State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
Waukesha Service Center
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Waukesha, WI 53188

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November 17, 2025

FID # 230056310
Kenosha County
SW/Approval

Mr. Eric Kovatch
We Energies
333 W. Everett Street
Milwaukee, WI 53203

Subject: DRAFT Conditional Plan of Operation Approval Modification, Initial Permitting of Coal Combustion Residuals (CCR) Landfill, We Energies Pleasant Prairie Power Plant Landfill, License #2786

Dear Mr. Kovatch:

The Department of Natural Resources (department) is approving the proposed plan of operation modification for initial permitting of a coal combustion residuals (CCR) landfill for the Pleasant Prairie Power Plant Landfill, subject to the conditions listed in the attached approval. There are attachments to this letter which include a project summary, the plan of operation approval modification, environmental monitoring tables, preventive action limit (PAL) and alternative concentration limit (ACL) tables, closure and long-term care cost estimate tables, and a summary of existing conditions.

The department is issuing this draft decision for a conditional approval of the plan of operation modification for initial permitting in accordance with s. NR 514.045(4), Wis. Adm. Code. The department did not receive any written comments during the completeness public comment period and public meeting held in accordance with s. NR 514.045(3), Wis. Adm. Code. This draft decision will be published on the department's internet site at https://dnr.wisconsin.gov/topic/Waste/Comment.html for 30 days for public comment.

Please include this approval in the written operating record and on the CCR Landfill publicly accessible internet site for the landfill in accordance with s. NR 506.17(2) and (3), Wis. Adm. Code. Provide notification to the department upon placing the documents on the internet site.

A condition of this approval requires proof of financial responsibility for closure and long-term care be adjusted within 60 days. The revised proof of financial responsibility must be established based upon the approved costs contained herein and the requirements of ch. NR 520, Wis. Adm. Code. Please contact Dustin Sholly, owner financial responsibility specialist, at Dustin.Sholly@wisconsin.gov or 608-886-0154 if you have questions.

Please keep in mind that this approval does not relieve you of obligations to meet all other applicable federal, state and local permits, as well as zoning and regulatory requirements. If you have questions regarding this approval, please contact Alicia Fager at (262) 336-3071 or email at Alicia.Fager@wisconsin.gov or Mark Peters at (608) 516-0820 or email at Mark.Peters@wisconsin.gov

Sincerely,

DRAFT

Melanie Burns
Waste and Materials Management Program Supervisor

Southeast Region

cc: John Trast – jtrast@geiconsultants.com
Andrew Schwoerer - aschwoerer@geiconsultants.com
Alicia Fager – DNR/WA (e-copy)
Mark Peters – DNR/WA (e-copy)
Joe Lourigan – DNR/WA (e-copy)
Malena Grimm – DNR/WA (e-copy)

Attachments:
1. Draft Project Summary
2. Draft Conditional Plan of Operation Approval Modification for Initial Permitting
3. Draft Environmental Monitoring Tables
4. Draft Preventive Action Limit (PAL) and Alternative Concentration Limit (ACL) Tables
5. Draft Long-Term Care Cost Estimates

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PROJECT SUMMARY
PLAN OF OPERATION APPROVAL MODIFICATION
COAL COMBUSTION RESIDUALS (CCR) INITIAL PERMITTING

PLEASANT PRAIRIE POWER PLANT
ASH LANDFILL
LICENSE #2786

GENERAL INFORMATION

AUTHORIZED CONTACT: Mr. Eric Kovatch
We Energies
333 W. Everett Street
Milwaukee, WI 53203

LICENSEE AND PROPERTY OWNER: The Pleasant Prairie Power Plant Ash Landfill (PPPP Ash Landfill) is owned by We Energies.

SITE LOCATION: The PPPP Ash Landfill is located in Section 9, Town 1 North, Range 22 East, in the Town of Pleasant Prairie, Kenosha County, Wisconsin

CCR LANDFILL DESCRIPTION:

The initial plan of operation was approved on May 12, 1978, for a landfill approximately 133 acres in size with a design capacity of 4,570,000 cubic yards (cy). Ash recovery and beneficial use of the recovered ash was conducted at the site under approval from the Department of Natural Resources (department) from 2002 to 2012. On July 18, 2013, a plan of operation modification was approved by the department to modify the phasing plan of the landfill, improve the base liner system, install leachate headwells, install a leachate collection system, improve the final cover system, and provide for the disposal of additional coal combustion waste streams from We Energies owned Power Plants. The landfill footprint was reduced to 67.1 acres with six cells while redistributing and maintaining the approved landfill volume of 4,570,000 cy. Cell 1 of the revised PPPP Ash Landfill was constructed in 2013-2014 with an area of 7.4 acres and a design airspace capacity of 199,200 cy. On August 31, 2018, a plan of operation modification was submitted to the department for the premature closure of Cell 1. The plan of operation modification included a proposal to modify the final waste grades of Cell 1 to 5% to allow construction of the final cover. Premature closure of Cell 1 occurred to reduce leachate production and operational expenses of the landfill due to the decommissioning of the PPPP Ash Landfill. The final volume of waste disposed in Cell 1 is 113,000 cy.

Final cover over Cell 1 was constructed over a period of three phases, with the construction documentation for the first phase (eastern 2.6 acres) approved by the department on July 18, 2019, the second phase (central 3.2 acres) approved by the department on March 15, 2021, and the third phase (western 1.3 acres) approved by the department on July 17, 2022.

INITIAL PERMITTING REQUIREMENTS

PERFORMANCE CRITERIA, s. NR 514.045(1)(b), Wis. Adm. Code:

Wetlands, s. NR 504.04(4)(a), Wis. Adm. Code:

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The existing footprint of Cell 1 is not located in a wetland. Appendix A of the September 6, 2024 revised submittal shows the use of department wetland map, National Wetlands Inventory (NWI) map, and US Department of Agriculture (USDA) Natural Resources Conversation Services (NRCS) soil survey map to determine if the landfill is located withing a wetland. We Energies does not intend to expand the footprint.

Endangered or Threatened Species, s. NR 504.04(4)(b), Wis. Adm. Code:

In September 2022, an endangered resources review was renewed for the PPPP Ash Landfill. The review indicated that there are no threatened or endangered species within a 1-mile buffer (for terrestrial and wetland species) and a 2-mile buffer (for aquatic species) of the project area.

Surface water, s. NR 504.04(4)(c), Wis. Adm. Code:

Storm water runoff calculations were performed to demonstrate that storm water infiltrates into the ground on the northern final cover area or runs in a conveyance ditch to the west outlet ditch where it is directed southward to the wetland class area, and eventually discharges to unnamed tributaries of Jerome Creek. The storm water control system is designed for a 24-hour, 25-year precipitation event.

LOCATIONAL CRITERIA, s. NR 514.045(1)(c), Wis. Adm. Code:

Faults, s. NR 504.04(3)(g), Wis. Adm. Code:

Based on a review of the U.S. Geological Survey (USGS) and Illinois State Geological Survey Quaternary faults and folds database, the PPPP Ash Landfill is not located within 200 feet of the outermost damage zone of a fault that has had displacement in Holocene time. In s. NR 500.03 (103), Wis. Adm. Code, Holocene is defined as the most recent epoch of the Quaternary period extending from the end of the Pleistocene Epoch to the present. The nearest fault zone (Wabash Valley Seismic Zone) is primarily located in central and southeastern Illinois and southwestern Indiana, and is located approximately 250 miles south of PPPP Ash Landfill.

Seismic Impact Zones, s. NR 504.04(3)(h), Wis. Adm. Code:

The PPPP Ash Landfill is not located in a seismic impact zone. Section NR 500.03(208), Wis. Adm. Code, defines a seismic impact zone as an area having a 10 percent or greater probability that the maximum expected horizontal acceleration in lithified earth material, expressed as a percentage of the earth's gravitational pull (g), will exceed 0.10 g in 50 years. The USGS Earthquake Hazard Program (EHP) and National Seismic Hazard Mapping Project (NSHMP) Unified Hazard Tool and calculations from Earthquake Hazards 201 – Technical Q&A, USGS, August 6, 2019, was utilized to calculate the annual frequency of exceedance and expected horizontal ground acceleration at PPPP Ash Landfill to determine if the landfill is established within a seismic impact zone.

Unstable Areas and Differential Settling, ss. NR 504.04(3)(i) and NR 514.045(1)(c)1., Wis. Adm. Code:

The PPPP Ash Landfill is not located in on-site or local soil conditions that may result in significant differential settling. The overburden soil type and depth, the slope of the underlying bedrock, the proximity of the site to documented karst regions, the proximity of the site to documented oil wells, and the proximity of the site to documented gas wells were considered to determine the site conditions.

Unstable Areas and Geologic or Geomorphologic Features, ss. NR 504.04(3)(i) and NR 514.045(1)(c)2., Wis. Adm. Code:

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The PPPP Ash Landfill is not located in on-site or local geologic or geomorphologic features that are unstable that could result in significant differential settlement or mass movement damaging the facility. An image provided in the January 31, 2023 report show the site is located in an area where carbonate rocks are buried under less than 50 feet of glacially derived insoluble sediments.

Unstable Areas and Human-made Features or Events, ss. NR 504.04(3)(i) and NR 514.045(1)(c)3., Wis. Adm. Code:

The PPPP Ash Landfill is not located in on-site or local human-made features or events (both surface and subsurface) that are unstable. The proximity of the site to documented oil wells and gas wells were considered.

Floodplains, s. NR 514.045(1)(d), Wis. Adm. Code:

A floodplain levee was constructed in 2000 on the PPPP Ash Landfill site to protect a portion of the permitted landfill area from being located withing the 100-year floodplain of the Unnamed Tributary No. 2 of Jerome Creek. The PPPP Ash Landfill current waste permit is outside of the flood plain, and We Energies does not intend to expand the waste footprint of the PPPP Ash Landfill. The submitted certification of the floodplain levee construction on June 5, 2013, and the location of the floodplain levee is shown on the FEMA floodplain map and included in Appendix G of the January 31, 2023 report.

CRITICAL HABITAT OF ENDANGERED OR THREATENED SPECIES, s. NR 514.045(1)(e), Wis. Adm. Code:

In September 2022, an endangered resources review was renewed for the PPPP Ash Landfill. The review indicated that there are no threatened or endangered species within a 1-mile buffer (for terrestrial and wetland species) and a 2-mile buffer (for aquatic species) of the project area.

LANDFILL DESIGN, s. NR 514.045(1)(f), Wis. Adm. Code:

Subbase and Base Grades:

The subbase grades of Cell 1 range from 674.0 feet to 689.0 feet above meal sea level (MSL), generally 100 feet above the Silurian dolostone uppermost aquifer. Excavated material or borrow material used as general fill for construction was placed in 12-inch lifts and compacted to a minimum of 90 or 95 percent of the modified or standard Proctor maximum dry density, respectively. Any soft or wet areas encountered during construction were excavated and placed with general fill quality soil.

Composite Liner design:

Cell 1 liner had been constructed and consisted of, from bottom to top:

- 2-foot-thick compacted soil barrier layer
- Geosynthetic clay liner (GCL)
- 60-mil high density polyethylene (HDPE) geomembrane
- 12 ounce per square yard (oz/yd^2) non-woven geotextile
- 1-foot-thick granular drainage blanket

An updated liner design was not included in the report since We Energies does not plan on constructing any more cells.

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Leachate Collection and Removal system:

The existing leachate collection and removal system consist of network of 6-inch-diameter standard dimensional ratio (SDR) 17 HDPE perforated pipe contained within a 1-foot granular drainage layer. Cell 1 features one leachate line that drains to a sump on the west end of the cell. Leachate collection trenches were constructed as vee-trenches with sideslopes no steeper than 6 horizontal:vertical (H:1V) to accommodate construction equipment and geomembrane liner installation.

A leachate collection vault was constructed at the top of the west berm. The collection vault routes leachate into an underground force main and ultimately into the leachate storage tank. The storage tank is an underground double-walled, steel-reinforced tank. The force main was constructed as a double-walled SDR 17 transfer pipe. The inner pipe is 4 inches in diameter, while the outer pipe is 8 inches in diameter.

Leachate in the storage tank is hauled and disposed at the Kenosha Water Utility wastewater treatment facility.

Final Cover System:

The existing Cell 1 PPPP Ash Landfill final cover consists of a composite cover with the following components, from bottom to top:

- 6-inch-thick grading layer
- 2-foot-thick compacted flue gas desulfurization (FGD) filter cake and fly ash barrier layer
- 40-mil textured liner low-density polyethylene (LLDPE) geomembrane
- Geocomposite drainage layer
- 2-foot-thick rooting zone layer
- 6-inch-thick topsoil layer

An updated final cover design was not included in the report since We Energies does not plan on constructing any more cells.

CCR LANDFILL PLANS, s. NR 514.045(1)(g), Wis. Adm. Code:

Fugitive Dust Control Plan, s. NR 514.07(10)(a), Wis. Adm. Code:

The fugitive dust control plan is included in Appendix J of the December 15, 2023, Addendum No. 1.

Measures for controlling fugitive dust include the following for minimizing CCR from becoming airborne at the facility:

- Final cover had been placed over the entire landfill, so no additional CCR will be delivered to the landfill.
- The access road leading into the PPPP Ash Landfill is paved and traffic will be minimal during post-closure care. The access road will be swept as necessary to minimize the accumulation of dust and dirt on the road surface that might become airborne due to the periodic truck traffic or high winds.

The CCR fugitive dust control plan will be reviewed annually, and updated as necessary, in conjunction with preparation of the annual CCR fugitive dust control report required by s. NR 514.07(10)(a)(5), Wis. Adm. Code. The annual CCR fugitive dust control report will be included in the annual report in accordance with s. NR 506.20(3)(a), Wis. Adm. Code, and include a description of the actions taken by the owner or operator to control CCR fugitive dust, a record of all citizen complaints, and a summary of any corrective measures taken.

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Run-On And Run-Off Control System Plan, s. NR 514.07(10)(b), Wis. Adm. Code:

The run-on and run-off control system plan is included in Appendix K of the January 31, 2023 CCR Initial Plan of Operation Modification.

Final cover was installed over the entire landfill; therefore, run-on control systems are not applicable to prevent flow onto the active portions of the PPPP Ash Landfill during 24-hour, 25-year storm.

The storm water run-on is controlled by perimeters on the north, west, and east sides of the landfill slope downward to convey storm water away from the covered waste. Along the south side of the landfill, an intercell berm was constructed to prevent run-on from south of the landfill. A perimeter ditch along the outboard edge of the intercell berm directs run-on storm water to the west and southwest away from the landfill. Storm water drainage in the perimeter ditch is then directed away from the landfill and eventually flows southward discharging to the unnamed tributaries of Jerome Creek.

A storm water run-off model was completed to confirm that the current run-off control system for the landfill can adequately manage a 24-hour, 25-year precipitation event of 4.52 inches. Storm water on the closed cell is divided into two subcatchments. The first consists of the northern 4.46 acres of final cover area and flow from here is directed away from the covered waste and is allowed to infiltrate into the ground. The second subcatchment includes the southern 2.64 acres of final cover and an additional 2.04 acres of conveyance ditch area. Run-off from here goes to the west outlet ditch which is directed southward away from the landfill discharging to unnamed tributaries of Jerome Creek. Based on the analysis, the run-off control system for the landfill able to manage and control the run-off from a 24-hour, 25-year precipitation event. The estimated peak water level in the west conveyance channel is 0.94 feet. The minimum depth of the channel is 2 feet. Based on storm water run-off analysis, the current run-off control system for Cell 1 will be able to handle the 24-hour, 25-year precipitation event without the west outlet ditch overflowing.

Closure Plan, s. NR 514.07(10)(c), Wis. Adm. Code:

The August 31, 2018, premature closure plan is included in Appendix L of the September 6, 2024, Revised Submittal.

The premature closure plan discusses modifications to the final waste grades in Cell 1. Since 2018, final cover, in accordance with the 2018 premature closure plan, had been constructed on Cell 1.

An updated closure plan was not included in the report since We Energies does not plan on constructing any more cells.

Long-Term Care Plan, s. NR 514.07(10)(d), Wis. Adm. Code:

The long-term care plan is included in Appendix M of the September 6, 2024, Revised Submittal.

Table 1. Estimated Long-Term Care Activities Schedule.

Monitoring and Maintenance Activities	Frequency
Mowing	Annually for first five years, every five years thereafter (mowing on a more frequent basis may be needed to accommodate more vigorous growth rate or to prevent woody vegetation)
Inspections of Stormwater Control Structures and Final Cover System	Annually

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Final Cover Maintenance and Repairs	As needed, determined by inspection
Leachate Collection Line Cleaning	Annually
Environmental Monitoring – Groundwater and Leachate	Semi-Annually

The owner/operator will perform annual inspections of the landfill surface, leachate control system, and groundwater monitoring systems. If issues are noticed during the inspection, action will be taken to remedy the situation. Eroded areas will be repaired and reseeded. Repairs or replacement will be performed on the groundwater monitoring system as needed.

The leachate collection and removal system for the existing PPPP Ash Landfill and future units will be maintained to meet state requirements including leachate collection line cleaning, leachate collection video inspection, and any needed repairs to the existing system. Leachate collection video inspections will occur at 5-year intervals, following the annual pipe cleaning required by s. NR 506.07(5)(c), Wis. Adm. Code. The video camera inspection will extend a minimum of 300 feet onto the base grades of each leachate collection line.

Currently, the contact information for the PPPP Ash Landfill during the post-closure/long-term care period is as follows:

Mr. Eric P. Kovatch, P.G.
WEC Energy Group
333 West Everett Street
Milwaukee, WI 53203
(414) 221-2457
eric.kovatch@wecenergygroup.com

The final use of the We Energies PPPP Ash Landfill will be privately owned green space. With this use, there will be no disturbance of the final cover or any other landfill-related components.

We Energies will amend the long-term care plan if there is a change in operation of the CCR unit that affects the long-term care plan or, if after post-closure activities have started, unexpected events cause a revision of the plan.

GROUNDWATER MONITORING SYSTEM, s. NR 514.045(1)(h), Wis. Adm. Code:

CCR Groundwater Monitoring System Plan, ss. NR 507.15(3)(a) through (e), Wis. Adm. Code:

The CCR groundwater monitoring system plan is included in Appendix O of Section 2 of the September 6, 2024, Plan of Operation Revised Submittal.

The CCR groundwater monitoring system includes the following monitoring wells:

- Upgradient wells: W20D and W77
- Downgradient wells: W73, W74, W75, W76

The CCR Wells are located at the point of standards application in accordance with s. NR 507.15(3)(L)(4), Wis. Adm. Code (waste boundary). The network is designed to monitor potential impacts to the Uppermost Aquifer from the PPPP Ash Landfill. CCR wells will be inspected in accordance with s. NR 507.13, Wis. Adm. Code, and maintained as necessary to ensure representative groundwater samples are collected for the purposes of this monitoring program. Samples will be collected and analyzed in accordance with the facility's Sampling and Analysis Plan (included as an appendix to the plan modification request)

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The Silurian-aged Niagara Dolomite comprises the Uppermost Aquifer beneath the site. It is generally identified as a thickly-bedded dolomite with up to four feet of weathered material on top of competent bedrock. The Uppermost Aquifer was encountered in one boring advanced in 2013 (W73) and five borings advanced in 2015 (W20D, W74, W75, W76, and W77). Bedrock was drilled using rotosonic methods which recovered sections of core for logging and observations. The rock observed in these borings is described as a massive, fossiliferous dolomite with pitting. Slight to moderate decomposition and disintegration was noted in all borings with traces of pyrite recrystallization. W73 was noted as containing open vugs between 1 millimeter to 3 centimeters wide. Site-specific data for the Uppermost Aquifer has not been collected, but estimates of hydraulic conductivity in the Niagara Aquifer range between 10^{-4} and 10^{-2} centimeters per second (cm/s), based on yield tests for domestic and high-capacity wells

Wells W20D and W73-W77 monitor groundwater flow in the Uppermost Aquifer. Groundwater elevations measured on April 13, 2022 were between 668.24 and 671.03 feet NAVD88 and indicate a groundwater flow direction to the north-northeast (Figure 2-7). These observations are consistent with previous monitoring events. Seasonal variation in the groundwater elevations has been observed in the Uppermost Aquifer, with groundwater elevations measured in the spring up to ten feet higher than those measured in the fall. Although elevations seasonally vary, the groundwater flow direction in the Uppermost Aquifer is generally consistent and likely controlled by the proximity and hydraulic connection to Lake Michigan.

Baseline Groundwater Quality, s. NR 507.15(3)(i), Wis. Adm. Code:

Sections NR 507.15(3)(L)(1) and NR 507.18(5), Wis. Adm. Code, require baseline groundwater quality be established and submitted to the department through the collection of eight independent samples and analysis for the parameters listed for the PPPP Ash Landfill in Tables 1A and 3 of Appendix I, Ch. NR 507, Wis. Adm. Code. Eight rounds of baseline groundwater quality data for the parameters referenced in Appendices III and IV of 40 CFR § 257 were collected beginning on December 2, 2015 and extending through August 31, 2017. All laboratory analyses were performed by the We Energies laboratory or Pace Analytical, Wisconsin certified laboratories, using appropriate methods that yielded adequate sensitivity and detection limits lower than the Ch. NR 140, Wis. Adm. Code (Ch. 140) preventative action limits (PAL) and enforcement standards (ES).

Copper, manganese, silver, zinc, alkalinity, hardness, and nitrate + nitrite (as N) are not required to be monitored under 40 CFR § 257. Data collection for baseline groundwater quality for these parameters was conducted in 2023 and 2024 and submitted to the department with the semiannual reporting (GEMS submittals) to meet this requirement.

Groundwater quality standard exemptions in accordance with ss. NR 507.29 and NR 140.28, Wis. Adm. Code, were requested and are being granted for the following CCR wells and parameters:

- Boron at all CCR wells
- Fluoride at all CCR wells
- Sulfate at all CCR wells

Detection Groundwater Monitoring, s. NR 507.15(3)(L), Wis. Adm. Code:

Detection monitoring will be performed at CCR wells on a semiannual basis (April and October). Baseline groundwater quality will be established at each CCR monitoring well in accordance with s. NR 507.18, Wis. Adm. Code.

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The department will be informed in accordance with s. NR 507.26, Wis. Adm. Code, of any CCR well that purges dry, is damaged or obstructed, or in any way is rendered such that a sample was unable to be collected from the well during a scheduled sampling event when the sampling event data are submitted.

A notification and response in accordance with s. NR 507.30, Wis. Adm. Code, will be made when a groundwater standard at the point of standards application has been attained or exceeded at any CCR well. This response includes the establishment of an assessment monitoring program meeting the requirements under s. NR 508.06, Wis. Adm. Code, unless the exceedance is determined by the department to be from a source other than the PPPP Ash Landfill, or that the groundwater standard exceedance resulted from error in sampling, analysis, or natural variation in background groundwater quality in accordance with s. NR 508.06(2)(f)2., Wis. Adm. Code.

The point of standards application for a groundwater quality exceedance at a CCR well is 0 feet from the waste boundary. Future compliance monitoring wells will be located as close as practicable to the waste boundary. Factors that may require siting wells further from the waste boundary include overhead or buried utility lines, slopes, landfill haul roads or access roads, storm water management features, rail lines and rights-of-way, and other site-specific features.

Annual Groundwater Monitoring and Corrective Action Report, s. NR 507.15(3)(m), Wis. Adm. Code:

Annual Groundwater Monitoring and Corrective Action Reports documenting the status of the groundwater monitoring and any corrective action implemented at the PPPP Ash Landfill will be submitted to the department by January 31 of the following year, and placed in the operating record and on the publicly accessible website as required by s. 506.17(2) and (3), Wis. Adm. Code. Annual reports will:

- Summarize key activities completed [including at least those required in s. NR 507.15(3)(m), Wis. Adm. Code]
- Describe any problems encountered,
- Discuss actions to resolve the problems, and
- Project key activities for the upcoming year.

SAMPLING PLAN, s. NR 514.045(1)(i), Wis. Adm. Code:

Sampling Plan, ss. NR 507.15(3)(f), (g), (h), (j), (k), Wis. Adm. Code:

The sampling plan included in Appendix O of Section 2 of the September 6, 2024, revised plan modification request submittal addresses the CCR groundwater monitoring system, as well as monitoring at non-CCR wells and other monitoring points. Appropriate sampling and analytical methods are described in the sampling plan. Groundwater elevation data will be reported to the department semiannually in accordance with s. NR 507.26, Wis. Adm. Code. During each sampling event, depths to groundwater at all wells will be measured prior to the start of groundwater sample collection. If possible, all water level measurements will be collected within the same day. The rate and direction of groundwater flow will be determined for each semiannual sampling event. Field pH, temperature, and specific conductance will be measured using a portable electronic meter. For samples collected using low-flow methods, field dissolved oxygen, oxidation/reduction potential, and turbidity will also be measured using a portable electronic meter. Monitoring wells will be generally sampled in an order from least to most contaminated. Pumps used for purging and sample collection at CCR monitoring wells are dedicated to specific wells. Monitoring wells will be purged using low-flow techniques.

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All groundwater samples collected under the CCR monitoring program will be unfiltered (total analysis). Groundwater samples collected under the continuation of the site monitoring program that predated the requirements of s. NR 514.045, Wis. Adm. Code, will be filtered (dissolved analysis) or unfiltered (total analysis).

The department will be notified in writing if a groundwater standard at a point of standards application has been attained or exceeded.

RECORD KEEPING

All plan modifications, documentation reports, monitoring, annual reports, plans, notifications, and amendments will be placed in the facility's operating record and on We Energies' CCR Rule Compliance Data and Information website as required by s. NR 506.17(3), Wis. Adm. Code.

CLOSURE AND LONG-TERM CARE COST ESTIMATES

Although We Energies will be perpetually responsible, in accordance with s. 289.41(1m)(c), Wis. Stats., for the long-term care of this landfill, proof of owner financial responsibility is required for the closure of the most expensive area, and for long term care of the entire facility for a minimum period of 40 years. Since final cover has been constructed and approved on Cell 1, there are no closure costs remaining. Long-term care costs include land surface care; leachate pumping, transportation, monitoring and treatment; groundwater monitoring including sample collection and analysis; leachate line jetting and televising; annual cost of electricity for maintaining the closed site; and a 10% contingency per s. NR 520.02(3), Wis. Adm. Code.

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BEFORE THE
STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

CONDITIONAL PLAN OF OPERATION APPROVAL MODIFICATION FOR INITIAL PERMITTING OF COAL COMBUSTION RESIDUALS (CCR) LANDFILL FOR THE WE ENERGIES PLEASANT PRAIRIE POWER PLANT ASH LANDFILL (LICENSE #2786)

FINDINGS OF FACT

The Department of Natural Resources (department) finds that:

1. We Energies owns and operates a solid waste disposal facility, Pleasant Prairie Power Plant Landfill (PPPP Ash Landfill), located in Section 9, Town 1 North, Range 22 East, in the Town of Pleasant Prairie, Kenosha County, Wisconsin.

2. The department conditionally approved a plan of operation for the facility on May 12, 1978. The plan of operation was significantly updated on July 18, 2013, via plan of operation approval modification.

3. On January 31, 2023, GEI Consultants, on behalf of We Energies submitted a plan modification request to the department for the initial permitting of a CCR landfill. The review fee of $30,500 was received by the department on February 15, 2023.

4. The information submitted in connection with the modification request includes the following:

    a. A report titled "We Energies Pleasant Prairie Power Plant Ash Landfill, License #2786 – FID# 230056310, Plan of Operation Modification" dated and received by the department on January 31, 2023.

    b. A report titled "Plan of Operation Modification, We Energies Pleasant Prairie Power Plant (PPPP) Ash Landfill, License #2786 – FID# 230056310" dated and received by the department on December 15, 2023.

    c. A report titled "Plan of Operation Modification; Revised Submittal, We Energies Pleasant Prairie Power Plant (PPPP) Ash Landfill, License #2786 – FID# 230056310" dated and received by the department on September 6, 2024.

    d. An April 14, 2025 We Energies email with an attached updated long-term care cost estimate table.

5. Additional documents considered in connection with the modification request include the following:

    a. The department's May 12, 1978, plan of operation approval.

    b. The department's July 18, 2013, plan of operation modification approval.

    c. The department's July 18, 2019, final cover construction documentation approval for Cell 1, Phase 1.

    d. The department's March 15, 2021, final cover construction documentation approval for Cell 1, Phase 2.

    e. The department's June 17, 2022, final cover construction documentation approval for Cell 1, Phase 3.

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f. An internal department memo dated February 10, 2025 from the department's Drinking Water and Groundwater Program concurring with the request for an exemption from ch. NR 140, Wis. Adm. Code, groundwater quality standards the following parameters:

   i. Boron at wells W20D, W73, W74, W75, W76, and W-77
   ii. Fluoride at wells W20D, W73, W74, W75, W76, and W-77
   iii. Sulfate at wells W20D, W73, W74, W75, W76, and W-77

g. An internal department memo dated October 14, 2025 from the department's Drinking Water and Groundwater Program concurring with the request for an exemption from ch. NR 140, Wis. Adm. Code, groundwater quality standards for molybdenum at wells W20D, W73, W74, W75, W76, and W77.

h. A memo to the PPPP Ash Landfill file dated November 17, 2025, summarizing the department's evaluation of the preventive action limits (PALs) and alternative concentration limits (ACLs).

i. The department's Solid Waste Technical Guidance for PAL/ACL Calculations (guidance document WA 1105, 2007).

j. Groundwater monitoring data for the PPPP Ash Landfill contained in the department's Groundwater and Environmental Monitoring System (GEMS).

k. The department files for the PPPP Ash Landfill, License #2786.

6. Additional information considered in connection with the modification request include the following:

   a. A virtual public information meeting was held on December 10, 2024, to comply with s. NR 514.045(3), Wis. Adm. Code, regarding the initial permitting of CCR landfill. During this meeting the department received no oral comments from the public regarding the proposed plan modification.

   b. A 60-day public comment period was held between November 21, 2024, and January 20, 2025, to comply with s. NR 514.045(3), Wis. Adm. Code, regarding the initial permitting of a CCR landfill. The department received no written comments from the public regarding the proposed plan modification.

7. Additional facts relevant to the review of the plan of operation modification request include:

   a. CCR landfills are regulated under 40 CFR Part 257 A and D. Wisconsin updated chs. NR 500 – 520, Wis. Adm. Code, to incorporate federal requirements related to CCR landfills in July 2022. Wisconsin intends to seek Environmental Protection Agency (EPA) approval for a partial permit program for CCR landfills in Wisconsin. To obtain EPA approval of a partial permit program for CCR landfills, Wisconsin regulations are required to be as protective as the federal rule.

   b. It is necessary to establish a special groundwater protection standard at all designated CCR monitoring wells for total cobalt to be applied as the PAL for the purpose of evaluating the need for response actions under s. NR 508.06, Wis. Adm. Code. The special groundwater protection standard for cobalt serves to maintain Wisconsin's regulations of the CCR landfill as protective as the federal CCR rule.

8. The department considered the following information pertaining to the request for groundwater quality exemptions:

   a. We Energies has requested an exemption from ch. NR 140, Wis. Adm. Code, groundwater quality standards for boron, fluoride, molybdenum, and sulfate in accordance with s. NR 140.28(1), Wis. Adm.

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Code, to allow for approval of this plan of operation for initial permitting where a PAL or an enforcement standard (ES) adopted under ss. NR 140.10 or 140.12, Wis. Adm. Code, has been attained or exceeded.

The department considered the following information while reviewing the need for exemptions to groundwater standards at this facility:

i. Baseline groundwater monitoring data provided in the September 6, 2024 plan of operation modification request.

ii. Well construction details, boring logs, well location plan sheets, and water table maps provided in the September 6, 2024 plan of operation modification request.

iii. The landfill design specifications provided in the September 6, 2024 plan of operation modification request.

iv. Groundwater sample data collected from around the PPPP Ash Landfill that is available in GEMS dating back to 1978.

v. Information in the department's files relating to groundwater conditions at the PPPP Ash Landfill.

b. The department finds the following related to the design of the landfill and substances associated with the PPPP Ash Landfill that exceed ch. NR 140, Wis. Adm. Code, groundwater quality standards, including boron, fluoride, molybdenum and sulfate:

i. To minimize any incremental increase in contamination from the PPPP Ash Landfill, the facility is designed to contain and collect leachate. The design of the PPPP Ash Landfill includes a composite liner, leachate collection system and composite final cover. These design features will limit increases of contaminants in the groundwater.

ii. In accordance with s. NR 504.05(1), Wis. Adm. Code, the department considers landfills designed in substantial conformance with these design criteria to be designed to achieve the lowest possible concentration of these substances in the groundwater which is technically and economically feasible.

iii. The PPPP Ash Landfill will not cause the concentrations of the substances with detection sample concentrations between the PAL and the ES to attain or exceed the ES for these substances at a point of standards application because of the facility design.

iv. The anticipated increase in the concentrations of these substances does not present a threat to public health or welfare because of the landfill design.

v. Based on an examination of site conditions, the department finds that the groundwater concentrations of boron, fluoride, molybdenum, and sulfate in the site area were found at concentrations exceeding the ch. NR 140, Wis. Adm. Code groundwater quality standards.

c. Based on an examination of the groundwater quality data for the PPPP Ash Landfill and the information in findings of fact 8.a and 8.b above, the department finds the requested groundwater quality exemptions to be warranted for the following wells and substances:

i. **PAL** exemptions for substances of **public welfare concern and nitrate plus nitrite (as N)** in accordance with s. NR 140.28(3)(a), Wis. Adm. Code:

Substance:	**Monitoring Wells:**

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Sulfate	W20D, W73, W74, W75, W76, W77
Notes: - Baseline concentrations attain or exceed the **PAL** but are below the ES in **two or more** sample rounds at the monitoring wells. - PALs for substances of public welfare concern are established in s. NR 140.12, Wis. Adm. Code, and for nitrate plus nitrite (as N) in s. NR 140.10, Wis. Adm. Code.	

ii. **PAL** exemptions for substances of **public health concern (other than nitrate plus nitrite [as N])** in accordance with s. NR 140.28(3)(b), Wis. Adm. Code:

Substance:	**Monitoring Wells:**
Boron	W20D, W73, W74, W75, W76, W77
Fluoride	W20D, W73, W74, W75, W76, W77
Notes: - Baseline concentrations attain or exceed the **PAL** but are below the ES in **two or more** sample rounds at the monitoring wells. - PALs for substances of public health concern are established in s. NR 140.10, Wis. Adm. Code.	

iii. **ES** exemptions for substances of **public health concern (other than nitrate plus nitrite (as N))** in accordance with s. NR 140.28(4)(b), Wis. Adm. Code:

Substance:	**Monitoring Wells:**
Molybdenum	W20D.W73, W74, W75, W76, W77
Notes: - Baseline concentrations attain or exceed the **ES** in at least **one or more** sample rounds at the monitoring wells. - ESs for substances of public health concern are established in s. NR 140.10, Wis. Adm. Code.	

9. The department considered the following information with respect to the review of PALs and ACLs:

a. The PALs for indicator parameters and the ACLs established in this approval are based on at least 8 sample results for each substance at each monitoring well.

b. The PALs for indicator parameters established in this approval are equal to the mean background water quality plus 3 standard deviations or the mean background water quality plus the minimum increase specified in Table 3, ch. NR 140, Wis. Adm. Code, whichever is greater.

c. The ACLs established in this approval are equal to the mean background water quality plus 2 standard deviations.

d. The calculated PALs and ACLs were rounded up to 2 significant figures.

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10. The department considered the following information while reviewing the proposed changes to the non-CCR groundwater monitoring parameter list.

    a. Removal of molybdenum from the parameter list for non-CCR monitoring wells.

        i. Molybdenum has been sampled semiannually at non-CCR monitoring wells since 2013, and prior to that was included in baseline sampling events in the 1990s.

        ii. Concentrations of molybdenum appear to increase with depth at the site, with highest concentrations in deeper non-CCR wells. This pattern of increasing concentrations with depth is inconsistent with a potential release from a landfill into shallow groundwater.

        iii. Wells with higher molybdenum concentrations in the landfill correlate with wells that have lower alkalinity, calcium, and magnesium concentrations. Previous studies in the region have correlated wells with lower alkalinity, calcium and magnesium with bedrock-influenced groundwater.

        iv. Monitored concentrations of dissolved organic carbon (DOC) in groundwater are positively correlated with molybdenum concentrations. Previous studies have associated release of molybdenum from bedrock as a result of dissolution of DOC from the bedrock.

        v. Molybdenum is not a required groundwater monitoring parameter for landfills accepting fly or bottom ash waste in ch. NR 507 Appendix 1, Table 2, Wis. Adm. Code.

    b. Removal of selenium from the parameter list for non-CCR monitoring wells.

        i. Selenium has been sampled semiannually at non-CCR monitoring wells since 1993.

        ii. Selenium concentrations at active non-CCR monitoring wells have been detected below the PAL for at least the last 10 years.

        iii. Selenium is not a required groundwater monitoring parameter for landfills accepting fly or bottom ash waste in ch. NR 507 Appendix 1, Table 2, Wis. Adm. Code.

11. Granting the exemptions that are set forth below will not inhibit compliance with Wisconsin solid waste management standards in chs. NR 500 through 538, Wis. Adm. Code.

12. The special conditions set forth below are needed to assure that the sites are operated and maintained in an environmentally sound manner. If the special conditions are complied with, the proposed modifications will not inhibit compliance with the standards set forth in the applicable portions of chs. NR 500-538, Wis. Adm. Code.

CONCLUSIONS OF LAW

1. The department has the authority under s. 289.30(6), Wis. Stats., to modify a plan of operation approval if the modification would not inhibit compliance with the applicable portions of chs. NR 500-538, Wis. Adm. Code.

2. The department has the authority to approve a modification to the plan of operation with special conditions if the conditions are needed to ensure compliance with the applicable portions of chs. NR 500-538, Wis. Adm. Code.

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3. The initial permitting for CCR landfills plan modification is required in accordance with s. NR 514.045, Wis. Adm. Code to update the plan of operation to comply with the applicable requirements under chs. NR 500 to 520, Wis. Adm. Code, for CCR landfills.

4. The department has authority under ss. NR 140.28 and NR 507.27, Wis. Adm. Code, and ss. 160.19(8) to (10), Wis. Stats., to grant exemptions to groundwater quality standards and to establish corresponding alternative concentration limits.

5. The department has authority under s. NR 140.20, Wis. Adm. Code, and s. 160.15(3), Wis. Stats., to establish preventive action limits for groundwater indicator parameters at waste disposal facilities.

6. The conditions of approval set forth below are needed to ensure compliance with the applicable portions of chs. NR 500-538, Wis. Adm. Code.

7. In accordance with the foregoing, the department has the authority under s. 289.30(6), Wis. Stats., to issue the following conditional plan of operation modification approval.

8. 40 CFR 257.95(h)(2)(i) establishes a groundwater protection standard of 6 micrograms per liter of water (ug/L) for total cobalt which is less than the preventative action limit (PAL) for cobalt established in s. NR 140.10, Wis. Adm. Code.

GRANT OF EXEMPTION

1. The PPPP Ash Landfill has demonstrated circumstances which warrant an exemption to the groundwater standards in ch. NR 140, Wis. Adm. Code, as specified in s. NR 140.28, Wis. Adm. Code, for the wells and substances listed below. The exemption allows the construction of the PPPP Ash Landfill in an area where the baseline concentration of a substance has attained or exceeded a preventive action limit or enforcement standard. Refer to Finding of Facts 8.a – 8.c for additional information. This exemption is granted under the authority of ss. NR 140.28 and NR 507.27, Wis. Adm. Code and ss. 160.19(8) to (10), Wis. Stats. as noted above. The following exemptions to the specified NR 140 groundwater quality standards are hereby granted and apply only to the PPPP Ash Landfill and do not apply to any other present or past facility or activity:

   a. **PAL** exemptions for substances of **public welfare concern and nitrate plus nitrite (as N)** in accordance with s. NR 140.28(3)(a), Wis. Adm. Code:

Substance:	**Monitoring Wells:**
Sulfate	W20D, W73, W74, W75, W76, W77

   b. **PAL** exemptions for substances of **public health concern (other than nitrate plus nitrite [as N])** in accordance with s. NR 140.28(3)(b), Wis. Adm. Code

Substance:	**Monitoring Wells:**
Boron	W20D, W73, W74, W75, W76, W77
Fluoride	W20D, W73, W74, W75, W76, W77

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c. **ES** exemptions for substances of **public health concern (other than nitrate plus nitrite (as N))** in accordance with s. NR 140.28(4)(b), Wis. Adm. Code]:

Substance:	**Monitoring Wells:**
Molybdenum	W20D, W73, W74, W75, W76, W77

CONDITIONAL PLAN OF OPERATION APPROVAL MODIFICATION

The department hereby approves the proposed modifications for the initial permitting of a CCR landfill for the PPPP Ash Landfill, subject to compliance with the applicable sections of ch. 289, Wis. Stats., applicable sections of chs. NR 500 through 538, Wis. Adm. Codeand the following conditions:

1. The landfill owner or operator shall place all of the following on the landfill's publicly accessible internet site and shall do so in accordance with the requirements specified in s. NR 506.17(3), Wis. Adm. Code.

   a. The landfill's annual report required under s. NR 506.20(3), Wis. Adm. Code.

   b. The landfill's notification required by s. NR 506.084(2)(b), Wis. Adm. Code, related to the end of the long-term care proof period.

   c. All notifications required for CCR landfills in addition to those specified under s. NR 506.17(3)(d), Wis. Adm. Code.

   d. A copy of the affidavit for the deed notation required under s. NR 506.083(4), Wis. Adm. Code.

2. The landfill owner or operator shall notify the department when the information required under s. NR 506.17(3)(d), Wis. Adm. Code, and Condition 1. above have been placed on the landfill's publicly accessible internet site.

3. The annual report required by s. NR 506.20(3), Wis. Adm. Code, shall also include the following:

   a. The leachate line video camera inspection required by s. NR 506.07(5)(c), Wis. Adm. Code.

   b. The following information pertaining to the non-CCR well environmental monitoring program:

      i. A summary of groundwater sampling results (including lysimeter and water supply well data) that exceed any approved PAL or ACL or ch. NR 140, PAL or ES (where ACLs are not approved), and an assessment of the cause and significance of the exceedances.

      ii. An assessment of any increasing concentration trends of monitored parameters in groundwater over the past 4 or more sampling events.

      iii. A groundwater elevation contour map with a summary of any significant change in flow patterns compared to previous flow patterns, unless otherwise approved by the department in writing.

      iv. A summary of the status and condition of all environmental monitoring devices including:

         1. A list of all monitoring devices that did not function properly or were damaged.

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2. A description of repairs, replacements, or modifications completed to regain function of the monitoring device.

3. A summary of anticipated significant monitoring device activities for the upcoming year, such as installations or abandonments.

This condition supersedes condition 16 of the department's July 18, 2013, plan of operation approval.

4. The landfill owner or operator shall maintain procedures within the fugitive dust control plan for logging citizen complaints received by the landfill involving CCR fugitive dust events at the facility throughout the active life of the landfill.

5. Environmental monitoring shall be performed during both the active life and after closure in accordance with the schedules provided in the environmental monitoring tables of Attachment #3. Attachment #3, Table 1 establishes the designated CCR monitoring wells for compliance with s. NR 508.06, Wis. Adm. Code.

   This condition supersedes condition 17 of the department's July 18, 2013, approval.

6. In addition to the monitoring requirements of condition #5, the landfill owner or operator shall collect at least one additional sample from monitoring well W74 for molybdenum and then calculate and propose an ACL for molybdenum in this well.

7. The ch. NR 140, Wis. Adm. Code, PALs and ACLs for the groundwater monitoring points shall be those listed in Attachment #4. The establishment of ACLs for boron and sulfate in condition #19 of the department's July 18, 2013 plan modification approval remain in effect. The groundwater protection standard for total cobalt at all CCR designated monitoring wells shall be 6 ug/L, and be applied as a PAL for the purpose of evaluating the need for response actions under s. NR 508.06, Wis. Adm. Code (see FOF 7, b and c; COL 8).

8. The PALs and ESs for all other substances not identified in condition #7 and Attachment #4 shall be as specified in ch. NR 140, Wis. Adm. Code, unless specifically approved by the department in writing.

9. Proof of financial responsibility for long-term care shall be adjusted in accordance with ch. NR 520, Wis. Adm. Code. The proof of financial responsibility shall be established based upon the approved long-term care cost estimates included in the attached Table 1 of Attachment 5.

10. Vegetative cover shall be maintained on all areas of final cover to prevent erosion. The final cover vegetation shall be mowed to prevent the growth of tall weeds and woody vegetation.

Unless specifically noted, the conditions of this approval do not supersede or replace any previous conditions of approval for this facility.

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.

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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 and administrative codes establish time periods and requirements for reviewing department decisions.

To seek judicial review of the department's decision, sections 227.52 and 227.53, Wis. 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: November 17, 2025

DEPARTMENT OF NATURAL RESOURCES
For the Secretary

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_____
Melanie Burns
Waste and Materials Management Program Supervisor
Southeast Region

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Alicia Fager
Waste Management Engineer
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Mark Peters
Waste Management Hydrogeologist
Southeast Region

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Attachment #3 for We Energies Pleasant Prairie Power Plant Ash Landfill -
CCR Initial Permitting Plan of Operation Modification Approval
License # 2786
Environmental Monitoring Tables

Table 1
Detection Groundwater Monitoring

Wells	DNR ID#	WUWN	Comment	Sampling & Reporting[1.] Frequency	Parameter Codes	Parameters
CCR Wells						
W20D	300	VQ580		Sample Semiannually April and October	04189	Elevation, Groundwater (feet above mean sea level)
W73	292	VN433			00001	Odor
W74	302	VQ578			00002	Color
W75	304	VQ577			00003	Turbidity
W76	306	VQ576			00010	Temperature, of water taken in field ^{0}C
W77	308	VQ575			00094	Field Conductivity @ 25^{0} C(umho/cm)
					00400	Field pH (standard units)
					00410	Alkalinity,total (mg/L)
					00900	Hardness, total (mg/L)
					00916	Calcium, total (mg/L)
					00940	Chloride, total (mg/L)
					00945	Sulfate, total (mg/L)
					00951	Fluoride, total (mg/L)
					01022	Boron, total (mg/L)
					70300	Total Dissolved Solids (TDS) (mg/L)
Non-CCR Wells						
P-10RR	290	JG231		Sample Semiannually April and October	04189	Elevation, Groundwater (feet above mean sea level)
W-16R	289	JG257			00001	Odor
W-17A	227	QA508			00002	Color
W-17B	229	QA509			00003	Turbidity
W-17C	231	QA510			00010	Temperature, of water taken in field ^{0}C
W-19	233	QA511			00094	Field Conductivity @ 25^{0} C(umho/cm)
W-20A	235	QA512			00400	Field pH (standard units)
W-20B	237	QA513			00681	Dissolved Organic Carbon (DOC) (mg/L)
W-20C	239	QA514			00946	Sulfate, filtered (mg/L)
W-28	247	QA515			01020	Boron, filtered (mg/L)
W-31C	253	QA518			22413	Total Hardness, filtered (mg/L)
W-35C	261	QA521			39036	Alkalinity, filtered (mg/L)
W-31A	249	QA516		Sample Anually April		
W-31B	251	QA517				
W-35A	257	QA519				
W-35B	259	QA520				

1. Unless specifically stated, reporting is as per code typically within 60 days after the end of the specified monitoring period.
Trip Blank (999) and/or Field Blank (997) data must also be submitted electronically.

Attachment #3 for We Energies Pleasant Prairie Power Plant Ash Landfill -
CCR Initial Permitting Plan of Operation Modification Approval
License # 2786
Environmental Monitoring Tables

Table 2
Leachate Monitoring

Wells	DNR ID#	Comment	Sampling & Reporting[1] Frequency	Parameter Codes	Parameters
Leachate Monitoring Points					
LTANK0	599		Complie Monthly Report Semiannually April and October	00032	Leachate Volume Pumped (1000s of Gallons)
			Sample Semiannually April and October	00094	Field Conductivity @ 25° C(umho/cm)
				00310	Biochemical Oxygen Demand (BOD), 5 day@ 20° C (mg/l)
				00400	Field pH (standard units)
				00410	Alkalinity,total (mg/L)
				00900	Hardness, total (mg/L)
				00900	Hardness, total (mg/L as CaCO3)
				00940	Chloride, total (mg/L)
				00945	Sulfate, total (mg/L)
				00951	Fluoride, total (mg/L)
				01012	Beryllium, total (ug/L)
				01022	Boron, total (mg/L)
				01027	Cadmium, total (ug/L)
				01037	Cobalt, total (ug/L)
				01051	Lead, total (ug/L)
				01055	Manganese, total (ug/L)
				01059	Thallium, total (ug/L)
				01062	Molybdenum, total (ug/L)
				01097	Antimony, total (ug/L)
				01132	Lithium, total (ug/L)
				01147	Selenium, total (ug/L)
				11503	Radium 226+228, total in water (pCi/L)
				71900	Mercury, total (ug/L)
				74010	Iron, total (mg/L)
			Sample Annually April		SVOCs (ug/L) Using EPA Solid Waste Method 8270 (NR 507, appendix IV)
Leachate Head Wells					
HW1A	614		Measure Quarterly Report Semiannually April and October	00031	Leachate Depth (feet)
HW1B	616			99423	Leachate Elevation (feet above mean sea level)

1. Unless specifically stated, reporting is as per code typically within 60 days after the end of the specified monitoring period.
Trip Blank (999) and/or Field Blank (997) data must also be submitted electronically.

Attachment #4 for Pleasant Prairie Power Plant Ash Landfill - CCR Initial Permitting Plan of Operation Modification
License #2786
PAL and ACL Tables

Table 1 - CCR Well Preventive Action Limits (PALs)

Wells[1.]	DNR ID#	WUWN	Alkalinity (mg/L) GEMS ID#: 00410	Calcium (mg/L) GEMS ID#: 00916	Hardness (mg/L) GEMS ID#: 00900	Specific Conductance (umhos/cm) GEMS ID#: 00094	Total Dissolved Solids (mg/L) GEMS ID#: 70295	Lithium (ug/L) GEMS ID#: 01132	pH Lower/Upper (SU) GEMS ID#: 00094
W20D	300	VQ580	220	55	230	1100	610	15	6.8/8.9
W73	292	VN433	220	50	200	800	520	24	7.2/9.3
W74	302	VQ578	210	48	210	780	560	9.7	6.9/9.0
W75	304	VQ577	230	48	210	760	560	16	7.1/9.2
W76	306	VQ576	220	45	200	750	530	18	7.2/9.3
W77	308	VQ575	260	53	220	810	580	2.4	6.6/8.7

Notes

Attachment #4 for Pleasant Prairie Power Plant Ash Landfill - CCR Initial Permitting Plan of Operation Modification License #2786 PAL and ACL Tables

Table 2 - CCR Well Alternative Concentration Limits (ACLs)

Wells	DNR ID#	WUWN	Boron (mg/L) GEMS ID#: 01022	Fluoride (mg/L) GEMS ID#: 00951	Molybdenum (ug/L) GEMS ID#: 01062	Sulfate (mg/L) GEMS ID#: 00945
W20D	300	VQ580	0.47	1.2	102	210
W73	292	VN433	0.48	1.2	116	140
W74	302	VQ578	0.43	1.2	TBD*	180
W75	304	VQ577	0.46	1.2	110	200
W76	306	VQ576	0.48	1.1	115	160
W77	308	VQ575	0.45	1.2	110	170

Notes. TBD= To be determined. ACL will be calculated after additional sampling in accordance with Conditon 7 of this Plan of Operation modification decision.

Attachment #4 for Pleasant Prairie Power Plant Ash Landfill -
CCR Initial Permitting Plan of Operation Modification
License #2786
PAL and ACL Tables

Table 3 - Non-CCR Well Alternative Concentration Limits (ACLs)

Wells	DNR ID#	WUWN	Boron, dissolved (mg/L) GEMS ID#: 01020	Sulfate, dissolved (mg/L) GEMS ID#: 00946
P-10RR	290	JG231	0.35	250
W-17A	227	QA508	0.70	
W-17B	229	QA509	0.68	
W-20A	235	QA512	0.41	130
W-20B	237	QA513	0.36	
W-20C	239	QA514	0.35	
W-28	247	QA515	0.34	
W-35A	257	QA519	0.62	
W-35B	259	QA520		160

Notes.

Attachment #5 - Long-Term Care Cost Estimate
Pleasant Prairie Power Plant Ash Landfill
License #2786

Item	*Quantity*	*Unit*	*Unit Cost(1)*	*Average Cost per Year (4)*
Cover Maintenance				
Erosion Repair, Fertilizer, Seed/Mulch	0.28	ac	7,500.00	$ 2,100.00
Mowing	2.10	ac	1,000.00	$ 2,100.00
Road/Site Access Maintenance	1.00	LS	2,000.00	$ 2,000.00
Monitoring System Maintenance				
Groundwater Monitoring Wells	0.55	ea	2,500.00	$ 1,375.00
Leachate Management System Maintenance				
Leachate Line Cleaning/Jetting	1.00	LS	3,856.26	$ 3,856.00
Leachate Line Televising (Every 5 years)	0.20	LS	3,105.00	$ 621.00
Lift Pump Inspection	24.00	hr	200.00	$ 4,800.00
Leachate Pumping Electricity Costs	1.00	LS	1,500.00	$ 1,500.00
Pump Replacement(2)	0.05	ea	17,500.00	$ 875.00
Leachate/Condensate Hauling(3)	193.00	1000 gal	75.00	$ 14,475.00
Leachate/Condensate Treatment & Disposal(3)	193.00	1000 gal	20.50	$ 3,957.00
Site Inspections				
Inspection of Final Cover System - Semi-Annual	2.00	LS	4,500.00	$ 9,000.00
Groundwater and Groundwater Head Monitoring (Semi-Annual and Annual)				
Semi-annual Landfill Well Monitoring (18 wells - field parameters & analytical)	36.00	ea	398.00	$ 14,328.00
Annual Landfill Well Monitoring (4 wells - field parameters & analytical)	4.00	ea	348.00	$ 1,392.00
Leachate Monitoring				
Leachate Head Well Elevation (Quarterly)	8.00	ea	166.00	$ 1,328.00
Leachate Sample Analysis (Semi-Annual)	2.00	ea	358.00	$ 716.00
Leachate Analysis for SVOCs (annual)	1.00	ea	175.00	$ 175.00
Lab Report Generation / Mobilization				
EDD/Reporting	2.00	ea	1,500.00	$ 3,000.00
Mobilizations, travel, miles. S&H support, & misc exspenses	1.00	ea	1,528.00	$ 1,528.00

Summary	Years	Annual Cost	Total Cost
Land Surface Care	40	$6,200.00	$248,000.00
Site Inspection Years	40	$9,000.00	$360,000.00
Groundwater Monitoring	40	$21,623.00	$864,920.00
Leachate Monitoring	40	$891.00	$35,640.00
Leachate Hauling	40	$14,475.00	$579,000.00
Leachate Treatment	40	$3,957.00	$158,260.00
Leachate System Maintenance	40	$11,031.00	$441,250.00
Leachate Head Monitoring	40	$1,328.00	$53,120.00
Subtotal Long-Term Care Cost:		$68,504.76	$2,740,190.00
Contingency (10%)		$6,850.48	$274,019.00
Total Annual Long-Term Care Cost:		$75,355.24	$3,014,209.00

Notes
(1)Annual costs are in 2025 dollars.
(2)Assumes the leachate pumps will be replaced once throughout the duration of LTC.
(3)Leachate volume based on estimated 1 in/acre per year per NR 512.12(3)(b).
(4)Average costs per year are rounded to the nearest dollar.