

Air Permit Reviewer Reference Guide

APDG 5881

**Federal New Source Review
Permits
(FNSR Permits)**

Applicability Determination

**Air Permits Division
Texas Commission on Environmental Quality
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FNSR Permits - Applicability Determination

Introduction

Each project with a proposed new facility, or a physical or operational change to an existing facility, must be evaluated to determine whether it is subject to Prevention of Significant Deterioration (PSD) or Nonattainment permitting. That determination is made on a pollutant by pollutant basis using the steps provided in this document. Although the PSD and Nonattainment permit reviews are quite different, the steps to determine whether they apply to a project are very similar.

Federal, or major, New Source Review (NSR) permitting is similar to state, or minor, NSR permitting; however, the differences are significant enough so that every project must be evaluated to determine if it is subject to major NSR. Projects subject to major NSR must also undergo a case by case minor NSR permit review (they cannot be authorized by permit by rule or standard permit). Note the following differences between major (federal) and minor (state) NSR:

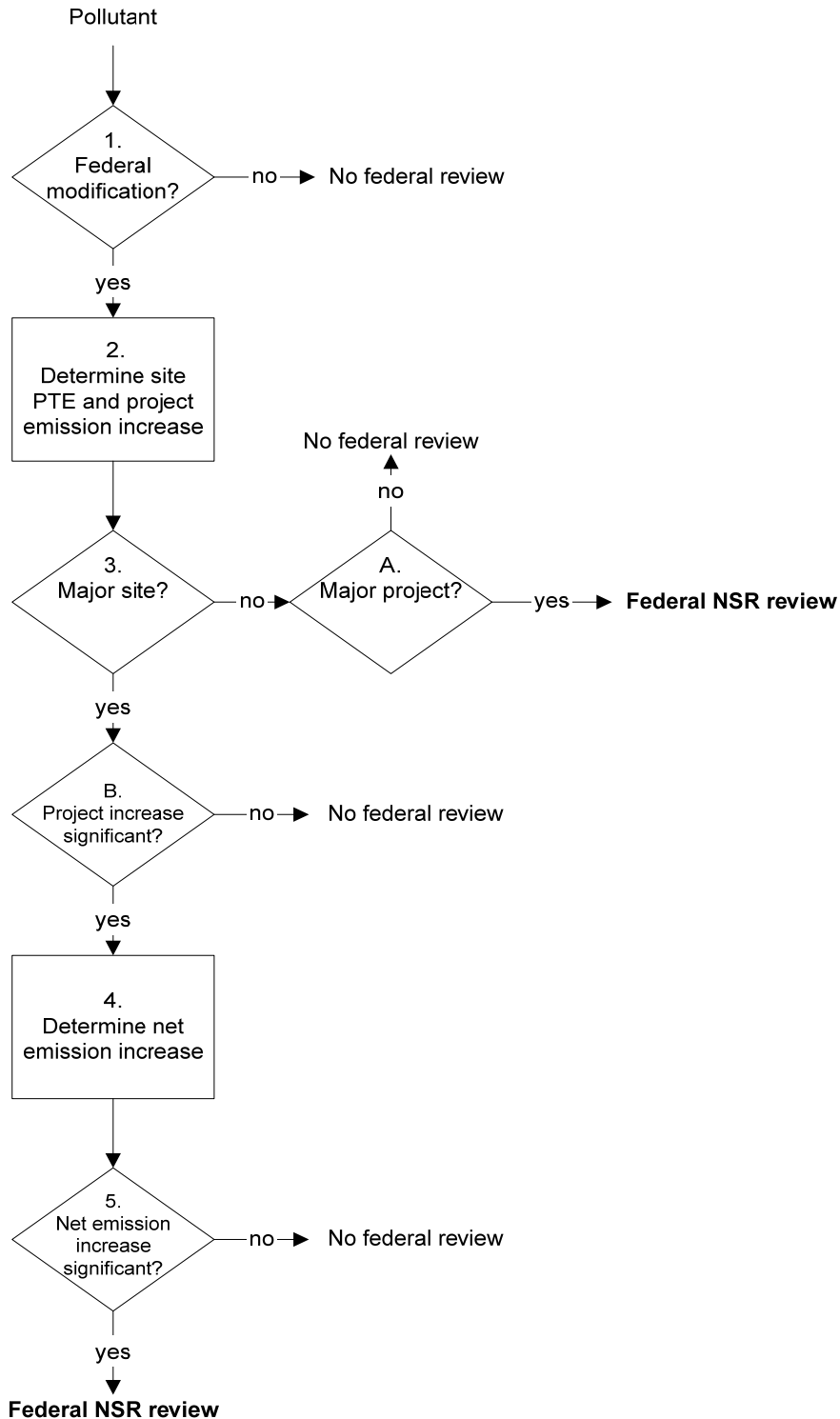
1. Major source permitting is done on a pollutant basis; i.e. a project may be considered a major modification for one pollutant and Best Available Control Technology (BACT) would only be reviewed for that pollutant. Minor source NSR permitting is done on a facility basis; so once a facility is modified, all pollutants emitted from that facility are subject to review. Major source permitting is only done for federally regulated NSR pollutants whereas state (minor) NSR is required for all air contaminants emitted by a facility.
2. Changes to qualified facilities (Senate Bill 1126) in 30 Texas Administrative Code 116.116(e) (30 TAC 116.116(e)) and flexible permits in 30 TAC 116 Subchapter G exempt some changes to existing facilities from being considered modifications to facilities, which exempts them from the requirements of minor NSR. These rules do not waive any of the requirements of major new source review. This is also true for pollution control projects including those authorized via 30 TAC 116.617. If a project is subject to major NSR, the minor NSR authorization cannot be obtained through TAC 116.116(e) or 30 TAC 116.617; an amendment would have to be submitted for any flexible permit authorization. The only exemptions to major NSR are identified in the definition of major modification in 30 TAC 116.12.

Applicability Determination

This procedure can be summarized in five steps: as illustrated in Figure 1; however, there are complex concepts and procedures within each of the steps. The detail behind each of the steps is provided in the following text. Each

pollutant emitted from the facilities associated with the project must be considered separately.

Figure 1: FNSR applicability procedure



1. Is this a federal modification?

A modification is any physical change in, or change in the method of operation a facility that causes an emissions increase for any federally regulated new source review pollutant with the following exceptions:

- A. routine maintenance, repair, and replacement (RMRR)
- B. use of an alternative fuel or raw material by reason of an order under the Energy Supply and Environmental Coordination Act of 1974, § 2(a) and (b) (or any superseding legislation) or by reason of a natural gas curtailment plan under the Federal Power Act;
- C. use of an alternative fuel by reason of an order or rule of 42 United States Code, § 7425;
- D. use of an alternative fuel at a steam generating unit to the extent that the fuel is generated from municipal solid waste;
- E. use of an alternative fuel or raw material by a stationary source that the source was capable of accommodating before December 21, 1976 (unless such change would be prohibited under any federally enforceable permit condition established after December 21, 1976) or the source is approved to use under any permit issued under regulations approved under this chapter;
- F. an increase in the hours of operation or in the production rate (unless the change is prohibited under any federally enforceable permit condition that was established after December 21, 1976);
- G. any change in ownership at a stationary source;
- H. any change in emissions of a pollutant at a site that occurs under an existing plant-wide applicability limit;
- I. the installation, operation, cessation, or removal of a temporary clean coal technology demonstration project, provided that the project complies with the state implementation plan (SIP) and other requirements necessary to attain and maintain the national ambient air quality standard during the project and after it is terminated;
- J. for prevention of significant deterioration review only, the installation or operation of a permanent clean coal technology demonstration project that constitutes repowering, provided that the project does not result in an increase in the potential to emit of any regulated pollutant emitted by the unit. This exemption shall apply on a pollutant-by-pollutant basis; or
- K. for prevention of significant deterioration review only, the reactivation of a clean coal-fired electric utility steam generating unit.

There is not a pollution control project exclusion and Environmental Protection Agency's (EPA) Equipment Replacement Provision option for RMRR was vacated by the federal district court and is not available for use.

In most cases, if it is necessary to change a NSR permit condition to allow an operation, the change should be considered a change in method of operation and

therefore a potential modification. This is also generally true of changes proposed under 30 TAC 116.116(e) Changes to Qualified Facilities (SB 1126).

This step utilizes portions of the definition of major modification in 30 TAC 116.12. The portions of that definition referring to the magnitude of the emission increase are considered in steps 2 through 5 of the applicability determination.

Example 1: Adding a flare to control a vent stream

A refinery in Corpus Christi has an uncontrolled vent stream they plan to route to a flare to control VOC emissions. Is this a federal modification? What if the control was required by a new rule?

A flare would be expected to reduce the amount of Volatile Organic Compound (VOC) emitted to the atmosphere but would also emit products of combustion such as Carbon Monoxide (CO) and Nitrogen Oxides (NO_x). In addition, any hydrogen sulfide in the waste stream would be oxidized to sulfur dioxide (SO₂). Each of these pollutants must be considered separately to determine if there is a modification for that pollutant.

In this case, there is no potential for an increase in emissions of VOC or hydrogen sulfide as a result of routing the waste stream to a flare. It would be a modification for SO₂, CO, and NO_x. Particulate matter is not considered because there is assumed to be no particulate emitted from a properly operated flare.

Note that this project is eligible to be authorized under minor NSR via the pollution control standard permit (30 TAC 116.617) if the emission increases in the three pollutants do not require a major NSR review. If the increase in emissions of one or more of them is significant and the net emission increase is also significant, the project would have to be reviewed under state construction or flexible permit rules in addition to PSD.

The reason for flaring the waste gas stream would not impact whether the proposed change was a federal modification.

Example 2: Replacing burners in a heater

A routine burner inspection identified that 5 burners in an existing heater require replacement. Will the replacement be considered a modification?

EPA has traditionally relied upon a four factor test (nature and extent, purpose, frequency, and cost) to determine whether a project falls into the routine maintenance repair and replacement exclusion to modification. There is a fair amount of EPA guidance in this area and there have been several electric power

producers that have taken EPA to court over this exclusion with some cases yet to be settled. In simple terms, the more routine, more limited the improvement in operation, more frequent, and less costly, the more likely that the activity could be claimed under this exclusion.

If the burners are replaced with the same type of burner and represent a fraction of the total installed burners, the replacement would likely not be considered a modification.

Example 3: Adding facilities to an emissions cap

A source holds a permit authorizing 10 tanks which limits total tank emissions to 51 tpy. An additional tank is proposed to be constructed and added to the current tank emission cap. Is there a modification if there is no change to the emission cap? What facilities are modified if the cap is increased to 57 tpy?

The newly constructed tank is a “modified” facility regardless of whether the emission cap increases. If the emission cap is increased, all the tanks under the cap are modified because they can all now emit up to 57 tons per year (tpy), unless there are other operational limits in the permit conditions that would prevent them from emitting at that rate.

EPA has proposed rules which could revise this definition, including:

- A requirement for electrical generating units that would require that the modification result in an increase in the design operating rate (similar to the definition for modification used for New Source Performance Standards).
- A formalized definition for what changes are considered part of a project (aggregation). This proposal also included changes to how affected facilities are considered in determining the project emission increase (debottlenecking) as well as the opportunity to net emission changes within a project.

If and when these proposed rules are adopted, TCEQ will need to complete a change to 30 TAC 116 prior to any change becoming effective on sources within Texas.

If the answer to question 1 is yes, go to step 2; if no, go back to step 1 with the next pollutant.

2. Determine the stationary source potential to emit (PTE) and the project emission increase.

- A. Stationary Source PTE – sum the PTE (on a rolling 12 month basis) for the pollutant from all facilities at the site.

Fugitive emissions are counted at named sources (one of 27 source categories in 40 Code of Federal Regulations (CFR) § 51.165(a)(1)(iv)(C), Table 1); they are not counted when determining the PTE at other source types. Fugitive emissions are excluded from consideration in all circumstances (major source determination as well as in the project emission increase and net emission increase determinations) for PSD applicability. For purposes of Nonattainment applicability, fugitive emissions are only excluded when determining whether or not a site is major for the purposes of nonattainment review. They must be considered when determining the project emission increase and net emission increase.

A “stationary source” is, in most cases, the entire plant site. A stationary source is defined in 30 TAC 116.12 as “Any building, structure, facility, or installation that emits or may emit any air pollutant subject to regulation under 42 United States Code, §§ 7401 et seq.” The “source” in “stationary source” is not the same as the “source” defined in 116.10 (a point of origin of air contaminants, whether privately or publicly owned or operated), which is considered part of a facility. There is considerable federal guidance available related to the federal NSR definition of stationary source and it is applicable when making this determination in Texas.

The stationary source PTE must include all of the pollutant-emitting activities which belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control) except for the activities of any vessel. Pollutant-emitting activities shall be considered as a part of the same industrial grouping if they belong to the same Major Group (which has the same two-digit code) as described in the Standard Industrial Classification Manual. Secondary emissions do not need to be considered in this determination. Secondary emissions are discussed in more detail in Step 2.B.

EPA guidance should be reviewed and a clear rationale should be provided in cases where the stationary source consists of only part of a site or regulated entity.

All allowable emissions (or PTE) for the pollutant from each facility at the stationary source, including wastewater, cooling tower emissions, and compliant start-up, shutdown, and maintenance emissions should be

summed. The physical PTE or enforceable emission rate that should be used in this calculation for each facility is based on its authorization.

For construction or flexible permits – maximum allowable emission rate for the facility.

For permits by rule or standard permits – the lowest of the maximum emissions that may be authorized under the specific rule or permit (including the requirements in 30 TAC 106.4 and 116.610). The source may establish a lower enforceable emission rate limit or as specified in Form APD-CERT for the facility.

When determining the PTE for pollutants at sites in areas that are not nonattainment for that pollutant, one must determine the PTE of the federally regulated NSR air pollutant with the greatest emissions from the stationary source. A stationary source that is major for one PSD pollutant is major for all PSD pollutants, so this exercise does not need to be repeated for every pollutant. Maintenance, startup and shutdown (MSS) emissions should be included in the determination of the site PTE.

Table 1: “Named” Sources

1. Coal Cleaning Plants (with thermal dryers)
2. Kraft pulp mills
3. Portland cement plants
4. Primary zinc smelters
5. Iron and steel mills
6. Primary aluminum ore reduction plants
7. Primary copper smelters
8. Municipal incinerators capable of charging more than 250 tons of refuse per day
9. Hydrofluoric, sulfuric, or nitric acid plants
10. Petroleum refineries
11. Lime plants
12. Phosphate rock processing plants
13. Coke oven batteries
14. Sulfur recovery plants
15. Carbon black plants (furnace process)
16. Primary lead smelters
17. Fuel conversion plants
18. Sintering plants
19. Secondary metal production plants
20. Chemical process plants
21. Fossil-fuel boilers (or combination thereof) totaling more than 250 million British thermal units per hour heat input
22. Petroleum storage and transfer units with total storage capacity exceeding 300,000 barrels

23. Taconite ore processing plants
24. Glass fiber processing plants
25. Charcoal production plants
26. Fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input
27. Any other stationary source category which, as of August 7, 1980, is being regulated under Federal Clean Air Act (FCAA) §§ 111 or 112. These source categories include those covered under 40 CFR Part 60 Subparts, D, Da, E, F, G, H, I, J, K, Ka, L, M, N, O, P, Q, R, S, T, U, V, W, Y, X, Z, AA, BB, CC, DD, GG, HH, JJ, KK, MM, NN, and PP; and 40 CFR Part 61, Subparts C, D, E, F, and M.

Example 4: Stationary source PTE in Harris County

A project is being considered which may be considered a modification for NO_x, CO, and particulate matter with an aerodynamic diameter less than or equal to a nominal less than 10 micrometers (PM₁₀). The PTE from all facilities at the site for these pollutants were determined and were summed to provide the values in the table below.

Pollutant	NO _x	CO	PM ₁₀
Site PTE (tpy)	88	210	55
Site actual emissions (tpy)	60	130	21

Harris County is designated as nonattainment for ozone with a classification of moderate (note that this classification will become severe on October 31, 2008). When determining the site PTE for purposes of nonattainment review, one only needs to consider the pollutant which is being considered for federal NSR review. VOC and NO_x are regulated as precursors to ozone. In this case, the site PTE for NO_x as a precursor to ozone is 88 tpy.

When determining the site PTE for PSD, you must consider the emissions of all federally regulated NSR pollutants at the site, because a site is determined to be major for purposes of PSD review. For nonattainment, a site is considered major for a nonattainment pollutant. A review of other site emissions showed that the SO₂ PTE at the site was 264 tpy. This is the emission rate used to determine if the site is major for PSD review. The site PTE is 264 tpy for all pollutants potentially subject to PSD review (including NO_x) and is 88 tpy for NO_x as a precursor for ozone (nonattainment review).

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- B.** Project emission increase – only includes emission increases due to the project that occur from facilities at the stationary source - do not net with emission decreases.

The sole exception to this is that project emission increases may be net to zero with project decreases up to 25 tpy in serious and severe nonattainment areas. If the net emission increase is zero or less, the project emission increase would not be significant. If the project emission increases were greater than 25 tpy or the project net emission increase was greater than zero, the project emission increase would be significant.

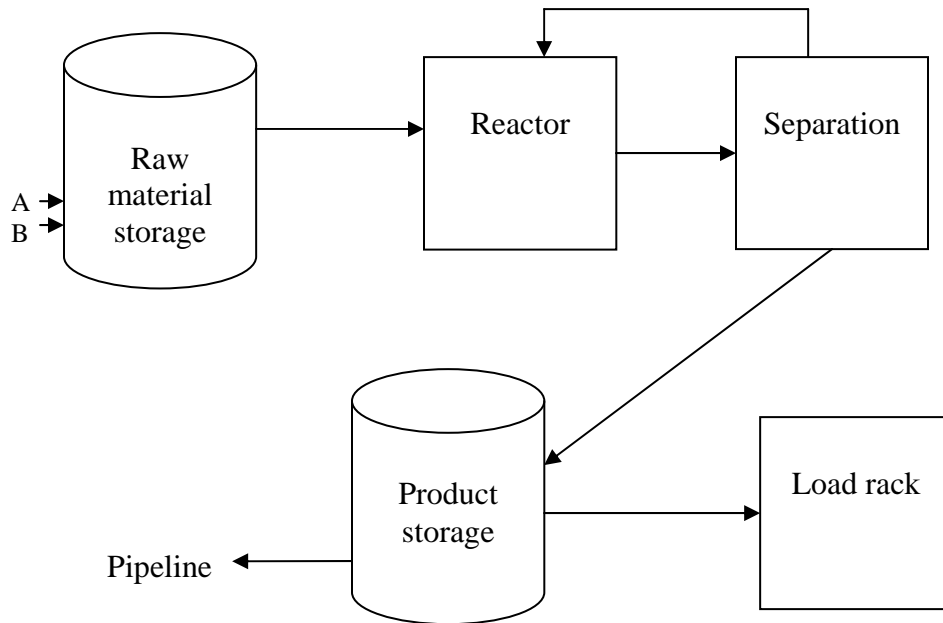
In simple terms, the project emission increase is determined by taking the difference between the planned emission rate at each of the facilities modified or affected by the proposed project and the baseline actual emissions at that facility. Before the differences in emissions are determined, the facilities to be considered must be identified. The facilities to be considered fall into two general categories, those that are new or modified, and those where the actual air emissions may increase but no physical or operational change is being made.

Facilities in the first category are generally those considered modified under the definition discussed in step 1 of the applicability procedure. There will either be a physical change or a change in method of operation (in most cases requiring a permit change) of the facility. The second category includes those facilities at the stationary source that may experience an increase in emissions as a result of the modification of other facilities with the project. The affected facilities are often referred to as units that will be debottlenecked as a result of the proposed project.

Secondary emissions are not included in the determination of whether a proposed project is a major new source or major modification. Secondary emissions are those emissions which, although associated with a source, are not emitted from the source itself. Secondary emissions occur from any facility which is not part of the site being reviewed, but would not be built or modified except as a result of the major new source or major modification being proposed. These emissions should be considered in the air dispersion modeling analysis required for the project.

Certain emissions from ships and barges located at berth are primary emissions and must be included in applicability determinations. These emissions include both loading emissions and the emissions from the ship's boilers used to support the transfer of materials between the vessel and shore facilities while the ship is docked.

Example 5: Modified and affected facilities



A source is authorized to react raw materials A and B to make product C as represented in the simplified process flow diagram. The improved process was placed on line in 2002 but has never reached the design capacity because the reaction step of the process was limited by problems with the catalyst. A new structured catalyst has become available and the source proposes to use it in the reactor to reach the design production rate. No other physical changes are proposed.

There is a physical change proposed for the reactor, which is expected to increase production, and therefore emissions, so it will be modified. This change will impact facilities upstream (raw material storage) and downstream (separation, product storage, and load rack). If these facilities will operate in the same manner as represented in the current permit, they are considered affected facilities. They will also have to be considered when determining the project emission increase.

Once the modified and affected facilities have been identified, the emission increases at each can be determined as follows.

- i. Determine baseline actual emissions at modified and affected facilities.
 - a. For an existing facility (other than an electric utility steam generating unit), baseline actual emissions means the rate, in tons per year, at

which the facility emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the ten year period immediately preceding either the date the owner or operator begins actual construction of the project, or the date a complete permit application by the TCEQ.

The rate shall be adjusted downward to exclude any emissions that would have exceeded an emission limitation with which the major stationary source must currently comply with the exception of those required under 40 Code of Federal Regulations Part 63, had such major stationary source been required to comply with such limitations during the consecutive 24-month period.

The rule requires you to determine whether any legally enforceable limitations currently exist that would prevent the affected unit from emitting a pollutant at the levels calculated from the 24-month baseline period. This is true for both attainment and nonattainment areas and should not be confused with requirements associated with creditable emission decreases shown in determining the net emission increase at the site.

Example 6: Baseline actual emissions

The permit application for the modification proposed in Example 5 was submitted to the TCEQ and determined to be administratively complete on January 2, 2006. The source must now determine the baseline actual emissions for each of the facilities. A review of their past records showed the following VOC emission rates for the reactor and raw material storage:

In tpy	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Reactor	?	?	121	132	85	107	11	14	15	?
Storage	80	12	14	12	10	11	10	11	13	?

There was insufficient documentation available to determine actual emissions from the reactor in 1996 and 1997, while the emissions inventory has yet to be completed for 2005. The source verified that the calculations used to determine actual emissions for the inventory were consistent with current calculation methods. If this were not the case, the actual emissions from the inventory would need to be corrected.

A review of the rule and permit requirements for these facilities over the last ten years revealed the following:

- The reactor was permitted in 2002 with an allowable emission rate of 30 tpy. A Maximum Achievable Control Technology (MACT) standard also became effective requiring emissions be controlled by 90 percent.
- Storage was also permitted in 2002 with an allowable of 30 tpy. A SIP (30 TAC 115) requirement became effective in late 1996, requiring additional tank seals providing for a 90 percent control level.

The baseline emissions for each facility cannot exceed the current allowable emissions. Storage emissions from 1996 must be corrected for the SIP requirement that now applies. The MACT requirement will not affect the inventory emissions but BACT requirements from the 2002 permit review may. The actual emissions prior to 2002 must also be adjusted for any new emission controls required for BACT in that permit action.

The 2002 permit did not add any new controls for storage but did require 90 percent control on the reactor vent. The inventory emissions have been corrected for these requirements in the table below:

In tpy	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Reactor	?	?	12	13	9	11	11	14	15	?
Storage	8	12	14	12	10	11	10	11	13	?

A similar exercise must be completed for the other facilities affected by the project as well.

- b. For any existing electric utility steam generating unit, baseline actual emissions means the rate, in tons per year, at which the unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the five-year period immediately preceding when the owner or operator begins actual construction of the project. The executive director shall allow the use of a different time period upon a determination that it is more representative of normal source operation.

This method of determining actual emissions to obtain the project increase has not changed. Unlike for other stationary sources, a different 24 month period may be used if justified.

Example 6: Baseline actual emissions – Electric Generating Unit (EGU)

The default look back period is 5 years prior to start of construction in this case. Consider PM10 emissions as follows:

In tpy	2001	2002	2003	2004	2005
Boiler	151	116	140	151	?
Storage	110	10	11	13	?

In this case, it is not necessary to go through the actual emissions and adjust them for current requirements. The source may wish to look at 2000 actual emissions to determine if the 2000 and 2001 are most representative of normal source operation. If they believe that to be the case, they will need to provide the rationale for that determination so that it can be evaluated during the permit review.

- c. In certain cases, replacement facilities may be considered existing facilities for the purpose of determining the project emission increase. These facilities must satisfy the following:

Replacement facility--A facility that satisfies the following criteria:

1. the facility is a reconstructed unit within the meaning of 40 CFR §60.15(b)(1), or the facility replaces an existing facility;
2. the facility is identical to or functionally equivalent to the replaced facility;
3. the replacement does not alter the basic design parameters of the process unit;
4. the replaced facility is permanently removed from the major stationary source, otherwise permanently disabled, or permanently barred from operation by a permit that is enforceable. If the replaced facility is brought back into operation, it shall constitute a new facility. No creditable emission reductions shall be generated from shutting down the existing facility that is replaced. A replacement facility is considered an existing facility for the purpose of determining federal new source review applicability.

If the proposed project includes a replacement facility, the baseline emissions of the facility being replaced must be determined.

- d. For a new facility, the baseline actual emissions for purposes of determining the emissions increase that will result from the initial construction and operation of such unit shall equal zero; and for all other purposes during the first two years following initial operation, shall equal the unit's potential to emit.

If there is less than 2 years of operating history, the baseline emissions may be taken as the allowable emission rate for a recently constructed facility.

The following apply to baseline actual emissions in all cases:

- The actual emission rate shall be adjusted downward to exclude any non-compliant emissions that occurred during the consecutive 24-month period.
- For each regulated new source review pollutant, when a project involves multiple facilities, only one consecutive 24-month period must be used to determine the baseline actual emissions for the facilities being changed. A different consecutive 24-month period can be used for each new source review pollutant.
- The rate shall not be based on any consecutive 24-month period for which there is inadequate information for determining annual emissions, in tons per year, and for adjusting this amount.
- Baseline emissions cannot occur prior to November 15, 1990.
- The actual emissions rate shall include fugitive emissions to the extent quantifiable.
- Until March 1, 2016, emissions previously demonstrated as emissions events or historically exempted under Chapter 101 of this title (relating to General Air Quality Rules) may be included to the extent that they have been authorized, or are being authorized.

Existing MSS emissions that meet the criteria to be added to a permit may be considered part of the baseline emissions if they were reported in the emissions inventory in a timely manner. These emissions will be reviewed and corrected, if necessary, for any controls determined to be necessary to satisfy BACT and impacts in the permit review. These emissions are not considered noncompliant because they were excluded from NSR permits until recently. Note that EPA Region 6 has expressed some discomfort with this portion of the rule and has not yet started to review it for incorporation into the approved SIP.

Baseline actual emissions should not be used when determining a facility's actual emissions for other NSR-related requirements such as air quality impacts analyses (for example, compliance with NAAQS and PSD increments) and computing the required amount of emissions offsets. For each of these requirements, the existing definition of "actual emissions" continues to apply.

Example 7: Baseline emissions

A surface coating operation with 5 facilities is considering making modifications to their lines to allow for a substantial increase in throughput. As part of this analysis, they need to determine the baseline emissions for each of the facilities, A through E.

The pollutant of concern is VOC. The actual emissions (in tpy) from each of the facilities for the last 10 years are shown below.

Year	Unit A	Unit B	Unit C	Unit D	Unit E
1995	50	199	19	54	0
1996	52	200	23	51	0
1997	68	205	22	54	0
1998	65	201	23	50	0
1999	60	210	23	30	0
2000	59	21	20	30	0
2001	59	19	22	0	0
2002	67	18	22	0	0
2003	65	16	23	0	0
2004	62	17	20	0	40

They have maintained sufficient records to document the actual emissions for each of the facilities. In reviewing the requirements for baseline emissions, they note the following:

- There was a new rule requiring 90 percent control in 1999 that affected Unit B.
- Unit D was permanently shut down in 2000 and has not been maintained.
- Unit E was added in 2004 and has an allowable emission rate of 50 tpy.
- The Unit A allowable was 60 tpy so there have been some non-compliant emissions.

- All actual emissions were determined using the most current emission factors.

As a result, baseline emissions were adjusted as required and are shown in the following table.

Year	Unit A	Unit B	Unit C	Unit D	Unit E
1995	50	20	19	54	0
1996	52	20	23	51	0
1997	60	21	22	54	0
1998	60	20	23	50	0
1999	60	21	23	30	0
200	59	21	20	30	0
2001	59	19	22	0	0
2002	60	18	22	0	0
2003	60	16	23	0	0
2004	60	17	20	0	40
Max BL	60	21	23	52.5	50
Total BL	60	20.5	22.5	52	50

The added rows identify the corrected baseline emissions for each facility alone (picking the high 2 years in the last 10 for that facility) as well as that for the facilities as a group (highest baseline as a group, 1997 and 1998). If the facilities are to be upgraded as a group, their baseline emissions must be the same 24 month period. The shaded areas show the corrected emissions rates; as identified below:

A – the noncompliant emissions have been removed

B – 90 percent control has been applied to all emissions prior to 1999

D – since this unit has been shutdown for more than two years and was not maintained per EPA guidance, it would be treated as a new facility. It could be restarted “as-is” (not upgraded) as a replacement unit using its old baseline emissions.

E – since the unit has operated for less than two years, the PTE may be used for the baseline emission rate.

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- ii. Determine the projected actual emission rate or potential to emit at the new, modified, and affected facilities. They are determined as follows:
- a. For new facilities, the potential to emit must be used.
 - b. For existing facilities, use projected actual emissions. Potential to emit may also be used for these facilities.

Projected actual emissions – The maximum annual rate, in tons per year, at which an existing facility is projected to emit a federally regulated new source review pollutant in any rolling 12-month period during the

- five years following the date the facility resumes regular operation after the project, or
- in any one of the ten years following that date, if the project involves increasing the facility's design capacity or its potential to emit for that federally regulated new source review pollutant.

The owner or operator of the major stationary source shall include fugitive emissions to the extent quantifiable and shall consider all relevant information, including, but not limited to, historical operational data, the company's own representations, the company's expected business activity and the company's highest projections of business activity, the company's filings with the state or federal regulatory authorities, and compliance plans under the approved SIP.

Documentation required as identified in 116.121 must be provided as part of the notification, certification, registration, or application submitted to the executive director to claim or apply for state new source review authorization for the project. This must include:

- a description of the project;
- identification of the facilities of which emissions of a federally regulated NSR pollutant could be affected by the project; and
- a description of the applicability test used to determine that the project is not a major modification for any pollutant, including the baseline actual emissions, the projected actual emissions, and any netting calculations, if applicable.

The owner or operator shall monitor the emissions of any regulated NSR pollutant that could increase as a result of the project at that facility and calculate and maintain a record of the annual emissions from that facility on a calendar year basis for the time periods specified above.

Projected actual emissions are most likely to be used with PBR and standard permit registrations where there is not an explicit allowable emission rate for a facility in the rule. They might also be used for permitted facilities that are not modified by the project under minor NSR (such as qualified facilities or facilities in a flexible permit). It is unlikely that allowable emission rates for modified facilities subject to a state permit review would be set at a level that the source has indicated that it did not plan to operate at for at least the next ten years.

The use of projected actual emissions for projects subject to a permit review will be identified in a permit condition identifying that they will be tracked as indicated in the permit application. Projected actual emissions do not need to be identified in the issued permit. An example of such a condition is provided below.

The amendment application, PI-1 dated July 10, 2006, was determined not to be subject to major new source review by identifying projected actual emission rates for one or more facilities potentially affected by the project. Actual emissions from these facilities shall be monitored, recorded and reports made in accordance 30 TAC 116.121.

If the facility is an electric utility steam generating unit, the owner or operator must submit a report to the executive director within 60 days after the end of each calendar year of which records must be maintained documenting the unit's annual emissions during the calendar year that preceded submission of the report. Others (non-EGUs) must report if the annual emissions from the project exceed the baseline actual emissions by a significant amount for that pollutant, and the emissions exceed the preconstruction projection for any facility.

If this occurs, the project should have undergone a federal NSR review or completed a netting exercise to determine the net emission increase. A demonstration that the project would still not be major or application for a PSD or nonattainment permit should be submitted concurrent with, or shortly after, the report. In the preamble to their final rule, EPA did not believe it was “necessary to make your future projections enforceable in order to adequately enforce the major NSR requirements. The Act provides ample authority to enforce the major

NSR requirements if you are physical or operational change results in a significant net emissions increase at your major stationary source.”

Example 8: Projected actual emission rates

A gasoline terminal at a refinery is proposing to change the service of a tank to gasoline under permit by rule. It is necessary to in order to provide for the flexibility necessary to meet projected demand in the area. They have reviewed historical operational data, forecast expected business activity, and their highest projections of business activity and have estimated the tank emissions will be 7 tpy.

They also need to determine if the new tank would affect emissions at other facilities at the terminal. They estimate that the new tank will allow for a slightly reduced throughput at the other gasoline tanks at the site but forecast loading and the associated emissions will increase over time due to the modified tank as well as increased demand in the area.

The projected actual emission rate for the tank must be tracked for ten years because the change in service resulted in increase in the potential to emit. They do not plan to increase the allowable emissions rate for the load rack so its projected actual emission rate (44 tpy) will only need to be tracked for five years.

- iii.** Determine the project emission increase at each facility and sum them to obtain project emission increase.

For existing facilities, the project emission increase is the difference between the projected actual emissions and the baseline actual emissions.

In calculating any increase in emissions that results from the project, that portion of the facility's emissions following the project that the facility 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 may be excluded from the project emission increase.

The potential to emit from the facility following completion of the project may be used in lieu of the projected actual emission rate.

If a source excludes any portion of the facility's emissions that could have been accommodated, the amount of emissions excluded from the project emissions increase and an explanation for why such amount was excluded must be included with the other information identified above in 2.B.ii.b.

EPA explains this concept in the preamble to their rule as follows:

“Both the statute and implementing regulations indicate that there should be a causal link between the proposed change and any post-change increase in emissions, that is, “* * * any physical change or change in the method of operation that would result in a significant net emissions increase when a projected increase in equipment utilization is in response to a factor such as growth in market demand, you may subtract the emissions increases from the unit’s projected actual emissions if: (1) The unit could have achieved the necessary level of utilization during the consecutive 24-month period you selected to establish the baseline actual emissions; and (2) the increase is not related to the physical or operational change(s) made to the unit even if the operation of an emissions unit to meet a particular level of demand could have been accomplished during the representative baseline period, but the increase is related to the changes made to the unit, then the emissions increases resulting from the increased operation must be attributed to the project, and cannot be subtracted from the projection of projected actual emissions.”

This was interpreted in the preamble to the TCEQ proposed rule as follows:

“This federal rule change extends this concept that was developed for the electrical generation industry where traditionally there had been a captured, or limited, customer base that was expected to grow at some rate unrelated to the available capacity of the generator. While this concept appears reasonable for the electric power industry as well as some sources with a limited customer base due to geography (such as gasoline terminals), it is not as useful for industries that have national or international markets served by multiple sources. In these cases, a demonstration would need to be made that the market conditions expected in the future are expected to be significantly different than any time in the past ten years and that if they had occurred in the baseline, they would have resulted in different operations. It is likely that this case would only be made in cases such as a prolonged outage at a major producer or a significant shift in market conditions. The determination of what could have been accommodated is limited to what could have been produced or handled and does not allow for changes in emissions that could have occurred due to a lower emission control device

efficiency or the use of a fuel or solvent that might have resulted in greater emissions.”

In practice, for sources other than electrical generating units, demonstrating future demand growth greater than that occurring at any time during the previous 10 years will be difficult. If that demonstration is made, the next challenge is to accurately determine what could have been accommodated during the baseline period. The emissions associated with the output that could have been accommodated are not simply the allowable emissions but an estimation of actual emissions at the activity level associated with the output that could have been accommodated. A method that might be used to determine this is detailed in the next examples.

Example 9: What could have been accommodated?

A modification is proposed that would allow for increased production at a cement kiln. The source has demonstrated that demand for cement is and will likely continue to be higher than experienced during any sustained period over the last 10 years. They have identified the baseline period as the years 2002 and 2003, when baseline emissions were 710 tpy.

They propose to determine what could have been accommodated by determining the highest production for a 30 day period during that time frame and verify that they have and will operate for 12 consecutive months without an extended shutdown. That annualized production rate represents what they could have produced during the baseline period. The actual emissions that would be associated with this production rate are estimated by multiplying the ratio of the rate at which they could have produced and the actual production rate during the baseline period (1.2 in this case) by the baseline emission rate (710 tpy). That emission rate (852 tpy) is verified to be compliant with any requirements and correction that may be made to the project increase at that point is 142 tpy (852-710).

This method utilizes actual emission data and corrects it to an operating level actually achieved over a sustained period which approximates the operating level that could have been accommodated during the baseline period.

Example 10: Emission increase related to the changes made to the unit

The focus of this step of the procedure is to ensure that project emission increase is due to the proposed modification and does not include incidental emission increases that would have occurred regardless of whether the project was completed. In this case, a utility is proposing to modify a boiler, increasing its firing rate by 4 percent. The pollutant of concern is SO₂ and a review of past operations and coal sulfur content showed that there had been significant fluctuations in SO₂ emissions due to variations in the sulfur content of the coal.

The source has a long term contract with their coal supplier and the past sulfur fluctuations have been within the specifications of the contract but could cause future SO₂ emission changes greater than those caused by the proposed change in firing rate. Due to this, they propose to identify a projected actual emission rate for SO₂ based on changes solely attributable to the project. The source proposes to do this by monitoring firing rate and SO₂ emissions. They plan to monitor fuel usage, quantifying the increase in coal usage above maximum firing rate level during the baseline period (this adjustment may not be appropriate for non-EGUs). The ratio of the firing rate above the baseline level to the total firing rate can be multiplied by the measured SO₂ emissions to determine the project emission increase. This method effectively “backs out” any coal sulfur changes from the project increase so only those SO₂ emissions due to the increase in firing rate are considered. The source would be required to track the SO₂ emissions associated with the modification for 10 years.

Table 2F should be used to document the facility by facility contribution to and the determination of the project emission increase for each pollutant.

3. Is the stationary source major?

If yes, go to 3.B.

The threshold for determining whether a source or emission increase is major or minor is dependent on whether the area is nonattainment for that pollutant as well whether the source is included in a list of source categories.

If the area is nonattainment for the pollutant, the threshold for major is 100 TPY of that pollutant in moderate and marginal nonattainment areas. The nonattainment areas and associated significance levels (utilized and explained in step 3.B) in Texas are shown in the table below. They are also identified in the maps identified as Figures 1, 2, and 3.

Table 2: Texas Nonattainment Areas

Pollutant and Classification	Area and Counties	Significance Level (TPY)
Ozone Marginal	Beaumont/Port Arthur (BPA) Hardin, Jefferson, Orange	40
Ozone Moderate	Dallas/Fort Worth (DFW) Collin, Dallas, Denton, Tarrant, Ellis, Johnson, Parker, Kaufman, Rockwell	40
Ozone Severe	Houston/Galveston/Brazoria (HGB) Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, Waller	25 ¹
PM ₁₀ Moderate	El Paso – partial ²	15

¹ HGB was reclassified as severe on October 31, 2008. In serious and severe nonattainment areas, the significance level for the purpose of contemporaneous period netting is 5 tpy.

² Portion of El Paso County that comprises the El Paso city limits boundaries as they existed on November 15, 1990.

Figure 2 identifies all nonattainment and near nonattainment areas in the state by county. The PM₁₀ area only cover part of El Paso County as identified in Figure 3. The El Paso area was designated attainment for CO on August 4, 2008. The San Antonio area was classified as nonattainment for the 8 hour ozone standard but any requirements associated with that designation have been deferred because EPA accepted the area’s Early Action Compact to achieve attainment of the 8-hour ozone standard. Near nonattainment areas (all are near nonattainment for ozone) have control requirements specified in their respective SIPs but are subject to PSD review for NSR purposes.

Figure 2: Texas Nonattainment Areas by County

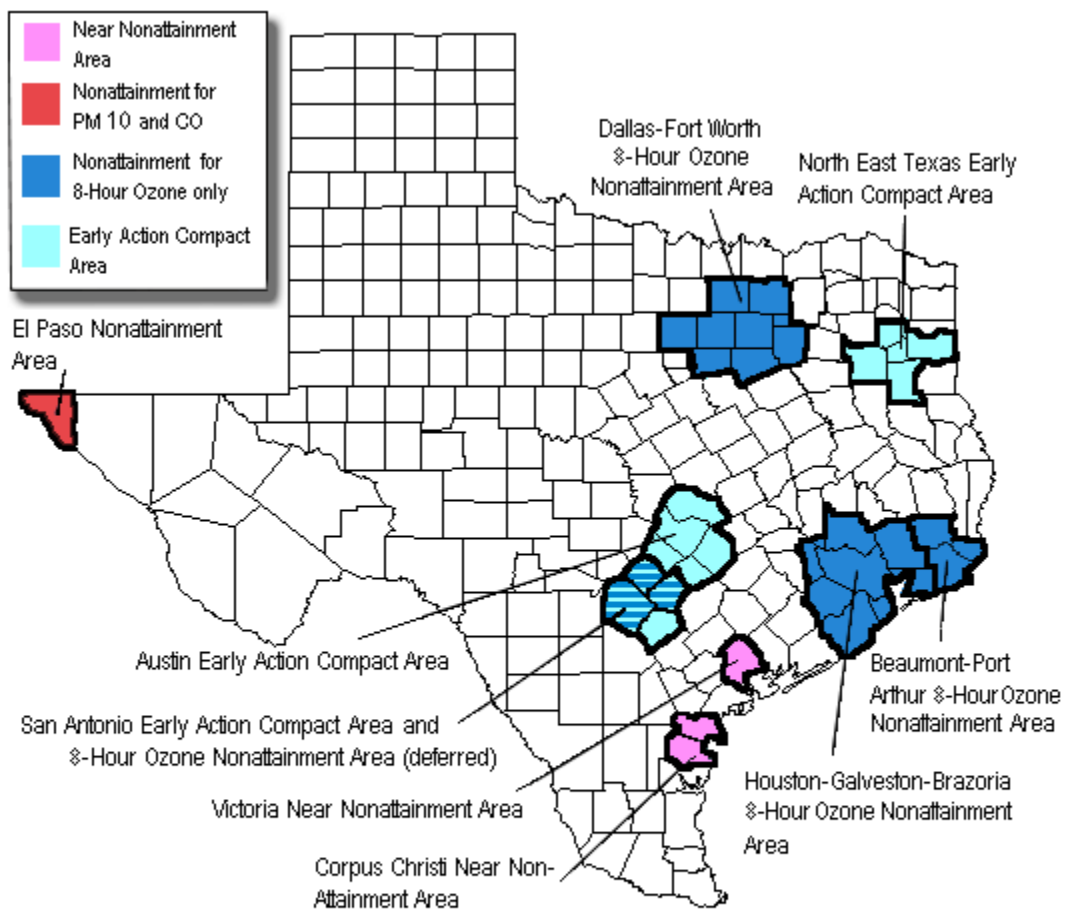
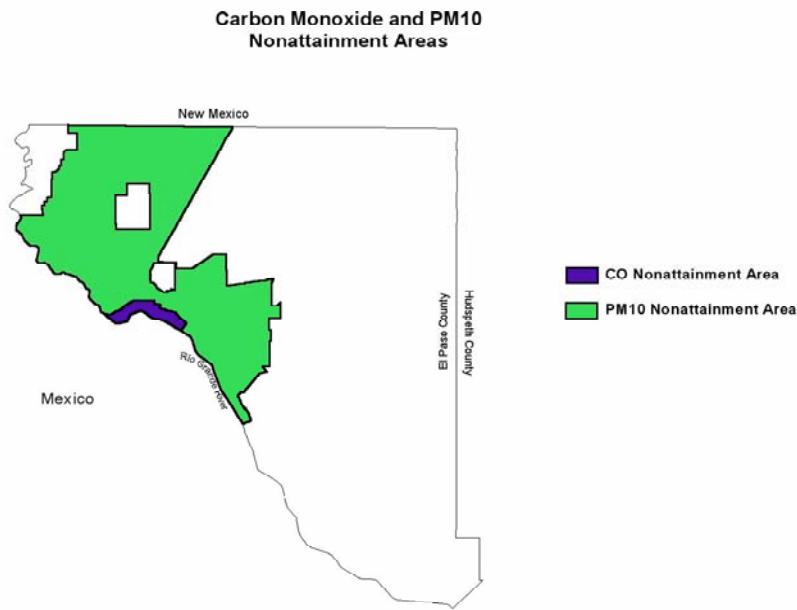


Figure 3: El Paso County Nonattainment Areas



If the area is attainment or unclassified for the pollutant (subject to PSD review), the threshold is 100 tpy of any federally regulated NSR air pollutant for named sources (Table 1) and 250 tpy any federally regulated NSR air pollutant for other sources. A site that is major for one PSD pollutant is major for all PSD pollutants. Named source categories are found in 40 CFR § 51.165(a)(1)(iv)(C);

Example 11: A Major Source Determination for Jefferson County

There are five possible classifications for areas designated as nonattainment for ozone under Subpart 2 of Part D of Title I of the FCAA (these areas were designated nonattainment prior to the Clean Air Act amendment of 1990). These classifications are marginal, moderate, serious, severe, and extreme. In Texas, the ozone nonattainment area classifications now range from marginal to severe.

VOCs and NO_x are both regulated as precursors to ozone. VOCs and NO_x are to be treated separately when determining whether a source is major. Site potential to emit for each pollutant is shown in the following table:

Pollutant	VOC	NO _x	PM ₁₀	CO	SO ₂
PTE (tpy)	93	35	11	44	133

A major source for ozone in Jefferson County is defined as one with the PTE of 100 tpy or more for VOC or NO_x. Even though the VOC and NO_x PTE, in the aggregate, greater than 100 tpy, the source is not considered a major source of either VOC or NO_x for the purpose of ozone nonattainment review because the source's PTE of either pollutant does not exceed 100 tpy.

The determination of whether the site is major for PSD is dependent on whether the source is in one of the named source categories. This determination needed to be made prior to determining the VOC potential to emit because fugitive emissions are counted when making this determination for named sources but are not when determining the PTE for unnamed sources. In this case, the source is a small refinery (a named source category) and is major for PSD review because the SO₂ PTE is greater than 100 tpy. Note that this means the site is also major when considering the applicability of PSD review for NO_x.

- A. If the project emission increase is major, federal review is required. If not, federal review is not necessary for that pollutant.

Note that this can result in a project with a VOC emission increase of up to 99 tpy at site like that discussed in Example 11 being exempt from nonattainment review even though the site PTE after the project is completed would be 192 tpy.

- B. Is the project emission increase significant? If not, federal review does not apply for the pollutant. If yes, the net emission increase will need to be determined (contemporaneous period netting, step 4).

The threshold for a project emission increase being considered significant is in the table below; these values currently hold for both attainment and nonattainment areas in Texas.

Table 3: Major Modification Significance Levels

Pollutant	Significant threshold (tpy)
CO	100
NO _x	40
SO ₂	40
PM	25
PM10	15
Ozone (VOC, NO _x)	40 (25 tpy in serious and severe nonattainment areas*)
Lead	0.6
Fluorides	3
Sulfuric acid mist	7
H ₂ S	10
Total reduced sulfur	10
Reduced sulfur compounds	10
Municipal waste combustor organics (measured as total tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans)	3.5 × 10 ⁻⁶
Municipal waste combustor metals (measured as particulate matter)	15
Municipal waste combustor acid gases (measured as SO ₂ and hydrogen chloride)	40
Municipal solid waste landfills emissions (measured as nonmethane organic compounds)	50

*- In nonattainment areas classified as serious or severe, a threshold of 5 tpy is used to determine if contemporaneous period netting is required (step 4)

Any emission increase of a federally regulated NSR pollutant without a listed significance level is considered significant.

4. Determine the contemporaneous net emission increase at the site.

Net emissions increase - The amount by which the sum of the following exceeds zero:

The project emissions increase plus

any non-project source-wide (stationary source) creditable contemporaneous emission increases, minus

any source-wide (stationary source) creditable contemporaneous emission decreases (including those associated with the project).

In this step, the applicant must examine the history of modifications at the stationary source over a defined period of time (contemporaneous period) and if the sum of the emission changes (netting) for these historical modifications and current project exceeds the significance level for the pollutant, a major source permit is required. If the project is potentially subject to nonattainment review, the applicant may avoid netting if they agree to undergo nonattainment review and will offset the project emission increase.

All changes during the contemporaneous period must be considered. The contemporaneous period extends back in time to 60 months prior to start of construction for the proposed project through start of operation of the new or modified facilities.

Netting includes emission increases and decreases, including fugitive emissions (for PSD if the source is one of the 27 named sources), and changes in emissions resulting from physical changes or changes in the method of operation of facilities. Changes are determined on a facility-by-facility basis for all facilities across the entire site which has undergone a physical change or a change in the method of operation. Netting should be provided on an emission point-by-emission point basis. TCEQ Table 3F and 4F should be used by the applicant to document each project contemporaneous emission increases and reductions.

Baseline actual emissions are used when determining emissions increases and decreases for all projects in the contemporaneous period. Projected actual emissions are only used to determine the project emissions increase for the current project. All other emission increases and decreases are based on potential to emit. Although this treats a project increase differently when it appears in subsequent netting exercises, it is required by the rule. From the preamble to the federal NSR Reform rule –

Does the Actual-To-Projected-Actual Applicability Test Apply to Netting?

We did not specifically request comment on this issue in the 1996 proposal. Nonetheless, we received several comments that assert that use of different methods to compute an emissions increase and determine a net emissions increase would result in “absurd results” and require two separate accounting records. Other commenters oppose using the actual-to-future-actual test for netting. One commenter says that the sole purpose of the actual-to-future-actual test was to determine if an emissions increase will occur. One commenter says we should go further and revise the definition of “contemporaneous” to limit it to project activities (vs. plantwide) and reduce credits for shutdowns and curtailments. As stated previously, we did not specifically request comment on this issue and we are not promulgating amendments to the netting regulations, on this point, at this time.

An increase or decrease in emissions is creditable only if the following conditions are met:

- it occurs during the contemporaneous period;
- the executive director has not relied on it in issuing a federal new source review permit for the source and that permit is in effect when the increase in emissions from the particular change occurs (for PSD, this effectively limits the contemporaneous period to the start of operation of the last major modification for the pollutant at the site); and
- in the case of PSD review only, an increase or decrease in emissions of SO₂, PM, or NO_x that occurs before the applicable minor source baseline date is creditable only if it is required to be considered in calculating the amount of maximum allowable increases remaining available.

An increase in emissions is creditable if:

- it is the result of a physical change in, or change in the method of operation of a stationary source only to the extent that the new level of emissions exceeds the baseline actual emission rate.
- emission increases at facilities under a plant-wide applicability limit are not creditable.

The “new level of emissions” identified is, in almost all cases, the post-project potential to emit. The actual emissions following a project are not necessarily representative of the “new level of emissions” in the future. As noted above, EPA has not changed this portion of the rule or provided significantly difference guidance in this area.

A decrease in emissions is creditable only to the extent that all of the following conditions are met:

- the baseline actual emission rate exceeds the new level of emissions;
- it is enforceable at and after the time that actual construction on the particular change begins;
 - If the facility is authorized by permit, the allowable emission rate would be reduced. An APD-CERT or PI-7R form must be completed for the facility if it is authorized under standard permit or permit by rule.
 - the executive director has not relied on it in issuing a prevention of significant deterioration or a nonattainment permit;
 - the decrease has approximately the same qualitative significance for public health and welfare as that attributed to the increase from the particular change; and
- in the case of nonattainment applicability analysis only, the state has not relied on the decrease to demonstrate attainment or reasonable further progress in the SIP.
 - This includes all facility-specific controls required by 30 TAC 115 and 117. Cap and trade programs put into place as part of the SIP (such as those for NO_x and Highly Reactive Volatile Organic Compounds in the HGB nonattainment area) do not themselves affect the creditability of emission reductions made at any specific facility; however, other control requirements in 30 TAC 115 or 117 for those pollutants must be considered in assessing the creditability of these reductions.

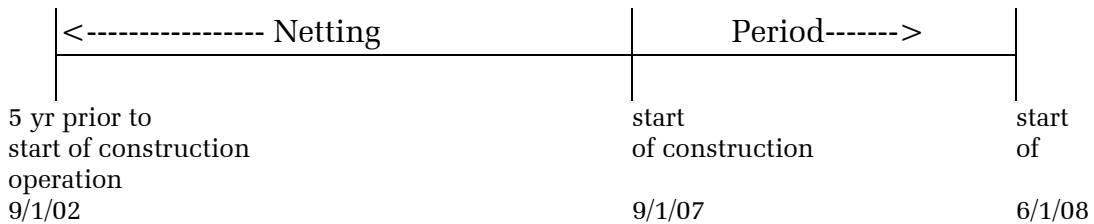
The SIP for a nonattainment area may include agreed orders which may be found on this web page –

www.tceq.state.tx.us/implementation/air/sip/siplans.html#MOA.

An emission increase that results from a physical change at a source occurs when the facility on which construction occurred becomes operational and begins to emit a particular pollutant. Any replacement unit that requires shakedown becomes operational only after a reasonable shakedown period, not to exceed 180 days.

Example 12: Contemporaneous period

In this case, a permit application is submitted on 12/21/06, start of construction is estimated to be 9/1/07, and start of operation is estimated to be 6/1/08.



The contemporaneous period is 9/1/02 through 6/1/08. The source must project projects that may be planned and completed between the date the application was submitted, 12/21/06, and the projected start of operation, 6/1/08. The potential baseline period used for determining the project emission increase will extend from 12/21/06 through 10 years prior to that date.

Example 13: Subsequent rules and their effect on the creditability of emission decreases in netting

- A. A reduction of 104 tpy occurred in July 2003 as required by a minor source BACT review on the modification. In July of 2004, a state rule (SIP-related) was adopted that required similar controls. The July 2003 reduction was determined by taking the difference between the baseline emission rate (110 tpy) and the proposed allowable emission rate (6 tpy). Prior to the modification, the vent was uncontrolled and 98 percent control was required for BACT. The new state rule required 90 percent control. How would the new rule affect the magnitude of the creditable reduction for netting for PSD and nonattainment? Assuming that they were in the current 10 year window, what would the 110 tpy baseline emission rate be for a project proposed today?

Changes to state rules do not affect the creditability of emission reductions in netting for PSD. If a nonattainment review is being considered, those rules that are relied upon in the SIP to bring the area into attainment will impact reductions in the contemporaneous period. In this example, the SIP-required 90 percent control would need to be applied to the baseline emission rate, lowering the baseline emission rate to 11 tpy. The emission reduction shown in the netting exercise would then be

11 – 6, or 5 tpy.

B. Looking at a project on that facility today, if the uncorrected baseline rate was 110 tpy and the baseline period was prior to July 2003, both events (July 2003 modification and July 2004 rule change) could impact the baseline emission rate. The rule change would lower the baseline for today's project in the same way as it did when netting was evaluated the baseline would be adjusted to 11 tpy. The permit action implemented an allowable emission rate as well as a control requirement. The control requirement is the more limiting of the 2, and would further lower the baseline emission rate to $11(0.02/0.10)$, or 2.2 tpy. This baseline adjustment is required for both PSD and nonattainment applicability analyses.

Note that if the July 2003 project was in the contemporaneous period for today's project, the 5 tpy emission decrease would be included in the netting.

A modification of traditional netting involves a calculation method referred to as the "endpoints method." This method may be used when the same emission point has been modified more than once in the contemporaneous period. It is used on a facility-by-facility (emission point-by-emission point) basis and the emission change shown in the netting is calculated as follows:

$$\text{Creditable Increase} = \text{Final allowable emission rate} - \text{baseline emissions prior to the first change in the contemporaneous period}$$

Example 14: End Points Netting

A small tank farm with 3 emission points has 3 projects (modifications) in its contemporaneous window, the current proposal (permit application submitted 1/07), a 2005 expansion, and a 2003 retrofit. Each of the emission changes associated with these modifications is shown in the tables below. Proposed emissions are identified as "NC" if the facility is not affected.

Current Proposal (1/1/07):

	Affected or Modified Facilities (2)		Baseline Emissions (4)	Proposed Emissions (5)	Project Increase (8)
	FIN	EPN			
1	Tank1	1	18	26	8
2	Tank2	2	14	NC	0
3	Tankfug	3	5	NC	0

Expansion (1/1/05):

	Affected or Modified Facilities (2)		Baseline Emissions (4)	Proposed Emissions (5)	Project Increase (8)
	FIN	EPN			
1	Tank1	1	15	25	10
2	Tank2	2	10	15	5
3	Tankfug	3	3	5	2

Retrofit (6/1/03):

	Affected or Modified Facilities (2)		Baseline Emissions (4)	Proposed Emissions (5)	Project Increase (8)
	FIN	EPN			
1	Tank1	1	10	20	10
2	Tank2	2	11	NC	0
3	Tankfug	3	3	NC	0

If the netting calculation were accomplished using the traditional method, the sum would be 35 tpy (8+17+10). Of that 35 tpy, 28 tpy (8+10+10) are attributable to EPN 1, Tank 1. The contemporaneous increase associated with this tank is greater than the final allowable emissions rate (26 TPY), indicating that portions of the increase in emissions have been counted more than once.

The actual increases in emissions at this site can be better reflected by using the endpoints method for EPN 1 to avoid double counting emission increases. The netting and project emission increase entries using this method are shown below.

	PROJECT DATE	FIN	EPN	PERMIT NO.	PROJECT NAME OR ACTIVITY	EMISSIONS AFTER THE ACTIVITY	BASELINE EMISSIONS	CREDITABLE DECREASE OR INCREASE ⁶
1	6/1/3	Tk1	1	XXXX	Retrofit	20	10	+10
2	1/1/05	Tk1	1	XXXX	Expansion	25	20*	+5
3	1/1/07	Tk1	1	XXXX	Current	26	25*	+1

* - Endpoints method has been used for this EPN so that these modifications use the old allowable emissions rather than actual emissions.

Note that this method can only be used when determining the net emission increase; baseline emissions are always used to determine the project emission increase.

5. Is the net emission increase significant? If yes, federal review required.

Go to next federally regulated NSR pollutant.

Appendix A

Proposed, Contested, and Recent EPA Rules for Determining FNSR Applicability

There are a number of areas where EPA rules have or are being challenged in the courts or where a rule revision has been proposed but is not yet final. Each of these areas is discussed briefly below.

8-Hour Ozone Standard

EPA's rule implementing the 8-hour ozone standard was vacated (with the exception of the withdrawal of the 1-hour ozone NAAQS) by the DC circuit court on December 22, 2006. The court remanded the matter to EPA so new rules that conform to the court decision will be proposed at some time in the future. EPA has stated that they consider this decision to be "self implementing" and that they will propose new rules. Permit applicants should review the decision and be aware that reviews of applications received after the court decision may be impacted by subsequent EPA rulemaking to address the court decision. TCEQ had completed rules to incorporate the EPA's implementation of the 8 hour standard but recommends that permit applicants determine federal permitting applicability for ozone in accordance with the more stringent one hour ozone classification in BPA (serious) and DFW (serious). Air Permits Division will review applications submitted that conform with our current rules (with the 8 hour ozone classifications of marginal and moderate for these areas) but applicants should understand the potential risks associated with this approach. There is rulemaking in progress to address this issue in the TCEQ rules.

Aggregation, Debottlenecking, and Project Netting

This rule was proposed in the Federal Register on September 14, 2006. There were multiple options discussed for implementing each of these concepts discussed in the proposal. Aggregation would attempt to formalize how to identify what activities are considered part of a single project or modification. Debottlenecking would reduce or eliminate the consideration of emission increases at affected units on determining a project emission increase. Project netting would allow for including project emission decreases when determining the project emission increase. The final rule is very likely to be challenged in court when it is published. TCEQ rules would have to be changed prior to implementing any federal rules on project netting and debottlenecking.

PM_{2.5} Standard Implementation

The PM_{2.5} implementation rule for the standard identified in 1997 was proposed on September 12, 2005. The final rule is being published in 3 parts, the non-NSR portion of this rule was published in the Federal Register on April 25, 2007 and the NSR portion on May 16, 2008. The final portion is forthcoming. NSR review in Texas is currently limited to completing the PM₁₀ review as a surrogate for PM_{2.5} (per Stephen Page memo “Implementation of New Source Review Requirements in PM-2.5 Nonattainment Areas” dated April 5, 2005). A SIP revision must be submitted to EPA by May 2011 to implement PM_{2.5} FNSR review. There are no PM_{2.5} nonattainment areas in Texas.

A revised 24 hour PM_{2.5} standard was established in 2006. On August 19, 2008, EPA agreed with Texas’ determination that there were no areas in the state that would be in nonattainment of that standard.

Definition of Modification for EGU

This was originally proposed in the Federal Register on October 20, 2005 and a supplemental proposal was published in Federal Register on May 8, 2007. This proposed rule would require an increase in maximum hourly emissions for a change to be considered a modification for electrical generating units (similar to what is required by New Source Performance Standards). TCEQ rules would likely have to be changed prior to implementing any federal rule changes in this area.

RMRR

The DC Circuit court vacated this rule on March 17, 2006.

Flexible Permitting

This rule was proposed on August 28, 2007. It would allow for the establishment of “green groups” authorized through a federal NSR permit review. A source could identify potential changes that might take place up to 10 years in the future and authorize those for the green group. The proposed permit requirements are more extensive than for PSD and nonattainment permits (similar to that required for PAL permits). The concept is very similar to the vacated Clean Unit designation except that possible future changes must be identified in the application. TCEQ rules would have to be changed prior to implementing any federal rules on flexible permitting.

Recent Rules

Ethanol Production Facilities

EPA published a final rule in the May 1, 2007 Federal Register exempting ethanol production facilities that produce ethanol by natural fermentation from being identified as chemical process plants. This effectively removed these plants from the list of named source so that the threshold for being major for PSD review is 250 tpy. This was incorporated into TCEQ rules through the reference to parts of the federal rules in 30 TAC 116.12.

8 Hour Ozone Standard

The NAAQS for ozone on an 8 hour averaging period was reduced from 0.08 ppmv to 0.075 ppmv on March 27, 2008. This will not have an immediate impact on NSR permitting because the implementation process requires nonattainment areas be identified by the states and accepted by EPA. There is also pending legal action regarding the standard.

HGA 8 Hour Ozone Reclassification

The HGA 8 hour ozone nonattainment area was reclassified from moderate to severe effective October 31, 2008.

El Paso CO Nonattainment Area

This area was designated as attainment effective August 4, 2008.

APPENDIX B

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These forms are available separately on the TCEQ Website for completion and submittal with permit application as needed.



**TABLE 1F
AIR QUALITY APPLICATION SUPPLEMENT**

Permit No.:	Application Submittal Date:
Company:	
RN:	Facility Location:
City:	County:
Permit Unit I.D.:	Permit Name:
Permit Activity: <input type="checkbox"/> New Source <input type="checkbox"/> Modification	

Complete for all pollutants with a project emission increase.	POLLUTANTS						
	ozone		CO	PM ₁₀	NO _x	SO ₂	other ¹
	VOC	NO _x					
Nonattainment? (yes or no)			no		no	no	no
Existing site PTE (tpy)							
Proposed project emission increases (tpy from 2F) ³							
Is the existing site a major source? ² If not, is the project a major source by itself? (yes or no)							
If site is major, is project increase significant? (yes or no)							
If netting required, estimated start of construction _____ 5 years prior to start of construction _____ contemporaneous estimated start of operation _____ period							
Net contemporaneous change, including proposed project, from Table 3F. (tpy)							
FNSR applicable? (yes or no)							

¹ Other PSD pollutants.
² Nonattainment major source is defined in Table 1 in 30 TAC 116.12(11) by pollutant and county. PSD thresholds are found in 40 CFR § 51.166(b)(1).
³ Sum of proposed emissions minus baseline emissions, increases only. Nonattainment thresholds are found in Table 1 in 30 TAC 116.12(11) and PSD thresholds in 40 CFR § 51.166(b)(23)

The representations made above and on the accompanying tables are true and correct to the best of my knowledge.



**TABLE 2F
PROJECT EMISSION INCREASE**

Pollutant ⁽¹⁾ :				Permit:					
Baseline Period:				to					
Affected or Modified Facilities ⁽²⁾		Permit No.	Actual Emissions ⁽³⁾	A	B	Projected Actual Emissions	Difference (A-B) ⁽⁶⁾	Correction ⁽⁷⁾	Project Increase ⁽⁸⁾
FIN	EPN			Baseline Emissions ⁽⁴⁾	Proposed Emissions ⁽⁵⁾				
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
Page Subtotal⁽⁹⁾									

All emissions must be listed in tons per year (tpy). The same baseline period must apply for all facilities for a given NSR pollutant.

1. Individual Table 2F's should be used to summarize the project emission increase for each criteria pollutant.
2. Emission Point Number as designated in NSR Permit or Emissions Inventory.
3. All records and calculations for these values must be available upon request.
4. Correct actual emissions for currently applicable rule or permit requirements, and periods of non-compliance. These corrections, as well as any MSS previously demonstrated under 30 TAC 101, should be explained in the Table 2F supplement.
5. If projected actual emission is used it must be noted in the next column and the basis for the projection identified in the Table 2F supplement.
6. Proposed Emissions (column B) Baseline Emissions (column A).
7. Correction made to emission increase for what portion could have been accommodated during the baseline period. The justification and basis for this estimate must be provided in the Table 2F supplement.
8. Obtained by subtracting the correction from the difference. Must be a positive number.
9. Sum all values for this page.



Table 2F Supplement Project Emission Increase

Pollutant		Line		Type ⁽¹⁾	
Explanation:					

1. Type of note. Generally would be baseline adjustment, basis for projected actual, or basis for correction (what could have been accommodated).



**TABLE 3F
PROJECT CONTEMPORANEOUS CHANGES¹**

Company:									
Permit Application Number:					Criteria Pollutant:				
Project Date ²	Facility at Which Emission Change Occured ³		Permit No.	Project Name or Activity	A	B	Proposed Emissions (tons/year)	Difference (A-B) ⁵	Creditable Decrease or Increase ⁶
	FIN	EPN			Baseline Period	Baseline Emissions (tons/year)			
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
Page Subtotal⁷									
								Project Emission	
Summary of Contemporaneous Changes							Total		

1. Individual Table 3F's should be used to summarize the project emission increase and net emission increase for each criteria pollutant.
2. The start of operation date for the modified or new facilities. Attach Table 4F for each project reduction claimed.
3. Emission Point No. as designated in NSR Permit or Emissions Inventory.
4. All records and calculations for these values must be available upon request.
5. Allowable (column A) - Baseline (column B).
6. If portion of the decrease not creditable, enter creditable amount. If all of decrease is creditable or if this line is an increase, enter column C again.
7. Sum all values for this page



**TABLE 4F
DESCRIPTION OF CREDITABLE REDUCTIONS**

Company Name:	
Contaminant:	
Date Action Occurred:	
SIC Code for this Source:	
Permit No.:	
For Creditable Reductions, verify each statement by checking all boxes:	
The reductions occurred within the contemporaneous period.	<input type="checkbox"/> YES <input type="checkbox"/> NO
The reductions occurred at the same major stationary source.	<input type="checkbox"/> YES <input type="checkbox"/> NO
The reductions have not been relied upon in issuing a previous federal permit.	<input type="checkbox"/> YES <input type="checkbox"/> NO
The reductions have not been used as an offset in a previous nonattainment permit, and are not reserved in a permit condition for use as an offset.	<input type="checkbox"/> YES <input type="checkbox"/> NO
As of the date of this application, the reductions are not required by any rule pursuant to the Texas SIP (30 TAC 111, 115, and 117).*	<input type="checkbox"/> YES <input type="checkbox"/> NO
The reductions are federally enforceable.	<input type="checkbox"/> YES <input type="checkbox"/> NO
The reductions are of the same qualitative significance.	<input type="checkbox"/> YES <input type="checkbox"/> NO
Records for all facilities are available to demonstrate the baseline emissions.	<input type="checkbox"/> YES <input type="checkbox"/> NO

* - required only for nonattainment applicability analysis.

Please give a complete description of project. Provide all EPNs affected by this project.