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40 CFR Ch. I (7-1-13 Edition)

the electronically controlled automatic igniter must be repaired or replaced before the pit flare is utilized again; and

(vi) The owner or operator does not deposit or cause to be deposited into a flare pit any oil field fluids or oil and natural gas wastes other than those designed to go to the pit flare.

(e) *Other Control Devices.* Upon prior written approval by the EPA, the owner or operator may use control devices other than those listed above that are determined by EPA to be capable of reducing the mass content of VOC in the natural gas routed to it by at least 98.0 percent, provided that:

(1) In operating such control devices, the owner or operator must follow the manufacturer's written operating instructions, procedures and maintenance schedule to ensure good air pollution control practices for minimizing emissions; and

(2) The owner or operator must ensure there is sufficient capacity to reduce the mass content of VOC in the produced natural gas and natural gas emissions routed to such other control devices by at least 98.0 percent for the minimum and maximum natural gas volumetric flow rate and BTU content routed to each device.

(3) The owner or operator must operate such a control device to reduce the mass content of VOC in the produced natural gas and natural gas emissions routed to it by at least 98.0 percent.

§49.4166 Monitoring requirements.

(a) Each owner and operator must measure the barrels of oil produced at the oil and natural gas production facility each time the oil is unloaded from the produced oil storage tanks using the methodologies of tank gauging or positive displacement metering system, as appropriate, as established by the U.S. Department of the Interior's Bureau of Land Management at 43 CFR part 3160, in the "Onshore Oil and Gas Operations; Federal and Indian Oil & Gas Leases; Onshore Oil and Gas Order No. 4; Measurement of Oil".

(b) Each owner or operator must monitor the hours that each pit flare is operated to control produced natural gas and natural gas emissions in the event that natural gas recovered for

pipeline injection must be diverted to a backup control device because injection is temporarily infeasible and there is no enclosed combustor or utility flare at the oil and natural gas production facility.

(c) Each owner or operator must monitor the volume of produced natural gas sent to each enclosed combustor, utility flare, and pit flare at all times. Methods to measure the volume include, but are not limited to, direct measurement and gas-to-oil ratio (GOR) laboratory analyses.

(d) Each owner or operator must monitor the volume of standing, working, breathing, and flashing losses from the produced oil and produced water storage tanks sent to each vapor recovery system, enclosed combustor, utility flare, and pit flare at all times. Methods to measure the volume include, but are not limited to, direct measurement or GOR laboratory analyses.

(e) Each owner or operator must perform quarterly visual inspections of tank thief hatches, covers, seals, PRVs, and closed vent systems to ensure proper condition and functioning and repair any damaged equipment. The quarterly inspections must be performed while the produced oil and produced water storage tanks are being filled.

(f) Each owner or operator must perform quarterly visual inspections of the peak pressure and vacuum values in each closed vent system and control system for the produced oil and produced water storage tanks to ensure that the pressure and vacuum relief set-points are not being exceeded in a way that has resulted, or may result, in venting and possible damage to equipment. The quarterly inspections must be performed while the produced oil and produced water storage tanks are being filled.

(g) Each owner or operator must monitor the operation of each enclosed combustor, utility flare, and pit flare to confirm proper operation as follows:

(1) Continuously monitor all variable operational parameters specified in the written operating instructions and procedures, including continuous burning pilot flame, electronically controlled automatic igniters, and monitoring

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system failures, using a malfunction alarm and remote notification system, where such systems are available, or continuously monitor under an equivalent alternative protocol upon prior written approval by the EPA;

(2) Perform a physical inspection of all equipment associated with each enclosed combustor, utility flare, and pit flare each time an operator is on site, at a minimum quarterly, to ensure system integrity;

(3) Monitor for visible smoke during operation of any enclosed combustor, utility flare or pit flare each time an operator is on site, at a minimum quarterly. Upon observation of visible smoke, use EPA Reference Method 22 of 40 CFR part 60, Appendix A, to determine whether visible smoke emissions are present. The observation period shall be 2 hours. Visible smoke emissions are present if smoke is observed for more than 5 minutes in any 2 consecutive hours; and

(4) Respond to any observation of any continuous burning pilot flame failure, electronically controlled automatic igniter failure, or improper monitoring equipment operation and ensure the equipment is returned to proper operation as soon as practicable and safely possible after an observation or an alarm sounds.

(h) Where sufficient to meet the monitoring and recordkeeping requirements in §§49.4166 and 49.4167, the owner or operator may use a Supervisory Control and Data Acquisition (SCADA) system to monitor and record the required data in §§49.4161 through 49.4168.

(i) Other Monitoring Options. The owner or operator may use equivalent methods of monitoring other than those listed above upon prior written approval by the EPA.

§49.4167 Recordkeeping requirements.

(a) Each owner or operator must maintain the following records:

(1) The measured barrels of oil produced at the oil and natural gas production facility each time the oil is unloaded from the produced oil storage tanks;

(2) The volume of produced natural gas sent to each enclosed combustor, utility flare, and pit flare at all times;

(3) The volume of natural gas emissions from the produced oil storage tanks and produced water storage tanks sent to each enclosed combustor, utility flare, and pit flare at all times;

(4) A summary of each oil and natural gas well completion operation and recompletion operation at an oil and natural gas production facility. Each summary shall include:

(i) The latitude and longitude location of the oil and natural gas well in decimal format;

(ii) The date, time, and duration in hours of flowback from the oil and natural gas well;

(iii) The date, time, and duration in hours of any venting of casinghead natural gas from the oil and natural gas well; and

(iv) Specific reasons for each instance of venting in lieu of capture or combustion.

(5) For each enclosed combustor, utility flare, and pit flare at an oil and natural gas production facility:

(i) Written, site-specific designs, operating instructions, operating procedures and maintenance schedules;

(ii) Records of all required monitoring of operations;

(iii) Records of any deviations from the operating parameters specified by the written site-specific designs, operating instructions, and operating procedures. The records must include the enclosed combustor, utility flare, or pit flare's total operating time during which a deviation occurred, the date, time and length of time that deviations occurred, and the corrective actions taken and any preventative measures adopted to operate the device within that operating parameter;

(iv) Records of any instances in which the pilot flame is not present, electronically controlled automatic igniter is not functioning, or the monitoring equipment is not functioning in the enclosed combustor, the utility flare, or the pit flare, the date and times of the occurrence, the corrective actions taken, and any preventative measures adopted to prevent recurrence of the occurrence;

(v) Records of any instances in which a recording device installed to record