

Using Locomotive and Truck Idling Emission Reductions for New Source Review Offsets

1. What is the purpose of this guidance?

The purpose of this document is to provide you with guidance on using emission reductions for new source review (NSR) offset purposes from technologies which reduce long duration emissions from the following:

- truck idling emissions from Class 8 truck emissions included in the on-road mobile sources inventory, and
- switch yard locomotive idling emissions.

2. How does this guidance relate to existing Clean Air Act (CAA) requirements?

This document provides guidance to EPA Regional and State permitting authorities as well as industrial sources seeking NSR permits and the general public on how EPA intends to exercise its discretion in implementing the statutory and regulatory provisions that concern NSR offsets. NSR permit requirements are located in :

- 40 CFR § 51.165 (a)
- 40 CFR Part 51, Appendix S
- For States with federally approved nonattainment NSR regulations, 40 CFR part 52.

The statutory provisions and EPA regulations described in this document contain legally binding requirements. This document does not supercede or change any existing federal or state regulations, including those of an approved SIP, nor is it a regulation itself. Thus, it does not impose legally binding requirements on EPA, States, or the regulated community, and may not apply to a particular situation based upon the circumstances. EPA and State decisionmakers retain the discretion where appropriate to adopt approaches on a case-by-case basis that differ from this guidance. Any decisions regarding a particular source will be made based on the statute and regulations. Therefore, interested parties are free to raise questions and objections about the substance of this guidance and the appropriateness of the application of this guidance to a particular situation. EPA will, and States should, consider whether or not the recommendations or interpretations in the guidance are appropriate in that situation. Sections 5 - 9 of the guidance, except where otherwise noted, discuss existing legal requirements. Section 10 -13 discuss additional criteria and procedures that EPA believes should be evaluated where certain truck and locomotive idling emission reductions are involved because of circumstances unique to reductions from these types of sources and explains how the Agency intends to exercise this discretion to implement national policy on these issues.

3. What is an NSR offset?

Part D of Title I of the Clean Air Act requires states to impose permit requirements for major new sources wishing to construct in nonattainment areas, and for major modifications of existing major sources located in such areas. Section 173 of the Clean Air Act provide that these requirements include:

- Applying the lowest achievable emission rate (LAER) control technology.

- Offsetting new emissions with creditable emission reductions.
- Providing a net air quality benefit analysis where appropriate.
- Certifying that all sources in the State owned and operated by the same owner are in compliance with all applicable emissions limitations and CAA standards.
- Demonstrating, through an alternative siting analysis, that the benefits of the proposed source significantly outweigh the environmental and social costs resulting from the source's location, construction, or modification.
- Providing an opportunity for public comment on the permit.

NSR offsets are emission reductions obtained by the owner or operator proposing to construct a new major source, or proposing to construct a major modification of an existing source, in a nonattainment area. The amount of the offsets in tons per year must equal or exceed the amount of the emission increases at the proposed new or modified source. This guidance addresses the offset requirement. Any NSR permit must also meet all other NSR requirements.

4. How does this guidance on NSR offsets relate to EPA's guidance on quantifying and using truck and locomotive idling reductions for SIP or transportation conformity purposes?

This guidance on NSR offsets supplements our guidance on quantifying and using long duration truck and locomotive idling emission reductions for meeting CAA requirements, such as reasonable further progress (RFP) /rate of progress (ROP), attainment, or maintenance ; or for truck idling emission reductions, a transportation conformity determination. Specifically:

- EPA's "Guidance for Quantifying and Using Long Duration Truck Idling Emission Reductions in State Implementation Plans and Transportation Conformity" (Truck Idling Guidance), January 2004, provides EPA policy for using long duration truck idling emission reductions for general SIP purposes and transportation conformity.
- EPA's "Guidance for Quantifying and Using Long Duration Switch Yard Locomotive Idling Emission Reductions in State Implementation Plans and Transportation Conformity" (SYL Idling Guidance), January 2004, provides EPA policy for using long duration locomotive switch yards idling emission reductions for general SIP purposes.

The quantification protocols outlined in the Truck and SYL Idling Guidance documents may also be used to quantify emission reductions for NSR offset purposes. Similarly, the criteria in these guidance documents for using the emission reductions apply for NSR offset purposes. However, additional criteria, beyond those described in the Truck and SYL Idling Guidance documents, also apply for using emission reductions for NSR offset purposes. This guidance document addresses the criteria which apply when using truck or locomotive long duration idling reductions for NSR offset purposes.

5. What are the basic requirements for emission reductions to be creditable for NSR offsets?

Any emission reduction used for NSR offsets must be

- Quantifiable
- Surplus,

- Federally enforceable, and
- Permanent

These requirements are based directly on the CAA section 110 requirements for SIPs in general, and the CAA title I, part D requirements for nonattainment area SIPs, including 40 CFR § 51.165(a)(3).

6. How does an emission reduction meet the quantifiable requirement?

The emission reductions from a control measures are quantifiable if they can be reliably and replicably measured. Emission reductions must be calculated for the time period for which the reductions will be used.

Guidance for quantifying these emissions may be found in Section D of the Truck and SYL Idling Guidance documents. In addition to the criteria in those documents, estimated emission reductions used for offsets should be discounted by 10 percent to address uncertainties associated with projecting those emission reductions. This 10 percent additional reduction, however, does not apply to the actual emission reduction achieved. Depending on the circumstances, a discount greater than or less than 10 percent may be appropriate. As noted in those guidance documents, you may also submit your own quantification protocol which EPA will review and approve on a case-by-case basis.

7. How does an emission reduction become surplus?

Section 173(c)(2) of the CAA provides that emission reductions otherwise required by the Act shall not be creditable for purposes of meeting any offset requirement. Emission reductions are surplus to other CAA requirements and can be used as offsets for a new major source, or major modification of an existing source, as long as they are not otherwise relied on to meet other applicable CAA requirements, including:

- A technology-based requirement, including reasonably available control technology (RACT), under section 172(c)(1); best available control technology (BACT), under section 169(c); LAER, under section 173(a)(2); best available retrofit technology (BART), under section 169A(b)(2)(A); new source performance standard (NSPS) limits, under section 111(b); or new source standards for hazardous air pollutant (NESHAP) limits under section 112.
- Demonstration of transportation conformity (applies to truck idling emission reductions only), attainment, or maintenance of a national ambient air quality standard (NAAQS).
- Compliance with RFP or ROP requirements.
- Offset or netting requirements under section 173 of the CAA.
- Federal rules for reducing volatile organic compounds (VOC) under section 183 of the CAA
- Other adopted state air quality programs, rules, regulations or ordinances not in the applicable SIP.
- Emission reductions used for any other CAA requirement (including title IV of the acid rain requirements).

The following additional requirements also apply to assure that emission reductions meet the

“surplus” requirement:

- Emission reductions may, at the time that they occur, be surplus, but they cease to be surplus as soon as they are relied on to meet the air quality related program requirements listed above.
- To be considered surplus for SIP purposes, the emissions reduced must be a part of the applicable SIP emissions inventory.
- Similarly, for truck idling emission reductions, to be considered surplus for transportation conformity purposes, the emissions reduced must be part of the regional emissions analysis for the conformity determination.

For specific guidance on how to determine the amount of truck or SYL idling emission that are surplus see Section C of the Truck Idling and SYL Guidance.

8. How does the emission reduction become federally enforceable?

Depending on how the emission reductions are to be used, control measures must be made federally enforceable through one of the following:

- A SIP or SIP revision,
- for trucks only, a transportation conformity determination, or
- a permit issued under a SIP-approved permitting program.

Where the emission reductions are required under a rule or regulation, they are considered federally enforceable if they meet all of the following requirements:

- They are independently verifiable.
- Violations are defined, as appropriate.
- The State and EPA have the ability to enforce the measure if violations occur.
- Those liable for violations can be identified.
- Citizens have access to all the emissions-related information obtained from the responsible party.
- Citizens can file suits against the responsible party for violations.
- Violations are practicably enforceable in accordance with EPA guidance on practicable enforceability.
- A complete schedule to implement and enforce the measure has been adopted by the implementing agency or agencies.

It is important to note, emission reductions approved under our Voluntary Measures Policy reductions (including truck and SYL long duration idling emissions) may not be used for NSR offsets.

9. How does an emission reduction meet the permanent requirement?

The emission reduction must be permanent throughout the term that the emission reduction is used. The NSR offset requirement must be met for the life of the new source. However, the

offsets are not required to come from the same source or sources for this entire time. Emission reductions from measures to reduce truck and SYL idling restrictions are considered short term because the quantity of the reduction is creditable over the life of the new sources. Normal fleet turnover will result in lower baseline emissions from these sources over time. Consequently the amount of emission reductions available from controlling long duration idling from trucks and locomotives will be lower in the future.

Any emission reductions that do not last as long as the emission reduction requirement must meet additional requirements. Some of these additional requirements call for additional provisions in the applicable NSR permitting program. Please work with your EPA Regional Office to determine whether any changes are needed in the applicable NSR program to allow for the use of short term credits. Some of these additional requirements may include:

- The new source must obtain emission reductions sufficient for a minimum number of years (e.g., 5 years), both initially and at each renewal.
- If the permit expires in a specified year, the source would be required by the end of the preceding year to submit an application and show that it will be holding emission reductions to cover the time when the permit expires. For example, if the permit expires in the 5th year, the new source would be required by the end of the 4th year to submit an application and show that it will be holding credits beginning in the 6th year.
- The public comment period needs to occur early enough, (i.e. a minimum of 6 months before permit expiration) to allow sufficient time for the source to obtain additional reductions should the initial reductions turn out to be invalid.
- The public must have the opportunity to review and comment on the validity of the emission reduction generation and use, but not necessarily at the same time. This is the opportunity for the public to comment on the proposed new permit and its source of emissions offsets.
- The rule should provide that future years' reductions meet the same requirements and provide the same benefit as the initial offsets provided.
- Use must be contemporaneous with the period of actual reduction. The emission reductions generated in a given calendar year must be used within that given calendar year. If not used, they will no longer be valid for use. From a tracking, enforceability, and administration standpoint, it works best to have the term of the credit coincide with a calendar year.
- Generators and users of credits are both liable for improperly generated credits that are used. Users are liable for the improper use of credits. All liable parties are responsible for penalties and for making the environment whole, including giving up multiple credits for each credit improperly generated or used.
- In areas that are nonattainment for ozone, reductions in ozone precursors that occur during the ozone season may be used to offset all emission increases, however, emission reductions that occur during the rest of the year may only be used for increases that do not occur during the ozone season.

10. What additional criteria should be applied for a reduction from long duration idling emissions to be used as an NSR offset?

In addition to the above requirements, for emission reductions from SYL or truck idling to be

creditable as NSR offsets, the following criteria should be addressed:

- Ensure the owner or lessee of the location where the idling measures are installed has the right through direct ownership, agreement, or contract to implement the measure.
- As described in the Truck Idling Guidance, question 7(D)(2), and the SYL Idling Guidance, question 7(E)(2), the amount of estimated and actual idling emission reductions from the control measures should be a percentage of the historic idling hours. You will be given credit only for the actual emission reductions achieved up to the estimated amount for the year the emission reductions are being generated and used. If in one time period the actual emission reductions are higher than the estimated amount, you may use the higher value in subsequent time periods if:
 - the higher amount has undergone public notice and comment, and
 - the applicable permit reviewing authority has verified that the higher amount of emission reductions have actually been achieved.
- For truck idling emissions, the total emission reductions from all controls for each criteria pollutant or precursor should not exceed 3.4 percent of the Class 8 truck emissions inventory for each specific pollutant or precursor in a given year. See question 8 of the truck idling guidance for more information on this percentage.

11. What monitoring, recordkeeping, and reporting should occur to document long duration truck and locomotive idling emission reductions as NSR offsets?

The monitoring and recordkeeping criteria are the same as described in the Truck and Locomotive Idling Guidance, section E. In addition to these criteria, the truck, locomotive, or location owner should submit information obtained from the monitoring and recordkeeping to you for each time period for which emission reductions are generated.

12. What kind of validation and reconciliation is required for emission reductions in SIPs or as NSR offsets?

Once the control measure is in place emission reductions should be reviewed by you, at least annually, as required to validate the actual emission reductions.. If the review indicates that the actual emission reductions are not consistent with the estimated emission reductions, then shortfall penalties may be assessed as described below.

13. What penalties may be imposed?

The penalties criteria are the same as described in the Truck Idling Guidance, question 15 and the SYL Idling Guidance, question 14. In addition, any person who submits false information to you or fails to implement or comply with provisions pursuant to this guidance necessary to demonstrate compliance with CAA requirements, should be subject to one or more of the following actions, as appropriate:

- (1) Disapprove the application for emission reductions.
- (2) Void all previously-issued emission reductions.
- (3) Designate the responsible party to be ineligible to generate emission reductions.
- (4) Assess a penalty (see Section E of Truck and SYL Idling Guidance).

14. Who should you contact for additional information?

For questions concerning the use of truck and locomotive idling emission reductions as NSR offsets, please contact Nancy Mayer of EPA's Office of Air Quality Planning and Standards at 919/541-5390.