



**National
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Submitted electronically to: www.regulations.gov

Mr. Peter Keller
Air Quality Policy Division
Office of Air Quality Planning and Standards (C504-05)
Environmental Protection Agency
Post Office Box 12055
Research Triangle Park, NC 27711

Re: **Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NNSR): Regulations Related to Project Emissions Accounting; Docket number EPA-HQ-OAR-2022-0381**

Dear Mr. Keller:

The National Waste & Recycling Association (“NWRA”) submits this comment letter with respect to the U.S. Environmental Protection Agency’s (“EPA”) proposed rule entitled *Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NNSR): Regulations Related to Project Emission Accounting*, published at 89 Fed. Reg. 36870-36896 (May 3, 2024) (the “PEA Revisions Rule”).

NWRA is a trade association that represents private-sector waste and recycling companies in the United States, and manufacturers and service providers who do business with those companies. NWRA’s members operate in all 50 states and the District of Columbia. NWRA provides leadership, education, research, advocacy, and safety expertise to promote North American waste and recycling industries, serve as their voice, and create a climate where members prosper and provide safe, economically sustainable, and environmentally sound services.

NWRA has been deeply involved in reviewing, commenting and collaborating with EPA in the development of federal rulemakings that affect the municipal solid waste (“MSW”) landfill industry, with a shared goal of promoting clarity, certainty, and consistency across the numerous standards governing the sector. Our interest in the PEA Revisions Rule is consistent with that goal, and to ensure that the New

Source Review (NSR) air permitting concepts applied to landfill sources are sensible and reflective of the overarching goals of the Clean Air Act.

1. Background to Landfill Regulations under the Clean Air Act

The landfill sector is unique, both in its operations and emissions, but also in the scope and extent of existing regulatory standards governing these operations and emissions. MSW landfills are regulated under Sections 111 and 112 of the Clean Air Act pursuant to the *Emission Guidelines and Compliance Times for Existing Municipal Solid Waste Landfills* at 40 C.F.R. Part 60, Subpart Cf (“EG”); the *Standards of Performance for Landfills* at 40 C.F.R. Part 60, Subpart XXX (“NSPS”); and the *National Emission Standards for Hazardous Air Pollutants: Landfills* at 40 C.F.R. Part 63, Subpart AAAA (“NESHAP”). With the NSPS and EG standards first promulgated in 1996, MSW landfills have long been subject to standards determined by EPA to constitute the best system of emission reduction, focused on the collection and control of landfill gas.¹ Notably, MSW landfills are one of only a few source categories for which EPA has promulgated existing source standards under Section 111 of the Clean Air Act. The NESHAP was first promulgated in 2003, focused on the control of hazardous air pollutants (“HAPS”) from major source and area source landfills.²

Both sets of standards were recently re-evaluated and updated pursuant to EPA’s statutory directives to review and revise NSPS³ and to undertake a residual risk and technology review of the NESHAP.⁴ The revisions to the NSPS and EG lowered the non-methane organic compound (“NMOC”) threshold at which landfill gas collection and control systems are required to be installed, and clarified and strengthened certain monitoring, recordkeeping and reporting obligations. The updated NESHAP includes parallel revisions to monitoring, reporting and recordkeeping obligations that EPA found sufficient to satisfy the NSPS and EG, and EPA reconfirmed that the NESHAP requirements provide an ample margin of safety for public health with respect to HAP emissions from MSW landfills.

Under the NSPS/EG and NESHAP rules, MSW landfills with disposal capacity and NMOC emissions exceeding certain thresholds must install and operate landfill gas collection and control systems, minimize the occurrence of fugitive emissions, conduct monitoring at wellheads and at the surface of the landfill, and meet rigorous corrective action, reporting and recordkeeping requirements. MSW landfills subject to the NSPS/EG and NESHAP control standards are required to obtain Title V permits.

¹ The NSPS and EG were first promulgated at 40 C.F.R. Part 60 Subparts WWW and Cc, respectively. See *Standards of Performance for New Stationary Sources and Guidelines for Control of Existing Sources: Landfills*, 49 Fed. Reg. 9905-9944 (March 12, 1996).

² The NESHAP was first published at 68 Fed. Reg. 2227-2242 (January 16, 2003).

³ 81 Fed. Reg. 59332-59384 (August 29, 2016). EPA also revised the EG at the same time, at 81 Fed. Reg. 59276-59330 (August 29, 2016).

⁴ 85 Fed. Reg. 17244-17282 (March 26, 2020).

2. Application of New Source Review to MSW Landfills

Landfill gas is primarily composed of methane and carbon dioxide (“CO₂”); the remaining constituents include other gases such as sulfides and non-methane organic compounds (“NMOC”), of which a fraction is volatile organic compounds (“VOC”). In addition to landfill gas, other types of emissions from MSW landfills include criteria air pollutants such as nitrogen oxides (“NO_x”), sulfur dioxide (“SO₂”) and carbon monoxide (“CO”) associated with on-site landfill gas combustion equipment such as flares, engines, turbines and boilers (whether used for control or for the generation of renewable energy). In addition to landfill gas and the products of combustion associated with landfill gas, particulate matter (“PM”) emissions are generated via on-site landfill cell construction activity and usage of haul roads for the tipping of waste in active landfill areas.

The categorization of landfill gas emissions under the PSD and NNSR programs has developed over time. In a 1987 memo, EPA stated that landfill emissions that could reasonably be collected and vented are not considered fugitive emissions and must be included in calculating a source’s potential to emit, but noted that landfills at that time were not typically constructed with landfill gas collection systems.⁵ In a 1994 memo, EPA revised the 1987 statement after determining that landfill gas should not be considered fugitive because at least some portion of it could be collected, and therefore new landfills should be evaluated for PSD and NNSR applicability.⁶ When the NSPS was promulgated in 1996, MSW landfill emissions (measured as NMOC) became a pollutant subject to regulation under the PSD program, with a significance threshold of 45 megagrams (50 tons) per year. In evaluating fugitive or uncollected NMOC emissions from MSW landfills, including the portion of NMOC that are volatile organic compounds (“VOC”), EPA’s AP-42 identifies typical landfill gas collection efficiencies that range from 60 to 85 percent, with an average of 75 percent.⁷

Depending on the size of the landfill and the ground level ozone attainment status of the area in which it is located, some MSW landfills may be considered major sources under NNSR for VOC or NO_x. Likewise, combustion-related emissions of NO_x or CO may pull a landfill into PSD major source status, particularly if it is co-located with a renewable energy project and that project and the landfill are determined to be under the control of the same person (or persons under common

⁵ Memo from Gerald Emison, OAQPS, to David P. Howenkamp, Director Air Management Division, Region IX entitled *Emissions from Landfills*.

⁶ Memo from John Seitz, OAQPS, to Director, Air Pesticides and Toxics Management Division, Regions I and IV, Director, Air and Waste Management Division, Region II, Director Air, Radiation and Toxics Division, Region III, Director Air and Radiation Division, Region V, Director, Air, Pesticides and Toxics Division, Region VI, Director, Air and Toxics Division, Regions VII, VIII, IX and X entitled *Classification of Emissions from Landfills for NSR Applicability Purposes*.

⁷ AP-42, Fifth Edition, Volume 1 Chapter 2.4: Municipal Solid Waste Landfills (11/98).

control).⁸ The landfill sector has long realized the potential for use of landfill gas as a renewable energy resource, and has worked closely with EPA to realize that potential.⁹ Landfill gas may be used for the generation of electricity, as a medium-BTU fuel, and as a high-BTU fuel suitable for use in vehicles or for pipeline injection.

The nature of landfills and their emissions have made certain NSR concepts difficult to apply to landfills, and NWRA and its members have observed inconsistencies across states and EPA regions in their application of the rules. In particular, the generation of both landfill gas and particulate matter are driven by the lifecycle of the landfilling process, which typically proceeds on a cell-by-cell basis, with cell construction and filling progressing over time until the landfill area reaches its capacity and is closed. PM emissions are highest during active filling operations, when haul roads are most in use, and drop off drastically when the landfill's waste capacity is reached. Similarly, landfill gas is generated over a lifecycle curve that follows the stages of bacterial decomposition; the rate and volume of landfill gas production depends on factors such as age and type of waste, moisture and temperature. Landfill gas generation typically begins slowly, gradually increases to a peak, and decreases thereafter over many years.

Although landfill emissions are variable over the life of a landfill, many agencies require permittees to address peak emission rates at the time of permitting, even if such peak rates will not be realized for many years. In addition, permitting agencies require permittees to install sufficiently sized, and in some cases redundant, control capacity at the outset of a landfill's life in order to ensure adequate landfill gas control capacity over the life of the landfill. For these reasons, landfills are often required in permit applications to identify the highest anticipated emission rates – geared toward peak landfill gas volumes – which will only be realized for a small portion of the landfill's lifespan under the permit. Accordingly, the application of NSR permitting concepts may be unduly stringent for landfills to the extent that they do not allow for the recognition of increases and decreases in emission rates over time. These issues are particularly acute for existing major source landfills undertaking an expansion or the construction of a new renewable energy project, and may tend to cause these projects to trigger NNSR or PSD even where actual emissions will be well below those highest potential rates. As set forth below, NWRA believes that the PEA Revisions Rule presents an opportunity for EPA to evaluate and address the unique NSR challenges that apply to MSW landfills, and in so doing further encourage the development of renewable energy projects.

3. Comments on the PEA Revision Rule

NWRA supports EPA's proposal to maintain the basic purpose of the Project Emission Accounting Rule, to allow for the consideration of increases and decreases

⁸ MSW landfills are not a category listed by EPA pursuant to Section 302(j) of the Clean Air Act, and therefore landfills are subject to a major source threshold of 250 tons per year under the PSD.

⁹ <https://www.epa.gov/lmop/basic-information-about-landfill-gas>

in Step 1 of the two- step NSR major modification applicability test and offers the following comments with respect to EPA's specific proposals for revision of the rule.

A. Definition of "Project"

In the PEA Revisions Rule, EPA proposes to revise the definition of "project" as follows to add detail to the definition, consistent with the principles of EPA's 2018 Project Aggregation Rule¹⁰:

Project means a discrete physical change in, or change in the method of operation of, an existing major stationary source, or a discrete group of such changes (occurring contemporaneously at the same major stationary source) that are substantially related to each other. Such changes are substantially related if they are dependent on each other to be economically or technically viable.

EPA's proposed revision to the definition of "project" is intended to address concerns that permittees may circumvent NSR by arbitrarily grouping activities for the purpose of avoiding NSR using project emission accounting.¹¹ The revised definition would codify EPA's 2018 project aggregation guidance, including the "substantially related" test. In proposing the change, EPA notes the risks of both over-aggregation and under-aggregation of multiple projects in a manner that may avoid NSR:

The rule revisions proposed in this action aim to bring additional clarity and consistency by providing a controlling standard that allows reviewing authorities to identify situations where activities should be grouped together or separated. By adopting a more specific definition of "project," this action, if finalized as proposed, would enhance the ability of reviewing authorities to enforce against avoidance of major NSR requirements due to the improper aggregation or disaggregation of activities.¹²

As a general matter, NWRA is concerned that EPA's proposal to revise the definition of "project" will tend to overcorrect a perceived problem in a manner that may lead to more confusion and burden than is necessary. Specifically, the potential under-aggregation or over-aggregation of projects may be adequately handled through the existing circumvention provisions in the NSR regulations.¹³ Further, the revised definition would substitute agency permit reviewers' judgment for permittees' as to the economic and technical viability and interrelatedness of projects, an evaluation for which permittees are much better suited. Further, although EPA's focus in proposing the revised definition is the risk of permittees

¹⁰ *Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NNSR): Aggregation, Reconsideration*, 83 Fed. Reg. 57324-57333 (November 15, 2018) (the "Project Aggregation Rule").

¹¹ PEA Revisions Rule, 89 Fed. Reg. at 36877.

¹² PEA Revisions Rule, 89 Fed. Reg. at 36878.

¹³ CITE

over-aggregating projects in order to circumvent NSR, NWRA believes that over-aggregation of projects remains a substantial risk to permittees, especially in permitting jurisdictions where project emission accounting has not been implemented. The revised definition would add to that risk, by suggesting in the first instance that permit reviewers should potentially consider all contemporaneous projects as a single project regardless of how structured by the permittee, which represents a fundamental shift. Accordingly, NWRA requests that EPA maintain the current definition of “project” without revision.

To the extent that EPA intends to proceed with a revised definition of “project,” NWRA suggests two changes to the definition. First, we ask EPA to remove the last sentence from the revised definition (*Such changes are substantially related if they are dependent on each other to be economically or technically viable.*). NWRA believes that this sentence, if too broadly construed, could be misapplied and instead lead to the very type of over-aggregation that EPA seeks to avoid. The concern with over-aggregation may be particularly relevant at certain types of facilities with limited or focused operations, where *all* projects may arguably be economically or technically interdependent, by the very nature of the business. This type of aggregation determination smacks of the “overall basic purpose” concept, and runs counter to EPA’s Project Aggregation Rule. EPA warned against this type of determination, noting that project should not be aggregated merely on that basis because it would fail to take into account the actual interrelationship between the activities.¹⁴ This concern is particularly acute with respect to MSW landfills and landfill gas to energy projects, which by their very nature are dependent on the presence and availability of landfill gas in order to be considered technically and economically viable. Based on the inclusion of economic and technical dependence in the definition of “project,” one could argue that a renewable energy project must be aggregated with any contemporaneous project at the landfill which affects landfill gas generation, collection or control. Such a result would be inconsistent with the purpose of the Project Aggregation Rule, and would unduly burden the development of landfill gas renewable energy opportunities. This burden would be felt more acutely in nonattainment areas with lowered significance thresholds, and at large landfills with high volumes of landfill gas that would otherwise be strong candidates for renewable energy projects.¹⁵ Importantly, EPA noted in the Project Aggregation Rule that while the “substantially related” criterion is “sound from a policy and implementation perspective,” aggregation decisions are necessarily case-specific. With this in mind, NWRA requests that EPA remove the last sentence of the proposed definition of “project,” which would allow agencies the discretion to determine on a case and/or sector-specific basis how to best to weigh technical and economic dependence factors in project aggregation determinations.¹⁶

¹⁴ Project Aggregation Rule, 83 Fed. Reg. at 57330.

¹⁵ In this context, NWRA also urges EPA to provide clear and consistent guidance to state and local permitting agencies that co-located renewable energy facilities may be treated as separate facilities from a source aggregation standpoint, consistent with EPA’s Meadowbrook Energy and Keystone Landfill Common Control Analysis (April 30, 2018).

¹⁶ Project Aggregation Rule, 83 Fed. Reg. at 57331.

Second, and for the reasons stated herein relevant to the concern against “overall basic purpose” aggregation, NWRA urges EPA to maintain a temporal element to project aggregation determinations, and we recommend maintaining the previously determined three-year timeframe. Specifically, consistent with the Project Aggregation Rule, NWRA supports a rebuttable presumption that projects occurring more than three years apart are not “substantially related” within the meaning of the rule.¹⁷ However, NWRA cautions that such temporal presumption should be made clear in the rule definition(s), in order to avoid the risk that the term “contemporaneously” is misunderstood to refer to a five-year contemporaneous period that would otherwise apply in netting determinations.

B. Safeguarding Against Double-Counting

EPA identifies a central goal in the PEA Revisions Rule to avoid the double-counting of emissions increases and decreases in the context of major modifications within the project emission accounting framework.¹⁸ NWRA agrees with this goal, and offers the following comments that are specifically relevant to MSW landfills:

- EPA identifies the so called “demand growth” exclusion from the definition of “projected actual emissions” as an example of how the existing regulations guard against the double-counting of increases. Specifically, the definition of “projected actual emissions” provides that the calculation of such emissions *shall exclude, in calculating an increase in emissions that results from the particular project, that portion of the unit’s emissions following the project that an existing unit could have accommodated during the consecutive 24-month period used to establish the baseline actual emissions....and that are also unrelated to the particular project, including any increased utilization due to product demand growth.*¹⁹ NWRA is concerned that the demand growth exclusion is applied inconsistently across EPA regions and state permitting agencies, due to a lack of guidance from EPA in its application, and therefore does not effectively guard against the double counting of increases. For example, while some agencies appear to have adopted the methodology set forth in EPA’s *Georgia Pacific* letter,²⁰ that letter fails to provide clear guidance to regulated entities and instead merely acknowledges *Georgia Pacific’s* use of the highest demonstrated average monthly operating level during the baseline period as an approximation of the level of operation that the units could have accommodated during the baseline period. However, that approach fails to consider other factors that could increase the excludable portion of emissions, including specifically future increased market demand within the legal and physical capabilities of the units present during the baseline period.

¹⁷ Project Aggregation Rule, 83 Fed. Reg. at 57328.

¹⁸ PEA Revisions Rule, 89 Fed. Reg. at 36879.

¹⁹ PEA Revisions Rule, 89 Fed. Reg. at 36879.

²⁰ Letter dated March 18, 2010 from Gregg Worley Chief, EPA region 4 Air Permits Section to Mark Robinson, Georgia Pacific Wood Products LLC.

- MSW landfills face unique challenges in utilizing the demand growth exclusion. Specifically, in many expansion application scenarios, a significant portion of the projected actual emissions associated with the landfill are already certain to occur because of the very nature of the landfill gas generation curve; wherein baseline actual emissions may be low, and fully expected to naturally increase because of the type and age of waste already in place. NWRA members have found that agencies are sometimes unwilling to apply the demand growth exclusion to such increases, even though they were already fully anticipated at the time of initial permitting, because they don't fit neatly into the language of the exclusion, especially when viewed in light of the *Georgia Pacific* methodology or similarly narrow interpretations. Rather than double count those already permitted emissions that will necessarily be realized in the future, permitting agencies should focus only on the incremental increase in projected landfill gas volumes and emissions associated with additional waste placement for which approval is sought. In addition, where emissions associated with utilization of the full capacity of control devices (such as flares) are permitted at the outset of a landfill's lifespan, incremental increases of actual emissions within the already permitted capacity of such control devices should not be required to be recognized as increases. NWRA asks EPA to bolster its guidance to permitting agencies in this regard, to ensure that the demand growth exclusion functions as intended.
- Along the same lines, NWRA believes that anticipated emission decreases driven by declining landfill gas generation rates should be acknowledged and recognized as decreases where warranted. For example, PM emissions associated with on-site truck related emissions are often unrealistically based on the aggregated mileage of haul roads at the landfill, even though a small portion of those roads is used at any one time within the life of the landfill, based on the location of waste placement. Likewise, within the project emission accounting framework, decreases in truck activity and related PM emissions in an existing landfill area can be recognized against offsetting increases in a proposed expansion of the landfill. Likewise, a reduction in landfill gas generation rates and associated emissions from an existing landfill area can be recognized against offsetting increases in a proposed expansion of the landfill.

C. Enforceability of Emission Decreases

In the PEA Revisions Rule, EPA proposes to address concerns relating to legal and practical enforceability of emission decreases relied on in Step 1 of the NSR significant emission increase determination by revising the definition of "significant emissions increase" to add that a decrease can only be accounted for at Step 1 if it meets the creditability requirements for decreases in the existing "significant net emission increase" definition.²¹ NWRA disagrees with this proposal because it is unnecessary, and will unduly burden projects that may otherwise improve operations and efficiency with resulting improvements in facility emission profiles.

²¹ PEA Revisions Rule, 89 Fed. Reg. at 36881.

The requirements for creditable emission decreases are extremely stringent and burdensome, and tend to impair operational flexibility. In particular, EPA's proposal would significantly burden the development of new renewable energy facilities at MSW landfills. For example, consider the proposed construction of a renewable natural gas ("RNG") facility that will treat landfill gas to pipeline quality for subsequent use as vehicle fuel or in other applications. The project will provide great benefits to the environment by beneficially using landfill gas as a biofuel, offsetting the use of fossil fuels, and thereby reducing greenhouse gas emissions. The project will also result in a significant decrease in usage of and emissions from landfill gas control flares at the landfill facility because landfill gas will instead be treated in the proposed RNG facility. However, in order to maintain adequate on-site flare capacity in the event of maintenance or unavailability of the RNG facility, the landfill must preserve the ability to operate the flares at full capacity when needed to control landfill gas. In this case, real and significant emission decreases will occur from the on-site flares. The decreases will necessarily occur, because the volume of landfill gas dictates the resulting emissions, and a landfill owner would neither have the ability nor the incentive to utilize flare capacity in lieu of directing the gas to the RNG facility more often than is necessary. Often, these flares are maintained on-site as backups to the RNG facility for landfill emissions control should the RNG facility be taken off-line for any reason. However, such decreases could not meet the eligibility requirements for creditable emission decreases because they could not effectively be made enforceable through the permit by eliminating the availability of the flares. In this manner, EPA's proposal would tend to deprive facility owners of the regulatory benefits of such projects by accounting only for increases associated with new equipment or processes where a contemporaneous decrease in utilization of other equipment is certain to occur, but the need for operational flexibility remains. In these cases, where it should be evident to permitting agencies that such emission decreases are real, due to operational or design limitations associated with the particular source operation, permitting agencies should have the discretion to properly account for such decreases in Step 1 of the emission increase determination. In these cases, properly structured permit conditions dictating the circumstances under which emission units may be used, and associated overall annual source emission limitations, are adequate to ensure that projected decreases are actually realized while maintaining operational flexibility for permittees.

D. Reasonable Possibility Recordkeeping and Reporting

Consistent with the preceding comment, NWRA does not agree with EPA's proposal to add "reasonable possibility" recordkeeping and reporting requirements for sources relying on Step 1 decreases under the project emission accounting framework. Such recordkeeping is unduly burdensome, and is not necessary in light of the detailed reporting frameworks already imposed upon sources subject to federal programs under the Clean Air Act, including NSPS, NESHAP standards and Title V permits. Further, as noted above, agencies have a fair amount of latitude in establishing minor source permit conditions that will effectuate the decreases relied upon in Step 1, with which permittees ultimately would need to certify compliance

NWRA PEA Revisions Rule comments

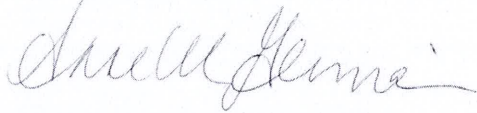
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via Title V permits once incorporated. The proposed reasonable possibility requirements are simply not necessary.

NWRA appreciates EPA's consideration of these comments on the proposed PEA Revisions Rule and would be happy to discuss any questions you may have. Please feel free to contact me at agermain@wasterecycling.org.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Anne M. Germain".

Anne M. Germain, P.E., BCEE
COO & SVP Regulatory Affairs