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NM1 - 5

BASIN DISPOSAL INC



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

May 17, 1999

CERTIFIED MAIL
RETURN RECEIPT NO. P-326-936-515

Mr. Jerry Sandel
Basin Disposal, Inc.
P.O. Box 100
Aztec, New Mexico 87401

RECEIVED
MAY 19 1999
OIL CON. DIV.
DIST. 3

RE: OCD Rule 711 Permit Approval (NM-01-0005)
Basin Disposal, Inc.
Commercial Surface Waste Management Facility
SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM,
San Juan County, New Mexico

Dear Mr. Sandel:

The permit application for the Basin Disposal, Inc. (Basin) commercial surface waste management facility located in the SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM, San Juan County, New Mexico is hereby approved in accordance with New Mexico Oil Conservation Division (OCD) Rule 711 under the conditions contained in the enclosed attachment. **This permit approval is conditional upon the receipt and approval by the Director of financial assurance in the amount of \$120,000.** According to the schedule outlined in the financial assurance section of the enclosed attachment, 25% of the \$120,000 financial assurance (\$30,000) is required within thirty (30) days of the date of this permit approval letter. The application consists of the permit application Form C-137 dated November 5, 1997, inspection report response letter dated November 4, 1997, supplemental materials dated February 18, 1998, January 12, 1999, January 15, 1999, and February 15, 1999; materials from the original permit application dated August 15, 1985; and permit modification dated September 3, 1992.

The construction, operation, monitoring and reporting shall be as specified in the enclosed attachment. All modifications and alternatives to the approved treatment, evaporation and landfill methods must receive prior OCD approval. Basin is required to notify the Director of any facility expansion or process modification and to file the appropriate materials with the Division.

Please be advised approval of this facility permit does not relieve Basin Disposal, Inc. of liability

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should your operation result in actual pollution of surface water, ground water, or the environment. In addition, OCD approval does not relieve Basin Disposal, Inc. of responsibility for compliance with other federal, state or local laws and/or regulations.

Please be advised that all tanks exceeding 16 feet in diameter and exposed pits, ponds or lagoons must be screened, netted or otherwise rendered non-hazardous to migratory birds. In addition, OCD Rule 310 prohibits oil from being stored or retained in earthen reservoirs or open receptacles.

The Basin Disposal, Inc. Commercial Surface Waste Management Facility Permit NM-01-0005 will be reviewed at least once every five (5) years from the date of this approval letter. The facility is subject to periodic inspections by the OCD.

Enclosed are two copies of the conditions of approval. **Please sign and return one copy to the OCD Santa Fe Office within five working days of receipt of this letter.**

If you have any questions please do not hesitate to contact Martyne J. Kieling at (505) 827-7153.

Sincerely,



Lori Wrotenbery
Director

LW/mjk

xc with attachments:

Aztec OCD Office

**ATTACHMENT TO OCD 711 PERMIT APPROVAL
PERMIT NM-01-0005
BASIN DISPOSAL, INC.
WASTE MANAGEMENT FACILITY
SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM,
San Juan County, New Mexico
(May 17, 1999)**

FACILITY AND EVAPORATION POND OPERATION

1. The facility must be fenced and have a sign at the entrance. The sign must be legible from at least fifty (50) feet and contain the following information: a) name of the facility; b) location by section, township and range; and c) emergency phone number.
2. Disposal may occur only when an attendant is on duty. The facility must be secured when no attendant is present.
3. No produced water may be received at the facility unless the transporter has a valid Form C-133, Authorization to Move Produced Water, on file with the Division.
4. All produced water must be unloaded into tanks. The produced water must reside in the tank system long enough to allow for oil and sediment separation. Oil recovered must be stored in above ground storage tanks. Per Division General Rule 310, oil shall not be stored or retained in earthen reservoirs or in open receptacles.
5. All existing above-ground tanks located at the facility and containing materials other than fresh water must be bermed to contain one and one-third the volume of the largest tank or all interconnected tanks, whichever is greater. All above-ground tanks must be labeled as to contents and hazards.
6. All new or replacement above-ground tanks containing materials other than fresh water must be placed on an impermeable pad and be bermed so that the area will hold one and one-third the volume of the largest tank or all interconnected tanks, whichever is greater.
7. Below-grade sumps must be cleaned and visually inspected annually. Results must be recorded and maintained for OCD review. If sump integrity has failed the OCD must be notified within 48 hours of discovery and the sump contents and contaminated soil must be removed and disposed of at an OCD-approved facility. Soil remediation must follow OCD surface impoundment closure guidelines. The permittee must submit a report to the OCD Santa Fe and appropriate District offices that describes the investigation and remedial actions taken.

8. All new or replacement below-grade sumps and below-grade tanks at the facility must have secondary impermeable containment with a leak detection monitoring system. Monitoring of the secondary containment system must be inspected for fluids weekly. Results must be recorded and maintained for OCD review. If fluids are present they must be checked and the analyses must be furnished to the OCD Santa Fe and appropriate District offices.
9. The produced water receiving and treatment area must be inspected daily for tank, piping and berm integrity.
10. Any design changes to the produced water receiving, treatment and evaporation area must be submitted to the OCD Santa Fe office for approval.
11. The pond must have a minimum freeboard of two (2) feet. A device must be installed in the pond to accurately measure freeboard.
12. The pond may not contain any free oil.
13. Pond inspection and maintenance must be conducted on a daily basis or immediately following a consequential rainstorm or windstorm. If any defect is noted repairs must be made as soon as possible. If the defect will jeopardize the integrity of the pond additional wastes must not be placed into the pond until repairs have been completed.
14. The leak detection system must be inspected daily and if fluid is present samples of the fluid must be compared with the fluids in the pond. Results must be recorded and maintained for OCD review. If pond and leak detection fluids are similar the OCD Santa Fe and appropriate District offices must be notified within 48 hours. Within 72 hours of discovery, the permittee must submit a plan to the OCD Santa Fe and appropriate District offices that describes what procedures will be taken to investigate and repair the leak. Upon discovery all fluids must be removed from the leak detection system. The system must be kept free of fluids.
15. Sludge thickness in the base of the pond must be measured annually. Any sludge build-up in the bottom of the pond in excess of twelve (12) inches must be removed and disposed of at an OCD-approved facility.
16. To protect migratory birds, all tanks exceeding 16 feet in diameter and exposed pits, ponds or lagoons must be screened, netted, covered or otherwise rendered nonhazardous to migratory birds.
17. Liquid reduction technologies that may be used to eliminate pond waters include evaporation, enhanced evaporation and injection at the facility Class II disposal well.
18. At such time that the spray system is utilized to enhance evaporation the following

18. At such time that the spray system is utilized to enhance evaporation the following requirements will apply:
 - a. The spray system must be operated such that all spray remains within the confines of the lined portion of the pond; and
 - b. The spray system must be operated only when an attendant is on duty and during daylight hours.

TEMPORARY PIT CONSTRUCTION AND CLOSURE

1. Two temporary pits may be constructed to the north of the evaporation pond facility and must be contained within the facility fence. Pit #1 may be used only for temporary storage of produced water from the produced water treatment system and from the evaporation pond while sludge is removed and the pond liner is inspected and any repairs are made. Produced water may be transferred from Pit #1 to the Class II injection well. Pit # 2 may be used only for temporary storage and drying of sludge removed from the evaporation pond and pit #1.
2. The temporary pits will be approximately 150 feet by 300 feet by 4 feet deep and must be lined with a 20 ml or greater liner.
3. The bed of the temporary pit and inside grade of the levee must be smooth and compacted, free of holes, rocks, stumps, clods or any other debris which may rupture the liner.
4. A trench must be excavated on the top of the levee the entire perimeter of the pit for the purpose of anchoring the liner. This trench must be located a minimum of nine (9) inches from the slope break and must be a minimum of twelve (12) inches deep.
5. Pit # 1 must have a minimum freeboard of one and a half (1½) feet. A device must be installed in the pond to accurately measure freeboard.
6. Pit inspection and maintenance must be conducted on a daily basis or immediately following a consequential rainstorm or windstorm. If any defect is noted the OCD Santa Fe and appropriate District offices must be notified within 24 hours. Within 48 hours of discovery, the permittee must submit a plan to the OCD Santa Fe and appropriate District offices that describes what procedures will be taken to investigate and repair any defect. Repairs must be made as soon as possible. If the defect will jeopardize the integrity of the pit additional wastes may not be placed into the temporary pit and existing waste may need to be removed from the pit until repairs have been completed.

completely emptied of produced water, all sludge must be transferred to pit #2, and the liner must be removed and disposed of at an OCD-approved facility. The OCD Santa Fe and appropriate District offices must be notified in writing of final pit closure.

8. Pit #2 is permitted for 180 days from construction completion. Upon closure the sludge must be disposed of at an OCD-approved facility and the liner must be removed and disposed of at an OCD-approved facility. The OCD Santa Fe and appropriate District offices must be notified in writing of final pit closure.
9. The facility may request in writing to the OCD Santa Fe office that the authorization for the temporary pits be reactivated for future evaporation pond cleaning and repairs.

H₂S PREVENTION & CONTINGENCY PLAN

1. In order to prevent development of harmful concentrations of H₂S, the following procedures must be followed:
 - a. All incoming loads of produced water must be tested for hydrogen sulfide (H₂S) concentrations. Any loads with measurable H₂S concentrations will be treated in a closed system. The treatment reaction must be driven to completion to eliminate all measurable H₂S prior to disposal of the water into the pond.
 - b. The aeration system must be operated to provide sufficient oxygen to the pond to maintain a residual oxygen concentration of 0.5 ppm one foot off the bottom of the pond. Tests must be conducted and records made and maintained of the dissolved oxygen levels in the pond according to the following procedures:
 - i. Tests must be conducted daily.
 - ii. The sample for each test must be taken one foot from the bottom of the pond.
 - iii. The location of tests must vary around the pond.
 - iv. If any test shows a dissolved residual oxygen level of less than 0.5 ppm, immediate steps will be undertaken to oxygenate the pond and create a residual oxygen level of at least 0.5 ppm. Remedial measures may include adding chemicals or increasing aeration.
 - c. Daily tests must be conducted and records made and maintained of the pH levels in the pond, and if the pH falls below 8.0 remedial steps must be taken immediately to raise the pH.

raise the pH.

- d. Weekly tests must be conducted and records made and retained at the facility of the dissolved sulfide concentrations in the pond.
 - e. At least 1000 gallons of a H_2S treatment chemical must be stored on-site and must not be retained for a period in excess of the manufacturer's stated shelf life. Expired H_2S treatment chemicals may be disposed of in the pond.
2. Tests of ambient H_2S levels must be conducted twice per day. Test results must be recorded and retained. The tests must be conducted at four (4) locations around the pond at the top of the berm. The wind speed and direction must be recorded in conjunction with each test.
- a. If an H_2S reading of 1.0 ppm or greater is obtained:
 - i. a second reading must be taken on the downwind berm within one hour;
 - ii. the dissolved oxygen and dissolved sulfide levels of the pond must be tested immediately and the need for immediate treatment determined; and
 - iii. tests for H_2S levels must be made at the fence line down wind from the problem pond.
 - b. If two (2) consecutive H_2S readings of 1.0 ppm or greater are obtained:
 - i. the operator must notify the Aztec office of the OCD immediately;
 - ii. the operator must commence hourly monitoring on a 24-hour basis;
 - iii. the operator must lower the pond level so that the aeration system will circulate the entire pond; and
 - iv. the operator must obtain daily analyses of dissolved sulfides in the pond.
 - c. If an H_2S reading of 10.0 ppm or greater at the facility fence line is obtained:
 - i. the operator must immediately notify the Aztec office of the OCD and the following public safety agencies:

New Mexico State Police
San Juan County Sheriff
San Juan County Fire Marshall; and

- ii. the operator must notify all persons residing within one-half (1/2) mile of the fence line and assist public safety officials with evacuation as requested.

WASTE ACCEPTANCE CRITERIA

1. The facility is authorized to accept only oilfield wastes that are exempt from RCRA Subtitle C regulations and that do not contain Naturally Occurring Radioactive Material (NORM) regulated pursuant to 20 NMAC 3.1 Subpart 1403. All loads of these wastes received at the facility must be accompanied by a "Generator Certificate of Waste Status" signed by the generator.
2. At no time may any OCD-permitted surface waste management facility accept wastes that are determined to be RCRA Subtitle C hazardous wastes by either listing or characteristic testing.
3. The transporter of any wastes to the facility must supply a certification that wastes delivered are those wastes received from the generator and that no additional materials have been added.
4. No produced water may be received at the facility from motor vehicles unless the transporter has a valid Form C-133, "Authorization to Move Produced Water" on file with the Division.
5. Comprehensive records of all material disposed of at the surface waste management facility must be maintained by the Basin Disposal, Inc.

REPORTING AND RECORD KEEPING

1. Results of the daily inspection/testing of the leak detection system must be recorded and an annual report must be submitted to the OCD Santa Fe office for review **by May 17 of each year.**
2. Results of the daily visual inspection of the facility must be recorded and maintained for OCD review.
3. Results of the testing at the evaporation pond for H₂S, pH, dissolved sulfides, and dissolved oxygen must be recorded and maintained for OCD review.
4. Results of the weekly inspections of the below-grade tank and sump secondary containment systems must be recorded and maintained for OCD review.

5. Results of annual inspection and maintenance on below-grade sumps and annual measurements of sludge thickness in the pond must be recorded and maintained for OCD review.
6. The applicant must notify the **OCD Aztec District office within 24 hours** of any fire, break, leak, spill, blowout or any other circumstance that could constitute a hazard or contamination in accordance with OCD Rule 116.
7. All records of testing and monitoring must be retained for a period of five (5) years.
8. The OCD must be notified prior to the installation of any pipelines or wells or other structures within the boundaries of the facility.
9. Comprehensive records of all material disposed of at the facility must be maintained at the facility. The records for each load must include: 1) generator; 2) origin; 3) date received; 4) quantity; and 5) transporter.

FINANCIAL ASSURANCE

1. Financial assurance in the amount of **\$120,000** (the estimated cost of closure) in the form of a surety or cash bond or a letter of credit, which is approved by the Division, is required from Basin Disposal, Inc. for the commercial surface waste management facility.

By June 17, 1999 Basin Disposal, Inc. must submit 25% of the financial assurance in the amount of **\$30,000**.

By June 17, 2000 Basin Disposal, Inc. must submit 50% of the financial assurance in the amount of **\$60,000**.

By June 17, 2001 Basin Disposal, Inc. must submit 75% of the financial assurance in the amount of **\$90,000**.

By June 17, 2002 Basin Disposal, Inc. must submit 100% of the financial assurance in the amount of **\$120,000**.
2. The facility is subject to periodic inspections by the OCD. The conditions of this permit and the facility will be reviewed by the OCD no later than five (5) years from the date of this approval. In addition the closure cost estimate will be reviewed according to prices and remedial work estimates at the time of review. The financial assurance may be adjusted to incorporate any closure cost changes.

CLOSURE

1. The OCD Santa Fe and Aztec offices must be notified when operation of the facility is discontinued for a period in excess of six (6) months or when the facility is to be dismantled. Upon cessation of operations for six (6) consecutive months, the operator must complete cleanup of constructed facilities and restoration of the facility site within the following six (6) months, unless an extension of time is granted by the Director.
2. A closure plan to include the following closure procedures must be submitted to the OCD for approval:
 - a. When the facility is to be closed no new material will be accepted.
 - b. The evaporation pond will be allowed to evaporate. Any water not evaporated will be hauled to an OCD-approved facility. The pond will be surveyed for NORM.
 - c. The pond evaporation equipment, liners and leak detection system will be removed.
 - d. All above-grade tanks will be emptied and any waste will be hauled to an OCD-approved facility. The empty tanks will be removed.
 - e. The soils beneath the evaporation pond and liquids receiving and treatment area will be characterized as to total petroleum hydrocarbons (TPH) and volatile aromatic organics (BTEX) content to determine potential migration of contamination.
 - f. Contaminated soils exceeding OCD closure standards for the site will be removed or remediated.
 - g. All above-grade tanks will be emptied and any waste will be hauled to an OCD-approved facility. The empty tanks will be removed.
 - h. The area will be contoured, seeded with native seed mix and allowed to return to its natural state. If the landowner desires to keep existing structures, berms, and fences for future alternative uses the structures may be left in place.
 - i. Closure will be pursuant to all OCD requirements in effect at the time of closure and any other applicable local, state and/or federal regulations.

Basin Disposal, Inc.
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CERTIFICATION

Basin Disposal, Inc., by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. Basin Disposal, Inc. further acknowledges that these conditions and requirements of this permit may be changed administratively by the Division for good cause shown as necessary to protect ground water, surface water, human health and the environment.

Accepted:

BASIN DISPOSAL, INC.

Signature _____ Title _____ Date _____