

SUPPLEMENT TO PERMIT NO. 292-97

UNOCAL Corporation
Dexter, Michigan

August 15, 1997

GENERAL CONDITIONS

1. Rule 201(1) - The process or process equipment covered by this permit shall not be reconstructed, relocated, altered, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule.
2. Rule 201(4) - If the installation, reconstruction, relocation, or alteration of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the person to whom this permit was issued, or the designated authorized agent, shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or alteration of the equipment allowed by this Permit to Install.
3. Rule 201(6)(a) - If this Permit to Install is issued for a process or process equipment located at a stationary source which is subject to a Renewable Operating Permit pursuant to Rule 210, trial operation is allowed if the equipment performs in accordance with the terms and conditions of this Permit to Install and until the appropriate terms and conditions of this Permit to Install have been incorporated into the Renewable Operating Permit as a modification pursuant to Rule 216 or upon renewal pursuant to Rule 217. Upon incorporation of the appropriate terms and conditions into the Renewable Operating Permit, this Permit to Install shall become void.
4. Rules 201(6)(b)(i) or 216(1)(a)(v)(A) - Except as provided in General Condition No. 3, operation of the process or process equipment is allowed if, not more than 30 days after completion of the installation, construction, reconstruction, relocation, alteration, or modification authorized by this Permit to Install, the person to whom this Permit to Install was issued, or the authorized agent pursuant to Rule 204, notifies the District Supervisor, Air Quality Division, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, alteration, or modification is considered to occur not later than commencement of trial operation of the process or process equipment.
5. Rule 201(6)(b)(ii) - Except as provided in General Condition No. 3, not more than 18 months after completion of the installation, construction, reconstruction, relocation, alteration, or modification authorized by this Permit to Install, the person to whom this permit was issued, or the authorized agent pursuant to Rule 204, shall notify the District Supervisor, Air Quality Division, in writing, of the status of compliance of the process or process equipment with the terms and conditions of the Permit to Install. The notification shall include all of the following:
 6. The results of all testing, monitoring, and recordkeeping performed to determine the actual emissions from the process or process equipment and to demonstrate compliance with the terms and conditions of the Permit to Install.
 7. A schedule of compliance for the process or process equipment as described in Rule 119(a).
 8. A statement, signed by the person owning or operating the process or process equipment, that, based on information and belief formed after reasonable inquiry, the statements and information in the notification are true, accurate, and complete.

9. Rule 201(7) and Section 5510 of Act 451, P.A. 1994 - The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Departments' rules or the Clean Air Act.
10. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to Rule 219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required in Rule 219(1)(a), (b) and (c). The written request shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality.
11. Rule 901 - Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property.
12. Rule 912 - The owner or operator of a source, process, or process equipment shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant in excess of standards for more than one hour, or of any air contaminant in excess of standards for more than two hours, as required in this rule, to the District Supervisor, Air Quality Division. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the District Supervisor within 10 days, with the information required in this rule.
13. Approval of this permit does not exempt the person to whom this permit was issued from complying with any future regulations which may be promulgated under Part 55 of Act 451, P.A. 1994.
14. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.
15. Operation of this equipment may be subject to other requirements of Part 55 of Act 451, P.A. 1994, and the rules promulgated thereunder.

SPECIAL CONDITIONS

16. The volatile organic compound (VOC) emission rate from the soil vapor extraction system, hereinafter "system" with catalytic oxidizer control, hereinafter "control" shall not exceed 0.9 pounds per hour.
17. Rules 1001, 1003 and 1004 - Verification of VOC emission rates from the system and control by testing, at owner's expense, in accordance with Department requirements, may be required. Verification of emissions rates includes the submittal of a complete report of the test results. If a test is required, stack testing procedures and the location of stack testing ports must have prior

approval by the District Supervisor, Air Quality Division, and results shall be submitted within 120 days of the written requirement for such verification.

18. Applicant shall monitor and record the flow rate and total VOC concentration of the influent stream(s) to the catalytic oxidization unit on a weekly basis in a manner and with instrumentation acceptable to the Air Quality Division until 10 valid samples are obtained. Thereafter, the influent stream(s) to the catalytic oxidization unit shall be monitored for these parameters on a monthly basis. As a minimum, VOCs which should be included in determining the total concentration are total volatile organic compounds (VOCs). All data, including calculation of VOC emission rates shall be submitted to the District Supervisor using Appendix A or approved equivalent method, within 30 days following collection of the initial data, and thereafter within 30 days following the end of the quarter in which the data were collected. Any request for a change in the sampling and/or reporting frequency must be submitted to the District Supervisor, Air Quality Division, for review and approval.
19. The exhaust gases from the system and control shall be discharged unobstructed vertically upwards to the ambient air from a stack with a maximum diameter of 4 inches at an exit point not less than 22 feet above ground level.
20. Applicant shall not operate the system unless the control is installed and operating properly.
21. Applicant shall not operate the system unless a minimum temperature of 600 °F and a maximum space velocity of 36,000 hr⁻¹ in the control is maintained.
22. Applicant shall equip and maintain the control with a temperature indication device.

Appendix A
 Permit to Install No. 292
 UNOCAL Corporation
 Dexter, Michigan

Soil Remediation
 Emission Calculation and Reporting

Reporting period _____ to _____

Name of person submitting report _____

Signature _____

Mailing Address _____

City, state, zip _____

Telephone number (_____) _____ - _____ ext. _____

Date	Air flow ft ³ /min. (A)	Inlet Concentration mg/M ³ (B)	Control Effic. -% (C)	VOC emissions pounds per hour (E)
<i>xx-xx-xxxx</i>	<i>1000</i>	<i>10000</i>	<i>95</i>	<i>1.9</i>

Equation:

$$E = A * B * (100 - C) * 3.74E-8$$