

US EPA ARCHIVE DOCUMENT

**PROJECT XL AIR-SPECIFIC ADDENDUM
FOR THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL
PROTECTION
GOLD TRACK PROGRAM FOR ENVIRONMENTAL PERFORMANCE**

I. Purpose of the Addendum

This Air-Specific Addendum to the Gold Track Project XL Final Project Agreement (Agreement) is a joint statement of the plans, intentions and commitments of the United States Environmental Protection Agency (USEPA) and the New Jersey Department of Environmental Protection (NJDEP) to carry out the air-specific phase of Gold Track.

This Addendum does not create legal rights or obligations and is not an enforceable contract or a regulatory action such as a permit or a rule. This applies to both the substantive and the procedural provisions of this Addendum. While the parties to the Addendum fully intend to follow these procedures, they are not legally obligated to do so. Any commitment described in this Addendum as enforceable will be so implemented and become effective through a legal implementing mechanism such as a rule and/or a permit.

II. Commitments

1. Emission reduction and minimization- This commitment would include declining actual emission caps for the facility and declining pollution prevention emission limits for non de minimis sources at the facility
 - a. Declining caps - For criteria air contaminants, the declining actual emission caps would be set for the facility based on representative actual annual emissions over the 5 years prior to application, plus the EPA significant emission increases for major new source review. For hazardous air pollutants (HAPs), the New Jersey threshold for technology review (SOTA threshold level) would be added to the representative actual annual HAP emissions over the five years prior to application. These actual emission caps for the facility would decline by 5% every five years. Emissions would be reported annually for both the criteria pollutants and HAPs. Emission trends will be presented for public comment every five years of the covenant.
 - b. Pollution prevention limits - Pollution prevention emission limits will be set for each non-de

minimis source at the facility based on the SOTA threshold levels. Each non-de minimis source would need to minimize emissions consistent with requirements for SOTA. During each 5-year period of the 15-year Gold Track covenant, approximately one-third of the emissions from non-SOTA sources would be retrofit to achieve SOTA emission rates or replaced with SOTA sources. As a result, the pollution prevention limits will be reduced for that process. By the end of the 15-year covenant, all sources with a potential to emit over the SOTA threshold levels would be minimizing emissions, consistent with SOTA. Published NJDEP SOTA manuals or the USEPA Best Available Control Technology (BACT) review process would be used to determine SOTA.

2. Air quality modeling B Each facility in Gold Track would determine the impact of their maximum allowed emissions on the local community by conducting air quality modeling. Any predicted adverse impacts would need to be eliminated, in accordance with a compliance schedule. Subsequent facility changes would need to undergo screening modeling to ensure no adverse local impacts.
3. Compliance plans and emissions reporting B All other applicable requirements would apply to the Gold Track facility, including, but not limited to: Reasonably Available Control Technology (RACT), Maximum Achievable Control Technology (MACT), State of the Art (SOTA), Best Available Control Technology (BACT), Lowest Achievable Emission Rate (LAER) and New Source Performance Standard (NSPS). Every source operation would need to be subject to a compliance plan to ensure continuous compliance prior to operation. Compliance plans would be developed at the process level, as this is the most effective way of determining compliance with the emission caps, pollution prevention limits and all other applicable requirements.

III Regulatory Flexibility

The New Jersey Gold Track Emission Cap provisions would provide significant flexibilities to modify most sources at a Gold Track facility without pre-construction review, in return for significant commitments for emission reduction and emission minimization, for both common air contaminants and hazardous air pollutants. The New Jersey Gold Track emission cap provisions do not provide any exemptions to the air toxics requirements of Section 112 of the Clean Air Act (CAA).

1. Exemption from pre-construction permit requirements for new and modified de minimis emission units at the facility - This exemption would include all sources with a potential to emit less than the State of the Art (SOTA) threshold levels (Tables A and B of N.J.A.C. 7:27-8),

- which are: five TPY for each criteria pollutant; and five TPY or less for each Hazardous Air Pollutant (HAP). Where NJ has published SOTA manuals for all pollutants emitted over SOTA threshold levels by a source, the pre-construction permit exemption would increase to the NJ significant emission increase levels for major new source review (N.J.A.C. 7:27-18.7, Table 3). These significance levels are: 25 TPY for NO_x, VOC, and TSP; 15 TPY for PM-10; 40 TPY for SO₂; and 100 TPY for CO.
2. Emission caps will be set to allow for facility expansion, as long as total emission increases are not significant - Additional expansion can be accommodated as emissions are minimized to SOTA levels, preferably by incorporating pollution prevention measures. The maximum allowed increases for criteria pollutants from facility modifications are initially the same as would be allowed, without a major permitting process, for a facility not in the Gold Track Program. (At each five-year interval of the 15-year covenant term, the emission caps for Gold Track facilities would decline by 5 and 10% of the initial caps.)
 3. Emission offsets for major facility expansions - Should the option for the "Energy Star Building Program" be selected, the DEP will provide any necessary emission offsets for major facility expansions above the emission cap, to the extent that acceptable offsets are available from the NJ Emission Reduction Credit account.
 4. Higher facility-wide emission cap - Should a major expansion require a higher facility-wide emission cap, the significant modification process for Title V operating permits will be used. This would include public comment, air quality modeling, SOTA technology review and the requirements of the prevention of significant deterioration (PSD) or emission offset rules for the criteria air contaminants that would exceed a cap.

IV. Specific Provisions

1. Baseline actual emissions - A facility's emissions cap will be based on the average of its last two years of actual emissions, or two more representative consecutive years of actual emissions within the last five years, if the latter is more representative of normal facility operations. This baseline is used in state and federal Prevention of Significant Deterioration (PSD) and major New Source Review.
2. Building significant emissions increase into initial caps - The USEPA significant emission levels for PSD or NSR (whichever is lesser), will be added to the baseline actual annual emissions to determine the facility's emission cap for each criteria pollutant. At this time, the NSR

significant levels in N.J.A.C. 7:27-18.7, Table 3, is the more stringent and will be used. Similarly, for HAPs, the (SOTA) threshold amounts (NJAC 7:27-8, Appendix 1, Table B.) will be added to the baseline actual annual hazardous air pollutant (HAP) emissions to determine the facility's HAP emission caps. For lead (Pb) the HAP SOTA threshold will be used to develop a cap.

a. Emission caps will be set at "less than" the sum of the baseline actual annual emissions, plus criteria significant or HAP SOTA threshold emissions, to avoid major NSR or PSD requirements.

b. Should the resultant cap cause a facility to be classified as a "major" facility, it will be subject to the major facility requirements. A facility may choose a lower cap to avoid being classified as a major facility, based on the capped annual emission rate.

c. A HAP emission cap will be set for each HAP for which the facility baseline actual annual emission is above the SOTA threshold. A facility may select other HAP emission caps, provided air quality modeling (discussed in 10 below) indicates acceptable air quality impacts.

d. For criteria pollutants, any actual emission increases resulting from modifications or adding new sources in the preceding five years will be considered as part of the cap determination, and the cap would be lowered to avoid a significant increase when the emission cap is set.

3. Declining facility-wide caps - The initial caps on actual emissions described in Item 2.a. above would apply to the facility for the first five-year segment of the covenant after acceptance into Gold Track. For each five-year period thereafter, the caps for actual emissions would be reduced by 5%. Therefore, for years 10 to 15 of the 15-year covenant, the caps on facility-wide actual emissions would be at 90% of initial cap levels.

The declining facility-wide caps on actual emissions are in addition to declining pollution prevention emission limits on processes, as described in Items 6. and 7. below. The difference between the pollution prevention limits at constant production and the significance level above facility-wide actual emissions provides a margin for growth. A company may expand production up to the facility-wide actual emission cap, provided the sources also comply with pollution prevention limits and other applicable requirements. If further production increases are desired which would increase emissions over the actual emissions cap, then a significant

modification revision will be required as described in Item 4. below.

4. Increasing an emission cap - Any proposed increase in the cap would be required to go through the significant modification operating permit process, including opportunity for public comment, air quality modeling where appropriate, emission offsets, and technology review as applicable. All emissions increases count, including those from environmental improvements and fugitive emission increases. As discussed in Item 11. NJDEP would provide emission offsets for facility expansion if the "Energy Star Building Program" option is selected.

PSD or major NSR requirements would be applied to the pollutants that would exceed the cap. Hence, PSD and major NSR applicability would be determined by the cap, and, if a higher cap were proposed, all other aspects of either PSD or major NSR would be triggered and applied in the usual manner.

5. Pre-construction permit review flexibility - Pre-construction permits would not be required for any new sources with potentials to emit (after control) below the SOTA threshold levels for both criteria pollutants and HAPs. For criteria pollutants, this would be five TPY. For HAPs, the SOTA thresholds are five TPY or lower, and vary based on toxicity. Where there are applicable SOTA manuals, pre-construction permits would also not be required for sources if the potentials to emit all criteria pollutants are below the USEPA significant emission levels for PSD or NSR (whichever is lesser). To be considered applicable, the SOTA manual would need to address all air contaminants emitted over SOTA threshold levels by a source.

Pre-construction permits will not be required for any modified sources or control apparatus if the potentials to emit (PTE) before and after the modification occurs are less than the SOTA thresholds (or are less than USEPA significant emissions levels if the equipment conforms to an applicable SOTA manual). Note: A physical or operational change, which was not previously approved in a permit and which results in an increase in actual emissions, would normally require a seven day notice or permit modification. However, Gold Track participants would be required to do quarterly reporting for de minimis emission units, as per Item 9. below.

- a. Pre-construction permits and SOTA control measures will continue to be required for any new source with a criteria pollutant PTE over five TPY for criteria pollutants, or over a SOTA threshold for HAPs. Pre-construction permits and SOTA are also required for any modification, which would increase the PTE for a source to greater than the SOTA threshold levels. Where there is a SOTA manual for a source, and the manual specifies performance limits for all air contaminants emitted over SOTA

thresholds, a pre-construction permit is not required, unless USEPA significance levels are exceeded (see b below).

- b. Pre-construction permits and federal BACT will be required for any new source with criteria pollutant PTE over New Jersey significant levels (N.J.A.C. 7:27-18.7, Table 3). Pre-construction permits and BACT would also be required for any modified source if the PTE increases to greater-than the New Jersey significance levels for major NSR, as specified in N.J.A.C. 7:27-18.7, Table 3.

6. Retrofitting existing equipment with SOTA/BACT

- a. All existing sources need to be retrofitted or replaced in accordance with advances in SOTA during the course of the 15 year covenant if the source's potential to emit is over the SOTA threshold levels for criteria pollutants (five TPY), or over the SOTA threshold for HAPs. Federal BACT will be required as SOTA for all sources with PTE over the New Jersey significance levels as specified in NJAC 7:27-18.7, Table 3.
- b. Retrofits would be planned over the 15 years of the covenant, ensuring that all non-de minimis sources are SOTA by the end of the 15year covenant. Approximately one-third of the non-SOTA emissions should be retrofitted during each five-year period of the covenant and operating permit. The 15-year covenant will memorialize broad commitments and incentives, with periodic reviews to assess progress toward stated goals and to memorialize the establishment of new goals at five-year increments. Each source with a potential to emit over a SOTA threshold must install SOTA control (or be replaced with SOTA sources) for the SOTA air contaminants at least once during the 15-year covenant period, if not already at SOTA at the start of the covenant period.
- c. At the beginning of each covenant period, sources will be identified that will require SOTA upgrading during the covenant period. Only existing sources which must be upgraded to SOTA during the current five year period must be identified, unless the potential to emit of any de minimis source is being increased above SOTA levels (Item 5.a. above), such that the source becomes non-de minimis. During each five year SOTA upgrade period, certain sources as specified in the covenant will be modified to meet the "then in effect" SOTA requirements. SOTA emission rates, usually in pollution prevention terms of pounds of emissions per unit of product as discussed in Item 5. above, will be included in the operating permit to take effect on the dates specified in the covenant.

- d. Case-by-case determination of SOTA/BACT will be required if an applicable SOTA manual or federal presumptive BACT are more than five years the original publication date when each five year covenant segments becomes effective. Otherwise, SOTA manuals, where applicable, will be used to determine SOTA for upgrading existing sources. NJDEP will strive to update SOTA manuals every one to five years as planned when the original SOTA manual for a source category is issued. If USEPA has not specified presumptive BACT, then BACT must be determined with a "top-down" process for sources with a potential to emit over New Jersey significance levels.
7. Pollution prevention emission limits - Pollution prevention emission limits will be developed (if not already in place) for individual processes (groups of common equipment) based on the emissions per unit of product. These limits will be independent of the actual emissions cap and decline to SOTA levels as described in Item 6. above. Emissions per unit of product would generally be the approach for defining SOTA for each process. Initial limits would be developed from actual emissions with an appropriate compliance margin. Equipment will be grouped by process to the maximum extent practical to determine compliance with the pollution prevention limits. The facility may propose groupings of equipment for NJDEP's approval. The pollution prevention limits may not exceed any other applicable requirements.
 8. Compliance plans for sources not requiring pre-construction approval - Sources below SOTA threshold levels, or below USEPA significance levels where there is a SOTA manual, would no longer require pre-construction approval under the Gold Track Program. All other requirements continue to be applicable. In order to determine and certify compliance, a compliance plan is needed for each source. A compliance plan identifies the applicable requirements and the monitoring, recordkeeping, and reporting requirements to ensure compliance with those applicable requirements. Therefore, each new or modified source must be adequately covered by a compliance plan prior to operation. Compliance plans can be predefined in the operating permit for common source types or done on a case-by-case basis where there is no predefined compliance plan in the operating permit for the type of new or modified de minimis source. For example, if a new de minimis source is the same as an existing source, the compliance plan for the existing source can be considered a predefined compliance plan for the new source.
 - a. Predefined compliance plan - For common source categories at a facility, the operating permit will identify predefined compliance plans for similar new sources which do not require pre-construction approval and are installed during the five year period of the

operating permit. These predefined compliance plans will be based on the best; most up-to-date compliance plans for that source category available at the time of issuance of the five year operating permit. Predefined compliance plans will be developed from NJDEP standard permit conditions for the source types in question, with special emphasis on emissions determination as needed for tracking actual emissions.

- b. No predefined compliance plan - Should a new source be in a category for which there is no predefined compliance plan in the operating permit, the facility must obtain NJDEP approval of a compliance plan before operating the source. DEP intends to develop permit condition sets for common source categories, which can be used as models and enable quick turnaround on compliance plan approvals. As NJDEP establishes approved permit condition sets, such sets may be used for 90 days without NJDEP approval for an applicable new source, provided the company applies to DEP for use of that set for the source prior to use. NJDEP will either affirm the proposed compliance plan set as appropriate or specify a different compliance plan for that source.

9. Reporting

- a. De minimis changes - Information about any new or modified source will be reported to NJDEP quarterly. A report for all physical or operational changes in each quarter is due to NJDEP within 30 days of the end of each quarter. This includes stack parameter changes as discussed in Item 10.c. below.
- b. Emissions - Actual emissions will be reported annually in accordance with the existing emission statement requirements and schedule. HAP's with emission caps would be included. Emission trend evaluations would be provided for each five-year segment of the 15-year covenant, consisting of graphs of facility-wide annual emissions for those air contaminants for which there are emission caps. (See standard language for pollution prevention reporting for Title V. operating permits.)

10. Air quality modeling - Facility-wide modeling is required prior to approval of a Gold Track emission cap. Air quality modeling would be conducted for each facility's criteria pollutants for which there is a significant PTE, and for HAP's for which the facility's total PTE is over SOTA thresholds. The modeling would determine if existing emissions were causing adverse air quality impacts or if the maximum emissions at the cap would cause adverse air quality impacts. NJDEP will review and approve a protocol submitted by the facility for the air quality modeling. Emissions from other facilities located in the vicinity of the Gold Track participant

would not be required to be included in the modeling. Representative background data would be used for modeling criteria pollutants. Should adverse air quality effects be predicted, the cap would either need to be lowered, or a compliance schedule included in the operating permit to reduce the air quality impacts to acceptable levels.

- a. Criteria pollutants - All of the criteria pollutants with a facility-wide potential to emit over significant levels would be modeled if maximum flexibility is sought (i.e., baseline actual emissions plus significance levels). Any source with the potential to emit over SOTA de minimis levels would need to be included in the model. To evaluate up to significant emission increases from new or modified sources, the significant increase would need to be assigned to a projected source with worse case dispersion parameters. Companies may choose caps which are less than the significance level, for example, lower caps for NO₂, particulates and CO, so criteria pollutant modeling could focus on fewer pollutants, for example, SO₂. For existing sources any predicted exceedance of an ambient air quality standard would need to be addressed in the operating permit with an expeditious compliance schedule. New or modified sources may not cause an ambient air quality exceedance.
- b. Hazardous air pollutants - Any source operation where the PTE for any hazardous air pollutant is over the reporting threshold would be included in the modeling. To account for a cap over baseline HAP emissions, the SOTA threshold increase for the facility would need to be assigned to a projected source with worse case dispersion parameters for the facility. Only those HAPS which NJDEP has specified in a technical manual as a cancer risk factor or hazard quotient must be addressed in the HAP modeling. For existing sources any predicted exceedance of a lifetime cancer risk of one in 10,000, or any predicted acute effects with a hazard index greater than one, would need to be addressed in the operating permit with an expeditious compliance schedule. For existing sources any predicted cancer risk between one in 1,000,000 and one in 10,000 must be minimized to the extent reasonable at the time that SOTA control is retrofit for implicated sources, or in accordance with a schedule incorporated into the operating permit.
- c. Subsequent changes to dispersion parameters which would increase ground level concentrations requires screening to ensure that there will be no adverse localized air contaminant levels prior to operation with the change. The types of change requiring screening are listed in NJAC 7:27- 8.18(a) 5. NJDEP will specify screening procedures. If a change passes the screening procedure, the facility may proceed with the change. The screening results must be available on-site for inspection by or at the

request of NJDEP. Any change to stack parameters must be included as part of the quarterly change report. Any stack parameter, which fails screening, would be subject to NJDEP review and approval using more detailed modeling procedures and normal pre-construction review to ensure no adverse air quality effects prior to operation.

- d. New or increased HAP emissions would continue to be screened for risk by either NJDEP or the facility. If a new or modified source's PTE is over a SOTA a threshold level, risk screening remains a normal part of the DEP pre-construction permit process. If the PTE is below the SOTA threshold levels, the facility conducts screening using NJDEP risk screening tools. The screening results must be available for inspection by or at the request of NJDEP. Any de minimis emission unit, which fails screening, must undergo normal pre-construction review to ensure no adverse air quality effects prior to operation.

11. Energy efficiency incentives

- a. Emissions offset guarantee - As an option for the Gold Track program, a participant may meet current EPA "Energy Star Building Program" guidelines, which would require improving the energy efficiency of buildings and equipment subject to Energy Star. As an incentive to encourage in energy efficiency and the reductions in emissions and reductions per unit of product that would result, NJDEP will provide emission offsets for facility expansion above the emission cap, to the extent sufficient offset credits are available in the New Jersey offset account and they meet the offset requirements of N.J.A.C. 7:27-18. These offsets would be available for expansions of facilities, which demonstrate conformance with the current requirements of the "Energy Star Building Program" and the other requirements of Gold Track. Proposed expansions which would increase actual emissions above the emission cap are subject to major new source review.
- b. Combined heat and power incentive - Combined heat and power (CHP) facilities which supply electricity and heating and/or cooling may have an emission cap based on the facility's actual emissions, plus the avoided actual emissions at the off-site buildings being supplied with heat and/or cooling, provided that the avoided emission reductions are not also claimed by the owner or operator of the off-site buildings. There must be a contractual agreement between the Combined Heat and Power (CHP) facility and the off-site CHP energy user which states that the emission reductions from heating/cooling

energy equipment shutdown or curtailment at the CHP energy user are to be credited to the CHP facility, rather than the CHP energy user. When used for the CHP facility emission cap, the offsite emission reductions may not be used for other purposes, including but not limited to, emission offsets, netting, or discrete emission reduction credits.

The cap additive from offsite facility emission reductions must be the lesser of actual emissions before the supply of heat/cooling by the CHP facility or state of the art (SOTA) emissions for the amount of energy supplied by the CHP facility. The cap additive is based on offsite actual emission reductions during the same 5-year timeframe, which is used to determine baseline actual emissions. Third party independent verifications of the reductions would be required. SOTA emissions are determined by NJDEP's latest SOTA manuals for the lowest emitting heating and/or cooling equipment, which could be installed in the offsite facility. The resultant cap is subject to the same air quality modeling requirements as other Gold Track facilities. Addition of new units at the combined heat and power facility are subject to the same flexibilities if de minimis, and the same permitting, SOTA, and BACT requirements if not de minimis, as other Gold Track facilities. Enforceable operating restrictions would be required on the off-site equipment being replaced or curtailed by the combined heat and power facility.

Footnote: Per NJAC 7:27-18.8, any banked emission reductions obtained from the shutdown or curtailment of operation of any equipment or source operation which remain unused as emission offsets for 10 years after the date they have been submitted for banking, shall revert to the State. As a result of this provision, the New Jersey offset account now has available 3,000 TPY of NO_x credits and 4,000 TPY of VOC credits. With the promulgation of this provision in N.J.A.C. 7:27-18.8, NJDEP stated that it might use such emission credits for economic development purposes. Use of these credits for Gold Track facilities participating in USEPA's Energy Star Building Program would fulfill the stated objectives, while providing incentives for minimizing emissions per unit of product through energy efficiency improvements. Such credits would be provided without cost, on a first-come-first-served basis.

12. Emissions trading - A Gold Track facility will be able to use discrete emission reduction (DER) open market emission credits for compliance purposes, to the same extent as other facilities as provided under the Open Market Emission Trading (OMET) Program at N.J.A.C. 7:27-30. Such credits could, for example, be used to address a temporary delay in meeting a process-level pollution prevention milestone. However, DER credits could not be used to exceed the

facility-wide emissions cap because this would trigger major new source review (PSD or Emission Offset Rule). Also, DER credits could not be generated by a Gold Track facility because emission reductions for Gold Track are directly linked to corresponding flexibilities under Gold Track and therefore would not qualify as surplus emission reductions.