



Post-Closure Plan

WEC Temporary Ash Disposal Area



Public Power Generation Agency/
Hastings Utilities/City of Hastings, Nebraska

Gerald T. Whelan Energy Center

Hastings, Nebraska

Revised: August 6, 2021



POST-CLOSURE PLAN WEC TEMPORARY ASH DISPOSAL AREA

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SECTION 1.0 SITE IDENTIFICATION

1.1 Introduction

On April 17, 2015 the U.S. Environmental Protection Agency (EPA) published the final rule for the regulation and management of coal combustion residuals (CCR) under the Resource Conservation and Recovery Act (RCRA). The rule – effective on October 19, 2015 – applies to electric utilities and independent power producers that fall within North American Industry Classification System (NAICS) code 221112, and the facility produces or stores CCR materials in impoundments or landfills. This regulation applies to the Whelan Energy Center (WEC).

The WEC Temporary Ash Disposal Area serves the two (2) fossil fuel combustion units of the WEC. City of Hastings owns Unit No. 1 (WEC1) and Hastings Utilities, the utilities department for the City of Hastings operates WEC1; Public Power Generation Agency (PPGA) owns Unit No. 2 (WEC2) while Hastings Utilities/City of Hastings (Hastings) is the operating agent for PPGA. The WEC Temporary Ash Disposal Area is classified as an existing CCR surface impoundment of approximately 23.2 acres in size that has historically received CCR for disposal/storage and is permitted with the State of Nebraska. The WEC Temporary Ash Disposal Area is planned to be closed with removal of CCR and decontamination procedures in accordance with Title 40 of the Code of Federal Regulations (CFR) §257.102(c).

By October 2023, the existing CCR surface impoundment will complete a phased closure for a portion of the WEC Temporary Ash Disposal Area and be retrofitted to a CCR landfill. The retrofitted CCR landfill will provide CCR storage for continued WEC2 operations allowing for seasonal markets in beneficial use. The retrofitted CCR landfill and leachate pond will be approximately six (6) acres in size and located in the northeast corner of the existing WEC Temporary Ash Disposal Area footprint. Future closure of this retrofitted CCR landfill is also planned with removal of CCR and decontamination procedures in accordance with 40 CFR §257.102(c).

Pursuant to 40 CFR §257.104(a), a CCR unit that elects to close by removing CCR is not subject to the post-closure care criteria of the CCR rule. Therefore, this Post-Closure Plan only needs to meet the requirements of Nebraska Department of Environment and Energy (NDEE) Title 132 Chapter 4 for monitoring and maintaining the site during a 5-year post-closure care period, unless otherwise modified by revised NDEE Title 132 regulations.

This Post-Closure Plan has been prepared in accordance with NDEE Title 132 Chapter 4 requirements and provides a description of activities, schedules, and features incorporated into the closure of the WEC Temporary Ash Disposal Area as a surface impoundment and future retrofitted CCR landfill. This Post-Closure Plan must be amended whenever there is a change in the operation of the CCR unit that would substantially affect the written post-closure plan or after post-closure activities have commenced, or unanticipated events necessitate a revision of the written post-closure plan. PPGA and Hastings will not implement modifications to the design or operations of the WEC Temporary Ash Disposal Area, as existing CCR surface impoundment or retrofitted CCR landfill, that result in modifications to this Post-Closure Plan without prior approval from NDEE.

1.2 Facility Identification

Facility: WEC Temporary Ash Disposal Area

Location: A parcel of land located in the north half of Section 14, Township 7 North, Range 9 West of Adams County, Nebraska, as more specifically described in the Permit Renewal Application, containing approximately 320. The current Temporary Ash Disposal Area disposal footprint as a CCR surface impoundment is approximately 23.2 acres on the WEC site. The CCR landfill and leachate pond liner footprint within the retrofitted portion of the WEC Temporary Ash Disposal Area will be approximately six (6) acres. This site is approximately two (2) miles east of Hastings, Nebraska, immediately south of U.S. Highway 6.

Owner/Operator Contact Address: Hastings Utilities
1228 North Denver Avenue
Hastings, NE 68901

or

P.O. Box 289
Hastings, NE 68902-0289

NDEE Permit No.: NE0204129

NDEE Facility ID: 58048

1.3 Key Contacts

Responsible Individuals for post-closure monitoring and care:

Hastings Utilities:	Environmental Director	Phone: (402) 462-6351
	Director of Electric Production	Phone: (402) 462-3350
	Website	www.cityofhastings.org
	Email address	rkleinhample@hastingsutilities.com or mstange@hastingsutilities.com

Emergency Services:	Emergency Response	911
	Hospital (Mary Lanning)	(402) 463-4521

1.4 Post-Closure Documentation, Notifications and Certification

Hastings will prepare, directly or through a contract, the documentation of post-closure care in accordance with NDEE Title 132, Chapter 4. In accordance with current state regulations, the results of all groundwater monitoring will be reported to the NDEE. Documentation is anticipated to include records of the periodic inspections, and any maintenance and repairs required to be completed.

Following the post-closure period, Hastings will submit a certification to NDEE signed by a professional engineer registered in the State of Nebraska verifying the completion of post-closure care in accordance with the approved Post-Closure Plan. Documentation of inspections and reports will be stored electronically in Hastings digital files.

SECTION 2.0 POST-CLOSURE PLAN

The Post-Closure Plan will be implemented immediately after approval of completion of final closure in accordance with NDEE Title 132, Chapter 4 and the federal CCR rule. With the retrofit, post-closure of the permitted WEC Temporary Ash Disposal Area will not begin until after clean closure of the retrofitted CCR landfill. Hastings will conduct, or cause to be conducted, post-closure care for the WEC Temporary Ash Disposal Area. The post-closure monitoring period of the clean site WEC Temporary Ash Disposal Area will be five (5) years in accordance with NDEE Title 132, Chapter 4 requirements, unless otherwise modified by revised NDEE Title 132 regulations. The federal CCR rule (40 CFR §257.104(a)(2)) does not require post-closure care of CCR units that close with CCR removal and decontamination.

The Post-Closure Plan provides a basis for estimating post-closure costs and making sure that sufficient funds are available to properly maintain and monitor the clean-site ash disposal area for the post-closure period. Access will be controlled throughout the post-closure period and any subsequent periods as deemed appropriate at the time post-closure activities terminate.

2.1 Planned Use During Post-Closure Period

The clean-site WEC Temporary Ash Disposal Area may be designated as a detention basin, reused for support facilities to power generation, or filled in and used for other facilities during the post-closure period. Access will be controlled via fence and signage to limit disturbance to the integrity or function of the monitoring systems. After completion of the post-closure period, the area may be available for ancillary facilities as required by Hastings or third-party development.

2.2 Monitoring Schedule

This Post-Closure Plan includes a monitoring schedule, monitoring procedures, and maintenance activities, separated into component systems that are monitored and cared for during the post-closure period. For monitoring and maintenance purposes, the WEC Temporary Ash Disposal Area has been divided into the following components:

- Groundwater Monitoring System
- Stormwater/Drainage System
- Access Controls

Table 1 provides the proposed frequency of monitoring activities for the post-closure of the CCR unit based on the current post-closure monitoring period required by NDEE Title 132, Chapter 4. Visual inspections will be conducted by Hastings personnel or contracted to a third party. In order to facilitate any necessary repair work, inspections will be conducted during the spring of each year and/or after severe storms (i.e. 25-year storm event or greater). Monitoring and maintenance activities will be adjusted in accordance with the season, climate, and weather conditions.

Table 1
Post-Closure Inspection Schedule

	Frequency, per year ⁽¹⁾				
Activity/Year	1	2	3	4	5
Groundwater Monitoring System ⁽²⁾	S	S	S	S	S
Stormwater/Drainage System	Q	S	A	A	A
Access Controls	A	A	A	A	A

Notes:

- (1) S = 2 times per year; A = 1 time per year; Q = 4 times per year
- (2) Groundwater monitoring will be performed for 40 CFR 257 Appendix III detection monitoring constituents and Appendix IV assessment monitoring constituents to comply with the CCR rule 40 CFR 257 and NDEE Title 132. Refer to the Groundwater Sampling and Analysis Plan (Permit – Appendix D).

The performance of each monitoring activity will be recorded and placed in the operating record maintained in the Hastings Utilities offices and/or electronic files. Table 2, located at the end of this plan, provides a general inspection checklist to record the condition of the WEC Temporary Ash Disposal Area. Damage to the monitoring components will be documented during inspection and scheduled for repairs.

Maintenance activities during post-closure will be required periodically, depending on the exact situation encountered. Any detected damages or deterioration will be assessed as to the cause and extent before repairs begin. Repairs will occur at the earliest possible time following detection. Temporary repairs may be performed until permanent repairs can be installed. Photographic records may be made of repair activities for documentation. Repair work will be done in accordance with the Construction Quality Assurance Plan (Permit – Appendix H). All post-closure period repairs will be documented, and documentation will be placed into the operating record.

Based on the results of the ongoing monitoring program, the frequency and duration of monitoring may be shortened or lengthened by NDEE.

2.3 Groundwater Monitoring System

Groundwater monitoring will continue in accordance with this Post-Closure Plan pursuant to NDEE Title 132, Chapter 4 requirements. During the semi-annual sampling events, the groundwater monitoring wells will be visually inspected for the following:

- Erosion or biotic intrusion around the base
- Condition of concrete pad
- Condition of protective casing
- Damage to locking well caps or locks
- Integrity of well seals/ well casing
- Integrity of any well markers or protective structures

Areas of erosion at groundwater monitoring wells will be filled with compatible soil materials, graded to drain, and covered with vegetative growth, as necessary. Damaged well caps, concrete pads, and well seals will be repaired and/or replaced. Dedicated pumps that are not working or are performing poorly will be repaired or replaced, or alternatively replaced by a different sampling method approved by the NDEE (i.e., non-dedicated pump). Wells damaged below grade levels may need to be evaluated further and possibly replaced. Plans for well repair or replacement shall be submitted to NDEE for review and approval prior to initiation. Well repairs shall be completed as quickly as seasonal weather conditions allow.

Sampling frequency will be in accordance with Table 1 and will be reported to the NDEE on a semi-annual basis and a groundwater monitoring and corrective action report prepared annually in accordance with the federal CCR rule. All sampling, packaging, shipping, and testing will conform to the Groundwater Sampling and Analysis Plan (Permit – Appendix D).

At the conclusion of the post-closure monitoring period, all monitoring wells may be abandoned in accordance with the requirements of the State of Nebraska Department of Health Title 178.

2.4 Stormwater/Drainage System

Periodic visual inspection of the stormwater/drainage system can include the following areas:

- Culverts
- Channels/ditches
- Discharge structures
- Retention/detention basins
- Other drainage control structures

Inspection will identify any accelerated erosion in a particular area and differential settling of drainage control structures. Inspections will also look for sedimentation, clogs or obstructions, deterioration, and vegetative intrusion.

Damaged drainage control structures will be repaired, replaced, or restored to original conditions, if they are determined to be still needed for stormwater management in the area. When relevant drainage structures affecting the clean closed WEC Temporary Ash Disposal Area become plugged, silt-filled, or lose more than one-half their capacity, they will be cleaned. Silt-filled drainage channels affecting the clean closed WEC Temporary Ash Disposal Area will be cleaned and regraded to maintain drainage capacity.

2.5 Access Controls

Access will be controlled throughout the post-closure period. Access control structures and signage will be visually inspected for the following:

- Cuts or other damage in fencing and holes under fencing
- Damage to fence posts
- Integrity of locks and gates
- Damage or deterioration of (or missing) posted signs and warnings

Damaged fencing, gates, and signs will be repaired or replaced. Holes under fencing will be filled and compacted.

Table 2
Post-Closure Inspection/Maintenance Checklist – CCR Unit

Component	Yes*/No	Remarks/Actions
Groundwater Monitoring System (see well sampling field forms for conditions of wells)		
Protective Casing Damaged	___ Yes ___ No	
Locking Cap Damaged/Lock Missing	___ Yes ___ No	
Concrete Pad Cracked or Eroded	___ Yes ___ No	
Well Seal/Well Casing Damaged	___ Yes ___ No	
Erosion/Biotic Intrusion at Well Base	___ Yes ___ No	
Protective Bollards Damaged	___ Yes ___ No	
Stormwater/Drainage System		
Clean Closed Ash Disposal Area		
• Debris (wood, weeds, trash)	___ Yes ___ No	
• Erosion of Embankments	___ Yes ___ No	
• Sediment Accumulation or Erosion Detrimental to Drainage	___ Yes ___ No	
Leachate Pond		
• Debris (wood, weeds, trash)	___ Yes ___ No	
• Erosion of Embankments	___ Yes ___ No	
• Damage/Erosion to Spillways/ Culverts, if present	___ Yes ___ No	
• Damage to Pump Station, if present	___ Yes ___ No	
• Erosion or Sediment Accumulation at Pump Station, if present	___ Yes ___ No	
Perimeter Ditches		
• Debris (wood, weeds, trash, sediment)	___ Yes ___ No	
• Erosion	___ Yes ___ No	
Access Controls		
Fencing/Fence Posts Damaged	___ Yes ___ No	
Holes/Erosion Under Fencing	___ Yes ___ No	
Locks Missing or Gates Damaged	___ Yes ___ No	
Signs Missing or Damaged	___ Yes ___ No	

*For 'Yes' response, record location and action taken.

Date: _____ **Inspector Signature:** _____