

Florida Department of  
**Environmental Protection**

Memorandum

To: Howard L. Rhodes  
Thru: Clair Fancy  
Al Linero *response for CHF*  
From: Willard Hanks  
Date: August 14, 1996  
Subject: Reissuance of Operation Permits  
TPS Technologies, Inc.

8/19

Attached for your approval are two permits to operate mobile soil thermal treatment facilities. These permits are being reissued in an updated format because of the adoption of specific regulations for these facilities (Rule 62-296.415, F.A.C.). The permits authorize operation throughout Florida.

I recommend your approval and signature of the reissued permits to operate.

CHF/wh/t

Attachments



# Department of Environmental Protection

Lawton Chiles  
Governor

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Virginia B. Wetherell  
Secretary

## Notice of Permit

In the matter of an  
Application for Permit by:

Mr. David Wall  
Environmental Engineer  
TPS Technologies, Inc.  
1964 South Orange Blossom Trail  
Apopka, Florida 32703

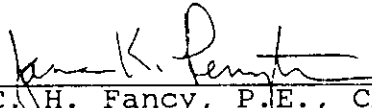
DEP File Nos. 7770140-001-AO  
7775016-001-AO

Enclosed are Operation Permits, Numbers 7770140-001-AO and 7775016-001-AO, for two mobile soil thermal treatment facilities. These permits authorize operation of these plants in any county in Florida. Both permits are issued pursuant to Section 403, Florida Statutes.

Any party to this Order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, Florida Statutes, by filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, MS35, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 14 days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION

  
C.H. Fancy, P.E., Chief  
Bureau of Air Regulation  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400  
904-488-1344

TPS Technologies, Inc.  
Permit Nos. 7775016-001-AO & 7770140-001-AO

**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF PERMIT (including the permits to operate) was mailed by certified mail(\*) before the close of business on 8-19-96 to the listed person.

Mr. David Wall, TPS Technology, Inc.\*

In addition, the undersigned duly designated deputy agency clerk hereby certifies that copies of the NOTICE OF PERMIT (including the permits to operate) were sent by U.S. mail on the same date to the following:

District Air Program Administrators  
County Air Program Administrators

Clerk Stamp

**FILING AND ACKNOWLEDGMENT**  
FILED, on this date, pursuant to §120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Kuni Jober  
Clerk

8-19-96  
Date

**Is your RETURN ADDRESS completed on the reverse side?**

**SENDER:**

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

1.  Addressee's Address

2.  Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:  
 David Wall, Emv. Eng.  
 TPS Technologies  
 1964 S. Orange Blossom Tr.  
 Apopka, FL 32703

4a. Article Number  
 P 339 251 143

4b. Service Type

Registered  Insured

Certified  COD

Express Mail  Return Receipt for Merchandise

7. Date of Delivery  
 8-21-96

5. Signature (Addressee)

6. Signature (Agent)  
 [Signature]

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1991 U.S. GPO: 1993-352-714 **DOMESTIC RETURN RECEIPT**

Thank you for using Return Receipt Service.

P 339 251 143

US Postal Service  
**Receipt for Certified Mail**  
 No Insurance Coverage Provided.  
 Do not use for International Mail (See reverse)

Sent to	David Wall
Street & Number	TPS Tech
Post Office, State, & ZIP Code	Apopka, FL
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
<b>TOYAL Postage &amp; Fees</b>	<b>\$</b>
Postmark or Date	7770140-001-AO 8-19-96 7775016-001-AO

PS Form 3800, April 1995

## Operation Permit Renewal Evaluation

TPS Technologies, Inc.  
7775016-001-AO & 7770140-001-AO

Operation permit Nos. AO48-197154, AO48-197155, AO48-197156, and AO48-197157 for four mobile soil thermal treatment facilities were issued to TPS Technologies, Inc. on August 7, 1991. These permits expired on July 1, 1996. On May 28, 1996, the permittee requested that permit Nos. AO48-197155, AO48-197156, and AO48-197157 be renewed. On July 9, 1996, the permittee requested that only permit Nos. AO48-197156 (unit No. SRU-200P-105) and AO48-197157 (Unit No. SRU-200P-106) be renewed.

Because of the market situation, these units have not operated for several years. However, the original emission tests on these units showed they were capable of complying with the current air pollution control regulations.

The Department is reissuing the operation permits in an updated format to require compliance with Rule 62-296.415, F.A.C. The permittee noted that the afterburners have the operation range and instrumentation to comply with these regulations. The new operation permit numbers will be 7770140-001-AO and 7770140-002-AO and will expire on July 1, 2001.



# Department of Environmental Protection

Lawton Chiles  
Governor

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Virginia B. Wetherell  
Secretary

**PERMITTEE:**  
TPS Technologies Inc.  
1964 Orange Blossom Trail  
Apopka, Florida 32703

**Permit Number:** 7770140-001-AO

**Expiration Date:** July 1, 2001  
**County:** Statewide Operation

**Project:** Mobile Soil Thermal  
Treatment Facility  
SRU-200P-106

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-204 through 62-297, and 62-4, Florida Administrative Code, (F.A.C.). The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

Authorization to operate a 25 TPH mobile soil thermal treatment facility. The facility consists of a contaminated soil feed and weigh mechanism, a rotary kiln, combustion air blower, baghouse, induced draft fan, fuel systems (No. 2 fuel oil, LPG, and natural gas), an afterburner that operates at a minimum temperature of 1600 °F with a minimum retention time of 0.5 seconds, a 9 feet high stack with 47 inch by 27 inch inside dimensions that extends to 22 feet above ground level that discharges approximately 22,000 acfm of gas, and instruments to continuously measure the temperature and carbon monoxide concentration of the gas leaving the afterburner.

The facility may operate in any county in Florida after submittal of a Notification of Intent to Relocate (DEP Form 62-210.900(3), F.A.C.).

The facility is a synthetic non-Title V source. Volatile organic compound (VOC) emissions, which are considered equivalent to total recoverable petroleum hydrocarbon (TRPH) emissions, are calculated to be less than 50 TPY. Hazardous air pollutant (HAP) emissions are less than the 10/25 tons per year (TPY) limitations that trigger Title V permitting requirements. The rationale that HAP emissions will not trigger the Title V permitting requirements, since VOC emissions are less than 50 TPY, is based on the Department memorandum dated August 3, 1995, from Clair Fancy titled Methods of Determining/Quantifying HAP's. Total HAPs emissions for petroleum contaminated soil will be approximately 11 percent of the VOC emissions or, for this unit, 5.5 TPY.

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The facility shall be constructed and operated in accordance with the permit applications, plans, documents, amendments, and drawings, except as otherwise noted in the General Conditions or Specific Conditions.

This permit replaces permit No. AO 48-197157.

Facility ID: 7770140-001-AO  
Emission Unit ID: 08

Note: Please reference the Permit No., Facility ID, and Emission Unit ID in all correspondence, test report submittals, applications, etc.

**Attachments:**

TPS May 28, 1996 letter  
DEP June 20, 1996 letter  
TPS July 9, 1996 letter

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GENERAL CONDITIONS

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.



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7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance,

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provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-30.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

14. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

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SPECIFIC CONDITIONS

PHYSICAL REQUIREMENTS

1. The construction of this unit shall reasonably conform to the plan submitted in the application.
2. The afterburner (thermal oxidizer) for this unit shall be equipped with a stack having a minimum elevation of 22 feet above ground level and be designed for at least 1600 °F operation temperature and 0.5 seconds retention time.
3. The stack sampling facilities must comply with Rule 62-297.345, F.A.C.
4. The unit shall be equipped with means to measure the process feed rate of contaminated soil to the kiln, the pressure drop across the baghouse, and continuous monitors with recorders for the hot zone temperature and the carbon monoxide (CO) concentration (Rule 62-296.415(1)(c), F.A.C.). The temperature and CO monitors shall be co-located.
5. No alterations shall be made to this unit that has the potential to increase air pollutant emissions without the prior written approval from the Department's Bureau of Air Regulation (BAR).

EMISSION LIMITATIONS

6. Total volatile organic compounds (VOC) emissions are limited by the following:
  - (A) Limited by Total Recoverable Petroleum Hydrocarbons (TRPH) concentration and process rate of the contaminated soil to 12.5 pounds per hour (lbs/hr) daily average.
  - (B) Limited by TRPH concentration and quantity of contaminated soil processed per year to less than 50 TPY VOC from the afterburner stack.
7. Carbon monoxide (CO) emissions shall not exceed the following (Rule 62-296.415(1)(b), F.A.C.):
  - (A) 100 parts per million (ppm) by volume, dry basis, from the afterburner stack during all 60 consecutive minute periods of plant operation. The average CO emissions is the arithmetic mean of all CO concentration measurements during any consecutive 60 minutes of plant operation that were recorded by the continuous emission monitor required pursuant to Rule 62-296.415(1)(c), F.A.C.

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(B) This concentration is equivalent to a CO emission rate of 2.9 lbs/hr and 11.4 TPY from the afterburner stack.

8. Visible emissions (VE) from the afterburner stack shall not exceed 5 percent opacity (Rule 62-296.415(2), F.A.C.).

9. VE from the diesel power generator shall not exceed 20 percent opacity (Rule 62-296.310(2), F.A.C.).

10. Total particulate matter (PM) emissions from the afterburner stack shall not exceed any of the following:

(A) 0.04 grains per dry standard cubic foot.

(B) 3.0 lbs/hr

(C) 11.7 tons in any 12 consecutive month period.

11. Sulfur dioxide (SO<sub>2</sub>) emissions are limited by the following (Rule 62-4.050(4)(a)1.c., F.A.C.):

(A) Sulfur content of the fuel shall not exceed 0.5 percent by weight (maximum) and 0.35 percent (annual average).

(B) Calculated sulfur dioxide emissions from the fuel oil are 18.9 lbs/hr.

(C) Estimated sulfur dioxide emissions from the facility resulting from the sulfur in the fuel is 51.6 TPY.

12. The facility shall not cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor (Rule 62-296.320, F.A.C.).

#### PLANT OPERATION REQUIREMENTS

13. The facility shall only treat petroleum contaminated soil as defined in Rule 62-775, F.A.C. (Rule 62-296.415, F.A.C.).

14. Hazardous waste as defined in 40 CFR 261.3 shall not be processed by this facility (Rule 62-775, F.A.C.).

15. This facility shall not treat soil contaminated with polychlorobiphenyls (PCB) (Rule 62-775, F.A.C.).

16. Based on data in the application for the construction permit for this facility, the TRPH contaminates in the soil treated by this facility shall not exceed 25,000 ppm by weight (daily average) without prior approval by the Department.

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17. The afterburner shall be operated at or above 1600 °F with a minimum of 0.5 second retention time (Rule 62-296.415, F.A.C.). When soil is being treated, the minimum temperature shall be met or exceeded at all times except for 4 minutes in any 60 minute period, provided that the temperature does not fall 100 °F below the required temperature of 1600 °F. Maintaining these parameters is considered to provide a minimum VOC destruction efficiency of 99 percent.

18. The system shall be properly operated and maintained (Rule 62-210.300, F.A.C.). No person shall circumvent any pollution control device or allow the emissions of air pollutants without the applicable air pollution control devices operating properly (Rule 62-210.650, F.A.C.). The permittee's operation of the soil thermal treatment facility in Florida is conditioned upon the baghouse and the afterburner of the facility being fully operational, as demonstrated by monitoring instrumentation on the baghouse and afterburner.

19. The facility may operate continuously, 24 hours per day, 7 days per week, and 52 weeks per year but not more than 7800 hours in any calendar year. It shall not be operated at a site with another soil thermal treatment facility without prior approval from the Department (combined emissions may make a major facility and the impact of the emissions may exceed the Ambient Reference Concentration).

20. The maximum contaminated soil charging rate to this facility shall not exceed 25 TPH (daily average) and 195,000 tons during any calendar year. Soil entering the kiln cannot be larger than 2 inches in diameter (Rule 62-775, F.A.C.).

21. In order to ensure the downwind concentration of the toxic air pollutants do not pose a health threat to the surrounding area, the ambient air impact as determined by modeling approved by the Department shall not exceed the Department's established Ambient Reference Concentration (ARC) for any pollutant.

For some pollutants expected to be in the soil their maximum concentration shall not exceed the following:

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Pollutant	Soil Limit (total ppm)
TRPH	25,000*
Arsenic	10
Barium	4940
Cadmium	37
Chromium	50
Lead	108
Mercury	23
Selenium	389
Silver	353
PCB	less 2**

Higher concentrations of pollutants in the contaminated soil may be treated at reduced rates such that the ARC for any pollutant is not exceeded.

\* TRPH (daily average) in the soil shall be measured by EPA Method 9073.

\*\* Mobile units shall not treat soil containing PCB above the quantifiable concentration (Rule 62-296.415(1)(d), F.A.C.).

22. The stack exit airflow shall not be less than 22,000 acfm. There shall be no device which reduces the vertical momentum of the stack gas or reduces the vertical dispersion of the stack gas.

23. Reasonable precautions shall be used to minimize unconfined emissions of particulate matter generated by the operation. Reasonable precautions shall be defined as keeping the work areas wet where the soil is being removed, treated, handled, stored, and disposed of. Untreated soil removed from the ground shall be stored under waterproof covers to minimize unconfined emissions of petroleum products (Rule 62-296.310, F.A.C.).

#### FUEL LIMITATIONS

24. As proposed by the permittee, only new No. 2 fuel oil containing a maximum of 0.5 percent sulfur and 0.35 percent sulfur annual average, natural gas, and propane (LPG) shall be used as fuel for the kiln and afterburner. Only diesel fuel shall be burned in any diesel generator use with this facility. The maximum permitted fuel consumption for the kiln and afterburner is 37 MMBtu/hr, which is approximately 266 gallons per hour (GPH) No. 2 fuel oil, 3700 cubic feet per hour (CFH) of natural gas, or 407 GPH LPG.

#### RECORDKEEPING REQUIREMENTS

25. To document compliance with Specific Condition No. 24, each new No. 2 fuel oil shipment received from the vendor/supplier shall have

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a record showing the quantity of fuel oil received and a laboratory report or certification from the fuel supplier showing the fuel oil's sulfur content in percent by weight. The laboratory results shall have been determined in accordance with the appropriate ASTM test method contained in Rule 623-297.440, F.A.C.

26. To document compliance with the fuel limitations, maximum heat input rates and the sulfur content annual average limitation of Specific Condition No. 24 for No. 2 fuel oil, the permittee shall daily record the following:

- A. The daily hours of operation.
- B. The type of fuel burned in the facility.
- C. The quantity of fuel burned in the facility in units of gallons per day.
- D. The average daily quantity of fuel burned in the facility in units of CFH or GPH and MMBtu/hr.
- E. The sulfur content of the fuel oil burned in the facility in percent by weight.
- F. The updated rolling average sulfur content for the fuel oil used in the kiln and afterburner.

27. Pursuant to Rule 62-296.415, and 62-4.070(3), F.A.C., the permittee shall comply with the following monitoring and associated recording requirements:

- (A) The baghouse shall be monitored at least once daily when operating for the pressure drop across the baghouse and the reading recorded/logged daily.
- (B) The temperature of the gases in the afterburner and the CO concentration shall be determined by continuous monitors.

28. Pursuant to Rule 62-4.070(3), F.A.C., in order to document compliance with the Specific Condition Nos. 20, 21, and 24, the permittee shall daily maintain the following additional recordkeeping log which may in part comprise DEP Form 62-775.900(2):

- (A) Date
- (B) Amount of contaminated soil treated in tons per day.
- (C) To document compliance with the TRPH input concentration, samples of the contaminated soil from the kiln feed shall be

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collected, combined, and the composite sample will be analyzed using EPA Method 9073. The TRPH results of the analysis of those representative soil samples, along with the recorded tons of soil treated per day, will be used to calculate the average TRPH concentration of the contaminated soil.

- (D) If the permittee receives soils that exceed the values shown for metals in Specific Condition No. 21, those soils shall not be treated in the kiln until being blended with other soils of the same type containing lower metal concentrations to comply with the appropriate metal limitation. Adequate documentation shall be maintained to show that the blending described above has been performed and the resulting blend of soils complies with Specific Condition No. 21.
- (E) The pre-acceptance analysis from DEP Form 62-775.900(2) shall be used to document compliance with the TRPH, PCB, and metal limitations of Specific Condition No. 21. See Specific Condition No. 29(D), regarding soils that are blended to meet the metal limitations.
- (F) Monthly calculate and record for the calendar year the quantity of soil treated in tons per year.
- (H) Fuel oil sulfur limits based on analysis referenced in 40 CFR 60.17 or other methods after Department approval. A certified analysis by the fuel oil supplier and documentation that diesel fuel is used in the generator will also be acceptable.
- (I) Contaminated soil analysis for volatile organic aromatics (VOA), TRPH, volatile organic halogens (VOH), polynuclear aromatic hydrocarbons (PAH), and metals as required by Rule 62-775.410, F.A.C. of the soil being treated.

29. All records required by Specific Condition Nos. 25, 26, 27, and 28 shall be recorded in a permanent form suitable for inspection, retained for at least 3 years at the facility, and available to the Department upon request. (Rule 62-4.070(3), F.A.C.).

30. The permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by rule or this permit; recorded in a permanent form suitable for inspection. The file shall be retained for at least 3 years following the date of such measurements, maintenance, reports, and records and made available to the Department upon request. (Rule 62-4.070(3), F.A.C.).



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#### COMPLIANCE TESTING REQUIREMENTS

31. The temperature monitor shall be certified by the manufacturer to be accurate to within 1 percent of the temperature being measured. The temperature monitoring system shall be calibrated at least annually by the procedure recommended by the manufacturer. The calibration shall be at a minimum of 3 temperatures and over a range from 10 percent below to 10 percent above the designed flue gas hot zone temperature. Calibration records shall be kept for a minimum of 3 years. The CO monitor shall be certified by the manufacturer to be accurate to within 10 percent of the CO concentration, by volume, mean value, or 5 percent of the applicable standard of 100 ppm, whichever is greater, as determined by an EPA Test Method 10. The CO continuous emission monitoring device shall be certified, calibrated, and operated according to Performance Specification 4 of 40 CFR 60, Appendix B (July 1, 1994) excluding Section 5.2, Calibration Drift Test Period, of Performance Specification 2.

32. Conduct a VE test at each new operation site. Test this source annually for the following pollutants and performance parameters. Test reports shall be submitted to the District and county, if applicable, that the test is conducted in within 45 days of testing. (Rule 62-297.340(1)(d) and 62-297.540(2), F.A.C.).

- (A) CO (average CO monitor readings during the particulate matter test).
- (B) Visible emissions.
- (C) Particulate Matter (PM).
- (D) Temperature in the afterburner (average temperature monitor readings during the PM test).
- (E) Residence time of the afterburner.
- (F) Stack gas airflow rate.
- (G) For each day the required tests were conducted, a copy of the records required by Specific Condition No. 26 to document the fuel oil used during the tests was in compliance with the sulfur content limit.
- (H) For each day the required tests were conducted, a copy of the records required by Specific Conditions Nos. 25, 26, and 29.
- (I) For each month in which the stack emission tests were conducted, a copy of the records required by Specific Conditions No. 26.

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- (J) A copy of the certification and calibration of the CO and temperature monitors required by Specific Condition No. 28.
- (K) A copy of the calculations showing the residence time in the afterburner based upon actual measured operating parameters.
- (33) Compliance with the limitations of Specific Conditions Nos. 7, 8, 9, and 10 shall be determined by the following test methods contained in 40 CFR 60, Appendix A, (July 1, 1994) and adopted by reference in Rule 62-297.401, F.A.C.
  - (A) Average CO monitor readings during the PM test.
  - (B) EPA Method 9 for visible emissions.
  - (C) EPA Method 5 for particulate matter.
  - (D) EPA Method 2 for residence time in the afterburner and stack gas airflow rate. The Method 2 test shall be conducted at a point which is downstream of the afterburner. The test report shall include the calculations showing the residence time in the afterburner. The calculations shall be based upon actual measured operating parameters.

The minimum requirements for stationary point source emissions test procedures and reporting shall be in accordance with Rules 62-297.401 and 62-297.570(b), F.A.C., and 40 CFR 60, Appendix A (July 1, 1994).

34. Compliance tests shall be conducted as following:

- (A) When the kiln and afterburner are fired with fuel oil.
- (B) Testing of emissions shall be conducted with the source operating at permitted capacity. Permitted capacity is defined as 90-100 percent of the maximum operating rate allowed by the permit. If it is impracticable to test at permitted capacity, then sources may be tested at less than capacity; in this case subsequent source operation is limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, then operation at higher capacities is allowed for no more than 15 consecutive days for the purposes of additional compliance testing to regain the permitted capacity in the permit. (Rule 62-297.310, F.A.C.)

#### EXCESS EMISSION REQUIREMENTS

35. Excess emissions resulting from startup, shutdown, or malfunction shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration

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of excess emission shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the District or county, if applicable, that the unit is operating in.

36. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. (Rule 62-210.700, F.A.C.).

37. In case of excess emissions resulting from malfunctions, the permittee shall notify the District and county, if applicable, that the unit is operating in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. (Rule 62-210.700, F.A.C.).

38. The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of this facility which results in excess emissions; and any periods during which a continuous monitoring system or monitoring device is inoperative (Rules 62-4.070(3) and 62-210.700, F.A.C.).

#### NOTIFICATION REQUIREMENTS

39. The permittee shall notify the District and county, if applicable, having jurisdiction over the site of the test at least 15 days prior to the date on which each formal compliance test is to begin of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted (Rule 62-297.340(1)(i), F.A.C.).

40. Regarding the CO monitor, the permittee shall notify the District and county, if applicable, having jurisdiction over the site of the test as required by Performance Specification 4 of 40 CFR 60, Appendix B, (July 1, 1994).

41. At least 7 days prior to relocating the plant, the permittee shall notify the air program administrator for the Department's District and, if applicable, county air program administrator of the next site where the unit will be operated. The notification shall be on DEP Form 62-210.900(3), F.A.C. The notification shall include the permit number of the facility, a copy of the last stack test results, the date of the proposed move, the new work site for the facility, the amount of contaminated soil at the new site, and the locations and contamination levels of the soils to be treated. Unless notified otherwise by an environmental agency, the unit may be relocated and operated at the new site. The Department will notify the permittee of any new restrictions for the facility that will apply while it is operating at the new site (Rule 62-775.700(1), F.A.C.).

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42. The permittee shall submit to the Bureau of Air Regulation (BAR) each calendar year, on or before March 1, an Annual Operation Report DEP Form 62-1.202(c) for this facility for the preceding calendar year containing at least the following information pursuant to Subsection 403.061(13), F.S.:

- (A) Annual amount of material and/or fuels utilized.
- (B) Annual emissions in TPY (note calculation basis).
- (C) Annual hours of operation.
- (D) Any changes in the information contained in the application.
- (E) All compliance tests reports for the preceding year.
- (F) Temperature and CO exceedance reports for the year.

43. An application for an operating permit shall be submitted to the BAR at least 90 days prior to the expiration date of this permit. To apply for an operation permit, the applicant shall submit the appropriate application form, fee, a report on any physical change or major maintenance to the facility, and compliance test reports as required by this permit (Rule 62-4.220, F.A.C.).

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION



Howard L. Rhodes  
Director  
Division of Air Resources  
Management



# Department of Environmental Protection

Lawton Chiles  
Governor

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Virginia B. Wetherell  
Secretary

**PERMITTEE:**  
TPS Technologies Inc.  
1964 Orange Blossom Trail  
Apopka, Florida 32703

**Permit Number:** 7775016-001-AO

**Expiration Date:** July 1, 2001  
**County:** Statewide Operation

**Project:** Mobile Soil Thermal  
Treatment Facility  
SRU-200P-105

This permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-204 through 62-297, and 62-4, Florida Administrative Code, (F.A.C.). The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

Authorization to operate a 25 TPH mobile soil thermal treatment facility. The facility consists of a contaminated soil feed and weigh mechanism, a rotary kiln, combustion air blower, baghouse, induced draft fan, fuel systems (No. 2 fuel oil, LPG, and natural gas), an afterburner that operates at a minimum temperature of 1600 °F with a minimum retention time of 0.5 seconds, a 9 feet high stack with 47 inch by 27 inch inside dimensions that extends to 22 feet above ground level that discharges approximately 22,000 acfm of gas, and instruments to continuously measure the temperature and carbon monoxide concentration of the gas leaving the afterburner.

The facility may operate in any county in Florida after submittal of a Notification of Intent to Relocate (DEP Form 62-210.900(3), F.A.C).

The facility is a synthetic non-Title V source. Volatile organic compound (VOC) emissions, which are considered equivalent to total recoverable petroleum hydrocarbon (TRPH) emissions, are calculated to be less than 50 TPY. Hazardous air pollutant (HAP) emissions are less than the 10/25 tons per year (TPY) limitations that trigger Title V permitting requirements. The rationale that HAP emissions will not trigger the Title V permitting requirements, since VOC emissions are less than 50 TPY, is based on the Department memorandum dated August 3, 1995, from Clair Fancy titled Methods of Determining/Quantifying HAP's. Total HAPs emissions for petroleum contaminated soil will be approximately 11 percent of the VOC emissions or, for this unit, 5.5 TPY.

**PERMITTEE:**  
TPS Technologies Inc.

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The facility shall be constructed and operated in accordance with the permit applications, plans, documents, amendments, and drawings, except as otherwise noted in the General Conditions or Specific Conditions.

This permit replaces permit No. AO 48-197156.

Facility ID: 7775016-001-AO  
Emission Unit ID: 07

**Note:** Please reference the Permit No., Facility ID, and Emission Unit ID in all correspondence, test report submittals, applications, etc.

**Attachments:**

TPS May 28, 1996 letter  
DEP June 20, 1996 letter  
TPS July 9, 1996 letter

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GENERAL CONDITIONS

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

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7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance,



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provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-30.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. The permittee shall comply with the following:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

14. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

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### SPECIFIC CONDITIONS

#### PHYSICAL REQUIREMENTS

1. The construction of this unit shall reasonably conform to the plan submitted in the application.
2. The afterburner (thermal oxidizer) for this unit shall be equipped with a stack having a minimum elevation of 22 feet above ground level and be designed for at least 1600 °F operation temperature and 0.5 seconds retention time.
3. The stack sampling facilities must comply with Rule 62-297.345, F.A.C.
4. The unit shall be equipped with means to measure the process feed rate of contaminated soil to the kiln, the pressure drop across the baghouse, and continuous monitors with recorders for the hot zone temperature and the carbon monoxide (CO) concentration (Rule 62-296.415(1)(c), F.A.C.). The temperature and CO monitors shall be co-located.
5. No alterations shall be made to this unit that has the potential to increase air pollutant emissions without the prior written approval from the Department's Bureau of Air Regulation (BAR).

#### EMISSION LIMITATIONS

6. Total volatile organic compounds (VOC) emissions are limited by the following:
  - (A) Limited by Total Recoverable Petroleum Hydrocarbons (TRPH) concentration and process rate of the contaminated soil to 12.5 pounds per hour (lbs/hr) daily average.
  - (B) Limited by TRPH concentration and quantity of contaminated soil processed per year to less than 50 TPY VOC from the afterburner stack.
7. Carbon monoxide (CO) emissions shall not exceed the following (Rule 62-296.415(1)(b), F.A.C.):
  - (A) 100 parts per million (ppm) by volume, dry basis, from the afterburner stack during all 60 consecutive minute periods of plant operation. The average CO emissions is the arithmetic mean of all CO concentration measurements during any consecutive 60 minutes of plant operation that were recorded by the continuous emission monitor required pursuant to Rule 62-296.415(1)(c), F.A.C.

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(B) This concentration is equivalent to a CO emission rate of 2.9 lbs/hr and 11.4 TPY from the afterburner stack.

8. Visible emissions (VE) from the afterburner stack shall not exceed 5 percent opacity (Rule 62-296.415(2), F.A.C.).

9. VE from the diesel power generator shall not exceed 20 percent opacity (Rule 62-296.310(2), F.A.C.).

10. Total particulate matter (PM) emissions from the afterburner stack shall not exceed any of the following:

(A) 0.04 grains per dry standard cubic foot.

(B) 3.0 lbs/hr

(C) 11.7 tons in any 12 consecutive month period.

11. Sulfur dioxide (SO<sub>2</sub>) emissions are limited by the following (Rule 62-4.050(4)(a)1.c., F.A.C.):

(A) Sulfur content of the fuel shall not exceed 0.5 percent by weight (maximum) and 0.35 percent (annual average).

(B) Calculated sulfur dioxide emissions from the fuel oil are 18.9 lbs/hr.

(C) Estimated sulfur dioxide emissions from the facility resulting from the sulfur in the fuel is 51.6 TPY.

12. The facility shall not cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor (Rule 62-296.320, F.A.C.).

#### PLANT OPERATION REQUIREMENTS

13. The facility shall only treat petroleum contaminated soil as defined in Rule 62-775, F.A.C. (Rule 62-296.415, F.A.C.).

14. Hazardous waste as defined in 40 CFR 261.3 shall not be processed by this facility (Rule 62-775, F.A.C.).

15. This facility shall not treat soil contaminated with polychlorobiphenyls (PCB) (Rule 62-775, F.A.C.).

16. Based on data in the application for the construction permit for this facility, the TRPH contaminates in the soil treated by this facility shall not exceed 25,000 ppm by weight (daily average) without prior approval by the Department.

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17. The afterburner shall be operated at or above 1600 °F with a minimum of 0.5 second retention time (Rule 62-296.415, F.A.C.). When soil is being treated, the minimum temperature shall be met or exceeded at all times except for 4 minutes in any 60 minute period, provided that the temperature does not fall 100 °F below the required temperature of 1600 °F. Maintaining these parameters is considered to provide a minimum VOC destruction efficiency of 99 percent.

18. The system shall be properly operated and maintained (Rule 62-210.300, F.A.C.). No person shall circumvent any pollution control device or allow the emissions of air pollutants without the applicable air pollution control devices operating properly (Rule 62-210.650, F.A.C.). The permittee's operation of the soil thermal treatment facility in Florida is conditioned upon the baghouse and the afterburner of the facility being fully operational, as demonstrated by monitoring instrumentation on the baghouse and afterburner.

19. The facility may operate continuously, 24 hours per day, 7 days per week, and 52 weeks per year but not more than 7800 hours in any calendar year. It shall not be operated at a site with another soil thermal treatment facility without prior approval from the Department (combined emissions may make a major facility and the impact of the emissions may exceed the Ambient Reference Concentration).

20. The maximum contaminated soil charging rate to this facility shall not exceed 25 TPH (daily average) and 195,000 tons during any calendar year. Soil entering the kiln cannot be larger than 2 inches in diameter (Rule 62-775, F.A.C.).

21. In order to ensure the downwind concentration of the toxic air pollutants do not pose a health threat to the surrounding area, the ambient air impact as determined by modeling approved by the Department shall not exceed the Department's established Ambient Reference Concentration (ARC) for any pollutant.

For some pollutants expected to be in the soil their maximum concentration shall not exceed the following:

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Pollutant	Soil Limit (total ppm)
TRPH	25,000*
Arsenic	10
Barium	4940
Cadmium	37
Chromium	50
Lead	108
Mercury	23
Selenium	389
Silver	353
PCB	less 2**

Higher concentrations of pollutants in the contaminated soil may be treated at reduced rates such that the ARC for any pollutant is not exceeded.

\* TRPH (daily average) in the soil shall be measured by EPA Method 9073.

\*\* Mobile units shall not treat soil containing PCB above the quantifiable concentration (Rule 62-296.415(1)(d), F.A.C.).

22. The stack exit airflow shall not be less than 22,000 acfm. There shall be no device which reduces the vertical momentum of the stack gas or reduces the vertical dispersion of the stack gas.

23. Reasonable precautions shall be used to minimize unconfined emissions of particulate matter generated by the operation. Reasonable precautions shall be defined as keeping the work areas wet where the soil is being removed, treated, handled, stored, and disposed of. Untreated soil removed from the ground shall be stored under waterproof covers to minimize unconfined emissions of petroleum products (Rule 62-296.310, F.A.C.).

#### FUEL LIMITATIONS

24. As proposed by the permittee, only new No. 2 fuel oil containing a maximum of 0.5 percent sulfur and 0.35 percent sulfur annual average, natural gas, and propane (LPG) shall be used as fuel for the kiln and afterburner. Only diesel fuel shall be burned in any diesel generator use with this facility. The maximum permitted fuel consumption for the kiln and afterburner is 37 MMBtu/hr, which is approximately 266 gallons per hour (GPH) No. 2 fuel oil, 3700 cubic feet per hour (CFH) of natural gas, or 407 GPH LPG.

#### RECORDKEEPING REQUIREMENTS

25. To document compliance with Specific Condition No. 24, each new No. 2 fuel oil shipment received from the vendor/supplier shall have

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a record showing the quantity of fuel oil received and a laboratory report or certification from the fuel supplier showing the fuel oil's sulfur content in percent by weight. The laboratory results shall have been determined in accordance with the appropriate ASTM test method contained in Rule 623-297.440, F.A.C.

26. To document compliance with the fuel limitations, maximum heat input rates and the sulfur content annual average limitation of Specific Condition No. 24 for No. 2 fuel oil, the permittee shall daily record the following:

- A. The daily hours of operation.
- B. The type of fuel burned in the facility.
- C. The quantity of fuel burned in the facility in units of gallons per day.
- D. The average daily quantity of fuel burned in the facility in units of CFH or GPH and MMBtu/hr.
- E. The sulfur content of the fuel oil burned in the facility in percent by weight.
- F. The updated rolling average sulfur content for the fuel oil used in the kiln and afterburner.

27. Pursuant to Rule 62-296.415, and 62-4.070(3), F.A.C., the permittee shall comply with the following monitoring and associated recording requirements:

- (A) The baghouse shall be monitored at least once daily when operating for the pressure drop across the baghouse and the reading recorded/logged daily.
- (B) The temperature of the gases in the afterburner and the CO concentration shall be determined by continuous monitors.

28. Pursuant to Rule 62-4.070(3), F.A.C., in order to document compliance with the Specific Condition Nos. 20, 21, and 24, the permittee shall daily maintain the following additional recordkeeping log which may in part comprise DEP Form 62-775.900(2):

- (A) Date
- (B) Amount of contaminated soil treated in tons per day.
- (C) To document compliance with the TRPH input concentration, samples of the contaminated soil from the kiln feed shall be

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collected, combined, and the composite sample will be analyzed using EPA Method 9073. The TRPH results of the analysis of those representative soil samples, along with the recorded tons of soil treated per day, will be used to calculate the average TRPH concentration of the contaminated soil.

- (D) If the permittee receives soils that exceed the values shown for metals in Specific Condition No. 21, those soils shall not be treated in the kiln until being blended with other soils of the same type containing lower metal concentrations to comply with the appropriate metal limitation. Adequate documentation shall be maintained to show that the blending described above has been performed and the resulting blend of soils complies with Specific Condition No. 21.
- (E) The pre-acceptance analysis from DEP Form 62-775.900(2) shall be used to document compliance with the TRPH, PCB, and metal limitations of Specific Condition No. 21. See Specific Condition No. 29(D), regarding soils that are blended to meet the metal limitations.
- (F) Monthly calculate and record for the calendar year the quantity of soil treated in tons per year.
- (H) Fuel oil sulfur limits based on analysis referenced in 40 CFR 60.17 or other methods after Department approval. A certified analysis by the fuel oil supplier and documentation that diesel fuel is used in the generator will also be acceptable.
- (I) Contaminated soil analysis for volatile organic aromatics (VOA), TRPH, volatile organic halogens (VOH), polynuclear aromatic hydrocarbons (PAH), and metals as required by Rule 62-775.410, F.A.C. of the soil being treated.

29. All records required by Specific Condition Nos. 25, 26, 27, and 28 shall be recorded in a permanent form suitable for inspection, retained for at least 3 years at the facility, and available to the Department upon request. (Rule 62-4.070(3), F.A.C.).

30. The permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by rule or this permit; recorded in a permanent form suitable for inspection. The file shall be retained for at least 3 years following the date of such measurements, maintenance, reports, and records and made available to the Department upon request. (Rule 62-4.070(3), F.A.C.).

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#### COMPLIANCE TESTING REQUIREMENTS

31. The temperature monitor shall be certified by the manufacturer to be accurate to within 1 percent of the temperature being measured. The temperature monitoring system shall be calibrated at least annually by the procedure recommended by the manufacturer. The calibration shall be at a minimum of 3 temperatures and over a range from 10 percent below to 10 percent above the designed flue gas hot zone temperature. Calibration records shall be kept for a minimum of 3 years. The CO monitor shall be certified by the manufacturer to be accurate to within 10 percent of the CO concentration, by volume, mean value, or 5 percent of the applicable standard of 100 ppm, whichever is greater, as determined by an EPA Test Method 10. The CO continuous emission monitoring device shall be certified, calibrated, and operated according to Performance Specification 4 of 40 CFR 60, Appendix B (July 1, 1994) excluding Section 5.2, Calibration Drift Test Period, of Performance Specification 2.

32. Conduct a VE test at each new operation site. Test this source annually for the following pollutants and performance parameters. Test reports shall be submitted to the District and county, if applicable, that the test is conducted in within 45 days of testing. (Rule 62-297.340(1)(d) and 62-297.540(2), F.A.C.).

- (A) CO (average CO monitor readings during the particulate matter test).
- (B) Visible emissions.
- (C) Particulate Matter (PM).
- (D) Temperature in the afterburner (average temperature monitor readings during the PM test).
- (E) Residence time of the afterburner.
- (F) Stack gas airflow rate.
- (G) For each day the required tests were conducted, a copy of the records required by Specific Condition No. 26 to document the fuel oil used during the tests was in compliance with the sulfur content limit.
- (H) For each day the required tests were conducted, a copy of the records required by Specific Conditions Nos. 25, 26, and 29.
- (I) For each month in which the stack emission tests were conducted, a copy of the records required by Specific Conditions No. 26.



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- (J) A copy of the certification and calibration of the CO and temperature monitors required by Specific Condition No. 28.
- (K) A copy of the calculations showing the residence time in the afterburner based upon actual measured operating parameters.
- (33) Compliance with the limitations of Specific Conditions Nos. 7, 8, 9, and 10 shall be determined by the following test methods contained in 40 CFR 60, Appendix A, (July 1, 1994) and adopted by reference in Rule 62-297.401, F.A.C.
  - (A) Average CO monitor readings during the PM test.
  - (B) EPA Method 9 for visible emissions.
  - (C) EPA Method 5 for particulate matter.
  - (D) EPA Method 2 for residence time in the afterburner and stack gas airflow rate. The Method 2 test shall be conducted at a point which is downstream of the afterburner. The test report shall include the calculations showing the residence time in the afterburner. The calculations shall be based upon actual measured operating parameters.

The minimum requirements for stationary point source emissions test procedures and reporting shall be in accordance with Rules 62-297.401 and 62-297.570(b), F.A.C., and 40 CFR 60, Appendix A (July 1, 1994).

34. Compliance tests shall be conducted as following:

- (A) When the kiln and afterburner are fired with fuel oil.
- (B) Testing of emissions shall be conducted with the source operating at permitted capacity. Permitted capacity is defined as 90-100 percent of the maximum operating rate allowed by the permit. If it is impracticable to test at permitted capacity, then sources may be tested at less than capacity; in this case subsequent source operation is limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, then operation at higher capacities is allowed for no more than 15 consecutive days for the purposes of additional compliance testing to regain the permitted capacity in the permit. (Rule 62-297.310, F.A.C.)

#### EXCESS EMISSION REQUIREMENTS

35. Excess emissions resulting from startup, shutdown, or malfunction shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration

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of excess emission shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the District or county, if applicable, that the unit is operating in.

36. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. (Rule 62-210.700, F.A.C.).

37. In case of excess emissions resulting from malfunctions, the permittee shall notify the District and county, if applicable, that the unit is operating in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. (Rule 62-210.700, F.A.C.).

38. The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of this facility which results in excess emissions; and any periods during which a continuous monitoring system or monitoring device is inoperative (Rules 62-4.070(3) and 62-210.700, F.A.C.).

#### NOTIFICATION REQUIREMENTS

39. The permittee shall notify the District and county, if applicable, having jurisdiction over the site of the test at least 15 days prior to the date on which each formal compliance test is to begin of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted (Rule 62-297.340(1)(i), F.A.C.).

40. Regarding the CO monitor, the permittee shall notify the District and county, if applicable, having jurisdiction over the site of the test as required by Performance Specification 4 of 40 CFR 60, Appendix B, (July 1, 1994).

41. At least 7 days prior to relocating the plant, the permittee shall notify the air program administrator for the Department's District and, if applicable, county air program administrator of the next site where the unit will be operated. The notification shall be on DEP Form 62-210.900(3), F.A.C. The notification shall include the permit number of the facility, a copy of the last stack test results, the date of the proposed move, the new work site for the facility, the amount of contaminated soil at the new site, and the locations and contamination levels of the soils to be treated. Unless notified otherwise by an environmental agency, the unit may be relocated and operated at the new site. The Department will notify the permittee of any new restrictions for the facility that will apply while it is operating at the new site (Rule 62-775.700(1), F.A.C.).

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of excess emission shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the District or county, if applicable, that the unit is operating in.

36. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. (Rule 62-210.700, F.A.C.).

37. In case of excess emissions resulting from malfunctions, the permittee shall notify the District and county, if applicable, that the unit is operating in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. (Rule 62-210.700, F.A.C.).

38. The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of this facility which results in excess emissions; and any periods during which a continuous monitoring system or monitoring device is inoperative (Rules 62-4.070(3) and 62-210.700, F.A.C.).

#### NOTIFICATION REQUIREMENTS

39. The permittee shall notify the District and county, if applicable, having jurisdiction over the site of the test at least 15 days prior to the date on which each formal compliance test is to begin of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted (Rule 62-297.340(1)(i), F.A.C.).

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42. The permittee shall submit to the Bureau of Air Regulation (BAR) each calendar year, on or before March 1, an Annual Operation Report DEP Form 62-1.202(c) for this facility for the preceding calendar year containing at least the following information pursuant to Subsection 403.061(13), F.S.:

- (A) Annual amount of material and/or fuels utilized.
- (B) Annual emissions in TPY (note calculation basis).
- (C) Annual hours of operation.
- (D) Any changes in the information contained in the application.
- (E) All compliance tests reports for the preceding year.
- (F) Temperature and CO exceedance reports for the year.

43. An application for an operating permit shall be submitted to the BAR at least 90 days prior to the expiration date of this permit. To apply for an operation permit, the applicant shall submit the appropriate application form, fee, a report on any physical change or major maintenance to the facility, and compliance test reports as required by this permit (Rule 62-4.220, F.A.C.).

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION



Howard L. Rhodes  
Director  
Division of Air Resources  
Management