

PERMIT TO INSTALL NO. 479-96

Oryx Energy Company  
Rose City, Michigan

January 21, 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:
  - A. 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.
  - B. A schedule of compliance for the process or process equipment as described in Rule 119(a).

- C. 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.
6. 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.
  7. Rule 219 - A new owner or operator of the process or process equipment covered by this Permit to Install may make a written request to the Department for a change of ownership or operational control. The request shall include all of the information required in Rule 219(1)(a), (b) and (c). If the request for a change in ownership or operational control is approved, the terms and conditions of this Permit to Install shall apply to the person or legal entity which hereafter owns or operates the process or process equipment for which this Permit to Install is issued. The written request shall be sent to the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909.
  8. 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.
  9. 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.
  10. 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.
  11. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.
  12. 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

13. There shall be no visible emissions from the natural gas processing plant (hereinafter, "equipment").

14. There shall be no visible emissions from the emergency flare, except as provided for in the Federal Standards of Performance for New Stationary Sources, 40 CFR, Part 60, Subpart KKK.
15. Monitoring and recording of emissions and operating information is required to comply with the Federal Standards of Performance for New Stationary Sources, 40 CFR, Part 60, subparts A and KKK. All source emissions data and operating data shall be kept on file for a period of at least two years and made available to the Air Quality Division upon request.
16. Applicant shall not operate the equipment unless the leak detection and maintenance plan pursuant to the Federal Standards of Performance of New Stationary Sources, 40 CFR, Part 60 Subparts A and KKK specified in Appendix A has been implemented and is maintained. Any revisions to this plan shall be submitted in writing and approved by the District Supervisor.
17. The Plan specified in condition 16 shall be updated 180 days after the start-up of the facility, and annually thereafter, as required by the federal Standards of Performance for New Stationary Sources, 40 CFR, Part 60, Subparts A and KKK.
18. The exhaust gases from the emergency flare shall be discharged unobstructed vertically upwards to the ambient air from a stack with a maximum diameter of 10 inches at an exit point not less than 35 feet above ground level.
19. The 200 horsepower compressor and 220 horsepower compressor shall not operate simultaneously for more than 500 hours annually.
20. A written record of the hours of simultaneous operation of the compressors in Condition No. 19 shall be kept on file for a period of at least two years and made available to the Air Quality Division upon request.
21. The 145 horsepower electric generators shall not operate simultaneously for more than 500 hours annually.
22. A written record of the hours of simultaneous operation of the electric generators in Condition No. 21 shall be kept on file for a period of at least two years and made available to the Air Quality Division upon request.

## APPENDIX A

### LEAK INSPECTION AND MAINTENANCE PLAN

Pursuant to 40 CFR Part 60 Subparts VV (dated 7-13-84) and KKK (dated 6-24-85), "Standards of Performance for New Stationary Sources; Equipment Leaks of VOC From Onshore Natural Gas Processing Plants", below is Sun Exploration and Production Company's generalized Leak Inspection and Maintenance Plan. This plan will be initiated within 180 days of plant start-up.

An interpretation of Subpart KKK, Subsection 60.633(d), shows that the Mentor Gas Processing Facility is exempt from the routine monitoring requirements of subsection 60.482-2(a)(1), subsection 60.482-7(a), and subsection 60.633(b)(1) (which pertain to pumps in light liquid service, valves in gas/vapor and light liquid service, and pressure relief devices in gas/vapor service) because the plant is nonfractionating and does not have the design capacity to process 10 million standard cubic feet per day (scfd) of field gas.

**Pumps in light liquid service** - The Mentor Facility will be equipped with one pump in light liquid service, this being the product loading pump (P-75). This pump will be equipped with a single seal system. The pump will be checked by visual inspection under Sun's Leak Inspection and Maintenance Plan, described below. The pump is exempted from the monitoring requirements of subsection 60.482-2(a)(1) as explained above.

**Compressors** - The Mentor Facility will be equipped with one compressor in VOC service (refrigeration compressor, K-630). Due to the distance piece design on this compressor, Sun feels that it will be exempt from the requirements of subsection 60.482-3 in that it will be designated for no detectable emissions under subsection 60.482-3(h). The deethanizer overhead compressor (K-650) is not in V.O.C. service because this piece of equipment contacts a process fluid that is less than 10 percent VOC by weight (see Exhibit V, of this permit application for the Process Weight). The composition of the stream (Stream Number 7 of Drawing 1500-001) is a calculation from a process simulation and should be an accurate prediction of the actual composition.

**Sampling connection system** - The sampling connection system at the Mentor Facility is exempt in accordance with subsection 60.633(c).

**Open ended valves or lines** - Each open-ended valve or line will be equipped with a cap, blind flange, plug or second valve in accordance with subsection 60.482-6.

**Valves in gas/vapor or light liquid service** - All valves in gas/vapor or light liquid service located at the Mentor Facility are exempt from the routine monitoring requirements as outlined in subsection 60.633(d).

Pressure relief devices in gas/vapor service - All pressure relief devices in gas/vapor service located at the Mentor Facility are exempt from the routine monitoring requirements as outlined in subsection 60.633(d) as explained above.

Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and flanges and other connectors - Any of these components, except those relief valves connected into the closed vent system, will be inspected for leakage on a weekly basis via a regularly scheduled plant walk through. Any component found leaking will be repaired as outlined in subsection 60.482-8.

Closed vent systems and control devices - The Mentor Facility will contain a closed vent system and a control device (flare) for most relief valves and vents on process equipment. The flare is designed for and will be operated with no visible emissions and will be operated with a flame present at all times accomplished by purging approximately 79 scfh of fuel gas through the flare header. The net heating value of the gas being flared will be 1077 BTU/SCF or greater at all times. The flare is designed for a 9.75 MMCFD flow rate of natural gas having a molecular weight of 19.7 and operating conditions of 100°F and 2 psig. The exit velocity of the flare is calculated to be 350 ft/sec, which is less than the 400 ft/sec maximum specified in subsection 60.633(g)(1).

In essence, due to the nature of the Mentor Facility, very little formal inspection will be required. Components where outlined above within the plant will be inspected by visual, audible, and olfactory methods on a weekly basis. If a component is found to be leaking, a first attempt at repair will be initiated within 5 working days with a final repair being completed as soon as practical but not later than 15 working days after it is detected. The only variance to this procedure will be if a plant shut-down is required to repair the component.