Background

Canadian Linen & Uniform Service (Canadian Linen) authorized Industrial Waste Control Ltd. (IWCL) to complete an Environmental Act Proposal (EAP) Report for the existing industrial laundry facility located at 1860 King Edward Street, Winnipeg, Manitoba (the Site).

The laundry facility would be considered a Class 1 development under the Environment Act. The existing legislation under The Environment Act which pertains to the Site is as follows:

10(1) No person shall construct, alter, operate or set into operation any Class 1 development unless:

- (a) the person first files a proposal in writing with the department and obtains a valid and subsisting license from the director for the development; or
- (b) the person is exempted under the Act or the regulations from the requirements of clause (a).

The main operations at the Site include washing and drying industrial linens, shop and printer towels and floor mats. Company trucks retrieve soiled laundry items from clients within the City of Winnipeg and Southern Manitoba and deliver the items to the Site. Incoming materials are sorted by type then washed in industrial washing machines. The items are then transferred to industrial, gas-fired dryers. Depending on the nature of the items, they may be ironed with one of two types of steam ironing machine to remove wrinkles. Items are then packaged for re-shipment on mobile hanger racks or carts. The items are loaded onto company trucks and distributed.

Waste products from the process include lint from the dryers, solvents (from a specialized washing machine discussed further in a later section of this report) and wastewater from the washing process. Additionally, routine maintenance on company trucks is carried out on-site, generating waste gear oil. The lint, solvent and gear oil are collected, stored and disposed of according to the appropriate regulations. Wastewater from the process is treated in-house before being directed to the municipal sewer system.

IWCL has based the following report on the Licensing Procedures Regulation under the Environment Act (Manitoba Regulation 163/88), specifically, the Information Bulletin – Environment Act Proposal Report Guidelines (dated January 2011), issued by Manitoba Conservation.

OBJECTIVES

The objective of this EAP report is to provide the information requested in the MC Environment Act Proposal Report Guidelines Information Bulletin, in support of Canadian Linen's EAP under Manitoba's The Environment Act.



METHODOLOGY

Information pertaining to conditions on the Site was obtained through a review of historical and operational records, communication with Site personnel and supplemented with a site visit in December of 2013. Environmental effects of the development were then assessed using professional judgement, precedent, and similar case studies. Mitigating measures (if required) were identified to comply with legislation and to eliminate, control or minimize potential adverse effects and are incorporated in the facility operations.

Environmental effects are defined as changes in the environment caused by Canadian Linen's activities at the Site. However, in the case of the Site, which is an active operation, IWCL concentrated on identifying the operational processes that could conceivably impact the environment through either normal procedural activities or from spills, accidental releases, or other unplanned acts.

Description of Development

CURRENT FACILITY DESCRIPTION

The Site is located at 1860 King Edward Street, on the west side of King Edward Street and the north side of Logan Ave. in the Omand's Creek industrial area. Appendix A contains documents illustrating the Site location. The legal description of the Site is:

- Firstly: Parcel A, Plan 20155, WLTO in NE ¼ 14-11-2 EPM
- Secondly: SP Lot 14, Plan 24342, WLTO in E ½ 14-11-2 EPM

According to the City of Winnipeg Citizen's Information Service, the Site and adjacent properties to the north, south, west and east are zoned as M1 – Light industrial, PDO – Airport Vicinity

According to the City of Winnipeg Assessment & Taxation Department, the property use for the Site is INMLM (Industrial Light Manufacturing) and assessed property size is 3.8 acres. The Site has been owned by Canadian Linen since 1997. Proof of title is included in Appendix B.

According to the City of Winnipeg Assessment and Taxation Department, the current facility at the Site was constructed in 1962 with subsequent additions to the Site building in 1971, 1975, 1976, 1982 and 2013. Prior to being purchased by Canadian Linen in 1997, the Site was operated as a dry cleaning facility and industrial laundry by Perth Services Ltd.

The facility consists of an industrial building of approximately 50,000 ft² located in the south-east corner of the property, with paved parking and loading dock areas surrounding. The southeastern part of the structure contains office space and a cafeteria, with the remainder of the building occupied by laundry equipment as well as sorting and inventory storage space. Enclosed loading docks are located along portions of the north and south perimeter of the building. The building was observed to be developed on a concrete slab with masonry block or steel framed walls. A basement level, with a concrete slab



floor was observed under the central area of the building. The building is single-storey, with the exception of the office space, which occupies 2 stories.

The exterior of the Site was observed to be finished with a combination of metal siding and painted masonry block.

The land surrounding the Site is largely industrial and commercial, as described below.

- North: Railway right of way. Purolator shipping depot beyond the railway.
- East: King Edward St. Autobody shop (KR Autobody) located on the other side of King Edward St.
- South: Gas Station (Shell), Commercial Truck Driving School (G&T Class 1 Training Ltd), Truck Service/Sales (Freightliner) all located across Logan Ave.
- West: Industrial Condominium Units (Logan Place)

The Site address appears on the Manitoba Contaminated/Impacted Sites List. To determine the nature of the impact, IWCL submitted a request for additional information to Manitoba Conservation and Water Stewardship. The response from a contaminated sites specialist with Manitoba Conservation indicated that “the file contains several reports which document residual impacts consistent with a former dry cleaning facility” (correspondence included in Appendix C). It was indicated by the specialist that these residual impacts are only of concern to human or environmental health if expansion or redevelopment of the Site should create an exposure to the contaminants. Canadian Linen is aware of the potential for exposure during such activities, and has procedures in place to ensure all due precautions are taken should such activities take place in the future.

Development Use

According to the City of Winnipeg Assessment and Taxation department, the current facility was constructed on the Site in 1962 (King Edward St. was at that time known as Rosser Rd.) for use as an industrial laundry and dry cleaning facility. Additions were made to the building in 1971, 1976 and 2013. The facility was owned and operated by Perth Services Ltd (aka Perth Whitehall) from 1962 until its sale to Canadian Linen in 1997.

Canadian Linen has established and documented Health and Safety training and policies based on corporate protocols and customized for the King Edward Street facility and location. The Site Health and Safety training schedule is provided in Appendix D.

The Site operates as an industrial laundry. Material (linens, uniforms, floor mats, etc.) are received, sorted and cleaned in industrial washing machines. Items are subsequently dried in gas-fired driers and, depending on the nature of the item, may be finished on steam ironing presses or steamed on hangers to remove wrinkles. In addition to the washing machines, driers, irons and steam finishing tunnels, the facility utilizes 3 boilers to produce hot water and steam and 2 water softeners to treat the input water.



Waste products generated by the process include steam, which is vented through rooftop vents and lint, which is captured from the dryer exhaust and disposed of as a non-hazardous waste. Certain items (shop rags and printer's towels) may contain high levels of solvents. These items are washed in a dedicated solvent stripping washer. The solvent waste is collected in two(2) 500L plastic totes where it is left undisturbed until any residual wash water separates out of solution with the solvents. The water is then directed to the in-house water treatment system. The solvent waste is pumped from the totes and held in an above-ground 9400L double-walled steel tank, installed in 1999 and protected from accidental contact using concrete barricades. Facility records indicate that approximately 8000L of solvents are generated per month. The solvent within the tank is removed and disposed of under manifest by Miller Environmental on a monthly basis.

Routine maintenance of machinery and fleet vehicles generates waste gear oil, which is held in plastic drums in a secure storage shed, protected by concrete barriers and within a designated no smoking area. Used gear oil is disposed of under manifest by Miller Environmental as needed. Records show that the Site generates between 400-800L of used gear oil annually. In addition, used fluorescent tubes at the Site are stored in a secure location and removed under manifest when a sufficient quantity is collected.

Process wastewater is treated on site for pH, BOD, volatile and semi-volatile compounds, solids and oil and grease before being released to the municipal sanitary sewer. The wastewater treatment system comprises an equalization tank with pH control, a dissolved air floatation system and an air stripper. See Appendix E for details of the wastewater treatment system.

Canadian Linen operates 23 delivery vans from the Site, each making between 1 and 2 round trips per day, except Wednesdays, when only 3 vans are operating. An additional 8 vans based at satellite locations make deliveries to the Site several times each week. A tractor-trailer is also on-site 4 times a week. This level of traffic is well within the norm for the industrial park in which the Site is located and does not pose a traffic hazard or visual/audible nuisance.

Comprehensive noise assessments are conducted by trained staff at the Site on a semi-annual basis. Measurements are taken with properly calibrated equipment at pre-determined locations around the Site to ensure continuity of data. Examples of recent noise assessments can be found in Appendix F.

The Site was developed and is currently operated without any government funding. Public consultation has not been undertaken with any Site development.



Permits/Authorisations/Approvals

Waste solvents, recovered from washing certain materials, are collected and stored in a 9400L double walled steel above-ground tank. The tank was installed and approved by Manitoba Conservation in 2000 (see Appendix G for approval form). Canadian Linen currently operates the tank under Manitoba Conservation Permit to Operate a Petroleum Storage Facility #20956 (see Appendix G for a copy of the permit).

A search of the Winnipeg Planning Department's archives shows that two(2) 5000Gal underground fuel oil tanks were removed under permit in 1979. Two(2) 25,000L underground fuel tanks were installed in 1983 and removed under permit in October, 2000. Additionally, a 10,000L heating oil tank was removed in 2011. The paperwork confirming the removal of these tanks and the submission of soil testing results to Manitoba Conservation can be found in Appendix G.

DESCRIPTION OF THE EXISITING ENVIRONMENT

BIOPHYSICAL ENVIRONMENT

Geology/Hydrology

Based on available geological maps, the subsurface stratigraphy of this area of Winnipeg normally consists of topsoil and fill materials underlain by glacio-lacustrine silt and clay to a depth of approximately 11 to 20 feet from grade. A deposit of silty till, typically a few metres or more in thickness, occurs between the clay and the underlying bedrock. The bedrock in this area consists of dolomitic limestone with chert nodules in the upper limestone (Baracos et al., 1983). Bedrock is estimated to occur between about 51-60 feet below grade.

Fractured zones in the bedrock comprise the major aquifer in the area. There are no aquifers above the bedrock (Baracos et al., 1983). Given the substantial clay thickness, the potential for impacts to the aquifer, from on or off-site sources is considered to be low.



Topography and Surficial Drainage

The Site is located in the physiographic division of the Manitoba Lowland within the Red River Plain district.

The Manitoba Lowland is characterized by relatively flat to gently undulating relief. In the area of the City of Winnipeg, ground surface elevation does not vary more than a few metres with exception of the Red River and Assiniboine River banks and man-made structures (e.g. Red River Floodway). The area of the Site is quite flat with less than 5 m of natural elevation difference for hundreds of metres in extent.

Surface drainage on the Site is directed into the municipal storm sewer network, with the exception of the north-west corner of the parking area, where the drainage flows into a drainage ditch adjacent to the railway tracks.

Climatic Conditions

Winnipeg climate is characterized by a strong seasonal pattern of both temperature and precipitation. The normal location of the Mid-Latitude Winter-Dry climate is in the interior of the continents in the mid-latitudes. This continental location causes a large annual temperature range.

This climate receives Maritime Tropical air masses in the summer with occasional Continental Tropical air masses. Summers are hot and humid with intense summer convectional storms. Continental Polar air masses are dominant in the winter with an occasional outbreak of Maritime Polar air. Continental Polar air masses are associated with cold, dry weather conditions. Precipitation mainly occurs in the summer from thunderstorm activity. The mid-latitude cyclone produces a smaller quantity of precipitation in the winter (Physicalgeography.net).

There are 40 weather stations located in the City of Winnipeg. According to Environment Canada's Website, the mean annual temperature within the Winnipeg area is 2.6°C with a maximum daily average temperature of 25.8°C and a minimum daily average temperature of -22.8°C. The annual precipitation is reported as 513.7 mm.

Surface Water Bodies

The nearest natural body of water is Omand's Creek, located approximately 1km southwest of the Site. Additionally, the Woodsworth park storm retention pond is located approximately 300m northeast of the Site. Neither of these bodies of water is directly impacted by operations at the Site.



Vegetation

During the Site visit, the majority of the Site area was observed to be paved. Due to snow cover at the time of inspection, the vegetation in the area could not be fully observed. High resolution satellite imagery of the Site and communication with Site personnel reveal the vegetation in the area along the North fence-line adjacent to the railway tracks to consist of common grasses generally kept mown during the growing season. Additionally, the grass medians/boulevards adjacent to both King Edward St. and Logan Ave. are observed to be comprised of common lawn grasses maintained in a mown state.

Manitoba Conservation maintains a list of threatened and endangered species. The following is a list of plants from the threatened species list, including Latin names, which are located in Manitoba:

Buffalograss	<i>Buchloë dactyloides</i>
Culver's-root	<i>Veronicastrum-virginicum</i>
Hackberry	<i>Celtis occidentalis</i>
Hairy Prairie-Clover	<i>Dalae villosa</i>
Riddell's Goldenrod	<i>Solidago riddelli</i>
Western Silvery Aster	<i>Symphotrichum</i>
Western Spiderwort	<i>Tradescantia occidentalis</i>

The following list of plants from the endangered species list, including Latin names, are located in Manitoba:

Great Plains Ladies'-Tresses	<i>Spiranthes magnicamporum</i>
Small White Lady's-slipper	<i>Cypripedium candidum</i>
Western Prairie Fringed-orchid	<i>Platanthera preaclara</i>
Gattinger's Agalinis	<i>Agalinis gattingeri</i>
Rough Agalinis	<i>Agalinis aspera</i>
Smooth Goosefoot	<i>Chenopodium subglabrum</i>
Western Ironweed	<i>Vernonia fasciculata</i>

There are no known threatened or endangered plant species in the Site area, nor is growth expected due to the industrial use of the Site.

Wildlife

Mammals and birds normally observed within industrial areas of Winnipeg include rodents, crows and robins. Amphibians and reptiles may be present in neighbouring ditches and low lying areas. There are no known populations of threatened or endangered mammals or bird species within the Site area and the potential for residency of these species is deemed to be very low, based on the land usage, perimeter fencing and lack of ecological factors (suitable habitat and food supply).



Socio-economic Environment

As the Site is located within an industrial park and is enclosed by a chain-link fence, impact on the socio-economic environment is considered limited. During the Site visit, no existing public safety and health risks were identified. The area is not located within or close to a national park. According to the Manitoba government's provincial heritage website, the Manitoba Historical Society website, and Winnipeg Municipal heritage website, the closest designated heritage sites are Brooklands School #1440, located approximately 650m east of the Site and the Brookside Cemetery, located approximately 1km southwest of the Site. Activities on the Site have no direct impact on these heritage locations.

The nearest First nation community to the City of Winnipeg is the Swan Lake First Nation Reserve Land 8a, located in Rural municipality of Headingly, Manitoba. It should be noted that at the time of this application, the former Canadian Forces Base Kapyong Barracks, located at Kenaston Boulevard, is under negotiation with Treaty 1 First nations to be potentially redeveloped into an urban reserve. The Kapyong Barracks are located approximately 8 km from the Site.



Description of Potential Environmental Effects

Air Emissions

Air emissions at the Site may be characterized as products of combustion, steam, particulate matter and VOCs. Sources of air emissions at the Site include laundry processes such as; steam venting from dryers and ironing equipment, particulate matter from the dryers and VOCs emitted to the atmosphere from the solvent recovery washing machine. In addition, VOCs are emitted to the atmosphere as a product of the air stripper component of the wastewater treatment system.

Limited amounts of VOCs are also emitted indoors during loading of the solvent recovery washing machine. Indoor VOC emissions are limited to the VOC washer area, which is physically separated from the rest of the building space. The VOC washer area is posted as authorized personnel only, with authorized personnel receiving appropriate training and personal protective equipment, including VOC-rated respirators.

The following table summarizes air emissions from all sources:

Annual Air Emissions by Source		
		Total Annual Weight Emitted (Kg)
Air Stripper*	Chloroform	12.056
	Tetrachloroethene	19.474
	Bromodichloromethane	0.130
	Toluene	67.697
	Ethylbenzene	11.128
	m & p-Xylene	54.714
	o-Xylene	22.256
	Xylenes (Total)	76.043
Laundry Processes**	PM _{2.5}	350.000
	VOC (total)	2200.000
	Toluene	250.000
	Methanol	10.000

* Using wastewater sample collected by IWCL, a model was created to estimate the mass of VOCs emitted to the air as a result of the wastewater treatment process. The model assumes that 100% of waterborne VOCs will be removed and discharged to the air. Further, the model was run using the highest concentrations of VOCs detected during sampling (see Appendix H for sampling results). *Thus, the results of the model may be considered to be a worst case scenario.* The data used in the calculations is for the period November 2012 to December 2013 inclusive. Incoming soiled laundry may contain additional compounds, such as methanol, which would also be removed by the stripper.

** Information taken from 2012 NPRI submission

A greenhouse gas inventory was prepared for the Site and is provided below.



Noise Emissions

Noise impacts on the surrounding area are minimal. To minimize contamination of the laundry facilities and inventory, all operations are conducted indoors, with exterior doors kept closed. Aside from the office and cafeteria spaces, there are no windows through which the sounds of indoor operations could be transmitted to the exterior. Vehicle traffic at the site does not generate sufficient noise to exceed the norm of the surrounding roadway traffic and railway lines.

Industrial and Sanitary Wastewater Effluent

Wastewater from site operations is treated on Site before being released to the municipal wastewater system. The wastewater treatment system comprises an equalization tank with pH control, a dissolved air floatation system and an air stripper. This system reduces the concentration of pH, BOD, volatile and semi-volatile compounds, solids and oil and grease in the wastewater stream. The treatment system is effective in reducing the concentrations of all contaminants to well below the standards established in the municipal by-laws. See Appendix E for a detailed overview of the treatment system. Sanitary facilities on site are connected to the municipal wastewater collection system and do not receive treatment on the Site.

Chemical Storage

The following chemicals are stored and used at the Site:

Summary of Site Chemical Use and Storage				
Name	Use	WHMIS Classification	TDG Classification	Storage Location
Caustic Soda 50%	Cleaning agent	Class E (corrosive)	Class 8 (corrosives)	Indoors above concrete. Double walled plastic tank.
Accent	Laundry Starch	Not WHMIS controlled	Not classified as a dangerous good under transport regulations	Indoors above concrete. Reserve supply in plastic drums on spill containment pallets. Day use supply in plastic tank with spill containment.
Pinnacle Liquid Sour	pH and iron control in wash water	Class E (corrosive) Class D (toxic)	Class 8 (corrosives)	Indoors above concrete. Reserve supply in plastic drums on spill containment



				pallets. Day use supply in plastic tank with spill containment.
Pinnacle Liquid Antichlor	Chlorine control	Class D (toxic)	Not classified as a dangerous good under transport regulations	Indoors above concrete. Reserve supply in plastic drums on spill containment pallets. Day use supply in plastic tank with spill containment.
Pinnacle Liquid Fabric Softener	Fabric softener	Class D (toxic)	Not classified as a dangerous good under transport regulations	Indoors above concrete. Reserve supply in plastic drums on spill containment pallets. Day use supply in plastic tank with spill containment.
Sodium Hypochlorite 15%	Bleach	Class E (corrosive) Class D (toxic)	Not classified as a dangerous good under transport regulations	Indoors above concrete. Reserve supply in plastic drums on spill containment pallets. Day use supply in plastic tank with spill containment.
Eclipse	Detergent	Class D (toxic)	Not classified as a dangerous good under transport regulations	Indoors above concrete. Reserve supply in plastic drums on spill containment pallets. Day use supply in plastic tank with spill containment.
Structure	Wash Water Conditioner	Class E (corrosive) Class D (toxic)	Class 8 (corrosives)	Indoors above concrete. Reserve supply in plastic drums on spill containment



				pallets. Day use supply in plastic tank with spill containment.
Sulphuric Acid 93%	pH control of waste water	Class E (corrosive) Class D (toxic)	Class 8 (corrosives)	Indoors above concrete. Stored in a plastic tote with spill containment.
Kathon LM Microbicide	Control microbial growth in wash chemical containers	Class E (corrosive) Class D (toxic)	Class 8 (corrosives)	Indoors above concrete. Reserve supply in plastic drums on spill containment pallets. Day use supply in plastic tank with spill containment.

Material Safety Data Sheets for these chemicals are provided in Appendix J. All chemicals used and stored at the Site are effectively controlled, additionally all personnel are Workplace Hazardous Materials Information System trained.

The following waste materials are stored onsite prior to disposal:

Summary of Onsite Waste Storage				
Name	Source	WHMIS Classification	TDG Classification	Storage Location
Waste Solvent	Solvent extracted from certain laundry items	Class B (flammable) Class D (toxic)	Class 3 (flammable liquids)	Outdoors. In aboveground double walled steel tank with concrete barriers around perimeter.
Waste Gear Oil	Gear oil resulting from vehicle maintenance	Not WHMIS controlled	Not classified as a dangerous good under transport regulations	Outdoors. In sealed plastic barrels locked inside secure storage shed within concrete barriers of solvent tank.



Hazardous Materials

Based on the information provided by Canadian Linen, and confirmed by a visit to the Site, hazardous materials stored on site are limited to those listed above. All dangerous goods are stored in an appropriate manner, either above concrete with spill containment, or in appropriate double walled tanks with devices to prevent accidental collisions with the tank. Based on the volume, type, and typical handling of hazardous materials expected on Site at any given time, there is little perceived risk of environmental effects at the Site.

Hazardous and Non-Hazardous Waste

Three types of hazardous waste are generated at the Site. Solvents are extracted from certain laundry items and stored in a steel tank on site. This tank is pumped out monthly by Miller Environmental Services and the solvent waste is disposed of as per the appropriate regulations. Waste gear oil generated at the Site from vehicle maintenance is stored in sealed plastic drums in a secure metal shed until sufficient volume has accumulated to warrant disposal. The waste oil is collected and disposed of under manifest by Miller Environmental approximately once per year. Used fluorescent tubes are collected and stored in a secure location within the building until sufficient quantities have accumulated to warrant disposal. The fluorescent tubes are collected and disposed of under manifest by Miller Environmental.

Non-hazardous waste generated on Site, including sludge generated by the wastewater treatment system, is disposed of in appropriate containers or bins and picked up on a regular basis by a licensed commercial hauler for disposal as per applicable regulations.

Storm-Water Management

Stormwater collected on the parking surface is directed to the municipal storm sewer network, or to the drainage ditch adjacent to the rail line at the northern edge of the property. The ditch is very slightly sloped, allowing water to remain until evaporation or percolation into the soil under most rainfall scenarios. The entirety of the parking area is paved with asphalt, limiting the potential for sediment to enter the storm system from the Site. Rooftop drainage is directed to the surface of the parking lot, where it enters either the storm sewer system or the ditch.

There does not appear to be any concern for environmental effects with regard to stormwater at the Site.



Wildlife and Vegetation

The current area of the Site primarily consists of an Industrial Park and does not represent an important habitat for many birds and animals, due to the lack of vegetation. There are no known endangered or rare species of plant or wildlife present in the area. The northern and western perimeters of the Site are protected by a chain-link fence which keeps out larger mammals from the Site and the south and east sides of the Site are fronted by Logan Ave. and King Edward St. respectively. Based on the industrial park setting of the Site, operations are deemed have little to no effect on plants and wildlife. The potential for impact to the surrounding natural environment is considered to be low as all site runoff is directed to appropriate drainage systems and Site emissions and noises originating from the indoor process are minimal.

Socio-Economic Effects

Canadian Linen and Uniform offers economic benefits to the local area and City of Winnipeg in the form of employment and tax revenue. The facility provides 164 full time positions. As the Site is located in the industrial park area, there is limited to no socio-economic implications to the area.



Climate Change Implications

A greenhouse gas (GHG) inventory was completed for the Site to assess the climate change implications associated with Site operations. The inventory calculations were performed using data taken from the Site's 2012 NPRI submission. The results of the inventory are summarized in the following table.

Summary of GHG Inventory					
Facility Name: Canadian Linen and Uniform, Winnipeg				NPRI ID: 25418	
See Appendix I for list of facility equipment					
Method: Emissions Factors			Data Year: 2012		
Contaminant	Factor (US EPA) lb/10 ⁶ scf	Total Emissions (tonnes)	CO ₂ Equivalent (Tonnes)	CAS #	GHG Equivalents
NO _x	100	0.888		11104-93-1	
CO ₂	120000	1071.069	1071.067	124-38-9	1
N ₂ O	2.2	0.020	5.960	10024-97-2	298
Methane	2.3	0.021	0.441	74-82-8	21
PM _{Total} *	1.9	0.421			
PM ₁₀ *	1.9	0.421			
PM _{2.5} *	1.9	0.421			
SO ₂	0.6	0.005		7446-09-5	
VOC*	5.5	2.460			
CO	84	0.746		630-08-0	
Lead	0.0005	0.000		7439-92-1	
Toluene*	3.40E-03	0.318		108-88-3	
Hexane	1.80E+00	0.016		110-54-3	
Total			1077.4684		
* = Total emissions from all sources (laundry operations and wastewater treatment)					

The inventory does not include indirect emissions from electricity use, off-site vehicle use, and waste streams.



Mitigation Measures

Based on the operation of the facility, potential adverse environmental effects could result from a loss of containment or other release of bulk chemicals stored on Site. Mitigation measures to prevent the release of bulk chemicals into the environment are detailed below:

- Indoor storage and use of chemicals – the majority of chemical storage and use occurs indoors above concrete. Waste solvents are stored in a double-walled steel tank located on the exterior of the building in an area isolated from vehicular traffic. Waste gear oil is stored in plastic drums placed inside a secure metal shed outside of the building. These storage and operational methods present minimal opportunity for the release of any deleterious substances to the air, water, soil, or surrounding environment.
- Site security – Building access is through locked doorways with a monitored alarm system. The security is considered adequate to prevent break-ins and vandalism of products.
- Administrative controls – several safety, training and procedure documents are in place, which facilitate the response of foreseeable incidents potentially harmful to the environment. In addition, all personnel are trained in WHMIS and spill prevention.

FOLLOW-UP PLANS

Based on the type and operation of the facility, limited potential for environmental impact, and the controls that are currently in place, further follow-up plans are not required at this time. Based on IWCL's review, the importance of environmental compliance is well defined and acknowledged by Canadian Linen personnel. Company and Site documentation appears to be generally well maintained and accessible. Chemical inventory is clearly identified, is properly located and stored, MSDS and emergency information is easily accessible, and personnel are WHMIS trained.



References:

Emission Factor Documentation for AP-42 Section 1.4 – Natural Gas Combustion, Technical Support Division, Office of Air Quality, Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, NC, 1997.

Geological Engineering Maps & Report for Urban Development of Winnipeg, Baracos, A., Shields, D. and Kjartanson, B., The University of Manitoba, Department of Geological Engineering, Winnipeg, MB, 1983

<http://www.climate.weatheroffice.gc.ca> accessed on 19 December, 2013.

<http://www.gov.mb.ca/chc/hrb/prov/index.html> accessed on 19 December, 2013.

<http://www.gov.mb.ca/conservation/wildlife/sar/sarlist.html> accessed on 19 December, 2013.

<http://www.mhs.mb.ca/docs/sites/index.shtml> accessed on 19 December, 2013.

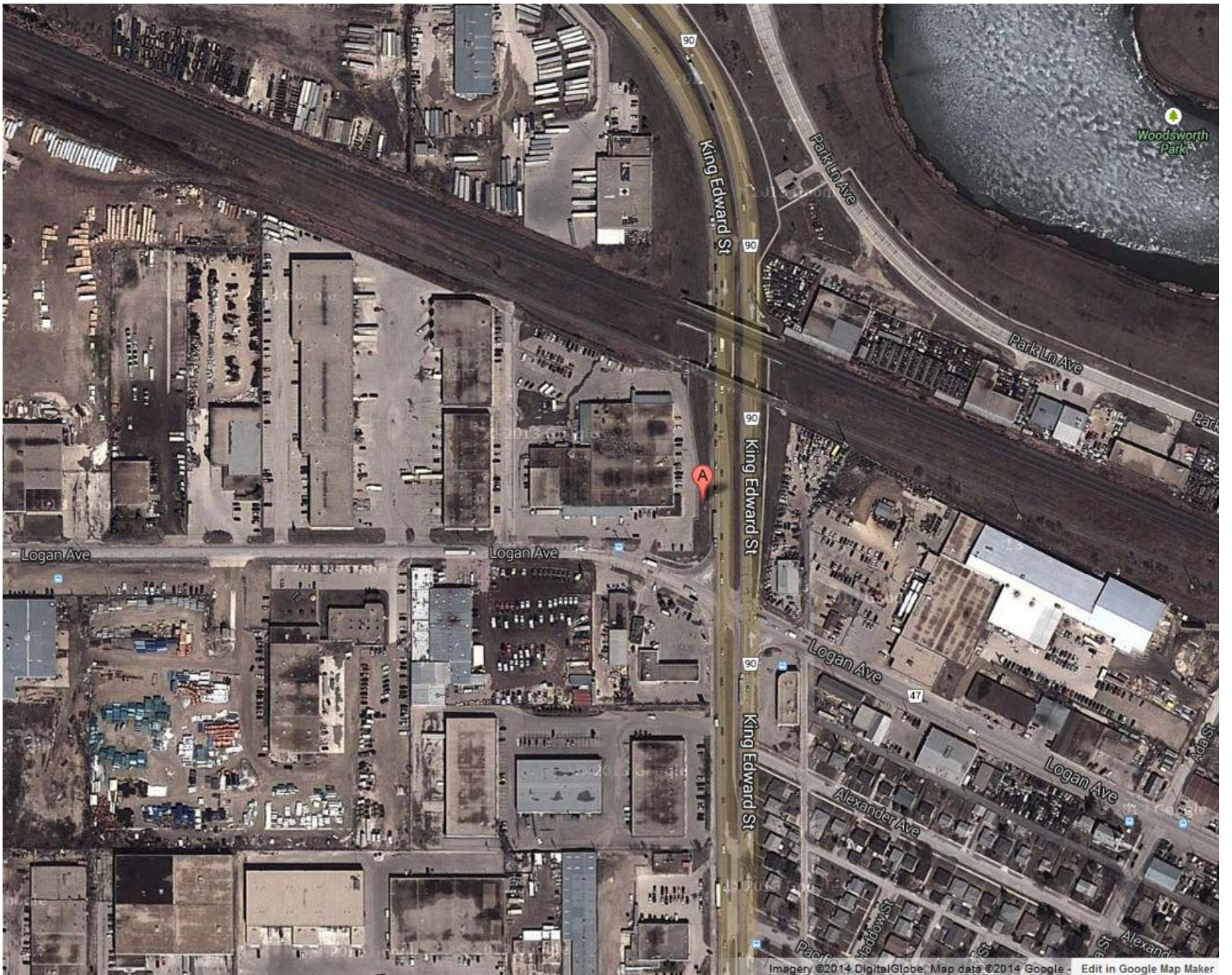
<http://www.physicalgeography.net/fundamentals/7v.html> accessed on 19 December, 2013.

<http://www.winnipeg.ca/ppd/historic/historic.stm> accessed on 19 December, 2013.

Information Bulletin – Environment Act Proposal Report Guidelines, Manitoba Conservation. January 2011.

The Environment Act (1987, C.C.S.M. c. E125), Retrieved 19 December, 2013 from Manitoba Laws:
<http://web2.gov.mb.ca/laws/statutes/ccsm/e125e.php>

Appendix A



Appendix B

8. TYPE OF PROPERTY Residential Farm Commercial

9. EVIDENCE - FARM LANDS OWNERSHIP ACT

~~1. Declaration under the Farm Lands Ownership Act enclosed; or -~~
 2. The within land is not farm land within the definition of subsection 1(1) of the Farm Lands Ownership Act; or
~~3. The within farm land is exempt by Regulation 925/87 R of The Real Property Act, i.e. it is 5 acres or less; or -~~
~~4. The within farm land is exempt from The Farm Lands Ownership Act by subsection 85(19) of The Real Property Act. Particulars: ---~~

** strike out inappropriate statement(s) and initial*

DATE		
Y	M	D
97		

..... (Name) (Signature)

..... (Name) (Signature)

~~Transferee, Transferor, or Agent~~

10/11. HOMESTEADS ACT CONSENT TO DISPOSITION AND ACKNOWLEDGEMENT
 (Transfer of Land or Leasehold title only) (Note: For consent by widow(er) see section 22 of The Homesteads Act)

1. the spouse of the Transferor, consent to the disposition of the homestead effected by this instrument and acknowledge that:

- I am aware that The Homesteads Act gives me a life estate in the homestead and that I have the right to prevent this disposition of the homestead by withholding my consent.
- I am aware that the effect of this consent is to give up my life estate in the homestead to the extent necessary to give effect to this disposition.
- I execute this consent apart from my spouse freely and voluntarily without any compulsion on the part of my spouse.

DATE		
Y	M	D

..... (Name of Spouse) (Signature of Spouse)

..... (Name of Witness) (Signature of Witness)

A Notary Public in and for the Province of Manitoba
 A Commissioner for Oaths in and for the Province of Manitoba
 My commission expires:
 Or other person authorized to take affidavits
 under The Manitoba Evidence Act
 (Specify)

12. ENCUMBRANCES, LIENS, AND INTERESTS - The within document is subject to Instrument No.(s)
 Caveat 36725, Caveat 70552, Mortgage 87-142066, Mortgage 1357074, Posponement 1375327

13. INSTRUMENT PRESENTED FOR REGISTRATION BY, (include address, postal code, contact person and phone no.)

LTO USE ONLY

FEES CHECKED	REFUND AMOUNT
Certificate of Registration	
Registered this date _____ as No. _____	Transfer
I certify that the within instrument was registered in the _____ Land Titles Office and entered on Certificate of Title No. _____	

_____ Deputy or Assistant District Registrar	
New Certificate of Title No. _____	

Appendix C

From: Rospad, Warren (CWS) [<mailto:Warren.Rospad@gov.mb.ca>]
Sent: December-11-13 4:14 PM
To: 'Alan Clark'
Subject: RE: Site list information request

Alan,

It is not known whether the impacts occurred prior to your client owning the property or not. Should redevelopment of the property occur or an expansion of the current building create an exposure to the impacts, the responsible party (owner) shall initiate remedial activities to ensure the impacts do not pose a threat to human health or the environment. This would not affect your Environment Act proposal, however as mentioned above it could restrict potential expansion if the impacts are not dealt with.

Warren Rospad, B.Sc.

Contaminated Sites Specialist | Environment Officer
Manitoba Conservation and Water Stewardship, Programs and Strategies
1007 Century Street
Winnipeg, MB R3H 0W4
P: (204) 330-2685
F: (204) 948-2420
E: warren.rospad@gov.mb.ca



To report an Environmental Emergency please call our
24/7 Emergency Response Line (204)944-4888
Toll Free in Manitoba 1-855-944-4888

From: Alan Clark [<mailto:alan.clark@iwcl.ca>]
Sent: December-11-13 2:56 PM
To: Rospad, Warren (CWS)
Subject: RE: Site list information request

Warren,

Thank you for your reply.

Is there anything in the file that could raise issues with our environmental act proposal, such as contaminated soil that requires special handling prior to renovations or site decommissioning?

Also, the impacted sites list uses the previous owner's name, can I therefore assume that the impacts occurred prior to my client purchasing the site in 1997?

Thank you for your help,

Alan Clark
Industrial Waste Control Ltd.
Ajax, ON, Canada
alan.clark@iwcl.ca

416-689-2989

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From: Rospad, Warren (CWS) [<mailto:Warren.Rospad@gov.mb.ca>]
Sent: November-26-13 2:53 PM
To: 'Alan Clark'
Subject: RE: Site list information request

Alan,

The file contains several reports which document residual impacts consistent with a former dry cleaning facility.

Warren Rospad, B.Sc.

Contaminated Sites Specialist | Environment Officer
Manitoba Conservation and Water Stewardship, Programs and Strategies
1007 Century Street
Winnipeg, MB R3H 0W4
P: (204) 330-2685
F: (204) 948-2420
E: warren.rospad@gov.mb.ca



To report an Environmental Emergency please call our
24/7 Emergency Response Line (204)944-4888
Toll Free in Manitoba 1-855-944-4888

From: Alan Clark [<mailto:alan.clark@iwcl.ca>]
Sent: November-26-13 1:39 PM
To: Rospad, Warren (CWS)
Subject: Site list information request

Good afternoon,

I am in the process of completing an Environmental Act Proposal for a property in Winnipeg, and I've found that the site is listed on the most recent contaminated/impacted sites list.

To complete the EAP, I'll need to know why the site is on the list. To that end, I'd like to request more details on the file.

The file number is 20668 and the address of the site is 1860 King Edward St., Winnipeg, MB.

Thank you,

Alan Clark
Industrial Waste Control Ltd.
Ajax, ON, Canada
alan.clark@iwcl.ca
416-689-2989

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Appendix D

2013 Safety Training Calendar

Resource
E-Learning

Resource
Safety Solutions

X = Required; A = As Appropriate		Engineering	Production Apparel Centers	Customer Operations	Office Branch	Office Corp./CSO Acc. Rec.	Sales	Service Centers	Talk Zone	Power Point	Video	Talk Zone	Power Point	Video
January	Accidents/Incident Reporting	X	X	X	X	X	X	X	X	X		X	X	
	Powered Hand Tools	X												16 mts
February	DST: Impaired Driving	A			A	A	X	X		X				
	Report Near Misses	X	X	X	X	X	X	X	X	X		X	X	
March	Spill Control and Prevention	X	X						X					
	DST: Company Safe Driving Expectations	A		X	A	A	X	X						
April	Hearing Conservation/Protection	X	X	X	X	X	X	X	X	X		X	X	
	Walking and Working Surfaces	X	X	X	X	X	X	X	X	X		X	X	
May	DST: Clicking the last 14%	A		X	A	A	X	X						
	W.H.M.I.S. (Canada)	X	X	X	X	X	X	X						X
June	GHS Hazard Communication (US)	X	X	X	X	X	X	X		X			X	
	DST: Tailgating - Following Too Close	A		X	A	A	X	X		X			X	
July	Heat Stress	X	X	X	X	X	X	X	X	X		X	X	
	Workshop Safety	X	X	X	X	X	X	X	X	X		X	X	
August	DST: Driver Safety training	A		X	A	A	X	X		X			X	
	Spontaneous Combustion	X	X	X	X	X	X	X		X			X	
September	Lockout / Tagout - Making it safe	X	X	X	X	X	X	X		X			X	
	DST: Driver Safety training	A		X	A	A	X	X		X			X	
October	Workplace Environmental Awareness	X	X	X	X	X	X	X	X	X		X	X	X
	Repatatory Protection	X							X					
November	DST: Driver Safety training	A			A	A	X	X		X			X	
	Blood Borne Pathogens	X	X	X	X	X	X	X		X			X	
December	Confined Spaces Training	X	X	X	X	X	X	X	X	X		X	X	X
	DST: Driver Safety training	A		X	A	A	X	X		X			X	

		Resource Safety Solutions					Resource Safety Solutions							
X = Required; A = As Appropriate		Engineering	Production Apparel Centers	Customer Operations	Office Branch	Office Corp./CSO Acc. Rec.	Sales	Service Centers	Talk Zone	Power Point	Video	Talk Zone	Power Point	Video
September	Overhead Hazards	X	X						X			X		
	Substance Abuse (in the workplace)	X	X	X	X	X	X	X	X			X		
	DST: Driver Safety training	A		X	A	A	X	X		X			X	
October	Emergency Eyewash	X	X					X	X			X		
	Slip / Trip and Falls	X	X	X	X	X	X	X	X			X		15 mts
	DST: Driver Safety training	A		X	A	A	X	X		X			X	
November	Warehouse Manual Handling	X	X					X	X			X		23 mts
	Winter Weather Safety	X	X	X	X	X	X	X	X			X		
	DST: Driver Safety training	A		X	A	A	X	X		X			X	
December	Pinch Points	X	X	X	X	X	X	X	X			X		
	Flammable and Combustible Liquids	X							X			X		
	DST: Driver Safety training	A		X	A	A	X	X		X			X	

Please note monthly training topic are subject to change due to the available of additional resources. Updates will appear in the Safety Solutions Training calendar as they are developed.