



in balance

2005 NSR Regulation Changes

Dwight Wylie

Old Units vs. New Units

- ▶ There is a broad disparity between air pollution control requirements and emissions limits for old units (grandfathering) and new units
- ▶ New units and significant rebuilds and modifications to old units result in New Source Review (NSR)
 - New units and some modifications must install state of the art air pollution controls
 - All must obtain permit before modifying (2-6 month delay)

What is New Source Review (NSR)?

- ▶ Construction permit requirements for new and modified emission units.
- ▶ Includes prevention of significant deterioration (PSD) and nonattainment area permitting.

EPA's NSR Reforms

- ▶ PALs
- ▶ New Applicability Test
 - Two-fold test
 - Significant Emissions Increase
 - Significant Net Emissions Increase
 - Actuals to projected actuals test for existing units

EPA's NSR Reforms That did not make it

- ▶ EPA's NSR reforms were appealed to Court.
- ▶ Court vacated Routine, Maintenance, Repair, and Replacement definition - DEQ did not adopt.
- ▶ Court vacated PCP Exclusions and Clean Unit Exemptions - DEQ did not adopt.
- ▶ Court remanded exemptions from monitoring and recordkeeping for Actuals-to-Projected Actuals Test - DEQ did not adopt exemption.

Understanding the New Applicability Test:

Old NSR Requirements

- Non-EUSGUs and New Emissions Units :
“Actual to allowable” Test -
Compare past actual emissions
to future allowable emissions.
- EUSGUs:
The “WEPCO Test” -
Compare past actual emissions
to representative actual annual emissions.

Understanding the New Applicability Test

New Requirements

Actual-to-projected-actual Test

- Apply to changes at any existing emissions unit (includes replacement and reconstructed units*).
- Source must make a projection of **post-change annual emissions** that are expected to result from the project.

* See 67 FR p. 80194, Dec 31, 2002

Applicability Test

EXAMPLE

Modification at Plant ABC

Assumptions: Existing Major Source, Attainment Area, VOC Emissions

* Plant ABC began operations in late 2000

Year*	VOC Actual Emissions
2001	125 tpy
2002	135 tpy
2003	155 tpy (projected)
2004	155 tpy (projected)
2005	160 tpy (projected)
2006	160 tpy (projected)
2007	165 tpy (projected)

Post-change allowable Emissions:

300 tpy VOC

Applicability Test (Old)

EXAMPLE

Modification at Plant ABC

Assumptions: Existing Major Source, Attainment Area, VOC Emissions

* Plant ABC began operations in late 2000

Year*	VOC Actual Emissions
2001	125 tpy
2002	135 tpy
2003	155 tpy (projected)
2004	155 tpy (projected)
2005	160 tpy (projected)
2006	160 tpy (projected)
2007	165 tpy (projected)

Future allowable Emissions:

300 tpy VOC

Current Rule

past actual (130 tpy) vs. future PTE (300 tpy)

Proposed Increase = **170 tpy [>40 tpy]**

**Net emissions increase = 170 tpy
[>40 tpy]**

Modification subject to PSD

Applicability Test (New)

EXAMPLE

Modification at Plant ABC

Assumptions: Existing Major Source, Attainment Area, VOC Emissions

* Plant ABC began operations in late 2000

Year*	VOC Actual Emissions
2001	125 tpy
2002	135 tpy
2003	155 tpy (projected)
2004	155 tpy (projected)
2005	160 tpy (projected)
2006	160 tpy (projected)
2007	165 tpy (projected)

Future allowable Emissions:
300 tpy VOC

New Rule

Baseline actual emissions (130 tpy) vs. projected actual (165 tpy)

Projected Increase = **35 tpy** [**< 40 tpy**]

MINOR MODIFICATION

EPA NSR Reform Plantwide Applicability Limitation (PAL)

- ▶ Any major stationary source may establish a plantwide applicability limitation based on baseline actual emissions (actuals PAL) for use in future NSR actions.
- ▶ The actuals PAL can be established in a PSD Permit to Construct, a Title V Permit, or a Permit to Operate a Synthetic Minor Source.

EPA's NSR Reforms Off Permit Changes

- ▶ 502(b)(10)
- ▶ Actual-to-Projected Actual Test
- ▶ Must not be a Title I Modification

Title 1 Modification

- ▶ “Modification” as defined under NSPS, NESHAPS
- ▶ “Modification” as defined under PSD
- ▶ Contemporaneous Net outs are “modifications” at existing major PSD source

MS Reform Optional Title V Permit Modification

- ▶ For a modification of a source holding a valid Title V permit, approval to construct may be issued as a modification of the Title V permit as an alternative to a new Permit to Construct.

MS Reform

Optional Pre-Permit Construction

- ▶ Pre-permit construction approval is available for most:
 - new moderate stationary sources
 - new minor stationary sources
 - minor modifications
 - moderate modifications
- ▶ After requirements have been met and receipt of public comments, approval to begin construction before permit issuance may be granted.

...continued next slide

Pre-Permit Construction Approval Application Contents

- ▶ A letter requesting approval to construct before obtaining the required permit to construct;
 - ▶ a copy of the notice;
 - ▶ proof of eligibility;
 - ▶ process description(s);
 - ▶ equipment list(s);
- ...continued next slide

Pre-Permit Construction Approval Application Contents (continued)

- ▶ proposed emission limits;
- ▶ proof that buffer zone requirements are met;
- ▶ certification that construction is at the applicant's own risk;
- ▶ certification that the applicant shall not contest the final permit to construct or Title V permit modification decision based on the fact that construction has already begun.

Example Question

An existing facility is a PSD major source. One of the existing emissions units has to be modified. The current allowable NO_x emissions for this process is 85 TPY and the potential to emit after modification is 90 TPY. The baseline actual emissions for this unit over the last 10 years is 20 TPY of NO_x. The projected actual NO_x emissions after the modification are 25 TPY. What are the construction permit and operating permit requirements?

Example Answer

This is not a major modification since the current actuals to projected actuals is less than 40 TPY. Since they are below 30 TPY, this is also a De minimus NSR modification and a Construction Permit is not required.

Example Question

An existing facility is a major source as defined by PSD regulations and the permittee holds a Title V operating permit. The permittee proposes to add another emission point with PTE of 35 TPY of NO_x and 50 TPY of CO. Would he need a Construction Permit?

Example Answer

Yes, he needs a construction permit for a minor modification. This is not a De minimus NSR modification. However, he can apply for a Pre-Permit Construction approval and begin construction upon approval.

Example Question

An existing facility is a major source as defined by PSD Regulations and holds a Title V operating permit. The permittee wants to add another emission point with PTE of 50 TPY NO_x and 60 TPY CO. He wants to take operational restrictions at several emissions units to keep the net emissions increase of NO_x to 39 TPY to avoid PSD. Would he need a construction permit? Does the operating permit have to be modified?

Example Answer

The permittee would need a Construction Permit. If he needs to immediately begin construction, he can apply for Pre-Permit Construction approval. However, he needs a significant modification of his Title V permit before beginning operation because of netting. The permittee can apply for a Title V modification instead of the construction permit. Pre-Permit Construction approval is an option either way.

Example Question

A proposed new facility will have potential to emit (PTE) greater than 260 TPY of VOCs. However, the applicant proposes to take limits to qualify as a Synthetic Minor Facility (Less than 99 TPY). Is a construction permit required?

Example Answer

A Construction Permit is required. If time is critical & the applicant wants to start construction as soon as possible, he can apply for a Pre-Permit Construction Approval. If and when he receives the approval, construction may begin. The facility cannot be operated until the final permit to construct has been issued and construction certified.

Example Question

An existing facility is a major source as defined by PSD regulations and the permittee holds a Title V operating permit. The permittee proposes to add another emission point with PTE of 35 TPY of NO_x and 50 TPY of CO. Would he need a Construction Permit?

Example Answer

Yes, he needs a construction permit for a minor modification. This is not a De minimus NSR modification. However, he can apply for a Pre-Permit Construction approval and begin construction upon approval.

Example

New Steam (Dryer)

- ▶ No direct emissions from dryer.
- ▶ Requires more steam from existing boilers – Excess boiler capacity.
- ▶ Debottlenecks – Greater steam demand.
- ▶ Actuals-to-projected actuals from boilers for increases.
- ▶ Old rules require actuals-to-potential from boilers.