

Section IV

NSPS Subpart J – Fuel Gas Combustion Devices Marine Vapor Recovery System Alternative Monitoring

NSPS Subpart J [40 CFR 60.104(a)(1)] requires that H₂S in fuel gas be limited to 230 mg/dscm (0.10 gr/dscf or 163 ppmvd) if the fuel gas is combusted in an affected fuel gas combustion device. To demonstrate compliance, CEMS are required to monitor the H₂S concentration of fuel gas. The definition of fuel gas under NSPS Subpart J also includes other "fuel gas" streams, such as process vent gases, if they are routed to an affected fuel gas combustion device. Thus 40 CFR 60.104(a)(1) regulates the vent gases from marine terminal loading that are controlled by the A100 thermal oxidizer. These include:

- Gasoline and finished gasoline component vapors with sulfur specifications; and
- Non-gasoline/non-finished gasoline component vapors mixed with natural gas.

For these vapors, the refinery does not use CEMS and instead utilizes alternative monitoring that is allowed under 60.13(i). In accordance with 60.13(i), the alternative monitoring plans have been approved by U.S. Environmental Protection Agency (EPA), Region IX. The approval letter from the EPA and the plan are included at the end of this section. Accordingly, Shell shall comply with the requirements of 40 CFR Part 60, Subparts J and A, except as explicitly listed in the alternative monitoring provisions below. The following alternative monitoring requirements shall only apply to the marine vapor recovery system at the Shell Martinez refinery.

In the Title V Permit, the following changes are requested to clarify the appropriate monitoring requirements.

Add to Condition # 4288:

12. Alternative Monitoring for H₂S

- a. For gasoline and finished gasoline component vapors with sulfur specifications, Shell shall obtain a single sample from the gas inlet to the thermal oxidizer using a Gastec #4LL H₂S tube. If the gas stream composition changes, or if the gas stream will no longer be required to meet product specifications, then the gas stream must be resubmitted for approval under the alternative monitoring plan.
- b. For non-gasoline/non-finished gasoline component vapors mixed with natural gas, where the products have sulfur specifications, Shell shall take a single detector tube sample and submit an alternative monitoring plan similar to the plan for the gasoline and finished gasoline component vapors each time the new product is loaded.

- c. For non-gasoline/non-finished gasoline component vapors mixed with natural gas, where the products have no sulfur specifications, Shell shall sample the gas stream at least every two hours while the marine vessel recovery system is processing the vessel vapors to assure that the gas stream complies with the 230 mg/dscm (0.10 gr/dscf or 163 ppmvd) requirement. For each product, Shell may propose a less frequent sampling schedule if the measured H2S concentration is insignificant.

13. Recordkeeping Requirements for Alternative H2S Monitoring.

- a. Shell shall record each gas sampling performed pursuant to Section 1.0. Each record shall identify the date and location of sampling.
- b. Shell shall maintain records for a period of five (5) years after the generation of such documentation, except this alternative monitoring plan, which shall be kept permanently, or until it has been replaced with a different alternative monitoring plan or five years after the date the marine vapor recovery system is permanently taken out of service.

14. Reporting Requirements for Alternative H2S Monitoring.

Shell shall submit a written report to USEPA within 5 days of exceeding the Subpart J requirement for H2S concentration when loading the products without product sulfur specifications. The report shall include at a minimum the date and location of sampling and the duration of the exceedance.

The following changes to tables are requested to clarify the appropriate monitoring requirements.

1. In Table IV-CF, add the following line items as follows:

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
40 CFR Part 60 Subpart A	General Provisions		
60.13(i)	Alternatives to any monitoring procedures or requirements	Y	
NSPS 40 CFR 60 Subpart J	Standards of Performance for Petroleum Refineries (7/1/00)		
60.104	Standards for Sulfur Oxides: Compliance Schedule	Y	
60.104(a)(1)	Fuel gas H2S limit	Y	

Applicable Requirement	Regulation Title or Description of Requirement	Federally Enforceable (Y/N)	Future Effective Date
BAAQMD Condition # 4288			
Part 12	Alternative Monitoring for H2S	Y	
Part 13	Recordkeeping Requirements for Alternative H2S Monitoring	Y	
Part 14	Reporting Requirements for Alternative H2S Monitoring	Y	

2. In Table VII-BR, add the following line item as follows:

Type of Limit	Citation of Limit	FE Y/N	Future Effective Date	Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
SO2	NSPS Subpart J 60.104(a)(1)	Y		Fuel gas H2S limited to 0.10 gr/dscf (230 mg/dscm or 163 ppmvd) for	40 CFR 60.13(i) Condition 4288 Part 12, 13 and 14	P/E	Gastec #4LL H2S tube