NM1 - 10A

PERMITS, RENEWALS, & MODS



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON Governor Betty Rivera Cabinet Secretary

August 19, 2002

Lori Wrotenbery Director Oil Conservation Division

<u>CERTIFIED MAIL</u> <u>RETURN RECEIPT NO. 7001-1940-0004-3929-8058</u>

Mr. Phillip C. Nobis Tierra Environmental Company, Inc. P.O. Drawer 1812 Farmington, New Mexico 87401

RE: OCD Rule 711 Permit NM-01-0010 Modification Tract "A", Tierra Environmental Company, Inc. NW/4 SE/4, Section 2, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico

Dear Mr. Nobis:

The permit modification for the Tierra Environmental Company, Inc., Tract "A" landfarm, a commercial surface waste management facility located in the NW/4 SE/4, Section 2, Township 29 North, Range 12 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. The application consists of the letter dated July 22, 2002 requesting transfer of Tract "B" to JFJ Landfarm L.L.C. and approval for Tierra Environmental Company, Inc. to hold Tract "A" and begin closure procedures. The new permit number for Tierra Environmental Company, Inc. will be NM–01-0010A.

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

Mr. Phillip C. Nobis August 19, 2002 Page -2-



The Tierra Environmental Company, Inc. Commercial Surface Waste Management Facility Permit NM-01-0010A 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) 476-3488.

Sincerely,

tenbery

Lori Wrotenbery Director

LW/mjk

xc with attachments: Aztec OCD Office



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON Governor Betty Rivera Cabinet Secretary

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> Oil Conservation Division * 1220 South St. Francis Drive * Santa Fe, New Mexico 87505 Phone: (505) 476-3440 * Fax (505) 476-3462 * <u>http://www.emnrd.state.nm.us</u>

Mr. Phillip C. Nobis August 19, 2002 Page -2-

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 Tierra Environmental Company, Inc. Commercial Surface Waste Management Facility Permit NM-01-0010A 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.

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Sincerely,

hotenbery Lori Wrotenbery

Director

LW/mjk

xc with attachments: Aztec OCD Office

ATTACHMENT TO OCD 711 PERMIT APPROVAL PERMIT NM-01-0010A TIERRA ENVIRONMENTAL COMPANY, INC. TRACT "A" LANDFARM NW/4 SE/4, Section 2, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico (August 19, 2002)

LANDFARM OPERATION

- The facility must be fenced and have a sign at each 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. All contaminated soils received at the landfarm must be spread and disked within 72 hours of receipt.
- 4. Soils and stabilized bottoms, sludge and mud must be spread on the surface in ten (10) inch lifts or less.
- 5. Soils must be disked a minimum of one time every two weeks (biweekly) to enhance biodegradation of contaminants. Methods suggested by the U.S. Soil Conservation Service should be utilized in the tilling of the soils to reduce the occurrence of natural wind erosion.
- 6. Moisture may be added to contaminated soils received at the facility to (1) prevent emissions of volatile organic compounds, (2) enhance natural and artificial biodegradation, and (3) suppress erosion of contaminated soils from natural wind action.
- 7. There may be no ponding, pooling or run-off of water allowed. Any ponding of precipitation must be removed within 72 hours of discovery.
- 8. The portion of the facility containing contaminated soils must be bermed to prevent runoff and run-on. A perimeter berm must be constructed and maintained such that it is capable of containing precipitation from a one-hundred year flood for the specific region.
- 9. All above-ground tanks must be bermed to contain one and one-third the volume of the largest tank or all interconnected tanks. All tanks must be labeled as to contents and hazards.
- 10. All new or replacement above-ground tanks to be used longer than six (6) months containing materials other than fresh water must be placed on an impermeable pad and be bermed so that the containment area will hold one and one-third the volume of the largest tank or all interconnected tanks.

Tierra Environmental Company, Inc. 711 Permit NM-01-0010A August 19, 2002 Page -2-

- 11. All temporary frac tanks installed at the facility for less than six (6) months containing materials other than fresh water must be bermed so that the containment area will hold one and one-third the volume of the largest tank or all interconnected tanks.
- 12. The OCD Santa Fe and Aztec District office must be notified within 24 hours of discovery of a spill or leak.
- 13. Exempt contaminated soils must be placed in the landfarm so that they are physically separate (*i.e.*, bermed) from non-exempt contaminated soils. There may be no mixing of exempt and non-exempt contaminated soils.
- 14. Successive lifts of contaminated soils or stabilized material may not be spread until a laboratory measurement of total petroleum hydrocarbons (TPH) in the previous lift is less than 100 parts per million (ppm), the sum of all aromatic hydrocarbons (BTEX) is less than 50 ppm, and benzene is less than 10 ppm. Comprehensive records of the laboratory analyses and the sampling locations must be maintained at the facility. Authorization from the OCD must be obtained prior to application of successive lifts and/or removal of the remediated soils.
- 15. Enhanced bioremediation through the application of microbes (bugs) and/or fertilizers is permitted only after prior approval from the OCD. Requests for application of microbes or fertilizers must include the location of the area designated for the program, the composition of additives, and the method, amount and frequency of application.
- 16. Contaminated soils may not be placed within twenty (20) feet of any pipelines crossing the landfarm. In addition, no equipment may be operated within ten (10) feet of a pipeline. All pipelines crossing the facility must have surface markers identifying the location of the pipelines.
- 17. Any design changes to the landfarm and tank bottom/sludge holding and treatment area must submitted to the OCD Santa Fe office for approval and a copy must be sent to the Aztec District office.
- 18. Landfarm inspection and maintenance must be conducted on at least a daily basis and immediately following each consequential rainstorm or windstorm. The OCD Santa Fe and Aztec District office must be notified within 48 hours if any defect is noted. Repairs must be made as soon as possible. If the defect will jeopardize the integrity of the landfarm additional wastes may not be placed into the landfarm until repairs have been completed.

Tierra Environmental Company, Inc. 711 Permit NM-01-0010A August 19, 2002 Page -3-

19. 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.

TANK BOTTOM & SLUDGE ACCEPTANCE

- 1. All loads of tank bottoms or sludge will be pre-screened for H_2S before they are unloaded from the truck.
- 2. All tank bottoms and sludge must be accepted into either the concrete mixing impoundment or frac tanks for settling prior to landfarm application.
- 3. The concrete mixing impoundment may be used for the stabilization of tank bottoms and sludge received by the landfarm facility. Adequate freeboard must be maintained to prevent any overtopping or slop over of material. The tank bottoms and sludge accepted into the concrete mixing impoundment that contain freestanding water will be netted until the freestanding water is removed. OCD-approved remediated soil may be mixed with the tank bottoms and sludge to stabilize the material. Material received at the impoundment must be mixed and stabilized in a timely manner not to exceed 24 hours. If separation of tank bottoms and sludge is expected to take longer than 24 hours the material must be held in a closed tank system for settling.
- 4. Water removed from tank bottoms and sludge may be stored in above-ground closed-top tanks and after appropriate screening may be spread on the landfarm for dust control and to enhance bioremediation. The water must be screened for hydrogen sulfide (H₂S), oils, total dissolved solids (TDS), and pH. Water with H₂S must be treated to remove all traces of H₂S prior to application. Water with free oil, TDS greater than 1000 ppm, or a pH less than 6 or greater than 9 must be disposed at an OCD-approved disposal facility. The source, amount, and test results of each load of water must be recorded and made available to the OCD upon request.
- 5. The concrete mixing impoundment must be inspected inside and outside weekly for containment leaks and overall integrity. Records of such inspections must be made available to the OCD upon request.

DRILLING MUD ACCEPTANCE

1. No mud may be accepted at the facility without the generator's written authorization

from the District to move the mud from the drilling location. Authorization will include the following information: 1) well operator name; 2) the well name and location from which the mud was transported; 3) transporter; 4) description of mud program (*i.e., mud composition including volume and type of chemicals added*); and 5) exact cell location where the material is to be remediated.

- 2. Un-used drilling mud may be used to line the two run-off retention impoundments as long as the impoundments retain the required 100-year flood capacity.
- 3. Used drilling mud must be received directly into the concrete mixing impoundment or into frac tanks for oil and water separation prior to application to the landfarm. Any water removed must be disposed of at an OCD-approved disposal facility. Any oil removed must be handled in accordance with OCD rules.
- 4. OCD-approved remediated soil may be mixed with the drilling mud to stabilize the mud after the removal of free oil and free water. Adequate freeboard must be maintained to prevent any overtopping or slop over of material. The tank bottoms and sludge accepted into the concrete mixing impoundment that contain freestanding water will be netted until the freestanding water is removed. Material received at the impoundment must be mixed and stabilized in a timely manner not to exceed 24 hours.
- 5. Loads of drilling mud that contain miscellaneous hydrocarbons exceeding 2/10 of 1% of the total volume of mud must be accompanied by an OCD-approved Form C-117A from the well operator. Accumulations of miscellaneous hydrocarbons must be reported monthly on Form C-118.

TREATMENT ZONE MONITORING

- 1. A treatment zone not to exceed three (3) feet beneath the landfarm native ground surface must be monitored. A minimum of one random soil sample must be taken from each individual cell, with no cell being larger than five (5) acres, six (6) months after the first contaminated soils are received in the cell and then quarterly thereafter. The sample must be taken at two (2) to three (3) feet below the native ground surface.
- 2. The soil samples must be analyzed quarterly for total petroleum hydrocarbons (TPH) using an OCD-approved field method. If TPH is detected, then a laboratory analysis must be conducted for TPH and volatile aromatic organics (BTEX) using EPA-approved methods.

- 3. The soil samples must be analyzed annually using EPA-approved methods for total petroleum hydrocarbons (TPH), volatile aromatic organics (BTEX), major cations/anions and Water Quality Control Commission (WQCC) metals.
- 4. After obtaining the soil samples the boreholes must be filled with an impermeable material such as cement or bentonite.

WASTE ACCEPTANCE CRITERIA

- 1. The facility is authorized to accept only:
 - a. 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.
 - b. "Non-hazardous" non-exempt oilfield wastes that do not contain NORM. These wastes may be accepted on a case-by-case basis after a hazardous waste determination is made. Samples, if required, must be obtained from the wastes prior to removal from the generator's facility and without dilution in accordance with EPA SW-846 sampling procedures. All "non-hazardous" non-exempt wastes received at the facility must be accompanied by:
 - i. An approved OCD Form C-138 "Request For Approval To Accept Solid Waste."
 - ii. A "Generator Certificate of Waste Status" signed by the generator.
 - iii. A verification of waste status issued by the appropriate agency, for wastes generated outside OCD jurisdiction. The agency verification is based on specific information on the subject waste submitted by the generator and demonstrating the non-hazardous classification of the waste.
 - c. Non-oilfield wastes that are non-hazardous if ordered by the Department of Public Safety in a public health emergency. OCD approval must be obtained prior to accepting the wastes.

- 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.

<u>REPORTING AND RECORD KEEPING</u>

- 1. Results of the daily inspections of the facility and weekly inspections of the concrete mixing impoundment must be recorded and maintained for OCD review. The OCD Santa Fe and Aztec District office must be notified with in 48 hours if any defect is noted.
- 2. Analytical results from the quarterly treatment zone monitoring must be submitted to the OCD Santa Fe office within thirty (30) days of receipt from the laboratory or within thirty (30) days of the field testing. A sample location map must be included with the analysis report.
- 3. Analytical results regarding remediated soil must be submitted to the OCD Santa Fe office with a copy to the Aztec District office, along with any request to close the cell, apply successive lifts or remove the remediated material.
- 4. Results of screening of free water from tank bottoms or sludge must be recorded and maintained for OCD review.
- 5. JFJ Landfarm L.L.C. 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.
- 6. The OCD must be notified prior to the installation of any pipelines or wells or other structures within the boundaries of the facility.
- 7. 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; 5) certification of waste status as exempt or non-exempt with any necessary supporting documentation to certify non-hazardous status for non-exempt waste; 6) NORM status declaration; 7) transporter; 8) exact cell location; and 9) any addition of microbes, moisture, fertilizers, *etc*.

Tierra Environmental Company, Inc. 711 Permit NM-01-0010A August 19, 2002 Page -7-

8. All records of testing and monitoring must be retained for a period of five (5) years.

FINANCIAL ASSURANCE

- 1. Financial assurance in the amount of \$33,000 in the form of a surety bond has been received and approved by the Division,
- 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 shall 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 will be submitted to the OCD for approval:
 - a. When the facility is to be closed no new material will be accepted.
 - b. The soils beneath the sludge/mud receiving and treatment area and landfarm will be characterized as to total petroleum hydrocarbons (TPH) and volatile aromatic organics (BTEX) content to determine potential migration of contamination.
 - c. All above and below grade tanks will be emptied and any waste will be hauled to an OCD-approved facility. The empty tanks will be removed.
 - d. Contaminated soils or existing landfarm soils will be remediated until they meet the OCD standards in effect at the time of closure or removed to an OCD-approved facility.

Tierra Environmental Company, Inc. 711 Permit NM-01-0010A August 19, 2002 Page -8-

- e. The area will be contoured, seeded with native grasses and allowed to return to its natural state. If the landowner desires to keep existing structures, berms, or fences for future alternative uses the structures, berms, or fences may be left in place.
- f. 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.

CERTIFICATION

Tierra Environmental Company, Inc. by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. Tierra Environmental Company, 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:

Tierra Environmental Company, Inc.

Signature

Title

Date



STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION 2040 S PACHECO SANTA FE. NEW MEXICO 87505

505) 827-71

September 21, 1999

CERTIFIED MAIL RETURN RECEIPT NO: P-326-936-532

Mr. Phillip C. Nobis Tierra Environmental Company; Inc. P.O. Drawer 15250 Farmington, New Mexico 87401-5250

OCD Rule 711 Permit Approval NM-01-0010 RE: Tierra Environmental Company, Inc. Commercial Surface Waste Management Facility NW/4 SE/4, Section 2, Township 29 North, Range 12 West, NMPM,

Dear Mr Nobis:

The permit application for the Tierra Environmental Company, Inc. (Tierra) commercial surface waste management facility located in the NW/4 SE/4, Section 2: Township 29 North, Range 12 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 \$33,000. Financial assurance 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 June 15, 1998, supplemental information dated September 10, 1999, the inspection report response letter dated October 1,1997, materials from the hearing file related to Order No. R-9772 dated November 17,1992, and materials submitted in conjunction with subsequent permit modifications dated February 18,1993, May 25,1993; July 15,1993, and February 8,1996

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. Tierra 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 Tierra Environmental Company, Inc. of liability should your operation result in actual pollution of surface water, ground water, or the environment. In addition, OCD approval does not relieve Tierra Environmental Company, Inc. of

Mr. Phillip C. Nobis September 21, 1999 Page 2

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 Tierra Commercial Surface Waste Management Facility Permit NM-01-0010 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,

Gri Whotenbery

Lori Wrotenbery Director

LW/mjk

xc with attachments: Aztec OCD Office

ATTACHMENT TO OCD 711 PERMIT APPROVAL PERMIT NM-01-0010 TIERRA ENVIRONMENTAL COMPANY, INC. SURFACE WASTE MANAGEMENT FACILITY NW/4 SE/4, Section 2, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico (September 21, 1999)

LANDFARM OPERATION

6.

- 1. The facility must be fenced and have a sign at each 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. All contaminated soils . . . ceived at the landfarm must be spread and disked within 72 hours of receipt.
- 4. Soils and stabilized bottoms, sludge and mud must be spread on the surface in ten (10) inch lifts or less.
- 5. Soils must be disked a minimum of one time every two weeks (biweekly) to enhance biodegradation of contaminants. Methods suggested by the U.S. Soil Conservation Service should be utilized in the tilling of the soils to reduce the occurrence of natural wind erosion.
 - Moisture may be added to contaminated soils received at the facility to (1) prevent emissions of volatile organic compounds, (2) enhance natural and artificial biodegradation, and (3) suppress erosion of contaminated soils from natural wind action.
- 7. There may be no ponding, pooling or run-off of water allowed. Any ponding of precipitation must be removed within 72 hours of discovery.

8. The portion of the facility containing contaminated soils must be bermed to prevent run-off and run-on. A perimeter berm must be constructed and maintained such that it is capable of containing precipitation from a one-hundred year flood for the specific region.

- 9. All above-ground tanks must be bermed to contain one and one-third the volume of the largest tank or all interconnected tanks. All tanks must be labeled as to contents and hazards.
- 10. All new or replacement above-ground tanks to be used longer than six (6) months containing materials other than fresh water must be placed on an impermeable pad and be bermed so that the containment area will hold one and one-third the volume of the largest tank or all interconnected tanks.

11. All temporary frac tanks installed at the facility for less than six (6) months containing materials other than fresh water must be bermed so that the containment area will hold one and one-third the volume

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of the largest tank or all interconnected tanks.

12. The OCD Santa Fe and Aztec District office must be notified within 24 hours of discovery of a spill or leak.

13. Exempt contaminated soils must be placed in the landfarm so that they are physically separate (*i.e.*, bermed) from non-exempt contaminated soils. There may be no mixing of exempt and non-exempt contaminated soils.

14. Successive lifts of contaminated soils or stabilized material may not be spread until a laboratory measurement of total petroleum hydrocarbons (TPH) in the previous lift is less than 100 parts per million (ppm), the sum of all aromatic hydrocarbons (BTEX) is less than 50 ppm, and benzene is less than 10 ppm. Comprehensive records of the laboratory analyses and the sampling locations must be maintained at the facility. Authorization from the OCD must be obtained prior to application of successive lifts and/or removal of the remediated soils.

15. Enhanced bioremediation through the application of microbes (bugs) and/or fertilizers is permitted only after prior approval from the OCD. Requests for application of microbes or fertilizers must include the location of the area designated for the program, the composition of additives, and the method, amount and frequency of application.

16. Contaminated soils may not be placed within twenty (20) feet of any pipelines crossing the landfarm. In addition, no equipment may be operated within ten (10) feet of a pipeline. All pipelines crossing the facility must have surface markers identifying the location of the pipelines.

17. Any design changes to the landfarm and tank bottom/sludge holding and treatment area must submitted to the OCD Santa Fe office for approval and a copy must be sent to the Aztec District office.

Landfarm inspection and maintenance must be conducted on at least a daily basis and immediately following each consequential rainstorm or windstorm. The OCD Santa Fe and Aztec District office must be notified within 48 hours if any defect is noted. Repairs must be made as soon as possible. If the defect will jeopardize the integrity of the landfarm additional wastes may not be placed into the landfarm until repairs have been completed.

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.

CONCRETE MIXING IMPOUNDMENT CONSTRUCTION

Two (2) concrete mixing impoundments must be constructed of reinforced concrete with a 30 mm plastic secondary liner. The seams on the concrete impoundment will be sealed. The new construction must be completed in accordance with the designs submitted as part of the application. However, to minimize the potential for leaks between old and new concrete slabs, the concrete mixing impoundments may not be connected or share a wall with the existing concrete mixing pad.

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- Upon completion of construction, "as built" diagrams of the concrete mixing impoundment shall be submitted to and approved by the Director prior to commencement of operations.
- 3. Construction must commence on the concrete mixing impoundments within one (1) year of the permit approval date.

TANK BOTTOM & SLUDGE ACCEPTANCE

- All loads of tank bottoms or sludge will be pre-screened for H_2S before they are un-loaded from the truck.
- All tank bottoms and sludge must be accepted into either the concrete mixing impoundment or frac tanks for settling prior to landfarm application.
- The concrete mixing impoundment may be used for the stabilization of tank bottoms and sludge received by the landfarm facility. Adequate freeboard must be maintained to prevent any overtopping or slop over of material. The tank bottoms and sludge accepted into the concrete mixing impoundment that contain freestanding water will be netted until the freestanding water is removed. OCD-approved remediated soil may be mixed with the tank bottoms and sludge to stabilize the material. Material received at the impoundment must be mixed and stabilized in a timely manner not to exceed 24 hours. If separation of tank bottoms and sludge is expected to take longer than 24 hours the material must be held in a closed tank system for settling.
 - Water removed from tank bottoms and sludge may be stored in above-ground closed-top tanks and after appropriate screening may be spread on the landfarm for dust control and to enhance bioremediation. The water must be screened for hydrogen sulfide (H_2S), oils, total dissolved solids (TDS), and pH. Water with H_2S must be treated to remove all traces of H_2S prior to application. Water with free oil, TDS greater than 1000 ppm, or a pH less than 6 or greater than 9 must be disposed at an OCD-approved disposal facility. The source, amount, and test results of each load of water must be recorded and made available to the OCD upon request.
 - The concrete mixing impoundment must be inspected inside and outside weekly for containment leaks and overall integrity. Records of such inspections must be made available to the OCD upon request.

DRILLING MUD ACCEPTANCE

No mud may be accepted at the facility without the generator's written authorization from the District to move the mud from the drilling location. Authorization will include the following information: 1) well operator name; 2) the well name and location from which the mud was transported; 3) transporter; 4) description of mud program (*i.e., mud composition including volume and type of chemicals added*); and 5) exact cell location where the material is to be remediated.

- 2. Un-used drilling mud may be used to line the two run-off retention impoundments as long as the impoundments retain the required 100-year flood capacity.
- 3. Used drilling mud must be received directly into the concrete mixing impoundment or into frac tanks for oil and water separation prior to application to the landfarm. Any water removed must be disposed of at an OCD-approved disposal facility. Any oil removed must be handled in accordance with OCD rules.

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4.

OCD-approved remediated soil may be mixed with the drilling mud to stabilize the mud after the removal of free oil and free water. Adequate freeboard must be maintained to prevent any overtopping or slop over of material. The tank bottoms and sludge accepted into the concrete mixing impoundment that contain freestanding water will be netted until the freestanding water is removed. Material received at the impoundment must be mixed and stabilized in a timely manner not to exceed 24 hours.

5. Loads of drilling mud that contain miscellaneous hydrocarbons exceeding 2/10 of 1% of the total volume of mud must be accompanied by an OCD-approved Form C-117A from the well operator. Accumulations of miscellaneous hydrocarbons must be reported monthly on Form C-118.

TREATMENT ZONE MONITORING

- 1. A treatment zone not to exceed three (3) feet beneath the landfarm native ground surface must be monitored. A minimum of one random soil sample must be taken from each individual cell, with no cell being larger than five (5) acres, six (6) months after the first contaminated soils are received in the cell and then quarterly thereafter. The sample must be taken at two (2) to three (3) feet below the native ground surface.
- 2. The soil samples must be analyzed quarterly for total petroleum hydrocarbons (TPH) using an OCDapproved field method. If TPH is detected, then a laboratory analysis must be conducted for TPH and volatile aromatic organics (BTEX) using EPA-approved methods.
- 3. The soil samples must be analyzed annually using EPA-approved methods for total petroleum hydrocarbons (TPH), volatile aromatic organics (BTEX), major cations/anions and Water Quality Control Commission (WQCC) metals.
- 4. After obtaining the soil samples the boreholes must be filled with an impermeable material such as cement or bentonite.

WASTE ACCEPTANCE CRITERIA

1. The facility is authorized to accept only:

a. 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

i.

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C.

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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.

"Non-hazardous" non-exempt oilfield wastes that do not contain NORM. These wastes may be accepted on a case-by-case basis after a hazardous waste determination is made. Samples, if required, must be obtained from the wastes prior to removal from the generator's facility and without dilution in accordance with EPA SW-846 sampling procedures. All "non-hazardous" non-exempt wastes received at the facility must be accompanied by:

An approved OCD Form C-138 "Request For Approval To Accept Solid Waste."

A "Generator Certificate of Waste Status" signed by the generator.

A verification of waste status issued by the appropriate agency, for wastes generated outside OCD jurisdiction. The agency verification is based on specific information on the subject waste submitted by the generator and demonstrating the non-hazardous classification of the waste.

- Non-oilfield wastes that are non-hazardous if ordered by the Department of Public Safety in a public health emergency. OCD approval must be obtained prior to accepting the wastes.
- 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.

REPORTING AND RECORD KEEPING

1. Results of the daily inspections of the facility and weekly inspections of the concrete mixing impoundment must be recorded and maintained for OCD review. The OCD Santa Fe and Aztec District office must be notified with in 48 hours if any defect is noted.

- 2. Analytical results from the quarterly treatment zone monitoring must be submitted to the OCD Santa Fe office within thirty (30) days of receipt from the laboratory or within thirty (30) days of the field testing. A sample location map must be included with the analysis report.
- 3. Analytical results regarding remediated soil must be submitted to the OCD Santa Fe office with a copy to the Aztec District office, along with any request to close the cell, apply successive lifts or remove the remediated material.
- 4. Results of screening of free water from tank bottoms or sludge must be recorded and maintained for OCD review.

> Tierra Environmental Company, Inc. 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.

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The OCD must be notified prior to the installation of any pipelines or wells or other structures within the boundaries of the facility.

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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; 5) certification of waste status as exempt or non-exempt with any necessary supporting documentation to certify non-hazardous status for non-exempt waste; 6) NORM status declaration; 7) transporter; 8) exact cell location; and 9) any addition of microbes, moisture, fertilizers, *etc.*

All records of testing and monitoring must be retained for a period of five (5) years.

FINANCIAL ASSURANCE

Financial assurance in the amount of \$33,000 in the form of a surety or cash bond or a letter of credit, which is approved by the Division, is required from Tierra Environmental Company, Inc. for the commercial surface waste management facility.

By October 21, 1999 Tierra Environmental Company, Inc. must submit 100% of the financial assurance in the amount of \$33,000.

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

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 shall 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.

A closure plan to include the following closure procedures will be submitted to the OCD for approval:

When the facility is to be closed no new material will be accepted.

b. The soils beneath the sludge/mud receiving and treatment area and landfarm will be characterized as to total petroleum hydrocarbons (TPH) and volatile aromatic organics

c.

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e.

f.

(BTEX) content to determine potential migration of contamination.

- All above and below grade tanks will be emptied and any waste will be hauled to an OCDapproved facility. The empty tanks will be removed.
- Contaminated soils or existing landfarm soils will be remediated until they meet the OCD standards in effect at the time of closure or removed to an OCD-approved facility.
 - The area will be contoured, seeded with native grasses and allowed to return to its natural state. If the landowner desires to keep existing structures, berms, or fences for future alternative uses the structures, berms, or fences may be left in place.
- 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.

CERTIFICATION

Tierra Environmental Company, Inc., by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. Tierra Environmental Company, 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:

TIERRA ENVIRONMENTAL COMPANY, INC.

Signature ____

_Title____

Date

STATE OF NEW MEXICO



ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

2040 S. PACHECO SANTA FE. NEW MEXICO 87505 (505) 827-7131

September 21, 1999

CERTIFIED MAIL RETURN RECEIPT NO. P-326-936-532

Mr. Phillip C. Nobis Tierra Environmental Company, Inc. P.O. Drawer 15250 Farmington, New Mexico 87401-5250

RE: OCD Rule 711 Permit Approval NM-01-0010 Tierra Environmental Company, Inc. Commercial Surface Waste Management Facility NW/4 SE/4, Section 2, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico

Dear Mr Nobis:

The permit application for the Tierra Environmental Company, Inc. (Tierra) commercial surface waste management facility located in the NW/4 SE/4, Section 2, Township 29 North, Range 12 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 \$33,000. Financial assurance 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 June 15,1998, supplemental information dated September 10, 1999, the inspection report response letter dated October 1,1997, materials from the hearing file related to Order No. R-9772 dated November 17,1992, and materials submitted in conjunction with subsequent permit modifications dated February 18,1993; May 25,1993; July 15,1993; and February 8,1996.

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. Tierra 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 Tierra Environmental Company, Inc. of liability should your operation result in actual pollution of surface water, ground water, or the environment. In addition, OCD approval does not relieve Tierra Environmental Company, Inc. of Mr. Phillip C. Nobis September 21, 1999 Page 2

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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 Tierra Commercial Surface Waste Management Facility Permit NM-01-0010 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,

notenbery

Lori Wrotenbery Director

LW/mjk

xc with attachments: Aztec OCD Office ATTACHMENT TO OCD 711 PERMIT APPROVAL PERMIT NM-01-0010 TIERRA ENVIRONMENTAL COMPANY, INC. SURFACE WASTE MANAGEMENT FACILITY NW/4 SE/4, Section 2, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico (September 21, 1999)

LANDFARM OPERATION

- 1. The facility must be fenced and have a sign at each 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. All contaminated soils received at the landfarm must be spread and disked within 72 hours of receipt.
- 4. Soils and stabilized bottoms, sludge and mud must be spread on the surface in ten (10) inch lifts or less.
- 5. Soils must be disked a minimum of one time every two weeks (biweekly) to enhance biodegradation of contaminants. Methods suggested by the U.S. Soil Conservation Service should be utilized in the tilling of the soils to reduce the occurrence of natural wind erosion.
- 6. Moisture may be added to contaminated soils received at the facility to (1) prevent emissions of volatile organic compounds, (2) enhance natural and artificial biodegradation, and (3) suppress erosion of contaminated soils from natural wind action.
- 7. There may be no ponding, pooling or run-off of water allowed. Any ponding of precipitation must be removed within 72 hours of discovery.
- 8. The portion of the facility containing contaminated soils must be bermed to prevent run-off and run-on. A perimeter berm must be constructed and maintained such that it is capable of containing precipitation from a one-hundred year flood for the specific region.
- 9. All above-ground tanks must be bermed to contain one and one-third the volume of the largest tank or all interconnected tanks. All tanks must be labeled as to contents and hazards.
- 10. All new or replacement above-ground tanks to be used longer than six (6) months containing materials other than fresh water must be placed on an impermeable pad and be bermed so that the containment area will hold one and one-third the volume of the largest tank or all interconnected tanks.
- 11. All temporary frac tanks installed at the facility for less than six (6) months containing materials other than fresh water must be bermed so that the containment area will hold one and one-third the volume



of the largest tank or all interconnected tanks.

- 12. The OCD Santa Fe and Aztec District office must be notified within 24 hours of discovery of a spill or leak.
- 13. Exempt contaminated soils must be placed in the landfarm so that they are physically separate (*i.e.*, bermed) from non-exempt contaminated soils. There may be no mixing of exempt and non-exempt contaminated soils.
- 14. Successive lifts of contaminated soils or stabilized material may not be spread until a laboratory measurement of total petroleum hydrocarbons (TPH) in the previous lift is less than 100 parts per million (ppm), the sum of all aromatic hydrocarbons (BTEX) is less than 50 ppm, and benzene is less than 10 ppm. Comprehensive records of the laboratory analyses and the sampling locations must be maintained at the facility. Authorization from the OCD must be obtained prior to application of successive lifts and/or removal of the remediated soils.
- 15. Enhanced bioremediation through the application of microbes (bugs) and/or fertilizers is permitted only after prior approval from the OCD. Requests for application of microbes or fertilizers must include the location of the area designated for the program, the composition of additives, and the method, amount and frequency of application.
- 16. Contaminated soils may not be placed within twenty (20) feet of any pipelines crossing the landfarm. In addition, no equipment may be operated within ten (10) feet of a pipeline. All pipelines crossing the facility must have surface markers identifying the location of the pipelines.
- 17. Any design changes to the landfarm and tank bottom/sludge holding and treatment area must submitted to the OCD Santa Fe office for approval and a copy must be sent to the Aztec District office.
- 18. Landfarm inspection and maintenance must be conducted on at least a daily basis and immediately following each consequential rainstorm or windstorm. The OCD Santa Fe and Aztec District office must be notified within 48 hours if any defect is noted. Repairs must be made as soon as possible. If the defect will jeopardize the integrity of the landfarm additional wastes may not be placed into the landfarm until repairs have been completed.
- 19. 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.

CONCRETE MIXING IMPOUNDMENT CONSTRUCTION

1. Two (2) concrete mixing impoundments must be constructed of reinforced concrete with a 30 mm plastic secondary liner. The seams on the concrete impoundment will be sealed. The new construction must be completed in accordance with the designs submitted as part of the application. However, to minimize the potential for leaks between old and new concrete slabs, the concrete mixing impoundments may not be connected or share a wall with the existing concrete mixing pad.

- 2. Upon completion of construction, "as built" diagrams of the concrete mixing impoundment shall be submitted to and approved by the Director prior to commencement of operations.
- 3. Construction must commence on the concrete mixing impoundments within one (1) year of the permit approval date.

TANK BOTTOM & SLUDGE ACCEPTANCE

- 1. All loads of tank bottoms or sludge will be pre-screened for H_2S before they are un-loaded from the truck.
- 2. All tank bottoms and sludge must be accepted into either the concrete mixing impoundment or frac tanks for settling prior to landfarm application.
- 3. The concrete mixing impoundment may be used for the stabilization of tank bottoms and sludge received by the landfarm facility. Adequate freeboard must be maintained to prevent any overtopping or slop over of material. The tank bottoms and sludge accepted into the concrete mixing impoundment that contain freestanding water will be netted until the freestanding water is removed. OCD-approved remediated soil may be mixed with the tank bottoms and sludge to stabilize the material. Material received at the impoundment must be mixed and stabilized in a timely manner not to exceed 24 hours. If separation of tank bottoms and sludge is expected to take longer than 24 hours the material must be held in a closed tank system for settling.
- 4. Water removed from tank bottoms and sludge may be stored in above-ground closed-top tanks and after appropriate screening may be spread on the landfarm for dust control and to enhance bioremediation. The water must be screened for hydrogen sulfide (H₂S), oils, total dissolved solids (TDS), and pH. Water with H₂S must be treated to remove all traces of H₂S prior to application. Water with free oil, TDS greater than 1000 ppm, or a pH less than 6 or greater than 9 must be disposed at an OCD-approved disposal facility. The source, amount, and test results of each load of water must be recorded and made available to the OCD upon request.
- 5. The concrete mixing impoundment must be inspected inside and outside weekly for containment leaks and overall integrity. Records of such inspections must be made available to the OCD upon request.

DRILLING MUD ACCEPTANCE

No mud may be accepted at the facility without the generator's written authorization from the District to move the mud from the drilling location. Authorization will include the following information: 1) well operator name; 2) the well name and location from which the mud was transported; 3) transporter;
4) description of mud program (*i.e., mud composition including volume and type of chemicals added*); and 5) exact cell location where the material is to be remediated.





- 2. Un-used drilling mud may be used to line the two run-off retention impoundments as long as the impoundments retain the required 100-year flood capacity.
- 3. Used drilling mud must be received directly into the concrete mixing impoundment or into frac tanks for oil and water separation prior to application to the landfarm. Any water removed must be disposed of at an OCD-approved disposal facility. Any oil removed must be handled in accordance with OCD rules.
- 4. OCD-approved remediated soil may be mixed with the drilling mud to stabilize the mud after the removal of free oil and free water. Adequate freeboard must be maintained to prevent any overtopping or slop over of material. The tank bottoms and sludge accepted into the concrete mixing impoundment that contain freestanding water will be netted until the freestanding water is removed. Material received at the impoundment must be mixed and stabilized in a timely manner not to exceed 24 hours.
- 5. Loads of drilling mud that contain miscellaneous hydrocarbons exceeding 2/10 of 1% of the total volume of mud must be accompanied by an OCD-approved Form C-117A from the well operator. Accumulations of miscellaneous hydrocarbons must be reported monthly on Form C-118.

TREATMENT ZONE MONITORING

- 1. A treatment zone not to exceed three (3) feet beneath the landfarm native ground surface must be monitored. A minimum of one random soil sample must be taken from each individual cell, with no cell being larger than five (5) acres, six (6) months after the first contaminated soils are received in the cell and then quarterly thereafter. The sample must be taken at two (2) to three (3) feet below the native ground surface.
- 2. The soil samples must be analyzed quarterly for total petroleum hydrocarbons (TPH) using an OCDapproved field method. If TPH is detected, then a laboratory analysis must be conducted for TPH and volatile aromatic organics (BTEX) using EPA-approved methods.
- 3. The soil samples must be analyzed annually using EPA-approved methods for total petroleum hydrocarbons (TPH), volatile aromatic organics (BTEX), major cations/anions and Water Quality Control Commission (WQCC) metals.
- 4. After obtaining the soil samples the boreholes must be filled with an impermeable material such as cement or bentonite.

WASTE ACCEPTANCE CRITERIA

- 1. The facility is authorized to accept only:
 - a. 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.

- b. "Non-hazardous" non-exempt oilfield wastes that do not contain NORM. These wastes may be accepted on a case-by-case basis after a hazardous waste determination is made. Samples, if required, must be obtained from the wastes prior to removal from the generator's facility and without dilution in accordance with EPA SW-846 sampling procedures. All "non-hazardous" non-exempt wastes received at the facility must be accompanied by:
 - i. An approved OCD Form C-138 "Request For Approval To Accept Solid Waste."
 - ii. A "Generator Certificate of Waste Status" signed by the generator.
 - iii. A verification of waste status issued by the appropriate agency, for wastes generated outside OCD jurisdiction. The agency verification is based on specific information on the subject waste submitted by the generator and demonstrating the non-hazardous classification of the waste.
- c. Non-oilfield wastes that are non-hazardous if ordered by the Department of Public Safety in a public health emergency. OCD approval must be obtained prior to accepting the wastes.
- 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.

REPORTING AND RECORD KEEPING

- 1. Results of the daily inspections of the facility and weekly inspections of the concrete mixing impoundment must be recorded and maintained for OCD review. The OCD Santa Fe and Aztec District office must be notified with in 48 hours if any defect is noted.
- 2. Analytical results from the quarterly treatment zone monitoring must be submitted to the OCD Santa Fe office within thirty (30) days of receipt from the laboratory or within thirty (30) days of the field testing. A sample location map must be included with the analysis report.
- 3. Analytical results regarding remediated soil must be submitted to the OCD Santa Fe office with a copy to the Aztec District office, along with any request to close the cell, apply successive lifts or remove the remediated material.
- 4. Results of screening of free water from tank bottoms or sludge must be recorded and maintained for OCD review.



- 5. Tierra Environmental Company, Inc. 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.
- 6. The OCD must be notified prior to the installation of any pipelines or wells or other structures within the boundaries of the facility.
- 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; 5) certification of waste status as exempt or non-exempt with any necessary supporting documentation to certify non-hazardous status for non-exempt waste; 6) NORM status declaration; 7) transporter; 8) exact cell location; and 9) any addition of microbes, moisture, fertilizers, *etc.*
- 8. All records of testing and monitoring must be retained for a period of five (5) years.

FINANCIAL ASSURANCE

1. Financial assurance in the amount of \$33,000 in the form of a surety or cash bond or a letter of credit, which is approved by the Division, is required from Tierra Environmental Company, Inc. for the commercial surface waste management facility.

By October 21, 1999 Tierra Environmental Company, Inc. must submit 100% of the financial assurance in the amount of \$33,000.

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 shall 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 will be submitted to the OCD for approval:
 - a. When the facility is to be closed no new material will be accepted.
 - b. The soils beneath the sludge/mud receiving and treatment area and landfarm will be characterized as to total petroleum hydrocarbons (TPH) and volatile aromatic organics



(BTEX) content to determine potential migration of contamination.

- c. All above and below grade tanks will be emptied and any waste will be hauled to an OCDapproved facility. The empty tanks will be removed.
- d. Contaminated soils or existing landfarm soils will be remediated until they meet the OCD standards in effect at the time of closure or removed to an OCD-approved facility.
- e. The area will be contoured, seeded with native grasses and allowed to return to its natural state. If the landowner desires to keep existing structures, berms, or fences for future alternative uses the structures, berms, or fences may be left in place.
- f. 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.

CERTIFICATION

Tierra Environmental Company, Inc., by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. Tierra Environmental Company, 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:

TIERRA ENVIRONMENTAL COMPANY, INC.

Ming Contra Title President Date 8/22/00 Signature

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 10539 ORDER NO. R-9772

APPLICATION OF TIERRA ENVIRONMENTAL COMPANY, INC. FOR A COMMERCIAL SURFACE WASTE DISPOSAL FACILITY, SAN JUAN COUNTY, NEW MEXICO

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on Wednesday, September 2, 1992, at Santa Fe, New Mexico, before Examiner Michael E. Stogner, in Docket No. 28-92.

NOW, on this <u>17th</u> day of November, 1992 the Division Director, having considered the testimony, the record and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) The New Mexico Oil and Gas Act, §70-2-12.B(21) and (22), N.M.S.A. (1978), authorizes the New Mexico Oil Conservation Division (Division) to regulate the disposition of non-domestic wastes resulting from various oil and gas activities and operations and to protect public health and the environment.

(3) Pursuant to that authority the Division has adopted regulations governing the operation of commercial surface waste disposal facilities, (Rule 711 of the Rules and Regulations of the Oil Conservation Division).

(4) On April 14, 1992, the applicant, Tierra Environmental Company, Inc., (Tierra) filed its application with the Division pursuant to Rule 711 for authorization to construct and operate a commercial "landfarm" facility for the remediation of soils contaminated with hydrocarbon substances which are exempt from the Federal Resource Conservation and Recovery Act (RCRA), (42 U.S.C. §§6921-6939b), Subtitle C regulations (40 C.F.R. Parts 260 - 272). The facility is located in the NW/4 SE/4 (Unit J) of Section 2, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico, which is situated atop Crouch Mesa approximately 6 miles east of Farmington, New Mexico just east off of San Juan County Road No. 3500. Applicant proposes to use an enhanced biodegradation process.

(5) The Division administratively determined that this application was approveable, but suspended the approval to give interested parties the opportunity to request a hearing. A copy of such determination of approval and related correspondence is attached hereto as Exhibit "A".

(6) Within the required time frame and in accordance to Division rules, the following two adjacent landowner interests to the proposed facility filed written protests and requested this hearing on the applications:

Glenn E. and Storme S. Vavera	Arthur H. Bichan
P.O. Box 3656	6750 Colby Lane
Farmington, NM 87499-3656	Bloomfield Hills, Michigan 48301.

This hearing was scheduled to allow interested parties the opportunity to present technical evidence why this application should not be approved pursuant to the applicable rules of the Division. Arthur H. Bichan and Glenn E. and Storme Vavera and their four children made an appearance and presented testimony and comments to the examiner.

(7) The Examiner incorporated the administrative record of the Division into the record of this case.

(8) It is the intent of the Division in issuing an order in this case to supplement the proposed administrative approval with any applicable changes deemed necessary from the testimony and evidence presented. Any such changes would be incorporated into the permit and would then become a part thereof. Furthermore, in keeping with the procedures instituted by the Division in such facility permits, the entire record in this case will be made a part of the permit and, if deemed necessary by the Director, can in part or in whole be utilized in determining further amendments or changes to the facility.

> (9) Mr. Bichan through comment and questions to applicant's witness discussed wind currents and natural erosion, and expressed concern about the threat of emission from both hydrocarbon vapors as well as contaminated particle matter. He commented that specialized tilling techniques and the keeping of the surface moist should be used at the landfarm to reduce volatilization of hydrocarbons and natural wind erosion.

Mr. Vavera suggested that he would like to see a windbreak of trees planted on the property to help control blowing soil. Both Mr. Bichan and the applicant's witness testified that would probably not be effective.

Tierra Environmental Company President, Richard Cheney PE/PS, testified that the addition of moisture, if allowed by the Division, would reduce the threat of emission as well as enhance the natural biodegration of contaminants treated at the landfarm facility. He further testified that special soil tilling procedures at the facility would further reduce natural wind erosion.

FINDING: Appropriate tilling procedures and application of moisture to the cells during bioremediation will control volatilization and blowing of land farm materials onto neighboring properties; applicant should consult with and/or utilize information readily available from the U.S. Soil Conservation Service, N.M. State University County Extension Office or local Soil and Water Conservation District on soil characteristics in order to determine how much moisture is appropriate to stabilize the soil types found on Crouch Mesa and on the special tilling practices that would also reduce to the most possible degree the amount of dust and blowing dirt.

(10) Applicant proposed to fence the property using four-strand barbed-wire fence. This may not be adequate fencing for this site because there are domestic animals in the neighborhood which could get through the fencing onto the facility.

FINDING: Applicant should fence the property with well maintained sheep wire fencing or other mesh or grid type fencing designed to keep out dogs and other larger domestic animals. Access should be controlled by maintaining locked steel gates at all entrances.

(11) Mrs. Vavera expressed concern about the possible impact of the facility on water quality, because her family intends to drill a water well for their residence. All the parties agreed that fresh water supplies are in excess of 100 feet deep. Division approval required monitoring of a treatment zone below the lifts.

FINDING: Monitoring of a treatment zone below the lifts as required by the Division approval will detect and control contamination movement with more frequent testing.

(12) Monitoring procedures to determine both the levels of volatile organic compounds and the movement of particulate matter should be incorporated into the operating procedures for the facility

(13) Any sale or other transfer of the facility to another operator should be subject to approval by the Division before it takes place.

(14) The Division's approval permit proposed on July 21, 1992, which is Exhibit "A" attached hereto and made a part hereof, should be amended as follows:

- (a) under <u>LANDFARM OPERATION</u>, Sub-part 3 shall be amended to read:
 - "3a. Soils will be tilled a minimum of one time every two weeks (bi-weekly) to enhance biodegradation of contaminates. Methods suggested by the U.S. Soil Conservation Service should be utilized in the tilling of the soils which will reduce to the most possible degree the occurrence of natural wind erosion.
 - 3b. Moisture shall be added to all contaminated soils received at the facility. The soils within each individual cell will be characterized using the Soil Survey of San Juan County, New Mexico, prepared by the United States Department of Agriculture, Soil Conservation Service, for the purpose of pre-determining amounts of moisture to be added to those particular soils, to (1) prevent emissions from volatile organic compounds, (2) enhance natural and artificial biodegration, and (3) suppress erosion of contaminated soils from natural wind action.
 - 3c. There will be no ponding, pooling or run-off of water allowed. Any ponding of precipitation will be removed within seventy-two (72) hours of discovery."
- (b) again, under <u>LANDFARM OPERATION</u>, Sub-part 9 shall be included:

- "9a. Disposal will only occur when an attendant is on duty. The facility will be secured when no attendant is present.
- 9b. The facility will have a sign at the entrance. The sign will 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.
- 9c. An adequate berm will be constructed and maintained to prevent run-off and run-on for that portion of the facility containing contaminated soils."
- (c) under <u>TREATMENT ZONE MONITORING</u>, Sub-parts 1, 2, and 4 shall be amended and Sub-part 5 included to read:

"1. A treatment zone not to exceed three (3) feet beneath the landfarm will be monitored. A minimum of one random soil sample will be taken from each individual cell, with no cell being larger than five (5) acres, six (6) months after the first contaminated soils are received and quarterly thereafter. The sample will be taken at two (2) or three (3) feet below the native ground surface.

2. The soil samples will be analyzed for total petroleum hydrocarbons (TPH) using an OCD-approved field method. If TPH is detected, then a laboratory analysis will be conducted for Volatile Aromatic Organics (BTEX) using approved EPA methods. Immediate remedial measures will be taken and no additional contaminated soils will be placed in the cell until testing indicates that the TPH is below 100 ppm, BTEX is below 50 ppm and benzene, if any, is below 10 ppm.

4. <u>Annually</u>, samples obtained from the treatment zones will be collected and a laboratory analysis conducted using approved EPA methods in accordance with the procedures outlined in item 1. The samples will be analyzed for TPH, BTEX, general chemistry, and heavy metals.
Case No. 10539 Order No. R-9772 Page No. 6

5. One (1) background soil sample will be taken from the center portion of the landfarm two (2) feet below the native ground surface prior to operation. The sample will be analyzed for TPH, BTEX, general chemistry and heavy metals using approved EPA methods and for TPH using an OCD-approved field method."

(d) the following requirement under the heading "<u>OTHER</u> <u>MONITORING</u>" shall be incorporated:

"OTHER MONITORING

1. An OCD-approved device capable of measuring emissions of volatile organic compounds (VOC) will be kept at the facility at all times. A measurement of VOCs will be taken a minimum of four (4) times per working day, which will include one measurement upon opening and one measurement upon closing of the facility. Monitoring of VOCs will be recorded and include the date, time, location, and level measured. Records will be retained at the facility and made available for OCD inspection.

2. A particulate collector or similar device shall be kept in place and operational at the prevailing downwind side of the landfarm facility. The collector shall be examined daily and records will include time, date, location and level of particulate measured. Records will be maintained at the facility and made available for OCD inspection."

(e) under "<u>REPORTING</u>", Sub-part 1 shall be amended to read:

"1. Analytical results from the treatment zone monitoring will be submitted to the OCD in Santa Fe within thirty (30) days in written form from Tierra Environmental Company with appropriate laboratory analysis included as may be required. Reports will be made for both field and laboratory analyses."

(f) the following requirement under the heading "TRANSFERABILITY" shall also be incorporated:

"1. Authority for operation of the landfarm facility shall be transferable only upon written application and approval by the Division Director."

Case No. 10539 Order No. R-9772 Page No. 7

(15) The Division should have the authority to modify the conditions of this permit should new information or technologic improvements indicate that changes would improve the operation of the facility and better protect public health and the environment.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Tierra Environmental Company, Inc., is hereby authorized to construct and operate a landfarm facility at the site in the NW/4 SE/4 of Section 2, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico for the purpose of treating and remediating hydrocarbon contaminated soils, which are exempt from RCRA Subtitle C regulations, using an enhanced biodegration process.

PROVIDED HOWEVER THAT, the proposed landfarm shall be constructed in accordance with the engineering plat and topographic map presented as evidence in this case and part of Exhibit No. 1, "The OCD File", containing the original application and subsequent correspondence and in accordance with such additional conditions and requirements as may be directed by the Division Director, and shall be operated and maintained in such a manner as to preclude spills, fires, limit emissions and protect persons, livestock and the environment. Required fencing shall be changed from four (4) strand barbed wire to sheep wire and barbed wire in accordance with the New Mexico Highway and Transportation Department's specifications for highway fencing.

<u>PROVIDED FURTHER THAT</u>, prior to initiating operations, the facility shall be inspected by a representative of the Aztec District Office in order to determine the adequacy of fences, gates and cattle guards necessary to preclude livestock and unauthorized persons from entering and/or utilizing said facility, and also to determine the adequacy of dikes and berms to assure safe facility operations.

(2) The permit conditions with the revised language is contained in Exhibit "B" attached hereto and shall become the permit conditions for the facility.

(3) The Director shall have the authority to revise the permit conditions at any time he determines such changes are in the interest of protecting human health and the environment.

(4) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

Case No. 10539 Order No. R-9772 Page No. 8

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO OIL CONSERVATION DIVISION WILLIAM J. LEMAY Director

SEAL

Exhibit "A" Case No. 10539 Order No. R-9772 Page 2



STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING GOVERNOR

ANITA LOCKWOOD CABINET SECRETARY August 11, 1992

POST OFFICE BOX 2008 STATE LAND OFFICE BUILDING SANTA FE. NEW MEXICO 87504 (505) 827-5600

CERTIFIED MAIL RETURN RECEIPT NO. P-670-683-652

Mr. Richard P. Cheney, President Tierra Environmental Company Inc. 909 West Apache Farmington, New Mexico 87401

RE: Tierra Environmental Commercial Landfarm Application OCD Rule 711 Permit Approval

Dear Mr. Cheney:

The permit application for the Tierra Environmental Commercial Landfarm located in the NW/4 SE/4. Section 2, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico, is hereby approved in accordance with OCD Rule 711 under the conditions contained in the enclosed attachment. The application consists of the original application dated April 13, 1992, and the materials dated June 3, 1992 and June 22, 1992, submitted as supplements to the application.

The operation, monitoring and reporting shall be as specified in the enclosed attachment. All modifications and alternatives to the approved landfarming methods must receive prior OCD approval. You are 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 does not relieve you of liability should your operation result in actual pollution of surface or ground waters or the environment actionable under other 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 nonhazardous to migratory birds.

If you have any questions, please do not hesitate to contact Kathy Brown at (505) 827-5884.

Sincerely. William J. LeMa Director

WJL/kmb



Exhibit "A" Case No. 10539 Order No. R-9772

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT



OIL CONSERVATION DIVISION

BRUCE KING

July 21, 1992

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87504 (505) 827-5800

Mr. Richard P. Cheney, President Tierra Environmental Company, Inc. 909 West Apache Farmington, NM 87401

RE: Tierra Environmental Commercial Landfarm Application San Juan County, NM

Dear Mr. Cheney:

Enclosed is approval of *Tierra Environmental Company, Inc.'s* application for a commercial landfarm under Division Rule 711. Please notice that the approval letter is dated August 11, 1992, and it is not effective until that date.

As you know Arthur and Inez Bichan have filed a protest and request for hearing on your application. Enclosed is a copy of the letter to them advising them of the approval and of their right to file a petition for hearing to rescind the approval. If they do so, the burden will be on them to show why the application should not be approved.

If they do not file their petition before August 10, 1992, your approval will be effective, and you may begin operation. If they do file their petition, your approval will be suspended.

Sincerely,

Roger Anderson, Environmental Bureau Chief

Exhibit "A"	į
Case No. 10539	
Order No. R-9772	
Page 4	

TREATMENT ZONE MONITORING

- 1. A treatment zone not to exceed two (2) feet beneath the land farm will be monitored. A minimum of one random soil sample will be taken from each individual cell six (6) months after the first contaminated soils are received in the cell and then annually thereafter. The sample will be taken at two to three (2-3) feet below the native ground surface.
- 2. The soil samples will be analyzed for total petroleum hydrocarbons (TPH) and volatile aromatic organics (BTEX) using approved EPA methods.
- 3. After obtaining the soil samples the boreholes will be filled with an impermeable material such as bentonite cement.
- 4. Any cells that have moisture added to them will be analyzed on a quarterly basis following the requirements above.

REPORTING

- 1. Analytical results from the treatment zone monitoring will be submitted to the OCD Santa Fe Office within thirty (30) days of receipt from the laboratory.
- 2. The OCD will be notified of any break, spill, blow out, or fire or any other circumstance that could constitute a hazard or contamination in accordance with OCD Rule 116.

BOND

Pursuant to OCD Rule 711 a surety or cash bond in the amount of \$25,000, in a form approved by the Division, is required prior to commencing construction of the commercial surface disposal facility.

CLOSURE

When the facility is to be closed no new material will be accepted. Existing soils will be remediated until they meet the OCD standards in effect at the time of closure. The area will then be reserved with natural grasses and allowed to return to its natural state. Closure will be pursuant to all OCD requirements in effect at the time of closure. Exhibit "A" Case No. 10539 Order No. R-9772 Page 3

ATTACHMENT TO OCD 711 PERMIT APPROVAL TIERRA ENVIRONMENTAL INC. COMMERCIAL LANDFARM (August 11, 1992)

LANDFARM OPERATION

- 1. All contaminated soils received at the facility will be spread and disked within 72 hours of receipt.
- 2. Soils will be spread on the surface in six inch lifts or less.
- 3. Soils will be disked a minimum of one time every two weeks (biweekly) to enhance biodegradation of contaminants.
- 4. Successive lifts of contaminated soils will not be spread until a laboratory measurement of Total Petroleum Hydrocarbons (TPH) in the previous lift is less than 100 parts per million (ppm), and the sum of all aromatic hydrocarbons (BTEX) is less than 50 ppm, and the benzene is less than 10 ppm. Comprehensive records of the laboratory analyses and the sampling locations will be maintained at the facility. Authorization from the OCD will be obtained prior to application of successive lifts.
- 5. Only solids which are non-hazardous by RCRA Subtitle C exemption or by characteristic testing will be accepted at the facility. Solids from operations not currently exempt under RCRA Subtitle C or mixed exempt/non-exempt solids will be tested for appropriate hazardous constituents. Test results must be submitted to the OCD along with a request to receive the non-exempt solids, and a written OCD approval (case specific) must be obtained prior to disposal. Any non-oilfield wastes which are RCRA Subtitle C exempt or are non-hazardous by characteristic testing will only be accepted on a case-by-case basis and with prior OCD approval.
- 6. Comprehensive records of all material disposed of at the facility will be maintained at the facility. The records for each load will include: 1) the origin, 2) analysis for hazardous constituents if required, 3) transporter, and 4) exact cell location and method of remediation.
- 7. Bio-remediation through the application of microbes will only be permitted in the designated 1-acre area. The microbes will be mixed with water and applied to the contaminated soils. There will be no ponding, pooling or run-off of water allowed during the application phase or afterwards. Any change in the composition (ie. chemical additives), process or location of the bio-remediation program must recieve prior OCD approval.
- 8. No free liquids or soils with free liquids will be accepted at the facility.

Exhibit "B" Case No. 10539 Order No. R-9772

ATTACHMENT TO OCD 711 PERMIT APPROVAL TIERRA ENVIRONMENTAL COMPANY, INC. COMMERCIAL LANDFARM

LANDFARM OPERATION

- 1. All contaminated soils received at the facility will be spread and disked within 72 hours of receipt.
- 2. Soils will be spread on the surface in six inch lifts or less.
- 3a. Soils will be tilled a minimum of one time every two weeks (bi-weekly) to enhance biodegradation of contaminates. Methods suggested by the U.S. Soil Conservation Service should be utilized in the tilling of the soils which will reduce to the most possible degree the occurrence of natural wind erosion.
- 3b. Moisture shall be added to all contaminated soils received at the facility. The soils within each individual cell will be characterized using the Soil Survey of San Juan County, New Mexico, prepared by the United States Department of Agriculture, Soil Conservation Service, for the purpose of pre-determining amounts of moisture to be added to those particular soils, to (1) prevent emissions from volatile organic compounds, (2) enhance natural and artificial biodegradation, and (3) suppress erosion of contaminated soils from natural wind action.
- 3c. There will be no ponding, pooling or run-off of water allowed. Any ponding of precipitation will be removed within seventy-two (72) hours of discovery.
- 4. Successive lifts of contaminated soils will not be spread until a laboratory measurement of Total Petroleum Hydrocarbons (TPH) in the previous lift is less than 100 parts per million (ppm), and the sum of all aromatic hydrocarbons (BTEX) is less than 50 ppm, and the benzene is less than 10 ppm. Comprehensive records of the laboratory analyses and the sampling locations will be maintained at the facility. Authorization from the OCD will be obtained prior to application of successive lifts.
- 5. Only solids which are non-hazardous by RCRA Subtitle C exemption or by characteristic testing will be accepted at the facility. Solids from operations not currently exempt under RCRA Subtitle C or mixed exempt/non-exempt solids will be tested for appropriate hazardous constituents. Test results must be

Exhibit "B" Case No. 10539 Order No. R-9772 Page 2

> submitted to the OCD along with a request to receive the non-exempt solids, and a written OCD approval (case specific) must be obtained prior to disposal. Any non-oilfield wastes which are RCRA Subtitle C exempt or are non-hazardous by characteristic testing will only be accepted on a case-by-case basis and with prior OCD approval.

6. Comprehensive records of all material disposed of at the facility will be maintained at the facility. The records for each load will include: 1) the origin,
2) analysis for hazardous constituents if required, 3) transporter, and 4) exact cell location and method of remediation.

7. Bio-remediation through the application of microbes will only be permitted in the designated 1-acre area. The microbes will be mixed with water and applied to the contaminated soils. There will be no ponding, pooling or run-off of water allowed during the application phase or afterwards. Any change in the composition (ie.

chemical additives), process or location of the bio-remediation program must recieve prior OCD approval.

- 8. No free liquids or soils with free liquids will be accepted at the facility.
- 9a. Disposal will only occur when an attendant is on duty. The facility will be secured when no attendant is present.
- 9b. The facility will have a sign at the entrance. The sign will 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.
- 9c. An adequate berm will be constructed and maintained to prevent run-off and runon for that portion of the facility containing contaminated soils.

TREATMENT ZONE MONITORING

1. A treatment zone not to exceed three (3) feet beneath the landfarm will be monitored. A minimum of one random soil sample will be taken from each individual cell, with no cell being larger than five (5) acres, six (6) months after the first contaminated soils are received and quarterly thereafter. The sample will be taken at two (2) or three (3) feet below the native ground surface. Exhibit "B" Case No. 10539 Order No. R-9772 Page 4

REPORTING

- 1. Analytical results from the treatment zone monitoring will be submitted to the OCD in Santa Fe within thirty (30) days in written form from Tierra Environmental Company with appropriate laboratory analysis included as may be required. Reports will be filed for both the field and laboratory analyses.
- 2. The OCD will be notified of any break, spill, blow out, or fire or any other circumstance that could constitute a hazard or contamination in accordance with OCD Rule 116.

BOND

1. Pursuant to OCD Rule 711 a surety or cash bond in the amount of \$25,000, in a form approved by the Division, is required prior to commencing construction of the commercial surface disposal facility.

TRANSFERABILITY

1. Authority for operation of the landfarm facility shall be transferable only upon written application and approval by the Division Director.

CLOSURE

1. When the facility is to be closed no new material will be accepted. Existing soils will be remediated until they meet the OCD standards in effect at the time of closure. The area will then be reseeded with natural grasses and allowed to return to its natural state. Closure will be pursuant to all OCD requirements in effect at the time of closure.

Exhibit "B" Case No. 10539 Order No. R-9772 Page 3

- 2. The soil samples will be analyzed for total petroleum hydrocarbons (TPH) using an OCD-approved field method. If TPH is detected, then a laboratory analysis will be conducted for Volatile Aromatic Organics (BTEX) using approved EPA methods. Immediate remedial measures will be taken and no additional contaminated soils will be placed in the cell until testing indicates that the TPH is below 100 ppm, BTEX is below 50 ppm and benzene, if any, is below 10 ppm.
- 3. After obtaining the soil samples, the borehole will be filled with an impermeable material such as bentonite cement.
- 4. Annually, samples obtained from the treatment zones will be collected and a laboratory analysis conducted using approved EPA methods in accordance with the procedures outlined in item 1. The samples will be analyzed for TPH, BTEX, general chemistry, and heavy metals.
- 5. One (1) background soil sample will be taken from the center portion of the landfarm two (2) feet below the native ground surface prior to operation. The sample will be analyzed for TPH, BTEX, general chemistry and heavy metals using approved EPA methods and for TPH using an OCD-approved field method.

OTHER MONITORING

- 1. An OCD-approved device capable of measuring emissions of volatile organic compunds (VOC) will be kept at the facility at all times. A measurement of VOCs will be taken a minimum of four (4) times per working day, which will include one measurement upon opening and one measurement upon closing of the facility. Monitoring of VOCs will be recorded and include the date, time, location, and level measured. Records will be retained at the facility and made available for OCD inspection.
- 2. A particulate collector or similar device shall be kept in place and operational at the prevailing downwind side of the landfarm facility. The collector shall be examined daily and records will include time, date, location and level of particluate measured. Records will be maintained at the facility and made available for OCD inspection.



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON Governor Jennifer A. Salisbury Cabinet Secretary Lori Wrotenbery Director Oil Conservation Division

September 15, 2000

<u>CERTIFIED MAIL</u> <u>RETURN RECEIPT NO.</u> Z-559-573-326

Mr. Phillip C. Nobis Tierra Environmental Company, Inc. P.O. Drawer 15250 Farmington, New Mexico 87401-5250

RE: \$8,000 and \$25,000 Cash Bond for Commercial Surface Waste Management Facility Permit NM-01-0010 Tierra Environmental Company, Inc., Principal Citizens Bank, Surety NW/4 SE/4, Section 2, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico Certificate of Deposit No. 0169514224 and No. 0169514223

Dear Mr. Nobis:

The New Mexico Oil Conservation Division hereby approves the above-referenced Commercial Surface Waste Management Facility Cash Bonds.

Sincerely,

Marilyn S. Hebert, Legal Counsel

MSH:mjk

Enclosure: Copies of Cash Bond and Assignment of Cash Collateral

xc with attachment: Aztec OCD Office Gary Howlett, Citizens Bank