



IMPERIAL COUNTY
AIR POLLUTION CONTROL DISTRICT
2012 APCD PERMIT

Facility name and mailing address:

GEOSYNTEC CONSULTANTS
10875 RANCHO BERNARDO RD. STE 200
SAN DIEGO, CA 92127

Permit Number: **4156 ATC**

PAID

Active

Fee for the Year \$172.00

Permit Type SOIL REMEDIATION

Location Address BRAWLEY SOLID WASTE
SITE
BRAWLEY, CA 92227

Resp. Agent RONALD S JOHNSON

Phone 858-716-2912

Issued: **2/21/2012**

Expires: **12/31/2012**

CERTIFICATION BY AUTHORIZED AGENT

The permit presented here is correct. The authorizations, certifications, and information from the application and permit being renewed, remain valid and will be kept with this ANNUAL PERMIT RENEWAL.

DATE _____

SIGNATURE _____

CERTIFICATION BY APC DIVISION MANAGER

The PERMIT RENEWAL become valid when signed by authorized agent.

A handwritten signature in black ink, appearing to be "Ronald S Johnson", written over a horizontal line.

This permit, or an approved facsimile, shall be mounted so as to be clearly visible in an accessible place within 25 feet of the article, machine, equipment, or other contrivance, or maintained readily available at all times on the operating premises. (Rule 201D)

Return this copy with payment fees to Imperial County Air Pollution Control District
150 South 9th Street, El Centro, CA 92243-2801

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A handwritten signature in black ink, appearing to be "J. Smith", written over a horizontal line.

This permit, or an approved facsimile, shall be mounted so as to be clearly visible in an accessible place within 25 feet of the article, machine, equipment, or other contrivance, or maintained readily available at all times on the operating premises. (Rule 201D)

KEEP THIS COPY FOR POSTING



AIR POLLUTION CONTROL DISTRICT

February 21, 2012

Geosyntec Consultants
10875 Rancho Bernardo Rd., Ste. 200
San Diego, CA 92127

Dear Mr. Ronald S. Johnson:

Enclosed please find Conditions for Authority to Construct and Permit to Operate #4156 for landfill gas control located at Hovely Rd. and The New River Brawley, Ca. San Diego. Ca.

Please sign and date Authority to Construct and return our copy to our office.

It is the responsibility of the permit holder to contact the APCD within thirty (30) days of the commencement of operation to setup a time and date for an inspection of the unit(s). A Permit to operate **will not** be issued until the permitted equipment has been observed under operation, and determined to comply with all applicable Rules, Regulations and Permit Conditions.

If you have any questions regarding this permit, please do not hesitate to call **Jaime Hernandez** at 760-482-4606.

Sincerely,

Norma A. Amavizca
Office Technician

Enclosures:



AIR POLLUTION CONTROL DISTRICT

**CONDITIONS FOR AUTHORITY TO CONSTRUCT
AND PERMIT TO OPERATE #4156**

**GEOSYNTEC CONSULTANTS
10875 RANCHO BERNARDO RD., STE. 200
SAN DIEGO, CA 92127**

LOCATION: HOVELY ROAD & THE NEW RIVER, BRAWLEY, CA

Authority to Construct and Permit to Operate Conditions:

1. Operation of this equipment shall be in compliance with all data and specifications submitted with the application under which this permit is issued unless otherwise noted below.
2. Operation of this equipment shall be in compliance with all applicable APCD Rules and Regulations.
3. This Permit does not authorize the emissions of air contaminants in excess of those allowed by USEPA (Title 40 of the Code of Federal Regulations), the State of California Division 26, Part 4, Chapter 3 of the Health and Safety Code, or the APCD (Rules and Regulations).
4. This Permit cannot be considered permission to violate applicable existing laws, ordinances, regulations, rules or statues of other governmental agencies.
5. No air contaminant shall be released into the atmosphere which causes a public nuisance.
6. The Permittee shall notify the APCD within three days in advance of operations starting date.
7. All materials emitting organic compounds shall be stored in closed containers. Wastes containing any of these substances shall also be stored in closed containers pending disposal in accordance with County Health Services requirements.
8. The landfill extraction and collection system shall be designed to handle the maximum expected flow rate from the area of the landfill(s) that warrants control over the intended use period of the gas control or treatment system.

9. The Permittee shall operate the gas collection system with a negative pressure at each well head except when a fire or increased well temperature occurs. The Permittee shall record instances when positive pressure occurs in efforts to avoid fire. These records shall be submitted with the final report.
10. Each interior wellhead in the collection system shall be operated with a landfill gas temperature less than 55 degrees Celsius (131 degrees Fahrenheit) and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The Permittee may establish a higher operating temperature, nitrogen, or oxygen value at the particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.
11. The Permittee shall operate the permitted system such that all collected gases are vented to the Granulated Activated Carbon(GAC) unit.
12. The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC),high density polyethylene(HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimension to: convey projected amount of gases: withstand installation, static, and settlement forces: and withstand planned overburden or traffic loads.
13. Vertical wells shall be placed so as not to endanger underlying liners while and addressing the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors shall be sufficient cross-section so as to allow for the proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices shall be designed so as not to allow short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipes perforations should be of a dimension as to not penetrate or block perforations.
14. The Permittee shall convey the landfill gases to a control system through the collection header pipe(s). The gas mover equipment shall be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment.
15. After installing the collection system, the Permittee shall monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals (or site specific established spacing) for each collection area. The probe inlet shall be placed within 5 to 10 centimeters from the ground. The portable monitor and method shall be approved by the APCD. Results shall be submitted to the APCD at the end of pilot test.
16. The Permittee shall install a sampling port and a thermometer, or other temperature measuring device, or an access port for temperature measurements at each wellhead.

17. The GAC unit shall consist of at least two 55 gallon granulated activated carbon canisters, connected in series, and each replaced at the least every 30 days they operate or before VOC measurements reach the 50ppmv at 3% oxygen as hexane and 0.12 lb/hr.
18. Volatile Organic Compound (VOC) emissions at the GAC outlet shall not exceed 50 ppmv at 3 percent oxygen as hexane and 0.12 lb/hr.
19. Landfill gas shall be extracted at a maximum rate of 150 SCFM.
20. The Permittee shall calibrate and maintain a gas flow rate measuring device that shall record the flow to the control device every 15 minutes; this device shall record flow to or bypass of the GAC unit.
21. The Permittee shall monitor the daily landfill gas extraction rate, GAC exhaust flow rate, and exhaust volatile organic compound (VOC) concentration.
22. VOC concentration shall be measured utilizing a flame ionization detector (FID) calibrated in parts per million by volume (ppmv) as hexane or any other District approved organic vapor analyzer.
23. VOC analysis performed pursuant to Condition 21 shall be carried out in accordance of an EPA approved method. This procedure shall be received by the APCD within 5 days of start of operations.
24. A log showing exhaust flow rate and hydrocarbon concentration measurements shall be maintained on the promises and be available for inspection by the ICAPCD upon request.
25. The Permittee shall maintain records of hours and days of operation. The log shall be maintained on the promises and be available for inspection by the ICAPCD upon request.
26. The Permittee shall submit a report containing the total of days operated. This report shall also describe field activities conducted as part of the treatment and sampling confirmation, including analytical data and summary of findings. This report shall be submitted to the ICAPCD within thirty (30) days of completion of operations.

Equipment List at the Site:

1. Skid mounted Granulated Activated Carbon, two 55 gallon drums.
2. 3 landfill gas extraction wells.
3. 14 landfill gas monitoring wells.