Additional Entry for
New Source Review, Prevention of Significant Deterioration
and Nonattainment Area Guidance Notebook

Discussion Number: 23.21

Regulatory Citation: current: 51.165 (a)(1)(ix)
(old) 51.18 (j) (l) (ix)

Date: October 6, 1987

To: David P. Howekamp, Director
Air Management Division, Region IX

From: Gerald A. Emision, Director
OAQPS

Subject: Emissions from Landfills

CR:

Discussion: Memo clarifies how landfill emissions should be considered (i.e., fugitive or non-fugivtive) for the purpose of determining nonattainment new source review applicability.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

Oct 6 1987

MEMORANDUM

SUBJECT: Emissions from Landfills

FROM: Gerald A. Emison, Director
Office of Air Quality Planning and Standards (MD-10)

TO: David P. Howekamp, Director
Air Management Division, Region IX

This is in response to your September 1, 1987, memorandum requesting clarification regarding how landfill emissions should be considered for the purpose of determining nonattainment new source review (NSR) applicability under 40 CFR 51.18.

As you are aware, a landfill is subject to NSR if its potential to emit, excluding fugitive emissions, exceeds the 100 tons per year applicable major source cutoff for the pollutant for which the area is nonattainment. Fugitive emissions are defined in 40 CFR (j)(1)(ix) as ". . . those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening." Landfill emissions that could reasonably be collected and vented are therefore not considered fugitive emissions and must be included in calculating a source's potential to emit.

For various reasons (e.g., odor and public health concerns, local regulatory requirements, economic incentives), many landfills are constructed with gas collection systems. Collected landfill gas may be

flared, vented to the atmosphere, or processed into useful energy end products such as high-Btu gas, steam, or electricity. In these cases, for either an existing or proposed landfill, it is clear that the collected landfill gas does not qualify as fugitive emissions and must be included in the source's potential to emit when calculating NSR applicability.

The preamble to the 1980 NSR regulations characterizes nonfugitive emissions as ". . . those emissions which would ordinarily be collected and discharged through stacks or other functionally equivalent openings." Although there are some exceptions, it is our understanding that landfills are not ordinarily constructed with gas collection systems. Therefore, emissions from existing or proposed landfills without gas collection systems are to be considered fugitive emissions and are not included in the NSR applicability determination. This does not mean that the applicant's decision on whether to collect emissions is the deciding factor; in fact, the reviewing authority makes the decision on which emissions would ordinarily be collected and which therefore are not considered fugitive emissions.

It should be noted that NSR applicability is pollutant specific. Therefore, where the landfill gas is flared or otherwise combusted or processed before release to the atmosphere, it is the pollutant released, which counts toward NSR applicability. As an example, landfill gas is composed mostly of volatile organic compounds, but when this gas is burned in a flare, it is the type and quantity of pollutants in the exhaust gas (e.g., nitrogen oxides and carbon monoxide) that are used in the NSR applicability determination.

If you have any questions regarding this matter, please contact Gary McCutchen, Chief, New Source Review Section, at FTS 629-5592.

cc: Chief, Air Branch
Regions I-X

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
215 Fremont Street
San Francisco, Ca. 94105

MEMORANDUM

DATE: 01 SEP 1987

SUBJECT: Control of Emissions from Landfills

FROM: David P. Howekamp, Director
Air Division

TO: Gerald Emison, Director
Office of Air Quality Planning and Standards (MD-10)

On May 28, 1987, Region IX received an inquiry from Mr. Russ Baggerly regarding a proposed landfill in Ventura County, California (copy enclosed). Mr. Baggerly's concern, from an air quality point of view, is over significant fugitive emissions of reactive organic compounds from the site itself, and ROC and NOx from associated mobile sources and possible IC engines.

Our proposed response (enclosed) delineates the exclusion of fugitive emissions from NSR regulations. The critical question then becomes, what is the meaning of the definition of fugitive emissions stated in 40 CFR 51.18? As defined they are "those emissions which could not reasonably pass through a stack, chimney, vent or other functionally equivalent opening." If emissions from a landfill could feasibly be collected and passed through a gas recovery system, what criteria would be needed to then call it a reasonable option? Is it possible that such a landfill could be required to collect these emissions? This has not been done in the past. Please send us a written response providing guidance on this issue.

Enclosures

cc: G. McCutchen, RTP

22 May 1987

Mr. David P. Howekamp
Director - Air Management Division
United States Environmental Protection Agency
Region IX
215 Fremont Street
San Francisco, CA 94105

Dear Mr. Howekamp:

An interesting problem is about to surface here in Ventura County in regards to a possible major source. That source is a canyon landfill site currently in the process for environmental review through the Resource Management Agency of Ventura County.

Previous environmental review concerning this site was documented in the County Solid Waste Management Plan (CoSWMP). It was this document that originally divulged the fact that the Weldon Canyon landfill site, based upon the projected wastestream, would have the potential of emitting more than 100 TPY of ROC. Further study reveals that even after gas recovery mitigation the site will produce more than 100 TPY. This would of course make the project a Major Stationary Source according to 40 CFR Ch.1 Section 51.18 et seq..

The specific problems are these; 1. the district has never issued a permit for a landfill site as an area source. They have issued permits for the IC engines used for electrical generation on other sites for NOx, but landfill site fugitive emissions have never been permitted. 2. The incremental indirect emissions from mobile sources associated with this project may or may not be included in the total number of emissions attributed to this project. 3. The total emissions from the landfill site should be the NOx and ROC emissions from mobile, IC engine and all other sources added to the primary source that are the fugitive emissions from the site itself.

What I would like to know is how EPA views landfill sites, and the procedure for permitting such a source. Are all the emissions associated with the site accumulated into one figure for calculating the offsets required; e.g. incremental indirect (mobile) emissions, sludge drying ponds, leachate retention ponds, gas recovery wells, electrical generating engines, and the fugitive emissions from the landfill site itself. The possibility of emissions from all mitigation measures employed at the site should be included.

Thank you for your time and consideration concerning this item of some concern to the people of the Ojai Valley Airshed.

Respectfully,

_____
Russ Baggerly
119 S. Poli Avenue
Meiners Oaks, CA 93023