

**BEFORE THE STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES**

**FINAL DETERMINATION
FEASIBILITY AND PLAN OF OPERATION REPORT**

WRR ENVIRONMENTAL SERVICES COMPANY INC.

EPA ID# WID990829475

FID# 618026530

GENERAL FACILITY INFORMATION

Facility Name, Operator and Address

WRR Environmental Services Company Inc.
James Hager, President
5200 Ryder Road
Eau Claire, WI 54701

Facility Owner

Caribou Corporation
5200 Ryder Road
Eau Claire, WI 54701

Property Owner

Caribou Corporation
5200 Ryder Road
Eau Claire, WI 54701

Facility Location

County: Eau Claire
City/Town/Village: Town of Washington
Legal Description: SW1/4 of the SE 1/4 of Sec 3, T26N, R9E
Lat/Long: Latitude: 44.757222 N, Longitude: 91.457778 W

Facility Contacts

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James Hager, President, 715-834-9624, hagerjl@wrres.com

License Hazardous Waste Storage and Treatment Units

Unit Name	Subunit Name	Unit Type	License Number	Net Capacity	Units	Container Storage Capacity not to Exceed
Drum Storage Pads	Pad P-1	Container Storage	6005	4,400	Gallons	80 55-gallon drums
	Pad P-2	Container Storage	6005	4,400	Gallons	80 55-gallon drums
	Pad P-3	Container Storage	6005	4,400	Gallons	80 55-gallon drums
	Pad P-6	Container Storage	6005	4,400	Gallons	80 55-gallon drums
	Pad P-7	Container Storage	6005	4,400	Gallons	80 55-gallon drums
	Pad P-8	Container Storage	6005	2,200	Gallons	40 55-gallon drums
	Pad P-9	Container Storage	6005	4,400	Gallons	80 55-gallon drums
	Pad P-10	Container Storage	6005	4,400	Gallons	80 55-gallon drums
E-II Warehouse		Container Storage	6005	50,050	Gallons	910 55-gallon drums
Fuels Building	Upper Level	Container Storage	6005	12,650	Gallons	230 55-gallon drums
	Lower Level	Container Storage	6005	550	Gallons	10 55-gallon drums
E-1 Warehouse		Container Storage	6005	124,355	Gallons	2261 55-gallon drums
DOT Room in Dock 6 Building		Container Storage	6005	4,400	Gallons	80 55-gallon drums
Clean Sweep Building		Container Storage	6005	4,129	Gallons	75 55-gallon drums
Tanker Area		Container Storage	6005	27,000	Gallons	4 6,750 gallon tankers
Total Container Storage Capacity				256,134	Gallons	

E-I Sludge Tank Farm	Tank A	Tank Storage	3161	16,930	Gallons	
	Tank B	Tank Storage	3161	14,380	Gallons	
	Tank C	Tank Storage	3161	1,810	Gallons	
	Tank D	Tank Storage	3161	1,840	Gallons	
	Tank E	Tank Storage	3161	9,240	Gallons	
	Tank F	Tank Storage	3161	5,610	Gallons	
	Tank G	Tank Storage	3161	9,920	Gallons	
	Tank H	Tank Storage	3161	2,680	Gallons	
	Tank ZZ	Tank Storage	3161	16,840	Gallons	
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	Tank BB	Tank Storage	3161	7,620	Gallons	
	Tank CC	Tank Storage	3161	2,740	Gallons	
	Tank DD	Tank Storage	3161	4,740	Gallons	
	Tank EE	Tank Storage	3161	10,260	Gallons	
	Tank FF	Tank Storage	3161	12,410	Gallons	
Tank GG	Tank Storage	3161	9,520	Gallons		
Overflow Tank	Tank Storage	3161	300	Gallons		
Total E-I Sludge Tank Farm Capacity				138,800	Gallons	
E-I South Sludge Tank Farm	Tank QQ	Tank Storage	3161	13,550	Gallons	
	Tank BF	Tank Storage	3161	17,890	Gallons	
	Tank TT	Tank Storage	3161	14,010	Gallons	
	Tank UU	Tank Storage	3161	17,320	Gallons	
	Tank VV	Tank Storage	3161	12,420	Gallons	
	Tank XX	Tank Storage	3161	12,420	Gallons	
	Tank YY	Tank Storage	3161	16,310	Gallons	
	Overflow Tank	Tank Storage	3161	500	Gallons	
Total E-II South Sludge Tank Farm Capacity				104,420	Gallons	
E-II Sludge Tank Farm	Tank J	Tank Storage	3161	8,939	Gallons	
	Tank K	Tank Storage	3161	8,939	Gallons	
	Tank L	Tank Storage	3161	11,431	Gallons	
	Tank M	Tank Storage	3161	4,972	Gallons	
	Tank N	Tank Storage	3161	11,431	Gallons	
	Tank O	Tank Storage	3161	8,939	Gallons	
	Tank Q	Tank Storage	3161	8,939	Gallons	
	Tank R	Tank Storage	3161	8,939	Gallons	
	Tank S	Tank Storage	3161	8,939	Gallons	
	Tank V	Tank Storage	3161	11,431	Gallons	
	Tank W	Tank Storage	3161	11,431	Gallons	
	Tank X	Tank Storage	3161	11,431	Gallons	
	Tank Y	Tank Storage	3161	11,431	Gallons	
	Tank Z	Tank Storage	3161	8,939	Gallons	
Tank HH	Tank Storage	3161	4,972	Gallons		
Overflow Tank	Tank Storage	3161	300	Gallons		
Total E-II Sludge Tank Farm Capacity				141,403	Gallons	
E-IV Thin Film Evaporator		Miscellaneous Treatment	4305	825	Gallons/Hour	
Fuel Blending/HVPS		Miscellaneous Treatment	4304	14,750 3,250	Gallons/Day Gallons of waste per batch	

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FACILITY DESCRIPTION AND OPERATION

General Location

WRR is located at 5200 Ryder Road, Eau Claire, WI, which is located within the town of Washington. The Town of Washington is located along most of southern border of the cities of Eau Claire and Altoona and the Town of Seymour and extends south to the towns of Clear Creek and Pleasant Valley. Based on the 2010 census, the town of Washington has a total population of 6,995; making it the 2nd largest municipality in Eau Claire County.

Eau Claire County has a total area of 645 square miles, of which 638 square miles is land and 7 square miles is water. Eau Claire County consists of 3 cities, 13 towns, 2 villages and 20 unincorporated communities. The city of Eau Claire is the county seat for Eau Claire County

Zoning

WRR is an 8.2 acre site that is currently zoned I1 (non-sewered Industrial). Existing land uses of the adjacent properties to WRR are zoned as follows: To the north is a business owned by WRR that is zoned as C3 (light manufacturing). To the east is light manufacturing and land for development zoned as C3. To the south of the WRR facility is a 7.7 acre lot owned by WRR that is zoned as I1. To the west is Eau Claire county parkland zoned I1 and F2 (Forestry).

Facility Background

WRR was founded in 1970 and provides services in the areas of solvent recycling, fuel blending, emergency spill response, remediation, community clean sweeps, and hazardous and non-hazardous waste storage and treatment services for generators located primarily in the Midwest of the United States (Wisconsin, Minnesota, Illinois, Iowa, Nebraska, Kansas, and Missouri) and the province of Manitoba, Canada.

WRR currently operates 24 hours per day Monday through Friday and on the weekends. Additional businesses under the WRR corporate umbrella include Automotive and Industrial Services (AIS) and RESCO, an emergency response and remediation company.

Chemical Manufacturing

In addition to solvent recycling, fuel blending, and bulk and container storage, WRR provides contract manufacturing services to several customers. These activities do not use hazardous waste as a feedstock into the process. Virgin feed stocks for the manufacturing processes are stored in product tanks, totes and drums.

The manufacture of a dry film lubricant, a solvent based on renewable raw materials, and lactic acid occurs in the EII building complex. The manufacture of a fiber board release agent occurs in the EI process building.

WRR is a registered Distilled Spirits Plant (DSP-WI-28) and holds an operating permit (OP-WI-12) from the Alcohol and Tobacco Tax and Trade Bureau for the processing of Specially Denatured Alcohol (SDA) formulations. The processing equipment for the SDA formulations is housed in the EII building complex.

Waste Generated from Chemical Manufacturing

WRR is classified as a Large Quantity Generator (LQG) of hazardous waste due to its solvent recovery operations and manufacturing activities. The manufacturing processes generate hazardous waste through by-product generation and equipment flushes and cleanouts. The process residuals are accumulated in tanks, tankers, totes and drums.

Bulk process residual storage occurs in licensed hazardous waste storage tanks and is covered by the tank licensing requirements found in subchapter J of NR 664 Wis. Admin Code (WAC). Tankers, totes and drums provide container storage for reclamation and manufacturing process residuals and are held in 90-day

hazardous waste accumulation areas. The storage of these containers meets the LQG accumulation requirements found in s. NR 662.034(1) WAC. Prior to 90 days, process residuals are sent off-site for energy recovery at cement kilns or thermal destruction through incineration. The residuals are sent to their final destinations by van, tanker truck or rail car.

Van and tanker trucks transport hazardous waste directly to the off-site facility. For transport via rail, WRR leases a transfer facility located in Bloomer WI. The transfer facility (EPA ID# WIR000138180) is owned by Progressive Rail Inc. Tanker trucks filled with processing residues and fuel blend materials transport the material to the transfer facility where it is trans-loaded into rail cars. Manifests are used to track shipments to the transfer facility and cement kiln. WRR uses the transfer facility to trans-load hazardous wastewater from tanker truck to rail car. The transfer facility can also be used to trans-load and ship rail car volumes of product from WRR. Rail car volumes of product and waste can be received and trans-loaded at the transfer facility for shipment back to the WRR facility.

Hazardous Waste Operations

The generators served by WRR typically include: Painting and coating manufacturers, Electronics manufacturers, Container manufacturers, Automobile and automobile parts manufacturers, Machine and equipment manufacturers, Chemical manufacturers and distributors, Furniture and plastics manufacturers, Autobody and machine shops, Analytical laboratories, Printing and ink manufacturers and end users, Computer component manufacturers, Pleasure craft manufacturers and Pharmaceutical and Biotech firms.

Storage of hazardous wastes at the facility occurs in containers and in above ground tanks. Treatment activities conducted at the site include solvent recycling, wastewater treatment, and fuel blending. If WRR is unable to treat a hazardous waste that is received or generated on-site, WRR transfers the waste off-site for reclamation and/or treatment and disposal at approved facilities. The facility does not dispose of hazardous or nonhazardous waste on-site. The facility consists of the following buildings, structures and areas:

1. The WRR office building houses the on-site laboratory and F4 fractionation room in addition to the administrative offices, a maintenance building and household hazardous waste collection area.
2. The Dock 6/Dock 7 warehouse complex consisting of product storage and a hazardous waste storage area noted as the DOT Room.
3. EI process building holds equipment for thin film evaporation, fractionation and blending. The warehouse in the EI building stores nonflammable hazardous and nonhazardous waste and nonflammable product. The EI process building also holds a Rotary Drum Vacuum Filtration (RDVF) unit and a decanter centrifuge. These two pieces of equipment are inactive. The RDVF is planned to have partial closure completed on it. Per s. NR 664.0112(4)(a) Wis. Admin. Code, WRR will inform the WDNR of the intent to undergo the partial closure of the RDVF. The decanter centrifuge has never been a hazardous waste management unit. Prior to using the decanter centrifuge for processing hazardous waste, WRR will submit a license modification request, per s. NR 670.042, Wis. Adm. Code, to the Department. The license modification request will provide a description of compliance with applicable sections of ch. NR 664 Wis. Adm. Code, and specific feasibility and plan of operation report information specified in applicable sections of NR670, Wis. Adm. Code.
4. The boiler building contains two operating boilers, two air compressors and a nitrogen generator.
5. The EII building complex houses several interconnected areas:
 - a. The processing area holds equipment for thin film evaporation, dehydration, fractionation, blending and manufacturing.
 - b. Docks 4, 5 and 1 provide receiving and storage for both hazardous and nonhazardous waste.
 - c. The Tanker Pit provides an area for loading/ unloading waste tankers and cleaning tankers and totes.
 - d. The Fuels Building houses equipment for the management of waste destined for the supplemental fuels program.
6. Building A warehouses consumable items required to operate the facility. Examples of the items

housed in this warehouse are pumps, hoses and absorbents. Hazardous waste is not stored in this building.

7. Electrical and chiller room provides a central location for utilities.
8. Emergency generator to provide a source of electrical power in the event of a power outage.
9. Eight hazardous waste container storage pads.
10. Nine pads for the storage of containerized nonhazardous waste materials or product.
11. 12,000 gallon sump to collect precipitation and provide containment for sudden releases.
12. 360,000 gallon water reservoir to collect precipitation from the facility. This water is the source for the fire suppression system in the EII building complex.
13. Above ground storage tanks for both hazardous waste and product.
14. Areas within the fenced property include:
 - a. Areas to receive and stage bulk transports and trailers.
 - b. Areas provided for bulk loading and unloading
 - c. Areas to hold empty non-placarded tankers and trailers.

On June 22, 2007, a fire at WRR destroyed several licensed hazardous waste management units formally located in the EII building complex, including the E-II and E-III thin film evaporators, Dry Cleaner Filter Recycling Unit, Process Tanks JJ and KK and an ash containment storage building. These units have been removed from the site and are considered closed, as are the EI South and the Offsite Warehouse areas.

Waste Analysis Plan

The Waste Analysis Plan (WAP) identifies the necessary sampling methodologies, analytical techniques, pre-acceptance procedures, incoming load procedures, process operations procedures and quality control policy for all hazardous wastes that enter WRR for storage and treatment.

The generator is required to make a waste determination for solid waste generated at their facility. Specific sampling procedures and analysis are dependent on both the nature of the waste and the type of contaminant. When a waste shipment arrives at WRR for storage and/or treatment, a determination has previously been made by the generator that the waste is either a listed hazardous waste or a characteristic hazardous waste. The generator provides WRR a Waste Material Profile (Profile) and, if required, a representative sample of the hazardous waste. The Profile and sample provides WRR with information concerning both the distribution and the nature of the waste components. WRR's sampling and analysis at this point is to ensure that the shipped waste matches the overall identity of the waste designated on the accompanying manifest (or shipping paper) and the pre-acceptance paperwork. The analysis will also help ensure that the appropriate storage and/or treatment techniques are utilized.

The Profile is reviewed and approved only after it is determined that sufficient information has been presented for proper processing. To determine if sufficient information is available, the following areas of the Profile are reviewed:

1. Waste Description.
2. Process Generating Waste.
3. Waste Constituents.
4. Waste Properties.
5. Special Handling Requirements.

If laboratory testing has not been submitted with the Profile, WRR can use generator knowledge, generator supplied Material Safety Data Sheets (MSDS's), knowledge of waste generated from similar processes or information supplied by a permitted off-site facility to determine a waste's suitability for treatment.

Every container of waste material received by WRR has a unique tracking number assigned to it. When a container is unloaded to the receiving area, a unique tracking number is marked on the container with the use of a stencil and written number or a printed bar code.

Every container of material designated to be processed by WRR is inspected and sampled. Samples are taken from each container and each compartment of every tanker load accepted at the WRR facility. These individual samples are submitted to the WRR laboratory for analysis. Occasionally, a composite sample is submitted to the laboratory for analysis. Pallets of small containers, or drums full of small containers for processing at WRR, may be sampled at 10%. The small containers processed at WRR will be emptied into drums, which are then given a new WRR tracking number, and each drum is then sampled and analyzed.

Once in the laboratory, the individual drum samples will be composited for analysis.

All waste samples for analysis follow these parameters and are recorded in the laboratory record:

1. Specific gravity of liquid samples.
2. Appearance - multiple layers noted, if present.
3. Solids - Record amount of solids settled in the container. The sampler notes the amount of solids in the drum in inches.
4. PCBs - Individual or composite analysis for PCBs.

Waste materials designated for recycle will receive additional analysis as follow

1. Grouping of materials for distillation: This is based on generator's manifested material description, specific gravity, and appearance.
2. Distillation: Distill a measured volume to get clean solvent. Record the boiling points at initial, 10%, 25%, 50%, 75% and final, or in some cases record initial and every 10% thereafter. The volume percent recovery is determined from this analysis.
3. Distillate Analysis: Check the specific gravity and then run components analysis by gas chromatograph. Additional analytical methods, such as water content, may be required for some materials.

Waste materials designated for disposal by fuel blending will be composited for compatibility testing by mixing and for additional analysis as follows:

1. Heat of combustion, weight percent chloride and weight percent ash from bomb calorimeter analysis.
2. Tankers of blended material are tested for heat of combustion, weight percent chloride and weight percent ash from bomb calorimeter, water percent by KF titration, solids percent, and screened for PCB's via GC-ECD.
3. Blended materials to be shipped by railcar are tested for the same parameters as tankers with the addition of a heavy metals test via ICP and XRF (X-ray fluorescence).

Waste materials designated for disposal as wastewater will be composite for additional analysis as follows:

1. Streams received from off-site generators are tested for PCBs via GC-ECD, specific gravity and any layering is noted.
2. Residue waters shipped to off-site disposal are tested for solvent percent via GC-FID, flashpoint, metals via ICP, and percent solids. If the material is clean enough, it is directly injected into a gas chromatograph for solvent analysis.
3. For wastewater with low-level organics shipped to off-site disposal, the sample is extracted with n-decane; the decane extract is then run in a GC-FID to determine the level of organic constituents in the wastewater.

If a discrepancy is found between the waste's description on the shipping document and the laboratory analysis, as part of WRR's waste manifest discrepancy procedure, the WRR Customer Service department is informed by the Vice President/Research & Development – Quality Control or Laboratory Manager or designee. The notification includes the generator name, profile number, load number and discrepancy.

Supplemental analyses may be performed as directed by the Vice President/Research & Development - Quality Control or Laboratory Manager or designee to supplement existing information for the waste stream, to further verify a waste stream or to further ensure that the appropriate waste management technique(s) can be utilized.

The waste analysis shall be repeated as necessary to ensure that it is accurate and up to date. At a minimum, the analysis shall be repeated when any of the following occurs:

1. WRR is notified, or has reason to believe, that the process or operation generating the hazardous wastes, or non-hazardous wastes, has changed.
2. The results of the inspection and analysis required in s. NR 664.0013(1)(d) Wis. Adm. Code indicate that the hazardous waste received at WRR does not match the waste designated on the accompanying manifest or shipping paper.

When a generator notifies WRR that there has been a change in a waste stream, WRR reviews information provided for the change to determine if the change will result in an alteration of the DOT description, applicable waste codes or management method. If the change will result in an alteration of any of the above classifications, the generator is instructed to re-profile the waste stream.

When this analysis shows a significant difference between the waste stream as described on the shipping documents and the one received, the shipment results in a manifest discrepancy. If the discrepancy is not a singular event, the submittal of a new profile is required by the generator before subsequent shipments can occur.

The above sampling and analytical procedures help ensure that the data obtained are precise, accurate, and representative of the waste stream being sampled. The results of these analyses are used by site management to decide whether or not to accept a particular waste and, upon acceptance, to determine the appropriate method of storage and/or treatment. They are also important to ensure that wastes are managed properly by the facility and that incompatible wastes are not inadvertently combined. For these reasons, the quality of the data, thoroughness and care with which the sampling and analyses are performed and reported provide an important basis for day-to-day operational decisions.

Waste Handling

Hazardous wastes are delivered to WRR in containers consisting of drums, tanker trailers, totes, cubic yard boxes, and roll offs. The complete list of the designated hazardous waste codes for the hazardous waste that can be handled at WRR can be found in the most recent Hazardous Waste Permit Application, Part A, submitted to the Department.

WRR will accept only pre-approved waste materials. For loads to be picked up by WRR contracted drivers, manifests and applicable paper work may be prepared by the WRR Traffic Department. Other waste haulers must have completed manifests or bills of lading for all waste streams delivered to WRR.

Before entering the facility, all delivery trucks must register at the plant office. The operation supervisor will direct the truck to a receiving area or a loading dock. The supervisor will review all of the shipping documents for completeness. After a unique tracking ID number is assigned to each bulk load, samples will be taken from each compartment of a tanker.

After the containers (drums, pails, totes) on a trailer load are unloaded, a unique tracking ID number is generated and assigned to each container. The contents in the containers are sampled and analyzed according to the Waste Analysis Plan. The containers on each waste shipment are then assigned to a specific process program. After analysis and assignment to a specific process program, materials that arrive in tanker truck are pumped to a storage tank. Materials that are in drums or totes may be pumped directly to storage tanks after assignment or to a specific container storage area for later bulk storage and processing or shipment for off-site treatment. Cubic yard boxes are stored until transported off-site for treatment or are processed in the fuels building.

Hazardous waste materials accepted at WRR are assigned to one of the following process programs:

1. Reclamation/Recycling of Solvents
2. Fuel Blending
3. Waste Water Treatment (On-site)
4. Waste Water Treatment (Off-site)

5. Off-site treatment

All wastes arriving at WRR are received at the office where the manifest and shipping papers of each waste load are reviewed. Waste received by WRR, are sampled and analyzed in accordance with the WAP to ensure the waste conforms to the manifest and the pre-shipment characterizations. WRR manages three broad groups of waste: recoverable organic-based wastes, non-recoverable organic-based wastes and inorganic wastes.

The waste characteristics determine how each waste can and should be best managed. In addition, the facility may receive various discarded commercial chemical products. When these wastes are received, they are managed based upon their fundamental characteristics as outlined above. The facility does not accept radioactive wastes, explosive wastes, PCB materials at greater than 50 ppm, etiological waste, pathogenic waste or other wastes that cannot be properly or safely managed at the facility.

Waste Storage and Treatment Units

Containerized wastes are received and stored at WRR for on-site treatment or transferred off-site to another treatment and/or disposal facility. These containers can vary in size from 1 gallon pails to 40 yard roll-off boxes. Container and tank storage allows WRR to accumulate various quantities of each class of waste, so that WRR can more efficiently process these similar wastes through repacking, bulking and off-site treatment. WRR operates the following hazardous waste storage and treatment units with capacities as indicated in the table below:

Table 1: License Hazardous Waste Storage and Treatment Units

Unit Name	Subunit Name	Unit Type	License Number	Net Capacity	Units	Container Storage Capacity not to Exceed
Drum Storage Pads	Pad P-1	Container Storage	6005	4,400	Gallons	80 55-gallon drums
	Pad P-2	Container Storage	6005	4,400	Gallons	80 55-gallon drums
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	Tank G	Tank Storage	3161	9,920	Gallons	
	Tank H	Tank Storage	3161	2,680	Gallons	
	Tank ZZ	Tank Storage	3161	16,840	Gallons	
	Tank AA	Tank Storage	3161	11,960	Gallons	
	Tank BB	Tank Storage	3161	7,620	Gallons	
	Tank CC	Tank Storage	3161	2,740	Gallons	
	Tank DD	Tank Storage	3161	4,740	Gallons	
	Tank EE	Tank Storage	3161	10,260	Gallons	
	Tank FF	Tank Storage	3161	12,410	Gallons	
	Tank GG	Tank Storage	3161	9,520	Gallons	
	Overflow Tank	Tank Storage	3161	300	Gallons	
Total E-I Sludge Tank Farm Capacity				138,800	Gallons	
E-I South Sludge Tank Farm	Tank QQ	Tank Storage	3161	13,550	Gallons	
	Tank BF	Tank Storage	3161	17,890	Gallons	
	Tank TT	Tank Storage	3161	14,010	Gallons	
	Tank UU	Tank Storage	3161	17,320	Gallons	
	Tank VV	Tank Storage	3161	12,420	Gallons	
	Tank XX	Tank Storage	3161	12,420	Gallons	
	Tank YY	Tank Storage	3161	16,310	Gallons	

	Overflow Tank	Tank Storage	3161	500	Gallons	
	Total E-II South Sludge Tank Farm Capacity			104,420	Gallons	
E-II Sludge Tank Farm	Tank J	Tank Storage	3161	8,939	Gallons	
	Tank K	Tank Storage	3161	8,939	Gallons	
	Tank L	Tank Storage	3161	11,431	Gallons	
	Tank M	Tank Storage	3161	4,972	Gallons	
	Tank N	Tank Storage	3161	11,431	Gallons	
	Tank O	Tank Storage	3161	8,939	Gallons	
	Tank Q	Tank Storage	3161	8,939	Gallons	
	Tank R	Tank Storage	3161	8,939	Gallons	
	Tank S	Tank Storage	3161	8,939	Gallons	
	Tank V	Tank Storage	3161	11,431	Gallons	
	Tank W	Tank Storage	3161	11,431	Gallons	
	Tank X	Tank Storage	3161	11,431	Gallons	
	Tank Y	Tank Storage	3161	11,431	Gallons	
	Tank Z	Tank Storage	3161	8,939	Gallons	
Tank HH	Tank Storage	3161	4,972	Gallons		
	Overflow Tank	Tank Storage	3161	300	Gallons	
	Total E-II Sludge Tank Farm Capacity			141,403	Gallons	
	E-IV Thin Film Evaporator	Miscellaneous Treatment	4305	825	Gallons/Hour	
	Fuel Blending/HVPS	Miscellaneous Treatment	4304	14,750 3,250	Gallons/Day Gallons of waste per batch	

Container Storage – License # 6005

Container storage at WRR occurs in 5 buildings, 8 sheds and a tanker area for a total of 15 license hazardous waste storage areas.

All container storage areas are inspected on at least a weekly basis for leaking drums and/or spills. If material (e.g., accumulated liquids, waste) is discovered in the secondary containment system the material can be pumped out of the sump or accumulation area using a portable pump to a drum. The portable pump can pump up to 60 gallons of liquid per minute. A sample of the material is submitted for analysis at WRR’s on-site laboratory using the analytical parameters established in the WAP. The material may be incorporated into the liquid fuels program, waste water disposal program or containerized for treatment off-site. Material removed from hazardous waste container storage areas is considered hazardous waste.

The container’s secondary containment system must maintain a base that is free of cracks. If inspections reveal that the secondary containment system may be compromised, it is noted on the inspection record. The container storage area inspections are also looking at container integrity and identification. The inspection records are added to the WRR’s ESMS database and reviewed by an advisory group made up of members of plant management, compliance and upper management. If items on the inspection record need corrective action, a repair tag or corrective action is opened for the item. Once completed, the closed item is noted in the ESMS.

Drum Storage Pads

Located on the eastern side of the WRR facility are 8 unheated storage pads, or sheds, that are used to store hazardous waste containers. The hazardous waste storage pads have the following designations: P-1, P-2, P-3, P-6, P-7, P-8, P-9 and P-10. Storage pad P-1 is designated to store reactive wastes, P-8 is designated to store oxidizer waste and P-10 is designated to store corrosives wastes. The remaining hazardous waste storage pads hold compatible flammable and nonflammable waste. To prevent precipitation from infiltrating the storage pads, the storage pads are constructed with metal siding and a metal roof. Polymer skylights in the metal roof provide natural lighting. Each pad is constructed over a concrete basin. A metal insert is sealed to each concrete basin and acts as an 825 gallon secondary containment system for the storage pad. The metal containment in each storage pad slopes to a small metal sump to drain liquid away from the container and pallet and aid in the removal of contained liquid. The metal insert is painted on both sides to guard against corrosion. The storage pads open on three sides to allow access to the drums stored inside. Drums are stored on pallets within each drum storage pad and can be double stacked. Fire protection is provided by locally located ABC fire extinguishers.

An aisle is maintained down the center of each storage pad to allow inspection and container removal in the case of a release. The storage pads undergo weekly visual inspections, checking container and containment condition. Visual inspections are also carried out each operational day.

E-II Warehouse

The E-II warehouse (docks 4, 5 and 1) is heated and is used for container receiving and storage. The E-II warehouse is located in the E-II process building complex and is constructed of metal and concrete block set on a concrete base. The E-II warehouse's concrete base has a chemical resistant epoxy coating applied to provide 5,005 gallons of secondary containment. The containment in the E-II warehouse has a slight slope to drain liquid away from the containers. The containers in the E-II warehouse are stored on the floor of the warehouse.

Much of the E-II process building, including the E-II warehouse, was rebuilt after the June 2007 fire. At the time of its reconstruction, an overhead fire suppression system was added to the building in accordance with the National Fire Protection Association Standard Numbers 13, 16, 20, and 72. The overhead fire suppression system was designed and installed by Summit Fire Protection out of St. Paul, Minnesota. A 1,500-gallon per minute fire pump driven by a 125 horsepower (hp) electric motor will pump water from the plant water reservoir to the sprinkler systems in each area of the EII building complex. The fire pump is housed in a separate building located between the plant reservoir and the turbo stripper building. Either a heat detection cable located in the ceiling of the buildings or explosion proof manual pull fire alarms will activate the system. The alarm is a combination horn and strobe unit located in each area of the EII complex. The fire system provides both a dry pipe pre-action sprinkler containing air under pressure, and a deluge water spray. Both have a foam system. The E-II building is zoned for fire detection within the tanker pit vs. the dock areas. When electric service to the facility is interrupted, a 300 kilowatt diesel fired emergency generator is available to provide power to the electric motor so that the fire pump can be operated.

The vast majority of the drums, totes and gaylords that arrive at the WRR facility are unloaded on Dock 4. All containers that will be processed at WRR will be sampled and tested by WRR's on-site laboratory according to the testing protocols in its WAP. The laboratory results will determine if a container is assigned for processing at WRR or for shipment to an off-site facility.

After lab assignment, thin material that has been assigned to be processed at WRR will be pumped to hazardous waste storage tanks or tankers via the 2 pumping stations located on Dock 4. Containers of sludge assigned to the fuels program are moved to the attached fuels building for processing. Dock 5 is used to hold totes and material destined to be shipped to an off-site facility. Dock 1 supplies additional storage for incoming material and WRR generated waste.

Drums are stored in rows of 2 with a 3 foot aisle maintained between rows. A 3 foot aisle space is maintained between the totes to allow for inspections and container removal in case of a release. Weekly visual inspections are completed in the E-II warehouse to determine container and containment integrity. Visual inspections are also carried out each operational day.

Fuels Building

The fuels building is a heated concrete and metal structure building constructed on a concrete base. The concrete base has a chemical resistant epoxy coating applied to provide secondary containment. The container storage areas are designated as upper and lower level. The upper level has a secondary containment capacity of 3,115 gallons and the lower level has a secondary containment capacity of 4,902 gallons. The concrete base in the fuels building has a slight slope to drain liquid away from the containers. The containers are stored on floor of the fuels building in rows of 2 with a 3 foot aisle space between the rows. The same fire protection system that provides protection to the E-II warehouse also provides protection to the fuels building and its contents. In addition to holding all the high viscosity processing system (HVPS) equipment, the fuels building also has two hazardous waste container storage areas.

The fuels building is designed and operated according to the criteria for a permanent total enclosure in Method 204 - "*Criteria for and Verification of a Permanent or Temporary Total Enclosure*" in appendix M of 40 CFR part 51. The containers stored and managed within the fuels building operate to the standard for containers requiring level 1 control. Therefore the requirements for the design, installation and operation of a container enclosure area found in s. NR 670.027(1) WAC are not applicable to the container storage area within the fuels building.

Weekly visual inspections are completed in the fuels building to determine container and containment integrity. Visual inspections are also carried out each operational day.

E-1 Warehouse

The hazardous waste container storage area within the E-I building is designated as the E-I warehouse. The E-I building is a heated wooden structure with metal siding and a tar roof constructed on a concrete base. The sloped concrete base has a chemical resistant epoxy coating applied and is used as a 15,018 gallon secondary containment system. The E-I warehouse consists of receiving Dock 3 and the attached warehouse. The storage of hazardous waste in the E-I warehouse is limited to nonflammable hazardous waste only. Waste is stored in totes or drums set on pallets. Fire protection is provided by locally located ABC fire extinguishers.

Household hazardous waste collections and lab packs shipments often have drums and pails containing small containers of hazardous waste. Depack and repack is a process in which these small containers of waste are removed (depacked) from open top pails and small drums and then consolidated (repacked) with other small containers of similar waste into larger shipping containers such as 55 gallon open top drums. The drums of consolidated small containers are shipped off-site for management at another facility. Materials that are often consolidated in the depack/repack process include but are not limited to corrosives, pesticides and herbicides. Dock 3 can be used for depack/repack activities

A 3 foot aisle is maintained between rows of pallets and totes to allow for inspections and container removal in case of a release. Weekly visual inspections are completed in the E-I warehouse to determine container and containment integrity. Visual inspections are also carried out each operational day.

DOT Room in Dock 6 Building

The DOT Room is located on the southwest corner of the Dock 6 building and is a heated wooden and steel building with a tar roof constructed on a concrete base. The coated concrete floor slopes towards a central low point for a 485 gallon secondary containment system. Fire protection is provided by locally located ABC fire extinguishers. Weekly visual inspections are completed in the DOT room to determine container and containment integrity. Visual inspections are also carried out each operational day.

Clean Sweep Room

WRR operates a permanent collection facility for household hazardous waste. This collection facility is located in the Clean Sweep Room. The Clean Sweep Room is attached to WRR's Administrative Office Building but is not accessible through the office building. Access to the Clean Sweep Building is from the parking lot on the east side and from the facility interior on the south side. The door to the parking lot remains locked except during collection events.

The Clean Sweep Building is heated wooden building on a concrete base. The concrete base has a chemical resistant epoxy coating applied and the 454 gallon secondary containment system in the Clean Sweep Room is provided by a concrete and metal curb that encompasses the room. Additional containment is provided for drums used to collect liquid waste, such as gasoline contaminated oil and antifreeze, during clean sweep events. The drums are placed on a polyethylene containment unit. Fire protection is provided by locally located ABC fire extinguishers.

During collection events, the Clean Sweep Room serves as a collection point for material brought in by county residents. As containers are filled with collected waste, they are moved to storage on Dock 4. The collected material is processed through WRR's receiving procedures as any incoming waste to the facility. When not in use for a collection event, the Clean Sweep Room is used to de-pack and re-pack material collected through off-site clean sweeps and lab packs. Drums and pails containing small containers are de-packed and like material are re-packed into larger containers, often 55 gallon open top drums.

Weekly visual inspections are completed in the Clean Sweep Room to determine container and containment integrity.

Tanker Area

WRR is currently in the process of constructing a 27,000 gallon hazardous waste storage area for tankers and trailers holding hazardous waste. The tanker area is located outside of Docks 4 and 5, on the east side of the E-II process building complex. The plan is to accommodate up to 4 tankers or trailers in the storage area.

Since the containment area is located outdoors, it will be designed to hold the largest container of 6,750 gallons plus the 25-year, 24-hour rainfall of 4.7 inches, which is 17,153 gallons. The design capacity for the secondary containment area with 32 tire displacement is approximately 32,003 gallons. Any accumulated precipitation will be removed within 24 hours or in as timely a manner as is possible.

The tanker storage area will include the already constructed tanker pit, which is located between Docks 4 and 5. The tankers in the tanker storage area will typically contain hazardous waste from fuel blending or incoming waste prior to pumping to bulk storage.

The trailers are holding incoming material waiting to be unloaded onto Dock 4 and outbound pass through material. Pass through material is waste received by WRR but not processed at WRR. This waste is relabeled as WRR waste and manifested from WRR to the off-site facility.

Weekly visual inspections are completed in the tanker area to determine container and containment integrity.

Tank Storage – License # 3161

WRR uses 38 aboveground tanks for the storage hazardous waste and 3 overflow tanks for a total of 41 tanks. The hazardous waste storage tanks and overflow tanks are located in three outdoor secondary containment systems.

All the hazardous waste storage tanks at WRR are covered under WRR's Part 70 Operation Permit 618026530-P02 and Permit 07-SJZ-276, and meet the requirements for Level 1 emission controls. All tanks are equipped with operating conservation vents. Verification of emission control level (1 or 2) under 40 CFR Part 63 Subpart DD for each tank is done via the WRR Production database.

E-I Sludge Tank Farm

The E-I Sludge Tank Farm is located east of the E-I Process Building. The secondary containment system of the E-I Sludge Tank Farm is constructed of a 6 inch concrete base 6X6 metal mesh. The walls of the secondary containment system are constructed of rebar reinforced concrete. The secondary containment system was constructed in 1983 and has been in continuous use since its construction. Since its construction, the secondary containment system has shown to provide adequate strength to support the load from the hazardous waste tanks held in the secondary containment system. The concrete base and dike walls are coated with a 2-part chemical resistant epoxy sealant coating system.

Each operational day, the tank system is visually inspected for evidence of corroded or leaking tanks, valves or piping and cracks appearing in either the epoxy coating or concrete itself. The inspection records are

added to the WRR ESMS database and reviewed by an advisory group made up of members of plant management, compliance and upper management. If items on the inspection record need corrective action, a repair tag or corrective action is opened for the item. Once completed, the closed item is noted in the ESMS.

Yearly inspections of tank shell thickness and conservation vents are conducted on each tank in the E-I Sludge Tank Farm.

Table 2: E-I Sludge Tank Farm

Tank	Capacity Gross (gallons)	Capacity Net (gallons)	Tank Dimensions (Total Height, feet x Diameter, feet)	Cone or Flat Bottom	Year Installed	Shell Thickness Fall 2013 (inches)
A	17,400	16,930	24.67 x 11.0	Flat	1979	0.287
B	15,060	14,380	24.0 x 11.0	Flat	1979	0.193
C	1,990	1,810	12.0 x 5.33	Flat	1979	0.183
D	1,990	1,840	13.83 x 6.0	Flat	1995	0.18
E	9,920	9,240	22.27 x 10.0	Flat	1994	0.241
F	6,030	5,610	16.21 x 8.0	Flat	1979	0.266
G	10,450	9,920	21.29 x 9.08	Flat	1995	0.182
H	2,770	2,680	16.0 x 7.0	Cone	1998	0.196
ZZ	17,530	16,840	30.1 x 9.0	Flat	1995	0.251
AA	11,960	11,960	20.6 x 10.0	Flat	1979	0.209
BB	7,620	7,620	16.17 x 9.0	Flat	1979	0.27
CC	2,960	2,740	14.29 x 7.92	Cone	1995	0.204
DD	5,440	4,740	10.85 x 9.0	Flat +/-	1995	0.175
EE	11,000	10,260	27.75 x 10.0	Cone	1997	0.261
FF	13,260	12,410	27.25 x 12.0	Cone	1997	0.276
GG	9,930	9,520	21.0 x 9.0	Flat	1979	0.257
Overflow	300	300	6.0 x 3.0	Flat	1995	Not Measured

The gross storage capacity of the E-I Sludge Tank farm is 145,610 gallons and the net storage capacity is 138,800 gallons.

The secondary containment system capacity of the E-I Sludge Tank farm is 33,061 gallons. The secondary containment system must be designed for the largest tank or 10% of the total gallons store, whichever is greater and the 25-year, 24-hour rainfall of 4.7 inches. The required secondary containment capacity of the E-I Sludge Tank Farm is 28,159 gallons.

E-I South Sludge Tank Farm

The E-I South Sludge Tank Farm is located south of the E-I Process Building. The secondary containment system of the E-I South Sludge Tank Farm is constructed of a 6 inch concrete base 6X6 metal mesh. The walls of the secondary containment system are constructed of rebar reinforced concrete. The secondary containment system was constructed in 1983 and has been in continuous use since its construction. Since its construction, the containment system has shown to provide adequate strength to support the load from the hazardous waste tanks held in the secondary containment system. The concrete base and dike walls are coated with a 2-part chemical resistant epoxy sealant coating system.

Each operational day, the tank system is visually inspected for evidence of corroded or leaking tanks, valves or piping and cracks appearing in either the epoxy coating or concrete itself. The inspection records are added to the WRR ESMS database and reviewed by an advisory group made up of members of plant management, compliance and upper management. If items on the inspection record need corrective action, a repair tag or corrective action is opened for the item. Once completed, the closed item is noted in the ESMS.

Yearly inspections of tank shell thickness and conservation vents are conducted on each tank in the E-I South Sludge Tank Farm.

Table 3: E-I South Sludge Tank Farm

Tank	Capacity Gross (gallons)	Capacity Net (gallons)	Tank Dimensions (Total Height, feet x Diameter, feet)	Cone or Flat Bottom	Year Installed	Shell Thickness Fall 2013 (inches)
QQ	14,770	13,550	20.83 x 11.0	Flat	1980	0.194
BF	18,570	17,890	26.67 x 11.0	Flat	1980	0.24
TT	14,830	14,010	21.0 x 11.0	Flat	1980	0.176
UU	18,130	17,320	26.83 x 11.0	Flat	1980	0.24
VV	13,260	12,420	27.29 x 11.0	Cone	1997	0.252
XX	13,260	12,420	27.29 x 11.0	Cone	2001	0.251
YY	17,170	16,310	24.25 x 11.0	Flat	1980	0.201
Overflow	500	500	6.1 x 4.0	Flat	1980	Not Measured

The gross storage capacity of the E-I South Sludge Tank farm is 110,490 gallons and the net storage capacity is 104,420 gallons.

The secondary containment capacity of the E-I South Sludge Tank farm is 33,888 gallons. The secondary containment system must be designed for the largest tank or 10% of the total gallons store, whichever is greater and the 25-year, 24-hour rainfall of 4.7 inches. The required secondary containment capacity of the E-I South Sludge Tank Farm is 24,113 gallons.

E-II Sludge Tank Farm

The E-II Sludge Tank Farm is bordered on three sides by the E-II Process Building Complex – North, East and South. The secondary containment system of the E-II Sludge Tank Farm is constructed of a 6 inch concrete base 6X6 metal mesh. The walls of the secondary containment system are constructed of rebar reinforced concrete. The secondary containment system was constructed in 1977 and has been in continuous use since its construction. Since its construction, the secondary containment system has shown to provide adequate strength to support the load from the hazardous waste tanks held in the system. The concrete base and dike walls are coated with a 2-part chemical resistant epoxy sealant coating system.

Each operational day, the tank system is visually inspected for evidence of corroded or leaking tanks, valves or piping and cracks appearing in either the epoxy coating or concrete itself. The inspection records are added to the WRR ESMS database and reviewed by an advisory group made up of members of plant management, compliance and upper management. If items on the inspection record need corrective action, a repair tag or corrective action is opened for the item. Once completed, the closed item is noted in the ESMS.

Yearly inspections of tank shell thickness and conservation vents are conducted on each tank in the E-II Sludge Tank Farm.

Table 4: E-II Sludge Tank Farm

Tank	Capacity Gross (gallons)	Capacity Net (gallons)	Tank Dimensions (Total Height, feet x Diameter, feet)	Cone or Flat Bottom	Year Installed	Shell Thickness Fall 2013 (inches)
J	10,730	8,939	25.54 x 10.0	Cone	2008	0.26
K	10,730	8,939	25.54 x 10.0	Cone	2008	0.251
L	13,280	11,431	26.29 x 11.0	Cone	2008	0.265
M	6,180	4,972	18.63 x 10.0	Cone	2008	0.264
N	13,280	11,431	26.29 x 11.0	Cone	2008	0.26
O	10,730	8,939	25.54 x 10.0	Cone	2008	0.268
Q	10,730	8,939	25.54 x 10.0	Cone	2011	0.27
R	10,730	8,939	25.54 x 10.0	Cone	2011	0.247
S	10,730	8,939	25.54 x 10.0	Cone	2008	0.253
V	13,280	11,431	26.29 x 11.0	Cone	2008	0.301
W	13,280	11,431	26.29 x 11.0	Cone	2008	0.255
X	13,280	11,431	26.29 x 11.0	Cone	2008	0.303
Y	13,280	11,431	26.29 x 11.0	Cone	2008	0.257
Z	10,730	8,939	25.54 x 10.0	Cone	2008	0.265
HH	6,180	4,972	18.63 x 10.0	Cone	2008	0.26
Overflow	300	300	6.0 x 3.0	Flat	2008	Not Measured

The gross storage capacity of the E-II Sludge Tank farm is 167,450 gallons and the net storage capacity is 141,403 gallons.

The secondary containment capacity of the E-II Sludge Tank farm is 28,706 gallons. The secondary containment system must be designed for the largest tank or 10% of the total gallons store, whichever is greater and the 25-year, 24-hour rainfall of 4.7 inches. The required secondary containment capacity of the E-I South Sludge Tank Farm is 22,331 gallons.

Treatment

WRR has two regulated miscellaneous treatment units at the facility – the E-IV thin film evaporator system and the HVPS. Historically, WRR had two other miscellaneous units, a drycleaner filter processing unit and a Rotary Drum Vacuum Filtration (RDVF). The drycleaner filter processing unit was destroyed in a fire at the facility in June of 2007. The RDVF is currently inactive and is planned to go through closure in 2014.

E-IV Thin Film Evaporator – License # 4305

WRR utilizes a thin film evaporator for wastewater treatment and solvent recovery. This unit, designated as E-IV, is classified as a hazardous waste miscellaneous unit and is located within the E-II building. The E-IV is an 88 square foot vertical thin film evaporator manufactured by LUWA. The E-IV can be heated with steam or hot oil and operates under vacuum down to 0.1 inch of Hg absolute. The E-IV can process up to 825 gallons per hour.

The E-IV processes liquid hazardous and nonhazardous wastes broadly classified as spent industrial solvents and wastewaters. The spent industrial solvents are typically characteristic wastes, including but not limited to, D001, D035 and D040 waste. These spent industrial solvents also may be listed wastes, typically F001, F002, F003 and F005. The wastewaters are typically characteristic wastes, but may also be listed waste.

While considered a batch process, the waste to be treated is continuously fed into the E-IV from storage tanks or tankers. The waste enters the E-IV above the heating jacket and is dispersed to the heated jacket by a distribution ring. The waste is then picked up by the rotor blades and immediately formed into a thin turbulent film on the heat jacket surface.

The volatile components of the feed are quickly evaporated and flow counter-currently with reference to the feed, up towards the top of the evaporator and into the entrainment system. Here, entrained droplets or foam are knocked out of the vapor steam and return as either feed to the E-IV, leave with the residue or is co-mingled with the product. The evaporated components (low boilers) then flow out of the entrainment system, into the condensers. The majority of the low boiler vapors are cooled to a liquid state in the main condenser. Cooling tower water is the cooling medium in the main condenser.

The secondary condenser and a liquid ring vacuum pump, both operating on chilled water, serve as the control devices for the E-IV. The operating range for the E-IV's secondary condenser is 43°F to 55°F. If the upper temperature limit of 60°F is exceeded the steam to the system is cutoff, allowing no more material to be evaporated. This shutdown parameter insures that the unit operates its air pollution control devise at 95% efficiency. The condensed liquid can be transferred to storage tanks or tankers.

The non-volatile components of the waste (high boilers) flow in a spiral path down the heated jacket surface to the bottom of the evaporator, arriving at the bottom part of the heated steam jacket in a single pass within a matter of seconds and leave the E-IV via a residue pump.

Daily visual inspections are conducted on the E-IV and maintenance on the E-IV includes, but is not limited to: feed and residue pump replacement, cooling water maintenance, vacuum system maintenance and condenser system maintenance. Monthly area monitoring is conducted in the building that houses the E-IV. If an instrument reading of greater than 50 ppm above background is detected, an investigation is started to determine if a leak has occurred in the building. Repairs will be made if any defects are found. Any repairs needed are started no later than 5 days after the leak has been detected, and the repair will be completed within 15 days after the leak is detected. Records will be maintained in the WRR ESMS of leak repairs. Since the E-IV is located within the E-II building, there should be no adverse effects to the environment from a spill, because there are no release pathways to groundwater, rooting zone or surface waters.

WRR has 2 other thin film evaporator systems (E-1 and E-23) that are used solely for solvent recovery and therefore are treated as exempt units.

Fuel Blending/HVPS – License # 4304

WRR produces a hazardous waste derived fuel used by cement kilns. The HVPS equipment, used to produce some of this fuel, is located inside the Fuels Building. Both hazardous and non-hazardous materials are handled in the Fuels Building. The Fuels Building is operated as a Permanent Total Enclosure (PTE). The hydrapulper has a maximum treatment capacity of 14,750 gallons per day and a maximum processing capacity is 3,750 gallons per batch.

Equipment in the Fuels Building that is part of the HVPS includes:

1. Hydrapulper.
2. Barrel punch and pusher which is used to transfers waste from barrels into the hydrapulper.
3. Pumps used to transfer waste into the hydrapulper.
4. Paint can press processing unit which is used to empty containers of paint.
5. Aerosol can processing unit that removes the contents from aerosol cans.
6. Barrel crusher.
7. One plastic container grinder known as the '*grinder muffin monster*' is used to grind up plastic containers. This piece of equipment is currently not located in the Fuels Building.

Identification labels have been applied to the equipment. Changes in equipment locations might be made in the future so as to better expedite processing.

The primary piece of equipment in the HVPS is the hydrapulper. Liquids can be pumped into the hydrapulper from drums with an air operated liquids pump located in the Fuels Building. Drums containing hazardous and nonhazardous waste are also pumped up from the E-II warehouse building. This pumpable material can be pumped into either waste storage tanks or over-the-road tankers. Drums containing solids that cannot be pumped are brought to the barrel punch and pusher. The barrel punch and pusher is used to pump solids and semi-solids into the hydrapulper. A top open ended barrel containing this material is placed at the front of the punch and pusher which then picks up the barrel using a hydraulic powered barrel lift, and tips it upside down so that the open end is facing down on a grate. The barrel punch and pusher is then closed, and is then under an induced draft fan which is connected to a carbon canister. A hydraulic ram pushes the metal cutter through the top of the barrel, and forces the waste material to be pushed through the grate and into the slurry piston pump which then pushes the material into the hydrapulper. The seal of the pump is chemically compatible with the waste material, and the piston of the pump is made of aluminum for spark prevention. The slurry pump has a safety interlock to prevent it from operating when the hydrapulper is operating. The door to the barrel punch and pusher is then opened. The barrel and the end of the barrel are then removed. The barrel is then crushed in the barrel crusher. Both the crushed barrel and the end of the barrel are placed into the dumpster. The drum press leaves the drums RCRA empty. The empty drums are then crushed in the barrel crusher and placed into a dumpster with the lids.

There are 4 carbon adsorption units used to control emissions from the HVPS: CC-2, CC-3, CC-6, and CC-7. Each carbon canister unit is permitted under WRR's air operation permit. CC-2 and CC-3 operate in parallel controlling emissions from the dumpster that receives crushed barrels and barrel lids from the Fuels Building. A 2,550 cfm fan transfers emissions from the dumpster to these two carbon units. Each unit contains 1,140 pounds of non-regenerative activated carbon. Exhaust from CC-2 and CC-3 vents outside the Fuels Building. CC-6 controls emissions from aerosol cans. The carbon unit is used in conjunction with an aerosol can processor. The CC-6 carbon unit is a built-in part of the aerosol can processor. The CC-6 carbon unit contains approximately 1.25 pounds of activated carbon. When in use, this system is located in the Fuels Building. It is not in continuous use. It vents to within the building.

Emissions from processes and activities inside the Fuels Building are controlled using a regenerative carbon unit designated as CC-7. A 3,100 cfm fan transfers emissions from inside the building to CC-7. CC-7 is a two chamber unit with each chamber containing 2,700 pounds of activated carbon. Only one chamber is in use at a time. Operation of the CC-7 unit includes regeneration of the carbon using steam. Carbon for this unit is specifically designed to be used with regenerative systems and thus is different carbon than what is used in CC-2 and CC-3.

Steam is used in CC-7 to remove VOCs and HAPs collected on the spent carbon. It has a 300 liter tank used to contain the recovered material which is then pumped into the hydrapulper. The recovered material is then disposed of in the fuels process in the Fuels Building. An FID continuous monitoring system is used to determine the VOC content of the air leaving the carbon bed prior to discharge to the atmosphere. When the VOC content reaches 70 ppm on the FID, the system will automatically switch over to the other carbon bed, and the regeneration process commences on the spent carbon bed. The carbon bed switch over can vary up to a couple of days. Exhaust from CC-7 vents outside the Fuels Building.

All accessible valves and pumps in the Fuels Building are monitored monthly for leaks. The definition of a leak is a PID reading of 500 ppm or greater. During the startup phase there were no leaks found from the valves and pumps. Repairs will be made if any defects are found in accordance with NR 664.1084(11). If repairs are required they will be started no later than 5 days after the leak has been detected, and the repair will be completed within 15 days after the leak is detected. Records will be kept of all leak repairs in the WRR ESMS database.

Non-License Hazardous Waste Recycling Units

Solvent recycling is the main activity conducted at WRR. Both hazardous waste and non-hazardous waste are recycled through the use of thin film evaporators. Much of the hazardous wastes reclaimed at WRR can be classified as spent cleaning solvents containing flammable solvents such as ketones, alcohols, acetates and aromatics. These non-chlorinated liquid hazardous wastes are processed through 3 thin film evaporators (E-I, E-IV and E-23), which are used to reclaim the spent solvents. Some of the reclaimed solvents are further purified with distillation columns. The reclaimed solvents are returned to the original generator or sold for re-use.

Incoming hazardous waste is pumped from drums, totes and tankers into the hazardous waste tanks for processing through the thin film evaporators or bulk shipment off-site for treatment.

Thirty-eight waste tanks in connection with 3 overflow tanks provide storage for incoming hazardous waste and process residuals. The 41 storage tanks are located in 3 tank farms. The EI Sludge Tank Farm holds 16 waste tanks, 1 overflow tank and 2 product tanks. The EI South Tank Farm holds seven waste tanks, 1 overflow tank and 1 waste oil tank. The EII Sludge Tank Farm has the remaining 15 waste tanks and 1 overflow tank.

The reclaimed solvents from the recycling processes are held in 54 tanks in the EII product tank farm along with the 2 product tanks located in the EI Sludge Tank Farm. Specially Denatured Ethanol (SDA) is held in 11 tanks in the Delta Tank farm. The SK Tank Farm holds 9 tanks used to hold nonflammable product and manufacturing feed stocks, non-regulated water for POTW disposal and non-regulated spent solvent for reclamation.

Under s. NR 661.06(3)(a), Wis. Admin Code, the recycling operations are separate from the hazardous waste license and are only included in this document as part of the description of facility operations. WRR is currently reviewing the possibility of classifying two of its four distillation units as an exempt recycling unit.

Former Hazardous Waste Units

WRR has 4 hazardous waste units that have closed or are in the process of closing.

Ash Containment Building

The Ash Containment Building was located south of the EI South Sludge Dike and west of the Boiler House. The Ash Containment Building was a completely enclosed building constructed with a concrete floor and side walls with a maximum hazardous waste storage capacity of 80 cubic yards. The Ash Containment Building was used to store hazardous waste ash that was received from off-site sources. The Ash Containment Building was destroyed in the June 2007 fire. The Ash Containment Building was closed by the Department on November 5, 2008.

Drycleaner Filter Processing Unit

The Drycleaner Filter Processing Unit was located EII building complex. The Drycleaner Filter Processing Unit was used to separate spent dry cleaner filters into four streams:

1. Perchloroethylene for management in solvent recycling or fuels,
2. carbon, paper and clay-based solids for management in solid fuels,
3. metal for management as scrap metal

The dry cleaner filter process included grinding the filters, solvent extractions and solids separation. The waste dry cleaner filters were shipped to WRR in DOT approved containers. The filters were removed from the container and placed individually into the feed chute of a slow speed grinder. The grinder reduced the filters to approximately 1" pieces to facilitate solvent removal and material separation. The shredded filter pieces dropped directly into a dryer. The dryer was constructed from a thin-film evaporator that was modified to handle a solid feed stream. The dryer, that had steam jackets along its length, slowly tumbled the material as it moves through the machine. The materials are heated to at least 250 degrees F for 7 minutes or longer.

An oil-vacuum scrubbing system is attached to the discharge end of the dryer. A vacuum pump drew the solvent vapors out of the dryer and maintains a negative pressure on the entire system. The solvent laden air was drawn through a packed column that was flushed with oil. The oil scrubbed the solvents out of the air stream as it passes through the column. The scrubbed air was returned to the dryer to provide a circulation that assisted in the removal of solvent vapor. The oil and solvents from the scrubber column are drained off into a reservoir tank. After the solvents had been removed in the dryer, the dry cleaner filter pieces were elevated to a vibrating separator. The vibrating separator removed the dust, lint and carbon from the system. From the vibrating separator, the remaining dry cleaner filter pieces were conveyed to a metal separator. The metal separator removes the steel from the paper pieces. The Drycleaner Filter Processing Unit was also destroyed in the June 2007 fire. The destroyed Drycleaner Filter Processing Unit was sent, along with other fire related debris, for disposal at a Clean Harbors landfill located in Lambton, Ontario Canada. The Drycleaner Filter Processing Unit is scheduled to be closed in 2014.

Rotary Drum Vacuum Filter (RDVF) Unit

The RDVF is located in the EI Process Building and was used for the separation of solids from high solids aqueous waste streams. These waste streams treated in this unit were primarily generated from the petroleum refining industry and include dissolved air filtration sludge (K048), slop oil emulsions solids (K049), API separator sludge (K051) and tank bottom sludge from petroleum refining (K052). The RDVF is scheduled to be closed in 2014.

Drum Storage Pads

Located on the eastern side of the WRR facility is a group of 17 unheated storage pads, or sheds, that are used to store solid and hazardous waste. Prior to 2012, Drum Storage Pads P-4, P-5, P-11, P-12, P-13, P-14, P-15, P-16 and P-17 were used for the storage of hazardous wastes. These pads are currently used only for the storage of non-hazardous wastes and are scheduled to be closed in 2014.

Household Hazardous Waste Permanent Collection Facility

WRR operates a permanent collection facility in the Clean Sweep Room for household hazardous waste per the design and operation standards found in NR 666 Subchapter HH.

Universal Waste

WRR offers collection services for universal wastes. Closed containers of universal wastes are delivered to the facility and are accumulated by the Pole Shed prior to offsite shipment. Types of universal wastes managed at WRR include spent lamps and bulbs, batteries and mercury-containing devices. This list is not exclusive, but is representative of the universal wastes that are managed through the facility. Universal wastes are then transported to a destination facility for recycling.

Solid Waste Transporter – License # 12606

WRR offers collection services for nonhazardous solid wastes. Closed containers of nonhazardous solid wastes are delivered to the facility and are accumulated prior to offsite shipment. These solid wastes are either treated on-site or transported to a facility where they can be stored, treated and/or disposed.

Solid Waste Processing – License # 4401

WRR receives non-hazardous waste (e.g., paint filters, inks, spill cleanups, solvents) that do not meet the definition of hazardous waste. These wastes are currently compacted and consolidated into drums for shipment off-site to be incinerated or used in energy recovery. In the past, WRR would consolidate Nonhazardous Waste Solids into roll-offs for shipment. WRR also reclaims non-EPA regulated solvents like n-Methyl-2-Pyrrolidone (NMP) and Propylene Carbonate. In addition waste inks are fuel blended with hazardous waste.

Stormwater – S067875

Storm water run-off from the facility is regulated under WRR's industrial stormwater permit S067875. Within the facility, asphalt covered areas slope to the south west corner of the facility where a 12,000 gallon concrete lined sump is located. Contents of the 12,000 gallon sump are pumped into a 360,000 gallon reservoir, which can be used for fire protection. A concrete gutter system, along the west and south sides of the hazardous waste licensed portion of the facility, directs liquids to the sump. All rainwater run-off from this portion of the WRR plant is drained and collected in the reservoir.

When a precipitation event occurs, water that accumulates in diked areas is sampled and analyzed. The method utilized has a detection limit of approximately 10 ppm. If a detect is observed, that water is transferred to a holding tank for eventual disposal. If there is not a detect, the water is pumped from the dikes to the blacktop which flows to the plant reservoir. The reservoir is monitored daily for the level of organic constituents, and twice monthly effluent samples are collected and sent to an outside certified laboratory for required testing.

Concrete and asphalt surfaces are maintained to prevent the existence of cracks or holes.

Wisconsin Pollutant Discharge Elimination System – 0058718

WRR has a Wisconsin Pollutant Discharge Elimination System (WPDES) Permit for the discharge of groundwater. The WPDES permit allows discharge of recovered groundwater onto the ground surface near the 360,000 gallon reservoir at the facility. WRR reconfigured their groundwater recovery and treatment system, resulting in reusing over half of the recovered groundwater within their facility. This has resulted in substantially less water being discharged to the ground surface and improved groundwater quality of the shallow aquifer.

Laboratory – 618026530

Before waste can be managed at a treatment facility, waste analysis must be conducted by a laboratory certified or registered under ch. NR 149 Wis. Adm. Code. The WRR laboratory is certified under ch. NR 149 Wis. Adm. Code; the Wisconsin DNR Certified Laboratory ID is 618026530.

WRR's laboratory provides basic screening procedures that are used to indicate the expected type of treatment that is most suitable for that particular waste stream and to verify incoming waste shipments. These analytical procedures are designed to identify or screen a specific waste and are a rapid but effective means for establishing key decision parameters required for proper waste management, identification and verification.

Supplemental analyses may be performed as directed by the Vice President/Research & Development - Quality Control or Laboratory Manager or designee to supplement existing information for the waste stream, to further verify a waste stream or to further ensure that the appropriate waste management technique(s) can be utilized.

Stack Testing

In lieu of stack testing, a design analysis was completed on the thin film evaporators and fractionation systems in 1999 by Hable Engineering. The design analysis for the thin film evaporators underwent third party verification by Trinity Consultants. Trinity Consultant's February 5, 2013, report verified Hable Engineering's design analysis.

In addition a design analysis was also completed for the HVPS equipment in the fuels building in October 24, 2011 by SEH. An FID detector and recorder provide continuous emissions monitoring of the CC-7 regenerative carbon unit. WRR performs weekly air emissions monitoring on the carbon units, CC-2, CC-3 and CC-7, and inside the fuels building to further verify the 95% capture of VOC's generated by the process.

Air Pollution Control Permits - 618026530-P02, 07-SJZ-276 and 08-SJZ-283

The facility currently operates under an air permit issued by the Department's air management program. Volatile organic compound (VOC) and hazardous air pollutant (HAP) air discharges at the facility are primarily related the

working and breathing losses from above ground product and waste storage tanks. These working and breathing losses account an estimated 74% of WRR’s VOC and HAP emissions. The filling of tankers, drums and totes accounts for another estimated 12% of the facilities air discharges. Fugitive emissions for material transfers account for an estimated 7% of VOC/HAP emissions. Another 5% of the facility’s VOC/HAP emissions are discharged from the process equipment. The remaining 2% of organic emissions come a tanker and tote cleaning process.

WRR’s Fuels Building operates as a Permanent Total Enclosure (PTE) with all process exhaust air passing through a fire damper and fusible duct work, as a redundant safety device, to a regenerative carbon canister that contains 3,000 pounds of activated carbon.

NR 664 Subchapter AA Standards

Subchapter AA standards apply to air emissions from process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction or air or steam stripping operations that manage hazardous wastes with organic concentrations of at least 10 parts per million weight (ppmw). Subchapter AA standards require WRR to reduce total organic emissions from affected process vents at the facility to below 1.4 kg/h (3 lb/h) and 2.8 Mg/yr (3.1 tons/yr) or reduce, by use of a control device, total organic emissions from all affected process vents at the facility by 95 weight percent. WRR has chosen to use control devices to reduce organic emissions from all affected process vents. Under s. NR 664.1030(5) Wis. Admin. Code subchapter AA standards are not applicable to WRR, if WRR has a signed certified statement that all of the process vents that would otherwise be subject to subchapter AA are equipped with operating air emission controls in accordance with process vent requirements in 40 CFR 63 subpart DD and as identified in the current source operation and construction permits 07-SJZ-276 and 08-SJZ-283. Table 5 shows the process vents that are covered under permit and exemptions nos. 618026530-P02, 07-SJZ-276 and 08-SJZ-283:

Table 5: Process vents covered under the air management permits.

Air Permit ID No.	Process
P03 S03 C01	Evaporators E-I, E-IV (1973) and Fractionation/Distillation columns F-I, F-II, F-III, F-IV (1973). The control device is a noncontact condenser. The Evaporators operate under vacuum. The Fractionation/ Distillation columns operate under ambient conditions.
P15 S15 C15	Thin Film Evaporator E-23. The control device is a noncontact condenser. The Thin Film Evaporator operates under vacuum.
P30 S30 C30	High Viscosity Processing System. The control device is carbon adsorption.

NR 664 Subchapter BB Standards

Subchapter BB standards apply to air emissions from equipment that contains or contacts hazardous waste with organic concentrations of at least 10 percent by weight. There are specific monitoring and reporting requirements based on the type of equipment. However applicable equipment that contains or contacts hazardous waste for less than 300 hours per calendar year is excluded from the inspection and monitoring requirements of these standards. The equipment that is subject to subchapter BB standards is identified in the Master Equipment List, which is located in Appendix I-1 of the FPOR and WRR’s ESMS Database. Typically all equipment subject to subchapter BB is regulated under NR 664 subchapter BB Wis. Admin. Code; however, WRR has certified that they have an established Leak Detection and repair (LDAR) program under the provisions of current operating permits issued by the Department under NR 407. The current applicable operating permits are 618026530-P02, 07-SJZ-276 and 08-SJZ-283. As long as WRR operates under the LDAR provisions and reporting requirements of these air quality permits, WRR can achieve compliance with this subchapter by being in compliance with the relevant

provisions of the air quality permits. Documentation for LDAR program compliance is maintained in WRR's ESMS database and is part of its operation record.

WRR's operating permits follow the requirements of 40 CFR Part 63 Subpart DD. The standard for equipment leaks found in 40 CFR 63.691 requires WRR to control the Hazardous Air Pollutant (HAP) emitted from equipment leaks in accordance with 40 CFR 63.162 through § 63.182 in subpart H. The general requirements found in 40 CFR 63.162(b)(1), allows an owner or operator to request an alternative means of emission limitation. Once it is determined that the means of emission limitation is a permissible alternative to the requirements found in Subpart H of 40 CFR Part 63, the owner or operator must comply with the alternative. WRR utilizes an alternate means of emission limitations as allowed in 40 CFR 63.162(b)(1) and found to be a permissible alternative per the requirements of 40 CFR 63.162(b)(2).

NR 664 Subchapter CC Standards

Subchapter CC standards apply to air emissions from tanks, surface impoundments and containers that manage hazardous wastes containing an average organic concentration of greater than or equal to 500 ppmw at the point of waste origination. Containers of hazardous wastes that are transferred through the facility that are still in the course of transportation are exempt from subchapter CC. Specific exemptions to these requirements are outlined in NR 664 subchapter CC Wis. Admin. Code.

Containers typically received and managed at this facility include, but not limited to 5 gallon, 15 gallon, 30 gallon, 55 gallon and 250 gallon containers. These containers typically meet applicable DOT specifications and/or authorizations. Therefore, these containers are acceptable for use in accordance with Level 1 controls. Containers greater than 26 gallons managing site generated hazardous waste are visually inspected upon their initial filling and within one year if the container is not completely emptied of its contents. Hazardous waste containers less than 26 gallons in capacity or hazardous waste in a vacuum truck are exempt under subchapter CC.

Per the requirements of Subch. NR 664.1080(2)(g) Wis. Admin. Code, WRR certifies that each tank managing hazardous waste is equipped with an air emission control device that operates under the provisions of current air quality construction and operation permits issued by the Department under Chs. NR 406 and 407. The current applicable construction and operation permit are 618026530-P02 and 07-SJZ-276. As long as WRR complies with the tank and or container requirements within these permits, WRR can achieve compliance with this subchapter by being in compliance with the relevant provisions of the air quality permits. Documentation for tank air emission control device compliance is maintained at the facility and is part of its operation record.

Traffic Information

General access to the facility is from Hwy 93 onto Lorch Avenue, onto the frontage road, Ryder Road. Hwy 93/Lorch Avenue is a traffic light controlled intersection. Access from Ryder Road to Lorch Avenue is a stop sign controlled intersection. All roads are paved and capable of bearing loads up to 30,000 pounds per axle. Seventy transports, consisting mainly of semitrailers and bulk tankers, may deliver to and ship material from the WRR facility each week.

Before entering the facility, all delivery and pick-up transports must register at the plant office. The operation supervisor will direct the transport to the WRR scale or directly into the facility. Once inside the facility, the operation supervisor will direct the transport to a receiving location or a loading area.

All roads within the facility are 4-inch thick bituminous pavement (blacktop). In-plant traffic controls include one-way routing through the facility to minimize cross traffic, posted speed limits and concrete bumper posts to protect fixed equipment. All loading and unloading dock areas are constructed with 4 to 8 inches of reinforced concrete.

Service Area

The principal service area for WRR includes seven states in the mid-western United States and one Canadian province, Manitoba. The states include Wisconsin, Minnesota, Illinois, Iowa, Nebraska, Kansas, and Missouri. Industry sectors served by WRR include: Painting and coating manufacturers, Electronics manufacturers, Container manufacturers, Automobile and automobile parts manufacturers, Machine and equipment manufacturers, Chemical manufacturers and distributors, Furniture and plastics manufacturers, Autobody and machine shops, Analytical laboratories, Printing and ink manufacturers and end users, Computer component manufacturers, Pleasurecraft manufacturers, Pharmaceutical and Biotech firms

On-Site Hazardous Waste Generation

Wastes generated by WRR's operations include empty containers, laboratory wastes, absorbents, contaminated PPE, clean-up wastes and spills of wastes.

FPOR Licensing History 1986

The Department received a FPOR from WRR on March 31, 1986. In response to the FPOR the Department issued its first notice of incompleteness (NOI) in a letter dated June 12, 1986. In response to the NOI the Department received information from WRR on June 12, 1986, August 6, 1986, September 26, 1986, December 19, 1986, February 7, 1987, April 7, 1987, June 30, 1987 and October 22, 1987. The Department issued a Completeness Determination on August 18, 1987. The Department approved the FPOR on March 7, 1988 and issued a hazardous waste storage and treatment license on September 23, 1988. EPA issued a federal hazardous waste operating permit on September 30, 1988.

FPOR Relicensing History 2003

The Department received a FPOR from WRR dated September 10, 1998. In response to the FPOR the Department issued a NOI letter dated February 15, 2001. In response to the NOI letter, WRR submitted a revised FPOR in December of 2001. The Department issued a second NOI letter on August 9, 2002 and requested additional information on March 4, 2003 and April 17, 2003. The Department received submittals from WRR dated May 2002, July 12, 2002, December 26, 2002, February 13, 2003, April 4, 2003 and July 2, 2003. The Department issued a Completeness Determination on May 6, 2003. The Department approved the FPOR on August 14, 2003, and re-issued a hazardous waste storage and treatment license on October 22, 2003.

Past Department Hazardous Wastes Decisions

Since the original FPOR approval was issued, a number of approvals, determinations and modifications have been issued to the facility. The dates and a summary of the approvals, determinations and modifications are listed in table 6.

Table 6: Past Department Hazardous Waste Decisions

Date of Decision	Description of Decision
March 7, 1988	Original FPOR approval.
September 23, 1988	Hazardous waste license issued for the March 7, 1988 FPOR approval
March 15, 1994	Class 1 plan modification regarding the addition of six waste codes.
September 27, 1996	Class 1 plan modification regarding replacement of tanks J, L, and N, modification of the container description, and modification of tanks FF and VV
May 14, 1997	Class 1 plan modification regarding the addition of waste code D002 and a tank modification request to replace Tank EE.
January 8, 1998	Class 1 plan modification regarding the addition of waste codes: K048, K049, K051, K052, U080 and U140.
May 18, 1998	Class 1 plan modification regarding the relocation an already approved hazardous waste storage tank EE to a different location.
July 24, 1998	Class 1 plan modification regarding modification of the existing Part B to extend the date for reapplication for the RCRA operating permit and license.
December 12, 2000	Class 1 plan modification regarding the replacement of tanks V and W.
December 12, 2000	Class 1 plan modification regarding the June 19, 2000 approval to replace tank XX

June 19, 2000	Class 1 plan modification regarding replacement of Tank XX
September 12, 2001	Class 1 plan modification regarding notice of completeness and preliminary determination for replacement of tanks X and Y.
June 14, 2002	Class 1 plan modification regarding notice of completeness and preliminary determination for replacement of tanks WW and YY.
July 7, 2003	Conditional approval for legitimate recycling - hazardous waste burned for energy recovery/fuel blending and marketing activities.
August 14, 2003	FPOR #2 approval
October 22, 2003	Hazardous waste license issued for the August 14, 2003 FPOR approval
January 13, 2004	Class 1 plan modification regarding clarification to conditions 17 and 18 of the FPOR approval and correcting typographical errors in the Part A application with waste codes F027, F037 and D035.
July 20, 2005	Class 1 plan modification regarding an update the Part A application to designate Mr. Stokke as the facility point of contact, add water reactive and cyanide containing wastewater carrying the waste code D003 to the list of wastes accepted by WRR for container storage, and eliminate a non-required schedule to change out hazardous waste storage tanks.
January 7, 2008	Class 1 plan modification regarding the replacement 15 of the 18 hazardous waste storage tanks that were damaged or destroyed in a June 22, 2007, facility fire. Tanks identified as J, K, L, M, N, O, Q, R, S, V, W, X, Y, Z and HH will be replaced. Previously licensed tanks P, T, U will not be replaced.
November 5, 2008	Class 2 plan modification regarding to close the ash containment building (February 7, 2008 license modification request); Modify manifesting procedures for incoming and outgoing shipments destined for the rail yard (February 7, 2008 license modification request); Replace the E-II hazardous waste container storage warehouse, Dock 1, 4 and 5, and the Fuels Building, as designated in Drawing D-75 (February 7, 2008 and April 3, 2008, license modification requests); Revise the contingency plan (April 17, 2008 license modification request); and Modify tank placements within the E-II south sludge tank farm (June 4, 2008 license modification request).
February 18, 2009	Class 1 plan modification addressing aisle space issues on the storage of D003 in the storage sheds.
February 4, 2010	First request for temporary authorization request to treat waste in the HVPS.
June 17, 2010	Second request for temporary authorization request to treat waste in the HVPS.
January 10, 2011	Class 2 plan modification to treat waste in the HVPS.
October 14, 2011	Class 1 plan modification regarding to add F034.
February 2, 2012	Class 1 plan modification omitting CC-1 and using CC-7 to Control Emissions from the hydropulper
February 14, 2012	Class 1 plan modification regarding changes to the container storage sheds
June 6, 2012	Modification of Procedure T analysis for Fuels Building with the enlargement of the south wall damper.
August 6, 2012	New pipe and pump for the transfer of hazardous waste from Tank R to the tanker pit in the E-II Warehouse Building.
September 4, 2012	Class 1 plan modification regarding the upgrading of a 2 inch nitrogen supply line to the hydropulper
January 7, 2013	Class 1 plan modification regarding new piping to convey hazardous wastes
February 20, 2013	Class 1 plan modification regarding the addition of a second pump to the hydropulper.
May 6, 2013	Relocation of carbon canisters CC-2 and CC-3 away from the north exterior wall of the Fuels Building to the west of the building.
September 17, 2013	Class 1 plan modification regarding addition of a barrel de-header.
October 7, 2013	Installation of a barrel de-header in the Fuels Building for opening hazardous waste drums. As of December 18, 2013 this equipment has not yet been installed, and thus is not shown on Figure 2J-2 HVPS.

Past Environmental Analysis

An analysis of the need for an environmental impact statement (EIS) was performed by the Department as part of the initial facility hazardous waste licensing on September 23, 1988. The analysis of the expected impacts of the proposal for the initial facility concluded that it was not a major action that would significantly affect the quality of the environment. As such, an environmental impact statement was not required for the initial license issuance for the current facility. This document updates the original EA completed on November 13, 1987 and confirms that an EIS is not needed.

Closure

WRR expects to operate the facility for the foreseeable future. The FPOR includes a detailed closure plan and cost estimates for completing closure of the entire facility. The closure plan includes the cost estimates of the money needed to remove the maximum allowable quantity of hazardous waste stored at the facility and decontamination procedures for all of the surfaces and equipment in the licensed tank and container storage and

treatment areas. The current cost estimate to close and decontaminate the hazardous waste facility covered by this determination is \$677,644.16, which includes a 20% contingency. (see table 7).

Table 7: 2014 Closure Cost Summary

Unit Name	Cost
Drum Storage Pads	\$107,175.59
E-II Warehouse	\$54,429.83
Fuels Building	\$38,896.32
E-I Warehouse	\$84,280.00
DOT Room in Dock 6 Building	\$14,329.69
Clean Sweep Building	\$16,281.29
Tanker Area	\$25,558.36
E-I Sludge Tank Farm	\$108,653.74
E-I South Sludge Tank Farm	\$97,678.98
E-II Sludge Tank Farm	\$129,536.39
E-IV Thin Film Evaporator	\$823.97
Total	\$677,644.16

Corrective Action

WRR's Corrective Action Plan (CAP) was prepared by WRR's consultant, Gannett Fleming, as part of WRR's Feasibility and Plan of Operations Report (FPOR), which is needed for the renewal of WRR's hazardous waste licenses.

Since 1979, various investigative and remedial activities have been conducted to determine the extent of contaminants in the subsurface of the WRR site. Investigation activities included the collection and analyses of soil and/or groundwater samples from 38 Geoprobe borings and soil gas samples from 57 soil gas probes, the installation and sampling of 78 groundwater monitoring wells and piezometers, and the collection of surface water samples from 10 seeps located along the eastern banks of Lowes Creek. Remedial activities have included pumping and treating groundwater from nine recovery wells; the installation and operation of three air injection and soil vapor extraction (AI/SVE) systems; and the planting of hundreds of poplar, cottonwood, and willow trees downgradient of the site as part of the phytoremediation of the shallow groundwater.

Based on the analytical results of groundwater samples collected from wells over the past 30 years, volatile organic compounds (VOC) concentrations in the groundwater on site have been, with minor exceptions that may be caused by fluctuations in the water table, steadily decreasing due to the various remedial activities that have been conducted to date. The decreasing VOC concentrations in the on-site groundwater indicate that it is unlikely that a new release of VOCs has occurred since initial investigation and remedial activities began. Therefore, WRR's consultant, Gannett Fleming, believes that the work that is needed to achieve closure of the site will focus primarily on determining current VOC concentrations in the soil and groundwater where hazardous waste has been handled and stored on site and determining which areas require additional remediation.

The following scope of work identified by Gannett Fleming is anticipated to assess and remediate residual contaminants in the soil and groundwater at the WRR site and develop the database necessary to obtain regulatory closure from the Department:

1. A site assessment (supplemental site investigation) consisting of collecting samples using a Geoprobe to determine current VOC concentrations in the soil and groundwater in or near areas of concern where hazardous materials have been handled or stored.
2. An assessment of the need to operate the three AI/SVE systems based on the results of the supplemental site investigation.
3. The installation of passive diffusion sample (PDS) bags into monitoring wells that are included in the groundwater monitoring program.
4. The semi-annual collection of groundwater samples from the existing monitoring wells for VOC analyses.
5. The replacement of monitoring wells that are either inappropriately screened or consistently dry.

6. The assessment of the groundwater recovery wells and the associated pumping systems.
7. Conducting an in-situ chemical oxidation pilot test using sodium persulfate in the former floor drain tank area.
8. The as-needed redevelopment of two groundwater recovery wells, RW-6 and RW-7.
9. The routine collection of samples from the groundwater recovery wells.
10. If necessary, the collection of multiple groundwater samples from four off-site borings to document VOC concentrations at various depths downgradient of the WRR site where no monitoring wells exist.
11. The preparation and submittal of WPDES permit-required discharge monitoring reports.
12. The preparation and submittal of semi-annual Operations and Monitoring Reports to the Department.
13. The preparation and submittal of a final conditional closure request to the Department. This includes, as necessary, the inclusion of those areas where contaminants remain on the Department's GIS registry.
14. The abandonment of all groundwater monitoring and recovery wells after receiving Department approval.

The current cost estimate for corrective action through October 2019 is \$916,205, which includes a 15% contingency.

Needs Analysis

Facilities like WRR provide the necessary services for other businesses that generate hazardous waste solvents. Solvents are used by facilities to manufacture coatings, adhesives, degreasing/cleaning agents, dyes, polymers, plastics, textiles, printing inks, agricultural products and pharmaceuticals. In 2011, Wisconsin industries generated about 39,000 tons of waste solvents (F001 – F005). Of this amount, WRR recycled 16,200 tons or 69.4% of the waste solvents that came into WRR. Hydrite in Cottage Grove, the only other TSD solvent recycler in Wisconsin, recycled another 8,910 tons of these waste solvents. Facilities like WRR are therefore critical to properly manage waste solvents and keep the solvents out of the environment as improperly managed solvents can pose a very real health risk to people when soils and groundwater are impacted.

Exposure to solvents can cause cancers, tumors and impair the functions of the central nervous system. Solvent neurotoxicity symptoms can be characterized by fatigue, memory impairment, irritability, difficulty in concentrating, mild mood disturbance, sustained personality or mood change and impairment in intellectual function, global deterioration in intellectual and memory functions (dementia). Exposure to solvents typically occurs through inhalation, ingestion and dermal contact.

WRR provides generators with an efficient and economical means to manage their waste solvents in an environmentally sound manner. Alternatives for managing these waste solvents would include having the individual generators recycle their own waste solvents on-site or shipping the waste solvents to an out-of-state TSD facility for handling. Wisconsin and federal law forbids the land filling of any hazardous waste solvents that have not been treated to the regulatory standards identified in ch. NR 668, Wis. Admin. Code.

The elimination of WRR's storage and treatment license would force many facilities in Wisconsin to explore out-of-state options that would likely be more costly. Facilities like WRR are therefore critical for properly managing hazardous waste and keeping hazardous wastes out of the environment as improperly managed hazardous waste can pose a very real health risk to people when soils and groundwater are impacted.

Owner Financial Responsibility

The cost estimate for the final closure of WRR's hazardous waste storage licensed activities is \$634,980.54. The closure cost estimate must be adjusted annually for inflation. WRR is required to maintain on file with the Department adequate proof of financial responsibility to cover the cost of closure. Currently WRR has on file a closure insurance certificate for proof of financial responsibility needed for closure. WRR must also maintain a pollution liability insurance policy for sudden environmental releases of at least \$1,000,000 per occurrence and \$2,000,000 annual aggregate.

FINDINGS OF FACT

The Department finds that:

1. WRR Environmental Services Company Inc. (WRR) operates a hazardous waste container storage, tank storage, tank treatment and a miscellaneous treatment facility at 5200 Ryder Road, Town of Washington, Wisconsin.
2. WRR is owned by the Caribou Corporation located at 5200 Ryder Road, Eau Claire, WI 54701.
3. The Department received a Feasibility and Plan of Operation report (FPOR) from WRR on March 31, 1986. In response to the FPOR the Department issued its first notice of incompleteness (NOI) in a letter dated June 12, 1986. In response to the NOI the Department received information from WRR on June 12, 1986, August 6, 1986, September 26, 1986, December 19, 1986, February 7, 1987, April 7, 1987, June 30, 1987 and October 22, 1987. The Department issued a Completeness Determination on August 18, 1987. The Department approved the FPOR on March 7, 1988 and issued a hazardous waste storage and treatment license on September 23, 1988. EPA issued a federal hazardous waste operating permit on September 30, 1988.
4. The Department received a FPOR from WRR dated September 10, 1998. In response to the FPOR the Department issued a NOI letter dated February 15, 2001. In response to the NOI letter, WRR submitted a revised FPOR in December of 2001. The Department issued a second NOI letter on August 9, 2002 and requested additional information on March 4, 2003 and April 17, 2003. The Department received submittals from WRR dated May 2002, July 12, 2002, December 26, 2002, February 13, 2003, April 4, 2003 and July 2, 2003. The Department issued a Completeness Determination on May 6, 2003. The Department approved the FPOR on August 14, 2003, and re-issued a hazardous waste storage and treatment license on October 22, 2003.
5. On June 22, 2007, a fire at WRR destroyed or damaged several licensed hazardous waste management units, including the E-II container storage warehouse, the E-II tank farm, and the E-II and E-IV thin film evaporators, and the containment storage building.
6. On April 23, 2012, the Department issued a call-in letter to WRR requiring them to either pursue relicensing by submitting FPOR or notify the Department of its intent to close the facility.
7. On April 22, 2013, the Department received a FPOR from WRR dated April 19, 2013, for the relicensing of the hazardous waste container storage, tank storage, tank treatment, and a miscellaneous treatment facility. On May 15, 2013, the Department received the required amount of \$18,400 for the plan review fees. The Department received additional information for the FPOR dated June 27, 2013 and September 10, 2013.
8. On May 29, 2013, a class 1 public notice was placed in the Wisconsin State Journal and the Eau Claire Leader-Telegram. The class 1 public notice was to inform the public that WRR has submitted a FPOR.
9. On September 13, 2013, the Department conditional approves WRR's Corrective Action Plan (CAP) dated June 25, 2013.
10. On December 3, 2013, the Department issued a Notice of Incompleteness (NOI) to WRR for the April 19, 2013, FPOR. On May 9, 2014, the Department received a submittal dated May 7, 2014. The submittal was in regard to the missing items identified in the December 3, 2013, NOI.
11. Additional information used by the Department in connection with the April 19, 2013, FPOR:

- a. On September 4, 2013, the Department sent an email to Mae Willkom, R&R Hydrogeologist for the Department. The email requested information on WRR's corrective action status. Mae responded back to the Department on September 4, 2013.
 - b. On September 4, 2013, the Department received an email from Jan Smit, WRR's Environmental Compliance Coordinator. The email regarded an August 28, 2013, telephone call between the Department and WRR on discrepancies to the responses provided to some of the questions for the Waste Analysis Plan (WAP) in Section G of Part 1 of the FPOR.
 - c. On December 2, 2013, the Department received an email with an attachment from Jan Smit, WRR's Environmental Compliance Coordinator. The email's attachment contained the CAP.
 - d. On December 9 and 11, 2013, the Department received an email from Jan Smit with questions regarding the Department's December 3, 2013, NOI letter. The Department responded back to Jan's email on December 10 and 16, 2013.
 - e. On December 20, 2013, the Department received an email from Jan Smit regarding the possibility of licensing of the household hazardous waste room. The Department responded back to Jan Smit by email on January 17, 2014.
 - f. A February 4, 2014, letter from the Department to Jan Smit on the regulatory issues regarding fuel blended tanker trucks parked on-site in non-licensed storage areas. The Department received email responses with attachments from Bob Fuller, WRR's CFO and controller, dated February 14 and 19, 2014.
 - g. Three February 24, 2014, emails to Jan Smit requesting a copy of the original EA, copies of the first 2 FPOR approvals, hours of operation and types of waste managed at the facility. The Department received email responses from Jan Smit dated February 24, 2014.
 - h. A February 25, 2014, email from Jan Smit on updates to the information contained in the tank farm tables in the FPOR.
 - i. A February 25, 2014, email to Becky Anderson requesting additional information on the types of waste managed at the facility. The Department received an email response with attachments from Becky Anderson dated February 25, 2014.
 - j. A February 26, 2014, email to Becky Anderson requesting additional information on the description of the facility. The Department received an email response with attachments from Becky Anderson dated March 6, 2014.
 - k. A February 27, 2014, email to Becky Anderson requesting information on closure costs. The Department received an email response from Becky Anderson dated February 27, 2014.
 - l. A February 28, 2014, email to Jae Lee, EPA, requesting information on environmental justice. The Department received email response from Jae Lee dated March 3, 2014.
 - m. An April 7, 2014, email to Becky Anderson requesting information on closure costs. The Department received email response with attachments from Becky Anderson dated April 7, 18, 24, and May 8 2014.
 - n. A June 30, 2014, email from Becky Anderson on the concrete specification for the secondary containment of the tanker storage area.
 - o. A July 2, 2014, email from Becky Anderson requesting clarification from the Department on what is required to conduct depack/repack on Dock 3 in the E1 Building.
 - p. A July 7, 2014, email from Becky Anderson regarding that the dry cleaning process unit does not have a closure letter.
12. The Department's Environmental Analysis (EA) decision showed that there are no special ethnic or cultural groups in the immediate area nor are there highly sensitive facilities (hospitals, elder care facilities, child day care, etc.) in the immediate area that could be impaired by an air release or a spill from the facility. The EA also showed that the facility is not located in an environmental justice area.
13. On August 5, 2014, the Department determined the FPOR to be complete.
14. On July 31, 2014, the preliminary determination was submitted to WRR for comment. The Department received comments back from WRR on August 4, 2014, which are included in this preliminary determination.

15. On August 7, 2014, a class 1 public notice was published in the Wisconsin State Journal and the Eau Claire Leader-Telegram, a radio advertisement for the opportunity for public comment was placed with radio stations WBIZ and WMEQ on the same date during morning and evening drive times, and public notice was placed on the Department's website at <http://dnr.wi.gov/topic/Waste/Comment.html> that informed the public that the FPOR, the preliminary determination, the initial environmental assessment, the preliminary notice of the reaffirmation of the initial environmental assessment dated November 13, 1987 and the fact sheet are available for review by the public. The 45 day public comment period ends on September 22, 2014.
16. On August 22, 2014, the Department received an email from Becky Anderson of WRR on the Department's preliminary determination to conditionally approve the FPOR. WRR's comments regarded conditions 134 through 140. The comment to condition 134 was in regards to WRR's fiscal year being July 1 through June 30. The comment to conditions 134 through 140 regarded that the funding of owner financial responsibility should be based on the cost to completing the remaining scheduled corrective action activities as opposed to the estimated remaining cost for that year. WRR's comments on the Department's preliminary determination are incorporated into the final determination.
17. On September 22, 2014, the Department received an email from Becky Anderson of WRR on the Department's preliminary determination to conditionally approve the FPOR. WRR's comments regarded conditions 13 and 19. The comment to condition 13 was to include the word 'waste' after the word 'hazardous'. The comment to conditions 19 was clarification if drum that do not contain free liquid are required to have secondary containment. WRR's comments on the Department's preliminary determination are incorporated into the final determination.

CONCLUSIONS OF LAW

The Department concludes that:

1. The Department promulgated chs. NR 660 through 670, Wis. Adm. Code, establishing minimum requirements for hazardous waste management under the authority of chs. 289 and 291, Wis. Stats.
2. The Department has the authority to conditionally approve a FPOR if the conditions are necessary to ensure compliance with chs. NR 660 through 670, Wis. Adm. Code, pursuant to s. 289.30(6), Wis. Stats.
3. Pursuant to s. 289.31, Wis. Stats., and s. NR 670.050, Wis. Adm. Code, the Department may issue annual renewals of hazardous waste operating licenses for an effective period of up to ten (10) years. If the licensee chooses to operate or maintain a hazardous waste facility after the ten (10) year effective period ends, the licensee must submit, at least 180 days before the end of the effective period, a new operating license application consisting of a Part A application form, the feasibility and plan of operation report and any supplemental information, as specified in s. NR 670.010(1), (3) and (8), Wis. Adm. Code and the applicable sections of chs. NR 660 to 670, Wis. Adm. Code.
4. The Department promulgated ch. NR 103, Wis. Adm. Code to preserve and protect the water quality of wetlands.
5. Pursuant to s. 289.30(6), Wis. Stats., and ch. NR 670, Wis. Adm. Code, the Department has the authority to issue hazardous waste facility plan approvals.
6. The conditions of approval set forth below are necessary to ensure compliance with chs. NR 660 through 670, Wis. Adm. Code.
7. S. 291.37 Wis, Stats and NR 664, Subch. F, Wis. Adm. Code authorizes the Department to require corrective action when a release has occurred from a solid waste management unit at a facility.

DETERMINATION

In accordance with s. 289.28(3), Wis. Stats., the Department has determined that there is a need for the facility to store hazardous waste as approved. The Department has further determined that there is no need for an environmental impact report or environmental impact statement for this facility at this time, pursuant to s. 1.11, Wis. Stats., and ch. NR 150, Wis. Adm. Code, and that the existing facility conforms to wetlands water quality standards pursuant to ch. NR 103, Wis. Adm. Code.

Based on the Findings of Fact and Conclusions of Law, the Department hereby approves the hazardous waste feasibility and plan of operation report for WRR Environmental Services Company Inc. (WRR) submitted on April 19, 2013, and amended on May 7, 2014, subject to compliance with ch. 291, Stats., chs. NR 660 through NR 670, Wis. Adm. Code, and the following conditions.

CONDITIONS OF APPROVAL

WRR Environmental Services Company Inc. (WRR) is subject to the following conditions:

General Conditions

1. The hazardous waste facility shall be operated in accordance with the approved Feasibility and Plan of Operation Report (FPOR), the requirements of ch. 291, Wis. Stats., chs. NR 660 to 670, Wis. Adm. Code, and the conditions of this approval. The approval conditions, Wisconsin Statutes or the Wisconsin Administrative Code shall take precedence over any discrepancies with the FPOR.
2. All prior hazardous waste approvals and hazardous waste modifications issued by the Department relating to the operation of the hazardous waste facility at WRR are hereby nullified or superseded by this approval. Condition 2 does not include decisions related to corrective action.
3. The Department retains the jurisdiction either to require the submittal of additional information or to modify this approval at any time if, in the Department's opinion, conditions warrant further modifications. Nothing in this conditional approval shall relieve WRR of the legal obligation to comply with applicable federal, state and local approvals.
4. The requirements set out in s. NR 670.030, Wis. Adm. Code, apply to this facility and are hereby incorporated by reference and made a part of this approval and of any operating licenses which may be issued for the facility based upon this approval.
5. WRR shall at all times maintain in good working order and operate efficiently all facilities and systems of treatment or control and related appurtenances which are installed or used to achieve compliance with the terms and conditions of the license. Proper operation and maintenance includes, but is not limited to, effective performance based on preventive maintenance, adequate funding, effective management, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures.
6. The licenses for operating the hazardous waste units at WRR are subject to the annual renewal of operating license fees listed in Appendix II, ch. NR 670, Wis. Adm. Code.
7. WRR shall comply with all applicable requirements of the Department's air pollution control rules stated in chs. NR 400 to 499, Wis. Adm. Code, and directives including but not limited to obtaining all necessary permits to operate in accordance with these rules. WRR shall notify the Department of any change in operation that results in an increase in the maximum potential emissions of an air contaminant or which results in the emission of an air contaminant not previously emitted.
8. If at any time WRR becomes aware that there was a failure to disclose relevant facts in any reports, plans, or other documents submitted, or that incorrect information was submitted, WRR shall promptly submit such facts or correct information to the Department.
9. WRR shall install and maintain a bonding and grounding system in all areas of the facility where a static discharge could result in a fire or explosion that would impact the license storage and treatment areas.
10. WRR shall operate the facility in a manner that prevents discharges from the facility from impacting the facility and the environment.
11. Should a fire, explosion or other incident that requires implementation of the contingency plan occurs, WRR shall do the following:
 - a. Take colored photo documentation of incident.

- b. Identify the employees who have knowledge of, or were involved in the incident.
 - c. Retain and secure any data associated with the incident.
 - d. Retain and secure any equipment and/or parts that were involved in the incident.
 - e. Retain and secure wastes or residues that were involved in the incident.
- WRR shall obtain Department concurrence prior to releasing any items obtained in 11.c - e.

12. WRR shall submit to the Department within thirty (30) days of the date of the final determination (2) two 'clean' printed and bound copies in D ring binders with the spline appropriate labeled.

Storage and Treatment Capacity Conditions

13. WRR may not store or treat hazardous waste in locations or quantities greater than those stated below:

Table 8: Storage and Treatment Summary

Table 8: License Storage and Treatment Units and their Capacity.

Unit Name	Subunit Name	Unit Type	License Number	Net Capacity	Units	Container Storage Capacity not to Exceed
Drum Storage Pads	Pad P-1	Container Storage	6005	4,400	Gallons	80 55-gallon drums
	Pad P-2	Container Storage	6005	4,400	Gallons	80 55-gallon drums
	Pad P-3	Container Storage	6005	4,400	Gallons	80 55-gallon drums
	Pad P-6	Container Storage	6005	4,400	Gallons	80 55-gallon drums
	Pad P-7	Container Storage	6005	4,400	Gallons	80 55-gallon drums
	Pad P-8	Container Storage	6005	2,200	Gallons	40 55-gallon drums
	Pad P-9	Container Storage	6005	4,400	Gallons	80 55-gallon drums
	Pad P-10	Container Storage	6005	4,400	Gallons	80 55-gallon drums
E-II Warehouse		Container Storage	6005	50,050	Gallons	910 55-gallon drums
Fuels Building	Upper Level	Container Storage	6005	12,650	Gallons	230 55-gallon drums
	Lower Level	Container Storage	6005	550	Gallons	10 55-gallon drums
E-1 Warehouse		Container Storage	6005	124,355	Gallons	2261 55-gallon drums
DOT Room in Dock 6 Building		Container Storage	6005	4,400	Gallons	80 55-gallon drums
Clean Sweep Building		Container Storage	6005	4,129	Gallons	75 55-gallon drums
Tanker Area		Container Storage	6005	27,000	Gallons	4 6,750 gallon tankers
Total Container Storage Capacity				256,134	Gallons	
E-I Sludge Tank Farm	Tank A	Tank Storage	3161	16,930	Gallons	
	Tank B	Tank Storage	3161	14,380	Gallons	
	Tank C	Tank Storage	3161	1,810	Gallons	
	Tank D	Tank Storage	3161	1,840	Gallons	
	Tank E	Tank Storage	3161	9,240	Gallons	
	Tank F	Tank Storage	3161	5,610	Gallons	
	Tank G	Tank Storage	3161	9,920	Gallons	
	Tank H	Tank Storage	3161	2,680	Gallons	
	Tank ZZ	Tank Storage	3161	16,840	Gallons	
	Tank AA	Tank Storage	3161	11,960	Gallons	
	Tank BB	Tank Storage	3161	7,620	Gallons	
	Tank CC	Tank Storage	3161	2,740	Gallons	
	Tank DD	Tank Storage	3161	4,740	Gallons	
	Tank EE	Tank Storage	3161	10,260	Gallons	
	Tank FF	Tank Storage	3161	12,410	Gallons	
Tank GG	Tank Storage	3161	9,520	Gallons		
Overflow Tank	Tank Storage	3161	300	Gallons		
Total E-I Sludge Tank Farm Capacity				138,800	Gallons	
E-I South Sludge Tank Farm	Tank QQ	Tank Storage	3161	13,550	Gallons	
	Tank BF	Tank Storage	3161	17,890	Gallons	
	Tank TT	Tank Storage	3161	14,010	Gallons	
	Tank UU	Tank Storage	3161	17,320	Gallons	
	Tank VV	Tank Storage	3161	12,420	Gallons	
	Tank XX	Tank Storage	3161	12,420	Gallons	
	Tank YY	Tank Storage	3161	16,310	Gallons	
	Overflow Tank	Tank Storage	3161	500	Gallons	
Total E-II South Sludge Tank Farm Capacity				104,420	Gallons	
E-II Sludge Tank Farm	Tank J	Tank Storage	3161	8,939	Gallons	
	Tank K	Tank Storage	3161	8,939	Gallons	
	Tank L	Tank Storage	3161	11,431	Gallons	
	Tank M	Tank Storage	3161	4,972	Gallons	
	Tank N	Tank Storage	3161	11,431	Gallons	
	Tank O	Tank Storage	3161	8,939	Gallons	
	Tank Q	Tank Storage	3161	8,939	Gallons	
	Tank R	Tank Storage	3161	8,939	Gallons	

	Tank S	Tank Storage	3161	8,939	Gallons	
	Tank V	Tank Storage	3161	11,431	Gallons	
	Tank W	Tank Storage	3161	11,431	Gallons	
	Tank X	Tank Storage	3161	11,431	Gallons	
	Tank Y	Tank Storage	3161	11,431	Gallons	
	Tank Z	Tank Storage	3161	8,939	Gallons	
	Tank HH	Tank Storage	3161	4,972	Gallons	
	Overflow Tank	Tank Storage	3161	300	Gallons	
	Total E-II Sludge Tank Farm Capacity			141,403	Gallons	
	E-IV Thin Film Evaporator	Miscellaneous Treatment	4305	825	Gallons/Hour	
	Fuel Blending/HVPS	Miscellaneous Treatment	4304	14,750 3,250	Gallons/Day Gallons of waste per batch	

Storage Conditions

14. All hazardous waste storage activities shall be confined to the areas specified for those purposes in the approved FPOR. The only hazardous wastes that can be stored in these areas are the hazardous wastes identified on the most recent Part A notification form dated February 27, 2014. Wastes with similar characteristics, but different hazardous waste codes, may only be managed at the facility after receiving written approval from the Department following a modification to this determination and the submission of a revised Part A application.
15. Hazardous waste received from off-site shall be processed or moved into a container or tank storage area within twenty-four (24) hours of the hazardous waste arriving at the facility.
16. WRR shall sign off on the uniform hazardous waste manifests within seventy-two (72) hours of receipt of the wastes.
17. Signs and/or placards shall be used to identify the different types of wastes stored, such as poisons, reactives, corrosives, ignitables, etc.
18. The identity and location of all stored hazardous wastes shall be known throughout the entire storage period.
19. When storing non-hazardous waste in the licensed hazardous waste storage units the non-hazardous waste shall be managed as if it were a hazardous waste (secondary containment for containers containing free liquid, inspection, counted towards the license storage capacity, etc).
20. Sufficient aisle space of at least two (2) feet shall be maintained in all of the storage and staging areas to allow for unobstructed movement of personnel and equipment in an emergency and to allow for inspections of the storage area.
21. Sufficient lighting shall be maintained in all of the storage areas to allow for inspections of the storage area.
22. Waste stored in the E-I building shall not sustain combustion.
23. Tankers and trailers in the tanker storage area shall be completely located within the secondary containment structure.

Transfer Facility Conditions

24. WRR may operate an on-site 10-day transfer facility for incoming hazardous waste, provide that WRR or its contract carrier is only the transporter and is not identified on line 8 on the uniform hazardous waste manifest as a designated facility.
25. WRR shall not move hazardous waste from an on-site hazardous waste transfer facility to the storage facility or from the storage facility to an on-site transfer facility.

26. WRR shall clearly mark on all hazardous waste manifests or associated paperwork the date when the hazardous waste is first placed/arrived in the transfer facility. WRR shall ensure that on each hazardous waste manifest or associated paperwork this date is available for inspection

Container Conditions

27. WRR shall store waste in structurally sound (undamaged) U.S. DOT approved containers.
28. Lines shall be clearly marked and maintained on the floor to delineate the rows of containers from the aisles. Containers shall be stored within the lines that delineate the rows.
29. Containers shall be placed in the storage areas so that labels are visible from the aisles.
30. When storing containers two (2) or more high on pallets, containers of equal or larger size or quantity shall be stored on the bottom level.
31. WRR shall stack containers in a stable manner so that the containers do not tip over.
32. WRR shall stack containers no more than three (3) containers high except as identified in condition 44.
33. WRR shall not stack containers when the stacking would compromise the structural integrity of the container.
34. When containers greater than twenty (20) gallons in size are stored two (2) high, pallets shall be used to separate the first level from the second level.
35. Containers shall be covered/closed except when adding or removing wastes.

Drum Storage Pad Conditions

36. WRR shall maintain the sheds and the secondary containment systems in good working order.
37. WRR shall have a preventive maintenance program that reduces the risk of deteriorations to the sheds and the secondary containment systems.
38. WRR shall prevent precipitation from infiltrating the sheds. This condition does not apply when WRR is actively adding or removing wastes and/or materials from the sheds.
39. WRR shall maintain the sheds to be free of animals and animal activity (e.g., nests, food storage). This condition does not apply when it would cause WRR to violate a governmental rule if WRR were to act on this condition (e.g., knocking down a barn swallow nest that is being used by the barn swallows).
40. WRR shall secure the shed doors when adding or removing wastes and/or materials from the sheds to prevent the shed doors from becoming damaged by the winds.
41. WRR shall place a sign on each hazardous waste shed with these words or similar words "*Hazardous Waste Shed*". Sheds that contain either a reactive, an oxidizer or a corrosive hazardous waste shall also be signed to show that the shed contains either a reactive, an oxidizers or a corrosives.
42. Each sign shall be conspicuously located so that the sign is visible and the sign maintained so that the sign is readable and not faded.
43. WRR Environmental Services, Inc. shall remove accumulated snow from around the sheds within twenty-four (24) hours or in as timely a manner as is possible.

44. WRR shall stack containers no more than two (2) containers high on the drum storage pads.

Tank Conditions

45. WRR shall maintain records detailing the quantities of hazardous and nonhazardous waste stored in the licensed hazardous waste storage tanks.
46. WRR shall not place hazardous wastes in a tank if the wastes could cause the tank, its ancillary equipment, or the containment structure to rupture, leak, corrode, overflow or otherwise fail.
47. When transferring waste between a container and the tank system, WRR shall place the container on a containment pad that provides adequate secondary containment.
48. WRR shall inspect the following components of each tank once each operating day; overfill control equipment (e.g., waste feed cut-off), and the area immediately surrounding the tank, to detect erosion or signs of releases of hazardous waste.
49. WRR shall maintain and have operational a high level alarm system for each hazardous waste tank. If the high level alarm system is not operational waste may not be added to the tank.
50. All electrical equipment inside a hazardous waste tank shall be intrinsically safe and in compliance with the most recent edition of NFPA 70, the National Electrical Code (NEC).
51. WRR shall keep the following information in their operating record for each licensed hazardous waste tank: tank identifier and location, year installed, dimensions, net and gross capacity, a description of the contents, and the maximum organic vapor pressure of the contents. This record shall be kept updated and on file for reference.
52. Within seven (7) days after returning the tank system to use, WRR shall provide a certification by an independent, qualified, registered, professional engineer in accordance with s. NR 670.011(4), Wis. Adm. Code, that the tank system is capable of handling hazardous waste without release for the intended life of the system, as required per s. NR 664.0196(6), Wis. Adm. Code.

F034 Management Conditions

53. Prior to initially accepting a F034 waste from a generator, WRR shall analysis the chemical and physical attributes of the F034 waste for the parameters and test methods identified in Part 1 of Section G, table G-2 of the approved FPOR.

Miscellaneous Treatment Unit Conditions

54. WRR shall not leave wastes untreated in the E-IV or HVPS beyond the day that it is placed into the unit.
55. WRR shall have a trained operator present in the E-IV or HVPS treatment unit area whenever it is in operation. WRR shall not allow employees to work unsupervised until they have been certified as being fully trained, in accordance with the facility's personnel training plan.
56. WRR shall follow the Occupational Safety and Health Administration's (OSHA) lockout/tagout procedures prior to servicing the E-IV or HVPS treatment units.
57. All electrical equipment used by the E-IV or HVPS shall be intrinsically safe and in compliance with the most recent edition of NFPA 70, the National Electrical Code (NEC).

E-IV Thin Film Evaporator Conditions

58. The control device on the E-IV shall be equipped with a continuous temperature monitoring system that is programmed to shut the steam off to the unit if the control device's temperature rises above 60°F.
59. The E-IV shall be operated under vacuum for the duration of the batch.
60. WRR shall conduct daily visual inspections on the E-IV system.
61. The closed vent systems for the E-IV shall be visually inspected annually for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes or gaps in ductwork or piping or loose connections.

HVPS/ Fuels Building Conditions

62. WRR shall not treat more than 14,750 gallons of waste per day and 3,250 gallons of waste per batch in the high viscosity processing system (HVPS). The amount of waste processed per day and per batch shall be recorded in the operating record.
63. To reduce the potential for an explosion, an inert gas shall be provided to the hydrapulper enclosure to maintain an oxygen deficient environment,
64. The HVPS shall be electrically interlocked with the safety control equipment. The HVPS will be operated with the following safety interlocks:
 - a. E-stop shut offs located in the lower level fuels building, upper level fuels building, tanker loading bay south of the fuels building, tanker loading bay on the west wall near dock 4, and the control panel.
 - b. Low and high level switches in the hydrapulper vessel.
 - c. High temperature and high pressure alarms and shut offs.
 - d. Oxygen sensors with alarms and shutoffs.
 - e. Lower explosive limit sensors with shut offs for the barrel punch and pusher.This equipment, and all other equipment that provides safeguards critical to the operation of the HVPS, shall be adequately maintained and fully operational. WRR shall not operate the HVPS without fully operational safety interlocks
65. The barrel punch and pusher shall be safety interlocked to cease operation if the exhaust reaches 10 % of the lower explosive limit.
66. The HVPS shall be operated in a manner that will eliminate spillage of any materials before, during and after processing.
67. Breakthrough detection and monitoring for all activated carbon control devices shall be conducted as required per WRR's most current air pollution control permit issued by the Department.
68. All enclosures and closed vent systems shall be equipped with at least one manometer, or other pressure measurement device, that can be read from a readily accessible location. WRR shall measure and record the pressure to verify that a negative pressure is being achieved for each enclosure device used to control volatile organic compound emissions.
69. The fuels building and the covered dumpster shall be maintained and operated in accordance with the criteria for a permanent total enclosure as specified in "*Procedure T- Criteria for and Verification of a Permanent or Temporary Enclosure*" under 40 CFR 52.741, Appendix B.
70. The fuels building shall be vented to a control device with a minimum of 1000 ACFM (Actual Cubic Feet per Minute).

71. The dumpster shall be vented to a control device.
72. The doors of the fuels building shall be kept closed while the HVPS is in operation.
73. Systems under positive pressure shall be operated with no detectable emissions.

Container Repacking/Bulking Conditions

74. When repacking/ depacking is in operation, WRR shall at all times equip at least one (1) employee involved in the operation with a two-way radio or other electronic communication device to be used primarily in the event of an emergency.
75. If equipment becomes contaminated after use from repacking/ depacking, WRR shall decontaminate the equipment before the equipment is used outside of the repacking/ depacking unit or used with incompatible materials.

Secondary Containment Conditions

76. The secondary containment systems shall be operated to prevent any migration of wastes or accumulated liquid out of the system into the air, soil, groundwater or surface water at any time.
77. The secondary containment system shall be capable of detecting and collecting releases and accumulated liquids until the collected material is removed.
78. The secondary containment structures shall be maintained to be liquid tight and free of cracks and gaps.
79. The secondary containment structures shall be promptly resealed or repaired with a chemically resistant material to maintain an impervious surface.
80. All uncontained wastes and liquids located within the secondary containment systems shall be removed from the secondary containment systems area daily and properly managed and disposed of.
81. WRR may not store materials or equipment whose volume will adversely affect the secondary containment capacity of the storage units, other than the equipment considered in the secondary containment system calculations included in the FPOR.
82. If a spill occurs in a containment pallet or on the floor, the containment pallet or floor shall be decontaminated before waste or material is stored on the containment pallet or floor.

Spill Reporting Conditions

83. WRR shall comply with all applicable statutes and rules relating to spills, leaks, or other releases of hazardous waste or other hazardous substances, including ch. 292, Wis. Stats., ch. NR 664 subch. D Wis. Adm. Code and chs. NR 700 to 754, Wis. Adm. Code.
84. WRR shall implement conditions 85 and 86 of this approval when any of the following conditions occur:
 - a. General spills reporting requirement: If a discharged substance has adversely impacted or threatens to adversely impact the air, lands or waters of the state; caused or threatens to cause acute or chronic human health impacts if immediate actions, such as evacuation or in-place sheltering, are not taken; or presents or threatens to present a fire or explosion hazard or other safety hazard, in accordance with Wis. Admin. Code s. 706.05. The discharge notification form for historic releases can be obtained at the following web address: <http://dnr.wi.gov/files/PDF/forms/4400/4400-225.pdf>.
 - b. Spills occurring inside the buildings: Greater than five (5) gallons of hazardous materials.
 - c. Spills occurring outside the buildings and secondary containment on paved areas that drains to the stormwater collection system: Greater than one (1) gallon of hazardous materials.

- d. All spills occurring on non-paved areas.
85. WRR shall provide immediate telephone notification to the Division of Emergency Government (Spills Line - 800-943-0003) when a release is covered by condition 84.
86. WRR shall submit a spill report to the Department in accordance with NR 706. In addition WRR shall submit a spill report to the department's designated Hazardous Waste Inspector assigned to WRR and to the Department's designated Hazardous Waste plan review staff person assigned to WRR and to the Department's designated Spills Coordinator within fifteen (15) days of incident.
87. WRR shall submit quarterly reports listing all visible spills of hazardous material greater than one gallon that occurred at the facility over the previous three (3) months. The report shall include the type and quantity of waste spilled, the location of the release, the source of the release, what actions were taken to clean up the release and what actions will be taken to prevent a release from recurring. The quarterly report shall be submitted to the Department's designated Hazardous Waste Inspector by the 15th day of April, July, October and January of each year that WRR maintains a hazardous waste operating license.

Corrective Action Condition

88. The Department reserves the right to require corrective action by WRR under the authority of s. 291.37, Wis. Stats., and chs. NR 664, subch. F, Wis. Adm. Code.
89. WRR shall submit semi-annual reports of the "*Remediation Site Progress and Operation, Maintenance, Monitoring & Optimization Report*" (including all applicable pages from Department form number 4400-194). The reporting periods for the semi-annual reports are from October 1 to March 31 and April 1 to September 30. The semi-annual reports shall be submitted within 60 days of the end of each reporting period to the Department's assigned remediation and redevelopment hydrogeologist and the Department's assigned hazardous waste inspector.
90. WRR shall follow the planned remedial activities as identified below.
- a. July through December 2014. WRR shall:
 - i. Prepare report summarizing results of private well survey and send to the Department for review.
 - ii. Prepare and send letters to owners of private wells with the laboratory report of their sample.
 - iii. If necessary, prepare a work plan for the collection of groundwater samples from up to 12 borings along Lowes Creek and send to the Department for review.
 - iv. Conduct additional sampling activities near the former location of the UST in the southwestern portion of the facility to determine appropriate location and design criteria for a recovery well.
 - v. Collect groundwater samples from various depths in a boring near the former location of W-19 to determine appropriate depth of screen for replacement well.
 - vi. Abandon wells MW-107, MW-107A, MW-109, and MW-110 as approved by the Department on May 14, 2008.
 - vii. Install replacement well(s) for W-19 and a recovery well in the southwestern portion of site.
 - viii. Collect samples as part of the semi-annual groundwater sampling event.
 - b. January through June 2015. WRR shall:
 - i. Prepare and submit O&M report summarizing fall 2014 groundwater sampling event, results of the supplemental investigation, and status of remedial activities. The O&M report will include a work plan for additional investigation or supplemental remedial activities, as appropriate.
 - ii. Collect samples as part of the annual groundwater sampling event.
 - c. July through December 2015. WRR shall:
 - i. If necessary, based on results of supplement on-site and off-site investigations, install up to six deep wells to monitor VOC plume in mid-depth and deep aquifers. The locations of these well nests would be based on the results of the Geoprobe investigations conducted in 2014 and 2015.
 - ii. Implement supplemental remedial activities, as appropriate.

- iii. Construct piping connecting RW-2 through RW-5 to the Turbostripper/aeration reservoir II and restart wells, if appropriate.
 - iv. Collect semi-annual groundwater samples.
 - v. Prepare O&M report that includes summary of any additional investigation or remediation activities.
 - d. January through June 2016. WRR shall:
 - i. Instead of O&M report, prepare a second Evaluation of Remedial Activities report to include an evaluation of any supplemental remedial activities implemented in 2015.
 - e. July through December 2018. WRR shall:
 - i. Sample wells and O&M of remediation systems routinely.
 - ii. Collect second round of samples from select private water supply wells located west of Lowes Creek in "path" of VOC plume from WRR.
 - iii. Collect last round of groundwater samples and submit last O&M report in fall 2018.
 - f. January through June 2019. WRR shall:
 - i. Prepare closure request.
 - ii. Abandon monitoring and recovery wells after closure request is approved by the Department.
- If circumstances warrant, the tasks and schedule may be modified; provided WRR provides justification for the modification and obtains written Department concurrence from the hazardous waste program and the remediation and redevelopment program.

Hazardous Waste Air Emissions NR 664 – Subchapter AA/BB/CC Conditions

91. When WRR relies upon provisions of the Clean Air Act (and incorporated into corresponding enforceable air permit conditions) to determine compliance for hazardous waste units or equipment subject to subchs. AA, BB or CC of ch. NR 664, Wis. Adm. Code, WRR shall certify that for process vents subject to subch. AA or for tanks (or containers) subject to subch. CC or to equipment subject to subch. BB, those hazardous waste units or equipment are operated, monitored, and/or controlled subject to federally enforceable conditions within WRR's air quality permit(s). Specific air permit documents and applicable conditions shall be specified with this certification and included in the operating record.
92. WRR shall follow the air emission monitoring program for Leak Detection and Repair (LDAR) under the provisions of the current operation and construction permits issued by the Department under Chs NR 406 and NR 407. WRR shall inform Department of any changes to the LDAR program prior to implementation. If WRR chooses to use enforceable conditions within an air quality permit to demonstrate compliance for hazardous waste units covered under subch. BB, WRR shall inform the Department immediately and submit the required documentation.
93. WRR shall update the LDAR Program Manual as needed when changes occur to equipment subject to ch. NR 664 subch. BB, Wis. Adm. Code and make this updated plan available to WRR personnel or contractors responsible for monitoring hazardous waste units and equipment subject to monitoring, recordkeeping and reporting under subch. BB.
94. WRR shall ensure that each piece of equipment subject to ch. NR 664 subch. BB, Wis. Adm. Code has a tag that clearly identifies the equipment identification number and that the tag is secured to the equipment the tag is to represent. Any alternative method for identifying or marking hazardous waste equipment subject to subch. BB shall be identified in the operating record along with the affected equipment subject to subch. BB.
95. WRR shall visually inspect the potential leak interface areas of each container used to store waste subject to CC for compliance with ch. NR 664 subch. CC, Wis. Adm. Code.
96. WRR shall maintain in the facility operating record a record of all tests used to comply with the air emissions standards, visual inspections and monitoring, organic vapor determinations, and other documentation demonstrating compliance with ch. NR 664 subch. BB and CC, Wis. Adm. Code.

97. WRR shall submit reports to the Department's assigned hazardous waste inspector and hazardous waste permit writer for hazardous waste units or equipment at WRR subject to subchs. AA, BB and CC, where compliance with any portion of these subchapters is achieved by complying with enforceable air permit conditions, as follows:
- Next business day reporting of malfunctions and deviations at the same time provided the air management program in accordance with current air quality permit conditions or future corresponding permit condition applicable to entire facility reporting.
 - Semi-annual monitoring reports in accordance with current air quality permit conditions or future corresponding permit condition applicable to entire facility reporting.
 - Annual compliance certification reports in accordance with current air quality permit conditions or future corresponding permit condition applicable to entire facility reporting.
98. WRR shall submit semi-annual reports for the reporting periods from January 1 to June 30 and July 1 to December 31 to the Department's assigned hazardous waste inspector and hazardous waste permit writer for hazardous waste units or equipment at WRR subject to subchs. AA, BB and CC, where compliance with any portion of these subchapters is achieved by complying with applicable portions of ch. NR 664. Semi-annual reports shall be submitted within 30 days of the end of each reporting period and include the following:
- The EPA facility identification number and the name and address of the facility.
 - A cover letter summarizing any deviations from condition 92.
 - Each date of when the hazardous waste management units were shut down during the reporting period.
 - The equipment ID number of each valve, pump, and compressor for which a leak was not repaired or resulted in a Delay of Repair.
 - If there are no deviations as described in item b., then a report shall still be submitted indicating that there were no deviations.
 - Dates when the control device installed as required by s. NR 664.1052, 664.1053, 664.1054 or 664.1055 exceeded or operated outside of the design specifications as defined in s. NR 664.1064 (5) and as indicated by the control device monitoring required by s. NR 664.1060 and was not corrected within 24 hours, the duration and cause of each exceedance and any corrective measures taken.
99. WRR shall notify the Department's assigned hazardous waste inspector and hazardous waste permit writer if any proposed changes (through air quality construction permits) affect units subject to ch. NR 664 subch AA, BB, CC, or other RCRA rules pertaining to air emissions.

Waste Analysis Conditions

100. WRR shall follow the waste analysis plan as detailed in the FPOR submittal.
101. WRR shall retain records of all analytical information, including all calibration and maintenance records of laboratory instrumentation for a period of at least three (3) years from the date the waste was analyzed.
102. WRR shall indicate on the hazardous waste manifest, prepared for sending waste off site, all waste codes applicable to the hazardous waste prior to the commingling, recontainerization or bulking of hazardous waste on-site.
103. WRR shall follow the sampling collection guidance as outlined in U.S. EPA's SW-846, "*Volume II, Field Manual*". Sampling methods not covered by SW-846 must be acceptable to the Department.
104. WRR shall ensure that all samples collected are representative of the waste stream from which the samples are collected.
105. WRR shall ensure that the person(s) collecting the samples are trained in proper sample collection.
106. WRR shall only combine wastes that are compatible.

107. WRR shall use a laboratory that is certified or registered by the State of Wisconsin.
108. WRR shall perform a physical and chemical analysis of a waste stream when:
 - a. WRR is notified that the process or operation generating the waste has changed.
 - b. WRR has reason to believe that the process or operation generating the waste has changed.
 - c. Results of an inspection indicate that the waste to be collected does not match the waste designated.
109. WRR shall not modify the random selection process unless WRR has obtained Department concurrence.

Manifests Conditions

110. Within forty-five (45) days of receiving a uniform hazardous waste manifest, WRR shall send one copy of the uniform hazardous waste manifest information to the Department in an electronic format specified by the Department in accordance with s. NR 664.0071(1)(b)4 Wis. Admin. Code.
111. Upon notification of a uniform hazardous waste manifest data quality issue by the Department, WRR, shall within five (5) business days, make the correction(s) and resubmit the uniform hazardous waste manifest information to the Department.
112. WRR's submittal of the uniform hazardous waste manifest information shall be identical to the information as describe on the uniform hazardous waste manifest.
113. Beginning in 2014, WRR shall begin quarterly, random, checks of five (5) percent of the paper manifests against WRR's electronic submittals to the Department for accuracy of the electronic data.
114. WRR shall submit quarterly reports of the manifest review. The report shall include the uniform manifest tracking number and the results of the review and what actions, if any, were taken to correct inaccurate data. The quarterly report shall be submitted to the Department's assigned hazardous waste inspector and hazardous waste permit writer by the 15th day of April, July, October and January of each year that WRR maintains a hazardous waste operating license or until WRR demonstrates there is consistently good agreement between paper manifests and electronic data, then the Department will consider reducing this to an annual requirement covering one (1) percent of the paper manifests.

Closure of Rotary Drum Vacuum Filter

115. WRR shall submit to the Department, by December 1, 2014, a complete closure plan for the Rotary Drum Vacuum Filter unit. A complete closure plan consists of complying with conditions 117 through 134 of this approval.
116. If the Rotary Drum Vacuum Filter unit closure plan is not received by the Department by December 31, 2014, WRR shall pay the \$3,200.00 annual license fee for the Rotary Drum Vacuum Filter unit; this is the annual amount designed for a miscellaneous unit that is as identified in Appendix II of Chapter NR 670 WAC. The \$3,200.00 annual license fee shall be submitted and payable to the Department no later than January 15, 2015.

Closure Conditions

117. WRR shall follow the closure plan as submitted in the FPOR when closing all or part of the hazardous waste activities covered by this plan approval.
118. Closure confirmation samples shall be grab samples. Closure confirmation sampling must show that all areas of a unit have been successfully cleaned and that no contamination above the wastewater standards identified in table 1 of s. NR 668.40 Wis. Admin. Code.

119. Field sampling methods shall follow the guidance in EPA's SW-846, "*Volume II, Field Manual*". Field sampling methods not covered by SW-846 must be acceptable to the Department before they are used to close the hazardous waste storage area(s).
120. Sampling methods and equipment, as well as laboratory analytical methods, shall follow the guidance in U.S. EPA's SW-846, "*Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition*" (see 40 CFR 260.11).
121. WRR shall use the lowest possible analytical Method Detection Limit (MDL) for the hazardous constituents associated with listed hazardous wastes.
122. WRR shall report all concentration data, even if it is estimated, for compounds or elements that have been positively identified in the sample. Some target analytes are present at concentrations which are above the level that can be reliably detected but below the level that they can be reliably quantified. These data are referred to as "qualified" and will be reported as a number which has been "flagged" by the laboratory. Although less reliable than data which are reported above the Estimated Quantitation Limit (EQL), these qualified data must nevertheless be evaluated carefully by the Department.
123. The closure report shall include a discussion/evaluation of the secondary containment area. This discussion/evaluation of the secondary containment area shall include any observations of visible contamination (i.e., staining caused by waste consisting of light shadows, slight streaks, or minor discolorations), cracks, crevices, and pits in the floor and any defects of the impervious coating used on the floor. Soil sampling will be required if defects are discovered in the secondary containment area that would allow the waste to penetrate the secondary containment area and affect the underlying soils.
124. The closure report shall include a discussion/evaluation of how the cleaning methods and the surfactants chosen are suitable for the contaminants. If detergent washing and water rinsing are selected, the closure report should show that the detergent solution will remove the contaminants of concern. This may be demonstrated with solubility data from product specification sheets or standard chemical tables. The length of time solutions are in contact with the surface and whether or not scrubbing or other physical efforts are used will affect the accuracy of the decontamination demonstration. Other useful considerations might include the temperature of the wash water and the pressure/nozzle that would be used to apply it to clean the surface. The effectiveness of chemical and physical decontamination will also depend on the unit's design, the cleaning solutions, and the constituents to be removed.
125. The closure report shall include a discussion/evaluation on the equipment used to clean the hazardous waste storage area(s), how this equipment was decontaminated and how the residues from the decontamination were handled.
126. The closure report shall include a discussion/evaluation of how waste materials (i.e., rinsate, debris, disposable equipment, etc.) from decontamination were managed and the volumes / quantity of waste materials that were generated by the decontamination efforts. The waste materials will need to be managed as a hazardous waste per s. NR 664.0178, Wis. Admin. Code.
127. The closure report shall include a drawing of the hazardous waste storage area(s) that are being closed. The drawing should show, at a minimum, dimensions and other construction details, appurtenant structures and relationship to other significant points or structures on the facility property. All drawings shall provide a specified scale, legend, and north arrows.
128. The closure report shall include a discussion on the types and quantities of hazardous wastes and materials that were stored in hazardous waste storage area(s).

129. The closure report shall include a photo log documenting the decontamination of the hazardous waste storage area(s) and photos showing the 'clean' hazardous waste storage area(s). Each photo should be numbered, dated and include a description of what was photographed.
130. The closure report shall include a discussion/evaluation of the sampling strategy (i.e., sample collection, sample locations, number of samples collected, how the sample was collected and analytical considerations).
131. The closure report shall include waste disposal documentation (e.g. bills of lading, uniform hazardous waste manifest, waste profile information).
132. The closure report shall include a table summarizing the data reported by the lab. The table needs to include concentration data, even if it is estimated, for compounds or elements that have been positively identified in the sample.
133. The closure report shall include a discussion/evaluation of any spills that have occurred in the hazardous waste storage area(s).
134. WRR shall demonstrate that any residual contamination remaining in the hazardous waste storage area(s) is below regulatory or health based standards. To achieve clean closure, WRR will need to meet the wastewater standards identified in table 1 of s. NR 668.40 Wis. Admin. Code for the hazardous wastes that were stored in the hazardous waste storage area(s).

Financial Responsibility Conditions

135. WRR shall maintain an up to date closure cost estimates and financial proof mechanism covering closure and liability requirements as defined in ch. NR 664, Subch. H, Wis. Adm. Code. The owner financial proof mechanism shall be updated annually for inflation.
136. WRR shall submit to the Department by October 1 of each year a financial report (that follows the Generally Accepted Accounting Principles (GAAP)), showing the corrective action costs WRR incurred for the previous calendar year.
137. If WRR does not complete each year's corrective action activities that are identified in condition 90 of this document, WRR shall add to owner financial responsibility the amount of money needed to complete the remaining corrective action activities that were scheduled for that year. This money shall be added to the owner financial responsibility by March 1 of the following year. For example: In 2014, WRR did not complete two corrective action activities identified in condition 90.a of this document. The estimated cost to complete these two activities is \$58,000. Therefore WRR will need to add \$58,000 to owner financial responsibility by March 1, 2015.
138. Beginning January 1, 2015, WRR shall provide a letter of credit of \$50,000 and every 6 months thereafter WRR shall provide an additional \$60,000 letter of credit until the total dollar amount in letters of credit, exceed the remaining corrective action cost estimate. The above amounts are based on WRR's stated intention to use the letter of credit mechanism to provide proof of financial assurance. All letters of credit shall be written on forms supplied by the Department with no alterations or edits made to the wording of the forms. WRR shall maintain this amount, adjusted for inflation, until corrective action activities are completed.
139. If on January 1, 2017, there is a deficiency between the corrective action estimate and the total in letters of credit, then by March 31, 2017, WRR shall provide an additional letter of credit to cover the amount of the deficiency.

This approval is based on the information available to the Department as of the date of approval. If additional information, project changes or other circumstances indicate a possible need to modify this approval, the Department may ask you to provide further information relating to this activity. Likewise, the Department accepts proposals to modify approvals, as provided for in state statutes and administrative codes.

NOTICE OF APPEAL RIGHTS

If you believe you have a right to challenge this decision made by the Department, you should know that Wisconsin statutes, administrative codes and case law establish time periods and requirements for reviewing Department decisions.

To seek judicial review of the Department's decision, sections 227.52 and 227.53, Stats., establish criteria for filing a petition for judicial review. You have 30 days after the decision is mailed or otherwise served by the Department to file your petition with the appropriate circuit court and serve the petition on the Department. The petition shall name the Department of Natural Resources as the respondent.

Dated: September 25, 2014

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
For the Secretary



Edward K Lynch, PE, Chief
Hazardous Waste & Mining Section
Bureau of Waste and Materials Management



Michael J. Ellenbecker
Hazardous Waste Program Coordinator
Hazardous Waste & Mining Section
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