HYDRODEC NORTH AMERICA, LLC

PCB STORAGE PERMIT APPLICATION

May 20, 2010

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PCB STORAGE FOR TREATMENT BY NON-THERMAL ALTERNATIVE METHODS
Hydrodec North America LLC
2021 Steinway Boulevard
Canton, Ohio 44707

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APPENDICES

SECTION 1 – SUMMARY

Hydrodec North America, LLC has designed a process that effectively treats transformer oils contaminated with polychlorinated biphenyls (PCBs). Hydrodec uses a hydrogenation process that chemically removes the chlorines from the PCB's rendering them harmless. The system is automated and consists of bulk shipment unloading, PCB storage tanks, a feedstock tank, heaters, reactors, heat exchangers, oil water and gas separation, and a recycle gas recovery system. Hydrodec currently operates a similar facility in Young, Australia. Both the Young and Canton facilities have demonstrated the process effectively destroys PCB's without hazardous emissions or bi-products.

Hydrodec intends to use their technology at their facility located in Canton, Ohio as well as any future sites in the United States. This storage permit application would apply to all future United States sites as well.

Hydrodec North America, LLC is applying for a permit to receive PCB oils from transformers and treat the oil such that it no longer contains PCBs at the Canton, Ohio facility and all future facilities in the United States. This application describes:

- The qualifications of the owner, operator, and key employees to engage in the commercial storage of PCB wastes in a manner protective to human health and the environment.
- All relevant information bearing on the operation and design qualifications of the facility, as well as the results of a demonstration that the facility has the capacity to handle the quantities of PCB wastes that the owner or operator estimates will be the maximum quantities of PCB waste handled at any one time.
- A closure plan describing the procedures to be used to achieve clean closure of the Hydrodec facility including; a description of the design and operation of the facility, the disposal of PCB waste inventory, the sampling, decontamination, and compliance with the Spill Cleanup Policy, the closure plan schedule and checklist.
- A closure cost estimate based on the activities described in the closure plan to be updated annually for inflation or whenever a modification to the closure plan would increase the costs of closure.
- The mechanism that is to be used to meet the financial responsibility requirement based on the closure plan.

SECTION 2 – OWNER, OPERATOR, AND KEY EMPLOYEE QUALIFICATIONS

2.1 Organization and Qualifications

Hydrodec operations personnel will conduct all process related activities. The following provides a list of key personnel and Figure 2-1 details the Hydrodec North America organization.

RESPONSIBILITY	NAME
Chief Executive Officer	Mark McNamara
Chief Operating Officer	Stephen Harker
Group Executive - Operations	Brian Davies
General Manager	Brian Klink
Process Engineer	Scott Armstrong
Operations Coordinator	Christopher Alberts
Maintenance Coordinator	John Merrin
EHS & Q Coordinator	Joe Devirgilio
Operations & Laboratory Personnel	Hydrodec

A brief description of the qualifications of the identified key personnel:

Mark McNamara – Mr. McNamara is an Industrial Chemist with 20 years of experience in the management and execution of environmental and hazardous waste projects.

Stephen Harker – Mr. Harker has over 30 years experience in the oil and gas industry with BP, Shell, and Caltex delivering profit improvement in mature and emerging markets.

Brian Davies – Mr. Davies has 30 years operations experience with ICI plc, ICI Australia, Western Mining and Newcrest with a substantial period of this time spent operating and maintaining complex petrochemical operations similar to the Hydrodec process.

Brian Klink: Mr. Klink has a degree in Environmental Resource Management and has been working in the environmental and safety field for over 20 years.

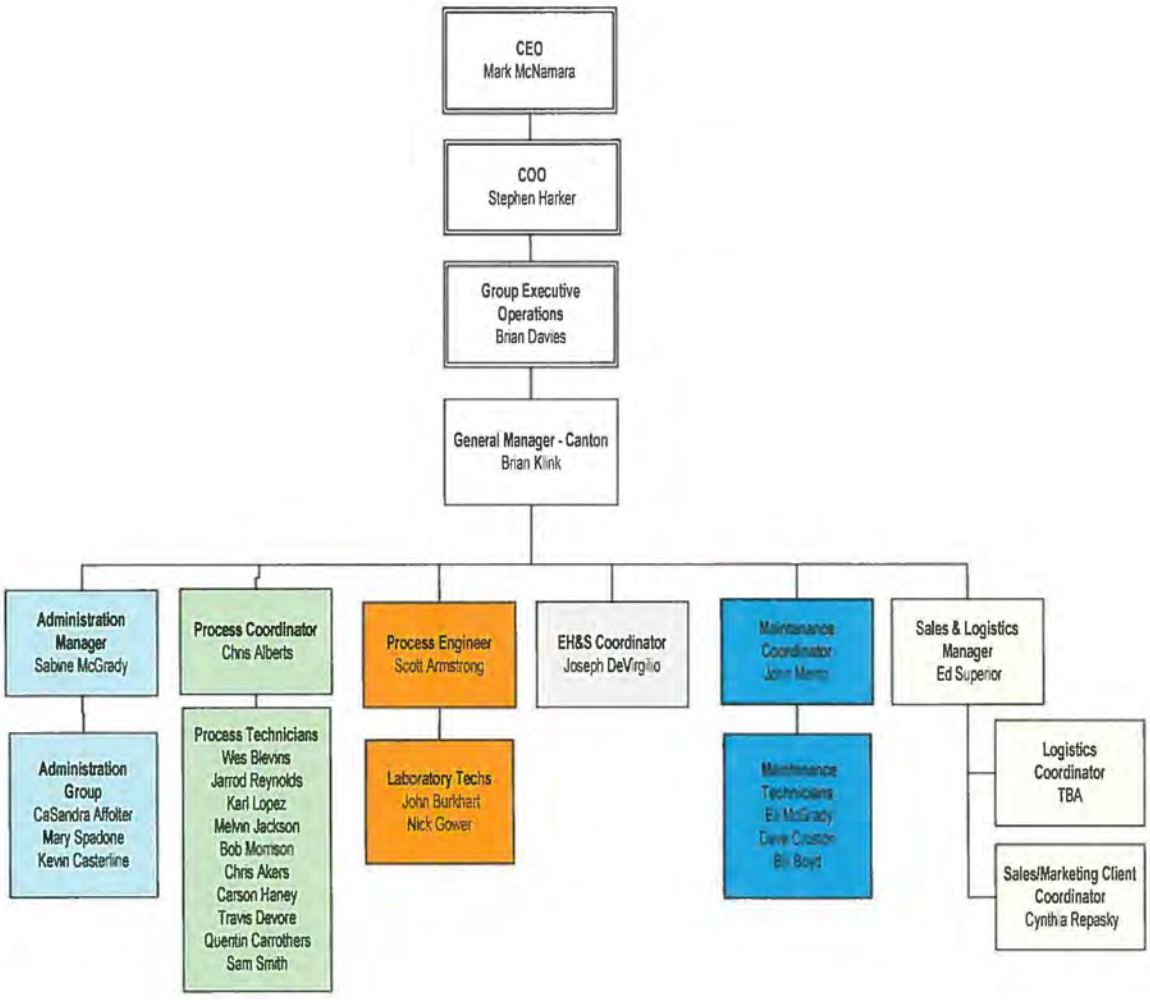
Scott Armstrong - Mr. Armstrong has a degree in Chemical Engineering and has worked at various levels in the chemical processing industry for over 15 years.

Christopher Alberts - Mr. Alberts has been involved in chemical processing for over eight (8) years. He has worked as a chemical plant operator as well as a supervisor.

John Merrin: Mr. Merrin has been involved in water and wastewater treatment for 18 years. His focus has been in mechanical and maintenance activitiesdsuring this period.

Joseph Devirgilio: Mr. Devirgilio has a degree in safety sciences and has been working in the safety related field for over five years.

Figure 2-1
Hydrodec North America Organization Chart



SECTION 3 – FACILTY DESIGN AND OPERATION

3.1 General Description

The Hydrodec technology was developed specifically for the purpose of refining used oils and organic chemicals. It is as near to a closed loop near zero emission process for the complete treatment of PCBs as is available in the world at this point in time. The Canton facility consists of four identical reactor trains. The following provides a description of the Hydrodec process as it flows through one of these trains. Figure 3-1 provides a Process Flow diagram while Figure 3-2 provides a detail of equipment.

3.2 Hydrogenation

The PCB contaminated transformer oil requiring destruction is collected in feedstock tanks which feed an oil surge tank. From the feed oil surge tank it is introduced to the process at a defined pressure. The oil is pre-heated by passing it counter-current to a hot hydrogenation reactor effluent stream and through a heat exchanger. Fresh and recycled hydrogen, together with the scavenger, are then introduced.

The combined flow is heated to reaction temperature in a continuous direct contact finned electrical heater then enters the hydrogenation reactor at defined temperature and pressure. The reactor comprises a single packed bed of a conventional hydro-treating catalyst.

During reaction, nitrogen or sulfur, also present as heteroatoms in the mineral oil, are largely converted to ammonia and hydrogen sulfide. Aged oil oxidation products present in the feed oil are also hydrogenated with the oxygen being removed as water.

In addition to extraction of heteroatoms and hydrodechlorination of PCB compounds, and depending on the carrier oil composition, a small quantity of hydrogen can be consumed in hydrogenating, to a small degree, the oil itself. This results in the possible generation of some saturated light hydrocarbon vapors and liquids in the boiling range below that of the parent oil that are subsequently separated out within the hydrotreating system.

3.3 Reactor Effluent

Product oil leaving the Reactor (reactor bottoms) passes first to a Heat Exchanger where it is cooled against incoming feed oil.

Product oil leaving the Heat Exchanger passes to a let-down valve where the pressure is reduced ahead of a Low Pressure Separator. Overhead vapors from this separator contain dissolved non-condensable hydrocarbons along with trace H_2S. The vapors pass to a Low Pressure Caustic Scrubber for trace residual hydrocarbon condensation and H_2S removal prior to venting to a catalytic oxidizer.

Once the oil exits the Low Pressure Separator, sufficient de-mineralized wash water is introduced to ensure that a liquid phase is present to dissolve and wash out the Scavenger Salt system while minimizing the quantity of aqueous effluent to be discharged from the plant. The washed oil product is then passed to a phase separator

after which the final oil product is recovered. The aqueous phase containing the Scavenger Salt system is passed to a Waste Water surge tank prior to off-site shipment.

3.4 Reactor Gases

Reactor gases contain primarily excess hydrogen and are recycled back to the reactor feed. As they exit the reactor, gases are water quenched and passed to a High Pressure Separator. Vapor from the High Pressure Separator passes to a High Pressure Vent Condenser where it is cooled. Condensate, which is mainly water and small quantities of condensable hydrocarbons, is combined with the reactor bottoms before final wash water injection and product oil recovery.

Non-condensable gases from the High Pressure Separator comprise mainly hydrogen, but also contain light hydrocarbons and some H_2S. These are passed to a High Pressure Caustic Scrubber where H_2S is removed and collected into the caustic solution. Scrubbed gases are then chilled in a vertically mounted chiller, partially re-heated, passed through a sub-micron coalescer then recompressed for recirculation.

Build up of non-condensable hydrocarbon gases (methane, ethane) carried in the recycle gases are removed from the system through a slow bleed of purge gas flow from the gas recycle line prior to the compressor, then topping off the recycle line with fresh hydrogen. Purge gases are passed to the Catalytic Oxidation Unit for oxidation after which the product gases are released to the atmosphere.

Figure 3-1
Process Flow Diagram

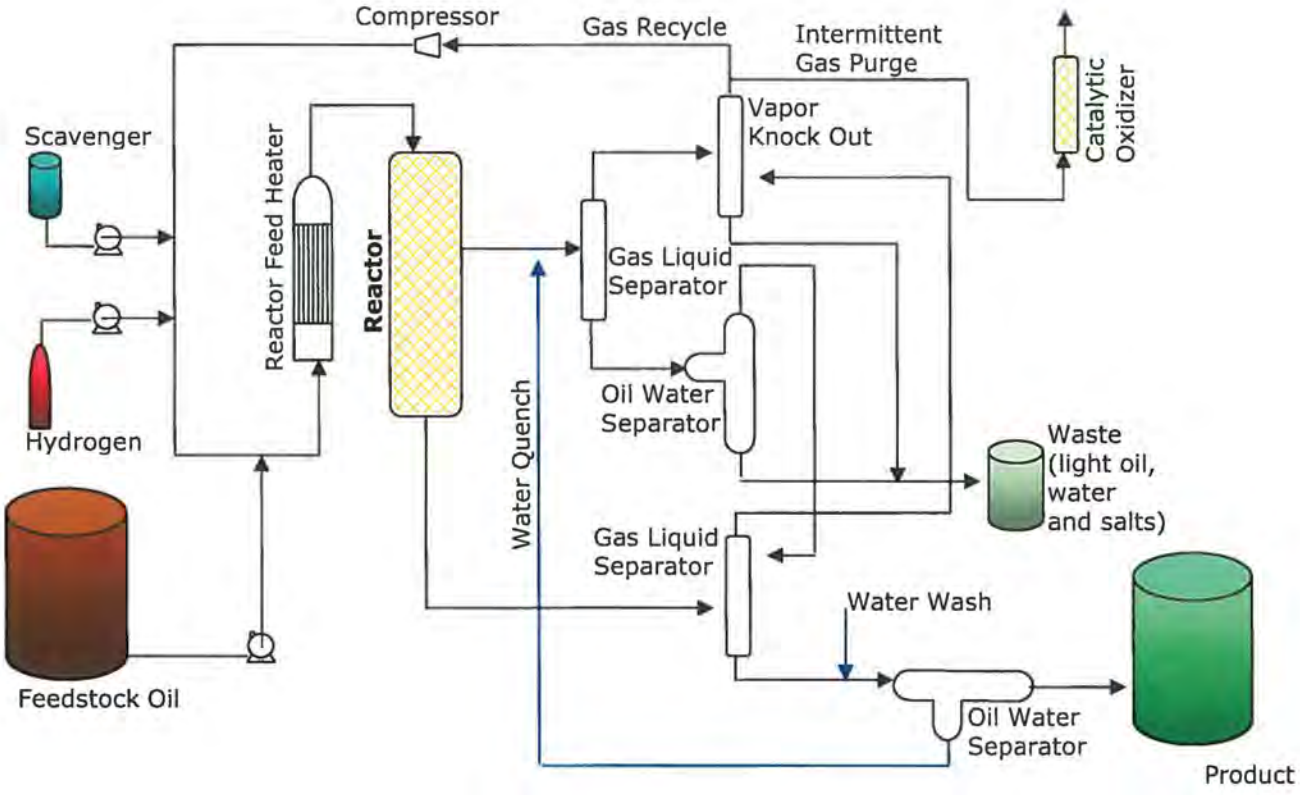


Figure 3-2
Equipment Specifications

Classification	Part Name	Form - Construction	Material	Note
Tanks	PCB Tank P-001	Capacity 8,200 gallons Nominal Diameter – 10' Nominal Height – 14'	Shell 1 – ¼ A-36 Shell 2 – ¼ A-36	Specific Gravity – 1
	PCB Tank P-002	Capacity 8,200 gallons Nominal Diameter – 10' Nominal Height – 14'	Shell 1 – ¼ A-36 Shell 2 – ¼ A-36	Specific Gravity – 1
	Feed Tank FE-005	Capacity 8,200 gallons Nominal Diameter – 10' Nominal Height – 14'	Shell 1 – $^{3}/_{16}$ A-36 Shell 2 – $^{3}/_{16}$ A-36	Specific Gravity – 1
Reactor Feed Heater	HT-001	37"x37"OD x 184"L Capacity – 78 gallons	SA-106B	Internal 653 PSIG @ 662°F
Reactor	RA-001-A	37"x37"OD x 176" L Capacity – 223 gallons	SA-335P11	Internal 653 PSIG @ 662°F
Gas/Liquid Separator	VE-002	23"x25"OD x 95"L Capacity – 36 gallons	SA-106B	Internal 624 PSIG @ 392°F
Vapor Knockout	VE-004	20"x20"OD x 65"L Capacity – 10 gallons	SA-106B	Internal 653 PSIG @ 212°F
Catalytic Oxidizer	RA-003-A	26"x26"OD x 125"L Capacity – 79 gallons	Shell 1&2 – SA-240-30815	Internal 3 PSIG @ 1472°F
Oil/Water Separator	VE-003	33"OD x 85"Hx125"L Capacity – 185 gallons	Shell 1&2 – SA-106B	Internal 100 PSIG @ 212°F
Waste	VE-006	52"OD x 54"Hx75"L Capacity – 401 gallons	SA-240-316L	Internal ATM @ 158°F
Gas/Liquid Separator	VE-005	62"x62"OD x 161"L Capacity – 924 gallons	SA-516-70	Internal 80 PSIG @ 302°F
Oil/Water Separator	SE-001	114" DIA x 45"H Capacity – 1767 gallons	SA-240-304L	Internal ATM PSIG @ 122°F
Product	VE-010	52"OD x 54"Hx70"L Capacity – 401 gallons	SA-240-316L	Internal ATM PSIG @ 122°F

3.5 Process Performance

The process described above is currently being run at the Hydrodec facility located in Young, Australia. The Young facility reactor is identical in size and flow through as each reactor currently being operated in the Canton facility. PCB's have been processed at the Young facility for a period of just under 5-years. The Young facility is licensed/approved to process PCB contaminated transformer oil at levels up to 5,000 ppm.

Re-refining PCB contaminated transformer oil on a continuous process basis has yielded complete removal of PCB within the limits of detection using NATA certified laboratory analysis and with >99% recovery of the oil as re-refined transformer oils within the limits of accuracy of normal process mass balance measures. Results of the typical refining process relative to ASTM Standard D 3487 for transformer oils are as follows.

Property	Units	Hydrodec Product Oil	ASTM D 3487
Corrosive Sulfur		non-corrosive	non corrosive
Specific gravity @ 15C	kg/l	0.8802	
Density @ 15C	kg/l	0.87	≤ 0.91
Viscosity @ 40C	centistokes	9.5-12	≤12
Viscosity @ 100C	centistokes	2.754	≤3
Flash Point	deg C	145.5	≥ 145
Breakdown voltage	kV	85.9	≥30
Dielectric Dissipation Factor (DDF) @ 90C	%	0.121	≤ 0.5
Resistivity	Gohm.m	222.6	
Moisture content	mg/kg	12	<35
Appearance		Clear & bright	Clear & bright
Color		L0.5	0.5
Acidity	mgKOH/g	<0.03	
Interfacial tension (IFT)	mN/m	51.8	>40
Oxidation stability		Pass	195
Aniline point	deg C	81	63-84
PCB	mg/kg	Non-detectable	Non-detectable

3.6 Emissions and By-Products

There are three exit points for materials from the process. These are the product oil, the wastewater and the oxidizer emission.

The product oil has been shown non-detectable for all organochlorine chemicals.

3.6.1 Waste Water

Waste water is derived from the final oil wash and the water quench of the recycle gas. It has been shown free of chlorinated organic chemical but contains the scavenger salt system and trace product oil.

3.6.2 Oxidizer Emission

The oxidizer emission is more difficult to chemically characterize due to its very low mass and volume flow; the sensitivity of analysis required; and potential for background interference.

To understand the oxidizer emission it is quite important to understand its origin within the process. Hydrodec believes overall the process is as close as possible to a closed loop continuous reaction system as is currently available in the world.

The continuous reaction system is based on excess Hydrogen recycled through the plant. The raw feed is introduced to the recycling Hydrogen stream. After passing across the catalyst excess Hydrogen is separated from the product oil within the reactor. It is removed from the reactor then water quenched to capture salts and light hydrocarbons. After water quench it is passed through an ambient temperature caustic scrubber to remove hydrogen sulfide then chilled to drop out water vapor and hydrocarbon mists, passed through a sub micron coalescer, then recompressed for feed back to the reactor.

In the reactor, small amounts of light alkanes can form through hydrogenation of the oil. This appears as methane, ethane and possibly some heavier alkanes in decreasing concentration with increasing molecular weight. Heavier hydrocarbon fractions are captured in the product oil. The buildup of these compounds in the recycle hydrogen needs to be controlled to maintain the partial pressures required for proper performance of the process. Control is achieved by purging a portion of the Hydrogen recycle gas after the sub micron coalescer. The purge is made up primarily of Hydrogen and is passed to a catalytic oxidizer, primarily to convert Hydrogen to water prior to air emission.

There are several critical features of the oxidizer emission. These include:

a. The feed to the scrubber is intermittent only and represents only some 0.4% of the process mass flow, that is, 99.6% of the process mass flow occurs in a closed to atmosphere loop.

b. The feed to the catalyst consists of greater than 90% by volume (80% by mass) Hydrogen. The process is to all intents and purposes closed loop with respect to the chemical or oil feed.

c. The oxidizer is based on a platinum catalyst designed for low temperature oxidation of Hydrogen and light alkanes in air; there are no combustion reactions involved.

d. The feed to the oxidizer is water quenched then caustic scrubbed then chilled and then filtered before it reaches the catalyst meaning slippage to the oxidizer of any chlorine, substituted hydrocarbons and any C6 or heavier hydrocarbons essentially cannot occur.

The air emissions have been tested both at Pilot scale by CSIRO and at a commercial scale by Hydrodec. The CSIRO testing showed emissions within the requirement of New South Wales (NSW) emission standards. Hydrodec independent testing, performed while processing non-scheduled PCB contaminated oil (approximately 40 ppm PCB) showed results in compliance with emission standards. The more comprehensive tests were those carried out by Hydrodec. Results reported were at the limit of detection for the methods specified and were within the error bounds of a zero result. A result is reported in accordance with WHO and NATO analytical reporting guidelines that require reporting at the detection limits where a non-detect result is achieved. The analytical results combined with the extremely low mass flow rates for the emission combine to demonstrate, to all practical intents and purposes, a zero emission from the process. Additionally, a trial was recently conducted at the Young facility on 100 ppm PCB feedstock oil. Again, all emission results were within expected ranges and reported at the limit of detection for the method.

SECTION 4 – FACILTY DESIGN

4.1 Facility Layout

The facility consists of a loading/unloading shelter for trucks, a rail spur, piping and tanks for storage of the oil, process and treatment buildings, office building, control room, and a laboratory, as shown on the facility Site Plan in Figure 2 in Appendix A.

The PCB-contaminated (feed) oil will be unloaded from trucks at Building A (loading/unloading building), piped to tanks in Dike C then to the feed tank and reactor in Building F and Building D for processing. The refined transformer oil (SuperFine™ transformer oil) will be placed in storage tanks in Dike B until transferred to Building A to be taken off site for commercial use. There are no hazardous wastes produced in the Hydrodec refining process, even when treating PCB-contaminated oils. The recovery rate of the feedstock oil is 99%. When refined, the materials found in the used oil from oxidation are selectively and quantitatively removed as a benign salt-water solution (acid groups (-O2H) in oxidized oil form water, nitrate groups (-NO3) form salts, and chloride groups from PCB (-Cl) form chloride salts and these salts are carried out of the process in the wash water). This is the only waste from refining.

The Hydrodec facility has been designed to operate in a manner that should prevent the contamination of soils beneath the facility. All PCB oils will be stored and managed within tanks or enclosed structures, and the floors of these structures are maintained to preclude releases to the environment in the event of a spill. Any spills will be addressed immediately to further reduce the potential for a release to the environment.

4.1.1 Tanks

The tanks for storing feedstock and the re-refined SUPERfine® oil at the site are listed in Figure 4-1 below:

Figure 4-1
Oil Storage Tanks

Location	Oil Stored	Number and size(s) of tanks
Dike A	Transformer Oil Feedstock (non-PCB)	Four 100,000-gallon tanks Eight 8,200-gallon tanks
Dike B	SUPERfine® Transformer Oil (non-PCB re-refined oil)	Five 100,000-gallon tanks Two 13,250-gallon tanks
Dike C	PCB oil feedstock (PCB)	Two 8,200-gallon tanks
Building F	SUPERfine® Transformer Oil (non-PCB re-refined oil) Feedstock Oil (PCB or non-PCB)	Two 8,200-gallon tanks (one for treated oil and one for feedstock)

Concrete secondary containment systems for the outdoor oil storage tanks have been constructed with capacity sufficient for the entire contents of the largest single tank in addition to sufficient freeboard for a 25-year storm event (4 inches for this area). The tanks are equipped with a liquid-level sensor and alarm. Building F is equipped with a 9,800-gallon trench sump and Building A is equipped with a 9,400-gallon sump. Building D is equipped with a 200-gallon building sump.

4.1.2 Piping

PCB oil will be unloaded from trucks at Building A and transferred to the tanks in Dike C in aboveground single-walled piping. The oil will then be transferred via single-walled piping to Building F and Building D for processing, then to Dike B tanks, and then to Building A for truck loading. All piping is constructed of welded fittings and is located over the paved surfaces at the site. See Figure 4 in Appendix A.

4.1.3 Loading/Unloading

Tank trucks are loaded and unloaded at a loading rack inside Building A that is situated along the eastern side of the property. Building A is equipped with a floor sump that has a capacity of over 9,000 gallons (the largest truck to be unloaded has a capacity of 6,500 gallons). PCB oil handling will continue to use this unloading/loading process.

4.1.4 Secondary Containment

The secondary containment area for the PCB tanks (Dike C) meets all requirements of 40 CFR 761.65. It is constructed of concrete and is equipped with a vapor barrier between the walls for Dikes A and C as well as under the containment area for Dike C. The vapor barrier is lined on either side with sand and has frost walls located on three sides of the containment area. The total volume of this containment area is 20,736 gallons, or 2.5 times the volume of one of the storage tanks. There are no seams, expansion joints, drain valves, or sewer lines in this containment area. See Figure 5 in Appendix A.

4.2 Facility Location

The Hydrodec site is approximately 8.4 acres in size and is located along the north side of Steinway Boulevard in the Stein Industrial Park in central Stark County, Canton, Ohio. Figure 1 in Appendix A shows the Facility Location on the U.S. Geological Survey (USGS) topographic map.

Elevations at the site are in the range of 1,050 feet to 1,090 feet above mean sea level (amsl). The site lies north of Sherrick Run, which drains north/northwest into Nimishillen Creek, which is within the Tuscarawas River watershed. The northern property boundary is adjacent to Mill Creek and an active rail line.

4.3 Estimate and Management of PCB Inventory

PCB oil storage maximums are limited by the tank capacities. Figure 4-2 shows the maximum potential PCB oil inventory for the site:

Figure 4-2
PCB Oil Storage

Location	Oil Stored	Number and size(s) of tanks
Dike C	PCB oil feedstock	Two 8,200-gallon tanks
Building F	Feedstock Oil (non-PCB or PCB)	8,200-gallon tank
TOTAL CAPACITY		**24,600 gallons**

Normal operation of the facility anticipates utilizing only the tanks in Dike C for PCB oil.

In the event of closure of the facility, it is anticipated that all of the PCB oil inventory would be re-refined on site to render the oil non-PCB oil. If re-refining on site is not possible, the PCB oil inventory would be loaded onto trucks and/or rail cars and transported to another PCB oil re-refiner or to a licensed disposal or treatment facility. The particular facility will be selected prior to commencing closure activities based on available, permitted facilities at the time. Currently, Environmental Protection Services, Inc. in Wheeling, West Virginia offers permitted dechlorination of PCB oil and may be used for treatment of PCB oil that remains at the site at closure.

Hydrodec does not anticipate that the maximum PCB oil inventory will increase. This Closure Plan will be updated if additional storage tanks are constructed at the facility. The amount of waste that could be generated during closure will depend upon the amount of contaminated materials that are found. Contamination will occur as a result of accidental spills, leaks, etc., at the facility and in the absence of these, significant contaminated media is not expected at this time.

4.4 Spill Prevention Control and Countermeasure (SPCC) Plan

Hydrodec maintains a Spill Prevention, Control, and Countermeasure (SPCC) Plan to describe measures implemented to prevent oil discharges from occurring, and to prepare the facility to respond in a safe, effective, and timely manner to mitigate the impacts of a discharge. This Plan has been prepared to meet the requirements of Title 40, *Code of Federal Regulations,* Part 112 (40 CFR part 112).

In addition to fulfilling requirements of 40 CFR part 112, this SPCC Plan is used as a reference for oil storage information and testing records, as a tool to communicate practices on preventing and responding to discharges with employees, as a guide to facility inspections, and as a resource during emergency response.

A copy of the Professional Engineer (PE) certified plan is available in Appendix B.

Prior to commencement of PCB storage at the site, the SPCC Plan will be amended to reflect the change in facility's design, construction, operation, and maintenance that materially affects the facility's spill potential. The revised Plan will be recertified by a PE.

4.5 Certification of Compliance

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

General Manager — 5-20-10

Name & Title — Date

SECTION 5 – DEMONSTRATION TEST AND RESULTS

5.1 Demonstration Test Summary

A demonstration test was conducted by Hydrodec at the Canton, Ohio facility from October 19 through October 23, 2009 with overview from the USEPA. Winston Lue, Chemical Engineer, and Molly Finn, Environmental Engineer, both with the USEPA, were onsite for the entirety of the demonstration.

Hydrodec originally proposed three 8-hour test runs, but upon further discussion it was determined that Hydrodec would conduct four 6-hour tests. Sampling was then limited to those times when PCB oil was actually being processed and for a duration of 1 hour after completion to make sure all PCB contaminated oil was successfully ran through the reactor.

The goal of successfully treating PCB contaminated transformer oil was met and the process performed to Hydrodec's expectations. Figure 5-1 provides a summary of the demonstration test results and operational data.

Figure 5-1 Summary of Test Results and Operational Data

	Test 1	Test 2	Test 3	Test 4
Date	10-20-2009	10-21-2009	10-22-2009	10-23-2009
Time Test Began	08:50	08:40	08:40	09:05
Time Test Ended	14:30	11:32	14:40	14:30
Operating Parameters:				
Feed Rate (kg/h)	650	651	650	651
Batch Volumes Waste Feed (kg)	3,900	1,953	3,900	3,906
Batch Volumes Waste Feed (gal)	1,170	588	1,170	1,176
Batch Volumes Waste Feed (lbs)	8,588	4,316	8,588	8,632
PCB Concentration in Feed (g/kg)	1,892	1,921	2,074	1,952
Reaction Start Time (24 – clock)	08:50	08:40	08:40	09:05
Reaction End Time (24 – clock)	14:30	11:32	14:40	14:30
Final Batch Size (kg)	4,550	2,604	4,550	4,557
Final Batch Size (gal)	1,365	784	1,365	1,371
Average Reactor Temperature (°C)	305	305	305	305
Average Reactor Temperature (°F)	581	581	581	581
Average Reactor Pressure (kPa)	3,546	3,512	3,524	3,512
Average Reactor Pressure (PSI)	514	509	511	509
Sampling Analysis Results:				
Final PCB Concentration of Feedstock (ug/g/peak)	<1	<1	<1	<1
PCB Concentration of Wastewater (mg/L/peak)	None Generated	None Generated	None Generated	None Generated
Dioxin/Furan Analysis Results:				
Initial Dioxin/Furan (ng/g)	ND	ND	ND	ND
Final Dioxin/Furan (ng/g)	ND	ND	ND	ND

5.2 Operation During Demonstration Test

Hydrodec proposed, and the EPA agreed, that the use one of four identical reactor trains for the demonstration would be sufficient.

- PCB contaminated oil averaging 1,960 ppm was used for the test and fed to the reactor at a rate of 650 kg/h.
- The reactor was maintained at an average temperature of 581°F and an average pressure of 511 PSI throughout the demonstration.
- There were approximately 4,104 gallons of feed used for the demonstration and at the completion of each day, non-PCB contaminated oil was ran through the reactor for an additional hour resulting in approximately 4,885 gallons total.
- At the end of each demonstration the product was tested in-house to determine that PCBs were not detectable prior to transferring the clean oil back to Hydrodec's feed oil tanks.

5.3 Deviations from Demonstration Test Plan

Prior to and during the Hydrodec demonstration test there were a number of project modifications. These were agreed to by Winston Lue and Molly Finn as well as Hydrodec, see Appendix I. The modifications are described below:

1. Number of Runs/Samples - Hydrodec originally proposed three 8-hour test runs. Upon further discussion it was determined that Hydrodec would conduct four 6-hour tests. Sampling was then limited to those times when PCB oil was actually being processed.

2. Feedstock PCB Content – The PCB content of the feedstock being used for the test was anticipated to be <2,000 ppm. Preliminary results from samples taken during the demonstration indicate that some samples contained PCBs at levels exceeding 2,000 ppm.

3. Scavenger - Scavenger concentrations and feed rates were increased throughout the duration of the test.

4. Re-samples - Due to potential sample cross-contamination, composite samples for Runs 1 and 2 were re-composited.

5. Reactor Shut-down – On October 21, 2009 the reactor was shut-down due to an equipment failure and the reactor (train) was immediately shut down for repairs.

6. Stage 2 – Hydrodec originally proposed to run the oil through the reactor and into our second stage water wash. It was later determined that the oil would be directed into another tank for holding after it passed through the reactor for any additional testing that may be required.

SECTION 6 – CLOSURE PLAN

Hydrodec is applying for a permit to receive PCB oils from transformers and treat the oil such that it no longer contains PCBs. A Closure Plan describing the procedures for closure of the PCB oil storage and treatment facilities at the Hydrodec facility is attached in Appendix C.

This Closure Plan is required as part of the permit process and follows the requirements of the U.S. Environmental Protection Agency's (EPA) Toxic Substances Control Act (TSCA) regulations in 40 Code of Federal Regulations (CFR) 761.65.

This Closure Plan describes the procedures to be used to achieve clean closure of the Hydrodec facility. Clean closure will require the removal or decontamination of all PCB oils, wastes, waste residues, containers, construction materials, soils, or other materials containing or contaminated with PCBs to those levels specified in 40 CFR 761.61 and 761.79. Specifically, the closure will involve decontaminating or removing the PCB oil, tanks, piping, concrete, and steel structures, and if necessary, conducting sampling of soil beneath the PCB oil storage areas to verify no contamination has occurred.

SECTION 7 – CLOSURE COST ESTIMATE

Hydrodec is applying for a permit to receive PCB oils from transformers and treat the oil such that it no longer contains PCBs. A PCB Closure Cost Estimate estimates the cost of the procedures for closure of the PCB oil storage facilities at the Hydrodec facility, as outlined in the PCB Closure Plan for the facility dated March 2010. The Closure Cost Estimate is attached in Appendix D.

This Closure Cost Estimate is required as part of the permit process and follows the requirements of the U.S. Environmental Protection Agency's (EPA) Toxic Substances Control Act (TSCA) regulations in 40 Code of Federal Regulations (CFR) 761.65.

The PCB Closure Plan describes the procedures to be used to achieve clean closure of the Hydrodec facility. Clean closure will require the removal or decontamination of all PCB oils, wastes, waste residues, containers, construction materials, soils, or other materials containing or contaminated with PCBs to those levels specified in 40 CFR 761.61 and 761.79. Specifically, the closure will involve decontaminating or removing the PCB oil, tanks, piping, concrete, and steel structures, and if necessary, conducting sampling of soil beneath the PCB oil storage areas to verify no contamination has occurred.

SECTION 8 – FINANCIAL RESPONSIBILITY

Hydrodec will employ a Trust Fund as a mechanism to cover the costs associated with the closure of the facility as prescribed in the Closure Plan and Cost Estimate. The amount of financial assurance will be increased throughout the operating life of the facilities to account for annual adjustments in inflation and any changes to the closure plan which result in increases to the cost estimate. Decreases in the amount of financial assurance will only be allowed when cost estimates decrease and the remaining amount of assurance will still be adequate to cover all associated costs. In the event of a notice of cancellation, Hydrodec will ensure that alternate assurance is provided and that no lapse in coverage will result. Upon the completion of closure, Hydrodec will approve and request from the trustee, in writing, reimbursement of closure expenses only when itemized bills are submitted and the expenses are in accordance with the closure plan or otherwise justified. Hydrodec will be released from financial assurance requirements within 60 days after receiving certification from an independent registered professional engineer that final closure has been completed in accordance with the approved closure plans.

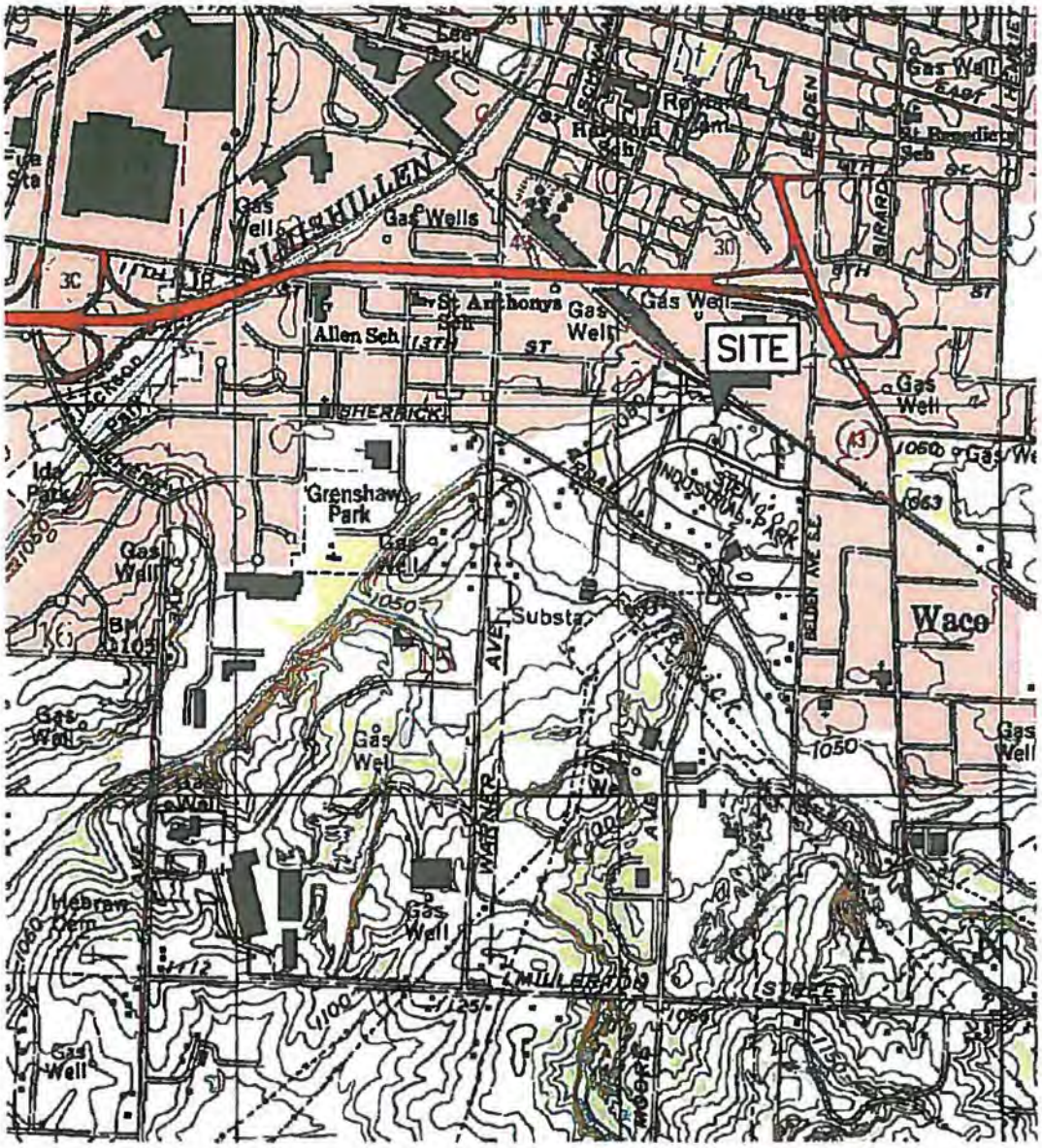
APPENDIX A

SITE LOCATION AND LAYOUT

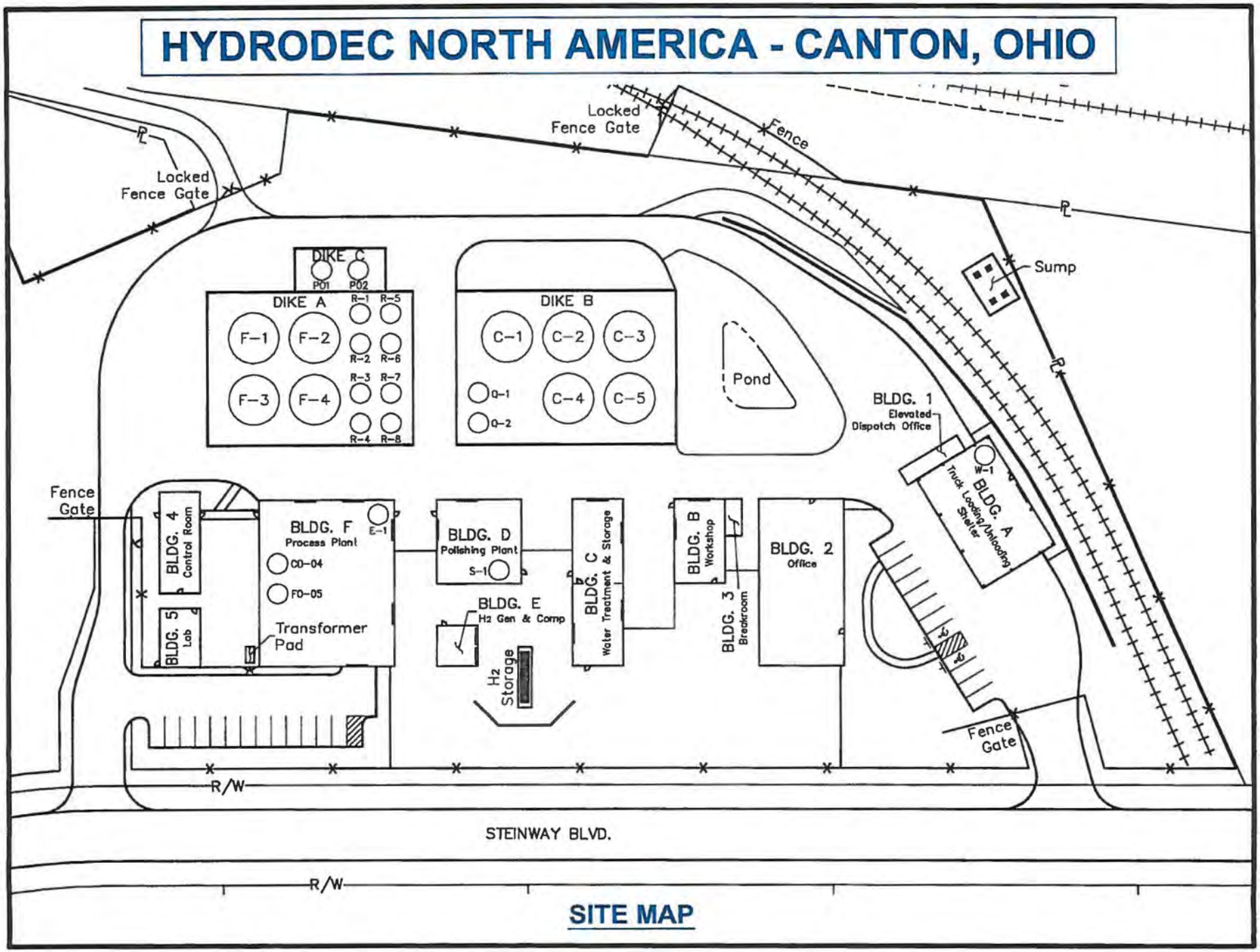
FIGURE 1
USGS Map
(Canton East Quadrangle)

Site: Hydrodec, 8.4 Acres
Canton, Ohio

Scale: None



HYDRODEC NORTH AMERICA - CANTON, OHIO



SITE MAP

FIGURE 3
Facility Drainage Diagram

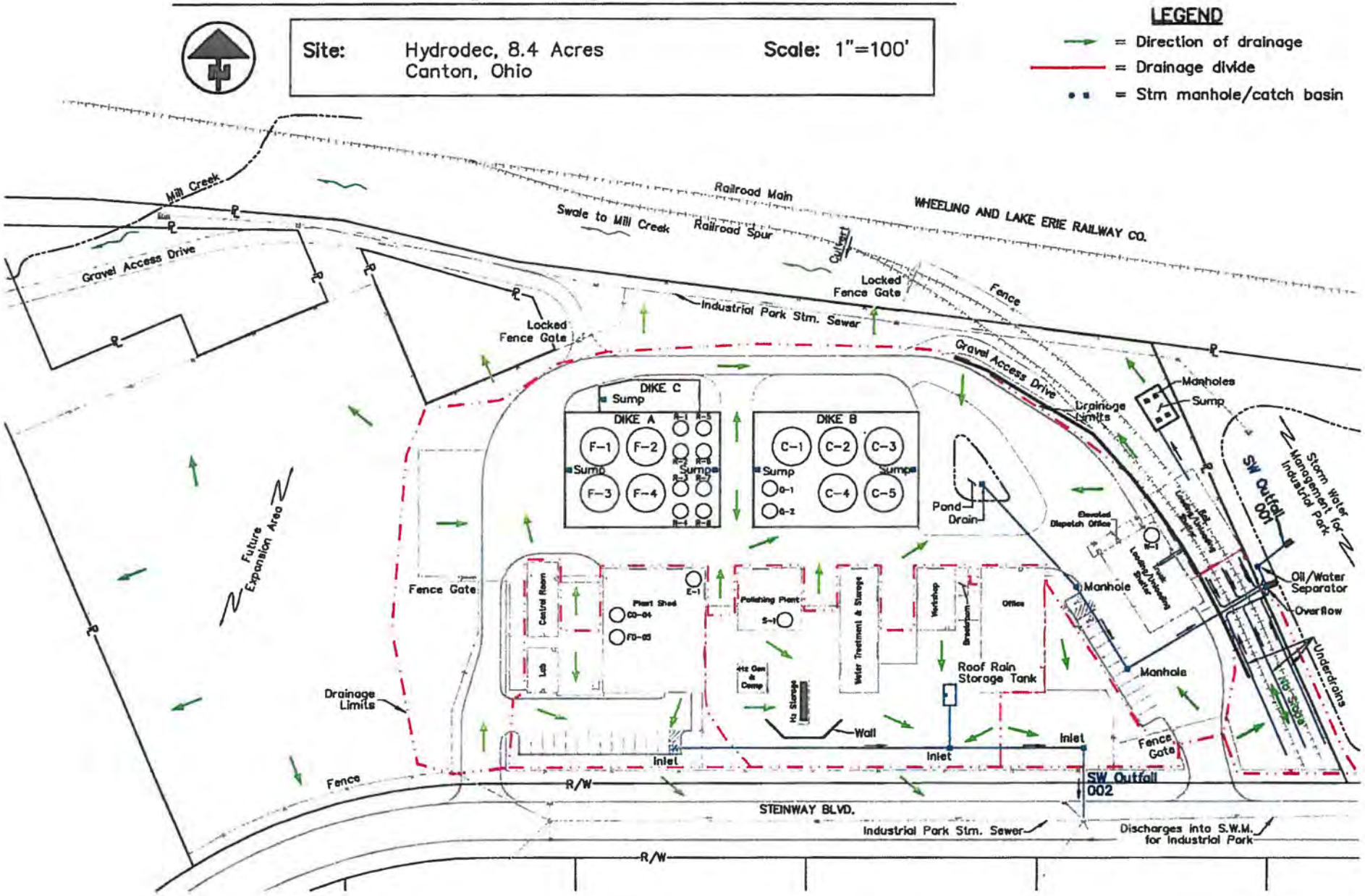
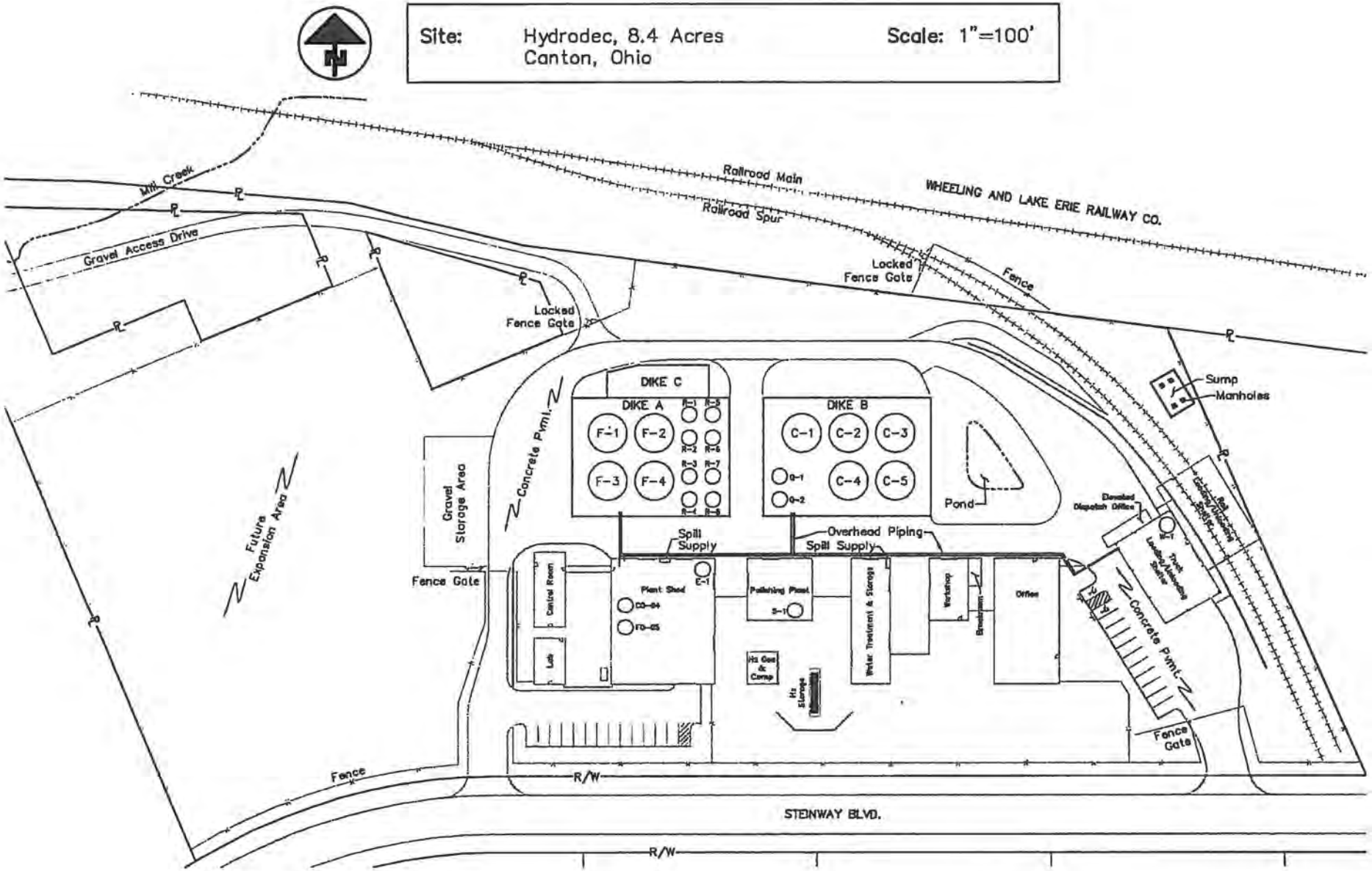
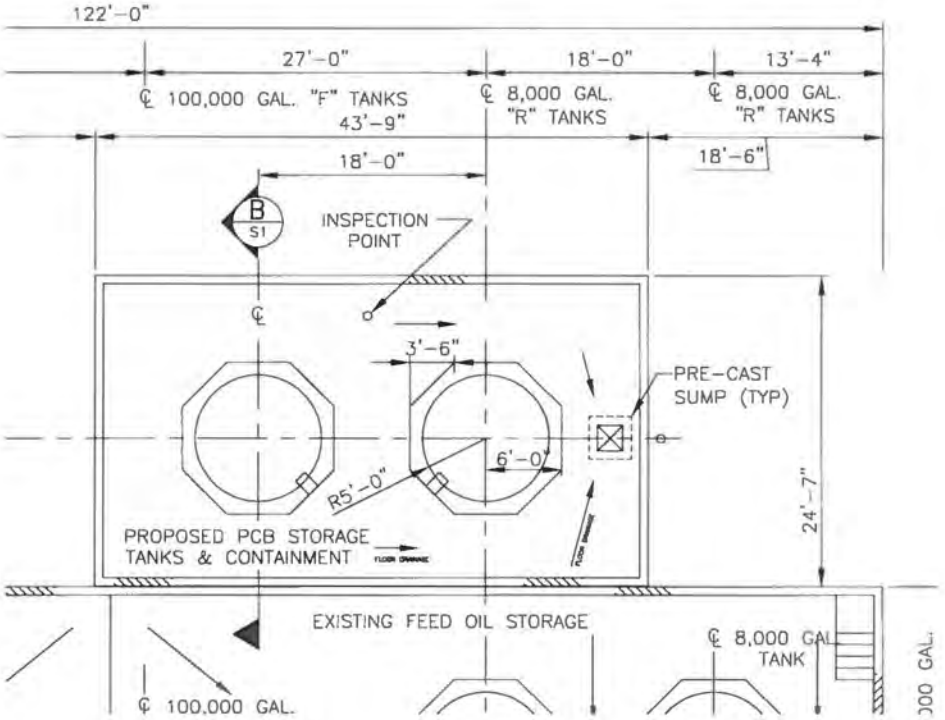


FIGURE 4
Facility Piping Diagram

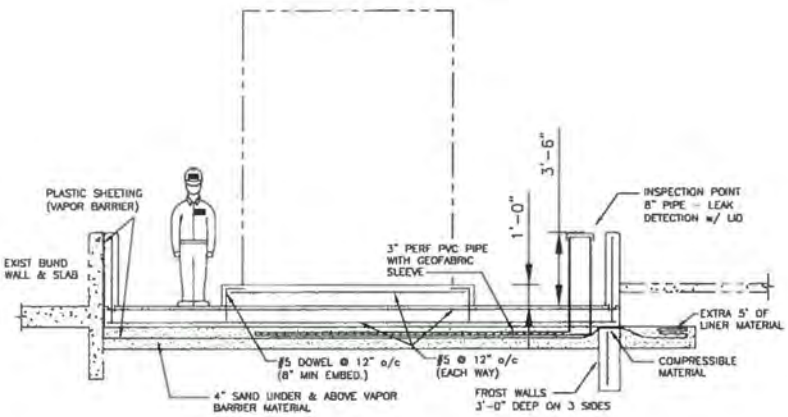




USED OIL – TANK FARM FOUNDATION PLAN

FOR COMPLETE TANK FARM FOUNDATION PLAN REFER TO DWG 40007-S1

Hydrodec - Ohio Storage Tanks	OIL STORAGE						CONCRETE			BUND COMPLIANCE At 100% of largest Tank At 25% of total Capacity		re-checked 11 March 2015 KKD 18,400 gallons 4,700 gallons Use this
Proposed	No	Dia	Height	sub ft	each Gal	Usable Capacity	Total	Length (internal)	Width (internal)	Height	sub ft each	sub ft	Gal
bund wall								42	22	3.6		Bund Capacity (in plan area)	2,772	20,730
Pilot mill	2	10	14	1,100	8,229	8,200	16,400				2 No. tanks	DDT for tanks	314	-2,347
											2 No. tanks	DDT for tank plinths	-628	-4,694
											2 No. tanks	add pilot pioneers	40	347
PCB Storage Tanks													2,219	16,586



SECTION B / S2

NOTES;

1. FOR GENERAL NOTES AND INDEX, SEE DWG. T1
2. SEE CIVIL/SITE PLAN FOR LOCATION AND GRADE ELEVATIONS.
3. SLOPE FOR BUND SLAB = ¼" PER FOOT.

NO	DATE	DESCRIPTION	BY
2	5/2/2016	PROPOSED PCB TANKS SHOWN IN GREATER DETAIL	KKD
1	3/11/10	pipes added & bldg removed	KKD
0	3/27/08	FOR CONSTRUCTION	ACS
0	06/08/07	FOR PERMIT	TBF

REVISIONS | REFERENCE DRAWINGS

REWARNER & ASSOCIATES
LA OFFICE PLAZA II SUITE 200
25777 DETROIT ROAD
WESTLAKE, OHIO 44145
TELEPHONE (440) 835-9400

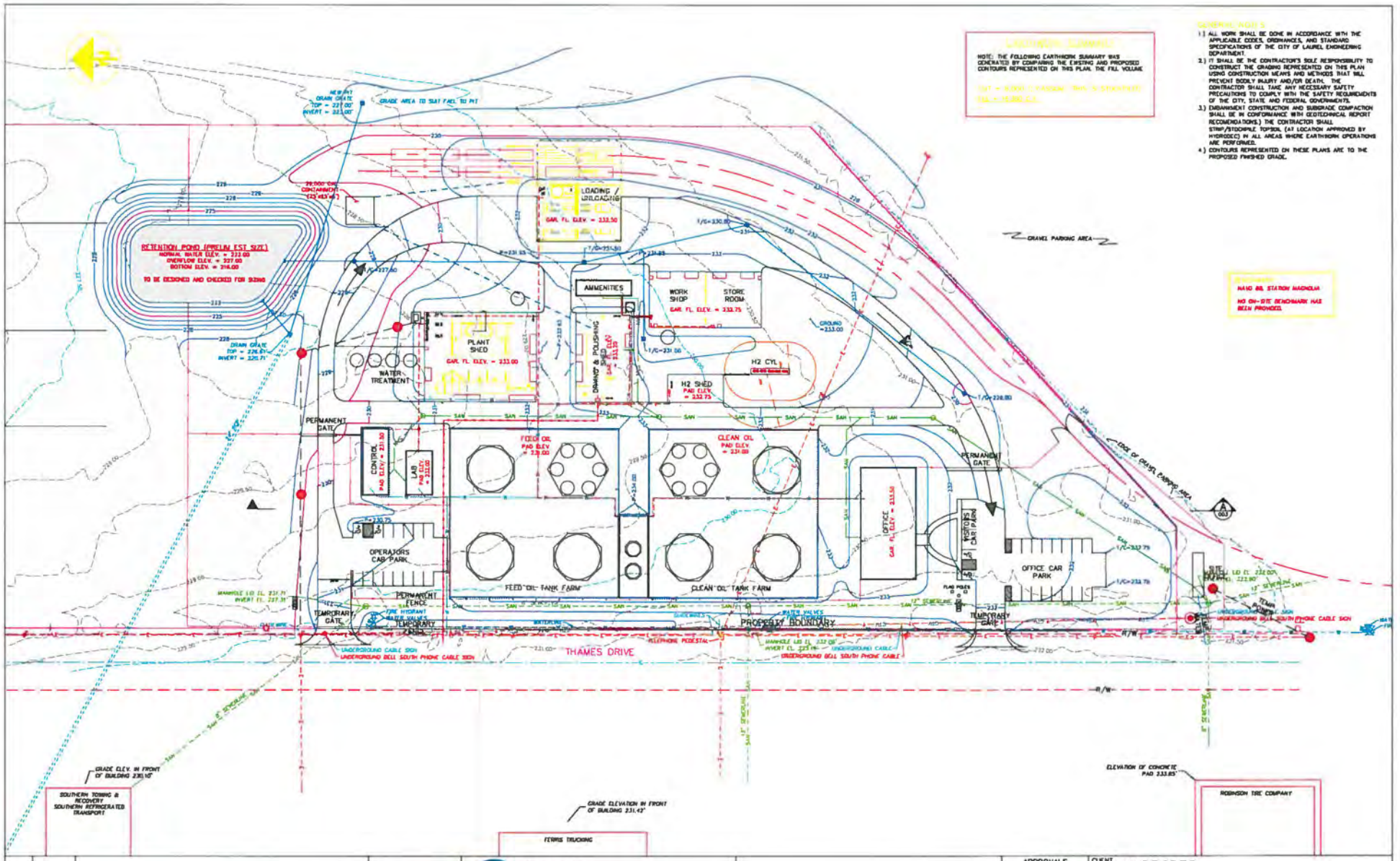
JOB NUMBER 40007

DSN BY TBF
DR BY TBF
CHK BY ACS
DATE 7/13/07
SCALE 1/8" = 1'-0"

HYDRODEC - USA
25,000 US GAL DAY PLANT
CANTON, OHIO

PCB OIL BUND PLAN

DRAWING NUMBER
40007-S1 (sht2)



REFERENCE DRAWING REVISIONS

No	TITLE	TITLE

Hydrodec
Tel: 206-779-2082 Fax: 206-374-8285
www.hydrodec.com
PHOTOH
Project Solutions Australasia Pty Limited
28 Gilligans Road Dubbo NSW 2830 Australia
Tel +61 2 6883 8438 Fax +61 2 6881 4262

APPROVALS	
Drawn	KK 09/29/08
Checked	
Designed	
Eng. Appr.	
Proj. Appr.	
Client Appr.	

CLIENT HYDRODEC

TITLE GRADING PLAN

HYDRODEC – USA
LAUREL, MISSISSIPPI

SCALE	CAD No.	JOB No.	DRAWING No.	REV.
1"=80'		103	103-ST-T-3-001	A

APPENDIX B

SPCC PLAN

SPILL PREVENTION CONTROL AND COUNTERMEASURES PLAN

August 10, 2009

HYDRODEC – CANTON
2021 Steinway Boulevard
Canton, OH 44707

TABLE OF CONTENTS

INTRODUCTION

Purpose

The purpose of this Spill Prevention, Control, and Countermeasure (SPCC) Plan is to describe measures implemented by Hydrodec to prevent oil discharges from occurring, and to prepare the Hydrodec North America, LLC – Canton, Ohio facility (Hydrodec) to respond in a safe, effective, and timely manner to mitigate the impacts of a discharge.

This Plan has been prepared to meet the requirements of Title 40, *Code of Federal Regulations,* Part 112 (40 CFR part 112). This is the initial SPCC plan developed for this facility.

In addition to fulfilling requirements of 40 CFR part 112, this SPCC Plan is used as a reference for oil storage information and testing records, as a tool to communicate practices on preventing and responding to discharges with employees, as a guide to facility inspections, and as a resource during emergency response.

Overview of SPCC Plan

Hydrodec has determined that this facility does not pose a risk of substantial harm under 40 CFR part 112, as recorded in the "Substantial Harm Determination" included in Appendix A of this Plan.

This Plan provides guidance on key actions that Hydrodec must perform to comply with the SPCC rule:

- Complete monthly and annual site inspections as outlined in the Inspection, Tests, and Records section of this Plan (Section 3.7) using the inspection checklists included in Appendix B.
- Perform preventive maintenance of equipment, secondary containment systems, and discharge prevention systems described in this Plan as needed to keep them in proper operating conditions.
- Conduct annual employee training as described in the Personnel, Training, and Spill Prevention Procedures section of this Plan (Section 3.8). An outline of the training is provided in Appendix C.
- If either of the following occurs, submit the SPCC Plan to the EPA Region 5 Regional Administrator (RA) and the Ohio EPA, along with other information as detailed in Section 5.4 of this Plan:
    - The facility discharges more than 1,000 gallons of oil into or upon the navigable waters of the U.S. or adjoining shorelines in a single spill event; or
    - The facility discharges oil in quantity greater than 42 gallons in each of two spill events within any 12-month period.

The Plan will be reviewed at least once every five (5) years and amended to include more effective prevention and control technology, if such technology will significantly

reduce the likelihood of a spill event and has been proven effective in the field at the time of the review. The next scheduled SPCC Plan review and certification is due by August 7, 2013. Plan amendments, other than administrative changes discussed above, must be recertified by a Professional Engineer on the certification page in Section 1.2 of this Plan. Additionally:

- The plan will be amended within six (6) months when there is a change in facility design, construction, operation, or maintenance that materially affects the facility's spill potential. The revised Plan will be recertified by a Professional Engineer (PE).

- The Plan will be reviewed on an annual basis and updated to reflect any "administrative changes" that are applicable, such as personnel changes or revisions to contact information, such as phone numbers. Administrative changes must be documented in the Plan review log of Section 1.4 of this Plan, but are not required to be certified by a PE.

Part 1: Plan Administration

1.1 Management Approval and Designated Person (40 CFR 112.7)

Hydrodec is committed to preventing discharges of oil to navigable waters and the environment, and to maintaining the highest standards for spill prevention control and countermeasures through the implementation and regular review and amendment to the Plan. This SPCC Plan has the full approval of Hydrodec management. Hydrodec has committed the necessary resources to implement the measures described in this Plan.

STATEMENT OF COMMITMENT

I hereby certify that, to the best of my knowledge and abilities, this SPCC plan will be implemented as herein described and that Hydrodec North America, LLC – Canton will commit all necessary manpower and resources to prevent substances addressed by this SPCC plan from polluting navigable waterways.

Brian Klink, Site Manager

Signature: _____ Title: Site Manager
Print Name: BRIAN D KLINK Date: 8-10-2009

The Environmental, Health, Safety and Quality (EHS&Q) Manager is the Designated Person Accountable for Oil Spill Prevention at the facility and has the authority to commit the necessary resources to implement this Plan.

Joseph DeVirgilio, EHS Coordinator

Signature: _____ Title: EHS Coordinator
Print Name: Joseph DeVirgilio Date: 8-10-2009

1.2 Professional Engineer Certification (40 CFR 112.3(d))

The undersigned Registered Professional Engineer is familiar with the requirements of Part 112 of Title 40 of the *Code of Federal Regulations* (40 CFR part 112) and has visited and examined the facility, or has supervised examination of the facility by appropriately qualified personnel. The undersigned Registered Professional Engineer attests that this Spill Prevention, Control, and Countermeasure Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards and the requirements of 40 CFR part 112; that procedures for required inspections and testing have been established; and that this Plan is adequate for the facility. [40 CFR 112.3(d)]

This certification in no way relieves the owner or operator of the facility of his/her duty to prepare and fully implement this SPCC Plan in accordance with the requirements of 40 CFR part 112. This Plan is valid only to the extent that the facility owner or operator maintains, tests, and inspects equipment, containment, and other devices as prescribed in this Plan.

PROFESSIONAL ENGINEER CERTIFICATION

Jennifer R. Conroy
Signature

E-56690
Professional Engineer Registration Number

Jennifer R. Conroy
Name

Project Manager
Title

8-7-08
Date

1.3 Location of SPCC Plan (40 CFR 112.3(e))

In accordance with 40 CFR 112.3(e), complete copies of this SPCC Plan are maintained at the following locations:

- The Main Office
- The Control Room

1.4 Plan Review (40 CFR 112.3 and 112.5)

1.4.1 Changes in Facility Configuration (112.5)

In accordance with 40 CFR 112.5(a), Hydrodec periodically reviews and evaluates this SPCC Plan for any change in the facility design, construction, operation, or maintenance that materially affects the facility's potential for an oil discharge, including, but not limited to:

- commissioning of containers;
- reconstruction, replacement, or installation of piping systems;
- construction or demolition that might alter secondary containment structures; or
- changes in product or service, revisions to standard operation, modification of testing/inspection procedures, and use of new or modified industry standards or maintenance procedures.

Amendments to the Plan made to address changes of this nature are referred to as technical amendments, and must be certified by a PE. Non-technical amendments can be done (and must be documented in this section) by the facility owner and/or operator. Non-technical amendments include the following:

- change in the name or contact information (i.e., telephone numbers) of individuals responsible for the implementation of this Plan; or
- change in the name or contact information of spill response or cleanup contractors.

Hydrodec must make the needed revisions to the SPCC Plan as soon as possible, but no later than six months after the change occurs. The Plan must be implemented as soon as possible following any technical amendment, but *no later than six months* from the date of the amendment. The EHS&Q Associate Manager is responsible for initiating and coordinating revisions to the SPCC Plan.

1.4.2 Scheduled Plan Reviews (112.3(a))

In accordance with 40 CFR 112.5(b), Hydrodec reviews this SPCC Plan at least once every five years (in the past, such reviews were required every three years). Revisions to the Plan, if needed, are made within six months of the five-year review. A registered Professional Engineer certifies any technical amendment to the Plan, as described above, in accordance with 40 CFR 112.3(d). This Plan is dated August 7, 2008. The next plan review is therefore scheduled to take place on or prior to August 7, 2013.

1.4.3 Record of Plan Reviews

Scheduled reviews and Plan amendments are recorded in the Plan Review Log (Table 1-1). This log must be completed even if no amendment is made to the Plan as a result of the review. Unless a technical or administrative change prompts an earlier review of the Plan, the next scheduled review of this Plan must occur by August 7, 2013.

1.5 Facilities, Procedures, Methods, or Equipment Not Yet Fully Operational (40 CFR 112.7)

The oil storage tanks shown on the site plan are all in place, and filled with oil. The following items have not yet been completed but will be installed at the facility within 12 months of the date of this plan:

- The railroad spurs and track pans (the containment sump for secondary containment for the spur IS in place currently).
- A roof will be added to cover the railcar unloading rack.
- Curbing around the inside perimeter of Buildings A, D, and F has been completed to prevent spills from exiting the buildings.
- Piping will connect the Building D 200-gallon floor sump to Dike B for emergency spill containment for the tank and operational equipment in Building D.

1.6 Cross-Reference with SPCC Provisions (40 CFR 112.7)

This SPCC Plan does not follow the exact order presented in 40 CFR part 112. Section headings identify, where appropriate, the relevant section(s) of the SPCC rule. Appendix D presents a cross-reference of Plan sections relative to applicable parts of 40 CFR part 112.

Table 1-1: Plan Review Log

By	Date	Activity	PE certification required?	Comments
Brian Klink	02-25-08	Prepare Plan	Yes*	Initial SPCC Plan
Jennifer Conroy	08-07-08	Update Plan	Yes	Update of Plan
Joseph DeVirgilio	08-10-09	Update Plan	No	Updated Personnel

* Previous PE certifications of this Plan are summarized below.

Date	Scope	PE Name	Licensing State and Registration No.
2/25/08	Initial SPCC Plan Review	Jennifer R. Conroy	Ohio#E56990
8/07/08	Update of SPCC Plan	Jennifer R. Conroy	Ohio#E56990

Part 2: General Facility Information

Name:	Hydrodec North America, LLC - Canton
Address:	2021 Steinway Boulevard, Canton, Ohio, 44707
Type:	Transformer Oil Re-Refining
Date of Initial Operations:	February 25, 2008 (Construction) July 1, 2008 Operations
Owner/Operator:	Hydrodec North America, LLC
Primary contact:	Brian Klink

2.1 Facility Description (40 CFR 112.7(a)(3))

2.1.1 Location and Activities

The Hydrodec facility is located along the North Side of Steinway Boulevard in the City of Canton, Ohio. This area is part of the Stein Industrial Park located as situated in part of the northeast quarter of section 15, TWP-10(Canton), R-8 Stark County, Ohio. See Figure 1 for the USGS topographic map.

Oil Storage Capacity (112.7(a)(3)(i))

A description of facility oil storage capacities, materials, containers and locations are described below:

Table 2-1 lists all tanks, containers and equipment with a capacity of 55 gallons or greater and represents Hydrodec's aggregate aboveground oil storage capacity.

Table 2-1: Aggregate Aboveground Storage Capacity (Appendix B)

Aboveground Bulk Storage Tanks	1,025,100 gallons
Drums	220 gallons
Oil Filled Equipment: Electrical Substations	200 gallons
Hydrodec Owned Oil-Filled Operational Equipment	1000 gallons

The total regulated capacity of the facility (excluding contractor-owned equipment) is 1,026,520 gallons.

2.1.2 Natural Gas Production (112.9)

There is no natural gas production at the facility.

2.2 Evaluation of Discharge Potential

2.2.1 Distance to Navigable Waters and Adjoining Shorelines and Flow Paths

Site storm water discharges from the tertiary pond to the City of Canton storm sewer system. Storm water then flows to the west and discharges into Mill Creek with ultimate discharge into Nimishillen Creek.

2.2.2 Discharge History

Table 2-2 summarizes the facility's discharge history for the last 3 years.

Table 2-2: Oil Discharge History

Description of Spill	Estimated Quantity	Corrective Actions Taken	Plan for Preventing Recurrence
None with past three years			

In the event that a single discharge is greater than 1,000 gallons of oil or if two discharges, greater than 42 gallons each, occur within a twelve month period, then a technical review is triggered. Refer to section 5.4.2 of this plan for reporting requirements.

If a spill would occur at level which causes sheen on surface water or if 25 gallons is released to the environment, then National Response Center and Ohio EPA notifications would be required. Details are provided in Sections 5.4.2.

PART 3: Discharge Prevention - General SPCC Provisions

The following measures are implemented to prevent oil discharges during the handling, use, or transfer of oil products at the facility. Oil-handling employees have received training in the proper implementation of these measures.

3.1 Compliance with Applicable Requirements (40 CFR 112.7(a)(2))

This facility is in conformance to the SPCC Regulations

In complying with all applicable requirements of the SPCC Regulation, there are no deviations employed or claimed in this plan.

Aboveground storage tanks and 55-gallon drums provide storage of oils at the facility. The Hydrodec facility also has an electrical substation and equipment with oil capacities greater than 55 gallons. No underground oil storage tanks are located at the facility.

Oils stored at the Hydrodec facility are listed in Appendix E.

The appendices list the location of each oil storage vessel at the facility, the storage vessel capacity, types of secondary containment systems, and the material of construction for tanks.

All operating equipment onsite that contains any kind of operating oil has reservoirs of less than 55 gallons unless it is listed in Appendix E.

The majority of drainage from the facility is to the east where it enters an on-site retention pond. Water is then discharged to the City of Canton storm sewer. Additionally, all runoff from permanent building roofs, flow to a 3,000 gallon underground cistern. This water is then available for re-use.

3.2 Facility Layout Diagram (40 CFR 112.7(a)(3))

The locations of facility buildings, operational areas, aboveground storage tanks, storage areas, etc. for the Hydrodec facility are provided as indicated below:

Figure 1 - USGS Maps Showing Location and Site Boundary
Figure 2 - Facility Layout Diagram
Figure 3 - Facility Drainage Diagram
Figure 4 - Facility Piping Diagram

3.2.1 Written Procedures (112.7(a)(3)(ii))

Operating departments are expected to follow proper spill prevention procedures as described in this plan.

3.2.2 Location of Secondary Containment (112.7(a)(3)(iii))

Secondary containment systems for outdoor oil storage tanks have been constructed with capacity sufficient for the entire contents of the largest single tank in addition to sufficient freeboard for a 25-year storm event (which has been determined to be 4.0 inches for our area). Concrete secondary containment systems have been constructed to be impervious to oil at least until cleaned up. Containment for tanks, containers and equipment that are stored outside is indicated in Appendices E. Fill controls on tanks are described in section 4.2.5.

Secondary containment is shown on the maps in Figure 2.

3.3 Spill Reporting (40 CFR 112.7(a)(4))

Discharge reporting of harmful quantities of oil as required by 40 CFR 112.1(b) will be accomplished by contacting the following:

- Ohio State Emergency Response Commission ..... (800) 282-9378
- Stark County Local Emergency Planning Committee..... (330) 451-3911
  (this will ring Stark county 911)
- National Response Center..... (800) 424-8802
- City of Canton Fire Dept.....(330) 489-3411

A harmful quantity would be that level which causes sheen on surface water or if 25 gallons is released to the environment. Details are provided in Sections 5.4.2.

A Hydrodec Agency Notification Form will be completed and is located in Appendix F. The form contains a checklist of the information to be provided to the agency:

- Exact address or location and phone number of the facility;
- Date and time of the discharge;
- Type of material discharged;
- Estimates of the total quantity discharged;
- Estimates of the quantity discharged as described in §112.7(b);
- Source of the discharge;
- Description of all affected media;
- Cause of the discharge;
- Any damages or injuries caused by the discharge;
- Actions being used to stop, remove and mitigate the effects of the discharge;
- Whether an evacuation may be needed; and
- Names of individuals and/or organizations who have also been contacted.

3.4 Potential Discharge Volumes and Direction of Flow (40 CFR 112.7(b))

The following list includes petroleum products at the Hydrodec facility that have the potential for causing environmental degradation or endangerment of public health or safety through accidental release:

- Feedstock
- Superfine Transformer oil

- Diesel Fuel No. 2

The type of oil and each container's storage capacity are listed in Appendix E. This Appendix also contains the largest potential oil spills, rate of flow and spill pathways for oil discharges.

Potential causes of a spill include spillage during unloading or transfer of oils, power failure, fire or explosion, flooding, vandalism, mechanical failure, and operator error. Spills from oil storage areas will be contained by secondary containment structures or spill control equipment. All aboveground oil storage tanks have adequate secondary containment systems.

3.5 Containment and Diversionary Structures (40 CFR 112.7(c))

Methods of secondary containment at this facility include a combination of structures (e.g., dikes, built-in secondary containment, and tertiary containment), drainage systems, and land-based spill response (e.g., drain covers, sorbents) to prevent oil from reaching navigable waters.

3.5.1 Dikes and Secondary Containment (112.7(c)(1)(i) and (ii))

Dikes, built-in secondary containment, and tertiary containment for all aboveground storage tanks are identified in Appendix E and shown in Figures 2-4. Dikes A and B have a design capacity of 110,000 gallons while Building F was designed for greater that 8,000 gallons.

Tanks, containers and equipment stored inside buildings are principally contained by the impervious floors and walls of the building along with secondary containment.

3.5.2 Booms (112.7(c)(1)(iv))

Absorbent booms are part of the oil spill supplies that are stocked and available for emergency use in the Buildings C and F Spill Supply Storage areas. Booms can be put on the concrete roadways to prevent runoff to the pond and prevent it from reaching the storm sewer and surface waters.

3.5.3 Retention Pond (112.7(c)(1)(vi))

Hydrodec has installed a lined retention pond that collects all storm run-off and flows from the active industrial area. The pond is equipped with an inverted discharge that will maintain some level of water in the pond. If a spill would occur, any oils would be confined to the surface of the pond where they would be removed and collected for treatment or disposal.

3.5.4 Spill Supplies (112.7(c)(1)(vii))

Spill supplies, as listed in Appendix G, are available in Buildings C and F to respond to oil spills. If additional supplies are needed they would be obtained from a local supplier or a contractor (like Sunpro) will be called to provide additional emergency response. Spill control and recovery materials are inventoried on a monthly basis and filed in the EHS&Q-SPCC files.

3.6 Practicability of Secondary Containment (40 CFR 112.7(d))

Since Hydrodec has secondary containment for all aboveground storage tanks, it is not relying on an oil spill contingency plan as required by 109 of the chapter.

Hydrodec management has determined that use of the containment and diversionary structures and the use of readily available spill equipment to prevent discharged oil from reaching navigable water, is practical and effective at this facility.

3.7 Inspections, Tests, and Records (40 CFR 112.7(e))

To assure the adequacy of this plan in preventing and controlling oil spills, regularly scheduled facility inspections are conducted by facility personnel. Records of these inspections are kept for the current year, plus the previous three years.

3.7.1 Inspections

Aboveground storage tanks, oil-filled process equipment, above ground piping, valves, appurtenances, electrical transformers and oil container storage areas and containment dikes are inspected periodically. Appendix B shows the inspection sheet used by Hydrodec personnel to document monthly inspections. Hard copies of all inspections will be kept on file.

3.7.2 Retention of Records

Records of regularly scheduled inspections, Environmental Release Notification Reports, and any other incidents which have resulted in the release of toxic or hazardous pollutants to any navigable waters will be retained for a minimum of five (5) years.

3.8 Personnel, Training, and Discharge Prevention Procedures (40 CFR 112.7(f))

3.8.1 Accountability (112.7(f)(2))

The EHS&Q Coordinator is accountable for oil spill prevention at this facility. The EHS&Q Coordinator reports to the Plant Manager.

3.8.2 Hydrodec Training Program for SPCC and Emergency Response (112.7(f)(1))

All Operations personnel are trained to at least the First Responder - Awareness Level and with regards to SPCC response. As standard practice, plant maintenance and operation personnel are instructed in proper operation, maintenance, transfer, and storage procedures to prevent spills of oil and hazardous substances. Personnel are informed of applicable pollution control laws and regulations. Changes in the regulations or processes are presented to the personnel. Briefings also describe known spill events, failures, malfunctions, and precautionary measures.

3.8.3 Contents of SPCC Training (112.7(f)(1) and (3))

Personnel identified as oil-handling personnel will receive Initial SPCC training that will contain the following information:

- Oil pollution control laws and regulations
- Contents of Hydrodec's SPCC plan
- Filling bulk oil storage tanks from bulk oil trucks and rail
- Dispensing from bulk oil storage tanks
- Draining storm water from dike
- Countermeasures in case of spill

Initial training will be provided to all new employees within 3 months of their hire date and will be provided whenever there is a change to the SPCC plan that requires re-certification.

Annual briefings that describe known discharges or failures, malfunctioning components and any recent precautionary measures will be presented to all oil-handling personnel on an annual basis along with any administrative changes to the SPCC plan.

An outline of the SPCC Training Program is found in Appendix C.

3.9 Security (40 CFR 112.7(g))

3.9.1 Fencing (112.7(g)(1))

All areas where oil is stored are within a perimeter fence. Access to the facility plant is by way of the Hydrodec East and West gates located, both located along Steinway Boulevard. Both gates are electronically controlled from the Control Room or by using an electronic key card. At least once during each off-shift, the Operator on Duty patrols the main plant, including the oil storage areas, to ensure that no unusual activity is taking place.

Fences are visually inspected monthly to look for damage. Figures 2-4 indicate the location of property fencing.

3.9.2 Locked Drain Valves (112.7(g)(2))

There are no drain valves on any diking systems. All storm water will be drained after visual examination and documentation.

3.9.3 Starter Controls on Pumps (112.7(g)(3))

Hydrodec process pumps are automatic and are controlled by the operational software Foxboro. Operators can monitor the operation of these pumps from the control panel and override their operation if needed. Hydrodec pumps are not locked.

Portable pumps could also be used on an as needed basis. These would be manually connected and therefore starter controls are not locked.

3.9.4 Capped or Blank-flanged Connections (112.7(g)(4))

Caps are secured to the bulk transfer connection pipes for all site tanks. The diesel fuel tank is secure and has a top mounted cap and therefore does not present a threat.

3.9.5 Lighting (112.7(g)(5))

Lighting for the Hydrodec facility is sufficient to determine if tanks are leaking. Portable lights would be supplied if deemed appropriate (Sunpro) during an emergency event.

3.10 Tank Truck Loading/Unloading Rack Requirements (40 CFR 112.7(h))

Tanks trucks will be loaded and unloaded at a loading rack inside Building A that is situated along the eastern side of the property. Building A is equipped with a floor sump that has a capacity of over 9,000 gallons (the largest truck to be unloaded has a capacity of 6,500 gallons). Rail cars (26,000 gallons each) will be unloaded on a rack that is in this area as well. The rail unloading area is equipped with track pans that would capture a spill and direct it to a 26,000 gallon in-ground concrete containment vault.

3.10.1 Unloading Containment Systems (112.7(h)(1))

All Hydrodec loading/unloading racks maintain sufficient capacity for the quantity of the containers being unloaded. All racks will be covered to minimize the exposure to storm water.

3.10.2 Preventing Overflow Situations (112.7(h)(2))

To prevent potential overflow spill situations, it is the practice at the facility to follow DOT regulations. Hydrodec personnel are in attendance during the loading and transfer of oils.

Warning signs are located at all oil tank loading/unloading areas to ensure that tanker operators disconnect hoses before leaving the area. Oil and fuel suppliers are expected to follow proper spill prevention procedures as described in 3.10.3. These procedures include using wheel chocks, when appropriate.

Additionally, all tanks at the facility meet at least one of the following methods to avoid overfilling of the tanks:

1. High liquid level alarm at a constantly attended operation (control room)
2. A high-high liquid alarm that will cut-off pumps to stop flow
3. A fast response system for determining the liquid level of each bulk storage container such as a digital computer, telepulse, or direct vision gauges with the person present to monitor the gauges and overfilling of the bulk storage containers (control room).

3.10.3 Unloading Procedures (112.7(h)(3))

To prevent potential overflow spill situations, it is the practice at the facility to follow DOT regulations. Hydrodec personnel are in attendance during the loading and transfer of oils.

Warning signs are located at all oil tanks to ensure that tanker operators disconnect hoses before leaving the area. Oil and fuel suppliers are expected to follow proper spill prevention procedures as described in 3.10.3. These procedures include using wheel chocks. When appropriate

PART 4: Discharge Prevention – SPCC Provisions for Onshore Facilities (Excluding Production Facilities)

4.1 Facility Drainage (40 CFR 112.8(b)(1-3))

Accumulated precipitation is drained from diked areas using suitable pumps. The diked areas are visually inspected for the presence of pollutants during each work shift and prior to pumping. These inspections are documented. Before any water is drained from the diked area, it is visually checked for contaminants as evidenced by a sheen on top of the water. If none is found, accumulated water is discharged to storm drains. If contamination is observed, the water will not be discharged until the oil is removed, or will be containerized for treatment and proper disposal. Pumps that automatically start up are not used to drain storm water from diked areas.

Facility drainage is shown on Figure 3 in Appendix A. The site drainage for the northern portion of the site (where oil storage and piping is located) flows toward the on-site retention pond located at the northeast portion of the site. This pond subsequently discharges to a storm water pond for the industrial park and then to the City storm sewer. The rail spur area drains to the industrial park pond, except the unloading area of the spur is equipped with a containment system, and eventually will have a shelter. Roof drainage from some of the buildings is collected in a storage tank for re-use. Other areas of the site drain to catch basins that discharge to the industrial park storm sewer.

4.1.1 Valves (112.8(b)(2))

No dikes are equipped with drain valves.

4.2 Bulk Storage Containers (40 CFR 112.8(c))

4.2.1 Construction of Storage Tanks (112.8(c)(1))

Oil bulk storage tanks have been installed in accordance with design specifications. Materials of construction, gauging and safety devices are compatible with the materials stored.

4.2.2 Secondary Containment (112.8(c)(2))

All tanks with secondary containment are sufficient to contain the capacity of the largest tank plus freeboard. See Appendix E for a list of tanks and their secondary containment.

4.2.3 Drainage of Diked Areas (112.8(c)(3))

Hydrodec associates are trained to know that they cannot discharge uncontaminated water from dike unless the procedure described under section 4.1 of this plan is followed.

Records of draining diked areas are kept in the Environmental file room in the facility Office. Appendix H provides an example of the documentation that will be kept in this regard.

4.2.4 Inspections and Tests (112.8(c)(6))

Monthly inspections for aboveground storage tanks meet the industry standards of the Steel Tank Institute as described in the 4th Edition of Standards for the Inspection of Aboveground Storage Tanks. These inspections, as described in Appendix B, meet the industry standards for aboveground storage tanks. Inspection forms will be kept for five years from the inspection date.

In addition, 40 CFR §112.8(c)(6) requires that each aboveground container having a capacity over 5,000 gallons be tested for integrity on a regular schedule. Tanks T-1 through T-9 were hydrostatically tested in December of 2007. Additionally, a radiographic examination of tank welds was also completed. These examinations meet the meet the industry standards of the Steel Tank Institute as described in the 4th Edition of Standards for the Inspection of Aboveground Storage Tanks. These tanks will be inspected on a 20-year cycle. Tanks T-10 through T-19 will be evaluated once they have been constructed and prior to coming on-line.

All records will be maintained in EHS files.

4.2.5 Overfill Prevention Systems (112.8(c)(8))

All tanks at the facility meet at least one of the following methods to avoid overfilling of the tanks:

1. High liquid level alarm at a constantly attended operation (control room)
2. A high-high liquid alarm that will cut-off pumps to stop flow
3. A fast response system for determining the liquid level of each bulk storage container such as a digital computer, telepulse, or direct vision gauges with the person present to monitor the gauges and overfilling of the bulk storage containers (control room).

4.2.6 Visible Discharges (112.8(c)(10))

Hydrodec will promptly cleanup oil leaks from seams, gaskets, piping, pumps, valves, rivets, and bolts. Spill supplies are located in the storeroom.

4.2.7 Mobile and Portable Containers (112.8(c)(11))

No portable tanks are in use at the facility.

4.3 Transfer Operations, Pumping, and In-Plant Processes (40 CFR 112.8(d))

There is no buried piping containing oil at Hydrodec. Transfer lines are all elevated where they can be visually inspected.

Hydrodec will regularly inspect all aboveground valves, piping, and appurtenances. A description of these inspections is in the "Inspections, Tests and Records" section of this SPCC plan, Section 3.7

4.4 Cap Terminal Connections (112.8(d)(2))

Caps will be installed on all loading rack transfer hoses when not in use. Permanent transfer lines will be labeled in this area.

4.5 Pipe Supports (112.8(d)(3))

Pipe supports were designed to minimize abrasion and corrosion and allow for expansion and contraction.

4.6 Aboveground Piping Warning Signs (112.8(d)(5))

Warning signs are posted at all pipe rack crossings to alert all vehicles entering facility of aboveground piping and other oil transfer operations.

Part 5: Discharge Response

5.1 Response to a Major Discharge (40 CFR 112.7(a)(3)(iv))

All spills and releases occurring within the Hydrodec facility are to be reported to the Operator in charge who will direct spill response by taking whatever measures are necessary to contain, divert, and dispose of spilled and spill-contaminated materials. This includes contacting the Emergency Response Contractor. The operator will also notify the Process Coordinator, the EH&S Coordinator, and the Site Manager.

Name	Title	Phone Number
Brian Klink	Site Manager	330-284-3051
Joseph DeVirgilio	EH&S Coordinator	330-280-3224

5.1.1 Discovery of a Discharge

An oil spill could be discovered by:

- an alarm condition on a tank,
- an attendant witnessing an unloading of a bulk oil truck,
- a routine oil storage area inspection or
- a First Responder walking past an oil storage area.

In the event of an imminent or actual emergency situation (fire, explosion or release) involving Oil, the first responder should immediately proceed to a safe location and notify the Operator in charge by two way radio or in person.

The First Responder should be prepared to provide as much of the following information as possible:

- Give your name
- Describe the emergency incident including:
    - What equipment and chemicals are involved?
    - Actual or potential injuries or chemical exposure.
    - Estimate of the time of release and the amount of material that has been released.
    - Describe what your response and assistance needs are.
    - State if the location.
    - describe the hazards emergency responders may be faced with and provide the wind direction."

5.1.2 Response Actions (112.7(a)(5))

The following the following actions are to be taken in the event of an oil spill or release:

1. The operator shall notify Process coordinator or Operator in charge.
2. Keep all sources of ignition away from the affected area.
3. The following protective equipment is required when working in the area of the spill:

a. Tyvex Saranex, chemical polyblend boots and gloves
b. Self-contained breathing apparatus if exposed to concentrated vapors

4. The spill should be contained, if possible, using oil absorbent booms, pads etc.. Small quantities of material should be absorbed with oil absorbing materials, such as absorbent clay. Keep oil out of the water sources and sewers. Protect nearby storm or process sewers by covering them with absorbent pads or storm sewer covers. All equipment used to transfer the material should be grounded.
5. If the spill or fire may endanger the surrounding community and/or plant personnel, the responding supervisor shall summon the appropriate medical and/or fire fighting services. He shall initiate evacuation of affected plant areas. If the spill or fire may create an odor problem in the surrounding community, the "Supervisor" shall notify the Safety forces of the affected communities, the Site Manager and the EH&S Coordinator.
6. Notify the EH&S Coordinator and Site Manager of all leaks, spills or fires that cause any visible sheen on surface waters."

5.1.3 Coordination with Outside Agencies during a Response

The local City of Canton Fire Department will be the lead agency in responding to a facility emergency.

5.2 Response to a Minor Discharge

All spills and releases occurring within the Hydrodec facility are to be reported to the Process Coordinator who will direct spill response by taking whatever measures are necessary to contain, divert, and dispose of spilled and spill-contaminated materials. If the responsible Process Coordinator has the resources to respond, then outside Emergency Response will not be contacted.

5.3 Waste Disposal (40 CFR 112.7(a)(3)(v))

Spill disposal and decontamination procedures include the removal and disposal of contaminated materials, decontamination of facility response equipment and nonporous surfaces, and the restoration of facility equipment.

When a spill event has been controlled, the EH&S Coordinator will initiate measures to remove and properly dispose of contaminated materials. These materials include, but are not limited to the following:

- Contained spilled material
- Soils
- Sorbents, booms, and pads
- Contaminated clothing and protective equipment

Released material that has been contained by dikes, berms, or booms will be addressed first. The spilled material may be absorbed onto sorbent booms and pads, or pumped into drums, tanks, or tank trucks. Containers and tanks containing spilled materials should be properly labeled and stored in a safe, secure manner until they can be properly disposed. Containers must be properly labeled.

Visible traces of remaining contaminated materials will then be removed. Sampling and analysis may be conducted where the extent of contamination cannot be determined by visual means. Contaminated materials will be collected in drums, sealed roll-off boxes, or dump truck, as appropriate. Containers will be properly labeled and stored in a safe, secure manner until they can be properly disposed. All recovered spilled oils must be properly manifested and shipped to a properly permitted waste disposal facility.

5.4 Discharge Notification (40 CFR 112.7(a)(4))

All spills and leaks of any feedstock or finished product occurring within the Hydrodec facility are to be reported to the EH&S Coordinator or the Site Manager.

5.4.1 Verbal Agency Notification

Discharge reporting of harmful quantities of oil as required by 40 CFR 112.1(b) will be accomplished by contacting the agencies indicated in section 3.3 of this plan.

- Ohio State Emergency Response Commission ..... (800) 282-9378
- Stark County Local Emergency Planning Committee..... (330) 451-3911
  (this will ring Stark county 911)
- National Response Center..... (800) 424-8802
- City of Canton Fire Dept..... .... (330) 489-3411

In the event that greater than 1,000 gallons are released to the navigable waters of the State, refer to Table 3-1 in section 3.3 of this plan and complete written notification in section 5.4.2 of this plan.

In the event that a single discharge is greater than 1,000 gallons of oil or if two discharges, greater than 42 gallons each, occur within a twelve month period, then a technical review is triggered. Refer to section 5.4.2 of this plan for reporting requirements.

If a spill would occur at level which causes sheen on surface water or if 25 gallons is released to the environment, then National Response Center and Ohio EPA notifications would be required. Details are provided in Sections 5.4.2.

A Hydrodec Agency Notification Form will be completed and is located in Appendix F.

5.4.2 Written Agency Notification

Following an emergency, the EH&S Coordinator or the Site Manager or his designate must submit a written report to the appropriate regulatory agency should the emergency consist of any of the following:

- Any emergency involving hazardous wastes. Deadline and content requirements are specified in OAC 3745-65-56(I) and (J).
- Any spill event of 25 gallons or more of oil or any oil spill event discharging "harmful quantities" (i.e., quantities sufficient to violate applicable water quality standards, or that cause a film or sheen upon or discoloration of the surface of the water or adjoining shorelines, or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines).

- An emergency involving a reportable quantity release of a CERCLA/SARA Title III substance, unless the release would result in exposure to persons solely within the boundaries of the facility. Deadline and content requirements are specified in ORC 3750.06(C) and (D).
- An emergency involving a reportable quantity release of a SARA Section 313 water priority substance.

In addition, the SPCC plan must be submitted to the USEPA Region 5 Regional Administrator and the state agency along with the other information specified in §112.4(a) if either of the following occurs:

- The facility discharges more than 1,000 gallons of oil into or upon the navigable waters of the United States or adjoining shorelines in a single spill event; **or**
- The facility discharges oil in quantities greater than 42 gallons in each of two spill events within any twelve (12) month period that reach navigable waters.

Specifically, as part of this submittal, the following information will be included according to the requirements of §112.4(a):

- Name of the facility
- Your name
- Location of the facility
- Maximum storage or handling capacity of the facility and normal daily throughput
- Corrective action and countermeasures you have taken, including a description of equipment repairs and replacements
- An adequate description of the facility, including maps, flow diagrams, and topographical maps, as necessary
- The cause of such discharge as described in §112.1(b), including failure analysis of the system or subsystem in which the failure occurred
- Additional preventive measures you have taken or contemplated to minimize the possibility of recurrence
- Such other information as the Regional Administrator may reasonably require pertinent to the Plan or discharge

5.5 Cleanup Contractors and Equipment Suppliers (40 CFR 112.7(a)(3)(iv))

Spill supplies are maintained on site for emergency use as indicated in section 3.5.5 of this plan. Table 5-2 lists the vendors that are normally used to provide spill supplies.

Table 5-2: Spill Supply Vendors

Vendor	Contact info	Types of supplies provided
Questar	330-966-2070	Ladders, traffic cones, batteries, flashlights, blanket, gloves, boots, earplugs, coverall suits, tarp, spark-proof tools, overpack drums
New Pig Corporation	1-800-468-4647 www.newpig.com	Absorbent spill pads, absorbent socks and booms, splash shields, spark-proof shovel, vermiculite
Archer Sign (Seeton)	1-800-621-5808 www.labelmaster.com	Labels, forms
Lab Safety Supply, Inc.	1-800-356-0783 www.labsafety.com	Labels, forms
Sunpro	330-966-0910	Emergency Response Equipment, Ladders, traffic cones, batteries, flashlights, blanket, gloves, boots, earplugs, coverall suits, tarp, spark-proof tools, overpack drums

Hydrodec would use cleanup contractors, as needed, to assist with clean up efforts. The current cleanup contractor is Sunpro.

FIGURES

FIGURE 1
USGS Map
(Canton East Quadrangle)

Site: Hydrodec, 8.4 Acres
Canton, Ohio

Scale: None

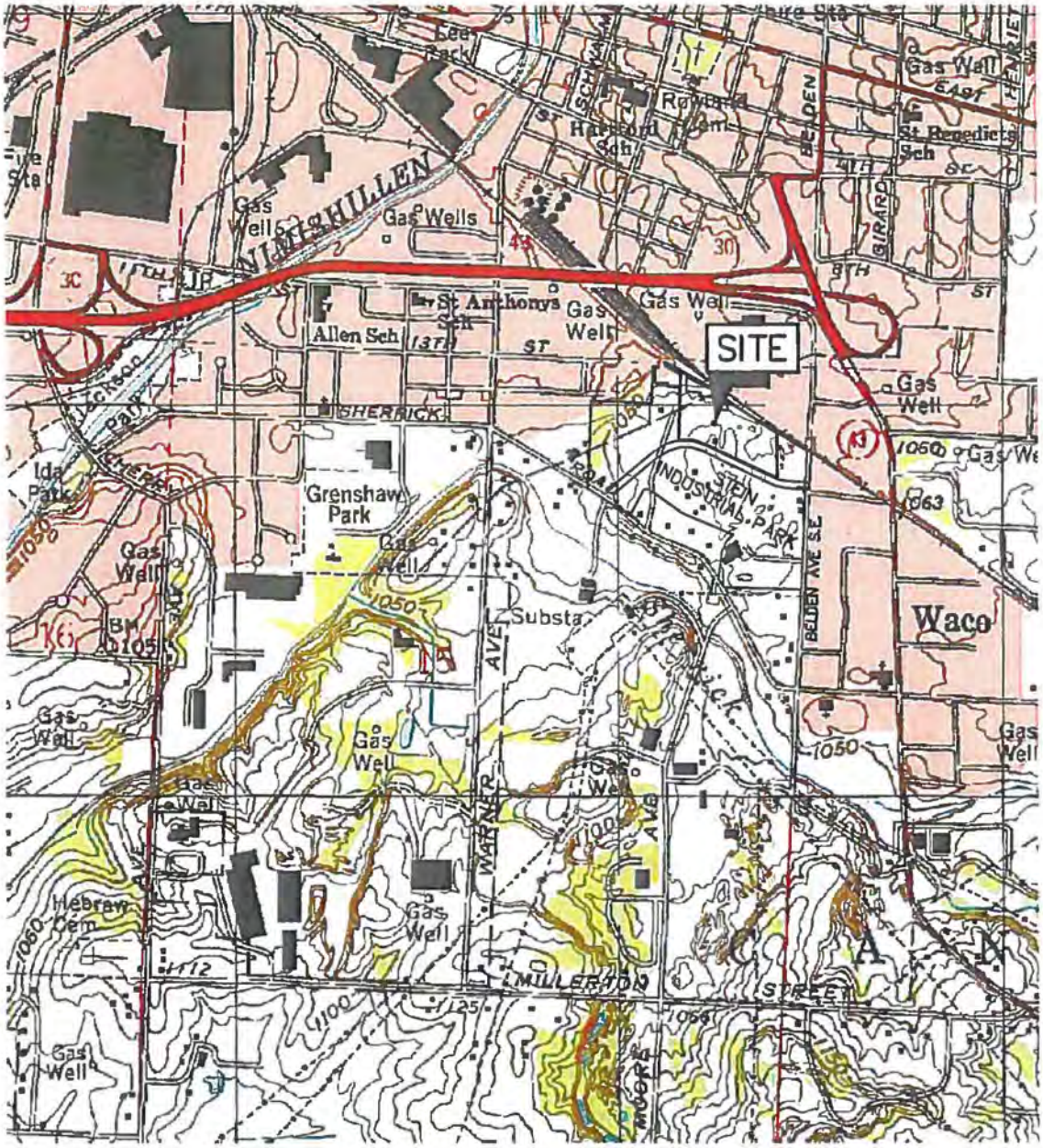


FIGURE 2
Facility Layout Diagram

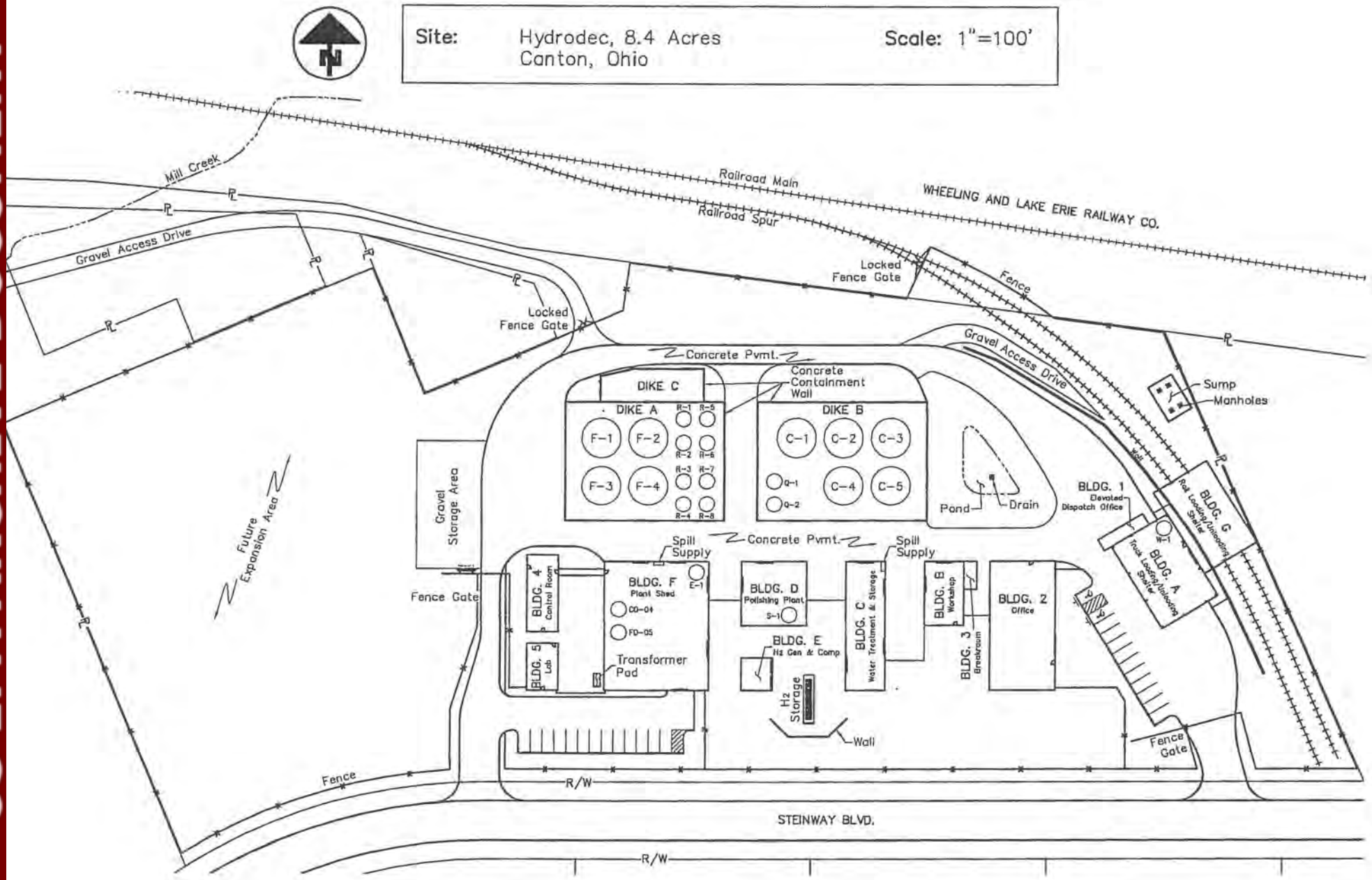


FIGURE 3
Facility Drainage Diagram

Site: Hydrodec, 8.4 Acres
Canton, Ohio

Scale: 1"=100'

LEGEND
= Direction of drainage
= Drainage divide
= Stm manhole/catch basin

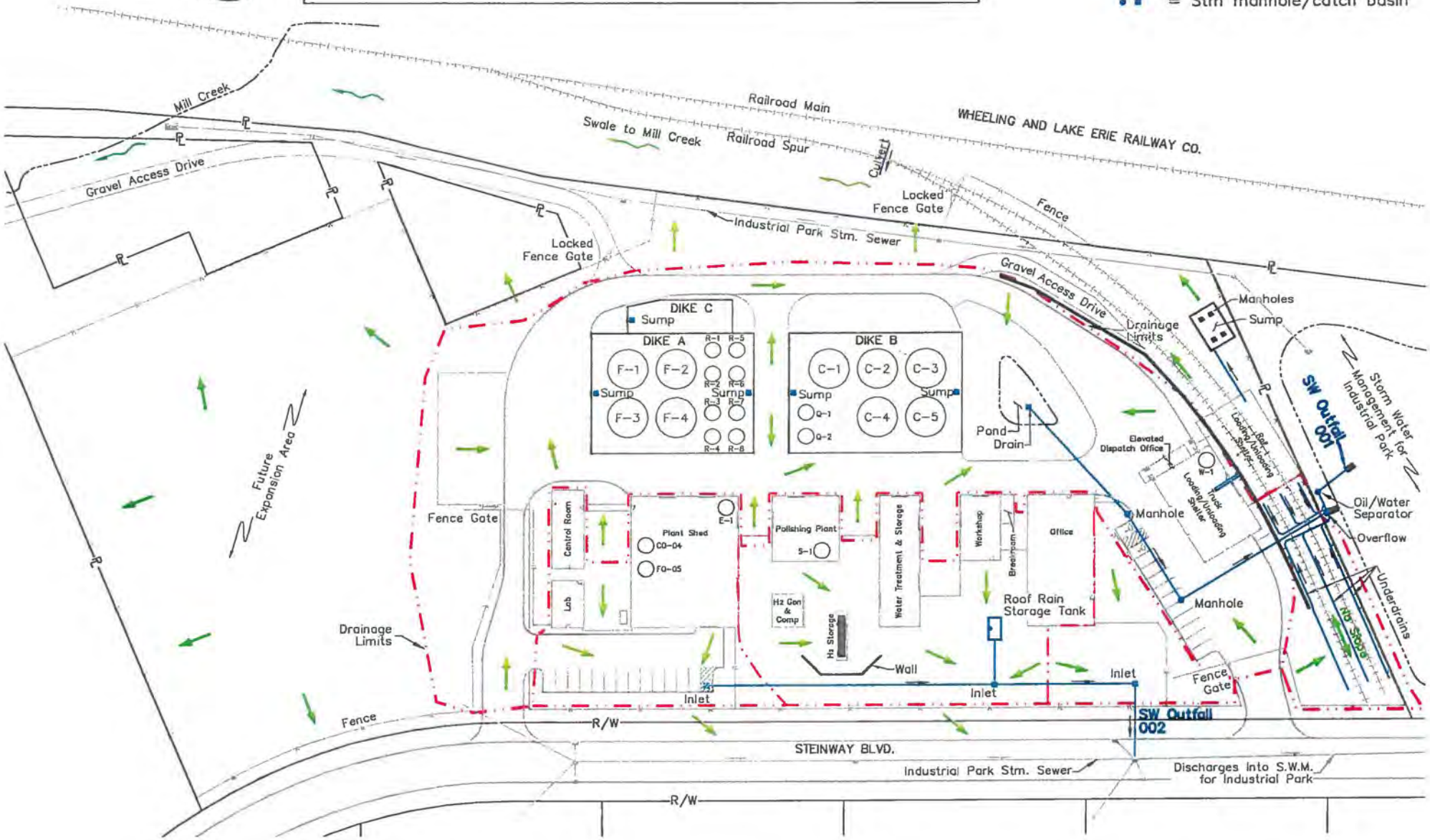
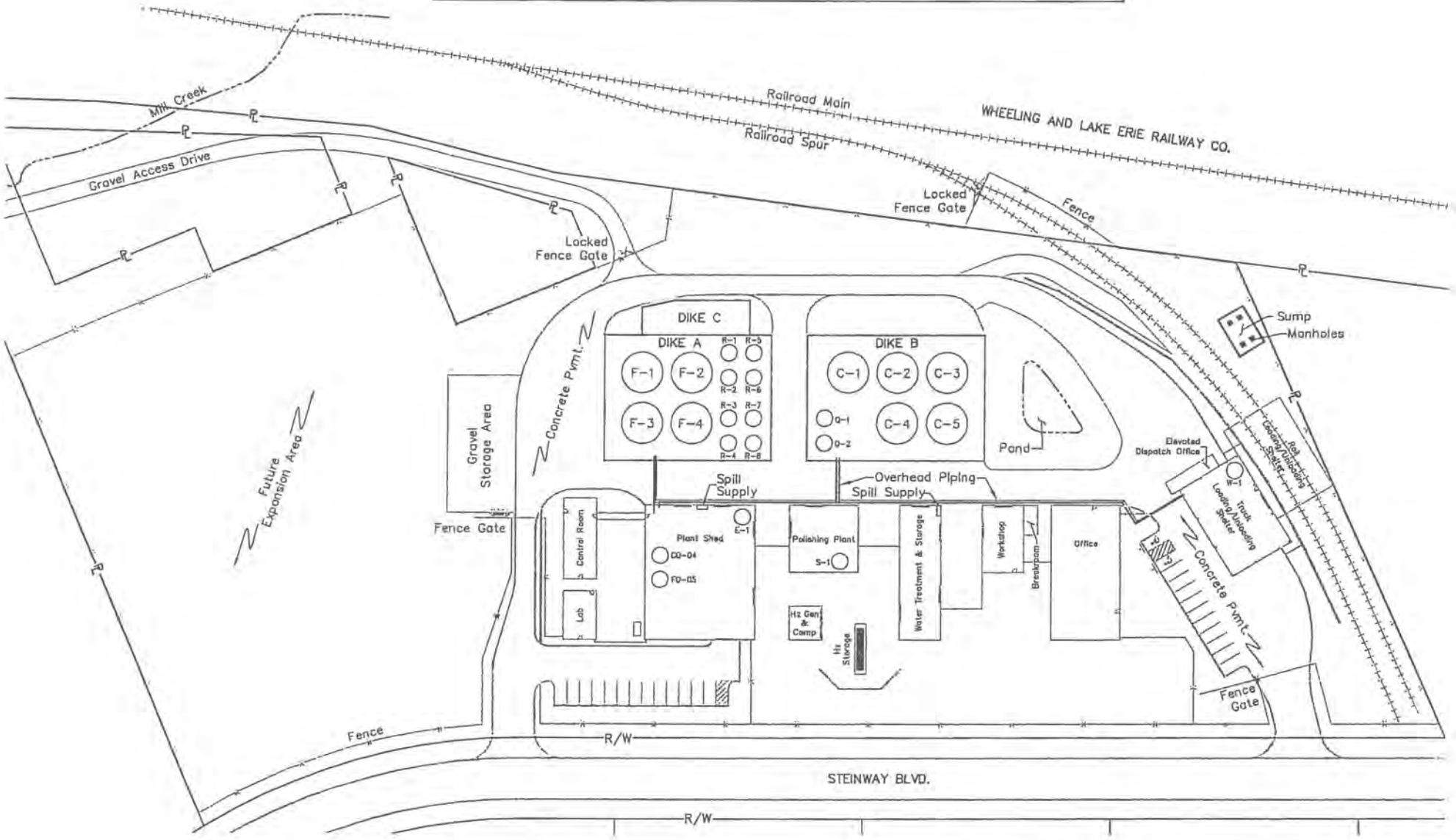


FIGURE 4
Facility Piping Diagram

Site: Hydrodec, 8.4 Acres
Canton, Ohio

Scale: 1"=100'



APPENDIX A

SUBSTANTIAL HARM DETERMINATION

Hydrodec Mid Atlantic, LLC
Mailing Address:
PO Box 20668
Canton, OH 44701
Physical Address:
Stein Industrial Park
2021 Steinway Blvd SE
Canton, OH 44707
Web: www.hydrodec.com

NOTICE

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

The following certification is provided in compliance with the Federal Oil Pollution Prevention Regulation (40 CFR Part 112). The Environmental Protection Agency's Facility Response Plan (FRP) requirements were published as a final rule in the Federal Register on July 1, 1994 and codified at 40 CFR 112.20 and 112.21, including appendices B through F. The FRP helps an owner or operator of a facility to develop a response organization and ensure the availability of response resources needed to respond to an oil discharge. The FRP also helps a facility owner or operator improve discharge prevention measures through the early identification of risks at the facility. A FRP is required if an oil discharge from the facility could reasonably be expected to cause "substantial harm" to the environment from a discharge to navigable waters of the U.S. or the adjoining shoreline.

The following certification provides information which concludes that the Hydrodec facility, located in Canton, Ohio is not a "substantial harm" facility. This determination is based on the following substantial harm criteria as defined in 40 CFR Part 112, Appendix C, Attachment C-II.

Facility Name: **Hydrodec North America, Inc. (Hydrodec Mid-Atlantic, LLC)**

Facility Address: **2021 Steinway Blvd S.E, Canton, Ohio 44707**

Mailing Address: **P.O. Box 20668, Canton, Ohio 44701**

EPA Identification Number: OHR000143263

1. Does the facility transfer oil over water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?

   Yes_____ No__X__

2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest above-ground oil storage tank plus sufficient freeboard to allows for precipitation within any aboveground oil storage tank area?

   Yes_____ No__X__

Hydrodec North America, Inc
PO Box 20668
Canton, OH 44701
USA
Tel: 330-671-9258
www.hydrodec.com

3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments?

   Yes _____ No ___X___

4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance such that a discharge from the facility would shout down a public drinking water intake?

   Yes _____ No ___X___

5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil discharge in an amount greater than or equal to 10,000 gallons within the last 5 years?

   Yes _____ No ___X___

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.

John G Cowan

Signature

JOHN G COWAN

Name (Printed)

President

Title

8 August 2007

Date

APPENDIX B

MONTHLY SPCC INSPECTIONS OF PLANT OPERATING AREAS

APPENDIX B - MONTHLY INSPECTIONS

DATE:_____ INSPECTOR:_____

Inspector must have the following qualifications:
familiar with the site
familiar with the aboveground storage tanks and their components
familiar with the characteristics of the stored liquids
can identify changes and developing problems

LOCATION: **DIKE A**

Yes	No	Parameter	Corrective Action
		Is debris or a other fire hazard present in the Dike?	
		Is water present in the secondary containment?	
		Is oil present in the secondary containment	
		Are Egress Pathways Clear?	
		Are there visible signs of leakage around the tank, concrete pad, containment or ground?	
		Are all ladders secure with no signs of severe corrosion or damage?	
		Are all valves secure with no signs of sever corrosion or damage?	
		Is all piping secure with no signs of sever corrosion or damage?	
		Are all visible tank openings properly sealed?	
		Are there any other conditions that should be addressed for continued safe operation?	

COMMENTS:

LOCATION: **DIKE B**

Yes	No	Parameter	Corrective Action
		Is debris or a other fire hazard present in the Dike?	
		Is water present in the secondary containment?	
		Is oil present in the secondary containment	
		Are Egress Pathways Clear?	
		Are there visible signs of leakage around the tank, concrete pad, containment or ground?	
		Are all ladders secure with no signs of severe corrosion or damage?	
		Are all valves secure with no signs of sever corrosion or damage?	
		Is all piping secure with no signs of sever corrosion or damage?	
		Are all visible tank openings properly sealed?	
		Are there any other conditions that should be addressed for continued safe operation?	

COMMENTS:

LOCATION: BUILDING A

Yes	No	Parameter	Corrective Action
		Is debris or a other fire hazard present around the tanks?	
		Are Egress Pathways Clear?	
		Are there visible signs of leakage around the tank, concrete pad, containment or ground?	
		Are all ladders secure with no signs of severe corrosion or damage?	
		Are all valves secure with no signs of severe corrosion or damage?	
		Is all piping secure with no signs of severe corrosion or damage?	
		Are all visible tank openings properly sealed?	
		Are there any other conditions that should be addressed for continued safe operation?	

COMMENTS:

LOCATION: BUILDING B

Yes	No	Parameter	Corrective Action
		Is debris or a other fire hazard present around the tanks?	
		Are Egress Pathways Clear?	
		Are there visible signs of leakage around the tank, concrete pad, containment or ground?	
		Are all ladders secure with no signs of severe corrosion or damage?	
		Are all valves secure with no signs of severe corrosion or damage?	
		Is all piping secure with no signs of severe corrosion or damage?	
		Are all visible tank openings properly sealed?	
		Are there any other conditions that should be addressed for continued safe operation?	

COMMENTS:

LOCATION: BUILDING C

Yes	No	Parameter	Corrective Action
		Are Egress Pathways Clear?	
		Are all spill supplies in place? [4 bundles of 10' booms, 20 bags Oil Dri, 2 shovels, 2 brooms, gloves, 2 - 55-gal drums]	
		Are there any other conditions that should be addressed for continued safe operation?	

COMMENTS:

LOCATION:		BUILDING D	
Yes	No	Parameter	Corrective Action
		Is debris or a other fire hazard present around the tanks?	
		Are Egress Pathways Clear?	
		Are there visible signs of leakage around the tank, concrete pad, containment or ground?	
		Are all ladders secure with no signs of severe corrosion or damage?	
		Are all valves secure with no signs of severe corrosion or damage?	
		Is all piping secure with no signs of severe corrosion or damage?	
		Are all visible tank openings properly sealed?	
		Are there any other conditions that should be addressed for continued safe operation?	

COMMENTS:

LOCATION:		BUILDING F	
Yes	No	Parameter	Corrective Action
		Is debris or a other fire hazard present around the tanks?	
		Are Egress Pathways Clear?	
		Are there visible signs of leakage around the tank, concrete pad, containment or ground?	
		Are all ladders secure with no signs of severe corrosion or damage?	
		Are all valves secure with no signs of severe corrosion or damage?	
		Is all piping secure with no signs of severe corrosion or damage?	
		Are all visible tank openings properly sealed?	
		Are there any other conditions that should be addressed for continued safe operation?	
		Are all spill supplies in place? [4 bundles of 10' booms, 20 bags Oil Dri, 2 shovels, 2 brooms, gloves, 2 - 55-gal drums]	

COMMENTS:

LOCATION:		RAILCAR UNLOADING	
Yes	No	Parameter	Corrective Action
		Is debris or a other fire hazard present around the railcar unloading area?	
		Are the track pans in good condition?	
		Are there visible signs of leakage around the track pans or ground?	
		Is concrete containment vault in good condition and ground around it not eroding away?	
		Is water present in the concrete containment vault or track pans? *[Check after every rain event]*	
		Is oil present in the concrete containment vault or track pans?	
		Are there any other conditions that should be addressed for continued safe operation?	

COMMENTS:

LOCATION: TRANSFORMER

Yes	No	Parameter	Corrective Action
		Is debris or a other fire hazard present around the transformer?	
		Is the transformer housing in good condition?	
		Are there visible signs of leakage around the transformer, concrete pad, or ground?	
		Is concrete pad in good condition and ground around it not eroding away?	
		Are there any other conditions that should be addressed for continued safe operation?	

COMMENTS:

LOCATION: ABOVEGROUND OIL PIPING

Yes	No	Parameter	Corrective Action
		Is piping located outside the dikes in good condition (no corrosion, holes, or damage)?	
		Are pipe joints and valves in good condition?	
		Are the piping supports in good condition?	
		Are there visible signs of leakage under or around the piping?	
		Is piping protected from potential vehicle collision?	
		Are there any other conditions that should be addressed for continued safe operation?	

COMMENTS:

All forms must be submitted to EHS&Q upon completion.

APPENDIX C

SPCC TRAINING OUTLINE

SPCC TRAINING OUTLINE

INITIAL SPCC TRAINING

- Oil pollution control laws and regulations
  - Purpose of SPCC
  - Definition of oil
  - Types of oil stored onsite
  - Definition of "harmful quantity" of oil
- Contents of Hydrodec' SPCC plan
  - Spill Prevention Measures include:
    - Procedures for dispensing oil,
    - Inspecting tanks and dikes, and
    - Devices like high level alarms and overflow prevention devices
  - Spill Controls include:
    - Secondary containment
    - Tertiary
  - Spill Countermeasures
    - Spill supplies
    - Emergency response procedures
  - Notification procedures
    - All spills to be reported to your supervisor
    - Supervisor will determine if additional reporting is needed to someone outside the department
- Filling bulk oil storage tanks from bulk oil trucks
  - Inspect truck (valves, pumps, container sides) for leaks or rust.
  - Locate hookup point and remove protective cap.
  - Hookup unloading hose. Secure hose connections with either pinning or wiring so that they cannot become disconnected.
  - Chock the wheels in either direction.
  - Check the paperwork and authorize truck to unload.
  - Open main valve to the storage tank to allow the unloading to begin.
  - Attend the tank during the entire time of unloading.
  - After unloading is complete:
    - Disconnect hose
    - Close main valve to storage tank
    - Check the area for leaks or spills
    - Remove wheel chocks
- Draining storm water from dike
  - Verify that storm water is clean (not contaminated). Refer to procedures as necessary.
  - Pump out storm water
  - Record information on log
- Countermeasures in case of spill
  - Notifications

ANNUAL SPCC BRIEFINGS

- Annual briefings
  - Cover details of most recent spill(s) including corrective actions
  - Review any administrative changes to the SPCC plan

APPENDIX D

CROSS-REFERENCE WITH SPCC RULE

SPCC PLAN RULE CROSS-REFERENCE

The following table lists each requirement of the 2002 SPCC Rule and indicates the location (page number) where each requirement is found in this SPCC Plan.

SPCC Rule	Description	Location in SPCC Plan
40 CFR 112.1	Applicability	2.1, 3.1
112.3 (d)	PE Certification	1.2
112.7	Management Approval	1.1
112.3 (e)	Plan availability	1.3
112.5	Amendment of SPCC Plan	1.4
112.7	Plan Contents Cross-Reference	This page
112.7(a)(1)	Conformance with requirements in 40 CFR 112	3.1
112.7(a)(2)	Deviations from requirements	3.1
112.7(a)(3)	Physical layout of facility/location map of each container	Figures 1-4
112.7(a)(3)(i)	Type of oil and storage capacity of each container	Appendix E
112.7(a)(3)(ii)	Discharge prevention measures	3.5, 3.8, 4.2
112.7(a)(3)(iii)	Discharge or drainage controls	3.5, 4.2
112.7(a)(3)(iv)	Countermeasures for discharge discovery, response, and cleanup	3.7, 3.8, 5.2, 5.4
112.7(a)(3)(v)	Methods of disposal of recovered materials	5.3
112.7(a)(3)(vi)	Contact list and phone numbers for emergency response	5.4, 5.5
112.7(a)(4)	Spill reporting instructions	5.4
112.7(a)(5)	Emergency procedures/ supporting material	5.4, 5.5, App. F
112.7(b)	Prediction of direction, flow rate, and quantity of oil that could be discharged by each type of major equipment failure	App E
112.7(c)	Containment and/or diversionary structures	3.5
112.7(d)	Exceptions for containment / contingency planning	3.6
112.7(e)	Inspections, tests, and records: written procedures	3.7
112.7(f)	Personnel, training, and discharge prevention procedures; Person designated who is accountable for discharge prevention	3.8
112.7(g)	*Security*	--
112.7(g)(1)	Fence and lock/guard entrance gates	3.9
112.7(g)(2)	Master flow and drain valves in closed position	3.9
112.7(g)(3)	Lock starter control on each oil pump in "off"	3.9
112.7(g)(4)	Cap or blank-flange loading/unloading connections of oil pipelines or facility piping	3.9
112.7(g)(5)	Facility lighting	3.9
112.7(h)	*Facility tank car and tank truck loading/unloading*	---

112.7(h)(1)	Containment system for maximum capacity	3.10
112.7(h)(2)	Warning system/physical barrier system	3.10
112.7(h)(3)	Prior to departure, inspect drains and outlets	3.10
112.7(i)	Brittle fracture evaluation for field-constructed aboveground containers	N/A
112.7(j)	Conformance with State requirements (if applicable)	N/A
112.8(b)	*Facility drainage*:	---
112.8(b)(1)	Restrain drainage from diked areas	4.1
112.8(b)(2)	Manual valves/inspect direct discharges	4.1
112.8(b)(3)	Design undiked areas to flow into ponds, lagoons or catchment basins	4.2
112.8(b)(4)	Diversion system if (b)(3) not used	N/A
112.8(b)(5)	Two lift pumps on treatment unit (redundancy)	N/A
112.8(c)	*Bulk storage containers*:	---
112.8(c)(1)	Compatible materials of construction	App. E
112.8(c)(2)	Secondary containment of largest container and sufficient freeboard for precipitation	3.2.2
112.8(c)(3)	Drainage from diked areas	4.2
112.8(c)(4)	Buried metal tank corrosion protection and leak test	N/A
112.8(c)(5)	Partially buried or bunkered tanks – corrosion protection	N/A
112.8(c)(6)	Integrity testing	4.2.4
112.8(c)(7)	Control leakage through defective internal heating coils	N/A
112.8(c)(8)	Update each container with high liquid level device	4.2.5
112.8(c)(9)	Observe effluent treatment facilities	N/A
112.8(c)(10)	Correct visible discharges from containers	4.2.6
112.8(c)(11)	Secondary containment for mobile or portable containers	N/A
112.8(d)	*Facility transfer operations, pumping, and facility process*:	---
112.8(d)(1)	Buried piping after 8/02– protective wrapping and coating	N/A
112.8(d)(2)	Cap or blank-flange terminal connection at transfer points	4.4
112.8(d)(3)	Pipe supports	4.5
112.8(d)(4)	Inspect aboveground valves, piping, and appurtenances. Integrity and leak testing of buried piping upon install, modification, construction, relocation, or replacement	4.3
112.8(d)(5)	Warn vehicles entering facility of aboveground piping or other oil transfer operations	4.6

NA = Not Applicable

APPENDIX E
OIL STORAGE LOCATIONS AND DETAILS

APPENDIX E – OIL STORAGE LOCATIONS

Unit ID	Area/ Location	Chemical Stored	Capacity (Gallons)	Tank Material	Secondary Containment System	Insp/ Test	Type of Release or Failure	Maximum Volume (Gallons)	Direction of Flow	Rate of Flow (gal/min)
Tank Storage										
F-1	Dike A	Transformer Oil Feedstock	100,000	Steel	Concrete Dike (110,000 gal)	P T	Overflow from unloading.	1,000	Dike sump	30-50
F-2	Dike A	Transformer Oil Feedstock	100,000	Steel	Concrete Dike (110,000 gal)	P T	Overflow from unloading.	1,000	Dike sump	30-50
F-3	Dike A	Transformer Oil Feedstock	100,000	Steel	Concrete Dike (110,000 gal)	P T	Overflow from unloading.	1,000	Dike sump	30-50
F-4	Dike A	Transformer Oil Feedstock	100,000	Steel	Concrete Dike (110,000 gal)	P T	Overflow from unloading.	1,000	Dike sump	30-50
R-1	Dike A	Transformer Oil Feedstock	8,200	Steel	Concrete Dike (110,000 gal)	P T	Overflow from unloading.	1,000	Dike sump	30-50
R-2	Dike A	Transformer Oil Feedstock	8,200	Steel	Concrete Dike (110,000 gal)	P T	Overflow from unloading.	1,000	Dike sump	30-50
R-3	Dike A	Transformer Oil Feedstock	8,200	Steel	Concrete Dike (110,000 gal)	P T	Overflow from unloading.	1,000	Dike sump	30-50
R-4	Dike A	Transformer Oil Feedstock	8,200	Steel	Concrete Dike (110,000 gal)	P T	Overflow from unloading.	1,000	Dike sump	30-50
R-5	Dike A	Transformer Oil Feedstock	8,200	Steel	Concrete Dike (110,000 gal)	P T	Overflow from unloading.	1,000	Dike sump	30-50
R-6	Dike A	Transformer Oil Feedstock	8,200	Steel	Concrete Dike (110,000 gal)	P T	Overflow from unloading.	1,000	Dike sump	30-50
R-7	Dike A	Transformer Oil Feedstock	8,200	Steel	Concrete Dike (110,000 gal)	P T	Overflow from unloading.	1,000	Dike sump	30-50

Unit ID	Area/ Location	Chemical Stored	Capacity (Gallons)	Tank Material	Secondary Containment System	Insp/ Test	Type of Release or Failure	Maximum Volume (Gallons)	Direction of Flow	Rate of Flow (gal/min)
R-8	Dike A	Transformer Oil Feedstock	8,200	Steel	Concrete Dike (110,000 gal)	P T	Overflow from unloading.	1,000	Dike sump	30-50
C-1	Dike B	SuperFine Transformer	100,000	Steel	Concrete Dike (110,000 gal)	P T	Overflow from unloading.	1,000	Dike sump	30-50
C-2	Dike B	SuperFine Transformer	100,000	Steel	Concrete Dike (110,000 gal)	P T	Overflow from unloading.	1,000	Dike sump	30-50
C-3	Dike B	SuperFine Transformer	100,000	Steel	Concrete Dike (110,000 gal)	P T	Overflow from unloading.	1,000	Dike sump	30-50
C-4	Dike B	SuperFine Transformer	100,000	Steel	Concrete Dike (110,000 gal)	P T	Overflow from unloading.	1,000	Dike sump	30-50
C-5	Dike B	SuperFine Transformer	100,000	Steel	Concrete Dike (110,000 gal)	P T	Overflow from unloading.	1,000	Dike sump	30-50
Q-1	Dike B	SuperFine Transformer	13,250	Steel	Concrete Dike (110,000 gal)	P T	Overflow from unloading.	1,000	Dike sump	30-50
Q-2	Dike B	SuperFine Transformer	13,250	Steel	Concrete Dike (110,000 gal)	P T	Overflow from unloading.	1,000	Dike sump	30-50
CO-04	Bldg F	SuperFine Transformer	8,200	Steel	Building trench sump (9,800 gal)	P T	Overflow from unloading.	1,000	Building F Sump	30-50
FO-05	Bldg F	Transformer Oil Feedstock	8,200	Steel	Building trench sump (9,800 gal)	P T	Overflow from unloading.	1,000	Building F Sump	30-50
S-1	Bldg D	Transformer	8,200	Steel	Building sump (200 gal) and Dike B (100,000 gal)	P T	Overflow from unloading.	1,000	Building D and Dike B Sumps	30-50
W-1	Bldg A	Used Oil	8,200	Steel	Building A sump (9,400 gal)	P T	Overflow from unloading.	1,000	Building D and Dike B Sumps	30-50
Temporary tank	Dike A	Diesel Fuel	200	Steel	Concrete Dike (110,000 gal)	P	Tank failure	200	Dike A	200
	TOTAL TANK CAPACITY		1,025,100	gal						

Drui. orage										
Bldg B Drums	Bldg B	Lubricating oil	2 drums; 55 gal each	Steel	Containment pallet	N/A	Drum failure or puncture	55	pallet	20
Bldg F Drums	Bldg F	Transformer oil	2 drums; 55 gal each	Steel	Containment pallet	N/A	Drum failure or puncture	55	pallet	20
Operational Equipment										
Transformer	Bldg F	Transformer Oil	200	Steel	None	N/A	Leak	200	E to Pond then to City of Canton Storm	1
Oil Processing Equip	Bldg D, Bldg F	Oil	1000	-	Building sumps	N/A	Leak	-	Building sumps	-
Loading/Unloading Areas										
Truck Unloading	Bldg A	All oils	6,500 gal max each	-	Building A sump (9,400 gal)	-	Truck failure	6,500	Bldg A sump	100
Railcar Unloading	Rail spur	All oils	26,000 gal each; 2 at a time	-	Track pans to containment sump (26,000 gal)	-	Railcar failure	26,000	Track pan then containment	100

P = Periodic Inspection only for steel tanks based on Industry Standard of the American Steel Institute, 4th Edition
T = Periodic Inspections and Integrity Testing for steel tanks over 5,000-gallon capacity based on Industry Standard of the American Steel Institute, 4th Edition

APPENDIX F

AGENCY NOTIFICATION FORM

AGENCY NOTIFICATION FORM

In the event of an <u>OIL SPILL</u> that reaches a drain or the environment:

I. ELIMINATE IGNITION SOURCES/CONTAIN SPILL (if possible)

II. CALL IMMEDIATELY (within 30 minutes)

1.) Canton Fire Department (if danger of fire, explosion, or threaten human life) – 330-489-3411
2.) Emergency Contact – Brian Klink 330-284-3051
3.) Ohio EPA(SERC) – 1-800-282-9378
4.) Local Emergency Planning Commission – (330) 451-3911
5.) National Response Center (NRC) – 1-800-424-8802

Be prepared to:

1.) Give your name and company name.
2.) Give exact location and phone number of facility and spill.
3.) Describe time, nature, and source of spill, type of product, and estimate size of spill.
4.) Describe type of action taken thus far.
5.) Names of individuals and/or organizations who have also been contacted.

Other Emergency Phone Numbers:

Alternate Emergency Contact: Brian Klink	(330) 284-3051
Spill Response Contractor: Sunpro	800-488-0910
Department of Transportation (immediate report)	202-426-1830
Hospital: Mercy Medical Center	330-489-1055

III. CLEANUP

IV. WRITTEN FOLLOW-UP (Spill Documentation Form)

Send to:

1.) State EPA – 30 days after call
2.) *Name* County Emergency Management Agency – 30 days after call
3.) U.S. EPA Regional Administrator – 60 days after release, if spill greater than 1,000 gallons or if it is the second spill greater than 42 gallons within 12 months.

SPILL DOCUMENTATION FORM

1. RELEASE PRODUCT
☐ DIESEL
☐ GASOLINE
☐ MOTOR OIL
☐ OTHER_____
_____

RELEASE AMOUNT
☐ 0-10 GALLONS
☐ 10-100 GALLONS
☐ 100-1,000 GALLONS
☐ 1,000-10,000 GALLONS
☐ > 10,000 GALLONS

DID RELEASE REACH CREEK/RIVER?
☐ YES* ☐ NO

*IF YES, WAS RELEASE IN HARMFUL QUANTITY?
☐ YES ☐ NO

2. FACILITY NAME_____

3. FACILITY LOCATION_____

4. NAME OF OWNER/OPERATOR_____

5. FACILITY DESCRIPTION_____

6. DATE OF RELEASE_____ TIME OF RELEASE_____ ☐ AM ☐ PM

7. INITIAL FACILITY OPERATION (date and year)_____

8. MAXIMUM STORAGE OR HANDLING CAPACITY_____

9. NORMAL DAILY THROUGHPUT_____

10. CAUSE OF RELEASE_____

11. DESCRIPTION OF PHYSICAL DAMAGES_____

12. CORRECTIVE ACTIONS and/or COUNTERMEASURES TAKEN_____

_____

13. ADDITIONAL PREVENTIVE MEASURES TAKEN TO PREVENT REOCCURRENCE_____

_____

14. AMOUNT OF PRODUCT RECOVERED_____ gallons

15. COST OF DAMAGES
☐ $0-$100 ☐ $100-$1,000 ☐ $1,000-$10,000 ☐ > $10,000

Spill Reported By_____ Documented By_____
(Site Manager)

APPENDIX G

SPILL CONTROL MATERIALS INVENTORY

Spill Supplies*

Number	Description
4	55-gallon Open Top Steel Drums
4	5"X10' Oil Only Absorbent Booms
4	Bundles Oil Only Absorbent Pads
10	50# Bags or Inert Granular Absorbent Material (Oil Dry)
2	Push Brooms
2	Spark Proof Shovels
10	Pair Poly-Blend Gloves
4	Pair Poly-Blend Boots
10	Tyvex Suits

*** Located inside Building C and Building F**

APPENDIX H

DISCHARGE STORMWATER FROM DIKED AREAS

TANKS

DATE	LOCATION	ESTIMATED VOLUME	SHEEN PRESENT	OPERATOR

**IF A SHEEN IS PRESENT OR IF THERE IS ANY INDICATION OF POTENTIAL CONTAMINATION, DISCHARGE CANNOT BE INITIATED. IF THIS OCCURS, A REPRESENTATIVE SAMPLE MUST BE OBTAINED, ANALYZED, AND RESULTS EVALUATED BY EH&S.