

**SAN DIEGO COUNTY
AIR POLLUTION CONTROL DISTRICT**

**DRAFT PROPOSED NEW
RULE 69.7 – LANDFILL GAS FLARES**

WORKSHOP REPORT

The San Diego County Air Pollution Control District (District) held a virtual public workshop on December 20, 2022, to discuss and receive input on draft proposed new Rule 69.7 – Landfill Gas Flares. A meeting notice was mailed to all owners or operators of municipal solid waste (MSW) landfills in San Diego County, which included the four facilities that the proposed new rule may apply to. Additionally, a meeting notice was posted on the District’s website, on social media, and distributed to interested parties via the District’s electronic mail service.

The virtual workshop was attended by 18 people. A summary of the comments and District responses are provided below:

1. WORKSHOP COMMENT

If a MSW landfill site does not fall under the California Landfill Methane Rule (LMR), is a source test still required to comply with draft proposed new Rule 69.7?

DISTRICT RESPONSE

Yes. Draft proposed new Rule 69.7 would apply to a MSW landfill where the aggregate actual or potential emissions from the landfill gas flares are at or above the federal major stationary source threshold for nitrogen oxides (NO_x), even if the source is not subject to the LMR. Currently, the San Diego Air Basin’s federal major stationary source threshold, as a Severe Nonattainment area, is 25 tons of NO_x per year.

2. WORKSHOP COMMENT

What are the next steps if the draft proposed new rule is approved by the San Diego County Air Pollution Control District Governing Board (Governing Board)? What is the role of the California Air Resources Board (CARB) and/or the Environmental Protection Agency (EPA) upon rule approval by the Governing Board?

DISTRICT RESPONSE

If approved by the Governing Board, draft proposed new Rule 69.7 would be submitted to CARB for approval with a request to forward the rule to EPA for approval and inclusion in the State Implementation Plan (SIP). The rule will be in effect upon the date of adoption by the Governing Board.

3. CARB COMMENT

CARB has no official comments at this time.

4. EPA COMMENT

Section (d) Standards is not enforceable for open flares. The District should consider clarifying that the standards in proposed new Rule 69.7 are only for enclosed flares. Optionally, the District should explain how emission standards can be enforced for open flares.

DISTRICT RESPONSE

The District agrees and has added language in Section (d) Standards to clarify that NO_x and Carbon Monoxide (CO) standards would only apply to enclosed landfill gas flares. Currently, there are no open flares operating at MSW landfills in San Diego County. Additionally, language in Section (b) Exemptions has been added to clarify that Sections (d) Standards, (h) Test Methods, and (i) Source Test Requirements of proposed new Rule 69.7 would not apply to existing open landfill gas flares.

5. EPA COMMENT

EPA recommends including an explanation of how the District set emission limits contained in Section (d) of proposed new Rule 69.7. EPA recently approved South Coast Air Quality Management District (SCAQMD) Rule 1118.1 and San Joaquin Valley Air Pollution Control District (SJVAPCD) Rule 4311, both with landfill gas flare emission limits that go beyond what is considered to be Reasonably Available Control Technology (RACT).

DISTRICT RESPONSE

The District proposes to adopt new Rule 69.7 to satisfy federal RACT requirements. RACT requirements extend to major sources of NO_x pursuant to Clean Air Act (CAA) Section 182(f). Cost-effectiveness criteria for NO_x emission reductions are utilized to determine what is considered RACT, as well as if other air districts have adopted similar emission limits.

The District considers EPA's RACT guidance in adopting NO_x controls for RACT, using a threshold of \$5,000 per ton of NO_x reduced (i.e., \$2.50 per pound), which exceeds EPA's inflation adjusted threshold found in the RACT guidance. The District also considers a local cost-effectiveness threshold of \$12,000 per ton of NO_x reduced (i.e. \$6 per pound) when adopting all rules to control emissions from existing sources. The District evaluated existing facility data for MSW landfills with flares subject to proposed new Rule 69.7, and determined that all existing flares already comply with the proposed NO_x and CO emission limits in Section (d). Therefore, proposed new Rule 69.7 is cost-effective to implement, and satisfies EPA RACT guidance and District rule development thresholds. Cost-effectiveness for proposed new Rule 69.7, with a NO_x emission standard of 0.06 pounds per million BTU of heat input (lbs/MMBtu), is estimated to be

\$0.31 per pound of NO_x reduced. At the time the Governing Board considers the proposed rule for adoption, the District will include additional cost-effectiveness information in the Incremental Cost-Effectiveness Analysis.

To determine whether the proposed NO_x emission limit in proposed new Rule 69.7 is RACT, the District evaluated landfill flare rules found in various air districts in California, including SCAQMD Rule 1118.1 and SJVAPCD Rule 4311, as well as documentation for a proposed landfill gas flare rule in Bay Area Air Quality Management District (BAAQMD). For both SCAQMD and SJVAPCD rules, both air districts have set a “low-NO_x” level for non-refinery flares at 0.025 lbs/MMBtu. The District evaluated a low-NO_x standard for proposed new Rule 69.7, but determined the threshold was not yet cost-effective to implement in San Diego County. Preliminary incremental cost-effectiveness estimates determined controlling emissions at the low-NO_x level in San Diego County would result in costs of up to \$21 per pound of NO_x reduced. This significantly exceeds both EPA’s RACT guidance threshold, as well as the local District rule development threshold. Furthermore, both the SCAQMD and SJVAPCD rule emission limits are considered to be “technology-forcing” and have yet to be adopted in nonattainment areas that are not classified as an extreme nonattainment area for federal ozone standards. Additionally, documentation from BAAQMD in 2017 for enclosed biogas flares similarly concluded a NO_x emission limit of 0.06 lbs/MMBtu was considered to be RACT level of control.¹ As such, staff determined the low-NO_x emission limit to exceed RACT level of emission control for existing landfill gas flares in San Diego County. However, new landfill gas flares that are installed in San Diego County in the future would be subject to New Source Review permit requirements including Best Available Control Technology (BACT), and thus would need to meet the established low-NO_x limit.

6. POST-WORKSHOP CLARIFICATION

The District has amended the language in Section (a) Applicability to clarify that draft proposed new Rule 69.7 would apply to all enclosed flares at a MSW landfill if the combined actual or potential emissions from such flares are at or above the federal major stationary source threshold for NO_x. Currently, the San Diego Air Basin’s federal major stationary source threshold, as a Severe Nonattainment area, is 25 tons of NO_x per year.

7. POST-WORKSHOP CLARIFICATION

The District has amended the language in Subsection (c)(10), definition of “Landfill Gas Flare”, to clarify that flares subject to the rule are those that combust landfill gas. Additionally, unnecessary language regarding energy recovery was removed since landfill gas flares operate independently from energy recovery plant(s).

¹ “Spare The Air – Cool the Climate. A Blueprint for Clean Air and Climate Protection in the Bay Area. Final 2017 Clean Air Plan.” Volume 2 – Stationary Source Sector. Stationary Source Control Measure #SS23. Page SS-76. Adopted April 19, 2017.

8. POST-WORKSHOP CLARIFICATION

For the purposes of the District's emission inventory, the current emission factor for landfill gas flares in San Diego County will be revised should proposed new Rule 69.7 be adopted by the Governing Board. NOx emissions from landfill gas flares are currently estimated using a default emission factor of 0.08 lbs/MMBtu. This emission factor would be revised to 0.06 lbs/MMBtu to reflect the NOx emission limit found in the proposed rule.

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02/03/23