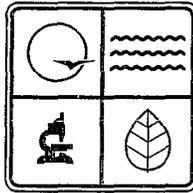


STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
MISSOURI AIR CONSERVATION COMMISSION



PERMIT BOOK

PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: **11 2 0 0 6 - 0 0 9** Project Number: **2006-09-084**

Owner: **Remtech, Inc.**

Owner's Address: **400 SW 6th Avenue, Suite 601, Portland, OR 97204**

Installation Name: **REMTECH Tarmac Super Seven**

Installation Address: **One mile west of Hwy. 21 Intersection on Hwy. 72, Centerville, MO
63633**

Location Information: **Reynolds County, S29, T32N, R1E**

Application for Authority to Construct was made for:

**Installation of REMTECH's Tarmac Super 7, Model 734, soil remediation unit.
This review was conducted in accordance with Section (5), Missouri State Rule
10 CSR 10-6.060, Construction Permits Required.**

Standard Conditions (on reverse) are applicable to this permit.

Standard Conditions (on reverse) and Special Conditions (listed as attachments starting on page 2) are applicable to this permit.

NOV 13 2006

EFFECTIVE DATE


DIRECTOR OR DESIGNEE
DEPARTMENT OF NATURAL RESOURCES

STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available not more than 60 days but at least 30 days in advance of this date. Also, you must notify the Department of Natural Resources Regional Office responsible for the area within which you are located within 15 days after the actual start up of this (these) air contaminant source(s).

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed Special Conditions as provided in RSMo 643.075. If you choose to appeal, the Air Pollution Control Program must receive your written declaration within 30 days of receipt of this permit.

If you choose not to appeal, this certificate, the project review, your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant source(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Department of Natural Resources has established the Outreach and Assistance Center to help in completing future applications or fielding complaints about the permitting process. You are invited to contact them at 1-800-361-4827 or (573) 526-6627, or in writing addressed to Outreach and Assistance Center, P.O. Box 176, Jefferson City, MO 65102-0176.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention Construction Permit Unit.

Page No.	2
Permit No.	
Project No.	2006-09-084

SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority."

REMTECH Tarmac Super Seven
Reynolds County, S29, T32N, R1E

1. Emission Limitations

- A. REMTECH Tarmac Super Seven shall emit less than forty (40) tons of nitrogen oxide (NO_x) in any consecutive twelve (12) month period from the entire installation.
- B. REMTECH Tarmac Super Seven shall emit less than forty (40) tons of sulfur oxide (SO_x) in any consecutive twelve (12) month period from the entire installation.
- C. REMTECH Tarmac Super Seven shall maintain an accurate record of NO_x and SO_x emitted into the atmosphere from the entire installation. Attachment A and Attachment B or equivalent forms approved by the Air Pollution Control Program shall be used for this purpose. REMTECH Tarmac Super Seven shall maintain all records required by this permit for not less than five (5) years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request.
- D. REMTECH Tarmac Super Seven shall report to the Air Pollution Control Program's (APCP) Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten (10) days after the end of the month during which the records from Special Condition Number 1(C) indicate that the source exceeds the limitation of Special Condition Number 1(A) & 1(B).

2. Control Device - Baghouse

- A. REMTECH Tarmac Super Seven shall control emissions from the thermal remediation unit (EU01) using a baghouse as specified in the permit application. The baghouse shall be operated and maintained in accordance with the manufacturer's specifications. The baghouse shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. These gauges or meters shall be located such that the

Page No.	3
Permit No.	
Project No.	2006-09-084

SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

DNR employees may easily observe them. Replacement filters for the baghouse shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).

- B. REMTECH Tarmac Super Seven shall monitor and record the operating pressure drop across the baghouse at least once every 24 hours. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.
 - C. REMTECH Tarmac Super Seven shall maintain an operating and maintenance log for the baghouse which shall include the following:
 - 1) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
 - 2) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
3. National Emission Standards for Hazardous Air Pollutants (NESHAP)

This installation shall comply with all applicable emission limits, testing, monitoring, sampling, reporting, and record keeping requirements of 40 CFR Part 63, Subpart EEE, *National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors*.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (5) REVIEW

Project Number: 2006-09-084
Installation ID Number: 179-0033
Permit Number:

REMTECH Tarmac Super Seven
One mile west of HWY 21 Intersection on HWY 72
Centerville, MO 63633

Complete: September 26, 2006
Reviewed: October 16, 2006

Parent Company:
Remtech, Inc.
400 SW 6th Avenue, Suite 601
Portland, OR 97204

Reynolds County, S29, T32N, R1E

REVIEW SUMMARY

- REMTECH Tarmac Super Seven has applied for authority to install a REMTECH's Tarmac Super 7, Model 734, soil remediation unit.
- Hazardous air pollutants (HAP) are emitted in insignificant quantities.
- None of the New Source Performance Standards (NSPS) apply to the proposed equipment.
- The Maximum Achievable Control Technology (MACT) standard, 40 CFR Part 63, Subpart EEE, *National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors*, applies to the installation.
- A baghouse is being used to control the particulate matters from the soil remediation unit.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential Emissions of NO_x and SO_x are conditioned to de minimis level.
- This installation is located in Reynolds County, an attainment area for all criteria air pollutants.
- This installation is not on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2].
- Ambient air quality modeling was not performed since potential emissions of the application are below de minimis levels.

- Emissions testing is required in accordance with MACT, Subpart EEE.
- As per Subpart EEE, *National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors*, this installation is required to apply for a Part 70 Operating Permit. A Part 70 Operating Permit application is required for this installation within 1 year of equipment startup.
- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

REMTECH Tarmac Super Seven is owned and operated by REMTECH of Portland Oregon. This installation will be used for thermal remediation of creosote contaminated soil at Centerville, Missouri. No permits have been issued to REMTECH Tarmac Super Seven from the Air Pollution Control Program.

PROJECT DESCRIPTION

The project consists of the operation of REMTECH's Tarmac Super 7, Model 734, soil remediation unit. This unit is classified as a direct fired machine requiring No.2 diesel for combustion, and has 2 combustion chambers with a combined rated capacity of 70.5 MMBtu/hr. The unit's primary chamber is rated at 40.5 MMBtu/hr and is followed by a 30 MMBtu/hr burner on the secondary chamber.

The soil remediation unit has a maximum rated capacity of 50 tons/hour and will be used to remediate creosote contaminated soil located 1 mile west of Highway 21 at the intersection of highway 72 in Centerville, Missouri. The project consists of remediation of 3,600 gallons of creosote that spilled into about 2,500 tons of soil.

The creosote contaminated soil is loaded into a feed system where soil passes over a grizzly and vibrating screen separating out large (greater than 2-inch) material with the remaining soil being weighed on a belt scale in preparation for treatment. The soil then travels through a primary treatment unit (PTU), counter flow over a series of stainless steel flights that lift and cascade soil through a hot air stream until it reaches the combustion chamber. At the combustion chamber a different type of flight, called a combustion flight, is used so soil is not veiled through the flame. The soil reaches 900 °F as it travels through the combustion chamber. The volatized gas stream and any suspended particulate matter discharge up through a cyclone primary dust collector, and then into the secondary oxidizer chamber where the off gasses are raised to 1500 °F for a minimum of 2 seconds.

The particulate collected into the cyclone is reintroduced into the combustion chamber via a dust collar where the dust is mixed with the coarse soils and all materials hit the target treatment temperature before being discharged into a water hydration pugmill.

The oxidized gas stream leaves the secondary chamber and passes through two air to air heat exchangers where the gas stream is cooled down to 350 °F ~ 400 °F before it passes into the Tarmac Model P1424 (Serial # 82-1200-93) pulse jet fabric filter

baghouse (U-02) for final particulate removal.

The clean stockpile will be retained onsite in the treatment area. After receipt of analytical results indicating the remediated soil meets cleanup standards, the deposition of the treated soil will be determined.

A 750 Kilowatt Diesel electric generator is included as part of this installation to provide site power.

EMISSIONS/CONTROLS EVALUATION

The emission factors used in this analysis were obtained from the Environmental Protection Agency (EPA) document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 1.3, *External Combustion Sources* (9/98), and Section 3.4, *Stationary Internal Combustion Sources* (10/96). Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year). The installation has requested that their emissions be limited to below de minimis levels. The following table provides an emissions summary for this project.

Table 1: Emissions Summary (tons per year)

Pollutant	Regulatory De Minimis Levels	Existing Potential Emissions	Existing Actual Emissions (2005 EIQ)	Potential Emissions of the Application	Installation Conditioned Potential
PM ₁₀	15.0	N/A	N/A	1.92	N/A
SO _x	40.0	N/A	N/A	197.42	< 40.0
NO _x	40.0	N/A	N/A	159.14	< 40.0
VOC	40.0	N/A	N/A	12.25	N/A
CO	100.0	N/A	N/A	39.22	N/A
HAPs	10.0/25.0	N/A	N/A	0.14	N/A

*N/A = Not Applicable

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential Emissions of NO_x and SO_x are conditioned to de minimis level.

APPLICABLE REQUIREMENTS

REMTECH Tarmac Super Seven shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved. For a complete list of applicable requirements for your installation, please consult your operating permit.

GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110
The emission fee is the amount established by the Missouri Air Conservation Commission annually under Missouri Air Law 643.079(1). Submission of an Emissions Inventory Questionnaire (EIQ) is required April 1 for the previous year's emissions.
- *Operating Permits*, 10 CSR 10-6.065
- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*, 10 CSR 10-6.170
- *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.220
- *Restriction of Emission of Odors*, 10 CSR 10-3.090

SPECIFIC REQUIREMENTS

- *Restriction of Emission of Particulate Matter From Industrial Processes*, 10 CSR 10-6.400
- *Restriction of Emission of Sulfur Compounds*, 10 CSR 10-6.260
- Maximum Achievable Control Technology (MACT) standard, 40 CFR Part 63, Subpart EEE, *National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors*

STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

Fuad Wadud
Environmental Engineer

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated September 23, 2006, received September 26, 2006, designating Remtech, Inc. as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.
- Southeast Regional Office Site Survey, October 11, 2006.

Attachment A: Monthly NO_x Tracking Record

REMTECH Tarmac Super Seven
 Reynolds County, S29, T32N, R1E
 Project Number: 2006-09-084
 Installation ID Number: 179-0033
 Permit Number:

This sheet covers the period from _____ to _____.
 (month, year) (month, year)

Copy this sheet as needed.

Column A	Column B	Column C	Column D	Column E	Column F
Emission Point(s)	Description	Amount of fuel used / Design Rate	Unit	NO _x Emission Factor	(a) NO _x Emissions (tons)
EP01	Tarmac Super Seven Exhaust Stack		1000 gal	24.0 lb/1000 gal	
EP02	Diesel Electric Generator Exhaust Stack		MMBtu	3.2 lb/MMBtu	
(b) Total NO _x Emissions Calculated for this Month in Tons:					
(c) 12-Month NO _x Emissions Total From Previous Month's Attachment A, in Tons:					
(d) Monthly NO _x Emissions Total (b) from Previous year's Attachment A, In Tons:					
(e) Current 12-month Total of NO _x Emissions in Tons : [(b) + (c) - (d)]					

- (a) [Column F] = [Column C] x [Column E] x 0.0005
- (b) Summation of [Column F] in Tons;
- (c) 12-Month NO_x emissions total (e) from last month's Attachment A, in Tons;
- (d) Monthly NO_x emissions total (b) from previous year's Attachment A, in Tons;
- (e) Calculate the new 12-month NO_x emissions total. **A 12-Month NO_x emissions total (e) of less than 40.0 tons indicates compliance.**

Attachment B: Monthly SO_x Tracking Record

REMTECH Tarmac Super Seven
 Reynolds County, S29, T32N, R1E
 Project Number: 2006-09-084
 Installation ID Number: 179-0033
 Permit Number:

This sheet covers the period from _____ to _____.
 (month, year) (month, year)

Copy this sheet as needed.

Column A	Column B	Column C	Column D	Column E	Column F
Emission Point(s)	Description	Amount of fuel used / Design Rate	Unit	SO _x Emission Factor	(a) SO _x Emissions (tons)
EP01	Tarmac Super Seven Exhaust Stack		1000 gal	162.7S* lb/1000 gal	
EP02	Diesel Electric Generator Exhaust Stack		MMBtu	1.01S* lb/MMBtu	
(b) Total SO _x Emissions Calculated for this Month in Tons:					
(c) 12-Month SO _x Emissions Total From Previous Month's Attachment B, in Tons:					
(d) Monthly SO _x Emissions Total (b) from Previous year's Attachment B, In Tons:					
(e) Current 12-month Total of SO _x Emissions in Tons : [(b) + (c) - (d)]					

- (a) [Column F] = [Column C] x [Column E] x 0.0005
- (b) Summation of [Column F] in Tons;
- (c) 12-Month SO_x emissions total (e) from last month's Attachment B, in Tons;
- (d) Monthly SO_x emissions total (b) from previous year's Attachment B, in Tons;
- (e) Calculate the new 12-month SO_x emissions total. **A 12-Month SO_x emissions total (e) of less than 40.0 tons indicates compliance.**

*S = % sulfur in diesel fuel

Mr. Keith Chapman
Senior Vice President
REMTECH
17303B E US 24 HWY
Independence, MO 64056

RE: New Source Review Permit - Project Number: 2006-09-084

Dear Mr. Chapman:

Enclosed with this letter is your permit to construct. Please study it carefully. Also, note the special conditions, if any, on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files.

Operation in accordance with these conditions, your new source review permit application and with your amended operating permit is necessary for continued compliance.

The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

If you have any questions regarding this permit, please do not hesitate to contact me at (573) 751-4817, or you may write to me at the Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, Missouri 65102. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kendall B. Hale
New Source Review Unit Chief

KBH: fwl

Enclosures

c: Southeast Regional Office
PAMS File: 2006-09-084

Permit Number: