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ASSISTANT DIRECTOR, TECHNICAL PERMITTING

RAILROAD COMMISSION OF TEXAS

OIL AND GAS DIVISION

Permit No. STF-001 **AMENDED**
Supersedes permit Dated July 30, 2013

NEWPARK ENVIRONMENTAL SVCS LLC
207 TOWN CENTER PARKWAY 2ND FLOOR
LAFAYETTE LA 70506

Based on the information contained in your original application (dated March 11, 1983) for the Ingleside facility, general information provided to us on April 6, 1982, the application dated October 7, 1986, and additional information we received on May 30, 1989, May 30, 1990, August 2, 1990, August 13, 1990, October 8, 1992, October 13, 1993, December 12, 1996, January 28, 1997, March 18, 1997, March 19, 1997, and November 4, 1997, May 18, 1998, your renewal application dated February 21, 2000, amendment requests dated November 19, 2004, and August 5, 2008, renewal request dated September 4, 2008, roadbase amendment application received June 20, 2012 and April 13, 2013, amendment request for increase in storage capacity received on May 6, 2013, amendment request for reuse of processed material as alternative daily cover submitted August 23, 2013, and subsequent information submitted to date for the above referenced facility, you are hereby authorized to receive, store, handle and treat certain oil and gas wastes as specified below at the following facility:

Stationary Treatment Facility Permit No. STF-001
Oil and Gas Waste Treatment and Disposal Permit
Untreated Waste Located on Tract 5 of Pleasure Islet, Port Arthur
29° 57' 28.38" N, 93° 51' 45.74" W
Treated Solids Satellite Storage Area Located on Highway 73
29° 51' 0.93" N, 94° 8' 37.17" W
Jefferson County, Texas

NARRATIVE DESCRIPTION OF PROCESS:

This permit is your authority to receive, treat and store non-hazardous oil and gas wastes, including oil and gas waste from Mexico. All wastes received shall be "non-hazardous" as defined by the U.S. Environmental Protection Agency, 40 CFR Part 261. Compliance with this provision shall be verified by the signature of the waste generator and transporter on the Newpark delivery ticket for each shipment of waste received at the facility. No other wastes or fluids may be treated at the facility.

Incoming solid and liquid wastes will be separated and placed onto barges at the Port Arthur Facility. Residual solid wastes will be separated for disposal or treated for reuse as roadbase material. The solid material separated for reuse will be stabilized and treated using cement and fly ash at the Port Arthur Facility. Once the waste has been processed, the treated solids will be hauled off and placed into accumulation areas at the Satellite Storage Facility.

Authority is granted to receive, store, handle, and treat certain oil and gas wastes in accordance with Statewide Rule 8 and Chapter 4, Subchapter B subject to the following minimum conditions:

I. GENERAL PERMIT CONDITIONS

A. The effective date of this permit is August 30, 2013.

B. The authority granted by this permit expires on July 29, 2018.

C. This permit is nontransferable without the consent of the Commission. Any request for permit transfer should be filed with Technical Permitting in Austin at least 60 days before the permittee wishes the transfer to take place.

D. The permittee must submit a Quarterly Report containing the applicable information required in Permit Conditions III.B.4., III.D.4., IV.D., IV.H., and V.D.

The reporting periods must cover the periods from January 1 through March 31, April 1 through June 30, July 1 through September 30, and October 1 through December 31 of each year.

The Quarterly Reports must be submitted to Technical Permitting in Austin and the appropriate District Office no later than the 31st day of the month following each reporting period, or each May 1, July 31, October 31, and January 31, respectively.

E. This permit does not grant you authority to treat oil and gas wastes if the treatment process or treatment chemicals differ from those represented to Technical Permitting. You must inform the Commission of any change you intend to make in the treatment process or treatment chemicals.

F. Material Safety Data Sheets (MSDS) must be submitted to Technical Permitting in Austin for any chemical proposed in the treatment of waste at the facility. Use of the chemical is contingent upon Commission approval.

G. Any soil, media, or other debris contaminated by a spill of waste or any other materials at the facility must be cleaned up immediately and processed through the facility or disposed of in an authorized manner.

H. The permittee must make all records required by this permit available for review and copying during normal business hours upon request of Commission personnel.

I. The permittee must post a sign at the facility entrance, which must show the permit number in numerals at least three inches in height.

J. Unless otherwise required by conditions of this permit, an independent laboratory neither owned nor operated by the permittee must conduct any analysis of sampling required by this permit using EPA methods or Standard Methods.

K. Unless otherwise required by conditions of this permit, construction, use, and maintenance of the facility must be in accordance with the information represented in the permit application and attachments thereto.

L. Any deviation from this permit must be approved by amendment from Technical Permitting in Austin before implementation.

M. In accordance with Statewide Rule 78, financial security must be provided to the Commission in the amount necessary to close the facility. If any changes are planned to the facility that would increase the cost to close the facility, an updated closure cost estimate and the associated financial security must be submitted to and approved by the Commission prior to implementation of those changes.

N. Failure to comply with any provision of this permit will be cause for modification, suspension, or termination of the permit.

II. TRIAL RUN FOR ROADBASE

The permittee must demonstrate the ability to successfully process treated oil and gas waste for reuse as roadbase material. The trial run period covers the first 1,000 cubic yards of waste before any additional waste may be received or processed.

A. Technical Permitting in Austin and the appropriate District Office must be notified in writing at least 48 hours before waste processing begins.

B. One sample must be collected every 200 cubic yards of the first 1,000 cubic yards processed at the facility and analyzed for wetting and drying durability by ASTM D 550-96, modified to provide that samples are compacted and molded from finished processed material. Total weight loss after 12 cycles may not exceed 15%.

C. A written report of the Trial Run must be submitted to Technical Permitting in Austin within 30 days of receipt of the analyses required in Permit Condition III.B.2. The following information must also be included:

1. Summary of Trial Run and report contents;
2. Volume of waste material processed;

3. Type of waste and description of the waste material;
4. Volume and type of stabilization material used; and
5. Copies of all records and lab analyses reports required by Permit Condition II.B., III.B.4., and V.D.

D. Any roadbase produced during the Trial Run may not be used until Technical Permitting has received the Trial Run report and provides written confirmation that the Trial Run requirements have been fulfilled.

III. PORT ARTHUR FACILITY

A. OPERATION

1. All nonhazardous oil and gas waste received shall be treated for reuse as roadbase recycling material.

2. This permit authorizes the reuse of recovered water.

3. The permittee shall report any spill of oil and gas waste onto the ground or into surface water or any noncompliance with the terms of this permit. Any spill or noncompliance shall be reported by telephone to the appropriate Railroad Commission District Office within 24 hours of the time permittee becomes aware of the spill or noncompliance. A written report shall be filed with the appropriate District Office and with Technical Permitting in Austin within 48 hours of the time the permittee becomes aware of the spill or noncompliance. This report shall contain a description of the spill or noncompliance and its cause; the period of the spill or noncompliance, including exact dates and times, and if it is continuing, the anticipated time it is expected to continue; and steps taken or planned to eliminate and prevent reoccurrence of the spill or noncompliance. The written report may be waived on a case-by-case basis.

4. This permit does not authorize the use or maintenance of any surface impoundment (pit). A Form H-11, Application to Maintain and Use a Pit, must be submitted before any authorization to use a surface impoundment (pit) will be granted.

5. This permit does not authorize the movement of any recovered crude oil from the above-referenced facility. Authority to move any recovered crude oil from the facility must be requested through the office of the Deputy Director of Field Operations.

6. Trucks used to transport the reuse material from the facility shall be covered and secured to prevent material from blowing, dropping, or otherwise escaping from the vehicle during transportation.

7. This permit does not authorize any discharge of oil and gas waste.

8. No oil and gas NORM (Naturally Occurring Radioactive Material) waste as defined in 16 TAC 4.603 or waste from a facility that is licensed by the Texas Department of State Health Services to process or treat oil and gas NORM waste may be received at this facility.

B. PROCESS CONTROL FOR ROADBASE

1. Bench Scale tests must be performed as needed to determine optimum mixing design.

2. A sample of the partially treated waste shall be tested for the parameters listed below for every 800 tons of waste produced. The 800-ton lot sample shall be composed of a composite of four (4) sub-samples obtained at 200-ton intervals. Each 800 ton lot sample shall be analyzed for the following parameters:

PARAMETER	LIMITATION
Minimum Compressive Strength by TxDOT approved method	35 psi

PARAMETER	LIMITATION
SPLP by EPA Method 1312	
Arsenic	< 5.00 mg/L
Barium	< 100.00 mg/L
Cadmium	< 1.00 mg/L
Chromium	< 5.00 mg/L
Lead	< 5.00 mg/L
Mercury	< 0.20 mg/L
Selenium	< 1.00 mg/L
Silver	< 5.00 mg/L
Zinc	< 5.00 mg/L
Benzene	< 0.50 mg/L
LDNR Leachate Test Method 1:4 Solid Solution:	
Chlorides	< 700.00 mg/L
TPH	< 100.00 mg/L
pH (Standard Units)	6 – 12.49 s. u.

3. Any treated waste not meeting the limitation in Permit Condition III.B.2. must be returned to the mixing cycle, reprocessed, and reanalyzed until it meets the required limitations or disposed of in an authorized manner.

4. Copies of analyses demonstrating that the treated waste has met the limitations in Permit Condition No. III.B.2. must be submitted to Technical Permitting in Austin as part of the Quarterly Report required in Permit Condition I.D.

C. TREATED SOLIDS FOR REUSE AS ALTERNATIVE DAILY COVER AT A SOLID WASTE FACILITY

1. Waste received for reuse as alternative daily cover shall be treated through the described treatment process. Treated solids resulting from the treatment of oil and gas wastes shall meet the criteria specified on the attached sheet titled "**Treated Solids**."

2. Treated solids shall be authorized for reuse as alternative daily cover at a solid waste facility permitted by the Texas Commission on Environmental Quality (TCEQ) provided that the benzene level does not exceed 0.5 mg/l in the TCLP extract. Written concurrence must be obtained from the solid waste facility operator and the permitting agency for that facility.

3. Treated solids that meet the requirements from Condition III.C.1. and III.C.2. may be transferred to and stored in the Satellite Storage Facility prior to reuse.

4. Reuse of processed material for alternative daily cover must be authorized by TCEQ. Treated wastes may not be stockpiled until reuse has been approved.

D. RECORD KEEPING REQUIREMENTS

1. Each load of incoming waste, other than water-based drilling fluids and associated cuttings, or oil-based drilling fluid and associated cuttings, must be scanned for the presence of Naturally Occurring Radioactive Material (NORM) using a scintillation meter with a sodium iodide detector. Any load with a reading of 50 microroentgens per hour or greater may not be unloaded or processed at the facility unless further analysis of the waste demonstrates that the waste does not exceed 30 picocuries per gram Radium-226 combined with Radium-228, and 150 picocuries per gram of any other radionuclide.

2. The permittee must maintain the following records on each load of waste received at the facility for a period of three years from the date of receipt:

   i. Description of the site where the waste was generated, including:

a. Generator name;

b. Lease name, lease number and well number, or gas ID number, or API well number;

c. County or parish; and

d. Specify the location of the source of waste;

i. Louisiana onshore;

ii. Louisiana offshore;

iii. Texas onshore;

iv. Texas offshore;

v. Federal waters; and

vi. Mexico.

ii. Volume of waste material received (specify units);

iii. Type and description of waste (e.g. oil-based drilling fluid, tank bottoms, etc.) exempt from RCRA, Subtitle C; and

iv. Copies of all lab analyses required by Conditions III.C.1.

3. WASTE FROM MEXICO

i. For the purpose of this section, a representative sample is defined as a composite sample composed of four grab samples from each 50 cubic yards of waste material from each well site.

ii. Prior to receipt at the site, a representative sample of any waste from Mexico must be analyzed and may not exceed the limit for the following parameters:

PARAMETER	LIMITATION
TOX	100 mg/kg
Corrosivity	pH 6 – 10
Reactivity	No materials exhibiting the characteristic of reactivity as defined by RCRA
Ignitability	No materials exhibiting the characteristic of ignitability as defined by RCRA

PARAMETER	LIMITATION
Metals:	TCLP
Arsenic	< 5.0 mg/l
Barium	< 100.0 mg/l
Cadmium	< 1.0 mg/l
Chromium	< 5.0 mg/l
Lead	< 5.0 mg/l
Mercury	< 0.2 mg/l
Selenium	< 1.0 mg/l
Silver	< 5.0 mg/l
Benzene	< 0.5 mg/l

4. A report containing the information required in Permit Condition No. III.D.2. and III.D.3. must be submitted to Technical Permitting in Austin as a part the Quarterly Report required in Permit Condition I.D.

IV. SATELLITE STORAGE FACILITY

A. A sign shall be posted at the storage area entrance which shall show the permit number in numerals at least three (3) inches in height.

B. The general layout and arrangement of the storage area shall be consistent with the "Site Diagram", dated December 15, 2004, which is attached to and incorporated as part of this permit in **Permit Appendix A**.

C. A perimeter dike with a minimum height of two (2) feet and width at base of six (6) feet shall surround the entire storage area. The dike must be keyed into the natural clay soils, and must be constructed and maintained to ensure the integrity of the dike system.

D. The three (3) monitor wells at locations shown on **Permit Appendix A** must be tested for the following parameters after installation and quarterly thereafter:

1. Static water level
2. Benzene
3. TPH
4. TDS
5. Chlorides
6. Bromides
7. Sulfates
8. Nitrates
9. Carbonates
10. Calcium
11. Magnesium
12. Sodium
13. Potassium

Copies of the monitor well results must be submitted to Technical Permitting in Austin as a part of the Quarterly Report required by Condition I.D.

E. The access road to the storage area must be elevated on either side of the perimeter dike so as to cross over the top of the dike without damaging its containment capability.

F. A retention pond with the dimensions of 380 feet by 120 feet, with an average depth of one (1) foot must be constructed to collect stormwater runoff prior to disposal.

G. The entire storage area shall be surrounded by a fence. Access shall be secured by a locked gate when the facility is unattended and by a security guard when attended. Only employees of the permittee may have a key to the lock.

H. No more than 100,000 cubic yards of treated solids may be stored at any one time. The total amount of treated waste stored on site must be calculated by a survey performed quarterly using standard surveying technology. Each survey must be performed by a Texas registered professional land surveyor and the results submitted to Technical Permitting in Austin as part of the Quarterly Report required by Permit Condition I.D.

I. Treated solids may be spread to approximately 12 inches to achieve additional drying prior to accumulating the dried material into stockpiles.

V. COMMERCIAL RECYCLING AREA – ROADBASE PROCESS

A. Treated waste that has met Process Control parameters listed in Condition III.B.2. is suitable for use as roadbase and may be used as roadbase offsite.

B. The following records must be kept at the facility for a period of three years from the date of removal for each load of roadbase:

1. Date that the roadbase is removed from the facility;
2. Volume of roadbase removed from the facility;
3. Recipient name;
4. Documentation indicating the landowner of the receiving location has approved the use of the roadbase on the landowner's property if used on private roads; and
5. Documentation indicating the approximate location where roadbase is used.

C. Oil and gas waste may not be accumulated speculatively. At least 75% of the waste received at the Satellite Storage Facility must be recycled within one year.

During the period beginning with the effective date of the permit, and January 1 thereafter, and ending on the following December 31, the volume of waste that is recycled during that period must equal at least 75% of the total volume of waste received during that period. Records must be kept to demonstrate compliance with this condition. The permittee shall keep the following records:

1. The volume of treated roadbase material in the Satellite Storage Facility at the end of each month;

2. Total volume of waste accepted since the effective date of the permit, or since January 1 of each year after December 31, 2013; and

3. Percentage of the volume of waste recycled (i.e. the volume of waste used to produce roadbase that has left the facility and been reused) from the total volume of waste received for that period.

D. A copy of the records required by Condition V.B., and V.C. must be submitted to Technical Permitting in Austin as part of the Quarterly Report required in Condition I.D.

VI. CLOSURE

A. Technical Permitting in Austin and the Houston District Office must be notified in writing 45 days prior to commencement of closure activities.

B. All untreated waste and partially treated waste must be processed through the roadbase facility or disposed at a permitted facility.

C. Prior to commencing closure of the storage area, all treated waste must be either be used as roadbase material or disposed of in an authorized manner.

D. The contents of all vessels, tanks, sumps, ponds, or other containers shall be disposed of in an authorized manner.

E. All equipment shall be removed and salvaged, if possible, or disposed of in an authorized manner.

F. The retention pond shall be emptied, backfilled and compacted in such a way that rainwater will not collect at the site.

VII. POST-CLOSURE CARE AND MONITORING

A. A minimum of two representative soil samples per acre must be taken to characterize the scope of any contamination at the Satellite Storage Facility. Samples must be taken from around the Treated Solids Accumulation Area stockpiles. Those samples must be analyzed for the following constituent levels:

PARAMETER	CLOSURE LIMIT
pH	6.0 to 10.0 s. u.
Electrical Conductivity (EC)	4.0 mmhos/cm
TPH (at least to C40)	< 1% by mass
BTEX	30.0 mg/kg
Metals:	
Arsenic	< 10.0 mg/kg
Barium	< 20,000 mg/kg
Cadmium	< 1.00 mg/kg
Chromium (total)	< 5.00 mg/kg
Lead	< 200 mg/kg
Mercury	< 10.0 mg/kg
Selenium	< 5.0 mg/kg
Silver	< 200 mg/kg

B. A map showing the sampling locations and copies of the analyses required by Condition VII.A. must be submitted to Technical Permitting in Austin upon closure. When acceptable soil constituent levels have been verified by Technical Permitting in Austin, the site must be leveled to grade and topsoil must then be contoured and seeded with appropriate vegetation.

C. The groundwater monitoring wells shall be sampled quarterly and the fluid analyzed for the parameters listed in Permit Condition No. IV.E. of this permit for two years following closure activities.

D. The dikes must be leveled to grade or removed from the area upon closure.

This authorization is granted subject to review and cancellation should investigation show that such authorization is being abused.

Heidi Bojes

Heidi Bojes, Manager
Environmental Permits & Support
Technical Permitting

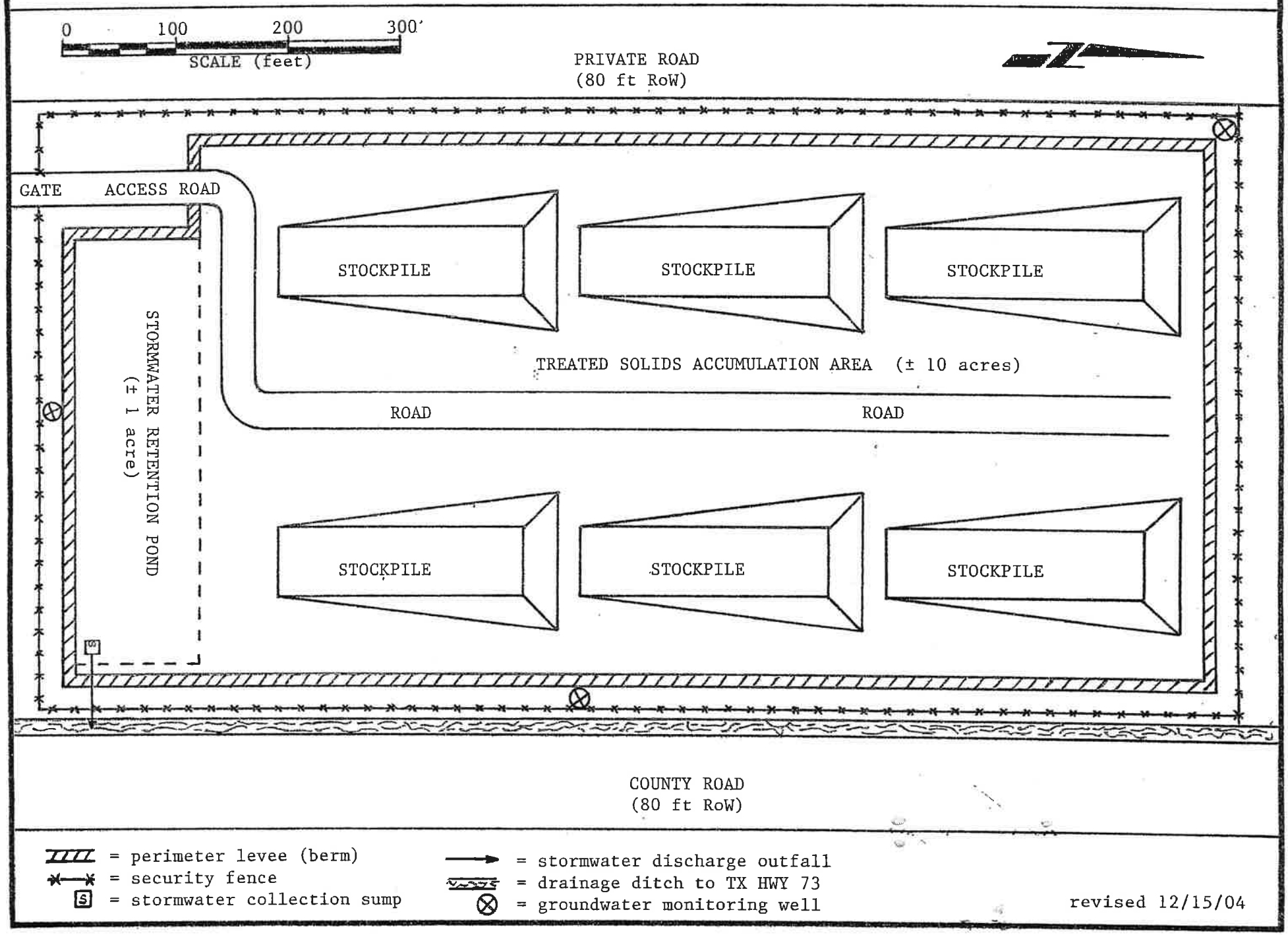
Notes:

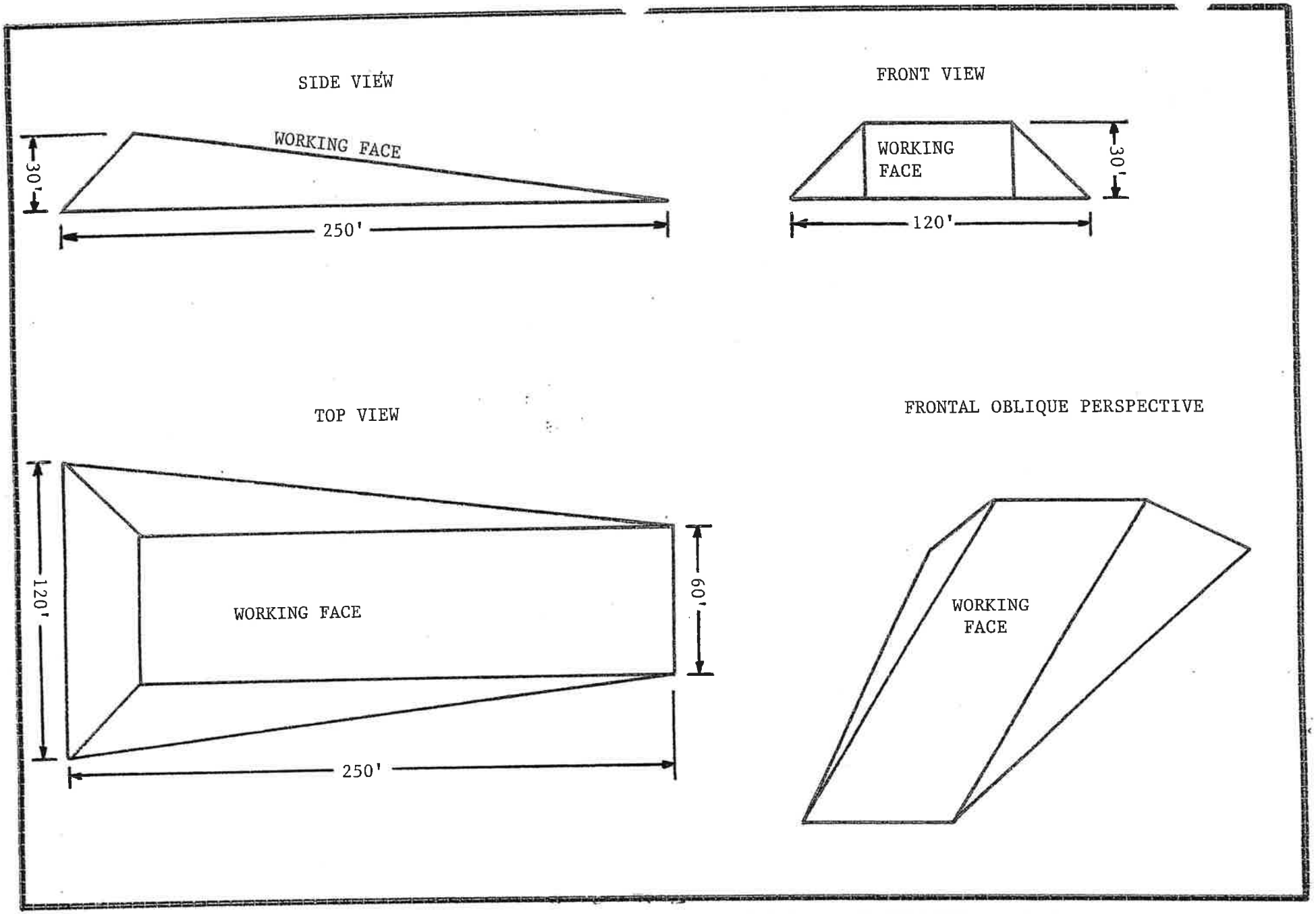
1. Changed the effective date from July 30, 2013 to August 30, 2013.
2. Amended permit to include treated solids for reuse as alternative daily cover at a solid waste facility (Permit Condition III.C.).

Attachment

cc: RRC – Houston / 03

NEWPARK ENVIRONMENTAL SERVICES PORT ARTHUR SATELLITE ACCUMULATION FACILITY SITE DIAGRAM (detail)





Newpark Environmental Services
Port Arthur Satellite Accumulation Facility

STOCKPILE PERSPECTIVE DIAGRAM
(dimensions as shown)

TREATED SOLIDS

1. The oil and grease content of any treated solids shipped from the treatment site shall not exceed ten (10) weight percent as determined by Standard Methods Procedure 503D. Each sample tested using this procedure shall be ground, if necessary, to pass a No. 40 standard test sieve and placed directly into the paper extraction thimble.

2. Treated solids shipped from the treatment site shall contain at least 50% solids (Total Residue) by weight as determined by Standard Methods Procedure 209G.

3. Individual eight-ounce (250 ml) grab samples must be collected from each 50 cubic yards of treated solids. At a minimum, these samples shall be composited daily. Weighted portions of the daily composite samples shall be combined into a weekly composite sample, and analyzed for oil and grease content and moisture content as required by Nos. 1 and 2 above.

4. The weekly composite samples shall be combined into a monthly composite sample and the following analyses performed:

PARAMETER	TEST METHOD	REUSE STANDARD
pH	(A)	7 - 11 std unit
moisture content	Standard Methods Procedure 209G	< 50 wt. %
Oil and Grease	Standard Methods Procedure 503D	
	(B)	
Cyanide	(C)	
Sulfide Sulfur	(C)	
Ammonia Nitrogen	(C)	≤ 20 mg/kg
Total Organic Carbon	(C)	
Inorganic Chloride	(C)	
Total Organic Halide on 1:1 toluene extract	(C)	
Total Metals (D)	(C)	
TCLP Metals (D)	40 CFR Part 261 APP II & III	
TCLP Benzene	40 CFR Part 261 APP II & III	≤ 0.5 mg/l
TCLP Toluene	40 CFR Part 261 APP II & III	
TCLP Ethylbenzene	40 CFR Part 261 APP II & III	
TCLP Xylene	40 CFR Part 261 APP II & III	

(A) Add equal weight of deionized water to sample, stir at high speed to insure intimate contact for 5 minutes; and measure pH on water phase.

(B) Sample shall be ground, if necessary, to pass a No. 40 standard sieve and placed directly in the paper extraction thimble.

(C) EPA-approved analytical methods shall be used:
US EPA SW846: Test Methods for Evaluating Solid Waste
US EPA 600/4-79-020: Methods for Chemical Analysis of Water and Wastes

(D) Metals: Arsenic, Cadmium, Chromium, Lead, Mercury, Selenium, Silver

5. A monthly solids disposal report shall be submitted to the Assistant Director for Environmental Services, P. O. Box 12967, Austin, TX 78711-2967 and to the District Office in Houston. This report shall include the volume of treated solids produced at the site; the volume of treated solids shipped from the site; the name and permit number of the site where the solids were disposed of, and the volume disposed of at each site. The analytical results required by Numbers 3 and 4 shall also be reported. **THIS REPORT IS DUE THE 25TH OF THE FOLLOWING MONTH.**

At least one pint of <u>each</u> composite sample (including each daily composite) shall be retained at least 30 days after the report required by Number 5 is submitted.