

Texas Commission on Environmental Quality

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INTEROFFICE MEMORANDUM

To: Office of Chief Clerk DATE: November 21, 2023

From: Diane Goss and Audrey Liter  
Staff Attorneys  
Environmental Law Division

**Subject:** Backup Documents for the Consideration of an Uncontested Post-Closure Order at Agenda

Applicant: Nucor Corporation

Proposed Permit No.: 33095

Program: Office of Waste, Waste Permits Division and Remediation Division

Docket No.: TCEQ Docket No. 2022-0579-IHW

Enclosed please find a copy of the following documents for inclusion in the background material for this permit application:

- Technical Summary and Executive Director's Preliminary Decision
- Compliance History
- Draft Post-Closure Order No. 33095

**Technical Summary and Executive Director's  
Preliminary Decision**

## Technical Summary and Executive Director's Preliminary Decision

June 26, 2023

### Description of Application

Applicant: Nucor Corporation  
Industrial Solid Waste Registration No. 33095  
Post-closure Order No. 33095  
EPA I.D. No. TXD071378582

**Location:** The Nucor Corporation facility is located at 8812 U.S. Highway 99 West, just west of Jewett on approximately 798 acres near Jewett, Leon County, Texas. The site is within the drainage area of Segment No. 1209H of the Brazos River Basin (North Latitude 31°21'07", West Longitude 96°10'04").

This facility is not located in an area affected by the Texas Coastal Management Program.

**General:** Nucor Corporation currently owns and operates a steel recycling mini-mill that manufactures structural steel products. On-site generated wastes were disposed in a Corrective Action Management Unit (CAMU) which is now closed as landfill. The wastes managed in the CAMU include inorganic solids generated from the facility's steel recycling activities and metal-impacted soils excavated from areas identified to contain historical contamination related to the management of electric air furnace dust.

**Request:** Nucor Corporation applied to the TCEQ for a Post-Closure Order to authorize a compliance plan and require post-closure care of the CAMU; to monitor the concentration of hazardous constituents in groundwater; and to remediate groundwater quality to specified standards. The Post-Closure Order application was submitted pursuant to 30 Texas Administrative Code (TAC) Sections 305.50(b) and 335.2(m). TCEQ received the application, dated March 28, 2022, on April 1, 2022.

**Authority:** The executive director prepared a draft Post-Closure Order in accordance with applicable requirements of 30 TAC Chapters 335 and 305, which have been adopted under the authority of the TEXAS HEALTH AND SAFETY CODE ANN., Chapter 361 (Vernon Supp.), and Section 5.103, Texas Water Code Ann. (Vernon Supp.). The TCEQ and the EPA have entered into a Joint Permitting Agreement (JPA) whereby EPA accepts the applicant's information submitted through the State as a Federal application for purposes of implementing the Hazardous and Solid Waste Amendments (HSWA) of 1984.

### Technical Information

This proposed Post-Closure Order has been prepared to address (1) post-closure care and (2) monitoring of the concentration of hazardous constituents in groundwater and (3) remediation of groundwater quality to specified standards.

1. Post-Closure Order includes the following:

A. Establishes general provisions for post-closure care of the subject facility units (30 TAC Chapter 335, Subchapter F and Chapter 350);

- B. Requires the permittee to establish and maintain financial assurance for proper post-closure care in the total amount of \$640,200 (2021 dollars) (30 TAC Section 335.179);
  - C. Requires the permittee to control access to the facility (40 CFR 264.14);
  - D. Specifies minimum physical conditions, training, routine inspections and emergency procedures for the facility units (30 TAC Sections 335.153 and 335.177, 40 CFR Part 264, Subparts B, C and D);
  - E. Establishes standard permit provisions and other requirements pertaining to the management of industrial solid waste, including hazardous industrial solid wastes (40 CFR Part 264, Subpart B);
  - F. Requires compliance with the Land Disposal Restrictions in Provision II.A.5. which would implement the applicable requirements of HSWA upon issuance of the post-closure order by EPA (40 CFR Part 268);
  - G. The following is a list of standard post-closure care requirements for land based permitted units (30 TAC Sections 335.169):
    - 1. Maintain all storm water conveyance structures in good functional condition;
    - 2. Maintain proper cover on closed units to prevent erosion, ponding, and water infiltration, and maintain all benchmarks;
    - 3. Maintain facility perimeter fence and ensure that all entrances are manned or locked, and ensure TCEQ access to the facility; and
    - 4. Perform groundwater monitoring and, if applicable, conduct any necessary corrective action.
  - H. The following is a brief description of waste management units and corresponding regulatory requirements encompassed by this Post-Closure Order:

Corrective Action Management Unit (CAMU) - areal configuration of the CAMU; requirements for management of remediation waste; design, construction and operation of the CAMU which includes the composite liner system and the leachate collection and removal system; minimum treatment requirements for waste placed in the CAMU; groundwater monitoring and corrective action requirements; and closure and post-closure requirements. (40 CFR Section 264.552)
2. The proposed Post-Closure Order requires groundwater monitoring at the facility which includes the following:
- A. Defines the point of compliance and requires Nucor Corporation to perform groundwater monitoring of the CAMU at specified point of compliance wells for the duration of 30 years;
  - B. Defines the Groundwater Protection Standard (GWPS) which specifies hazardous constituent concentration limits to be achieved/monitored at the point of compliance and point-of-exposure by operation of the corrective action program (30 TAC Section 335.156 and Chapter 350);
  - C. Authorizes Alternate Concentration Limits (ACLs) for the GWPS that are protective of human health and the environment in accordance with 30 TAC Section 335.160(b). The ACLs are based on the Texas Risk Reduction Program (TRRP), Tier 1 protective concentration levels (PCLs) specified in accordance with 30 TAC Chapter 350;

- D. Specifies procedures to determine if the GWPS has been exceeded at the point of compliance (30 TAC Sections 335.158 and point-of-exposure (30 TAC Chapter 350);
- E. Defines the Corrective Action Program consisting of monitored natural attenuation and a plume management zone (PMZ);
- F. Requires groundwater monitoring to measure the effectiveness of the Corrective Action Program;
- G. Authorizes the disposal of purged/recovered groundwater at the facility's on-site wastewater treatment system provided that this activity shall not violate the requirements of the facility's NPDES discharge permit/at an authorized deep injection well facility/other on-site management methods as authorized by the executive director/off-site disposal at an authorized site;
- H. Requires the permittee to provide financial assurance in the amount of \$433,000.00 (in 2021 Dollars) for corrective action monitoring;
- I. Establishes that at the facility groundwater is typically encountered approximately 10-20 feet below grade (440-430 feet above Mean Sea Level) in the uppermost aquifer, that the uppermost aquifer is part of the Recklaw Formation and Alluvium and consists of clays, sandy clays, and poorly graded sands ranging in thickness from 3-10 feet, and that groundwater flow is generally toward the west; and
- J. Requires: (1) corrective action with groundwater monitoring at the CAMU; and (2) RCRA Facility Investigation (RFI) for AOC-3 and AOC-4 because contamination was verified in the uppermost aquifer.

#### Public Notice

The public notice issued in conjunction with the final draft Post-Closure Order satisfies the requirements of the Resource Conservation and Recovery Act (RCRA), as amended, 42 U.S.C. 6901 et seq. and 40 CFR 124.10. The TCEQ and EPA have entered into a joint permitting agreement whereby RCRA permits, compliance plans and Post-Closure Orders will be issued in Texas in accordance with the Texas Solid Waste Disposal Act, Texas Health and Safety Code Ann., Chapter 361, and with RCRA, as amended. If TCEQ and EPA decide to issue a final draft Post-Closure Order to this facility, the Post-Closure Order will implement both the requirements of RCRA as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA) and the federally authorized State requirements. However, the State of Texas has not received full HSWA authority. Therefore, if the draft Post-Closure Order contains HSWA requirements for which the TCEQ is not authorized, both the TCEQ and EPA must issue the Post-Closure Order in order for the applicant to have a fully effective RCRA Post-Closure Order. Any jointly issued Post-Closure Order provisions will be fully enforceable under State and Federal law. Areas in which the TCEQ is not authorized by EPA are denoted in the draft Post-Closure Order with an asterisk (\*). Decisions regarding the order provisions issued under State authority may be reconsidered in response only from the applicant, the executive director, or the Public Interest Counsel, in accordance with the provisions of 30 TAC 55.156.

This Post-Closure Order is subject to the public notice requirements in 30 TAC Chapter 39, Subchapter N.

Preliminary Decision

- General: The executive director made a preliminary decision that this proposed Post-Closure Order, if issued, meets all the statutory and regulatory requirements.
- Special: The proposed Post-Closure Order does not authorize variances or alternatives to required standards.

Additional Information

- A. Technical information:  
Manisha Poudyal, Project Manager  
Industrial and Hazardous Waste Permits Section  
Waste Permits Division  
Texas Commission on Environmental Quality  
Mail Code MC 130  
P. O. Box 13087  
Austin, Texas 78711-3087  
512/239-2286  
[Manisha.Poudyal@tceq.texas.gov](mailto:Manisha.Poudyal@tceq.texas.gov)
- B. HSWA information:  
  
Ms. Melissa Smith  
Section Chief  
RCRA, Brownfields, and Solid Waste Branch  
U.S. Environmental Protection Agency  
Region VI - LCRR  
1201 Elm Street, Suite 500  
Dallas, TX 75270-2102  
[smith.melissa@epa.gov](mailto:smith.melissa@epa.gov)
- C. Procedural and public hearing information:  
Office of Public Interest Counsel  
Texas Commission on Environmental Quality  
Mail Code MC 103  
P. O. Box 13087  
Austin, Texas 78711-3087  
512/239-6363

Prepared by:

Manisha Poudyal  
Project Manager  
Industrial and Hazardous Waste Permits Section  
Waste Permits Division

## **Compliance History**



# Compliance History Report

Compliance History Report for CN601246663, RN100211093, Rating Year 2022 which includes Compliance History (CH) components from September 1, 2017, through August 31, 2022.

<b>Customer, Respondent, or Owner/Operator:</b>	CN601246663, Nucor Corporation	<b>Classification:</b> SATISFACTORY	<b>Rating:</b> 0.17
<b>Regulated Entity:</b>	RN100211093, NUCOR STEEL TEXAS	<b>Classification:</b> HIGH	<b>Rating:</b> 0.00
<b>Complexity Points:</b>	22	<b>Repeat Violator:</b> NO	
<b>CH Group:</b>	14 - Other		
<b>Location:</b>	8812 US HIGHWAY 79 W JEWETT, TX 75846, LEON COUNTY		
<b>TCEQ Region:</b>	REGION 09 - WACO		

**ID Number(s):**

**AIR OPERATING PERMITS** ACCOUNT NUMBER LG0006S  
**PUBLIC WATER SYSTEM/SUPPLY** REGISTRATION 1450014  
**AIR NEW SOURCE PERMITS** AFS NUM 4828900001  
**AIR NEW SOURCE PERMITS** EPA PERMIT PSDTX1029  
**AIR NEW SOURCE PERMITS** EPA PERMIT PSDTX1029M2  
**AIR NEW SOURCE PERMITS** REGISTRATION 153794

**AIR OPERATING PERMITS** PERMIT 1289  
**AIR NEW SOURCE PERMITS** ACCOUNT NUMBER LG0006S  
**AIR NEW SOURCE PERMITS** PERMIT 53581  
**AIR NEW SOURCE PERMITS** EPA PERMIT PSDTX1029M1  
**AIR NEW SOURCE PERMITS** EPA PERMIT PSDTX1029M3  
**PETROLEUM STORAGE TANK REGISTRATION** REGISTRATION 20949  
**STORMWATER** PERMIT TXR05EX92

**IHW CORRECTIVE ACTION** SOLID WASTE REGISTRATION # (SWR) 33095  
**WASTEWATER** PERMIT WQ0001897000  
**POLLUTION PREVENTION PLANNING** ID NUMBER P00476  
**INDUSTRIAL AND HAZARDOUS WASTE** SOLID WASTE REGISTRATION # (SWR) 33095

**AIR EMISSIONS INVENTORY** ACCOUNT NUMBER LG0006S  
**INDUSTRIAL AND HAZARDOUS WASTE** EPA ID TXD071378582  
**INDUSTRIAL AND HAZARDOUS WASTE** ID NUMBER PCO33095

**Compliance History Period:** September 01, 2017 to August 31, 2022      **Rating Year:** 2022      **Rating Date:** 09/01/2022

**Date Compliance History Report Prepared:** June 28, 2023

**Agency Decision Requiring Compliance History:** Permit - Issuance, renewal, amendment, modification, denial, suspension, or revocation of a permit.

**Component Period Selected:** June 27, 2018 to June 28, 2023

**TCEQ Staff Member to Contact for Additional Information Regarding This Compliance History.**

**Name:** Manisha Poudyal

**Phone:** (512) 239-2286

**Site and Owner/Operator History:**

- 1) Has the site been in existence and/or operation for the full five year compliance period? YES
- 2) Has there been a (known) change in ownership/operator of the site during the compliance period? NO

**Components (Multimedia) for the Site Are Listed in Sections A - J**

**A. Final Orders, court judgments, and consent decrees:**

N/A

**B. Criminal convictions:**

N/A

**C. Chronic excessive emissions events:**

N/A

**D. The approval dates of investigations (CCEDS Inv. Track. No.):**

Item 1      July 23, 2018      (1489711)

Item 2	October 02, 2018	(1518164)
Item 3	November 01, 2018	(1525041)
Item 4	January 03, 2019	(1537118)
Item 5	February 12, 2019	(1533686)
Item 6	March 04, 2019	(1550149)
Item 7	June 04, 2019	(1570063)
Item 8	January 03, 2020	(1617375)
Item 9	February 05, 2020	(1625839)
Item 10	February 06, 2020	(1626165)
Item 11	February 11, 2020	(1629959)
Item 12	February 12, 2020	(1630141)
Item 13	March 03, 2020	(1630236)
Item 14	March 30, 2020	(1638315)
Item 15	May 06, 2020	(1645815)
Item 16	August 19, 2020	(1666446)
Item 17	January 27, 2021	(1690345)
Item 18	February 03, 2021	(1699928)
Item 19	August 12, 2021	(1751457)
Item 20	January 04, 2022	(1781423)
Item 21	February 16, 2022	(1794742)
Item 22	February 26, 2022	(1794881)
Item 23	June 07, 2022	(1816967)
Item 24	November 01, 2022	(1853542)
Item 25	November 22, 2022	(1859785)
Item 26	February 14, 2023	(1879347)
Item 27	March 20, 2023	(1894323)
Item 28	May 23, 2023	(1902573)
Item 29	June 21, 2023	(1903303)

**E. Written notices of violations (NOV) (CCEDS Inv. Track. No.):**

A notice of violation represents a written allegation of a violation of a specific regulatory requirement from the commission to a regulated entity. A notice of violation is not a final enforcement action, nor proof that a violation has actually occurred.

N/A

**F. Environmental audits:**

N/A

**G. Type of environmental management systems (EMSs):**

N/A

**H. Voluntary on-site compliance assessment dates:**

N/A

**I. Participation in a voluntary pollution reduction program:**

N/A

**J. Early compliance:**

N/A

**Sites Outside of Texas:**

N/A

**Draft Post-Closure Order No. 33095**

**POST-CLOSURE ORDER NO. 33095  
DOCKET NO. 2022-0579-IHW**

**IN THE MATTER OF  
POST-CLOSURE ORDER  
CONCERNING NUCOR  
CORPORATION**

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**BEFORE THE  
TEXAS COMMISSION ON  
ENVIRONMENTAL QUALITY**

**I. JURISDICTION AND STIPULATIONS**

The Texas Commission on Environmental Quality (the Commission or TCEQ) issues this agreed Post-Closure Order (PCO) to Nucor Corporation (Nucor, Applicant or Permittee) pursuant to the authority vested in the Commission by TEX. HEALTH & SAFETY CODE § 361.082(h), and TEX. WATER CODE §7.031(f).

**II. STATEMENT OF PURPOSE**

Through this agreed Post-Closure Order (PCO) the Commission requires and authorizes Nucor to conduct post-closure care of a corrective action management unit (CAMU) and to conduct Resource Conservation and Recovery Act (RCRA) facility investigations, implement necessary corrective action for releases from solid waste management units and establish financial assurance for post-closure care and a corrective action program in accordance with 30 TEX. ADMIN. CODE §§ 335.2(m), 335.156 and 335.167.

**III. INCORPORATION OF APPLICATION MATERIALS AND APPENDICES**

This PCO is based on the technically complete Part A and Part B Industrial and Hazardous Waste application received by the Commission from Nucor on September 29, 2022. The technically complete application received by the Commission from the Nucor on September 29, 2022, is incorporated into this PCO by reference as if fully set out herein. Appendix A (Technical Requirements) and the attachments and tables listed in Appendix A<sup>1</sup> that are appended to this order, are also incorporated by reference into this PCO. In cases where the provisions of this PCO conflict with the application, this PCO supersedes the application. The expressed incorporation of the application does not relieve Nucor of its obligation to comply with state and federal law and regulations.

**IV. FINDINGS OF FACT**

1. The Applicant, Nucor Corporation, is a publicly held foreign corporation domiciled in Delaware with a mailing address of 1915 Rexford Road Charlotte, NC 28211.
2. Nucor currently owns and operates a steel recycling mini-mill (Steel Mill Site) at 8812 State Highway 79 W in Jewett, Texas, 75846.
3. Nucor manufactures structural steel products at the Steel Mill Site.
4. Nucor owns and operates a “facility” as this term is defined in TEX. HEALTH & SAFETY CODE § 361.003 and 30 TEX. ADMIN. CODE § 335.1 at the Steel Mill Site (Nucor Facility).
5. The Nucor Facility is within the drainage area of Segment Duck Creek in the Brazos River Basin (North Latitude 31°21’07”, West Longitude 96°10’04”).
6. TCEQ issued Solid Waste Registration No. 33095 to Nucor for the Nucor Facility site.

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<sup>1</sup> Tables and attachments are listed under List of Tables, List of Attachments, and List of PCO Attachments in Appendix A, page 3.

7. On December 19, 2000, Nucor Corporation and the United States Environmental Protection Agency (USEPA) entered into a Consent Decree in Civil Action No. 4-00:3945-24 (Consent Decree) to settle Nucor's alleged violations of environmental regulations at multiple steel mini-mills and steel fabrication facilities located in the United States including the steel mini-mill located at the Nucor Facility in Jewett Texas.
8. The Consent Decree required Nucor to conduct an assessment and prepare an Initial Assessment Report to prioritize and identify solid waste management units and areas of concern subject to corrective action. The stated objective of the initial assessment was to provide a comprehensive assessment of site conditions, releases, potential releases, and exposure pathways to determine whether investigation or cleanup was needed and to identify areas of potential concern, with particular attention paid to areas involved in the management and handling of electric arc furnace (EAF) dust.
9. EAF dust is classified as a listed hazardous waste with the hazardous waste No. K061. The major chemicals of concern associated with EAF dust are RCRA 8 metals, primarily cadmium, chromium, and lead.
10. Nucor constructed a Corrective Action Management Unit (CAMU) for the disposal of wastes generated on-site from corrective action activities and closed the CAMU as a hazardous waste landfill in accordance with the Consent Decree.
11. USEPA assumed responsibility for oversight of the CAMU approval and implementation.
12. Nucor identified and assigned numeric identifiers to a total of 37 Initial Assessment areas, IA-1 through IA-37.
13. Based on the RCRA Facility Assessments results, Nucor was required to conduct RCRA Facility Investigations of 14 Initial Assessment Areas, IA-1, IA-2, IA-3, IA-4, IA-6; IA-8; IA-9 IA-10, IA-21, IA-31, IA-34; IA-35, IA-36 and IA-37.
14. Nucor disposed EAF dust generated from on-site steel recycling and manufacturing activities in an on-site solid waste landfill prior to the enactment of RCRA before EAF dust acquired a hazardous waste listing. Nucor assigned this on-site landfill the alpha numeric identifier IA-5.
15. In 2002, Nucor constructed the CAMU. Nucor disposed waste generated from remediation of the Initial Assessment areas identified in F.O.F. No. 13 in the CAMU. The wastes disposed in the CAMU include inorganic solids generated from on-site steel recycling activities and metal-impacted soils excavated from areas of the facility that contained historical EAF dust contamination.
16. Initial Assessment Area-5 and the CAMU share the same footprint.
17. The wastes managed in the CAMU and the associated EPA waste codes and TCEQ waste codes are listed in Table IV.B.
18. In 2005 Nucor began groundwater monitoring of the CAMU.
19. Nucor completed construction of the cap of the CAMU in 2006. The CAMU cap and cover system covers approximately 4 acres.
20. Following CAMU construction, Nucor identified two additional Areas of Concern that required RCRA Facility Investigations. Nucor named and assigned alpha numeric identifiers to these Initial Assessment Areas: Former EAF Dust Staging Area and Loadout Area, Area of Concern-1 (AOC-1); and Former AOC Dust Bag Burial Area, Area of Concern-2 (AOC-2).

21. Nucor remediated AOC-2 and the 14 Initial Assessment Areas identified in F.O.F. No. 13 by excavating soils contaminated with EAF dust classified as hazardous waste. Prior to Nucor's completion of constructing the CAMU cap in 2006, Nucor disposed of the excavated contaminated soils in the CAMU. Nucor disposed of contaminated soils excavated after Nucor completed constructing the CAMU cap at an off-site permitted treatment, storage, and disposal facility.
22. The Executive Director<sup>2</sup> approved closure of 13 Initial Assessment Areas and AOC-2. under Texas Risk Reduction Program (TRRP) Remedy Standard A in accordance with 30 TEX. ADMIN. CODE §350.32, with no further action required in 2010.
23. Nucor closed Initial Assessment Area-9 with a physical control by leaving the melt shop building foundation in place. The Executive Director approved closure of IA-9 under TRRP Remedy Standard B in accordance with 30 TEX. ADMIN. CODE § 350.33 with no post-response action care required on May 27, 2010.
24. Nucor remediated AOC-1 by excavating lead-affected soils and rail ballast material that contains EAF dust and disposing of the excavated materials at an off-site permitted treatment storage and disposal facility. The windblown EAF dust present in soil and rail ballast material at AOC-1 was emitted prior to the establishment of RCRA. Because in-situ soils were not actively being managed, RCRA subtitle C regulations, including land disposal restrictions, did not apply. The Executive Director approved closure of AOC-1 under TRRP Remedy Standard A in accordance with 30 TEX. ADMIN. CODE § 350.32 on June 21, 2022.
25. The USEPA conditionally approved Nucor's CAMU Cap Certification and Closure Report on April 15, 2021, upon the conditions that Nucor maintain the cap and vegetative cover, conduct groundwater monitoring and apply to TCEQ for a permit or a post-closure order, and that TCEQ issue a post-closure order or a permit to verify proper maintenance of the CAMU cap and groundwater monitoring regime during the post-closure period. The USEPA's April 15, 2021, letter stated that the EPA's conditional approval would become full approval upon TCEQ's issuance of a final post-closure order or permit for the CAMU.
26. The hazardous and solid waste constituents detected at the Nucor Facility and the associated Groundwater Protection Standards are listed in PCO Table III.
27. The Executive Director approved Nucor's Response Action Plan Revision 1, dated August 19, 2022, in accordance with 30 TEX. ADMIN. CODE, CHAPTER 350. The Response Action Plan Revision 1 established a plume management zone, established monitored natural attenuation as the selected remedy for affected groundwater associated with the CAMU and within the plume management zone, and requires Nucor to conduct groundwater monitoring to monitor concentrations of constituents of concern and plume stability.
28. Nucor is a generator of "solid waste" and of "hazardous waste," that operates a "hazardous waste management facility" as these terms are defined in TEX. HEALTH & SAFETY CODE § 361.003 and 30 TEX. ADMIN. CODE § 335.1. Certain wastes and constituents found at the facility are "hazardous waste" and/or "hazardous constituents" as defined in 30 TEX. ADMIN. CODE § 335.1, 40 C.F.R. PART 261, and Sections 1004(5) and 3001 of RCRA; 42 U.S.C. §§ 6903(5) and 6921.

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<sup>2</sup> The term "Executive Director" used herein means the Executive Director of the TCEQ and his designees.

29. Nucor is required by 30 TEX. ADMIN. CODE § 335.2(m) to obtain a post-closure order to authorize post-closure care of the on-site CAMU that is closed as a landfill in which Nucor disposed hazardous waste and hazardous constituents that had been released into the environment from facility operations and from on-site solid waste management units.
30. At the Commission's discretion, an owner/operator of a hazardous waste management facility may obtain a post-closure order in lieu of a post-closure hazardous waste permit to authorize a CAMU that is not authorized by a permit if the post-closure order addresses facility-wide corrective action requirements and groundwater monitoring requirements of 30 TEX. ADMIN. CODE §§ 335.167 and 335.156.
31. Nucor does not currently hold a post-closure waste permit issued by the Commission or by the USEPA.
32. The Executive Director received Nucor's application for a PCO dated March 28, 2022, on April 1, 2022.
33. Nucor's PCO application requested authorization under a PCO to implement post-closure care of the waste management units at the Nucor Facility which are listed in Attachment E (List of Permitted Facility Units), to perform facility-wide corrective action with associated groundwater monitoring, and to maintain financial assurance for post-closure care and for a corrective action program.
34. The Executive Director declared Nucor's application administratively complete on May 17, 2022.
35. Notice of Receipt of an Application and Intent to Obtain a PCO, was made on July 5, 2022, in accordance with 30 TEX. ADMIN. CODE § 39.806.
36. In 2022, during the Executive Director's technical review of Nucor's PCO application, Nucor identified two additional Areas of Concern that required RCRA Facilities Investigations. Nucor assigned numeric identifiers to groundwater contamination at monitoring Well No. 7 as AOC-3 and to groundwater contamination at Monitoring well-9 as (AOC-4). PCO Table VIII identifies pending assessments for these newly identified Areas of Concern.
37. Appendix A (Technical Requirements) specifies the terms, conditions, and standards of post-closure care and corrective action that Nucor is required to and agrees to complete.
38. The Executive Director has approved Nucor's cost estimate for post-closure care of the CAMU in the amount of \$640,200.00 in 2021 dollars as listed in Table VII.E.2 (Permitted Unit Post-Closure Cost Summary).
39. The Executive Director has approved Nucor's cost estimate for the corrective action program which includes groundwater monitoring in the amount of \$433,000.00 in 2021 dollars as detailed in Table XI.E. (Financial Assurance Summary).
40. The Executive Director has prepared a compliance history report for Nucor and for the Nucor Facility site, dated August 31, 2022, in accordance with 30 TEX. ADMIN. CODE CHAPTER 60. Nucor has a Compliance History classification of Satisfactory and a numeric rating of 0.17 and the Nucor Facility site has a Compliance History classification of High and a rating of 0.0.
41. Nucor provided a legal description of the real property on which the Nucor facility is located which is included under Attachment A - Legal Description of the Facility.

42. Public notice of the Application and the Executive Director's Preliminary Decision was made in accordance with 30 TEX. ADMIN. CODE § 39.807.

## V. CONCLUSIONS OF LAW AND DETERMINATIONS

1. This PCO subjects Nucor to the jurisdiction of the TCEQ under Tex. Health & Safety Code § 361.082(h) and Tex. Water Code § 7.031(f).
2. The Commission has jurisdiction over the management of hazardous waste in accordance with Tex. Health & Safety Code § 361.017.
3. The Commission may require and issue permits authorizing and governing the construction, operation, and maintenance of the solid waste facilities for the disposal of solid waste in accordance with Tex. Health & Safety Code § 361.061.
4. The Commission requires financial assurance for the storage, processing and disposal of hazardous waste that is at least as stringent as the financial assurance requirements of RCRA in accordance with Tex. Health & Safety Code § 361.085.
5. The Commission includes in a hazardous waste permit the name and address of each owner and each operator of the facility, a legal description of the real property where the facility is located, the terms and conditions of operation, and the duration of the permit in accordance with Tex. Health & Safety Code § 361.087.
6. The Commission may issue an order for post-closure care "or other remediation of hazardous waste or hazardous waste constituents from a solid waste management unit at a solid waste processing, storage, or disposal facility consistent with federal law in accordance with Tex. Water Code § 7.031(f).
7. Nucor is a "person," as defined in Tex. Health & Safety Code § 361.003(23).
8. The Nucor Facility is a "hazardous waste management facility" as defined in Tex. Health & Safety Code § 361.003(13) and 30 Tex. Admin. Code § 335.1.
9. Nucor is the "owner" and the "operator" of a hazardous waste management facility as those terms are defined in 30 Tex. Admin. Code § 335.1.
10. The names and address of the owner and operator of the Nucor Facility, a legal description, of the Nucor Facility, and the terms and conditions of the PCO are included in this PCO in accordance with Tex. Health & Safety Code § 361.087.
11. Certain wastes found at the Nucor facility are "hazardous waste" as defined in Tex. Health & Safety Code §361.003(12) and 30 Tex. Admin. Code §335.1. Certain constituents found at the Nucor facility are "hazardous waste constituents" as defined in 30 Tex. Admin. Code §335.1 and are "Hazardous Constituents" identified in 40 C.F.R. Part 261, Appendix VIII, which is adopted by reference in 30 Tex. Admin. Code § 335.29(3).
12. Certain hazardous wastes and hazardous constituents were released at the Nucor Facility in areas of the facility designated by Nucor as Areas of Concern, and at the location of an on-site landfill where Nucor has constructed a CAMU. The designated Areas of Concern, and the CAMU are subject to corrective action in 30 Tex. Admin. Code §§ 335.156 through 335.167.
13. Nucor meets the eligibility requirements to obtain a PCO in lieu of a post-closure permit because Nucor has established a CAMU and does not have a hazardous waste post-closure permit in accordance with 30 Tex. Admin. Code § 335.2(m).

14. Nucor submitted an administratively complete application for a post-closure order in accordance with Tex. Health & Safety Code § 361.066.
15. The Executive Director processed Nucor's application for a post-closure care order in accordance with the Commission's regulatory requirements as required by Tex. Health & Safety Code § 361.064.
16. This PCO addresses the facility-wide corrective action requirements and of 30 Tex. Admin. Code § 335.167 and the groundwater monitoring and response requirements of 30 Tex. Admin. Code § 335.156 in accordance with 30 Tex. Admin. Code § 335.2(m).
17. Upon issuance, this PCO will govern the post-closure care and corrective action and groundwater monitoring requirements for the CAMU and releases from solid waste management units and areas of concern at the Nucor Facility.
18. The compliance history prepared for Nucor Corporation and the Nucor Facility site in accordance with Tex. Water. Code §§ 5.753 and 5.754. and Tex. Health & Safety Code §§ 361.084, 361.088, and 361.089 does not prohibit the commission from granting this PCO.
19. Nucor has established financial assurance mechanism(s) in the amount of a post-closure care cost estimate and a corrective action program cost estimate in accordance with Tex. Health & Safety Code § 361.085 and 30 Tex. Admin. Code § 335.179.
20. Public notice of Nucor's application for a PCO was made and Nucor complied with the public notice requirements in accordance with Tex. Health & Safety Code § 361.079 and Tex. Water Code §§ 5.129, 5.551, 5.552, and 5.553.

## **VI. ORDERING PROVISIONS**

1. The obligations of this Post-Closure Order (PCO) apply to and are binding upon Nucor, its officers, directors, employees, agents, trustees, receivers, successors, and assigns, and upon all other persons, including but not limited to, firms, corporations, subsidiaries, contractors, and/or consultants acting under or on behalf of Nucor.
2. Nucor shall comply with the terms of this PCO.<sup>3</sup>
3. Nucor shall complete and perform the obligations in this PCO, regardless of whether the activities required by and prohibited by this PCO are performed by Nucor's employees, agents, contractors, consultants, or by employees, agents, contractors, or consultants of Nucor or any person who acquires title to the facility property before or after the effective date of this PCO.
4. Nucor shall ensure that all individuals and persons who conduct activities required by this PCO, who refrain from actions prohibited by the PCO, and who supervise or monitor any portion of the work required by or performed in accordance with this PCO, comply with the terms of this PCO including and not limited to Nucor's employees, contractors, subcontractors, laboratories and consultants.
5. Nucor's obligations under this PCO shall not transfer to any person until or unless approved by the Executive Director.

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<sup>3</sup> The term "this PCO" used herein means the post-closure order, the application materials that are incorporated by reference in Section IV, and Appendix A (Technical Requirements) and the attachments and tables listed in Appendix A that are appended to this order.

6. A transfer of title to the Nucor Facility real property shall not alter or change Nucor's responsibilities or obligations under this PCO.
7. Nucor shall submit an application to the Executive Director requesting a modification or amendment of this PCO 90 days prior to any transfer of title to the Nucor Facility real property.
8. Nucor shall submit an application to the Executive Director requesting a modification or amendment of this PCO and obtain approval from the Executive Director prior to transferring operational control of the Nucor Facility to a new operator.
9. A change in Nucor's business organization structure or status shall not alter or change Nucor's responsibilities or obligations under this PCO.
10. Nucor shall submit an application to the Executive Director requesting a modification of this PCO and obtain approval from the Executive Director prior to transfer or a corporate name change in accordance with 30 TEX. ADMIN. CODE §§ 305.64 and 305.69.
11. Nucor shall provide any successor-in-interest in the Nucor Facility real property written notice of this PCO. A copy of this PCO shall be provided with any document, deed or contract purporting to transfer title to the Nucor Facility real property out of Nucor to another person.
12. Nucor shall provide any person that assumes operational control of the Nucor Facility written notice of this PCO. A copy of this PCO shall be provided with any document, contract, including any stock acquisition, that purports to transfer operational control to a new person or persons or to or vest operational control in the Nucor Facility in a new person or persons.
13. Nucor shall provide notice of this PCO to any person that acquires ownership of a controlling interest in the Nucor and to any person that assumes operational control of the Nucor. Nucor shall provide a copy of the PCO with any document or contract including any stock acquisition that purports to transfer ownership of or vest operational control in the Nucor to a new person or persons.
14. Nucor shall deliver to the Executive Director proof that Nucor has delivered the notices of and copies of this PCO to the persons listed in Ordering Provision Nos. 11, 12, and 13 within 30 days of the occurrence of an event requiring such notice or copy of this PCO to be provided.
15. Nucor agrees to undertake and complete all actions required by the terms and condition of this PCO, to refrain from and prevent all actions prohibited by the terms and condition of this PCO, to comply with and to perform the standards specified in Appendix A (Technical Requirements).
16. Nucor shall complete the response actions outlined in Nucor's Response Action Plan Revision 1 dated August 19, 2022, in accordance with TITLE 30, TEX. ADMIN. CODE, CHAPTER 350.
17. Nucor shall complete the investigation activities required to define the full nature and extent of contamination in affected groundwater at Area of Concern-3 (AOC-3) and Area of Concern-4 (AOC-4) and complete necessary corrective action in accordance with TITLE 30, TEX. ADMIN. CODE, CHAPTER 350.

18. Nucor shall provide financial assurance for post-closure care of the CAMU required by this PCO in an amount not less than \$640,200 in 2021 dollars. Financial assurance shall be secured and maintained in compliance with TITLE 30, TEX. ADMIN. CODE CHAPTER 37, SUBCHAPTER P.
19. Nucor shall provide financial assurance for the corrective action program required by this PCO in an amount not less than \$433,000.00 in 2021 dollars. Financial assurance shall be secured and maintained in compliance with TITLE 30, TEX. ADMIN. CODE CHAPTER 37, SUBCHAPTER P.
20. Nucor and its successors, and/or assigns shall comply with the financial assurance requirements of 30, TEX. ADMIN. CODE CHAPTER 37, SUBCHAPTER P, and 30 TEX. ADMIN. CODE §§ 335.127, 335.178, 335.152, and 335.179 and 30, TEX. ADMIN. CODE CHAPTER 350.
21. The written approval of the Executive Director is required prior to implementation of a modification or amendment of this PCO.
22. The Executive Director may initiate a modification or amendment of this PCO for good cause and may require Nucor to submit an amended application.
23. An alternate or a revised compliance schedule and the extension of a deadline approved in writing by the Executive Director shall be duly enforceable without Commission approval.
24. An amendment or modification of this PCO shall be effective on the date signed by the Executive Director without Commission approval.
25. Upon written approval by the Executive Director, reports, plans, specifications and schedules required by this PCO shall be incorporated into this PCO and shall be duly enforceable without Commission approval.

#### **VII. SUBMISSION/COMMISSION APPROVAL**

1. Nucor shall submit all reports, plans, specifications, schedules, attachments, and response documents for review and approval within the time frame(s) specified by the terms in Appendix A of this PCO or by the Executive Director.
2. The Executive Director shall notify Nucor in writing of the approval or disapproval of reports, plans, specifications, schedules, attachments, or response documents or any part thereof as necessary.
3. If the Executive Director does not approve a plan, report, or other item required to be submitted to the Executive Director for approval pursuant to this PCO, Nucor shall address any deficiencies as directed by the Executive Director and resubmit the plan, report, or other item within the time-period specified by the Executive Director.
4. No informal advice, guidance, suggestion, or comments by the Executive Director regarding reports, plans, specifications, schedules, attachments, or any other written documents submitted by Nucor shall be construed as relieving Nucor of its obligation to obtain written approval, if required and when required by this PCO.

#### **VIII. DISPUTE RESOLUTION**

1. This section applies to an unresolved technical dispute under this PCO between the Executive Director and Nucor (the Parties).
2. Either party shall notify the other party of the need and intent to invoke this dispute resolution clause.

3. The parties shall have 30 calendar days from the date a Party receives notice of need and intent to invoke this dispute resolution clause to informally negotiate a resolution. Informal negotiations shall not postpone Nucor's deadlines in this PCO, its Appendices or Attachments.
4. The informal negotiation period may be extended at the sole discretion of the Executive Director. The Executive Director's decision regarding an extension of informal negotiations shall not be subject to formal alternative dispute resolution or judicial review.
5. If the Parties do not reach a resolution through informal negotiations, either party may request that the dispute be considered by the Director of the Office of Waste by submitting a written request briefly describing the disputed issue(s). The written notice shall describe the nature of the dispute and include a proposal for its resolution. Notification of the Director of the Office of Waste shall not relieve Nucor of its responsibilities or postpone deadlines under this PCO.
6. Nucor shall have the burden of demonstrating that its position is consistent with this PCO, its Appendices, and Attachments, and applicable state and federal law. The office of the Director of the Office of Waste shall respond in writing to any unresolved issue(s).
7. Unless otherwise provided for in this PCO, the dispute resolution procedures of this Section shall be the exclusive mechanism to resolve technical disputes arising under or with respect to this PCO.
8. The procedures set forth in this Section shall not apply to enforcement or compliance actions initiated by the Executive Director or by the Commission to enforce alleged failure of Nucor to comply with this PCO and its Appendices and Attachments, with plans approved by the Executive Director, with Nucor's obligations that have not been disputed in accordance with this Section, or with alleged failure of Nucor to prevent any imminent threat to human health and the environment.

#### **IX. RESERVATION OF RIGHTS**

1. The Commission expressly reserves all statutory and regulatory powers, authorities, rights, remedies, both legal and equitable, which may pertain to Nucor's failure to comply with any of the requirements of this PCO. This PCO shall not be construed as a waiver or limitation of any rights, remedies, powers, and/or authorities that the Commission has under the Texas Solid Waste Disposal Act or any other statutory, regulatory, or common law enforcement authority of the State of Texas.
2. The Executive Director may, without further notice or hearing, refer Nucor to the Office of the Attorney General of the State of Texas to compel compliance with this PCO if the Executive Director determines that Nucor is not in compliance with the requirements set forth in this PCO.
3. This PCO shall not be construed to affect or limit in any way the obligations of Nucor to comply with all federal, state, and local laws and regulations.
4. Nothing in this PCO is intended to release or waive any claim, cause of action, demand, or defense in law or equity that any party to this PCO may have against any person(s) or entity not a party to this PCO.
5. The Commission expressly reserves all rights and defenses that it may have, including the right both to disapprove of work performed by Nucor pursuant to this PCO and to request

that of Nucor perform tasks in addition to those stated in the Technical Requirements contained in Appendix A of this PCO.

6. Nucor expressly reserves all rights and defenses it may have under Texas or Federal law.
7. Notwithstanding any other provision of this PCO, Nucor shall remain responsible for obtaining any federal, state, or local permit for any activity at the Facility, including that necessary for the performance of the work and for the operation of and/or closure of the Nucor Facility.
8. Any noncompliance with Executive Director-approved plans, reports, specifications, schedules, attachments, and response documents shall be construed as a violation of the terms of this PCO.

#### **X. NOTIFICATION OF NONCOMPLIANCE**

1. Nucor shall report to the Executive Director information regarding any noncompliance that may endanger human health or the environment to reflect the requirements of 30 TEX. ADMIN. CODE § 305.125(9).
  - a. Nucor shall report such information to the Executive Director within 24 hours from the time Nucor becomes aware of the noncompliance.
  - b. Nucor shall submit such information in writing to the Executive Director within fifteen (15) days of Nucor becoming aware of the noncompliance. The written submission shall address the following enumerated elements.
    - 1) Provide a description of the noncompliance.
    - 2) Identify PCO provisions and regulatory provisions that Nucor is out of compliance with.
    - 3) Identify the cause(s) that resulted in the noncompliance.
    - 4) Identify any potential danger to human health or safety, or to the environment.
    - 5) Identify the period during which Nucor is/was out of compliance, including exact dates and times.
    - 6) If Nucor has not corrected the noncompliance, identify when Nucor expects to have corrected the noncompliance.
    - 7) Identify the actions/steps that Nucor has taken and plans to take to reduce, eliminate, and prevent the recurrence, and to mitigate any adverse effects of the noncompliance.
    - 8) Provide a schedule of Nucor's planned implementation of the actions/steps identified in (1)(b)(7) of this Section.
2. Noncompliance with any provision of this PCO may subject Nucor to enforcement action.

#### **XI. TERMINATION**

The provisions of this PCO shall be deemed satisfied upon Nucor's receipt of written notice from the Commission that Nucor has demonstrated that the terms of this PCO, including any additional tasks determined by the Commission to be required under this PCO, have been completed to the satisfaction of the Commission. This notice shall affirm Nucor's continuing

obligation to recognize the Commission's Reservation of Rights in Section IX after all other requirements of this PCO are satisfied.

Nucor shall publish notice of a proposed decision that remedial action is complete in accordance with 30 TEX. ADMIN. CODE § 39.808.

## **XII. INDEMNIFICATION OF THE STATE OF TEXAS**

Nucor agrees to indemnify, save, and hold harmless the State of Texas, its agencies, departments, agents, and employees, from any and all claims or causes of action arising from or on account of acts or omissions of the Nucor or its agent, independent contractors, receivers, trustees, and assignees in carrying out activities required by this PCO. This indemnification shall not be construed in any way as affecting or limiting the rights or obligations of Nucor under its various contracts.

## **XIII. FORCE MAJEURE**

Nucor's compliance with this PCO is subject to 30 TEX. ADMIN. CODE §§ 70.7 and 305.125(9). Nucor shall perform all the requirements of this PCO according to the time limits established in this PCO and in Commission rules unless Nucor satisfies its burden of proof that its performance was prevented or delayed by events that constitute a force majeure in accordance with 30 TEX. ADMIN. CODE §§ 70.7 and 305.125(9). For the purposes of this PCO, an event that could have been prevented by due diligence, increased costs of performance, economic hardship, changed economic circumstances, foreseeable normal rainfall events, and failure to submit timely and complete applications for federal, state, or local permits do not constitute a force majeure.

## **XIV. STATEMENT OF SEVERABILITY**

The provisions of this PCO are severable. If a court of competent jurisdiction or other appropriate authority deems any provision of this PCO to be unenforceable, the remaining provisions shall be valid and enforceable.

## **XV. SURVIVABILITY/PERMIT INTEGRATION**

The requirements of this PCO shall not terminate upon the issuance of a hazardous waste permit, permit modification, air quality permit, or other permit or order, unless the conjunctive requirements of this PCO are expressly integrated into or superseded by such permit or order, or if all provisions not expressly integrated into or superseded by such permit or order have been fully completed to Commission's satisfaction.

## **XVI. EFFECTIVE DATE**

The effective date of this PCO is the date it is signed for the Commission.

SIGNATURE PAGE

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

\_\_\_\_\_  
For the Commission

\_\_\_\_\_  
Date

I, the undersigned, have read and understand the Post-Closure Order in the matter of Nucor. I am authorized to agree to the attached Post-Closure Order on behalf of Nucor, and I do agree to the terms and conditions specified therein. I further acknowledge that the TCEQ, in granting this post-closure order, is materially relying on such representation.

I also understand that by entering into this Post-Closure Order that Nucor waives certain procedural rights, including and not limited to, the right of formal notice and an evidentiary hearing, the right to an evidentiary hearing, and the right to appeal the terms and conditions of the Post-Closure Order. I agree to the terms of the Post-closure Order.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name  
Authorized Representative of Nucor

\_\_\_\_\_  
Title/Capacity

**APPENDIX A – TECHNICAL REQUIREMENTS**

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B. ....	Facility Map
C. ....	Application Revision Chronology
D .....	List of Incorporated Application Materials
E .....	List of Permitted Facility Units
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**Post-Closure Order Acronyms**

AAL.....	Attenuation Action Level(s)
AMP .....	Attenuation Monitoring Point
AOC.....	Area(s) of Concern
APA .....	Affected Property Assessment
APAR.....	Affected Property Assessment Report
APOE.....	Alternate Point of Exposure
Appendix VIII.....	40 CFR 261, Appendix VIII (Identification and Listing of Hazardous Waste - Hazardous Constituents)
ASTM.....	American Society for Testing and Materials
BLRA .....	Baseline Risk Assessment
CAO.....	Corrective Action Observation
CAS.....	Corrective Action System
CFR.....	Code of Federal Regulations
CMI.....	Corrective Measures Implementation
CMS .....	Corrective Measures Study
COC.....	Constituent(s) of Concern
EPA .....	United States Environmental Protection Agency
EPA SW-846 .....	Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, Third Edition, November 1986
GWPS.....	Groundwater Protection Standard
HSWA.....	Hazardous and Solid Waste Amendments of 1984
ICM.....	Interim Corrective Measures
LDR.....	Land Disposal Restrictions
MQL.....	Method Quantitation Limit
NAPL.....	Non-Aqueous Phase Liquid
PCB.....	Polychlorinated Biphenyl
PCL.....	Protective Concentration Level
PCO.....	Post-Closure Order
PMZ.....	Plume Management Zone
POC.....	Point of Compliance
POE.....	Point of Exposure
PQL.....	Practical Quantitation Limit
QA/QC.....	Quality Assurance/Quality Control
RACR.....	Response Action Completion Report
RAER.....	Response Action Effectiveness Report
RAP.....	Response Action Plan (for Action Leakage Rate in landfills)
RAP.....	Remedial Action Plan
RCRA.....	Resource Conservation and Recovery Act
RFA.....	RCRA Facility Assessment
RFI.....	RCRA Facility Investigation
RRR.....	TCEQ Risk Reduction Rules
RRS.....	Risk Reduction Standard
RSA.....	Remedy Standard A
RSB.....	Remedy Standard B
SWMU.....	Solid Waste Management Unit(s)
TAC .....	Texas Administrative Code
TCEQ.....	Texas Commission on Environmental Quality
TCEQ QAPP.....	“Quality Assurance Project Plan for Environmental Monitoring and Measurement Activities Relating to the Resource Conservation and Recovery Act and Underground Injection Control”
TRRP .....	Texas Risk Reduction Program

## **I. Facility Description**

### **A. Size and Location of Site**

Nucor Corporation (permittee) operates a hazardous waste corrective action and post-closure facility located at 8812 US highway 79 West Jewett, in Leon County, Texas, and within the drainage area of Segment Duck Creek in the Brazos River Basin (North Latitude 31°21'07", West Longitude 96°10'04").

### **B. Facility Map and Legal Description, and Application Chronology and Elements**

The legal description of the facility is depicted in "Attachment A." A map of the hazardous waste management facility is in "Attachment B." The Post-closure Order (PCO) application and its subsequent revisions are listed in "Attachment C". The Application Elements are listed in "Attachment D."

## **II. General Facility Standards**

### **A. Standard Permit Conditions**

The permittee has a duty to comply with the Standard Permit Conditions under 30 Texas Administrative Code (TAC) Section 305.125. Moreover, the permittee has a duty to comply with the following conditions:

#### **1. Modification of Permitted Facilities**

The facility units and operational methods authorized are limited to those described in this Appendix A and are limited by the application submittals identified in Section III of this PCO. All Initial Assessment Areas (IA), Corrective Action Management Unit (CAMU), and Areas of Concern (AOC) are subject to the terms and conditions of this PCO and TCEQ rules. Prior to constructing or operating any hazardous waste units in a manner which differs from either the plans and specifications contained in the PCO application or the limitations, terms or conditions of this PCO, the permittee must comply with the TCEQ PCO amendment/modification rules as provided in 30 TAC Sections 305.62 and 305.69, and Provision XI J.4 of this Appendix A.

#### **2. Duty to Comply**

The permittee must comply with all the conditions of this PCO, except that the permittee need not comply with the conditions of this PCO to the extent and for the duration such noncompliance is authorized in an emergency order issued by the Commission. Any PCO noncompliance, other than noncompliance authorized by an emergency order, constitutes a violation of the Resource Conservation and Recovery Act (RCRA). [30 TAC Section 305.142]

#### **3. Severability**

The provisions of this PCO are severable. If any provision of this PCO or the application of any provision of this PCO to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this PCO shall not be affected.

4. Definitions

For purposes of this PCO, terms used herein shall have the same meaning as those in 30 TAC Chapters 305, 335, and 350 unless this PCO specifically provides otherwise; where terms are not defined in the regulations or the PCO, the meaning associated with such terms shall be defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

Application data - data used to complete the final application and any supplemental information

5. Land Disposal Restrictions\*

The permittee shall comply with the land disposal restrictions as found in 40 Code of Federal Regulations (CFR) 268 and any subsequent applicable requirements promulgated through the Federal Register.

6. Dust Suppression

Pursuant to 40 CFR 266.23(b)/30 TAC Section 335.214(b), the permittee shall not use waste, used oil, or any other material which is contaminated with dioxin, polychlorinated biphenyls (PCBs), or any other hazardous waste (other than a waste identified solely on the basis of ignitability for dust suppression or road treatment.

7. Post-Closure Order Reopener

This PCO shall be subject to review by the Executive Director five (5) years from the date of the PCO issuance or reissuance and shall be modified as necessary to assure that the facility continues to comply with currently applicable requirements of the Solid Waste Disposal Act (SWDA) and the rules and regulations of the Commission. The permittee shall submit any information as may be reasonably required by the Executive Director to ascertain whether the facility continues to comply with currently applicable requirements of the SWDA and the rules and regulations of the Commission.

8. Failure to Submit Relevant Facts in PCO Application

Where the permittee becomes aware that it failed to submit any relevant facts in a PCO application or submitted incorrect information in a PCO application or any report to the Executive Director, the permittee shall promptly submit the correct information or facts to the Executive Director. [30 TAC Section 305.125(19)]

9. Waste Management Fee Assessment, Fee Payment, and Records and Reporting [30 TAC Chapter 335, Subchapter J]

- a. If applicable, the permittee is subject to the assessment of fees for hazardous wastes which are stored, processed, disposed, or otherwise managed and for Class 1 industrial wastes which are disposed at a commercial facility.

- b. As applicable and except as provided in Provision II.A.9.c., the permittee shall pay waste management fees monthly. Monthly fee payments shall be due by the 25th day following the end of the month for which payment is due.
- c. If required, the permittee owes waste management fees in an amount less than \$500 for a calendar month or less than \$1,500 for a calendar quarter, the permittee may file a quarterly report and pay a quarterly fee.
- d. If required, the permittee shall document the basis for the assessment of any applicable waste management fees, including any adjustment to or exemption from assessment.
- e. If required, the permittee shall submit a monthly report of on-site waste management activities subject to the assessment of waste management fees on forms furnished or approved by the Executive Director. This report shall be due by the 25th day following the end of the month (or quarter) for which a report is made. Monthly (or quarterly) reports shall be submitted, regardless of whether any storage, processing, or disposal was made during a particular month (or quarter), by preparing and submitting a summary indicating that no waste was managed during that month (or quarter).
- f. As applicable, the permittee shall maintain the required records and reports in accordance with 30 TAC Sections 335.329(c) and (d).

## B. Recordkeeping and Reporting Requirements

### 1. Monitoring and Records

- a. All data submitted to the TCEQ shall be in a manner consistent with the latest version of the "Quality Assurance Project Plan for Environmental Monitoring and Measurement Activities Relating to the Resource Conservation and Recovery Act and Underground Injection Control" (TCEQ QAPP).
- b. Monitoring samples and measurements shall be taken at times and in a manner so as to be representative of the monitored activity. The method used to obtain a representative sample of the material to be analyzed shall be the appropriate method from Appendix I of 40 CFR Part 261 or an equivalent method approved in writing prior to use by the Executive Director of the TCEQ. Laboratory methods shall be the latest version specified in current edition of Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846 (EPA SW-846); Standard Methods for the Examination of Water and Wastewater; RCRA Groundwater Monitoring: Draft Technical Guidance, 1992, OSWER Directive 9950.1; or an equivalent method; approved in writing prior to use by the Executive Director. [30 TAC Section 305.125(11)(A)]
- c. The permittee shall retain in an organized fashion and furnish to the Executive Director, upon request, records of all monitoring information, copies of all reports and records required by this PCO, and the certification required by 40 CFR 264.73(b)(9), for a period of at least three (3) years from the date of the sample, measurement, report, record, certification, or application. [30 TAC Section 305.125(11)(B)]

- d. Records of monitoring shall include the following [30 TAC Section 305.125(11)(C)]:
  - (1) The date, time, and place of sample or measurement;
  - (2) The identity of individual who collected the sample or measurement;
  - (3) The dates analyses were performed;
  - (4) The identity of individual and laboratory who performed the analyses;
  - (5) The analytical techniques or methods used; and
  - (6) The results of such analyses or measurements.
- e. All engineering and geoscientific information submitted to the TCEQ shall be prepared by, or under the supervision of, a licensed professional engineer or licensed professional geoscientist, and shall be signed, sealed, and dated by qualified professionals as required by the Texas Engineering Practice Act and the Texas Geoscience Practice Act and the licensing and registration boards under these acts.

## 2. Operating Record

In addition to the recordkeeping and reporting requirements specified elsewhere in this PCO, the permittee shall maintain a written operating record at the facility, in accordance with 40 CFR 264.73. These records will be made available to representatives of the TCEQ upon request.

## 3. Retention of Application Data

Throughout the terms of the PCO, the permittee shall keep records of data used to complete the final application and any supplemental information. All copies of amendments, revisions and modifications must also be kept at the facility such that the most current documents are available for inspection at all times. All materials, including any related information, submitted to complete the application shall be retained, not just those materials which have been incorporated into the PCO. [30 TAC Section 305.47]

## 4. Biennial Report

The permittee shall prepare and submit to the Executive director all information and records required by 40 CFR 264.75. By March 1st of each even-numbered year for the preceding odd-numbered year's activities the applicant shall submit either a Biennial Report or letter certifying submission of the above. One copy of the report/letter shall be submitted to the TCEQ Industrial & Hazardous Waste Permits Section and an additional copy shall be submitted to the appropriate TCEQ Regional Office.

## 5. Pollution Prevention

Facilities subject to 30 TAC Chapter 335, Subchapter Q - Pollution Prevention: Source Reduction and Waste Minimization must prepare a five (5) year Source

Reduction and Waste Minimization Plan and submit a Source Reduction and Waste Minimization (SR/WM) Annual Report to the TCEQ Environmental Assistance Division. This report must be submitted annually on the dates specified in the rule.

### C. Incorporated Regulatory Requirements

#### 1. State Regulations

The following TCEQ regulations are hereby made provisions and conditions of the PCO to the extent applicable to the activities authorized by this PCO.

- 30 TAC Chapter 37, Subchapter P: Financial Assurance for Hazardous and Nonhazardous Industrial Solid Waste Facilities;
- 30 TAC Chapter 305, Subchapter A: General Provisions;
- 30 TAC Chapter 305, Subchapter C: Application for Permit;
- 30 TAC Sections 305.62 and 305.69 (regarding amendments and modifications);
- 30 TAC Sections 305.121 - 305.125 (regarding permit characteristics and conditions);
- 30 TAC Sections 305.127 - 305.129 (regarding permit conditions, signatories and variance procedures);
- 30 TAC Chapter 305, Subchapter G: Additional Conditions for Hazardous and Industrial Solid Waste Storage, Processing and Disposal Permits;
- 30 TAC Chapter 335, Subchapter A: Industrial Solid Waste and Municipal Hazardous Waste in General;
- 30 TAC Chapter 335, Subchapter B: Hazardous Waste Management General Provisions;
- 30 TAC Section 335.152, Standards;
- 30 TAC Sections 335.153 - 335.155 (regarding reporting of emergency situations and additional reports required);
- 30 TAC Sections 335.156 - 335.167 (regarding applicability of groundwater monitoring programs and corrective action requirements);
- 30 TAC Sections 335.173 - 335.174 (regarding the design and operating requirements and closure and post-closure care of landfills);
- 30 TAC Sections 335.177 - 335.179 (regarding general performance standard cost estimate for closure, and financial assurance);
- 30 TAC Chapter 335, Subchapter J (regarding waste management fee assessment, fee payment, and records and reports);

- 30 TAC Chapter 335, Subchapter Q: Pollution Prevention: Source Reduction and waste Minimization; and
- 30 TAC Chapter 350, Texas Risk Reduction Program.

Issuance of this PCO with incorporated rules in no way exempts the permittee from compliance with any other applicable state statute and/or Commission Rule.

## 2. Federal Regulations

The following provisions of 40 CFR Parts 264 and Part 268, adopted by reference by 30 TAC Section 335.152 and 335 Subchapter O, are hereby made provisions and conditions of this PCO, as applicable, to the extent consistent with the Texas Solid Waste Disposal Act, Texas Health and Safety Code Ann., Chapter 361 (Vernon), and the rules of the TCEQ:

- 40 CFR Part 264, Subpart B -- General Facility Standards;
- 40 CFR Part 264, Subpart G -- Closure and Post-Closure;
- 40 CFR Part 264, Subpart H -- Financial Requirements;
- 40 CFR Part 264, Subpart N -- Landfills;
- 40 CFR Part 268 -- Land Disposal Restrictions (LDR).

## D. Incapacity of Owners or Operators, Guarantors, or Financial Institutions

The permittee shall comply with 30 TAC Section 37.71, regarding bankruptcy, whenever necessary.

## III. Facility Management

### A. Security

1. The permittee shall provide a twenty-four (24) hour surveillance system which continuously monitors and controls entry onto the active portion of the facility; or
2. The permittee shall provide and maintain an artificial or natural barrier which completely surrounds the active waste management portion(s) of the facility and shall have a means to control entry, at all times, through gates or other entrances to these same facility areas; and
3. The permittee shall post warning signs at all points of access to the active waste management portion(s) of the facility and along the natural and/or artificial barriers in sufficient numbers to be seen from any approach to that (those) portion(s) of the facility. The signs shall be printed so that they may be clearly read from a distance of at least twenty-five (25) feet, and shall state "Danger - Unauthorized Personnel Keep Out" in English and in an alternate language per 40 CFR 264.14(c), as applicable.

### B. General Inspection Requirements

The permittee shall follow the inspection schedule contained in the PCO application and as set out in Table III.D. - Inspection Schedule. The applicant shall remedy any deterioration or malfunction discovered by an inspection, as required by 40 CFR 264.15(c). Records of inspection shall be kept, as required by 40 CFR 264.15(d). Any remedial actions taken in response to facility inspections and the date of the remediation shall be included in the inspection records.

#### **IV. Waste and Waste Analysis**

##### **A. Authorized Wastes**

The wastes managed in the closed CAMU are listed in Table IV.B. - Wastes Managed in Permitted Units, subject to the limitations provided herein.

#### **V. Authorized Units and Operations**

##### **A. Authorized Units**

1. Except as otherwise provided, provisions of Appendix A - Technical Requirements do not apply to activities and units exempt from permitting pursuant to 30 TAC Sections 335.2 and 335.41. The permittee is authorized to conduct post-closure activities on facility units listed in "Attachment E" in accordance with the terms and conditions of this PCO and subject to the limitations herein. All waste management activities not otherwise exempted from permitting under 30 TAC Section 335.2 shall be confined to the authorized facility units subject to permitting listed in "Attachment E." References hereinafter in this PCO to "TCEQ Permit Unit No. \_\_\_\_" shall be to the authorized facility unit(s) listed in "Attachment E." All authorized unit(s) must be clearly identified as numbered in "Attachment E." These units must have signs indicating "TCEQ Permit Unit No. \_\_\_\_."
2. The permittee shall prevent inundation of any permitted units and prevent any discharges of any waste or runoff of waste contaminated stormwater from permitted units. Additionally, each loading or unloading area, associated with a permitted hazardous or nonhazardous waste management unit, shall be provided with a drainage control system which will collect spills and precipitation in such a manner as to satisfy the following:
  - a. Preclude the release from the system of any collected spills, leaks or precipitation;
  - b. Minimize the amount of rainfall that is collected by the system; and
  - c. Prevent run-on into the system from other portions of the facility.
3. The permittee shall maintain the facility to prevent washout of any hazardous waste by a 100-year flood, as required by 40 CFR 264.18(b)(1).

##### **B. Landfills**

The closed CAMU is listed in Table V.G.1. - Landfills. The landfill shall have the liner systems as shown in Table V.G.3. - Landfill Liner System.

C. Manufacturing Activities

With the exception of any releases which are subject to this PCO, the provisions of Appendix A – Technical Requirements do not apply to steel product manufacturing or processing units located at the facility.

**VI. Groundwater Detection Monitoring**

Groundwater monitoring at the facility shall at a minimum consist of Corrective Action Monitoring System as described in Section XI Compliance Plan of the Part B application, which is incorporated by reference.

**VII. Closure and Post-Closure Requirements**

A. Facility Post-Closure Care Requirements

**LANDFILLS**

For each hazardous waste management unit which is closed as a landfill, the permittee shall conduct post-closure care of the unit for a period of at least thirty (30) years after certification of closure of each respective unit. The Post-Closure Care Period for each closed unit is specified in Table VII.G. - Post-Closure Period. Post-Closure Care shall continue beyond the specified date in Table VII.G. until the Executive Director has approved the permittee's request to reduce or terminate the post-closure period, consistent with 40 CFR Section 264.117 and 30 TAC Section 335.152(a)(5). Post-Closure Care shall be performed in accordance with the post-closure plans referenced in the application, 40 CFR 264.117, and the following requirements:

1. Maintain all storm water conveyance structures in good functional condition.
2. Maintain the final cover of landfill unit(s) or unit(s) closed as a landfill, as applicable, such that the cover promotes drainage, prevents ponding, minimizes surface water infiltration, and minimizes erosion of the cover. Any desiccation cracks, erosion, gullying, or other damage shall be repaired upon observance.
3. Maintain a self-sustaining vegetative cover on the capped areas by periodic seeding, fertilizing, irrigation, and/or mowing or maintain the non-vegetative cover if incorporated into the approved closure plan.
4. Maintain all benchmarks at the facility.
5. Maintain the facility perimeter fence, manned or locked gates, and warning signs in good functional condition.
6. Ensure that all entrances to the facility have manned or locked gates.
7. Ensure that the TCEQ has access to the facility.
8. Prepare and submit the Biennial Report required by Provision II.B.4.
9. Perform all groundwater monitoring and related activities specified in Compliance Plan, if applicable.

## 10. General Post-Closure Requirements

### a. Request for PCO Modification or Amendment

The permittee shall submit a written request for a PCO modification or amendment to authorize a change in the approved post-closure plan(s) in accordance with 40 CFR 264.118 (d)(2). The written request shall include a copy of the amended post-closure plan(s) for approval by the Executive Director.

### b. Time Frames for Modification/Amendment Request

The permittee shall submit a written request for a PCO modification or amendment in accordance with the time frames in 40 CFR 264.118 (d)(3).

## 11. Post-Closure Notice and Certification Requirements

No later than sixty (60) days after completion of the established post-closure period for each unit, the owner or operator shall submit to the Executive Director, by registered mail with a copy to the TCEQ Regional Office, a certification that the Post-Closure Care Period for the unit was performed in accordance with the specifications of the approved post-closure plan and this PCO. The certification shall be signed by the applicant and a registered professional engineer. Documentation supporting the registered professional engineer's certification must be furnished to the Executive Director upon request until the Executive Director releases the owner or operator from the financial assurance requirements for post-closure under 40 CFR 264.145 (i).

### B. Financial Assurance for Post-Closure

The applicant shall provide financial assurance for post-closure care of all existing units required by this PCO in an amount not less than as shown on Table VII.E.2. - Permitted Unit Post Closure Cost Summary. Financial assurance shall be secured and maintained in compliance with 30 TAC Chapter 37, Subchapter P and 30 TAC Section 335.152.

## **VIII. Liability Requirements (Reserved)**

## **IX. Corrective Action for Solid Waste Management Units**

### A. Notification of Release from Solid Waste Management Unit

Any release of hazardous waste or hazardous constituents that may have occurred from any solid waste management unit (SWMU) and/or AOC, that is discovered subsequent to issuance of this PCO, the permittee shall notify the Executive Director in writing within fifteen (15) days of the discovery. Within forty-five (45) days of such discovery, the permittee shall submit an RFA for that unit or release which shall be based on EPA's RCRA Facility Assessment Guidance, October 1986, NTIS PB 87-107769. If the RFA indicates a release or suspected release warrants further investigation, the permittee shall comply with the requirements of Section IX.B.

### B. Corrective Action Obligations

See Section XI

C. Variance from Investigation

See Section XI

D. RCRA Facility Investigation (RFI)/Affected Property Assessment (APA)

See Section XI

E. Remedy Selection

See Section XI

**X. Air Emission Standards**

A. General Conditions

1. Emissions from this facility must not cause or contribute to a condition of "air pollution" as defined in Section 382.003 of the Texas Health and Safety Code Ann. or violate Section 382.085 of the Texas Health and Safety Code Ann. If the Executive Director of the TCEQ determines that such a condition or violation occurs, the applicant shall implement additional abatement measures as necessary to control or prevent the condition or violation.
2. The permittee shall include in the Biennial Report, required in Provision II.B.4., a statement that hazardous waste management units or associated ancillary equipment at this facility are not subject to any of the requirements in Provision Section X.B. and X.C., if these requirements are not applicable to any hazardous waste management units or associated ancillary equipment at this facility. If at any time any hazardous waste management units or associated ancillary equipment become subject to the requirements in Sections X.B. and X.C., the permittee must immediately comply with these requirements.

B. Process Vents

The permittee must comply with the requirements of 30 TAC Section 335.152(a) (17)/40 CFR Part 264 Subpart AA, as applicable.

C. Equipment Leaks

The permittee must comply with the requirements of 30 TAC Section 335.152(a) (18)/40 CFR Part 264, Subpart BB, as applicable.

**XI. Corrective Action Requirements, Monitoring and Performance Objectives**

A. General Information (and Applicability)

1. The term "Uppermost Aquifer" as referenced in this Order refers to the description as defined in PCO Table IX. Language for both the Corrective Action Program (30 TAC Section 335.166) and the Compliance Monitoring Program (30 TAC Section 335.165) is included in this PCO for reference and as contingency for future changes in accordance with Provision XI.D.6. Applicability of specific

Corrective Action Program or Compliance Monitoring Program requirements depends on the status of the units, as defined in Provisions XI.A.2. through A.4. and PCO Table I.

2. The PCO is specific to the waste management units listed in PCO Table I (Items A and B) and depicted in PCO Attachment A, for which the groundwater Corrective Action Program and Compliance Monitoring Program apply, pursuant to 30 TAC Sections 335.166 and 335.165, for releases from RCRA-regulated units.
3. The PCO is specific to the waste management units listed in PCO Table I (Item D) and depicted in PCO Attachment A, for which alternative requirements for the groundwater Corrective Action Program apply, pursuant to 30 TAC Sections 335.151, 335.156 and Chapter 350, for commingled releases from RCRA-regulated units and one or more SWMUs and/or AOC.
4. The PCO is specific to the SWMU and/or AOC and the Facility Operations Area (FOA) listed in PCO Table I (Items C and E) and depicted in Attachment A, for which the Corrective Action Program applies pursuant to 30 TAC Section 335.167 and Chapter 350 for releases from the SWMUs.
5. The PCO is specific to the SWMU and/or AOC listed in PCO Table II for which investigation and necessary corrective action applies pursuant to 30 TAC Section 335.167 and Chapter 350 and PCO Section XI.H.
6. The PCO applies to any SWMU and/or AOC discovered subsequent to issuance of this Order. The applicant shall notify the executive director within fifteen (15) days of such a discovery. Within forty-five (45) days of discovering a SWMU or AOC, the applicant shall complete the following:

Submit a RCRA Facility Assessment (RFA) report for that SWMU and/or AOC which shall be based on EPA RCRA Facility Assessment Guidance, October 1986, NTIS PB 87-107769 or subsequent revisions. The purpose of the RFA is to identify releases or potential releases of hazardous waste, hazardous constituents or other constituents of concern from SWMU and/or AOC that may require corrective action. If the RFA indicates there is no release, the applicant shall submit the RFA report to document results and the requirements of 30 TAC Chapter 350 shall not apply. However, if the RFA indicates that there is a release or a potential for release that warrants further investigation, the applicant shall conduct an investigation and necessary corrective action based on 30 TAC Chapter 350 requirements, applicable guidance, and the approved schedules in accordance with PCO Section XI.H. Upon written approval of the RFA, the applicant shall include the newly discovered SWMU and/or AOC with each groundwater report in accordance with PCO Table VII, and include the new SWMU and/or AOC on PCO Tables I or II as appropriate, with the next PCO modification or amendment; or

For authorized FOAs, if the applicant discovers a SWMU and/or AOC outside a FOA boundary, the applicant shall submit an RFA for that SWMU and/or AOC based on Provision XI.A.6. If the applicant discovers a SWMU and/or AOC inside a FOA boundary that has not been remediated, then an assessment should be conducted to indicate whether changes to the FOA Corrective Action Program are required. Upon written approval of the assessment, the applicant shall include the newly discovered SWMU and/or AOC with each groundwater report in

accordance with Provision XI.G.3. and PCO Table VII, and include the new SWMU and/or AOC on PCO Tables I or II as appropriate, with the next PCO modification or amendment.

**B. Authorized Components and Functions of Corrective Action and Compliance Monitoring Systems**

Corrective Action Systems are required for units specified in PCO Table I, Items A, C, D and E. The applicant is authorized to install and operate the Corrective Action System components specified in Provisions XI.B.1 through XI.B.10, subject to the limitations contained herein. Compliance Monitoring System components for units listed in PCO Table I, Item B are specified below in Provision XI.B.11. This PCO authorizes the establishment of a FOA, according to the requirements of 30 TAC Section 350.131 - Section 350.135, to address corrective action for releases from multiple sources within the FOA boundaries as specified in PCO Table I, Item E, if applicable. At the termination of the FOA (30 TAC Section 350.133), due to a substantial change in circumstance (30 TAC Section 350.35) or failure to maintain compliance with the qualifying criteria, the applicant shall comply fully with the remaining PCO Provisions. Once the FOA Authorization has been terminated or suspended, the applicant shall modify or amend the PCO to reassign the units and/or areas in PCO Table I, Item E to PCO Table I, Items A, B, C or D, as appropriate. The applicant may be required to fulfill final corrective actions and/or establish compliance monitoring to achieve their requirements of this Order upon termination or suspension of the FOA Authorization.

**Corrective Action Systems:**

1. Groundwater monitoring system may at a minimum consist of the following categories of wells listed in PCO Table V, to monitor groundwater quality. An application to modify or amend the PCO is required to change the category or wells listed in PCO Table V.
  - a. Background Well(s) unaffected by the operation of the facility.
  - b. POC Wells to demonstrate compliance with the GWPS.
  - c. FOA Boundary of Compliance (FBOC) Wells to demonstrate compliance with the GWPS.
  - d. Point of Exposure (POE) Wells, to demonstrate compliance with the GWPS and evaluate the effectiveness of the remediation program.
  - e. Alternate Point of Exposure (APOE) Wells to demonstrate compliance with the GWPS at a location other than the prescribed POE; and in maintaining a Plume Management Zone (PMZ) in accordance with 30 TAC Section 350.33.
2. The applicant is authorized to install and operate the following additional corrective action system wells to monitor groundwater quality and hydrogeological conditions of the aquifer as designated in PCO Attachment A. The applicant may propose changes to the following corrective action system wells as part of the reporting requirements in PCO Table VII (Item 12) and shall become part of the PCO upon approval by the executive director. The purpose is to provide the applicant with the flexibility to alter the groundwater monitoring

system and Corrective Action System designs, as necessary, to proactively address changing environmental conditions without modification or amendment to the PCO.

- a. Corrective Action Observation (CAO) Wells to evaluate the lateral and vertical extent of groundwater contamination in the Uppermost Aquifer and evaluate the effectiveness of the remediation program.
  - b. Corrective Action System (CAS) Wells to remediate and/or contain contaminated groundwater.
  - c. Attenuation Monitoring Point (AMP) Wells, located within the migration pathway of a chemical of concern, which demonstrates that Attenuation Action Levels (AALs) representing critical Protective Concentration Levels (PCLs) established as the GWPS will not be exceeded at the applicable point of exposure.
  - d. FOA Piezometer and/or Supplemental Wells to gauge hydrogeologic conditions of the aquifer.
3. Groundwater Corrective Action System to effect withdrawal, treatment, and/or containment of contaminated groundwater and non-aqueous phase liquids (NAPLs) by means of recovery wells, interceptor trenches, bioremediation, air sparging and/or another alternate Corrective Action System design. Any alternate Corrective Action System designs proposed by the applicant subsequent to issuance of this Order that are equivalent to or exceed the performance of the Corrective Action Systems approved herein shall become part of the PCO upon approval by the executive director. The type of Corrective Action System in operation at the facility and an evaluation of system performance shall be reported in accordance with PCO Table VII.
4. Collection and conveyance system to store recovered groundwater and NAPLs, if found, prior to disposal at authorized facilities. If the recovered groundwater is characteristically hazardous and/or is contaminated with listed hazardous waste and the collection system does not meet the wastewater treatment unit exemption under 30 TAC Sections 335.2(f) and 335.41(d), the collection system shall comply with the following regulations: 1) If the contaminated groundwater is stored for less than ninety (90) days without a permit, order or interim status, then the container and tank collection systems shall comply with provisions of 30 TAC Section 335.69(a)(1) / 40 CFR Part 265 Subparts I and J; 2) If the contaminated groundwater is stored for more than ninety (90) days, then the container and tank collection system shall comply with the provisions of 30 TAC Section 335.152(a)(7) and (8) / 40 CFR Part 264 Subparts I and J. The collection and conveyance system shall consist of the following components.
- a. A groundwater CAS.
  - b. A groundwater storage system.
  - c. Appurtenances for the collection and conveyance of recovered contaminated groundwater and NAPLs, if applicable.

5. Treatment system to reduce the concentration of hazardous constituents in contaminated groundwater to the GWPS specified in PCO Table III by means of biological, physical, and chemical treatment processes.
6. Groundwater containment system to inhibit contaminated groundwater above PCO Table III GWPS from migrating beyond the influence of the CAS.
7. Reinjection of fresh or recovered groundwater, after treatment, into the contaminated aquifer in accordance with 30 TAC Sections 331.9 and 331.10.
8. The following handling methods are authorized for recovered groundwater having concentrations of hazardous constituents exceeding the GWPS:
  - a. Treatment through an on-site wastewater treatment system and discharge via a permitted outfall in compliance with a current industrial wastewater discharge permit.
  - b. Treatment of recovered groundwater by means of air stripping and carbon adsorption. The air stripper shall be maintained in compliance with applicable air quality regulations.
  - c. Disposal at permitted deep injection well facility.
  - d. Disposal at other authorized on-site facility or permitted off-site facility.
  - e. Any other treatment methods approved by the executive director.
  - f. The method(s) utilized for handling, disposing and recording volumes of all recovered/purged contaminated groundwater shall be reported in accordance with PCO Table VII.
9. Recovered NAPLs, if found, shall be managed (treated, stored, and disposed), or recycled in an authorized on-site unit(s) or an off-site facility.
10. The Corrective Action Program shall consist of the system components listed in Provisions XI.B.1. through XI.B.9., to be operated according to the plans and specifications as approved in Provision XI.C.1. and the specifications of this Order.
  - a. If groundwater recovery wells are utilized in the Corrective Action System, the flow rate at each recovery well shall be set and recorded once a week. This weekly flow rate data shall be used to calculate a semiannual total flow which shall be reported in accordance with PCO Table VII of this Order.
  - b. All Corrective Action System components shall be maintained in a functional and leak-free condition. All above ground collection system pipes shall be inspected weekly. In addition, the area surrounding the wells shall be inspected weekly for visible signs indicating leaks in buried sections of the collection system. If a release of reportable quantity is detected in any part of the collection system, it must be reported within twenty-four (24) hours to the local TCEQ Region Office, and immediate action must be taken to stop the release and resolve the problem.

- c. The applicant shall notify the executive director of any scheduled or non-scheduled periods of Corrective Action System shutdown, Corrective Action System malfunction, or treatment system shutdown for maintenance lasting more than thirty (30) days. The applicant shall notify the executive director in writing no later than seven (7) days following the date the applicant determines that the shutdown will last more than thirty (30) days. All shutdowns and malfunctions, irrespective of duration, shall be recorded in the facility's inspection log, and shall be reported in accordance with PCO Table VII.

11. Compliance Monitoring Systems: Groundwater monitoring system may at a minimum consist of the following categories of wells listed in PCO Table V, to monitor groundwater quality. An application to modify or amend the PCO is required to change the category or the wells listed in PCO Table V.

- a. Background well(s) that is unaffected by the operation of the facility.
- b. POC wells to demonstrate compliance with the GWPS.
- c. POE wells to demonstrate compliance with the GWPS.
- d. APOE wells to demonstrate compliance with the GWPS at a location other than the prescribed POE.

C. General Design and Construction Requirements

1. All plans submitted with the PCO Application referenced in Part B Application, Section XI – Compliance Plan, concerning the design, construction, and operation of the authorized components of the FOA, Corrective Action and Groundwater Monitoring Programs and/or groundwater Compliance Monitoring Program, are approved subject to the terms established by this Order. All plans must comply with this PCO and TCEQ Rules. Any alternate Corrective Action System design proposed by the applicant subsequent to issuance of this PCO that are equivalent to or exceed the performance of the Corrective Action Systems approved herein shall become part of the PCO upon approval by the executive director.
2. Well Design, Construction, Installation, Certification, Plugging and Abandonment Procedures and Specifications

For all wells to be constructed after issuance of this PCO that do not meet the well construction specifications identified in PCO Attachment C of this Order, the applicant shall submit to the executive director the proposed well location and construction diagram for approval at least ninety (90) days in advance of the anticipated date of installation or in accordance with an approved schedule for installation. These requirements may be met through submittal of a work plan by the applicant and subsequent approval by the executive director. Well installation shall commence upon written approval of the executive director. Wells constructed prior to issuance of this Order may be utilized as groundwater monitoring wells if they meet the standards of PCO Attachment C or are otherwise authorized by issuance of the PCO.

Unless the applicant proposes an alternate well design that will result in wells of

equivalent performance, each well installed after issuance of this PCO shall follow the design specifications contained in PCO Attachment C of this Order. The applicant shall follow the certification and reporting requirements for installation of new, plugging/ abandonment and replacement of existing wells as specified in PCO Attachment C of this Order and PCO Table VII.

3. The applicant shall not install or maintain any drinking water or supply wells that are screened within plumes of groundwater contamination at the facility.

**D. Corrective Action and Compliance Monitoring Objectives and the Groundwater Protection Standard**

Corrective Action and Compliance Monitoring Objectives for Units Specified in PCO Table I.

1. The GWPS defines the concentration limits of hazardous constituents, with respect to groundwater quality restoration in the Uppermost Aquifer and any lower interconnected aquifers, which are to be achieved at the POC, (and FBOC, POE, and APOE, if applicable) and beyond in accordance with Provision XI.E.1. by operation of the Corrective Action Program and/or Compliance Monitoring Program at this facility.
2. POC wells are designated in PCO Attachment A and further defined for purposes of this Order by PCO Table V, which also identifies FBOC (POE and APOE, if any) wells for which groundwater monitoring procedures will apply (PCO Section XI.F.).
3. For Corrective Action, the hazardous constituents detected in groundwater are specified in Column A of PCO Table III and IIIA. For Compliance Monitoring, hazardous constituents that are reasonably expected to be in or derived from waste placed in the units and that are to be monitored annually at the POC are listed in Column A of PCO Table IV. The hazardous constituents detected in the groundwater are specified in Column A of PCO Table IVA. Additional constituents shall be added to PCO Tables IIIA (Corrective Action) and IVA (Compliance Monitoring) through a PCO modification or amendment in accordance with Provision XI.J.4. Groundwater analysis for each hazardous constituent shall utilize an analytical method, listed in the EPA SW-846 and as listed in the July 8, 1987 edition of the Federal Register and later editions, which is capable of measuring the concentration of the hazardous constituent at a level equal to or less than the corresponding value specified in PCO Tables III, IIIA and equal to the quantitation level specified in PCO Table IV except when matrix interference prevents achievement of that level.
4. The GWPS are specified in Column B (and if applicable, in Column C) of PCO Tables III, IIIA (Corrective Action) or IVA (Compliance Monitoring). The GWPS shall be the values for statistical comparisons unless PCO Tables III, IIIA or IVA are amended in accordance with current guidance and regulations, or if any other accepted levels are promulgated by the TCEQ or the EPA. The values in PCO Tables III, IIIA or IVA will change as updates to 30 TAC Section 335.160 and Chapter 350 are promulgated. The executive director or the applicant may request to replace concentration limits through a modification or amendment to this Order in accordance with 30 TAC Chapter 305 Subchapter D.

5. Compliance Period for each unit is specified in PCO Table VI.
6. The GWPS Achieved for Corrective Action Program.
  - a. Achievement of the GWPS, in accordance with Provision XI.E.1., is defined by the results of the data evaluation of Provision XI.F.4., wherein the concentrations of hazardous constituents have been reduced by the Corrective Action Program (PCO Section XI.E.) to concentrations of hazardous constituents that do not exhibit a statistically significant increase or exceed the concentration limits when directly compared to the GWPS of PCO Table III.
  - b. If the GWPS is achieved at the RCRA-regulated units or waste management areas, in accordance with Provision XI.E.1., during the Compliance Period, the applicant may apply to modify or amend this Order to revise the Corrective Action Program to the extent necessary to demonstrate by means of the Groundwater Monitoring Program that the GWPS will not be exceeded during the remainder of the Compliance Period.
  - c. If the GWPS is not achieved at the RCRA-regulated units or waste management areas, in accordance with Provision XI.E.1., during the Compliance Period, the Corrective Action Program must continue until the GWPS has not been exceeded in all wells for that corrective action area for three (3) consecutive years.
  - d. If the GWPS established in this PCO for the RCRA-regulated unit or waste management area have not been exceeded for three (3) consecutive years at the end of the Compliance Period, then the applicant must, within ninety (90) days, submit an application for a PCO modification or amendment to establish a Compliance Monitoring Program or a Detection Monitoring Program for the aquifer(s) during the remaining portion of the thirty (30) year post-closure care period in accordance with 40 CFR Part 264.117. If the thirty (30) year post-closure care period has expired, the applicant may request groundwater monitoring for that RCRA-regulated unit or waste management area be discontinued. Until approval of the request, the applicant shall continue groundwater monitoring under current PCO provisions for each RCRA-regulated unit or waste management area.
  - e. If the GWPS established in this Order for SWMUs and/or AOCs listed in PCO Table I, Item C have not been exceeded for three (3) consecutive years in all wells for that unit, then the applicant may apply for a modification or amendment to the PCO to terminate the Corrective Action Program for that unit.
  - f. If the GWPS established by this Order for those units/areas listed in PCO Table I, Item D (regarding alternative corrective action requirements for commingled plumes) have not been exceeded for three (3) consecutive years for all wells for those units/areas, and the performance standards of 30 TAC Sections 335.8 and 335.167 are met, then the applicant may apply for a modification or amendment to the PCO to terminate the Corrective Action Program for those units/areas.

7. Compliance Monitoring Program: Compliance with the GWPS for each well is defined by the results of the data evaluation of Provision XI.F.4., wherein the concentrations of hazardous constituents do not exhibit a statistically significant increase (SSI) or exceed the concentration limits when directly compared to the concentration limits of PCO Table IVA. If any POC (and/or POE, if any) well of PCO Table V is non-compliant with the GWPS at any time during the Compliance Monitoring Program, the applicant shall respond and report according to PCO Table VII. The groundwater Compliance Monitoring Program established by this Order shall extend until expiration of the Compliance Period specified in PCO Table VI. At the end of the Compliance Period, the applicant shall either:
  - a. Submit a PCO modification or amendment request to re-establish a Detection Monitoring Program under 30 TAC Section 335.164 for the remaining portion of the thirty (30) year post-closure care period in accordance with 40 CFR Part 264.117 if none of the hazardous constituents are detected at concentrations equal to or greater than the values listed in PCO Table IV. Until approval of the request, the applicant shall continue groundwater monitoring under current PCO provisions;
  - b. Continue monitoring under the Compliance Monitoring Program if any hazardous constituent continues to be detected at concentrations equal to or greater than the value listed in PCO Table IV and the GWPS in PCO Table IVA is not exceeded during remaining portion of the thirty (30) year post-closure care period; or
  - c. If the thirty (30) year post-closure care period has expired and hazardous constituents continue to be detected in groundwater by Compliance Monitoring Program, then the applicant may request groundwater monitoring be discontinued if the GWPS of PCO Table IVA are not exceeded at the end of the Compliance Period. Until approval, the applicant shall continue groundwater monitoring under current PCO provisions.

#### E. Corrective Action Program

The Corrective Action Program applies to units specified in PCO Table I, Items A, C and D and E. The Corrective Action Program shall remediate, recover, and/or contain contaminated groundwater from the Uppermost Aquifer and any interconnected lower aquifers, if applicable. The Corrective Action Program shall consist of the system components of PCO Section XI.B., to be operated according to the specifications of this Order. The applicant shall conduct the Corrective Action Program until the performance standards of Provision XI.E.1. are met. The applicant shall initiate the Corrective Action Program immediately upon issuance of this Order, except where other specific TCEQ response deadlines may apply.

##### 1. Performance Standard

The applicant shall conduct the Corrective Action Program to remedy the quality of groundwater by removing or treating in place the hazardous constituents so as to achieve the concentration limits specified in the GWPS of Section XI.D. of this PCO in accordance with the following:

- a. At the POC (FBOC, POE, and APOE, if any) and between the POC (FBOC, POE, and APOE, if any) and the downgradient facility property line;

- b. Beyond the facility boundary where necessary to protect human health and the environment, unless the applicant demonstrates to the satisfaction of the executive director that, despite the applicant's best efforts, the necessary permission from the property owner(s) was not received to undertake such action. The applicant is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied;
- c. Operate the Corrective Action System so as to intercept, contain and/or treat the contamination in the Uppermost Aquifer unless the system is under repair or maintenance;
- d. Recommend changes to the configuration of the Corrective Action System at any time that it is determined that the contamination present in the Uppermost Aquifer, deeper zone, or any interconnected lower aquifers is not being effectively contained and/or remediated; and
- e. The applicant is required to actively remove NAPLs from the Uppermost Aquifer and any interconnected aquifers wherever found, to the extent technically practicable.

For authorized FOAs, the applicant is required to actively remove NAPLs found outside the FOA boundaries from the Uppermost Aquifer and any interconnected aquifers whenever found, to comply with TRRP RSA or RSB. Inside the FOA boundaries, the applicant is required to address NAPL occurrences consistent with the requirements of 30 TAC Section 350.135(a) (9).

#### F. Groundwater Monitoring Program Requirements

The applicant shall install, operate and maintain the Groundwater Monitoring System to evaluate the compliance status of the waste management units under the Compliance Monitoring Program, or to evaluate the effectiveness of the Corrective Action Program for those units undergoing remediation, as applicable. The Groundwater Monitoring System shall be composed of wells specified in PCO Table V, and shall include at a minimum Background, POC, and other wells as necessary which have been approved by the executive director (e.g. FBOC, POE, etc.).

##### 1. Waste Management Area Specific Background Groundwater Quality

The applicant may submit to the executive director for review and approval a plan to determine site-specific background values of the naturally-occurring hazardous constituents of PCO Table III, IIIA (for Corrective Action) or PCO Table IVA (for Compliance Monitoring) in lieu of the concentration limits given in these Tables. The plan shall include appropriate background well locations and screened intervals, well sampling schedules, and methodology for determining and expressing background values in a form appropriate for the statistical evaluation of the monitoring results. Once background values have been established, the applicant shall submit a modification or amendment, in accordance with Provision XI.J.4., to add background values.

##### 2. Sampling and Analysis Plan

- a. Wells shall be sampled according to the Sampling and Analysis Plan included in Part B Application, Section XI – Compliance Plan. The Sampling and Analysis Plan is hereby incorporated into the PCO by reference as if set out fully herein. The applicant or the executive director shall propose modifications to the plan, as necessary to reflect current methods in EPASW-846 and ASTM Standard Test Methods or other methods accepted by the TCEQ. The laboratory methods utilized for groundwater analysis shall be capable of measuring concentration of each hazardous constituent equal to or less than the values in PCO Tables III, IIIA or IVA. Any and all revisions to the plan shall become conditions of this Order at the beginning of the first quarter following approval by the executive director.
  - b. An up-to-date and approved Sampling and Analysis Plan shall be maintained at the facility and made available for inspection upon request.
3. Sampling and Analysis Frequencies and Parameters
- a. Frequencies of sampling are defined below:
    - (1) “Week” and “month” shall be based upon a calendar week and month;
    - (2) “Quarter” shall be based on divisions of the calendar year (i.e., January through March, April through June, July through September, October through December);
    - (3) “Semiannual” shall be based on divisions of the calendar year (i.e., January through June and July through December) and consist of two consecutive quarters;
    - (4) “Annual” or “Year” shall be four consecutive quarters, beginning with the first quarter. Years shall be designated consecutively, beginning with the “first year”, “second year”, etc; and
    - (5) “Calendar year” shall be based on divisions of the calendar (i.e. January through December).
  - b. Sampling of wells shall commence during the first complete quarter after issuance of this PCO. Thereafter, samples shall be collected on a frequency as specified in PCO Table VIII. Data evaluations shall be completed within sixty (60) days of collection of the last sample unless QA/QC procedures show that data is unacceptable and re-analyses or re-sampling must be performed. In such cases, the executive director will be notified as soon as it becomes apparent that the sixty (60) day time limit will not be met.
  - c. In the first and subsequent years of groundwater monitoring, the wells shall be sampled and analyzed according to the following schedules:
    - (1) Corrective Action Monitoring for units specified in PCO Table I, Items A, C and D and E.
      - (a) Each Background, POC, FOA, FBOC, POE, APOE well listed in PCO Table V; and AMP well (if applicable), CAO well, and CAS well depicted in Attachment A shall be sampled and analyzed on a

frequency as specified in PCO Table VIII for the constituents of PCO Table IIIA until the achievement of the GWPS in accordance with Provision XI.D.6.

- (b) Each CAO well, AMP well (if applicable) and CAS well shall continue to be sampled, according to Section XI.D., until any changes to these groups of wells are approved by the executive director pursuant to Provision XI.B.3.
- (c) Each well of PCO Table V shall be sampled for the constituents of PCO Table IIIA, according to Provision XI.D.3., until analytical results satisfy the GWPS of PCO Table IIIA for all wells of PCO Table V of that unit or area for two consecutive sampling events. All wells listed in PCO Table V shall then be sampled and analyzed on a frequency specified in PCO Table VIII for the constituents of PCO Table III until all constituents of PCO Table III are below the GWPS for all PCO Table V wells of that unit or area in accordance with Provision XI.D.6.
- (d) If the GWPS is achieved in all wells (Background, POC, FBOC, POE, APOE, AMP, CAO and CAS), in accordance with Provision XI.D.6.a., then the applicant may apply to modify or amend the Order according to Provisions XI.D.6.b., XI.D.6.d., XI.D.6.e., or XI.D.6.f.
- (e) Any well with NAPLs detected in the wellbore shall be considered as non-compliant with the GWPS and is not required to be analyzed for the constituents of PCO Table III or IIIA.

(2) Compliance Monitoring for units specified in PCO Table I, Item B.

- (a) If data evaluation is performed in accordance with Provision XI.F.4.a., one sample from each well of PCO Table V shall be taken and analyzed semiannually for the constituents of PCO Table IVA. If data evaluation is performed in accordance with Provision XI.F.4.b., a sequence of at least four independent samples from each well of PCO Table V shall be taken and analyzed on a frequency as specified in PCO Table VIII for the constituents of PCO Table IVA; and
- (b) One sample from each well of PCO Table V shall be taken and analyzed annually for constituents in PCO Table IV during the first quarter of each year. Analysis for the hazardous constituents of PCO Table IV and PCO Table IVA may be accomplished with the same sample when sampling events coincide.

d. Field Determination Requirements - All Wells Specified in PCO Table VII (Item 12).

- (1) Water level measurements relative to Mean Sea Level shall be measured to within 0.01 ft. and shall be performed during each sampling event effective immediately with issuance of this PCO. Measurements shall be taken in all monitor wells specified in this Order.

- (2) Field determinations of pH, temperature and Specific Conductivity are required for all wells of PCO Table V and as depicted in PCO Attachment A excluding wells containing NAPLs. Turbidity in nephelometric turbidity units is required if micro-purging techniques are utilized during sample collection.
- (3) Field observations including descriptions of appearance (clarity, color, etc.) shall be recorded on a frequency as specified in PCO Table VIII for all wells of PCO Table V and wells depicted in PCO Attachment A, excluding wells containing NAPL.
- (4) The total depth of each well which is not equipped with a dedicated pump shall be measured during each sampling event. Total depth of each well which is equipped with a dedicated pump shall be measured when: 1) pumps are removed for maintenance; or 2) the groundwater production rate of the dedicated pump decreases by 25% from the initial production rate when the pump was installed. The measured total depth shall be compared to the total depth recorded on the well construction log. Should a comparison of the measured and the recorded total depth reveal that greater than 20% of the well screen has been silted in, the applicant shall perform such actions necessary (redevelopment, replacement, etc.) to enable the well to function properly.
- (5) All wells specified in PCO Table VII (Item 12) shall be inspected during each sampling event in accordance with specifications in the Sampling and Analysis Plan. Repairs or a proposal for replacement for any affected well shall be performed within ninety (90) days of the routine sampling event inspection which identified the problem well.

#### 4. Data Evaluation Procedures

Data evaluation in accordance with this provision shall be performed for all wells within sixty (60) days of collection of the last sample for the duration of the Corrective Action Monitoring and Compliance Monitoring programs. When evaluating the monitoring results of each well, pursuant to Section XI.F., for the constituents of PCO Tables III or IIIA for corrective action monitoring, or PCO Tables IV or IVA for compliance monitoring, the applicant shall either:

- a. **Corrective Action Monitoring:** Directly compare the value of each constituent to the respective concentration limit of PCO Table III or IIIA and determine if it is less than, equal to, or greater than the concentration limits. If the values for all the constituents are less than or equal to the respective concentration limits, then the well shall be considered compliant with the GWPS for the sampling event. If one or more constituent value is greater than the respective concentration limit, then the well shall be considered non-compliant with the GWPS for the sampling event; or

**Compliance Monitoring:** Directly compare the value of each constituent to the respective concentration limit of PCO Table IV or IVA and determine if it is less than, equal to, or greater than the listed value. For constituents listed in PCO Table IV that are not also listed in PCO Table IVA, if constituents are detected at concentrations equal to or greater than the value listed in PCO Table IV, then the procedures of Provision XI.G.2.b. apply. For constituents

listed in PCO Table IVA, if the values for all the constituents are less than or equal to the respective concentration limits of PCO Table IVA, then the well shall be considered compliant with the GWPS for the sampling event. If one or more constituent value is greater than the respective concentration limit, then the well shall be considered non-compliant with the GWPS for the sampling event and the procedures of Provision XI.G.2.a. apply; or

- b. Compare the value of each constituent to its respective concentration limit of PCO Table III or IIIA for corrective action monitoring, or PCO Table IV or IVA for compliance monitoring, using one of the following procedures:
  - (1) The Confidence Interval Procedure for the mean concentration based on a normal, log-normal, or non-parametric distribution. The 95 percent confidence coefficient of the t-distribution will be used in constructing the confidence interval (Chapter 21 of Statistical Analysis of Groundwater Data at RCRA Facilities-Unified Guidance, U.S. EPA, March 2009), and subsequent updates acceptable to the executive director. The confidence interval upper limit for each constituent shall be compared with the corresponding concentration limit in PCO Table III or IIIA for corrective action monitoring, or PCO Table IV or IVA for compliance monitoring. To be considered in compliance, the confidence interval upper limit for a well in question must not exceed the tabled concentration limit. A confidence interval upper limit above the tabled concentration limit shall be considered as evidence of statistically significant contamination; or
  - (2) An alternative statistical method proposed by the applicant and approved by the TCEQ. Any proposed alternative method must be appropriate with respect to distributional assumptions and must provide reasonable control of both false positive and false negative error rates.
- c. Within thirty (30) days of an initial data evaluation that determines concentration limits have been exceeded in a well, pursuant to Provisions XI.F.4.a or XI.F.4.b, the applicant may resample and repeat the analysis to verify concentration limits have been exceeded. If the second analysis indicates that the sample does not exceed the concentration limits, then the well shall be considered compliant with the concentration limits for the sampling event.

#### G. Response and Reporting

1. Corrective Action Monitoring for units specified in PCO Table I, Items A, C, or D (if alternative corrective action requirements apply), or E (if FOA is authorized).
  - a. If the applicant or the executive director determines that the Corrective Action Program required by this Order no longer satisfies the requirements of 30 TAC Section 335.166 or Section 335.167, the applicant must, within ninety (90) days of either the applicant's determination or executive director's notification, submit an application for a PCO modification or amendment to make any appropriate changes to the Corrective Action Program which will satisfy the regulations.
  - b. If the executive director determines that the lateral or vertical extent of groundwater contamination is not delineated and/or is not delineated

outside the FOA boundary, the applicant must, within ninety (90) days of the date of the executive director's notification unless otherwise directed, initiate an investigation to determine the extent of the contamination based on the Practical Quantitation Limit (PQL), Method Quantitation Limit (MQL), or other applicable standard as required or approved by the executive director.

- c. This section applies only if POEs are defined in PCO Table V and a GWPS is assigned at the POE; and attenuation action level (if applicable) is assigned to its respective attenuation monitoring point. If during two (2) consecutive sampling events the GWPS is exceeded at the POE, or the attenuation action level (if applicable) is exceeded at its respective attenuation monitoring point, then within ninety (90) days of completing the data evaluation of thesecond sampling event, the applicant must:

- (1) Install groundwater recovery wells or alternate Corrective Action System design to mitigate the downgradient migration of the contaminant plume; and/or
- (2) Reevaluate the criteria originally used to establish the GWPS, in accordance with Provision XI.D.4., and submit an application to modify or amend the PCO to address the GWPS exceedance; and/or reevaluate the criteria originally used to establish the attenuation action level and submit an analysis to the executive director for approval to request changes to the attenuation action level.

2. Compliance Monitoring for units specified in PCO Table I, Item B

- a. Compliance with the GWPS for each POC (POE and APOE, if applicable) well of PCO Table V is defined by the results of the data evaluation of Provision XI.F.4., wherein the concentrations of hazardous constituents do not exhibit a statistically significant increase or exceed the concentration limits when directly compared to the concentration limits of PCO Table IVA. If the applicant determines that any concentration limit of PCO Table IVA is being exceeded pursuant to the procedures used in Provision XI.F.4 at any POC (POE, and APOE, if applicable) well of PCO Table V, then the applicant must notify the executive director of this finding in writing within seven (7) days. The notification must identify what concentration limits have been exceeded and indicate that the applicant will either:

- (1) Submit a PCO modification or amendment to the executive director to establish a Corrective Action Program meeting the requirements of 30 TAC Section 335.166 within 180 days of such determination in accordance with 30 TAC Section 335.165(11)(b);
- (2) Demonstrate that a source other than the regulated unit caused the exceedance of the concentration limits of PCO Table IVA or that the concentration is an artifact caused by errors in sampling, analysis, or statistical evaluation or natural variation in the groundwater within ninety (90) days in accordance with 30 TAC Section 335.165(12); or
- (3) Re-evaluate the criteria originally used to establish the concentration limits of the GWPS to determine if a Corrective Action Program is necessary. If it is determined that revised concentration limits will result

in a GWPS that is protective of human health and the environment, then the applicant may request to replace the concentration limits of the GWPS through a modification or amendment to this Order in accordance with Provision XI.D.6. Such a request must be submitted within ninety (90) days and may require a proposal for additional groundwater monitoring wells to verify attenuation of the contaminant plume to levels that are protective of human health and the environment.

- b. If the applicant detects PCO Table IV constituents at concentration levels equal to or greater than the listed Quantitation Limit and which exceed background groundwater quality in groundwater samples from POC (POE, APOE, if any) wells of PCO Table V that are not already identified in PCO Table IVA as monitoring constituents, then the applicant must either:
    - (1) Report the concentration of the newly detected constituents to the executive director within seven (7) days after the completion of the analysis. Within ninety (90) days after the completion of the analysis, the applicant shall submit a modification or amendment application, in accordance with Provision XI.J.4., requesting that the constituent be added to the PCO Table IVA. The request shall propose a concentration limit for the GWPS based on 30 TAC Section 335.160 for each constituent; or
    - (2) Resample within thirty (30) days of the initial findings and repeat the PCO Table IV analysis. If the second analysis does not confirm the presence of the newly detected constituents, then the applicant shall continue monitoring under the current PCO provisions. If the second analysis confirms the presence of the newly detected constituents, then the applicant shall report the concentration of these additional constituents to the executive director within seven (7) days after the completion of the second analysis. Within ninety (90) days after completion of the second analysis, the applicant shall submit a modification or amendment application, in accordance with Provision XI.J.4, requesting that the confirmed constituents be added to the PCO Table IVA. The request shall propose a concentration limit for the GWPS based on 30 TAC Section 335.160 for each constituent.
  - c. If the applicant or the executive director determines that the Compliance Monitoring Program required by this Order no longer satisfies the requirements of 30 TAC Section 335.165, the applicant must, within ninety (90) days of either the applicant's determination or executive director's notification, submit a PCO application, in accordance with Provision XI.J.4, to make changes to the Compliance Monitoring Program which will satisfy the regulations.
3. For Corrective Action and Compliance Monitoring Programs, the applicant shall submit a groundwater monitoring report(s) in accordance with the frequency specified in Column B, PCO Table VII, and contain the information listed in PCO Table VII required for the specific program(s) that are applicable.

H. Corrective Action and Interim Corrective Measures (ICMs) for Solid Waste Management Units

1. Corrective Action Obligations

The applicant shall conduct corrective action as necessary to protect human health and the environment for all releases of hazardous waste, hazardous constituents listed in Appendix VIII and/or 40 CFR Part 264, Appendix IX and/or other COCs from any SWMU and/or AOC according to 30 TAC Section 335.167. Corrective action shall consist of an Affected Property Assessment (APA), determination of protective concentration levels, selection of a remedy standard (if necessary), development and implementation of a response action (if necessary), and submittal of required reports according to 30 TAC Chapter 350.

In the case of SWMUs and/or AOCs that have been grandfathered under 30 TAC Chapter 335, Subchapters A and S, Risk Reduction Standards (RRS), corrective action shall consist of the RCRA Facility Investigation (RFI) and if necessary, Interim Corrective Measures (ICM), Baseline Risk Assessment (BLRA), Corrective Measures Study (CMS) and Corrective Measures Implementation (CMI). For grandfathered SWMUs and/or AOCs, the applicant may continue to complete the corrective action requirements under 30 TAC Chapter 335, Subchapters A and S, provided the applicant complies with the notification and schedule requirements pursuant to 30 TAC Sections 335.8 and 350.2(m). If on the basis of the APA /RFI, it is determined that COC have been or are being released into the environment, the applicant may be required to conduct necessary ICMs and/or corrective actions.

Upon executive director's review of corrective action obligations, the applicant may be required to perform any or all of the following:

- a. Conduct investigation(s);
- b. Provide additional information;
- c. Investigate additional SWMU(s) and/or AOC(s); and/or
- d. Submit an application for a modification/amendment to a Compliance Plan to implement corrective action.

Any additional requirements must be completed within the time frame(s) specified by the executive director.

2. The applicant shall conduct an RFI/APA for the SWMUs and/or AOC listed in PCO Table II, in accordance with Provision XI.A.5, and for any new SWMUs and/or AOC discovered after the issuance of this Order in accordance with Provision XI.A.6.

3. Variance From Investigation

The applicant may elect to certify that no COCs are currently or never have been present or managed in a SWMU and/or AOC referenced in Provision XI.H.2 in lieu of performing the investigation required in Provisions XI.H.1 and XI.H.4, provided that confirming data is submitted for the current and past waste(s) managed in the respective unit or area. The applicant shall submit such information and certification(s) on a unit-by-unit basis in the time frame required in Provision XI.H.4 for review and approval by the executive director of

the TCEQ. Should the applicant fail to demonstrate and certify that COCs are not or were not present in a particular unit, the investigation required in Provisions XI.H.1 and XI.H.4 shall be performed for the SWMU and/or AOC.

4. RCRA Facility Investigation (RFI)/Affected Property Assessment (APA)

Within sixty (60) days from the date of issuance of this Order and/or approval of the RFA Report of Provision XI.A.5., the applicant shall submit a schedule for completion of the RFI(s)/APA to the executive director for review and approval. The applicant shall initiate the investigations in accordance with the approved schedule and guidance contained in the EPA publication EPA/520-R-94-004, OSWER Directive 9902.3-2A, RCRA Corrective Action Plan (Final), May 1994 and in accordance with state regulations referenced in Provision XI.H.1.

The results of the RFI/APA must be appropriately documented in a report and submitted to the executive director for approval within the time frame established in the approved schedule. The Report shall be considered complete when the full nature and extent of the contamination, the QA/QC procedures and the Data Quality Objectives are documented to the satisfaction of the executive director. The applicant shall propose or conduct ICMs, as necessary, to protect human health and the environment.

5. Remedy Selection

Upon approval of RFI Report/APA Report (APAR), if it is determined that there has been a release of COCs into the environment, which poses a potential risk to human health and the environment, then the applicant shall propose a remedy in accordance with the 30 TAC Chapter 335, Subchapters A and S, Risk Reduction Standards (if applicable), the TRRP rules, or as otherwise authorized by the executive director. This may require a BLRA and/or CMS Report to be submitted for review and approval within the time frame(s) specified by the executive director. For facilities that are grandfathered under 30 TAC Chapter 335, Subchapter S, this report shall address RRS requirements, and the applicable items contained in the EPA publications referenced in Provision XI.H.4 or other guidance acceptable to the executive director. For projects conducted under TRRP, the risk assessment process shall be addressed in the APAR and the evaluation of corrective measures shall be conducted as part of the remedy standard selection process.

6. Corrective Measures Implementation (CMI)/Remedial Action Plan (RAP)

If on the basis of the RFI and/or BLRA and/or CMS or APA, it is determined that there is a risk to the human health and environment, then the applicant shall submit for approval a CMI Work Plan(s) or propose a response action (TRRP) within 180 days of receipt of approval of the RFI and/or BLRA/CMS Report or APAR unless otherwise extended by the executive director. The CMI Workplan shall address all of the applicable items contained in the EPA publications referenced in Provision XI.H.4 or other guidance acceptable to the executive director. Response actions, including TRRP Remedy Standard A or Risk Reduction Standard (RRS) No. 2, cannot be self-implemented as normally allowed by TRRP or RRS because under Hazardous Solid Waste Amendments (HSWA) corrective action and permit provisions requires the CMI workplan to be reviewed prior to approval and public participation (see also Provision XI.H.7).

For TRRP response actions, the applicant shall submit a RAP in accordance with schedules and requirements of 30 TAC Chapter 350. The CMI Workplan or RAP shall contain detailed final proposed engineering design, monitoring plans and schedule to implement the selected remedy and assurances of financial responsibility for completing the corrective action. Upon completion of the response action, the applicant shall submit a CMI Report or Response Action Completion Report (RACR) to the TCEQ for review and approval. The CMI Report shall address all the applicable items in the EPA publications EPA/520-R-94-004, OSWER Directive 9902.3-2A, RCRA Corrective Action Plan (Final), May 1994 or other guidance acceptable to the executive director. The RACR shall address all the applicable items in Title 30 TAC Chapter 350 and applicable guidance.

If the response action does not propose a permanent remedy (e.g., RRS No. 3 or Remedy Standard B), or the response action requires long-term groundwater monitoring in order to demonstrate attainment of a permanent remedy (e.g., monitored natural attenuation to demonstrate Remedy Standard A), the applicant must submit a CMI Workplan or RAP as part of a PCO application and/or modification/amendment in accordance with Provision XI.J.4 to establish corrective action and provide financial assurance to satisfy the requirements of 30 TAC Section 335.167. The PCO application and/or modification/amendment must be submitted within 180 days of approval of the CMS/BLRA or APAR. The applicant may propose an alternative schedule to be approved by the executive director to incorporate several approved CMI Workplans or RAPs into a single PCO modification/or amendment when CMI Workplans or RAP schedules coincide. Implementation of the corrective measure(s) shall be addressed through issuance of a modified/amended PCO.

To report the progress of the corrective measures, the applicant shall submit to the TCEQ CMI Progress Reports or RAERs (TRRP) as a section of the groundwater report required by PCO Table VII of this PCO, or as otherwise directed.

If deed recordation and necessary institutional controls are required as part of the final corrective action, the applicant shall within ninety (90) days of approval for the final corrective action submit to the executive director for review and approval the required proof of deed notice in accordance with Provision XI.J.1.

## 7. Public Notice

a. The applicant shall conduct public notice when:

- (1) CMI Work Plan or RAP is submitted to the executive director, in accordance with Provision XI.H.6., which contains the proposed final corrective measure for SWMU(s) and/or AOC(s) from which a release has occurred, and with proposed institutional control (as applicable). This process occurs through PCO modification/ amendment; or
- (2) If on the basis of the RFI/BLRA or APAR required by Provisions XI.H.4. and XI.H.5., it is determined the release from SWMU(s) and/or AOC(s) meets the performance standards under RRR or TRRP such that no remedy is needed, there is no risk to the human health and environment, and the applicant seeks approval of no further action determination by

the executive director. This process occurs through corrective action process.

- b. No public notice is required when it is determined based on the results of the RFA required by Provision XI.A.6, or the RFI or APAR required by Provision XI.H.4, that no release occurred from a SWMU and/or AOC.

The purpose of the public notice is to give the members of the public the opportunity to submit written comments on the proposed corrective measure(s) or proposed no further action determination. Refer to PCO Attachment B of this Order for further guidance on public notice participation in HSWA corrective action.

#### 8. Interim Corrective Measures (ICM)

- a. The ICM apply to waste management units or AOC under investigation for which a final Corrective Action Program has not been authorized by the PCO. ICM also apply to units/AOC that are discovered after issuance of this Order.
- b. The objectives of the ICM are to remove, decontaminate, and/or stabilize the source (i.e., waste and waste residues) and contaminated media to protect human health and the environment. The applicant shall modify the ICM, as necessary, to achieve these objectives.
- c. The applicant is authorized to design, construct, operate and maintain ICM for waste management units/AOC as necessary to protect human health and the environment. The ICM shall be operated until final corrective measures established, in accordance with Provision XI.H.6, are authorized in the PCO. At a minimum, the ICM shall consist of the following:
  - (1) Specific performance goals to protect human health and the environment;
  - (2) A monitoring system to evaluate the ICM and determine if the objectives outlined in Provision XI.H.8.b are being met. All ICM wells must comply with the requirements of Provision XI.C.2 and PCO Attachment C, Well Design and Construction Specifications, of this Order;
  - (3) An implementation schedule to initiate ICMs;
  - (4) Submittal of a report specifying the design of the ICM upon installation. During implementation of the ICM, periodic ICM Status Reports shall be submitted in accordance with PCO Table VII (Item 25) to document the objectives of Provision XI.H.8.b are being achieved; and
  - (5) A procedure to modify the design, as necessary, to achieve the objectives outlined in Provision XI.H.8.b.

#### I. Financial Assurance

The applicant shall provide financial assurance for operation of the Groundwater Monitoring and Corrective Action Programs, as applicable, in accordance with this Order in a mechanism approved by the executive director in an initial amount not less than the total cost specified in Table XI.E.3 within sixty (60) days of issuance of

this PCO. The financial assurance shall be secured, maintained, and adjusted in compliance with TCEQ regulations on hazardous waste financial requirements (30 TAC Chapter 37, Subchapter P).

**J. General Provisions**

**1. Deed Recordation Requirements**

For waste and contaminated media approved to remain in place above background or health-based concentration levels after completion of the corrective action and/or groundwater monitoring programs, the applicant shall record an instrument in the county deed records for the facility to specifically identify the areas of contamination exceeding background or health-based values. The deed certification shall follow the requirements of 30 TAC Sections 335.560 and 335.569 or 30 TAC Section 350.111, where applicable.

**2. Notification Requirements**

The applicant shall notify the local TCEQ region office at least ten (10) days prior to any well installation or sampling activity required by the PCO in order to afford Region personnel the opportunity to observe these events and collect samples. This notification requirement will not apply to the routine semiannual or annual groundwater sampling events specified in this Order.

**3. Distribution of Copies**

The applicant shall submit all schedules, plans, and reports required by this PCO according to the following distribution list:

- a. An original paper copy and one electronic copy (on USB or disc) to the Corrective Action Section, Mail Code MC-127, Remediation Division, Texas Commission on Environmental Quality in Austin, Texas; and
- b. One electronic copy to the Waste Program, Texas Commission on Environmental Quality local Region Office.

**4. PCO Modification or Amendment**

a. An application to modify or amend the PCO shall comply with the provisions of 30 TAC Chapter 305 Subchapter D and shall be submitted in accordance with the Part B Application's general instructions.

b. Modification or amendment to the Corrective Action or Groundwater Monitoring Systems require executive director approval prior to implementation.

**5. The applicant shall maintain all reports, monitoring, testing, analytical, and inspection data obtained or prepared pursuant to the requirements of this PCO, including graphs and drawings, in the operating record at the facility. The operating record at the facility shall be made available for review by the staff of the TCEQ upon request.**

**6. The applicant shall submit a compliance schedule in accordance with PCO Table VIII.**

**Table III.D. - Inspection Schedule**

Facility Unit(s) and Basic Elements	Possible Error, Malfunction, or Deterioration	Frequency of Inspection
Corrective Action Management Unit (CAMU)	Cap and cover for erosion damage, animal burrows, proper drainage along perimeter ditches.	Semiannually
	Cap and cover for subsidence, ponding water.	
	Cap and cover for lack of vegetation / stressed vegetation / deep-rooted vegetation.	
	Benchmarks for presence and condition of marker.	
CAMU Monitoring Wells	Monitor wells for damage to surface casing / surface completion, well number identification, and well-lock.	Semiannually (during routine sampling)
	Monitor wells for clogged well screen.	



**Table V.G.1. - Landfills**

Permit Unit No.	Landfill	N.O.R. No.	Waste Nos. <sup>1</sup>	Rated Capacity	Dimensions	Distance from lowest liner to groundwater	Action Leakage Rate (if required)	Unit will manage Ignitable, Reactive, Incompatible, or F020, F021, F022, F023, F026, and F027 Waste (state all that apply)
01	CAMU	021	01	N/A	L: 285 ft W: 175 ft Depth: 3 ft Acres: 3.845	17 feet	Not Required	No

<sup>1</sup>from Table IV.B, first column



**Table VII.E.2. - Permitted Unit Post-Closure Cost Summary**

Existing Unit Post-Closure Cost Estimate	
Unit	Cost
Corrective Action Management Unit (CAMU)	\$640,200.00
<b>Total Existing Unit Post-Closure Cost Estimate<sup>1</sup></b>	<b>\$640,200.00</b>

Proposed Unit Post-Closure Cost Estimate	
Unit	Cost
<b>Total Proposed Unit Post-Closure Cost Estimate<sup>1</sup></b>	<b>(xxxx Dollars)</b>

<sup>1</sup> As units are added or deleted from these tables through future permit amendments or modifications, the remaining itemized unit costs should be updated for inflation when re-calculating the revised total cost in current dollars.

**Table VII.G. - Post-Closure Period**

Unit Name	Date Certified Closed	Permitted Post Closure Period (Yrs)	Earliest Date Post Closure Ends (See Note 1)
Corrective Action Management Unit (CAMU)	April, 2006	30 years	See Note 2

Note 1 - Post-Closure Care shall continue beyond the specified date until the Executive Director has approved the permittee's request to reduce or terminate the post-closure period, consistent with 40 CFR Section 264.117 and 30 TAC Section 335.152(a)(5).

Note 2 - The post-closure care period for the CAMU will continue for at least 30 years after the CAMU has completed three consecutive years of Compliance Monitoring. See Provision XI.D.

**PCO Table I: Waste Management Units and Areas Subject to Groundwater Corrective Action and Compliance Monitoring**

A. Corrective Action<sup>1</sup> (30 TAC Section 335.166)

<b>Unit Name</b>	<b>Notice of Registration (NOR) Number, if applicable</b>	<b>Date Program Requirement and Remedy Standard Completed<sup>5</sup></b>
1. Corrective Action Management Unit (CAMU)	021	CAMU Certification Report submitted to the EPA in May 2006. EPA conditionally approved CAMU closure and transfer of jurisdiction to TCEQ on April 15, 2021.
2.		
3.		

B. Compliance Monitoring<sup>1</sup> (30 TAC Section 335.165)

<b>Unit Name</b>	<b>Notice of Registration (NOR) Number, if applicable</b>	<b>Date Program Requirement and Remedy Standard Completed<sup>5</sup></b>
1. Reserved		
2.		
3.		

C. Corrective Action<sup>2</sup> (30 TAC Section 335.167)

<b>Unit Name</b>	<b>Notice of Registration (NOR) Number, if applicable</b>	<b>Date Program Requirement and Remedy Standard Completed<sup>5</sup></b>
1. AOC-3	N/A	
2. AOC-4	N/A	
3.		

D. Alternative Corrective Action<sup>3</sup> (30 TAC Section 335.151)

<b>Unit Name</b>	<b>Notice of Registration (NOR) Number, if applicable</b>	<b>Date Program Requirement and Remedy Standard Completed<sup>5</sup></b>
1. Reserved		
2.		
3.		

E. Facility Operations Area (FOA)<sup>4</sup> (30 TAC Section 335.156 and Chapter 350)

Unit Name	Notice of Registration (NOR) Number, if applicable	Date Program Requirement and Remedy Standard Completed <sup>5</sup>
1. Reserved		
2.		
3.		

Foot Note:

1. Program applies to RCRA-regulated units only.
2. Program applies to releases from solid waste management units (SWMUs) and/or areas of concern (AOCs).
3. Program applies to commingled releases from RCRA-regulated unit and from one or more SWMUs and/or AOCs.
4. List SWMUs, additional units/areas of Investigation, AOCs, RCRA-regulated units within the FOA that are subject to corrective action. For RCRA units, SWMUs and/ or AOC outside the FOA boundary for which compliance monitoring and/ or corrective action applies should be listed separately in Items A, B or C as appropriate.
5. For the purpose of maintaining a historical record to verify the units/areas have met the program requirements in accordance with Permit Provisions XI.A.2, XI.A.3., XI.A.4. and/or XI.A.5., the permittee shall update PCO Table I to reflect the new status of the unit/area to include the remedy standard achieved for all media of concern and the date of the Commission's No Further Action (NFA) approval letter. The units/area shall not be deleted from PCO Table I until the program objectives have been completed and no further action has been approved through modification or amendment to the Permit. Put "N/A" if a specific program or column item is not applicable.

**PCO Table II: Solid Waste Management Units and/or Areas of Concern  
 Addressed in Permit Section XI.H. for which Corrective Action Applies Pursuant to 30 TAC  
 Section 335.167**

Unit Name/ SWMU or AOC <sup>3</sup>	NOR Number, if applicable	Affected Media <sup>1</sup>	Date Program Requirement and Remedy Standard Completed <sup>2</sup>
Corrective Action Monitoring Unit (CAMU), which incorporates IA-5 (EAF Dust pre-RCRA Landfill)	021	Soil and GW	On-going groundwater monitoring.
IA-1- Equipment Laydown Yard #1	NA	Soil	RACR approved for NFA, 5/27/2010. Remedy Standard A.
IA-2- Equipment Laydown Yard #2	NA	Soil	RACR approved for NFA, 5/27/2010. Remedy Standard A.
IA-3- Boneyard and EAF dust contaminated area/equipment laydown yard #3	NA	Soil	RACR approved for NFA, 4/20/2010 (from TCEQ Correspondence Log). Remedy Standard A.
IA-4- EAF Dust Bulk Handling Area	NA	Soil	RACR approved for NFA, 4/20/2010, Remedy Standard A.
IA-5- EAF Dust Landfill	NA	Soil	Pre-RCRA landfill. Closed prior to November 1980. Deed recordation filed 1/15/1987.
IA-6- Texas I baghouse area	NA	Soil	RACR approved for NFA, 7/21/2008. Remedy Standard A.
IA-7- Remediated areas along county road 344	NA	Soil	Approved for RRS #2 closure by the TNRCC on 9/9/1998
IA-8- Texas II baghouse area	NA	Soil	APA and response action activities completed concurrently. NFA approved 4/5/2007. Remedy Standard A.
IA-9- Former railcar loading silo area	NA	Soil	RACR approved for NFA, 5/27/2010. Remedy Standard B. Deed notice filed, 11/17/2021.
IA-10- current railcar loading silo area	NA	Soil	APA and response action activities completed concurrently. NFA approved 4/5/2007. Remedy Standard A.

Unit Name/ SWMU or AOC <sup>3</sup>	NOR Number, if applicable	Affected Media <sup>1</sup>	Date Program Requirement and Remedy Standard Completed <sup>2</sup>
IA-11- less than 90-day hazardous waste accumulation area	NA	Soil	No release determined. No further action recommended in Initial Assessment Report Supplement, dated 10/1/2003. Approved by the TCEQ 12/10/2003.
IA-12- Texas I mill scale pit	NA	Soil	No release determined. No further action recommended in Initial Assessment Report Supplement, dated 10/1/2003. Approved by the TCEQ 12/10/2003.
IA-13- Texas II mill scale pit	NA	Soil	No release determined. No further action recommended in Initial Assessment Report Supplement, dated 10/1/2003. Approved by the TCEQ 12/10/2003.
IA-14- Former mill scale processing area	NA	Soil	No release determined. No further action recommended in Initial Assessment Report Supplement, dated 10/1/2003. Approved by the TCEQ 12/10/2003.
IA-15- Current mill scale processing area	NA	Soil	No release determined. No further action recommended in Initial Assessment Report Supplement, dated 10/1/2003. Approved by the TCEQ 12/10/2003.
IA-16- Texas I contact water pond	NA	Soil	No release determined. No further action recommended in Initial Assessment Report Supplement, dated 10/1/2003. Approved by the TCEQ 12/10/2003.
IA-17- Texas II contact water pond	NA	Soil	No release determined. No further action recommended in Initial Assessment Report Supplement, dated 10/1/2003. Approved by the TCEQ 12/10/2003.

Unit Name/ SWMU or AOC <sup>3</sup>	NOR Number, if applicable	Affected Media <sup>1</sup>	Date Program Requirement and Remedy Standard Completed <sup>2</sup>
IA-18- Blowdown water pond	NA	Soil	No release determined. No further action recommended in Initial Assessment Report Supplement, dated 10/1/2003. Approved by the TCEQ 12/10/2003.
IA-19- Blowdown water pond	NA	Soil	No release determined. No further action recommended in Initial Assessment Report Supplement, dated 10/1/2003. Approved by the TCEQ 12/10/2003.
IA-20- Former distillation unit area (parts washer fluid)	NA	Soil	No release determined. No further action recommended in Initial Assessment Report Supplement, dated 10/1/2003. Approved by the TCEQ 12/10/2003.
IA-21- Three former land treatment locations	NA	Soil	APAR and RACR approved, 11/24/2009 (from TCEQ Correspondence Log). Remedy Standard A.
IA-22- Texas II diesel and gas fueling station	NA	Soil	No release determined. No further action recommended in Initial Assessment Report Supplement, dated 10/1/2003. Approved by the TCEQ 12/10/2003.
IA-23- Texas I diesel fueling station	NA	Soil	No release determined. No further action recommended in Initial Assessment Report Supplement, dated 10/1/2003. Approved by the TCEQ 12/10/2003.
IA-24- Mobil maintenance sump area	NA	Soil	No release determined. No further action recommended in Initial Assessment Report Supplement, dated 10/1/2003. Approved by the TCEQ 12/10/2003.

Unit Name/ SWMU or AOC <sup>3</sup>	NOR Number, if applicable	Affected Media <sup>1</sup>	Date Program Requirement and Remedy Standard Completed <sup>2</sup>
IA-25- Oil storage building and gasoline tank	NA	Soil	No release determined. No further action recommended in Initial Assessment Report Supplement, dated 10/1/2003. Approved by the TCEQ 12/10/2003.
IA-26- Current crane fueling station	NA	Soil	No release determined. No further action recommended in Initial Assessment Report Supplement, dated 10/1/2003. Approved by the TCEQ 12/10/2003.
IA-27- locomotive engine fuel shed	NA	Soil	No release determined. No further action recommended in Initial Assessment Report Supplement, dated 10/1/2003. Approved by the TCEQ 12/10/2003.
IA-28- Stormwater discharge area - pre-RCRA landfill area	NA	Soil	No release determined. No further action recommended in Initial Assessment Report Supplement, dated 10/1/2003. Approved by the TCEQ 12/10/2003.
IA-29- Stormwater discharge area - Texas II baghouse area	NA	Soil	No release determined. No further action recommended in Initial Assessment Report Supplement, dated 10/1/2003. Approved by the TCEQ 12/10/2003.
IA-30- Stormwater discharge area - Texas I storage area	NA	Soil	No release determined. No further action recommended in Initial Assessment Report Supplement, dated 10/1/2003. Approved by the TCEQ 12/10/2003.
IA-31- Historical oil well sludge pit	NA	Soil	RACR approved for NFA, 4/20/2010 (from TCEQ Correspondence Log). Remedy Standard A.

<b>Unit Name/ SWMU or AOC<sup>3</sup></b>	<b>NOR Number, if applicable</b>	<b>Affected Media<sup>1</sup></b>	<b>Date Program Requirement and Remedy Standard Completed<sup>2</sup></b>
IA-32- Registered Class II solid waste landfill	NA	Soil	No release determined. No further action recommended in Initial Assessment Report Supplement, dated 10/1/2003. Approved by the TCEQ 12/10/2003.
IA-33- Former Capacitor Storage Area	NA	Soil	No release determined. No further action recommended in Initial Assessment Report Supplement, dated 10/1/2003. Approved by the TCEQ 12/10/2003.
IA-34- 1995 Transformer Oil Spill	NA	Soil	APAR approved for NFA 11/24/2009 (from TCEQ Correspondence Log). Remedy Standard A.
IA-35- Possible Baghouse Burning Area	NA	Soil	RACR approved for NFA, 4/20/2010 (from TCEQ Correspondence Log). Remedy Standard A.
IA-36- Boneyard (Equipment Laydown Area)	NA	Soil	APAR approved for NFA 11/24/2009 (from TCEQ Correspondence Log). Remedy Standard A.
IA-37- Probable Historical Mineral Spirits Release Area	NA	Soil	APAR and RACR approved, 11/24/2009 (from TCEQ Correspondence Log). Remedy Standard A.
AOC 1- Former EAF Dust Staging Area (IA- 4) & Loadout Area	NA	Soil	APAR approved 10/15/2009. RAP approved 5/20/2020 RACR Remedy Std A approved June 21, 2022.
AOC 2 - Former EAF Dust Bag Burial Area	NA	Soil	TCEQ approved NFA 4/20/2010 (date is from TCEQ correspondence log). Remedy Standard A.
AOC 3 - Groundwater near Monitoring Well MW-7	NA	GW	TCEQ requested AOC in PCO TNOD #3 comments (dated 8/1/2022)
AOC 4 - Groundwater near Monitoring Well MW-9	NA	GW	TCEQ requested AOC in PCO TNOD #3 comments (dated 8/1/2022)

Foot Note:

SWMU= Solid Waste Management Units, AOC= Area of Concern

1. Specify affected media [i.e. soil, groundwater (GW), surface water (SW), sediment (SED)].
2. Specify the date of Commission's No Further Action (NFA) approval letter for program requirement and remedy standard completed for all media of concern.
3. For sites with FOA Authorization, list all SWMUs and/or AOCs located within the FOA and outside the FOA boundary that are subject to corrective action.

Note: PCO Table II lists SWMUs and/or AOC which have been identified in the RFA Report as having a release(s) or potential releases of hazardous waste, hazardous constituents or other constituents of concern. The applicant is thus required to meet corrective action objectives in accordance with Post Closure Order Section XI.H. and 30 TAC Section 335.167 consisting of further investigation, and necessary corrective actions. For the purpose of maintaining a historical record to verify the SWMUs and/or AOC have met the RCRA Corrective Action Objectives in accordance with Post Closure Order Section XI.H., the permittee shall update the PCO Table II list of SWMUs and/or AOC to reflect the addition of new units and/or areas new status of the units and/or areas which include the Unit Number, the remedy standard achieved for all media of concern and the date of the Commission's NFA approval letter. SWMUs and/or AOC shall not be deleted from this table even though the Corrective Action Objectives have been completed or no further action determination has been approved for the SWMU and/or AOC.

There may be cases in which the permittee fulfills the corrective action active objectives for soils at SWMUs and/or AOC, however, long term monitoring and necessary corrective action maybe required for groundwater to verify remedy standards are met. In such instances individual SWMU and/or AOC would be listed in PCO Table I, Items C and be subject to all applicable provisions of this Post Closure Order, or if the release occurred from one or more SWMU and/or AOC and is commingled with RCRA unit then units/areas would be listed in PCO Table I, Item D. Upon completion of the corrective action objectives for groundwater in accordance with Post Closure Order Section XI.H., then the applicant shall modify or amend the Post Closure Order to reassign the SWMUs and/or AOC in PCO Table I, Item C, or Item D to PCO Table II as appropriate. PCO Table II would reflect the new status of the SWMU and/or AOC to include the remedy standard achieved for all media of concern and the date of the Commission's NFA approval letter.

**PCO Table III: Corrective Action Program Table of Detected Hazardous and Solid Waste Constituents and the Groundwater Protection Standard**

Unit Name	Column A Hazardous Constituents	Column B Groundwater Protection Standards (mg/l) <sup>2</sup>	Column C Groundwater Protection Standards (mg/l) at the POE or APOE <sup>1,2</sup>
Corrective Action Management Unit (CAMU)	Arsenic	0.01 <sup>GW</sup> GW <sub>Ing</sub>	0.01 <sup>GW</sup> GW <sub>Ing</sub>
	Barium	2 <sup>GW</sup> GW <sub>Ing</sub>	2 <sup>GW</sup> GW <sub>Ing</sub>
	Cadmium	0.00676 <sup>BKG</sup>	0.00676 <sup>BKG</sup>
	Chromium	0.1 <sup>GW</sup> GW <sub>Ing</sub>	0.1 <sup>GW</sup> GW <sub>Ing</sub>
	Lead	0.015 <sup>GW</sup> GW <sub>Ing</sub>	0.015 <sup>GW</sup> GW <sub>Ing</sub>
	Mercury	0.002 <sup>GW</sup> GW <sub>Ing</sub>	0.002 <sup>GW</sup> GW <sub>Ing</sub>
	Selenium	0.05 <sup>GW</sup> GW <sub>Ing</sub>	0.05 <sup>GW</sup> GW <sub>Ing</sub>

**Note:**

1. Use Column C, specify the GWPS assigned at a POE or APOE (i.e. for sites with MNA or PMZ proposals as applicable under TRRP). (i.e. modify Table and Footnotes to support the establishment of GWPS at POC, POE or APOE monitoring points, as appropriate). Put “N/A” if a specific program or column item is not applicable.
2. For each COC, select the appropriate GWPS designation and include the applicable definition that applies to verify the corrective action program objectives are being achieved either under Risk Reduction Rules (RRR) pursuant to 30 TAC Chapter 335 or Texas Risk Reduction Program (TRRP) pursuant to 30 TAC Chapter 350. The GWPS designation and definitions specified in this table either under 30 TAC Chapter 335 (regarding RRR) or 30 TAC Chapter 350 (regarding TRRP) may not be combined pursuant to 30 TAC Section 350.2(m).

**Foot Note:**

<sup>GW</sup>GW<sub>Ing</sub> ACL pursuant to 30 TAC Section 335.160(b) based upon the PCL determined under RSA or RSB (Residential or Commercial /Industrial) for Class 1 or Class 2 Groundwater ingestion PCL of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table. In accordance with 30 TAC Section 350.72(b), <sup>GW</sup>GW<sub>Ing</sub> PCLs may need to be adjusted to lower concentrations to meet the cumulative carcinogenic risk level (less than or equal to 1x10<sup>-4</sup>) and hazard index criteria (less than or equal to 10) when there are more than 10 carcinogenic and/or more than 10 noncarcinogenic chemicals of concern within a source medium.

<sup>GW</sup>GW<sub>Class3</sub> ACL pursuant to 30 TAC Section 335.160(b) based upon the PCL determined under RSA or RSB (Residential or Commercial /Industrial), Tier I for Class 3 Groundwater ingestion PCL of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table.

<sup>Air</sup>GW<sub>inh-v</sub> ACL pursuant to 30 TAC Section 335.160(b) based upon the PCL determined under RSA or RSB (Residential or Commercial /Industrial) for Class 1 or Class 2 Groundwater inhalation PCL of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table.

<sup>SW</sup>GW ACL pursuant to 30 TAC Section 335.160(b) based upon the PCL determined under RSA or RSB for groundwater-to-surface water PCL of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table.

<sup>SED</sup>GW ACL pursuant to 30 TAC Section 335.160(b) based upon the PCL determined under RSA or RSB for Groundwater- to-sediment PCL of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table.

<sup>ECO</sup>GW ACL pursuant to 30 TAC Section 335.160(b) based upon the PCL determined under RSA or RSB for Groundwater- based on ecological receptor(s) PCL of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table.

BKG Background as determined in accordance with Provision XI.F.1.

ND Non-detectable at MQL as determined by the analytical methods of the EPA SW-846 most recent edition, and as listed in the July 8, 1987 edition of the Federal Register and later editions. MQL is indicated in parentheses. MQL is defined in 30 TAC Section 350.4 (54) as the lowest non-zero concentration standard in the laboratory's initial calibration curve and is based on the final volume of extract (or sample) used by the laboratory.

**PCO Table IIIA: Corrective Action Program Table of Indicator Parameters and the Groundwater Protection Standard**

Unit Name	Column A Hazardous Constituents	Column B Groundwater Protection Standards (mg/l) <sup>2</sup>	Column C Groundwater Protection Standards (mg/l) at the POE or APOE <sup>1,2</sup>
Corrective Action Management Unit (CAMU)	Arsenic	0.01 <sup>GW</sup> GW <sub>Ing</sub>	0.01 <sup>GW</sup> GW <sub>Ing</sub>
	Cadmium	0.00676 <sup>BKG</sup>	0.00676 <sup>BKG</sup>
	Lead	0.015 <sup>GW</sup> GW <sub>Ing</sub>	0.015 <sup>GW</sup> GW <sub>Ing</sub>
	Selenium	0.05 <sup>GW</sup> GW <sub>Ing</sub>	0.05 <sup>GW</sup> GW <sub>Ing</sub>

Note:

1. Use Column C, specify the GWPS assigned at a POE or APOE (i.e. for sites with MNA or PMZ proposals as applicable under TRRP). (i.e. modify Table and Footnotes to support the establishment of GWPS at POC, POE or APOE monitoring points, as appropriate). Put “N/A” if a specific program or column item is not applicable.
2. For each COC, select the appropriate GWPS designation and include the applicable definition that applies to verify the corrective action program objectives are being achieved either under Risk Reduction Rules (RRR) pursuant to 30 TAC Chapter 335 or Texas Risk Reduction Program (TRRP) pursuant to 30 TAC Chapter 350. The GWPS designation and definitions specified in this table either under 30 TAC Chapter 335 (regarding RRR) or 30 TAC Chapter 350 (regarding TRRP) may not be combined pursuant to 30 TAC Section 350.2(m).

Foot Note:

<sup>GW</sup>GW<sub>Ing</sub> ACL pursuant to 30 TAC Section 335.160(b) based upon the PCL determined under RSA or RSB (Residential or Commercial /Industrial) for Class 1 or Class 2 Groundwater ingestion PCL of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table. In accordance with 30 TAC Section 350.72(b), <sup>GW</sup>GW<sub>Ing</sub>, PCLs may need to be adjusted to lower concentrations to meet the cumulative carcinogenic risk level (less than or equal to 1x10<sup>-4</sup>) and hazard index criteria (less than or equal to 10) when there are more than 10 carcinogenic and/or more than 10 noncarcinogenic chemicals of concern within a source medium.

<sup>GW</sup>GW<sub>Class3</sub> ACL pursuant to 30 TAC Section 335.160(b) based upon the PCL determined under RSA or RSB (Residential or Commercial /Industrial), Tier I for Class 3 Groundwater ingestion PCL of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table.

<sup>Air</sup>GW<sub>Inh-v</sub> ACL pursuant to 30 TAC Section 335.160(b) based upon the PCL determined under RSA or RSB (Residential or Commercial /Industrial) for Class 1 or Class 2 Groundwater inhalation PCL of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value

established in Column B in this table.

<sup>SW</sup>GW           ACL pursuant to 30 TAC Section 335.160(b) based upon the PCL determined under RSA or RSB for groundwater-to-surface water PCL of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table.

<sup>SED</sup>GW           ACL pursuant to 30 TAC Section 335.160(b) based upon the PCL determined under RSA or RSB for Groundwater- to-sediment PCL of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table.

<sup>ECO</sup>GW           ACL pursuant to 30 TAC Section 335.160(b) based upon the PCL determined under RSA or RSB for Groundwater- based on ecological receptor(s) PCL of 30 TAC Chapter 350. The PCL value, Column B, will change as updates to the rule are promulgated. Changes to the rule automatically change the concentration value established in Column B in this table.

BKG    Background as determined in accordance with Provision XI.F.1.

ND    Non-detectable at MQL as determined by the analytical methods of the EPA SW-846 most recent edition, and as listed in the July 8, 1987 edition of the Federal Register and later editions. MQL is indicated in parentheses. MQL is defined in 30 TAC Section 350.4 (54) as the lowest non-zero concentration standard in the laboratory's initial calibration curve and is based on the final volume of extract (or sample) used by the laboratory.

Applicant: Nucor Corporation  
Post Closure Order No. 33095  
Docket No. 2022-0579-IHW

Continuation Sheet 1 of 1

**PCO Table IV: Compliance Monitoring Program Table of Hazardous and Solid Waste  
Constituents and Quantitation Limits - RESERVED**

Applicant: Nucor Corporation  
Post Closure Order No. 33095  
Docket No. 2022-0579-IHW

Continuation Sheet 1 of 1

**PCO Table IVA: Compliance Monitoring Program Table of Detected Hazardous Constituents and the Groundwater Protection Standard - RESERVED**

**PCO Table V: Designation of Wells**

**Point of Compliance Wells**

1. Corrective Action Management Unit (CAMU)  
MW-2A, MW-3A, and MW-4A

**Point of Exposure Wells**

1. Corrective Action Management Unit (CAMU)  
MW-2A and MW-3A

**Alternate Point of Exposure Wells**

1. None

**Background Wells**

1. Corrective Action Management Unit (CAMU)  
MW-1A and MW-8

Note:

Wells that are not listed in this table but are required by Permit Section XI.B.2 (e.g. AMP wells, CAO wells, etc.) and depicted only in PCO Attachment A are subject to change, upon approval by the Executive Director, without modification to the Compliance Plan.

**PCO Table VI: Compliance Period for RCRA-Regulated Units**

<b>Corrective Action Management Unit (CAMU)</b>	
Year Waste Management Activities Initiated	2002
Year Closed	2006
Compliance Period	4 Years
Compliance Period Began	2006

**PCO Table VII: Reporting Requirements**

Item	Program	Reporting	
1.	All programs	Annually by January 21	Each report shall be certified by a qualified engineer and/or geoscientist.
2.	Corrective Action Compliance Monitoring	Annually by January 21	A table of all modifications and amendments made to this Post Closure Order with their corresponding approval dates by the Executive Director or the Commission and a brief description of each action;
3.	Corrective Action Compliance Monitoring	Annually by January 21	A summary of any activity within an area subject to institutional control.
4.	Corrective Action Compliance Monitoring	Annually by January 21	Tabulation of well casing elevations in accordance with PCO Attachment C;
5.	Corrective Action Compliance Monitoring	Annually by January 21	Certification and well installation diagram for any new well installation or replacement and certification for any well plugging and abandonment;
6.	Corrective Action Compliance Monitoring	Annually by January 21	Recommendation for any changes to the program;
7.	Corrective Action Compliance Monitoring	Annually by January 21	Any other items requested by the Executive Director;
8.	Corrective Action Compliance Monitoring	Annually by January 21	<p>Water table maps shall be prepared from the groundwater data collected pursuant to Post Closure Order Provision XI.G. and shall be evaluated by the applicant with regard to the following parameters:</p> <ul style="list-style-type: none"> <li>a. Development and maintenance of a cone of depression during operation of the system;</li> <li>b. Direction and gradient of groundwater flow;</li> <li>c. Effectiveness of hydrodynamic control of the contaminated zone during operation; and</li> <li>d. Estimation of the rate and direction of groundwater contamination migration.</li> </ul>
9.	Corrective Action Compliance Monitoring	Annually by January 21	<p>The applicant shall submit a report to each recipient listed in <u>Provision XI.J.3.</u>, which includes the information in items 3 through 29 determined since the previously submitted report, if those items are applicable.</p> <p>If both Corrective Action and Compliance Monitoring Programs are authorized, then the January 21st report shall contain information required for both programs.</p>

10.	Corrective Action Compliance Monitoring	Annually by January 21	The Corrective Action System(s) authorized under <u>Provision XI.B.3.</u> in operation during the reporting period and a narrative summary of the evaluations made in accordance with Post Closure Order Sections XI.E., XI.F., and XI.G. for the preceding reporting period. The reporting periods shall be January 1 through December 31 for Corrective Action Monitoring, unless an alternative semiannual schedule is approved by the Commission. The period for Compliance Monitoring shall be based on the calendar year;
11.	Corrective Action Compliance Monitoring	Annually by January 21	The method(s) utilized for management of recovered/purged groundwater shall be identified in accordance with <u>Provision XI.B.8.</u> The permittee shall maintain this list as part of the facility operating record and make it available for inspection upon request.
12.	Corrective Action Compliance Monitoring	Annually by January 21	An updated table and map of all monitoring and corrective action system wells. The wells to be sampled shall be those wells proposed in the Post Closure Order Application referenced in <u>Provision I.B.</u> and any changes subsequently approved by the Executive Director pursuant to <u>Provision XI.B.3.</u> Provide in chronological order, a list of those wells which have been added to, or deleted from, the groundwater monitoring and remediation systems since original issuance of the Post Closure Order. Include the date of the Commission's approval for each entry;
13.	Corrective Action Compliance Monitoring	Annually by January 21	The results of the chemical analyses, submitted in a tabulated format acceptable to the Executive Director which clearly indicates each parameter that exceeds the Groundwater Protection Standard (GWPS). Copies of the original laboratory report for chemical analyses showing detection limits and quality control and quality assurance data shall be provided if requested by the Executive Director;
14.	Corrective Action Compliance Monitoring	Annually by January 21	Tabulation of all water level elevations required in <u>Provision XI.F.3.d.(1)</u> , depth to water measurements, and total depth of well measurements collected since the data that was submitted in the previous monitoring report;
15.	Corrective Action Compliance Monitoring	Annually by January 21	Potentiometric surface maps showing the elevation of the water table at the time of sampling, delineation of the radius of influence of the Corrective Action System, and the direction of groundwater flow gradients outside any radius of influence;

16.	Corrective Action Compliance Monitoring	Annually by January 21	Tabulation of all data evaluation results pursuant to <u>Provision XI.F.4.</u> and status of each well with regard to compliance with the Corrective Action objectives and compliance with the GWPS;
17.	Corrective Action Compliance Monitoring	Annually by January 21	An updated summary as required by PCO Table VIII;
18.	Corrective Action Compliance Monitoring	Annually by January 21	Summary of any changes made to the monitoring/corrective action program and a summary of well inspections, repairs, and any operational difficulties;
19.	Corrective Action Compliance Monitoring	Annually by January 21	A notation of the presence or absence of non-aqueous phase liquids (NAPLs), both light and dense phases, in each well during each sampling event since the last event covered in the previous monitoring report and tabulation of depth and thickness of NAPLs, if detected;
20.	Corrective Action only	Annually by January 21	Quarterly tabulations of quantities of recovered groundwater and NAPLs, and graphs of monthly recorded flow rates versus time for the Recovery Wells during each reporting period. A narrative summary describing and evaluating the NAPL recovery program shall also be submitted;
21.	Corrective Action only	Annually by January 21	Tabulation of the total contaminant mass recovered from each recovery system for each reporting period;
22.	Corrective Action only	Annually by January 21	Maps of the contaminated area where GWPSs are exceeded depicting concentrations of PCO Table IIIA constituents and any newly detected PCO Table III constituents as isopleth contours or discrete concentrations if isopleth contours cannot be inferred. Areas where concentrations of constituents exceed the GWPS should be clearly delineated. Depict the boundary of the plume management zone (PMZ), if applicable;
23.	Corrective Action only	Annually by January 21	Maps and tables indicating the extent and thickness of the NAPLs both light and dense phases, if detected;
24.	Corrective Action only	Annually by January 21	Corrective Measures Implementation (CMI) Progress Report or Response Action Effectiveness Report or Response Action Completion Report to be submitted as a section of the Post Closure Order report in accordance with <u>Provision XI.H.6.</u> , if necessary. The applicant will include a narrative summary of the status of the approved final corrective measures conducted in accordance with the approved CMI Workplan or RAP, and that the requirements of <u>Provision XI.H.7.</u> are being met.

25.	Corrective Action only	Annually by January 21	The permittee will include a narrative summary of the status of each Solid Waste Management Unit (SWMU) and/or Area of Concern (AOC) subject to the requirements of <u>Permit Provision XI.H.</u> and ICM Program for a SWMU and/or AOC which documents that the objectives of <u>Provision XI.H.8.b.</u> are being achieved. This summary shall be included as a section of the Post Closure Order groundwater monitoring report.
26.	PMZ	Annually by January 21	A summary evaluating the effectiveness of the corrective action system in controlling migration beyond the downgradient boundary and vertical limit of the PMZ to achieve the GWPS. The summary shall include an evaluation of whether the attenuation action levels are not exceeded at their respective attenuation monitoring points pursuant to 30 TAC Sections 350.33(f)(4)(A) and 350.33(f)(4)(D)(ii), if applicable;
27.	PMZ	Annually by January 21	An estimate of the percentage of the response action which has been completed within the PMZ, if applicable;
28.	PMZ	Annually by January 21	An estimate in years of the additional time necessary to complete the response actions for the PMZ, if applicable;
29.	PMZ	Annually by January 21	A determination whether sufficient progress is being made to achieve the selected remedy standard within a reasonable time frame given the circumstance of the affected property in the PMZ, if applicable.

**PCO Table VIII: Compliance Schedule**

A.	60 days	Post Closure Order	Submit to the Executive Director a schedule summarizing all activities required by the Post Closure Order. The schedule shall list the starting dates of all routine activities. The applicant shall include an updated schedule in the groundwater monitoring report required by <u>Provision XI.G.3</u> . The schedule shall list the activity or report, the Post Closure Order Section which requires the activity or report and the calendar date the activity or report is to be completed or submitted (if this date can be determined).
B	60 days	30 TAC §350.94 (Response Action Plan)	Submit to the Executive Director for review and approval a schedule for implementing corrective action as outlined in the Response Action Schedule.
C.	Within the first sixty (60) days of the first and third quarter of each year.	30 TAC §335.166	Groundwater Corrective Action Monitoring shall be conducted on a semiannual basis for the CAMU listed in PCO Table I until the corrective action objectives and performance requirements are met.
D.	90 days	30 TAC §335.167	Initiate assessment for AOC-3 and AOC-4 identified in PCO Table II.

**PCO Table IX: Description of Uppermost Aquifer**

Groundwater is typically encountered approximately 10 to 20 feet below grade (440-430 feet above mean sea level) in the uppermost aquifer. The uppermost groundwater-bearing units that are monitored at this facility are part of the Reklaw Formation and Alluvium and consists of clays, sandy clays, and poorly graded sands ranging in thickness from 3 to 10 feet. Groundwater flow is generally toward the west.

**Table XLE.3. - Financial Assurance Summary**

Task	Cost
Annual Off-Site Liquid Treatment / Disposal Cost	\$0.00
Annual On-Site Treatment / Disposal Cost	\$0.00
Annual Inspection / Maintenance / Operation Cost For The Corrective Action Program	\$0.00
Annual Groundwater Monitoring Cost	\$4,580.00
Annual Administrative Cost	\$7,500.00
Annual Inspection And Maintenance Cost For The Groundwater Monitoring Program	\$1,050.00
<b>Annual Sub Total</b>	<b>\$13,130.00</b>
Total Years Used For Calculating Financial Assurance for Corrective Action and/or Compliance Monitoring Program	<b>30</b> Years
Remediation Cost (Annual Sub Total x Total Years Used)	\$393,900
On-Site Waste Water Treatment System Capital Cost Total Well Cost	\$0.00
10% Contingency	\$39,390.00
Total Cost	\$433,290
<b>Grand Total Cost In 2021 Dollars (round to nearest \$1000)</b>	<b>\$433,000</b>

**Attachment A - Legal Description of Facility**

Nucor Corporation  
797.56 Acre Tract (Main Tract)  
James D. McBeath Survey, A-596  
Jas. W. Dodson Survey, A-238  
J. G. Haynie Survey, A-420  
H. R. Cartmell Survey, A-163  
Leon County, Texas

Field notes of a 797.56 acre tract or parcel of land, lying and being situated in the James D. McBeath Survey, Abstract No. 596, in the Jas. W. Dodson Survey, Abstract No. 238, in the J. G. Haynie Survey, Abstract No. 420, and in the H. R. Cartmell Survey, Abstract No. 163, Leon County, Texas, and consisting of the following tracts:

All of the called 32.264 acre tract described in the deed from Syble Ellis, a widow, to Nucor Corporation, as recorded in Volume 490, Page 93, of the Deed Records of Leon County, Texas;

All of the called 17.49 acre tract described in the deed from Syble Ellis, a widow, to Nucor Corporation, as recorded in Volume 820, Page 49, of the Official Records of Leon County, Texas;

Part of the called 28.279 acre tract described in the deed from Syble Ellis, a widow, to Nucor Corporation, as recorded in Volume 464, Page 567, of the Deed Records of Leon County, Texas;

All of the called 5.263 acre tract described in the deed from Robert Lee Raif, Sr., to Nucor Corporation, as recorded in Volume 825, Page 231, of the Official Records of Leon County, Texas;

All of the called 46.383 acre tract described in the deed from Joe Hastings, and wife, Julia Hastings, to Nucor Corporation, as recorded in Volume 467, Page 744, of the Deed Records of Leon County, Texas;

All of the called 1-1/2 acre tract described in the deed from Martin Hastings, to Nucor Corporation, as recorded in Volume 1344, Page 877, of the Official Records of Leon County, Texas, (see also Volume 295, Page 103, of the Deed Records of Leon County, Texas);

All of the called 10.00 acre tract described in the deed from Syble Ellis, a widow, to Nucor Corporation, as recorded in Volume 394, Page 559, of the Deed Records of Leon County, Texas;

All of the called 8.34 acre tract described in the deed from Mozelle Goolsby, a widow, et al, to Nucor Corporation, as recorded in Volume 396, Page 123, of the Deed Records of Leon County, Texas;

All of the called 50.00 acre tract described in the deed from Syble Ellis, a widow, to Nucor Corporation, as recorded in Volume 394, Page 561, of the Deed Records of Leon County, Texas;

All of the called 12.65 acre tract described in the deed from Dorothy Kannon Lewis, et al, to Nucor Corporation, as recorded in Volume 456, Page 150, of the Deed Records of Leon County, Texas;

All of the called 9.701 acre – 1<sup>st</sup> Tract and all of the called 16.900 acre – 2<sup>nd</sup> Tract described in the deed from Jack R. Montgomery and wife, Mary Sue Montgomery, to Nucor Corporation as recorded in Volume 878, Page 164, of the Official Records of Leon County, Texas;

All of the called 4.899 acre tract described in the deed from Davis A. Griffin, and wife, Irene Griffin, to Nucor Corporation, as recorded in Volume 395, Page 42, of the Deed Records of Leon County, Texas;

All of the called 56.348 acre tract described in the deed from Jack R. Montgomery, to Nucor Corporation as recorded in Volume 395, Page 54, of the Deed Records of Leon County, Texas;

All of the called 1.494 acre tract described in the deed from F. S. Robinson and wife, Jessie Nell Robinson, to Nucor Corporation, as recorded in Volume 456, Page 792, of the Deed Records of Leon County, Texas;

All of the called 3.969 acre (net) tract described in the deed from Charles Don Robinson, to Nucor Corporation, as recorded in Volume 946, Page 701, of the Official Records of Leon County, Texas;

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All of the called 45 acre tract described in the deed from Gerard E. Jarboe and wife, Lucille F. Jarboe, to Nucor Corporation, as recorded in Volume 394, Page 555, of the Deed Records of Leon County, Texas;

All of the called 48 acre tract described in the deed from Lucille Durst, to Nucor Corporation, as recorded in Volume 394, Page 552, of the Deed Records of Leon County, Texas;

All of the called 48 acre tract described in the deed from Mary Du Bois Lehman to Nucor Corporation, as recorded in Volume 394, Page 543, of the Deed Records of Leon County, Texas;

All of the called 48 acre – 1<sup>st</sup> Tract (see 259/134 for description), all of the called 16 acre – 2<sup>nd</sup> Tract (see 259/687 for description), and all of the called 3 acre – 3<sup>rd</sup> Tract (see 275/210 for description), described in the deed from Arvol D. Willingham and wife, Lou Ella Willingham, to Nucor Corporation, as recorded in Volume 939, Page 265, of the Official Records of Leon County, Texas;

All of the called 4.57 acre tract (vacated portion of County Road No. 344), described in the Leon County Commissioners Court Order, recorded in Volume 1370, Page 253, of the Official Records of Leon County, Texas, (description of the 4.57 acre tract being on file in Nucor Corporation offices), this 4.57 acre vacated county road extends from east line of the Burlington Northern & Santa Fe Railroad to southwest line of Farm to Market Road No. 39;

Part of the called 45 acre tract (43 acres net), described in the deed from Elna Ruth Hinson Winstead Davies and husband, Robert N. Davis and Chace Edward Winstead, to Nucor Corporation, as recorded in Volume 1273, Page 25, of the Official Records of Leon County, Texas, (said 43 acre net derived as follows: 45 acres – 1273/25, less 2.00 acre tract recorded in Volume 1293, Page 891, of the Official Records of Leon County, Texas, see also Volume 1118, Page 320, of the Official Records of Leon County, Texas);

And all of the called 244.78 acre tract described in the deed from Luanne Evans Klaras, to Nucor Corporation, as recorded in Volume 1696, Page 390, of the Official Records of Leon County, Texas, and said 797.56 acre tract being more particularly described as follows:

**BEGINNING** at the east corner of the beforementioned 32.264 acre tract in the southwest right-of-way line of Farm to Market Road No. 39, same being the north corner of the Montgomery – called 100.18 acre tract described in the deed recorded in Volume 374, Page 569, of the Deed Records of Leon County, Texas, from which a 3" x 3" concrete monument found at a crosstie fence corner bears N 57° 05' 27" E – 2.31 feet;

THENCE S 57° 05' 50" W along the southeast line of the beforementioned 32.264 acre tract, same being the northwest line of the beforementioned 100.18 acre tract and the Montgomery – called 100 acre tract described in the deed recorded in Volume 843, Page 540, of the Official Records of Leon County, Texas, (see also Volume 21, Page 97, of the Deed Records of Leon County, Texas), adjacent to a fence, for a distance of 2187.64 feet to a 1" iron pipe found in concrete marking the south corner of the 32.264 acre tract, same being the east corner of the beforementioned 10.00 acre tract (394/559);

THENCE S 57° 02' 17" W along the southeast line of the beforementioned 10.00 acre tract, same being the northwest line of the beforementioned 100 acre tract, adjacent to a fence, for a distance of 194.78 feet to a 1" iron pipe found in concrete marking the south corner of the 10.00 acre tract, same being the east corner of the beforementioned 50.00 acre tract (394/561);

THENCE S 57° 00' 33" W along the southeast line of the beforementioned 50.00 acre tract, same being the northwest line of the beforementioned 100 acre tract, adjacent to a fence, for a distance of 338.51 feet to a ½" iron rod found at the north corner of the beforementioned 12.65 acre tract (456/150), same being the west corner of the 100 acre tract;

THENCE along the common line between the beforementioned 12.65 acre tract and the beforementioned 100 acre tract (843/540), adjacent to a fence, as follows:

S 39° 28' 18" E for a distance of 553.94 feet to a 10" post oak stump,

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S 35° 08' 06" E for a distance of 243.04 feet to a 5/8" iron rod found at a crosstie fence corner marking the east corner of the 12.65 acre tract, same being the north corner of the Cade – called 10.51 acre tract, described in the deed recorded in Volume 999, Page 71, of the Official Records of Leon County, Texas;

THENCE S 63° 31' 28" W along the southeast line of the beforementioned 12.65 acre tract, same being the northwest line of the beforementioned 10.51 acre tract, adjacent to a fence, for a distance of 730.16 feet to a 5/8" iron bar found at a crosstie fence corner marking the south corner of the 12.65 acre tract, same being the west corner of the 10.51 acre tract in the northeast line of the beforementioned 9.701 acre – 1<sup>st</sup> Tract (878/164);

THENCE S 31° 30' 34" E along the northeast line of the beforementioned 9.701 acre tract, same being the southwest line of the beforementioned 10.51 acre tract, adjacent to a fence, for a distance of 569.56 feet to the east corner of the 9.701 acre tract, same being the south corner of the 10.51 acre tract in the north right-of-way line of State Highway No. 79, from which a 1/2" iron rod found at an 8" creosote post fence corner bears S 67° 28' 19" W – 0.72 feet;

THENCE along the north right-of-way line of S.H. No. 79 (right-of-way width varies), as follows:

S 72° 22' 54" W partially adjacent to a fence, for a distance of 1852.72 feet to a 1/2" iron rod found,  
N 17° 37' 06" W for a distance of 30.00 feet to a concrete right-of-way marker found (broken),  
S 72° 22' 54" W for a distance of 189.67 feet to a 1/2" iron rod found at the beginning of a curve, concave to the north, having a radius of 2784.80 feet,  
Westerly along said curve, for an arc length of 559.75 feet to a 1/2" iron rod found at the end of this curve, the chord bears S 78° 08' 24" W - 558.81 feet,  
S 83° 53' 54" W for a distance of 86.36 feet to a 1/2" iron rod found at the south corner of the beforementioned 56.348 acre tract, from which a crosstie fence corner bears S 20° 21' E – 16.6 feet and a concrete right-of-way marker found bears S 51° 26' 09" E – 18.49 feet;

THENCE along the southwesterly lines of the beforementioned 56.348 acre tract, same being the northeast and northwest lines of a tract of unknown ownership, adjacent to a fence, as follows:

N 23° 02' 35" W for a distance of 426.15 feet to a crosstie fence corner marking an interior ell corner of the 56.348 acre tract,  
S 67° 34' 29" W for a distance of 34.20 feet to a 1/2" iron rod set at the south corner of the 56.348 acre tract in the northeast right-of-way line of the Burlington Northern and Santa Fe Railroad, (BNSF – formerly Chicago Rock Island & Pacific Railroad), same being in a curve, concave to the west, having a radius of 2914.94 feet;

THENCE along the northeasterly right-of-way line of the BNSF Railroad, (right-of-way width varies - right-of-way line is partially fenced but fence is in disrepair), as follows:

Northerly along said curve, for an arc length of 515.34 feet to a 1/2" iron rod found at the end of this curve, the chord bears N 19° 36' 42" W - 514.67 feet,  
N 65° 19' 25" E for a distance of 25.00 feet to a 1/2" iron rod found,  
N 24° 40' 35" W for a distance of 739.00 feet to a 1/2" iron rod found,  
S 65° 19' 25" W for a distance of 25.00 feet to a 1/2" iron rod found,  
N 24° 40' 35" W at a distance of 2451 feet, cross the center of County Road No. 344, (now vacated), continue on, for a total distance of 3430.92 feet to a 1/2" iron rod found in the common line between the beforementioned Dodson & Cartmell Surveys,

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N 56° 20' 09" E along said common survey line for a distance of 80.99 feet to a ½" iron rod found,  
N 24° 40' 35" W for a distance of 756.03 feet to a ½" iron rod found at the west corner of the beforementioned 16 acre – 2<sup>nd</sup> Tract (939/265);

THENCE along the northwest line of the beforementioned 16 acre tract, same being along the southeast line of the Town of Newby – unrecorded, and the southeast line of the called 11.6 acre – 3<sup>rd</sup> Tract, described in the deed recorded in Volume 911, Page 165, of the Official Records of Leon County, Texas, adjacent to a fence, as follows:

N 67° 15' 46" E for a distance of 401.47 feet to a 10" elm tree fence angle point, at or near the most southerly south corner of the 11.6 acre tract,  
N 80° 29' 52" E for a distance of 92.83 feet to the south corner of the beforementioned 244.78 acre tract, at a 4" pipe post fence corner;

THENCE N 36° 10' 23" W along the common line between the beforementioned 244.78 acre tract and the beforementioned 11.6 acre tract, adjacent to a fence, for a distance of 981.72 feet to the interior ell corner of the 244.78 acre tract, at 4" pipe post fence corner;

THENCE S 65° 31' 12" W across the beforementioned 11.6 acre tract, and along the apparent northwest line of the Town of Newby, for a distance of 325.22 feet to a ½" iron rod found at a south corner of the beforementioned 244.78 acre tract, at the apparent west corner of the Town of Newby in the northwest line of the BNSF Railroad;

THENCE along the northeasterly right-of-way line of the BNSF Railroad, adjacent to a fence, as follows:

N 24° 40' 24" W for a distance of 579.93 feet to a ½" iron rod found,  
S 65° 20' 16" W for a distance of 50.00 feet to a ½" iron rod found,  
N 24° 39' 44" W for a distance of 1911.13 feet to the west corner of the 244.78 acre tract in the southeast right-of-way line of Farm to Market Road No. 3501, from which a 4" x 4" concrete monument found at a 6" cedar post fence corner bears N 70° 40' 13" E – 0.43 feet;

THENCE N 56° 53' 53" E along the southeast right-of-way line of F.M. No. 3501, (120' wide right-of-way), adjacent to a fence, for a distance of 2413.44 feet to the north corner of the beforementioned 244.78 acre tract in the southwest right-of-way line of F.M. No. 39, from which a concrete right-of-way marker found bears N 16° 54' 45" E – 0.32 feet;

THENCE along the southwest right-of-way line of F.M. No. 39, (100' wide right-of-way), adjacent to a fence, as follows:

S 36° 45' 34" E for a distance of 2540.42 feet to the beginning of a curve, concave to the northeast, having a radius of 5779.87 feet, from which a ½" iron rod found bears N 02° 43' 01" W – 0.28 feet,  
Southeasterly along said curve for an arc length of 1237.30 feet to a ½" iron rod found at the end of this curve, the chord bears S 42° 59' 04" E - 1234.94 feet,  
S 49° 12' 34" E for a distance of 476.56 feet to a ½" iron rod found at a 4" steel pipe post fence corner at the east corner of the 244.78 acre tract;

THENCE S 56° 56' 55" W along the southeast line of the beforementioned 244.78 acre tract, same being along or near the common line between the beforementioned Cartmell & Dodson Surveys, adjacent to a fence, at a distance of 25.66 feet, pass a ½" iron rod found marking the north corner of the Wood – called 2.00 acre tract described in the deed recorded in Volume 1293, Page 891, of the Official Records of Leon County, Texas, (see also 1118/320), continue on, along the northwest line of the 2.00 acre tract, for a total distance of 282.65 feet to a ½" iron rod found at a chain link fence post corner marking the west corner of the 2.00 acre tract;

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THENCE along the lines of the beforementioned 2.00 acre tract, adjacent to a chain link fence, as follows:

S 34° 56' 35" E for a distance of 295.39 feet to a ½" iron rod found at a chain link fence post corner marking the south corner of the 2.00 acre tract,  
N 56° 56' 11" E at a distance of 333.01 feet, pass a ½" iron rod found at chain link fence post corner, continue on, for a total distance of 338.94 feet to the southwest right-of-way line of F.M. No. 39;

THENCE S 49° 03' 31" E along the southwest right-of-way line of F.M. No. 39 (150' wide right-of-way), partially adjacent to a fence, at a distance of 904 feet, cross the center of County Road No. 344 (now vacated), continue on, for a total distance of 2084.03 feet to the east corner of the beforementioned 1-1/2 acre tract (1344/877), from which a chain link fence corner bears N 62° 45' E – 14.6 feet;

THENCE S 58° 36' 30" W along the southeast line of the 1-1/2 acre tract, at a distance of 26.24 feet, pass a ¾" iron rod found at the north corner of the BOC Group, Inc. – called 4.75 acre – 1<sup>st</sup> Tract, described in the deed recorded in Volume 742, Page 77, of the Official Records of Leon County, Texas, (said 4.75 acre tract being out of the beforementioned 28.279 acre tract), continue on, along the northwest line of the 4.75 acre tract, at a distance of 190.24 feet, pass a ¾" iron rod found at the south corner of the 1-1/2 acre tract, same being the east corner of the beforementioned 46.383 acre tract (467/744), continue on, along the southeast line of the 46.383 acre tract, for a total distance of 240.69 feet to a ¾" iron rod found at a chain link fence corner marking the northerly west corner of the 4.75 acre tract;

THENCE S 37° 57' 54" E along the northerly southwest line of the beforementioned 4.75 acre tract, adjacent to and northeast of fence line, for a distance of 195.75 feet to a ½" iron rod found at the north corner of the 0.05 acre tract described in the deed to the BOC Group, Inc., as recorded in Volume 1014, Page 819, of the Official Records of Leon County, Texas;

THENCE S 40° 52' 26" W along the northwest line of the beforementioned 0.05 acre tract (said 0.05 acre tract being out of said 28.279 acre tract), for a distance of 32.11 feet to a ½" iron rod found at the west corner of the 0.05 acre tract, near northeast edge of travelway;

THENCE S 49° 07' 34" E along the southwest line of the beforementioned 0.05 acre tract, for a distance of 111.10 feet to the south corner of the 0.05 acre tract in the southerly northwest line of the beforementioned 4.75 acre tract, from which a chain link fence corner bears N 60° 34' 07" W – 30.26 feet;

THENCE S 59° 16' 52" W along the southerly northwest line of the 4.75 acre tract, adjacent to and an average of 32 feet southeast of chain link fence, for a distance of 325.49 feet to a ½" iron rod found marking the southerly west corner of the 4.75 acre tract, from which a chain link fence corner bears N 24° 43' 59" W – 37.82 feet;

THENCE S 41° 40' 14" E along the southerly southwest line of the beforementioned 4.75 acre tract and the southwest line of the called 0.5308 acre – 2<sup>nd</sup> Tract, described in the deed recorded in Volume 742, Page 77, of the Official Records of Leon County, Texas, adjacent to and 11 feet southwest of a chain link fence line, for a distance of 426.93 feet to a ½" iron rod found marking the south corner of the 0.5308 acre tract, from which a chain link fence corner bears N 16° 33' 29" W – 27.52 feet;

THENCE N 27° 18' 05" E along the southeast line of the beforementioned 0.5308 acre tract, adjacent to and an average of 14 feet southeast of chain link fence, for a distance of 658.19 feet to the east corner of the 0.5308 acre tract in the southwest right-of-way line of F.M. No. 39, from which a ½" iron rod found bears N 87° 10' 55" W – 0.36 feet, said east corner of the 0.5308 acre tract being in a curve, concave to the northeast, having a radius of 5829.59 feet;

THENCE along the southwest right-of-way line of F.M. No. 30 (right-of-way width varies), as follows:

Nucor Corporation  
797.56 Acre Tract (Main Tract)  
James D. McBeath Survey, A-596, etc.  
Leon County, Texas  
Continued – Page 6

Southeasterly along said curve, for an arc length of 1421.20 feet to the end of this curve, the chord bears S 57° 27' 28" E - 1417.68 feet, from which a ½" iron rod found bears S 58° 03' 33" W – 0.38 feet,  
S 64° 26' 30" E adjacent to a fence, for a distance of 643.88 feet to the **PLACE OF BEGINNING**, containing 797.56 acres of land, more or less.

Bearings based on grid north (NAD83 DATUM, TX. State Plane Central Zone). Distances and acreages are surface.



Surveyed: January, 2019

By:

A handwritten signature in black ink, appearing to read "S.M. Kling", with a long horizontal flourish extending to the right.

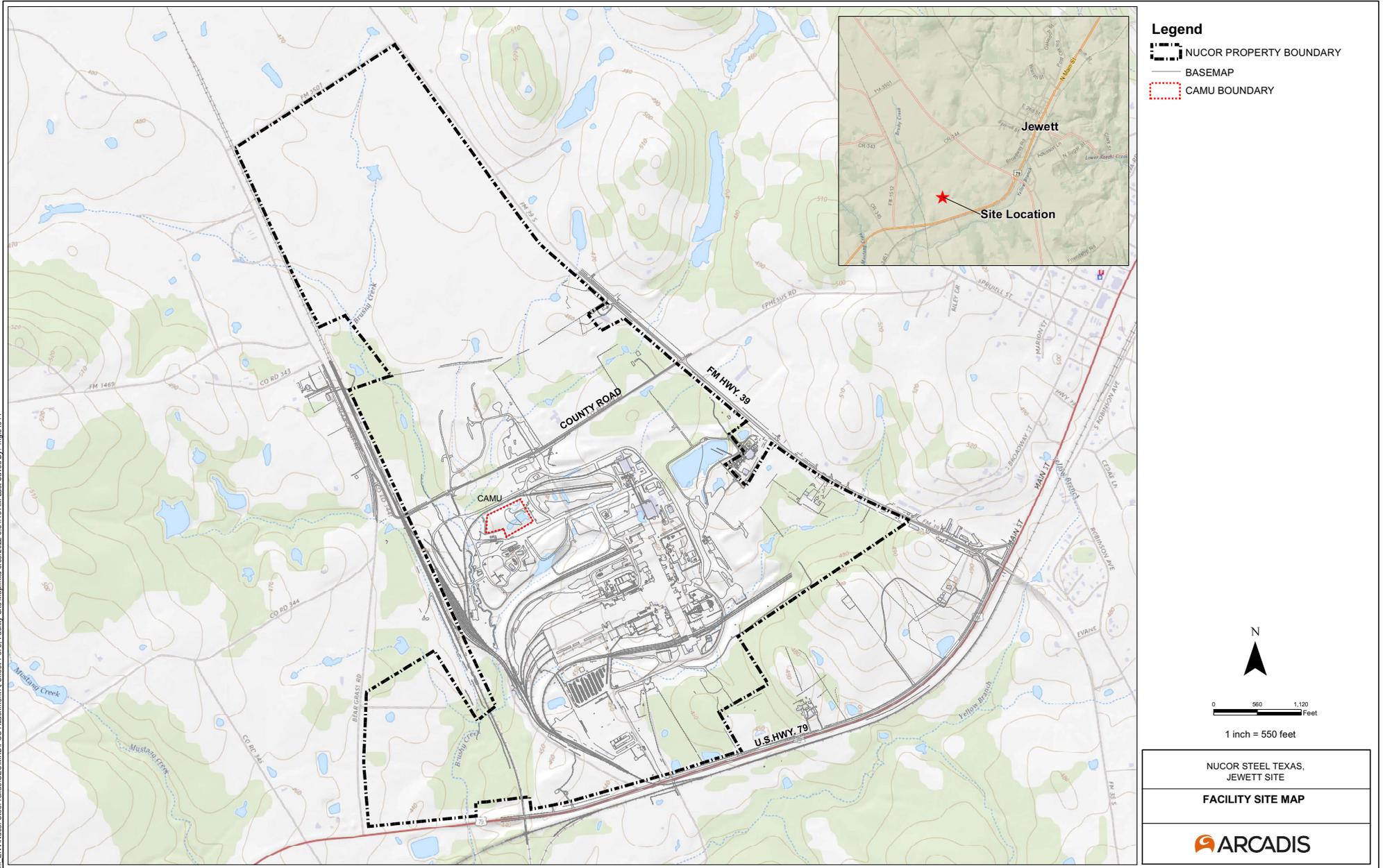
S. M. Kling  
R.P.L.S. No. 2003

DRAFT

Prepared: 03/10/21  
Nucor - 797.56ac Main Tract - E0624302  
BCS Proj\_2021-E0624302 - field notes file  
mapcheck – used parcel



Attachment B - Facility Map



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## **Attachment D - List of Incorporated Application Materials**

The following is a list of Part A and Part B Industrial and Hazardous Waste Application elements which are incorporated into all Industrial and Hazardous Waste Post-Closure Order (PCO) by reference as per Section IV-Incorporation of Application Materials and Appendices.

### TCEQ Part A Application Form

- I. General Information
- II. Facility Background Information
- III. Wastes and Waste Management
- IV. Index of Attachments

### TCEQ Part B Application Form

- I. General Information
  - A. Signature Page
  - B. General Information
  - C. TCEQ Core Data Form (Form 10400)

Table I - General Information  
Table I.1 - Description of Proposed Application Changes
- II. Facility Siting Criteria
  - A. Requirements for Storage or Processing Facilities, Land Treatment Facilities, Waste Piles, Storage Surface Impoundments, and Landfills
  - B. Additional Requirements for Land Treatment Facilities - RESERVED
  - C. Additional Requirements for Waste Piles - RESERVED
  - D. Additional Requirements for Storage Surface Impoundments - RESERVED
  - E. Additional Requirements for Landfills (and Surface Impoundments Closed as Landfills with Wastes in Place) - RESERVED
  - F. Flooding - RESERVED
  - G. Additional Information Requirements - RESERVED

Table II - Facility Siting Criteria Information
- III. Facility Management
  - A. Compliance History and Applicant Experience
  - B. Personnel Training Plan - RESERVED
  - C. Security
  - D. Inspection Schedule
  - E. Contingency Plan - RESERVED
  - F. Emergency Response Plan- RESERVED

Table III.D. - Inspection Schedule
- IV. Wastes And Waste Analysis
  - A. Waste Management Information - RESERVED
  - B. Wastes Managed In Permitted Units

**Attachment D - List of Incorporated Application Materials**

- C. Sampling and Analytical Methods - RESERVED
- D. Waste Analysis Plan - RESERVED

Table IV.B. - Wastes Managed in Permitted Units

V. Engineering Reports

- A. General Engineering Reports
- B. Container Storage Areas - RESERVED
- C. Tanks and Tank Systems - RESERVED
- D. Surface Impoundments - RESERVED
- E. Waste Piles - RESERVED
- F. Land Treatment Units - RESERVED
- G. Landfills
- H. Incinerators - RESERVED
- I. Boilers and Industrial Furnaces - RESERVED
- J. Drip Pads - RESERVED
- K. Miscellaneous Units - RESERVED
- L. Containment Buildings - RESERVED

Table V.A. Facility Waste Management Handling Units

Table V.G.1. Landfills

Table V.G.3. - Landfill Liner System

VI. Geology Report

- A. Geology and Topography
- B. Facility Groundwater
- C. Exemption from Groundwater Monitoring for an Entire Facility - RESERVED
- D. Unsaturated Zone Monitoring - RESERVED

Table VI.A.1. - Major Geologic Formations

VII. Closure And Post-Closure Plans

- A. Closure - RESERVED
- B. Closure Cost Estimate - RESERVED
- C. Post-closure
- D. Post-closure Cost Estimate

Table VII.D. - Unit Post-Closure Cost Estimate

Table VII.E.2. - Permitted Unit Post-Closure Cost Summary

VIII. Financial Assurance

- A. Financial Assurance Information Requirements for all Applicants - RESERVED
- B. Financial Assurance for Post-Closure Care (applicable to disposal facilities and contingent post-closure care facilities only)
- C. Financial Assurance for Corrective Action
- D. Applicant Financial Disclosure Statements for a new permit, permit amendment, or permit modification, or permit renewal - RESERVED

**Attachment D - List of Incorporated Application Materials**

- IX. Releases From Solid Waste Units and Corrective Action
- X. Air Emission Standards – RESERVED

- XI. Compliance Plan

- A. Site Specific Information
- B. Groundwater Protection Standard (GWPS)
- C. Compliance Monitoring Program – RESERVED
- D. Corrective Action Program
- E. Cost Estimates for Financial Assurance

TABLE XI.A.1. - Facility History for Waste Management Units

TABLE XI.E. – General Information

TABLE XI.E.2. - Groundwater Monitoring Cost Estimate

TABLE XI.E.3. - Financial Assurance Summary

PCO TABLE I - Waste Management Units and Areas Subject to Groundwater Corrective Action and Compliance Monitoring

PCO TABLE II - Solid Waste Management Units and/or Areas of Concern Addressed in Permit Section XI.H. for which Corrective Action applies pursuant to 30 TAC Section 335.167

PCO TABLE III - CORRECTIVE ACTION PROGRAM Table of Detected Hazardous and Solid Waste Constituents and the Groundwater Protection Standard - RESERVED

PCO TABLE IIIA - CORRECTIVE ACTION PROGRAM Table of Indicator Parameters and the Groundwater Protection Standard – RESERVED

PCO TABLE IV – Compliance Monitoring Program Table of Hazardous Constituents and Quantitation Limits

PCO TABLE IVA – Compliance Monitoring Program Table of Detected Hazardous and the Groundwater Protection Standard

PCO TABLE V - Designation of Wells

PCO TABLE VI - Compliance Period for RCRA-Regulated Units

PCO TABLE VII – Reporting Requirements

PCO TABLE VIII - Compliance Schedule

PCO TABLE IX – Description of Uppermost Aquifer

PCO Attachment A

- XII. Hazardous Waste Permit Application Fee

Table XII.A. – Hazardous Waste Units (For Application Fee Calculations)

Table XII.B. - Hazardous Waste Permit Application Fee Worksheet

- XIII. Confidential Material – RESERVED

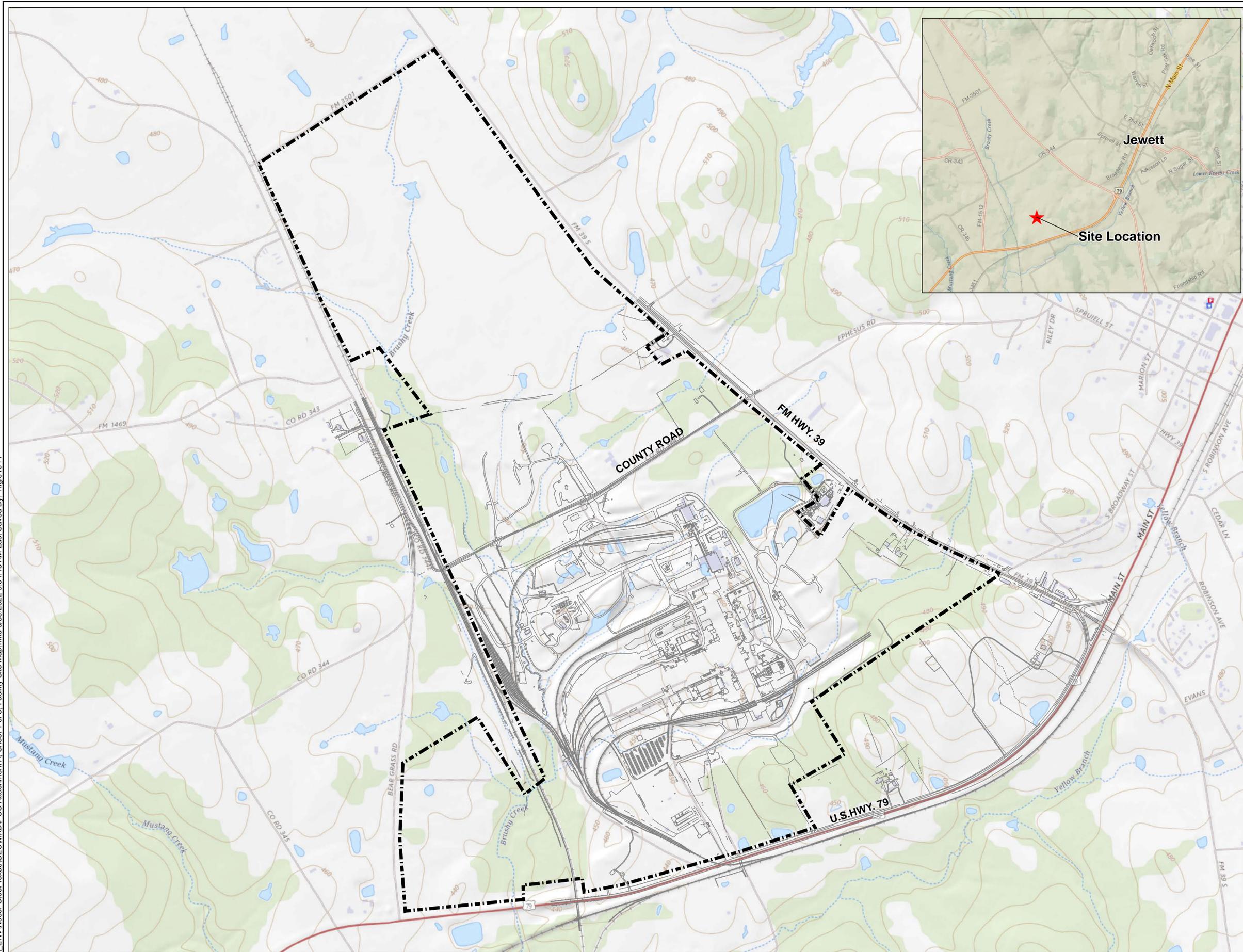
**Attachment E - List of Permitted Facility Units**

**Authorized Permitted Units**

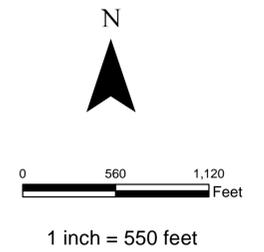
TCEQ Permit Unit No. <sup>1</sup>	Unit Name	NOR No. <sup>1</sup>	Unit Description	Capacity	Unit Status <sup>2</sup>
1	Corrective Action Management Unit (CAMU)	021	CAMU Performed under EPA Consent Decree	N/A	Closed as Landfill

<sup>1</sup>Permitted Unit No. and NOR No. cannot be reassigned to new units or used more than once.

<sup>2</sup>Unit Status options: Active, Closed, Inactive (built but not managing waste), Proposed (not yet built), Never Built, Transferred, Post-Closure.



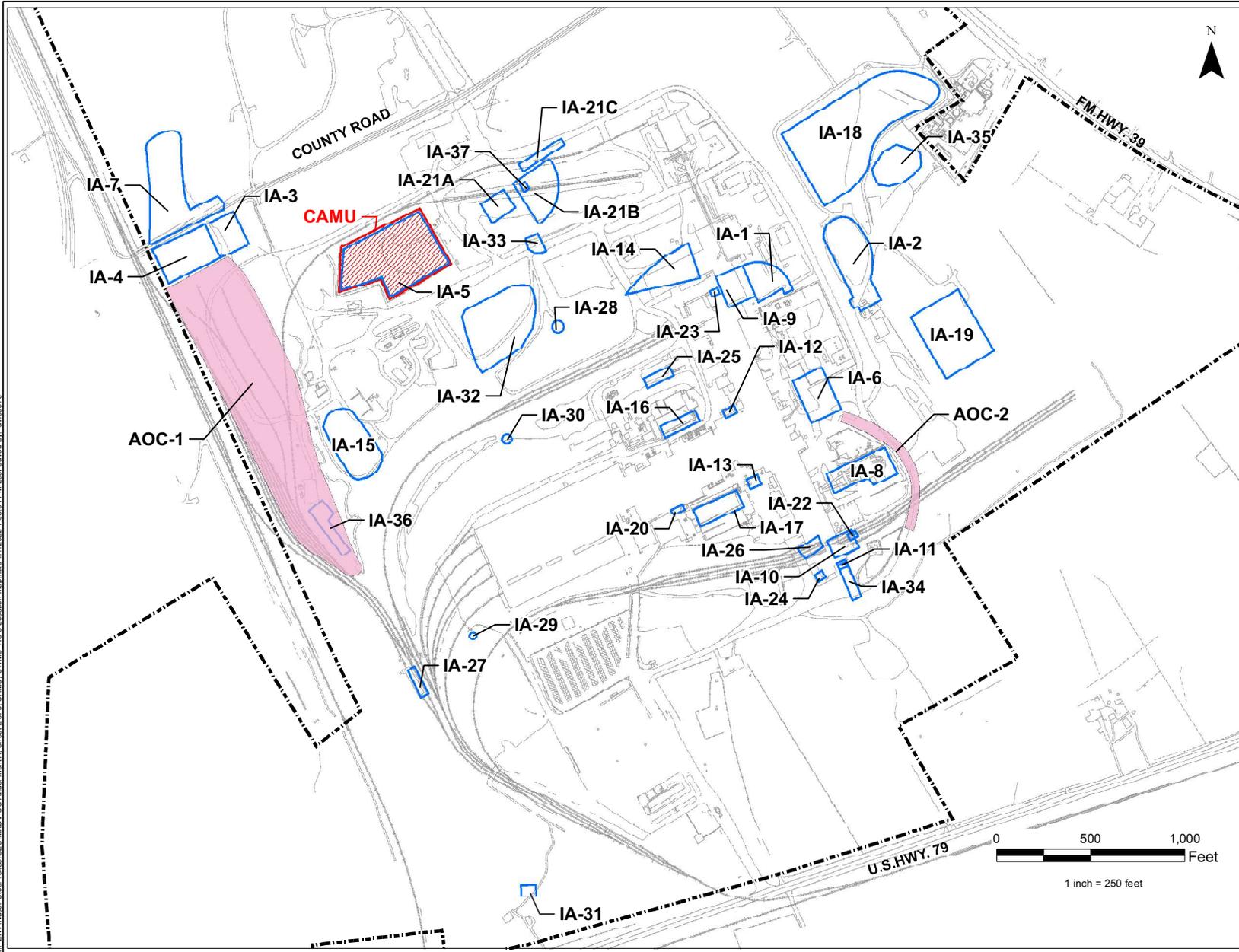
**Legend**  
 NUCOR PROPERTY BOUNDARY  
 BASEMAP



NUCOR STEEL TEXAS,  
 JEWETT SITE

PCO ATTACHMENT A, SHEET 1 OF 3,  
 FACILITY SITE MAP

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**Legend**

- NUCOR PROPERTY BOUNDARY
- AOCs
- IA AREAS
- CAMU BOUNDARY
- BASEMAP

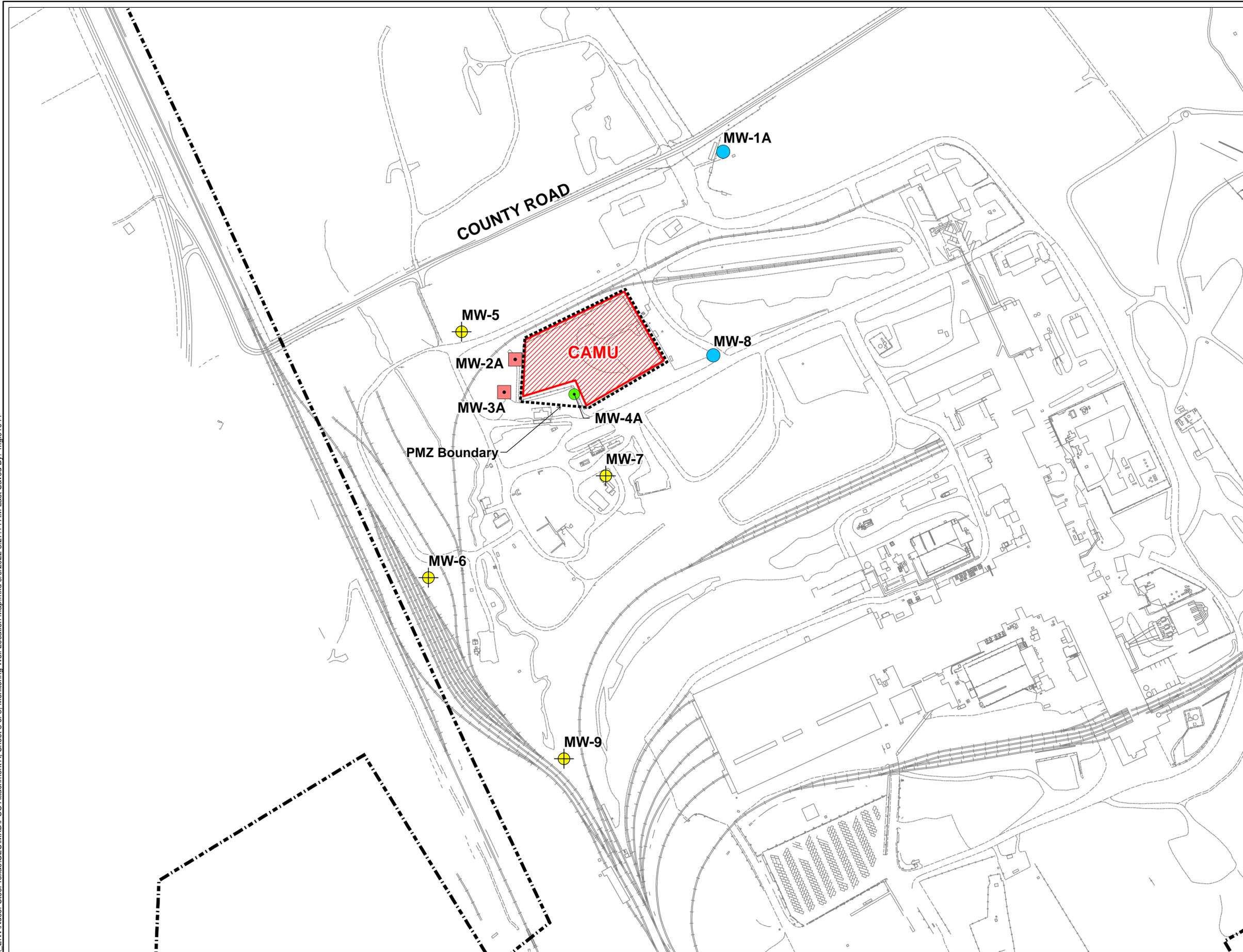
- NOTES:  
 1. AOC - AREA OF CURRENT INVESTIGATION  
 2. IA - INITIAL ASSESSMENT  
 3. CAMU - CORRECTIVE ACTION MANAGEMENT UNIT

Unit No.	Name
IA-1	Equipment Laydown Yard #1
IA-2	Equipment Laydown Yard #2
IA-3	Boneyard and EAF dust contaminated area/ Equipment Laydown Yard #3
IA-4	EAF Dust Bulk Handling Area
IA-5	EAF Dust Landfill
IA-6	Texas I baghouse area
IA-7	Remediated areas along county road 344
IA-8	Texas II baghouse area
IA-9	Former railcar loading silo area
IA-10	current railcar loading silo area
IA-11	less than 90-day hazardous waste accumulation area
IA-12	Texas I mill scale pit
IA-13	Texas II mill scale pit
IA-14	Former mill scale processing area
IA-15	Current mill scale processing area
IA-16	Texas I contact water pond
IA-17	Texas II contact water pond
IA-18	Blowdown water pond
IA-19	Blowdown water pond
IA-20	Former distillation unit area (parts washer fluids)
IA-21	Three former land treatment locations
IA-22	Texas II diesel and gas fueling station
IA-23	Texas I diesel fueling station
IA-24	Mobil maintenance sump area
IA-25	Oil storage building and gasoline tank
IA-26	Current crane fueling station
IA-27	Locomotive engine fuel shed
IA-28	Stormwater discharge area - pre-RCRA landfill area
IA-29	Stormwater discharge area - Texas II baghouse area
IA-30	Stormwater discharge area - Texas I storage area
IA-31	Historical oil well sludge pit
IA-32	Registered Class II solid waste landfill
IA-33	Former Capacitor Storage Area
IA-34	1995 Transformer Oil Spill
IA-35	Possible Baghouse Burning Area
IA-36	Boneyard (Equipment Laydown Area)
IA-37	Probable historical mineral spirits spill
AOC 1	Former EAF Dust Staging Area (IA-4) & Loadout Area
AOC 2	Former EAF Dust Bag Burial Area
CAMU	Corrective Action Management Unit

NUCOR STEEL TEXAS,  
 JEWETT SITE

**PCO ATTACHMENT A, SHEET 2 OF 3,  
 CAMU, SWMU/AOC LOCATION MAP**

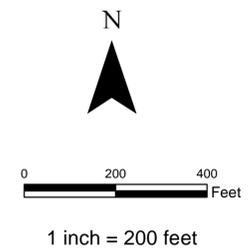
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**Legend**

- POINT OF EXPOSURE (POE) WELL
- BACKGROUND WELL
- ⊕ PIEZOMETER WELL
- ATTENUATION MONITORING POINT (AMP)
- BASEMAP
- ⋯ NUCOR PROPERTY BOUNDARY
- ▨ CAMU BOUNDARY
- ⋯ PLUME MANAGEMENT ZONE BOUNDARY

**NOTE:**  
 1. CAMU - CORRECTIVE ACTION MANAGEMENT UNIT  
 2. THE MONITORING WELL DESIGNATION PRESENTED ON THIS FIGURE REPRESENTS THE APPROVED CORRECTIVE ACTION MONITORING PROGRAM. MONITORING WELLS MW-2A, MW-3A, AND MW-4A WILL BE TRANSITIONED TO POINT OF COMPLIANCE WELLS WHEN THE COMPLIANCE MONITORING PROGRAM IS INITIATED.



NUCOR STEEL TEXAS,  
JEWETT SITE

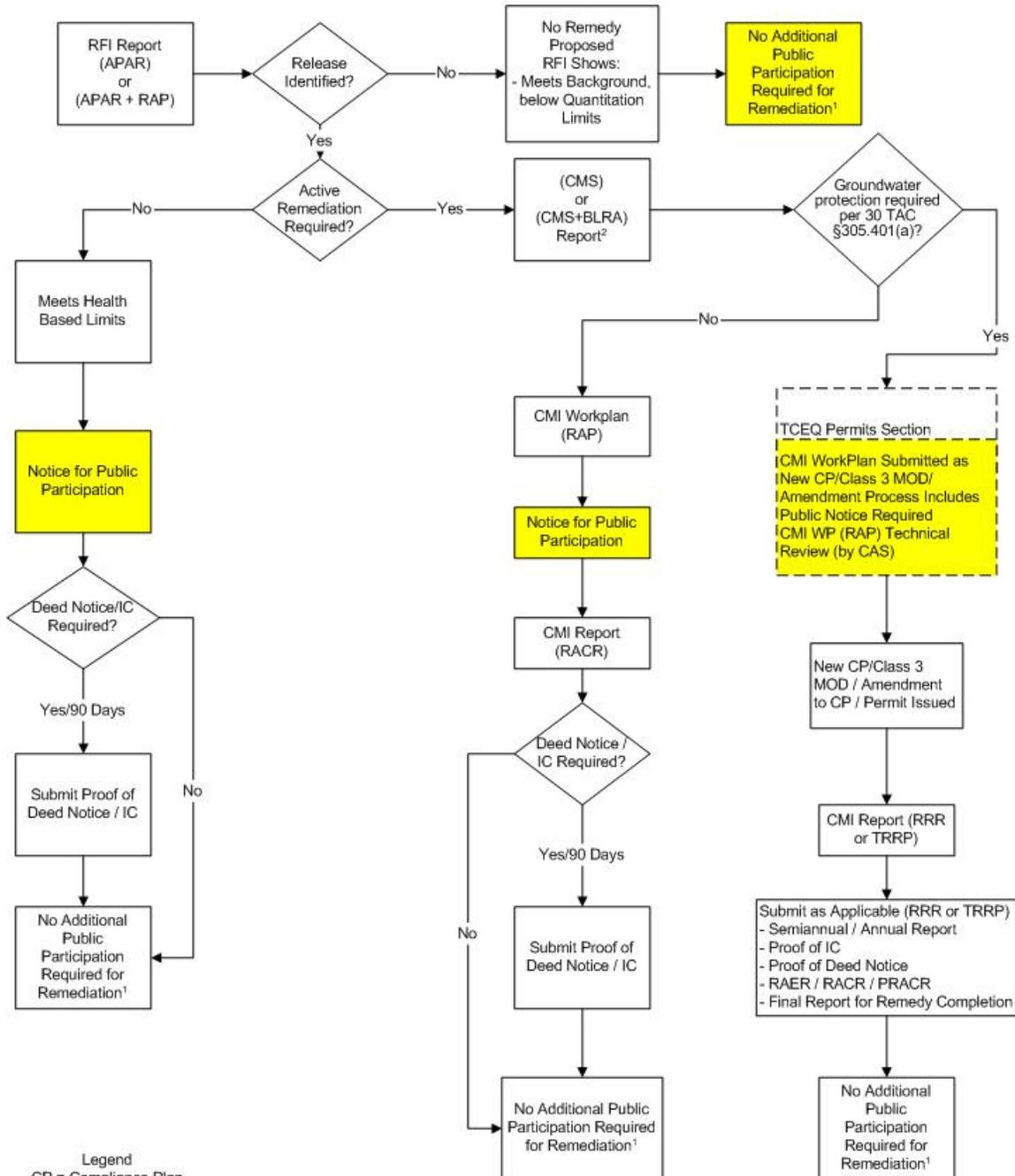
**PCO ATTACHMENT A, SHEET 3 OF 3,  
MONITORING WELL LOCATION MAP**

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PCO Attachment B, Sheet 1 of 1

Public Participation in HSWA Corrective Action

6/22/2005



Legend  
 CP = Compliance Plan  
 IC = Institutional Control

1 To Incorporate a Status Change to RFI unit(s) in the Permit or CP Requires Modification and Public Notice through the Permits Section  
 2 As Required by Rule, Permit, or CP

**PCO Attachment C: Well Design, Construction, Installation, Certification, Plugging and Abandonment Procedures and Specifications**

1. The Applicant shall use well drilling methods that minimize potential adverse effects on the quality of water samples withdrawn from the well, and that minimize or eliminate the introduction of foreign fluids into the borehole.
2. All wells constructed to meet the terms of this Post Closure Order (PCO) shall be constructed such that the wells can be routinely sampled with a pump, bailer, or alternate sampling device. Piping associated with recovery wells should be fitted with sample ports or an acceptable alternative sampling method to facilitate sampling of the recovered groundwater on a well by well basis.
3. Above the saturated zone, the well casing may be two (2)-inch diameter or larger Schedule 40 or 80 polyvinyl chloride (PVC) rigid pipe or stainless steel or polytetrafluoroethylene (PTFE or "Teflon®") or an approved alternate material. The PVC casing must bear the National Sanitation Foundation logo for potable water applications (NSF-pw). Solvent cementing compounds shall not be used to bond joints and all connections shall be flush-threaded. In and below the saturated zone, the well casing shall be stainless steel or PTFE.

The Applicant may use PVC or fiberglass reinforced resin as an alternate well casing material in and below the saturated zone provided that it yields samples for groundwater quality analysis that are unaffected by the well casing material.

4. The Applicant shall replace any well that has deteriorated due to incompatibility of the casing material with the groundwater contaminants or due to any other factors. Replacement of the damaged well shall be completed within ninety (90) days of the date of the inspection that identified the deterioration.
5. Well casings and screens shall be steam cleaned prior to installation to remove all oils, greases, and waxes. Well casings and screens made of fluorocarbon resins shall be cleaned by detergent washing.
6. For wells constructed after the date of issuance of this Order, the screen length shall not exceed ten (10) feet within a given transmissive zone unless otherwise approved by the Executive Director. Screen lengths exceeding ten (10) feet may be installed in groundwater recovery or injection wells to optimize the groundwater remediation process in accordance with standard engineering practice.
7. The Applicant shall design and construct the intake portion of a well so as to allow sufficient water flow into the well for sampling purposes and minimize the passage of formation materials into the well during pumping. The intake portion of a well shall consist of commercially manufactured stainless steel or PTFE screen or approved alternate material. The annular space between the screen and the borehole shall be filled with clean siliceous granular material (i.e., filter pack) that has a proper size gradation to provide mechanical retention of the formation sand and silt. The well screen slot size shall be compatible with the filter pack size as determined by sieve analysis data. The filter pack should extend no more than three (3) feet above the well screen. A silt trap, no greater than one (1) foot in length, may be added to the bottom of the well screen to collect any silt that may enter the well. The bottom of the well casing shall be capped with PTFE or stainless steel or approved alternate material.

Groundwater recovery and injection wells shall be designed in accordance with standard engineering practice to ensure adequate well production and accommodate ancillary

equipment. Silt traps exceeding one (1) foot may be utilized to accommodate ancillary equipment. Well heads shall be fitted with mechanical well seals, or equivalent, to prevent entry of surface water or debris.

8. A minimum of two (2) feet of pellet or granular bentonite shall immediately overlie the filter pack in the annular space between the well casing and borehole. Where the saturated zone extends above the filter pack, pellet or granular bentonite shall be used to seal the annulus. The bentonite shall be allowed to settle and hydrate for a sufficient amount of time prior to placement of grout in the annular space. Above the minimum two (2)-foot thick bentonite seal, the annular space shall be sealed with a cement/bentonite grout mixture. The grout shall be placed in the annular space by means of a tremie pipe or pressure grouting methods equivalent to tremie grouting standards.

The cement/bentonite grout mixture or TCEQ approved alternative grout mixture shall fill the annular space to within two (2) feet of the surface. A suitable amount of time shall be allowed for settling to occur. The annular space shall be sealed with concrete, blending into a cement apron at the surface that extends at least two (2) feet from the outer edge of the monitor well for above-ground completions. Alternative annular-space seal material may be proposed with justification and must be approved by the Executive Director prior to installation.

In cases where flush-to-ground completions are unavoidable, a protective structure such as a utility vault or meter box should be installed around the well casing and the concrete pad design should prevent infiltration of water into the vault. In addition, the applicant must ensure that 1) the well/cap juncture is watertight; 2) the bond between the cement surface seal and the protective structure is watertight; and 3) the protective structure with a steel lid or manhole cover has a rubber seal or gasket.

9. Water added as a drilling fluid to a well shall contain no bacteriological or chemical constituents that could interfere with the formation or with the chemical constituents being monitored. For groundwater recovery and injection wells, drilling fluids containing freshwater and treatment agents may be utilized in accordance with standard engineering practice to facilitate proper well installation. In these cases, the water and agents added should be chemically analyzed to evaluate their potential impact on in-situ water quality and to assess the potential for formation damage. All such additives shall be removed to the extent practicable during well development.
10. Upon completion of installation of a well, the well must be developed to remove any fluids used during well drilling and to remove fines from the formation to provide a particulate-free discharge to the extent achievable by accepted completion methods and by commercially available well screens. Development shall be accomplished by reversing flow direction, surging the well or by air lift procedures. No fluids other than formation water shall be added during development of a well unless the aquifer to be screened is a low-yielding water-bearing aquifer. In these cases, the water to be added should be chemically analyzed to evaluate its potential impact on in-situ water quality, and to assess the potential for formation damage.

For recovery and injection wells, well development methods may be utilized in accordance with standard engineering practice to remove fines and maximize well efficiency and specific capacity. Addition of freshwater and treatment agents may be utilized during well development or re-development to remove drilling fluids, inorganic scale or bacterial slime. In these cases, the water and agents added should be chemically analyzed to evaluate their potential impact on in-situ water quality and to assess the potential for formation damage. All such additives shall be removed to the

extent practicable during well development.

11. Each well shall be secured and/or designed to maintain the integrity of the well borehole and groundwater.
12. The Applicant shall protect the above-ground portion of the well by bumper guards and/or metal outer casing protection when wells are located in traffic areas or outside the secured plant area.
13. The attached Table of Well Construction Details is to be completed or updated for each well installed and kept on site. Items in the table that require a yes or no answer indicate diagrams, plans, or procedures that shall be kept on site and made available to inspection. The completed table and other records shall include all of the following information:
  - name/number of well (well designation);
  - intended use of the well (sampling, recovery, etc.);
  - date/time of construction;
  - drilling method and drilling fluid used;
  - well location ( $\pm 0.5$  ft.);
  - borehole diameter and well casing diameter;
  - well depth ( $\pm 0.1$  ft.);
  - drilling and lithologic logs;
  - depth to first saturated zone;
  - casing materials;
  - screen materials and design;
  - casing and screen joint type;
  - screen slot size/length;
  - filter pack material/size;
  - filter pack volume (how many bags, buckets, etc.);
  - filter pack placement method;
  - sealant materials;
  - sealant volume (how many bags, buckets, etc.);
  - sealant placement method;
  - surface seal design/construction;
  - well development procedure;
  - type of protective well cap;
  - ground surface elevation ( $\pm 0.01$  ft. MSL);
  - top of casing elevation ( $\pm 0.01$  ft. MSL); and,
  - detailed drawing of well (include dimensions).
14. The Applicant shall clearly mark and maintain the well number on each well at the site.
15. The Applicant shall measure and keep a record of the elevation of the top of each well casing in feet above mean sea level to the nearest 0.01 foot and permanently mark the measuring point on the well. The Applicant shall compare old and new elevations from previously surveyed wells and determine a frequency of surveying not to exceed five (5) year intervals.
16. A well's screened interval shall be appropriately designed and installed to meet the well's specific objective (i.e., recovery of either DNAPL, LNAPL, or both, or other objective of the well). All wells designed to detect, monitor, or recover DNAPL must be drilled to intercept the bottom confining layer of the aquifer. The screened interval to detect DNAPL should extend from the top of the lower confining layer to above the portion of the aquifer saturated with DNAPL. The screened interval for all wells

designed to detect, monitor, or recover LNAPL must extend high enough into the vadose zone to provide for fluctuations in the seasonal water table. In addition, the filter pack for the recovery or monitoring well's screened interval shall be coarser than surrounding media to ensure the movement of NAPL to the well.

#### Certification, Plugging and Abandonment Procedures

17. Prior to installation of a Point of Compliance (POC), FOA Boundary of Compliance (FBOC), Point of Exposure (POE), Alternate Point of Exposure (APOE) or Background replacement well listed in PCO Table V, the Applicant shall submit to the Executive Director for approval, the replacement well specifications and an explanation of why the well is being replaced. For any such well to be considered as a replacement well and not as a new well, the well shall have no substantive design changes from the well being replaced as determined by the Executive Director. The well shall be drilled within fifteen (15) feet of the well being replaced unless an alternate location is authorized by the Executive Director. The Applicant shall submit a replacement well certification to the Executive Director in accordance with PCO Table VII and PCO Attachment C, Provision 19.
18. Plugging and abandonment of a Corrective Action System Background, POC, FBOC, POE, and/or APOE wells in Provision XI.B.1, shall be subject to the PCO modification provisions in 30 TAC Chapter 305 Subchapter D. Plugging and abandonment of Corrective Action Observation, Corrective Action System and/or Attenuation Monitoring Point wells in Provision XI.B.2, shall commence upon written approval of the Executive Director. The well shall be plugged and abandoned in accordance with requirements of this Attachment C. The Applicant shall certify proper plugging and abandonment in accordance with PCO Table VII and PCO Attachment C, Provision 19.
19. The Applicant shall complete construction or plugging and abandonment of each well in accordance with the requirements of this Order and 16 TAC Chapter 76 and shall certify such proper construction or plugging and abandonment in the first report submitted pursuant to PCO Table VII following installation or plugging and abandonment. Copies of the State of Texas Plugging Report filed with the Texas Department of Licensing and Regulation and completion logs for each newly installed or replaced well shall be included with the report. The certification shall be prepared by a qualified geoscientist or engineer. Each well certification shall be accompanied by a certification report, including an accurate log of the soil boring, which thoroughly describes and depicts the location, elevations, material specifications, construction details, and soil conditions encountered in the boring for the well. A copy of the certification and certification report shall be kept on-site, and a second copy shall be submitted to the Executive Director. Required certification shall be in the following format, edited as appropriate, and shall specify the PCO Number as indicated:  
  
"This is to certify that installation (or plugging and abandonment) of the following facility components authorized or required by TCEQ PCO No. 33095 has been completed, and that construction (or plugging) of said components has been performed in accordance with and in compliance with the design and construction specifications of this PCO No. 33095:" (Add description of facility components with reference to applicable PCO provisions).
20. Wells may be replaced at any time the Applicant or Executive Director determines that the well integrity or materials of construction or well placement no longer enable the well to yield samples representative of groundwater quality.
21. The Applicant shall plug soil test borings and wells removed from service after issuance

of the PCO with a cement/bentonite grout mixture so as to prevent the preferential migration of fluids in the area of the borehole. Certification of each plugging shall be reported in accordance with Provision 19 of PCO Attachment C of this Order. The plugging of wells shall be in accordance with 16 TAC Chapter 76 dealing with Well Drilling, Completion, Capping and Plugging.

DRAFT

Table of Well Construction Details

Well number					
Borehole diameter (in)					
Well diameter (in)					
Total borehole depth (ft)					
Constructed well depth (ft)					
Well location available (Y/N)					
Intended Use of Well (sampling, recovery, etc.)					
Drilling & lithologic logs available (Y/N)					
Drill method					
Date drilled					
Casing I.D. (in)					
Casing type/materials					
How joined					
Stick-up length					
Top of casing (±0.01 ft. MSL)					
Ground surface elevation (±0.01 ft. MSL)					
Capped/lockable					
Surface pad size (ft)					
Detailed drawing of well (include dimensions) Y/N					
Depth to surface seal (ft)					
Surface seal design & construction available (Y/N)					
Well development procedure available (Y/N)					
Annulus fill					
Depth to annulus seal (ft)					
Depth to filter pack (ft)					

Depth to 1 <sup>st</sup> saturated zone					
Length of filter pack (ft)					
Size of filter pack					
Filter pack volume (how many bags, buckets, etc.)					
Filter pack placement method					
Depth to screen (ft)					
Sealant materials					
Sealant volume (how many bags, buckets, etc.)					
Sealant placement method					
Screen slot size/length (in)					
Screen type					
Screen length (ft)					
Blank length (ft)					
Development Method					
Well coordinates (lat & long)					