# General Conformity Guidance for Airports Questions and Answers

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Federal Aviation Administration Office of Airport Planning and Programming Community and Environmental Needs Division

and

Environmental Protection Agency Office of Air Quality Planning and Standards Air Quality Strategies and Standards Division

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# Introduction

The Federal Aviation Administration (FAA) and the Environmental Protection Agency (EPA) formed a stakeholders group to address airport air quality improvements, particularly the reduction of nitrogen oxides (NOx) emissions. One issue raised by airport operators was the need for more specific guidance to airports on the implementation of the General Conformity Regulations. In response, the FAA and the EPA have developed the following guidance in consultation with many organizations, including airport operators, airlines, and State air quality agencies. This document and other materials concerning the general conformity program are available on the internet from the EPA at <a href="http://www.epa.gov/ttn/oarpg/genconformity.html">http://www.epa.gov/ttn/oarpg/genconformity.html</a> and from the FAA at <a href="http://www.faa.gov/arp/app600/600home.htm">http://www.faa.gov/arp/app600/600home.htm</a>.

Section 176(c) of the Clean Air Act<sup>1</sup> required the EPA to promulgate rules to ensure that Federal actions conform to appropriate State implementation plans (SIPs). On November 30, 1993, the EPA promulgated the required regulations applicable to the FAA.<sup>2</sup> Those regulations were codified at 40 CFR 93.150-160. The additional guidance provided in this document supplements earlier "Q&A" guidance that was issued by the EPA on July 13, 1994 and October 19, 1994.

Both aviation and the environmental communities use a significant number of acronyms and specific terminology to describe operations in their programs. To aid the reader a convenient list of all acronyms is provided in Appendix A.

<sup>&</sup>lt;sup>1</sup>42 U.S.C. 7401 et seq.

<sup>&</sup>lt;sup>2</sup>58 FR 63214-63259.

# **Definition of Terms**

- 1. What is meant by the following terms:
  - Conformity Evaluation
  - Applicability Analysis
  - Conformity Determination
  - Presumed to Conform
  - Exempt Action
  - Emissions Inventory
  - Emission Budget
- A: Although not all of the terms listed in the question are specifically used in EPA's General Conformity Regulations, all of the terms are commonly used to describe types of actions or activities related to general conformity.

<u>"Conformity Evaluation</u>" refers to the whole process of evaluating whether the action/project is subject to the general conformity requirements and if so, the analysis necessary to make a conformity determination.

<u>"Applicability Analysis"</u> is an activity conducted by the FAA or the airport operator to determine if the action/project is subject to the requirements of the General Conformity Regulations. An applicability analysis generally includes an emissions analysis to determine if the project related emissions would occur in a non-attainment or maintenance area and if the quantity exceeds the de minimis levels or if the project is otherwise exempt or presumed to conform. If the direct and indirect emissions from the action are less than the de minimis levels and the emissions are not regionally significant, the preparation of a conformity determination is not required.

<u>"Conformity Determination</u>" is the formal process and documentation required by the regulation<sup>3</sup> when the emissions from the action/project in a non-attainment or maintenance area are at or above de minimis levels and are not otherwise exempt or presumed to conform.

Emissions are <u>"Presumed to Conform"</u> if the action/project is in a category of activities designated<sup>4</sup> by a Federal agency as having emissions below de minimis levels or otherwise do not interfere with the applicable SIP or the attainment and maintenance of the national ambient air quality standards.

<sup>4</sup>40 CFR 93.153 (f)-(h).

<sup>&</sup>lt;sup>3</sup>40 CFR 93.150(b) and 40 CFR 93.154-160.

<u>"Exempt actions</u>" are actions which the regulation<sup>5</sup> specifically exempts from the general conformity requirements.

<u>"Emissions Inventory"</u> refers to the assessment performed for identifying total emissions by source or source category for purposes of the SIP.<sup>6</sup> Projected emission inventories are developed for several reasons including to demonstrate attainment and maintenance and to establish reasonable further progress milestones.

<u>"Emission Budget</u>" is the portion of the applicable SIP projected emission inventory allocated to a source or source category.<sup>7</sup> The developers of the SIP project emission inventories for several purposes including meeting reasonable further progress milestones and demonstration of attainment and maintenance.

#### Applicability

- 2. What specific FAA actions relating to airport development are subject to general conformity?
- A: All Federal actions require a demonstration of conformity with an applicable SIP unless specifically exempt.<sup>8,9</sup> EPA regulations identify certain exempt actions, including actions where the total of direct and indirect emissions are below specified de minimis levels, and also permit other Federal agencies to identify actions that are presumed to conform to a SIP.

The FAA is responsible for deciding which of its actions require a conformity evaluation. If an action is not specifically exempt or listed as presumed to conform, it is necessary to conduct an applicability analysis to determine if emissions will be above or below the de minimis threshold. Unconditional approval of any or all of an airport layout plan (ALP) and final airport improvement plan (AIP) grant approvals typically require a conformity evaluation if the project or program is located in a non-attainment or maintenance area. Use of passenger facility charges (PFCs) for a specific project cannot occur unless there has been prior approval of an unconditional ALP which includes a conformity evaluation. Many actions that trigger the requirement for an environmental impact statement (EIS),

<sup>5</sup>40 CFR 93.153 (b)-(e).

<sup>6</sup>40 CFR 51.114.

<sup>7</sup>40 CFR 93.152 see definition of "emission budget"

<sup>8</sup>40 CFR 93.150.

<sup>9</sup>40 CFR 93.153 (b)-(e).

or environmental assessment (EA) under the National Environmental Policy Act (NEPA) generally will also require a conformity evaluation if the project or program is located in a non-attainment or maintenance area. Actions that are "categorically excluded" from NEPA may still require a conformity evaluation if they are not also exempt under the conformity regulations or listed as presumed to conform. Other actions, such as issuance of operations specifications, may require a conformity evaluation if they result in an increase in emissions in a non-attainment or maintenance area.

FAA actions that are not subject to general conformity requirements include reviewing Notices of Proposed Construction or Alteration (Form 7460) in the vicinity of airports<sup>10</sup> and Notices of Landing Area Proposal (Form 7480).<sup>11</sup> In these cases, the FAA is not providing approvals but rather advice concerning the existence of a potential hazard to air navigation and the safe and efficient use of airspace. In addition, FAA Part 150 Noise Compatibility Plan (NCP) approvals do not require a conformity evaluation as the approvals do not result in implementation of operational changes that could result in an emissions change without further FAA action.

Conditional or interim approvals typically do not result in any direct or indirect emission increases.<sup>12</sup> Any indirect emissions that may ultimately result from a particular project only become foreseeable once final approval for the project is requested and granted. Potential future indirect emissions are not foreseeable at the time of a project's conditional or interim approval, because the project has not yet been defined and may yet ultimately not be approved. For example, FAA often will issue conditional approval for an ALP, which may include projects extending out 20 years. The individual projects cannot be built until FAA issues a final approval which includes a conformity evaluation. Thus, the conditional approval of an ALP by itself would not result in an emission increase. A good rule of thumb is that conditional or interim approvals which do not authorize any actions that might have an emissions impact do not have to be analyzed for general conformity purposes.

- 3. What is the difference between "direct" and "indirect" emissions?
- A: Both are emissions caused by or initiated by the Federal action. (Unlike transportation conformity, which considers emissions associated with the total area's transportation plans, programs and projects,<sup>13</sup> general conformity only covers emissions resulting from

<sup>13</sup>40 CFR 93.109.

<sup>&</sup>lt;sup>10</sup>14 CFR Part 77

<sup>&</sup>lt;sup>11</sup>14 CFR Part 157

<sup>&</sup>lt;sup>12</sup>40 CFR 93.152 see definition of "total direct and indirect emissions" and 93.153(c)(1).

the project or action under review<sup>14</sup> and not the entire facility.) "Direct emissions" occur at the same time and place as the action.<sup>15</sup> For example, if the Federal action is approval of an airport development project, then the construction site emissions from that project are direct emissions under the regulations. "Indirect emissions" are reasonably foreseeable emissions that may occur later in time and/or farther removed from the action.<sup>16</sup> Indirect emissions are subject to conformity if the Federal agency can practicably control them and maintain control through a continuing program responsibility. For example, project-related emissions from ground transportation vehicles accessing the airport are indirect emissions and would be subject to conformity to the extent that they are reasonably foreseeable and could be practicably controlled by the FAA.<sup>17</sup> Other emissions at the facility that are not associated with the project are part of the background emissions and are not included in the conformity evaluation.

- 4. Does the definition of "direct and indirect" emissions cover construction emissions?
- A: Yes.<sup>18</sup> Direct emissions from the construction of a project subject to Federal approval, as well as indirect emissions associated with construction (e.g., emissions from hauling operations), to the extent that they are reasonably foreseeable and could be practicably controlled by the FAA, must be included in a conformity evaluation.
- 5. Must a general conformity evaluation quantify emissions for ground access vehicles if they are included in a conforming TIP? Is the answer different if the project results in increased emissions from ground access vehicles versus if it does not increase emissions from those sources?
- A: If a portion of a larger project is a "transportation project" as defined by the Transportation Conformity Regulations<sup>19</sup> and undergoes a transportation conformity evaluation under those regulations, the emissions from that portion are exempt from the general conformity evaluation. Otherwise, if the project results in increased emissions from ground access vehicles and their emissions are part of the conforming

<sup>14</sup>40 CFR 93.150 and 93.153(b).

<sup>15</sup>40 CFR 93.152 see definition of "direct emissions."

<sup>16</sup>40 CFR 93.152 see definition of indirect emissions."

<sup>17</sup>See also General Conformity Guidance: Questions and Answers, USEPA, OAQPS, July 13, 1994, p.14 Questions 36, 37, & 38.

<sup>18</sup>58 FR 63214 and 63223 and see also General Conformity: Questions and Answers, USEPA, OAQPS, July 13, 1994, p.23 Question 19.

<sup>19</sup>40 CFR 93.101 see definition of "transportation project."

Transportation Improvement Plan (TIP) or Regional Transportation Plan (RTP), the Federal agency can base its determination on a certification from the metropolitan planning organization (MPO's) that the emissions are included in a conforming TIP or RTP.<sup>20</sup> If the emissions are not included in the conforming TIP or RTP (e.g., emissions from vehicles on the airport property), they should be included in the FAA/airport operator's general conformity evaluation. If the proposed project/action does not increase emissions from ground access vehicles, there would be no need to include them in the conformity evaluation.

#### **De Minimis Emission Test**

- 6. General Conformity does not allow "tiering." However, clarification is needed as to how general conformity applies to a tiered NEPA document.
- A: In creating the de minimis emission level, EPA sought to limit the need to conduct conformity determinations for actions with minimal emission increases.<sup>21</sup> Since the General Conformity Regulations generally do not require the analysis of cumulative impacts of several projects<sup>22</sup>, EPA was concerned that the tiering of projects could lead to segmentation of the project and circumvention of the de minimis levels.<sup>23</sup> In the preamble to the regulations, EPA stated that "[a] full conformity determination on all aspects of an activity must be completed before any portion of the activity is commenced."<sup>24</sup>

In many cases, the Federal actions or approvals occur in phases or tiers. For example, as the first tier of a NEPA document, the FAA may deal with the approval of an airport operator's purchase of additional land to support other development shown on a long-term ALP and subsequent tiers may deal with approval for individual actions for that development. (See question #2.) The purchase of land would not result in any direct or indirect emission increases.<sup>25</sup> Any indirect emissions that may ultimately result from the purchase of land for a particular project only become foreseeable once final approval for the project is granted. Potential future indirect emissions may not be foreseeable at the

<sup>&</sup>lt;sup>20</sup>40 CFR 93.158(a)(5)(ii) and see also General Conformity Guidance: Questions and Answers, USEPA, OAQPS, July 13, 1994, p.30, Questions 1.

<sup>&</sup>lt;sup>21</sup>58 FR 63214, 63228.

<sup>&</sup>lt;sup>22</sup>58 FR 63214, 63243.

<sup>&</sup>lt;sup>23</sup>58 FR 63214, 63240.

<sup>&</sup>lt;sup>24</sup>58 FR 63214, 63240.

<sup>&</sup>lt;sup>25</sup>40 CFR 93.152 see definition of "total direct and indirect emissions" and 93.153(c)(1).

time the land for the project is purchased because the project may not yet have been authorized and ultimately may not be approved.

It is up to the airport operator, in consultation with FAA, to decide whether to seek a single FAA approval for an entire plan, which eliminates the need to go back and do additional conformity analyses as each project is implemented according to the plan, to proceed with a tiered process, or to proceed with individual projects having independent utility and go through a separate conformity evaluation for each one. For airport development, if projects or actions are combined together for NEPA, then generally they should be kept together for general conformity unless there are specific reasons to separate the projects or actions.

- 7. When calculating project emissions to compare with de minimis thresholds, do you include emissions subject to NSR or a PSD permit?
- A: No. Since the emissions from major new or modified stationary sources subject to the NSR/PSD will undergo analysis as part of the review required by those programs, it is not necessary to include them in general conformity review. The general conformity regulations specifically exempt these emissions.<sup>26</sup>

Permits for minor stationary and area sources under State new minor source review program are not exempt from analysis under the regulations. However, to issue such a permit, the State must determine that the emissions are in conformity with the SIP<sup>27</sup> and thus, the FAA/airport operator can generally rely on the permit as evidence of a determination and documentation that the emissions are included in the SIP.<sup>28</sup>

- 8. Can control measures be included in the project emissions quantification when conducting the de minimis emissions test/applicability analysis? Does it make a difference if emission controls are part of the project versus specifically called for as mitigation?
- A: Yes. The regulations define the total direct and indirect as the sum of the emission increases and decreases caused by the project.<sup>29</sup> Thus, in evaluating whether the total direct and indirect emissions are exceeding the de minimis levels you should use the **net**

<sup>27</sup>40 CFR 51.160(a).

<sup>28</sup>40 CFR 93.158(a)(5)(i)(A).

<sup>&</sup>lt;sup>26</sup>40 CFR 93.153(d)(1).

<sup>&</sup>lt;sup>29</sup>40 CFR 93.152 see definition of "total direct and indirect emissions."

increase in emissions based on the project including planned mitigation.<sup>30</sup> For example, if an airport expansion includes gate electrification (i.e., providing electric power and/or pre-conditioned air to aircraft parked at the gate), then the resulting emission reduction would be included. In this example, the project includes emission controls as part of the project design rather than identifying them as separate mitigation measures. If the total direct and indirect emissions from the project/actions are below the de minimis levels, the project/action would not be subject to a conformity determination, and it would not be necessary to identify mitigation measures as part of the conformity evaluation. It should be noted that the emission control measures included in the de minimis emission calculations should be related in some way to the design of the project/action. (See question #38 for more information on project design and mitigation measures.)

- 9. Are de minimis emissions levels established for seasonal non-attainment pollutants (e.g. summer ozone season, or winter CO season)? If so, how?
- A: No. Under existing regulations, the de minimis emission levels are emissions in tons per year.<sup>31</sup> Thus, annual emission rates per calendar year are used. However, if a conformity determination is required, then the season of the emissions may be relevant to the conformity determination and should be discussed with the appropriate State/local air quality agency. (See question #14.)

### **Approaches for Demonstrating Conformity**

- 10. How many specific avenues for demonstrating conformity are available? And which agency has final say over which can/must be applied?
- A: The criteria for determining conformity depend upon the pollutant and the circumstances surrounding the Federal action.<sup>32</sup> For all criteria pollutants, conformity can be demonstrated by showing through existing documentation that the total emissions from the action are specifically identified and accounted for in the SIP.<sup>33</sup> Otherwise, depending on the pollutant, conformity can be demonstrated through modeling and/or an emissions-based test. Localized pollutants such as CO and PM-10 are typically subject to modeling that must demonstrate that the emissions from the action will not cause or contribute to an increase in the severity or frequency of NAAQS violations.<sup>34</sup> For most

<sup>30</sup>40 CFR 93.153(b).

<sup>31</sup>40 CFR 93.153(b).

<sup>32</sup>58 FR 63214, 63242.

<sup>33</sup>40 CFR 93.158(a)(1).

<sup>34</sup>40 CFR 93.158(a)(4).

airport projects the available approaches for ozone and nitrogen dioxide (or for other pollutants in lieu of area wide modeling) include the following:

- (a) A written determination from the State/local air quality agency stating that the project emissions, together with all other emissions in the non-attainment or maintenance area, would not exceed the emissions budget in the SIP.<sup>35</sup>
- (b) A written commitment from the Governor, or the Governor's designee for SIP actions, to include the emissions in a revised SIP (this automatically results in a call for a SIP revision).<sup>36</sup>
- (c) Offsetting or mitigating<sup>37</sup> project emissions so that there is no net increase within the non-attainment or maintenance area.<sup>38</sup>
- (d) The applicable MPO determines that the emissions from the project, or portion thereof, are included in a conforming transportation plan and transportation improvement program.<sup>39</sup>

In the case of airport actions, the FAA, who will be making the conformity determination,<sup>40</sup> is responsible for deciding which approach to pursue, in consultation with EPA, the State or local air quality agency and the project sponsor. (See question #16.)

- 11. Can general conformity be demonstrated without conducting an emissions evaluation if the State or local air quality agency indicates in writing that the project conforms?
- A: No. In order to determine if the emissions exceed the de minimis levels the total direct and indirect emissions must be evaluated.<sup>41</sup> This is typically done through the preparation of an applicability analysis. If project emissions exceed the de minimis levels, all of the methods for demonstrating conformity would require some type of emission evaluation.<sup>42</sup>

<sup>35</sup>40 CFR 93.158(a)(5)(i)(A).

<sup>36</sup>40 CFR 93.158(a)(5)(i)(B).

<sup>37</sup>40 CFR 93.160.

<sup>38</sup>40 CFR 93.158(a)(2) and 93.158(a)(5)(iii).

<sup>39</sup>40 CFR 93.158(a)(5)(ii).

<sup>40</sup>40 CFR 93.154.

<sup>41</sup>40 CFR 93.153(b).

<sup>42</sup>40 CFR 93.158.

- 12. What is the role of the MPO in a general conformity determination?
- A: During the general conformity process, the MPO may be consulted, but the MPO does not have an approval role in general conformity. In preparing a transportation conformity evaluation, the MPO has a sizeable role. If an airport-related highway or mass transit project is included in a conforming transportation improvement plan (TIP) under the Transportation Conformity Regulations the predicted emissions would not be included in the general conformity evaluation and thus would not need to be calculated.<sup>43</sup> Airports operators are also cautioned that airport roads and roads in the vicinity may also be considered regionally significant, as defined by the Transportation Conformity Regulations. Thus, we encourage coordination with the MPO to better understand the application of transportation conformity to airport development actions.
- 13. What if the major source of a non-attainment "dispersion" pollutant is geographically isolated from the Airport (e.g., factory emitting  $SO_2$  on the other side of town causing the area to be  $SO_2$  non-attainment), is conformity still required?
- A: Yes, if the action occurs in a non-attainment or maintenance area. Even if the major reason that an area is designated as "non-attainment" is unrelated to an airport that is located in the non-attainment area, then emissions from airport actions must be evaluated to ensure that they do not create a new violations of the standards or contribute to increasing the severity or the frequency of the violations or delay attainment.<sup>44</sup>
- 14. Is it acceptable to demonstrate conformity by showing that project-related emission increases (e.g., construction) in excess of de minimis levels occur outside of the pollutant season (e.g., summer ozone season) for non-attainment or maintenance areas?
- A: As discussed in response to question #9, EPA's regulations require Federal agencies to conduct a general conformity determination for any action with emissions exceeding the de minimis levels unless the emissions are otherwise exempt.<sup>45</sup> By definition, the de minimis levels are annual emission rates<sup>46</sup> and thus the annual, calendar year, emission estimates must be used in the de minimis test. The "total direct and indirect emissions" include <u>all</u> direct and indirect emissions; off-season emissions are not excluded from the

<sup>44</sup>40 CFR 93.158(b).

<sup>45</sup>40 CFR 93.153(b)-(e).

<sup>46</sup>40 CFR 93.153(b)(1)-(2).

<sup>&</sup>lt;sup>43</sup>40 CFR 93.153(a).

emissions to be considered.<sup>47</sup> However, in some cases it may be possible as part of the conformity determination to demonstrate that emissions caused by the project, which occur outside the season primarily associated with the non-attainment pollutant, will conform to the SIP. For example, an ozone SIP emission budget typically quantifies pollutant emissions on a seasonal basis (e.g. emissions for a typical ozone season workday). Therefore, if the project-related emissions could not or would not occur during that period, the emissions may not interfere with the SIP. It would be helpful (but not required) to have the State submit a letter stating that the emissions will not occur during the pollutant season and, thus, conform with the SIP. In addition, the limits on the time of the year that the emissions would occur typically need to be either physical, (e.g., deicing during the summer months, or CO from construction activities during winter months) or legal (e.g., a permit condition) and not just a planning assumption.

It would be prudent for an airport operator to work with their State or local air quality agency in the development of a new or revised SIP to ensure that it identifies the implication of off-season emissions.

- 15. Is it acceptable to demonstrate conformity by conducting ambient monitoring in accordance with EPA standards to show that airport-related emissions are substantially less than the national ambient air quality standards and not regionally significant as an acceptable method for demonstrating conformity?
- A: No. A number of factors affect the ambient concentration of the pollutants. Such factors include meteorology, emission patterns, expected growth rates, other control programs, and transport of pollutants. The State, in developing the SIP, must consider all the factors and establish the emissions limitations for categories of sources.<sup>48</sup> The conformity determination is to ensure that the emission increases from a Federal action are consistent with the limitations in the SIP. Ambient monitoring only evaluates the air quality at the monitoring site and does not evaluate the other factors that the State considered in developing its SIP. Therefore, the regulations do not provide for the use of ambient air quality monitoring to demonstrate conformity. The "regionally significant" test is an emissions test<sup>49</sup> and does not directly include ambient air quality concentrations. Therefore, ambient air quality monitoring cannot be used to demonstrate that a project is not regionally significant under the General Conformity Regulations. (See question #19.)

<sup>&</sup>lt;sup>47</sup>40 CFR 93.152 see definition of "total direct and indirect emissions."

<sup>&</sup>lt;sup>48</sup>40 CFR 51.112.

<sup>&</sup>lt;sup>49</sup>40 CFR 93.152 see definition of "regionally significant action;" 40 CFR 93.153(i)-(j).

- 16. Does the State government have to declare the emissions are in the SIP, or can there be the presumption of inclusion? For example, if the State has not implemented an airport specific control strategy, but the proposed airport development is generally following a publicly distributed master plan, can the emissions assumed to be in the SIP?
- A: If the emissions are explicitly identified and accounted for in the SIP, no declaration is necessary. However, if the emissions are not explicitly identified and accounted for in the SIP, but are implicitly covered by an emissions budget which may have been, in part, based on publicly distributed airport master plan, the Federal agency can rely upon a State's written declaration that the emissions are included in the SIP.<sup>50</sup> In addition, Federal agencies can also rely on the State's commitment to include the emissions in their SIP.<sup>51</sup> (See questions #10 and #18.)
- 17. The General Conformity regulations state that if "emissions are specifically identified and accounted for in the applicable SIP's", then the action conforms to the SIP.<sup>52</sup> Does this mean that the SIP must specifically name the project (please clarify the term "specifically identified")? If the State agency states that the SIP includes the project, but it is not specifically named in the documentation, what type of confirmation is acceptable? If the SIP uses activity levels that can only occur if the project is in place would that suffice? Is a conformity evaluation required if the project is included in the SIP, either named or not specifically named?
- A: To demonstrate conformity under the provisions of 40 CFR 93.158(a)(1) the action/project must be specifically identified and accounted for in the SIP. The determination as to whether the action/project is specifically identified in the SIP is made on a case-by-case basis and should be done in consultation with the State/local air quality agency and the EPA Regional Office. In the absence of specific SIP documentation identifying the action/project, it may be necessary to look at the record of the SIP development process to establish that these emissions were nonetheless identified and accounted for. The more evidence that the emissions are included in the SIP the better. For example, if the SIP assumes activity levels that can only occur if the action/project is in place that might be evidence that the action/project's emissions were specifically identified and accounted for when the SIP was developed. If there are any questions, the best way to ensure a strong legal basis for the determination is to have the State/local air quality agency state in writing that the emissions are included in the SIP.

<sup>52</sup>40 CFR 93.158(a)(1).

<sup>&</sup>lt;sup>50</sup>40 CFR 93.158(a)(5)(i)(A).

<sup>&</sup>lt;sup>51</sup>40 CFR 93.158(a)(5)(i)(B).

The fact that an action/project is included in a SIP does not relieve the FAA from undertaking an appropriate conformity evaluation. If the project emissions exceed the applicable de minimis level, then the fact that the project emissions are accounted for in the SIP could be the basis for determining conformity.<sup>53</sup>

- 18. One of the mechanisms to demonstrate conformity is to obtain a commitment from the State to revise the SIP to include the project. How would this work? Beyond a written commitment, what further information would be required? For instance, if the project were approved and construction initiated/completed, what would happen if EPA rejected the amended SIP?
- A: To demonstrate conformity by having the State commit to revise the SIP requires that the Federal agency, e.g., FAA, obtain a written commitment<sup>54</sup> to EPA from the Governor or Governor's designee for SIP actions that include:
  - (a) a specific schedule to adopt and submit a SIP revision which would achieve the needed emission reductions prior to the time emissions from the Federal action would occur,
  - (b) the identification of specific measures to be adopted,
  - (c) a demonstration that all existing SIP requirements are being implemented,
  - (d) a determination that the Federal agency, e.g., FAA, has required all reasonable mitigation measures, and
  - (e) written documentation supporting the conformity determination.

Once the State submits the letter, EPA treats it as a call for a SIP revision and holds the State responsible for adopting and implementing an approvable SIP.

The EPA has not addressed what actions it would take if the State failed to submit an approvable SIP by the specified deadline. Most likely it would depend upon the circumstances surrounding the particular case and would generally be treated in the same manner as other cases where the State failed to submit an approvable SIP. Since the general conformity determination for an airport project is made at the time of FAA approval of that project, it generally would not be affected by the State's failure to submit an approvable SIP.

<sup>54</sup>40 CFR 93.158(a)(5)(i)(B)

<sup>&</sup>lt;sup>53</sup>40 CFR 93.158(a)(1).

#### **Regionally Significant**

- 19. What does it mean that a project is "regionally significant" and subject to conformity? Does this answer differ under general conformity and transportation conformity?
- A: The General Conformity Regulations and the Transportation Conformity Regulations have different definitions of the term "regionally significant." Under the General Conformity Regulations, a regionally significant action/project is a Federal project or action with total direct and indirect emissions greater than 10% of the emissions inventory for the non-attainment or maintenance area.<sup>55</sup> Regionally significant action/projects must undergo a general conformity determination even if the action/project would otherwise be exempt because any increased emissions are below de minimis levels.<sup>56</sup> For example, before the FAA could approve an airport project with emissions below the de minimis levels, but that exceeded 10% of the non-attainment or maintenance area's emissions inventory, the action would be important only in small non-attainment areas where the total emissions inventory is less than 10 times the de minimis emission levels.

The Transportation Conformity Regulations define a "regionally significant project" as "a transportation project (other than an exempt project) that is on a facility which serves regional transportation needs ... and would normally be included in the modeling of a metropolitan area's transportation network, including at a minimum all principal arterial highways and all fixed guideway transit facilities that offer an alternative to regional highway travel."<sup>57</sup> The emissions from these regionally significant projects, or actions affecting regionally significant roadways, even if not Federally funded, are included in the modeling for the transportation plans to ensure that the emission budgets in the SIP are not exceeded. In certain circumstances, surface travel projects related to the airport (e.g., an airport light-rail connection, or roadway improvements) could be considered regionally significant and thus the related transportation action/project would have to be included when the MPOs evaluated the projects to determine if it meets the Transportation Conformity requirements.

If there is no Federal action, the General Conformity Regulations do not apply.<sup>58</sup> However, under the Transportation Conformity Regulations, non-Federal projects (i.e.,

<sup>58</sup>40 CFR 93.153(b).

<sup>&</sup>lt;sup>55</sup>40 CFR 93.152 see definition of "regionally significant action."

<sup>&</sup>lt;sup>56</sup>40 CFR 93.153(i).

<sup>&</sup>lt;sup>57</sup>40 CFR 93.101 see definition of "regionally significant project."

projects other than those funded by FHA/FTA) that are determined to be regionally significant are included in the regional analysis.

#### **Emission Calculations**

- 20. In evaluating "project-related" emissions, which comparison is made a) future "Without Project" emissions subtracted from future "With Project" emissions or b) future "With Project" after subtracting the existing emissions? If the answer differs according to a specific situation, please indicate the situations that apply to each scenario. When defining the "Without Project", is the NEPA approach acceptable?
- A: The total direct and indirect emissions used in the analysis are the **net** increase in emissions caused by the project/action which is "a" above. The FAA would identify the net increase by subtracting the future emissions without the project/action from the future emission with the project/action.<sup>59,60</sup> The emissions are calculated using forecast activity levels and appropriate emission factors.<sup>61</sup> The "without project" would be defined as the "no action" alternative<sup>62</sup> under NEPA (i.e., conditions in a respective year if the proposed project or activity would not take place).
- 21. If, as part of the evaluation for a conformity determination (i.e., conformity evaluation), an emissions inventory is prepared that shows that even though net project emissions are above de minimis levels, but future "With Project" emissions are less than the emissions projected for the airport in the SIP, is any further analysis or demonstration required? If so, what?
- A: Yes. If net project emissions equal or exceed de minimis levels, the FAA must document the conformity determination and publish the draft determination for review by the State, EPA and the public.<sup>63</sup> One method you can use to demonstrate conformity is for the applicable SIP to identify and account for the project/action emissions.<sup>64</sup> Therefore, if the total emissions with the project/action are below the budget levels in the SIP, then the FAA can use that fact to demonstrate conformity with the SIP. This is why it is

<sup>60</sup>Letter from Wallace Woo, USEPA Region IX San Francisco, CA to David Kessler, FAA, Los Angeles, CA, January 25, 1996.

<sup>61</sup>40 CFR 93.159.

<sup>62</sup>40 CFR 1502.14(d).

<sup>63</sup>40 CFR 93.153(b), 93.155, and 93.156.

<sup>64</sup>40 CFR 93.158(a)(5)(i).

<sup>&</sup>lt;sup>59</sup>40 CFR 93.152 see definition of "total direct and indirect emissions, 40 CFR 93.153(b).

important for the airport operators to take a pro-active role in meeting with the State/local air quality agencies to ensure that the projected project/action emissions are included in the SIP.

- 22. If the SIP only accounts for aircraft emissions, and no other airport emissions are specifically included in the SIP, how should the conformity evaluation be completed for the non-aircraft sources?
- A: For the portion, if any, of the action/project emissions that are not allocated to a category in the SIP, other methods can be used to demonstrate conformity (e.g., mitigation measures or offsets).<sup>65</sup> In developing an emissions inventory for the SIP, State and local air quality agencies generally use the best information available to them at the time. In some cases, the information is readily available, but in many cases it is not. As a result, the SIP developers group emission together into categories. The emissions from airport sources are often grouped with similar non-airport sources such as non-road mobile sources (which may include aircraft, ground support equipment and possibly construction emissions). However, these emissions may not be specifically identified as airport emissions. Ideally, having the airport specifically named and emissions identified in the SIP would be best. For this reason airports operators and State and local air quality agencies are encouraged to work together in preparing future SIP's to ensure that the emissions from airport sources are included in the inventory. If the airport source emissions are not readily identifiable in the SIP inventory, the airport operator should work with the State or local air quality agency to determine what, if any portion of a category could or would be allocated to the airport.
- 23. When conducting an emissions inventory or dispersion analysis, is the analysis limited to the sources within the property line of the airport? Does this answer differ according to the type of pollutant?
- A: No in both cases. On-airport emissions sources may have an effect on ambient air concentrations off-airport and therefore the development of an emissions inventory and modeling may need to be conducted beyond the airport perimeter.<sup>66,67</sup> Thus, if a dispersion analysis is appropriate, it should be extended off-airport and include all sources. In addition, indirect emissions associated with the airport project and subject to

<sup>67</sup>40 CFR Part 51, App. W 8.2.2.

<sup>&</sup>lt;sup>65</sup>40 CFR 93.158(a)(5) and 93.160.

<sup>&</sup>lt;sup>66</sup>40 CFR 93.159(c).

the general conformity rules<sup>68</sup> may occur off-airport and must be included in the conformity evaluation and determination. (See questions 3, 4, and 28.)

# Air Quality and Emission Modeling

- 24. If the federal action is de minimis, is a dispersion analysis or actual measurements required? In what circumstances would one or the other be required? Is this a hard and fast rule or can an agency require an analysis?
- A: Projects/actions with total direct and indirect emissions below the de minimis emission levels are not required to conduct a conformity determination<sup>69</sup> unless they are determined to be regionally significant (emissions greater than 10% of the area's emissions inventory).<sup>70</sup> Once emissions are determined to be below the de minimis levels and the action is not regionally significant, no further analyses, such as a dispersion analysis, are necessary. The general conformity regulations do not require ambient or emission monitoring. However, some air quality agencies may request monitoring to collect information on existing emissions or ambient conditions.

For general conformity purposes, dispersion modeling, if necessary, would generally be required to demonstrate that the emissions from the project/action do not cause or contribute to any new violation of a standard, increase the frequency or severity of any existing violation of the standard or delay implementation of the standard. It should be noted that the NEPA, or State equivalent, requirements are separate from the conformity requirements and may require modeling for criteria pollutants. In addition, other environmental laws and regulations may give the air quality agencies authority to require modeling or monitoring of pollutants. Actions/projects which are exempt from the conformity requirements (such as by being below the de minimis levels or presumed to conform) are not required to make a conformity determinations<sup>71</sup> even if dispersion modeling conducted to meet other requirements, such as NEPA, indicates potential exceedances of the air quality standards.

<sup>&</sup>lt;sup>68</sup>40 CFR 93.152 see definition of "indirect emissions."

<sup>&</sup>lt;sup>69</sup>40 CFR 93.153(b) and 93.153(c)(1).

<sup>&</sup>lt;sup>70</sup>40 CFR 93.153(i).

<sup>&</sup>lt;sup>71</sup>40 CFR 93.153(c)-(d).

- 25. What if there are no appropriate emission factors to use in a conformity evaluation such as aircraft particulate matter (PM)?
- A: The FAA's Emissions and Dispersion Modeling System (EDMS)<sup>72</sup> is designed to assess the emissions and air quality impacts from airport sources, particularly aviation sources including aircraft, auxiliary power units, and ground support equipment. EDMS also offers the ability to assess ground access vehicles and some stationary sources. In cases where emission factors are unavailable for EDMS, such as aircraft particulate matter (PM), the FAA and airport operators should use the best available information.<sup>73</sup> Available information on particulate matter emission factors includes the EPA's Compilation of Emission Factors, known as AP-42,<sup>74</sup> and other appropriate published PM aircraft emission data. When using data from sources other than EDMS, the FAA and airport operators should coordinate their use of such data and supplemental material with the EPA, and State and local air quality agencies.<sup>75</sup>

The FAA is working on two fronts to develop an improved database for aircraft PM emission factors. In the <u>short term</u>, the FAA is attempting to develop a first order approximation methodology with available information to estimate the mass of particulate matter emitted from aircraft during the landing/takeoff cycle. In the <u>longer term</u>, the FAA is working with the aviation community, including the Society of Automotive Engineers, the International Civil Aviation Organization, and NASA to develop methods and procedures for measuring aircraft engine PM emissions.

- 26. Is air shed modeling required for airports in non-attainment areas for ozone? Is dispersion modeling of NO<sub>2</sub> required?
- A: No. Since ozone modeling is not sensitive enough to predict the impact of single facilities, the general conformity regulations do not provide for the use of modeling to demonstrate conformity with the ozone and NO<sub>2</sub> SIPs.<sup>76</sup> Instead, Federal agencies can demonstrate conformity in ozone and NO<sub>2</sub> non-attainment areas by offsetting the increased emissions or using other emission based conformity criteria.

<sup>72</sup>40 CFR Part 51, App. W 7.2.7 c.

- <sup>73</sup>40 CFR Part 51, App. W 9.0 a.
- <sup>74</sup>40 CFR 93.159(b)(2).
- <sup>75</sup>40 CFR 93.159(c).

<sup>76</sup>40 CFR 93.158(a)(2).

- 27. If States have used approved models other than EDMS to generate the emissions from airport sources, is it acceptable for the conformity evaluation to use those models employed by the State/SIP? If only EDMS is used in the conformity evaluations, how should differences in the models be reconciled?
- A: The FAA requires airport operators to use the most recent version of EDMS for air quality modeling analysis of aviation sources (aircraft, APUs, and GSE).<sup>77</sup> EDMS is also an approved EPA Preferred Guideline Model.<sup>78</sup> EDMS includes capabilities for analyzing non-aviation sources (ground access vehicles and stationary sources such as power plants and fuel storage tanks). Use of supplemental methodologies for more refined modeling or analysis of non-aviation sources is permitted with the approval of the appropriate FAA program office in consultation with the Airports Office and the Office of Environment and Energy.

Some States have used other methodologies besides EDMS to develop SIP budgets for airport sources. As a result, the means to reconcile current differences between airport and State analysis will vary by State. Where applicable emission budgets have been formulated using non-EDMS methodology, the airport operator needs to consult with the State regarding the conversion of EDMS results and how to obtain consistency with state methodology cost-effectively.

The FAA strongly encourages States to use EDMS to develop or revise airport-related portions of their SIP's. The use of EDMS in SIP development can be undertaken by States directly or by airports that submit their EDMS analysis to the State.

- 28. For purposes of a dispersion analysis, is the secure portion of the airport (areas requiring security clearance) considered "ambient air"? Are areas that are not accessible to the general public considered ambient air?
- A: No. EPA has defined "ambient air" as "that portion of the atmosphere, external to a building, to which the general public has access."<sup>79</sup> Under EPA's policy, to exclude an area from the ambient air, public access must be excluded by a fence or other physical barrier.<sup>80</sup> The secure area of an airport and areas that are not accessible to the general public would generally qualify for the exclusion; however, specific cases should be

<sup>79</sup>40 CFR 50.1 (e).

<sup>80</sup>Letter from Administrator Douglas Costle to Senator Jennings Randolph, December 19, 1980.

<sup>&</sup>lt;sup>77</sup>FAA order 1050.1D chg 4 Attachment 2, June 14, 1999, p. 8

<sup>&</sup>lt;sup>78</sup>40 CFR Part 51, App. W 7.2.7 c.

discussed with local or State air quality agencies and/or the appropriate EPA Regional Office. By classifying the air in the secure area as "not ambient air," the ambient standards are not applicable within the fence line, but must be met at the fence line. With such a classification, ambient monitors and modeling receptor sites would generally not be located within the fenced area. This allows primary pollutants, such as CO and SO<sub>2</sub>, a little area to disperse before being compared to the ambient standard. Generally, such a classification will have no effect on the control of precursors of secondary pollutants such as VOCs and NO<sub>x</sub> for ozone.

# **Proactive Role for Airports**

- 29. What can airport operators do to assist with General Conformity analyses and determinations?
- A: First, general conformity evaluations are generally based upon emissions estimates. Therefore, EPA and FAA encourage airport operators to develop comprehensive emissions inventories for their facilities as well as estimates of future activity levels and emissions. This should include information on all sources of emissions, including passenger and employee commuting, aircraft, ground support equipment (GSE), stationary sources, and construction activities. Next, operators should work closely with local and State air quality agencies to ensure that the SIP accurately reflects all emissions at the airport and growth rates for operations at the airport. Airport operators should also evaluate the sources of pollutant within their control to determine how the pollution can be reduced or eliminated. This information can be very useful in designing a project to keep the emissions below the de minimis levels or to mitigate the increase in emissions from the project.
- 30. If the airport operator provides the State with information about airport sources for inclusions in the SIP, and that State chooses to underestimate the emissions, does the airport operator have any recourse?
- A: If the State underestimates the emissions from airport sources in the SIP, the airport operator has several options to object to the underestimation. First, the State must subject the proposed SIP to public review and comment;<sup>81</sup> the airport operator can file official comments that the State must address. Next, before it approves the SIP, EPA also allows for public review and comment. The airport operator could identify the problem to EPA. In addition, if the problem is not addressed through those mechanisms, States usually have procedures to permit individuals to challenge the SIP before an appeals board and/or a State court. Once a SIP is adopted and approved by EPA, airports

<sup>&</sup>lt;sup>81</sup>40 CFR 51.102.

as well as other sources are bound by the requirements in the SIP until it is officially revised.<sup>82</sup>

The incentive that exists for the airport operator to work toward getting emissions from airport sources accounted for in the SIP, is a streamlined conformity determination process. This could be particularly important for projects that have emissions equal to or in excess of the de minimis levels to show that the project conforms with the SIP. (See question #10.) In developing the SIPs, States use the latest planning assumptions and regional growth rates. If higher growth rates are projected for the airport, then those rate need to be well documented.

# **Documentation of Determinations**

- 31. Do the regulations require written confirmation from the State before a Federal agency makes its conformity determination?
- A: No.<sup>83</sup> However, the Federal agency must provide the State and local air quality agency 30 days to comment on the proposed determination.<sup>84</sup> The best way to ensure a strong legal basis for the Federal agency's proposed general conformity determination is to secure written confirmation from the State/local air quality agency that they concur in the manner by which the FAA has determined its project/action conforms with the SIP. FAA prefers to have such documentation as part of the conformity determination.
- 32. If the FAA makes a conformity finding/determination on a project, and then a new approval is needed for the project from another Federal agency (such as a permit), can the second Federal agency use the FAA's conformity determination? Explain any circumstances.
- A: Each agency is responsible for its own conformity determination.<sup>85,86</sup> The direct and indirect emissions from the other agencies action could be significantly different. For example, the FAA might conduct a conformity determination for an airport development or expansion project. The total direct and indirect emissions could include most of the increased activities at the airport, since the FAA would maintain a continuing program responsibility for many of those emissions. As part of that project, the airport operator

<sup>82</sup>40 CFR 51.105

<sup>83</sup>40 CFR 93.150(b) and 93.154.

<sup>84</sup>40 CFR 93.155(a).

<sup>85</sup>40 CFR 93.154.

<sup>86</sup>58 FR 63214, 63239 Col. 1.

might seek a permit from the Corps of Engineers to fill a wetland. Once the filling is complete, the Corps would not have any further program responsibility for the other emissions. Therefore, the General Conformity Regulations require each agency to conduct its own determination. However, an agency can adopt the analysis of another Federal agency and can rely on the same information and documents used by another agency to support its own independent conformity determination.

#### **Requirements to Conduct New Determinations**

- 33. The General Conformity Regulations state: "The conformity status of a Federal action automatically lapses 5 years from the date a final conformity determination is reported under Sec. 93.155, unless the Federal action has been completed or a continuous program has been commenced to implement that Federal action within a reasonable time." What is necessary to establish a "continuous program"? How does this compare with "continuing federal responsibility"? If the action is a long-range program, for which some elements have been initiated, what further is required?
- A: In some cases, after a conformity determination is made a project will be cancelled or delayed. Since the conditions surrounding the proposed action may change over time, EPA does not believe that conformity determinations should be valid indefinitely. Therefore, EPA included a 5-year time limit on the determination.<sup>87</sup> If more than 5 years elapse between the conformity determination and the start of the project, or if the project is put on hold and not restarted within 5 years after the final conformity determination, a new determination would be necessary before the project could proceed.

A new conformity determination may not be needed where a long-term project or series of projects are being carried out under a continuous program. The term "continuous program to implement" refers to the plan or program considered at the time of the conformity determination, which may cover more than 5 years. As part of a phased program, future actions do not require separate conformity determinations, even if they are begun more than 5 years after the conformity determination, as long as those actions are consistent with the original plan or program determined to conform. For example, most airport master plans cover more than 5 years, but a new conformity determination in year 6 would not be required if projects were still being implemented in accordance with the original Master Plan that was found to conform.

In addition, the regulations state that ongoing Federal activities at a given site showing continuous progress are not new actions and do not require periodic redeterminations if they are within the scope of the final conformity determination.<sup>88</sup> The preamble to the

<sup>&</sup>lt;sup>87</sup>40 CFR 93.157.

<sup>&</sup>lt;sup>88</sup>40 CFR 93.157(b).

conformity regulations also notes that the word "commenced" has the same general meaning as used in the PSD program (40 CFR 50.166)<sup>89</sup> and EPA's implementation regulation for its PSD program states that "[a]pproval to construct shall become invalid . . . if construction is discontinued for a period of 18 months or more."<sup>90</sup> This means that normal seasonal stoppage in construction or an unanticipated delay that occurs more than 5 years after a continuous program has been commenced generally should not cause the conformity determination to lapse provided there is no significant stoppage in the project.

If the plan or program is changed after the conformity determination is made where the change in the project (either the physical scope or phasing/timing) results in project-related emissions in excess of de minimis, a new conformity determination is required,<sup>91</sup> regardless of how recently the original conformity determination was made. If there is any question about whether a de minimis level applicability analysis or conformity determination is still valid, the Federal agency/airport operator should conduct a written re-evaluation to assess whether changes in the Federal action result in emissions increases above the de minimis levels.

- 34. The General Conformity regulations state: "If, after the conformity determination is made, the Federal action is changed so that there is an increase in the total of direct and indirect emissions, above the levels in Sec. 93.153(b), a new conformity determination is required."<sup>92</sup> Does this re-evaluation apply to a de minimis emission finding and at what point should it be conducted?
- A: Yes,<sup>93</sup> this re-evaluation applies to a de minimis finding. Actions taken subsequent to a conformity determination must be consistent with the basis of that determination.<sup>94</sup> Therefore, emission increase from changes to projects/actions previously found to have emissions below the de minimis levels must be evaluated.<sup>95</sup> If the total project emissions

<sup>89</sup>58 FR 63214, 63239.

<sup>90</sup>40 CFR 52.21(r)(2)

<sup>91</sup>40 CFR 93.157(c).

<sup>92</sup>40 CFR93.157(c).

<sup>93</sup>40 CFR 93.157(c).

<sup>94</sup>58 FR 63214, 63239.

<sup>95</sup>See FAA Order 5050.4A, ¶ 103, Written Reevaluations.

are still below the de minimis emission level, no further analysis is necessary.<sup>96</sup> However, if the changes in the project/action would increase the total emissions from the project/action to or above the de minimis levels, a conformity determination is required. The determination must be complete before the revision to the project action is approved.<sup>97</sup> If no Federal approval is required then the new/revised determination should be completed as expeditiously as possible to avoid proceeding with a project pursuant to an inaccurate or incomplete conformity determination. For example, after the airport layout plan has been unconditionally approved and a change is made that increases emissions but no further approval is required, any new conformity determination should be completed as expeditiously as possible.

- 35. How do you factor in new construction methods or change in the scheduling/phasing after the conformity determination is made?
- A: Again, actions taken subsequent to a conformity determination must be consistent with the basis of that determination.<sup>98</sup> New construction methods (including changes in scheduling/phasing) would be treated the same as any other change in the project/action, i.e., if the changes to a project/action with a conformity determination would increase emissions more than the de minimis levels, or if the changes to a project/action previously found to be de minimis levels, a new or revised determination would be necessary.<sup>99</sup> (See questions #33 and #34.)
- 36. If a project requires a conformity determination, and then later is subject to NSR or PSD, which requires mitigation/controls, is a revised conformity determination required?
- A: No. Emissions from major new or modified sources covered by NSR/PSD are exempt from the conformity determination.<sup>100</sup> Therefore, revisions to the conformity determination would not be necessary. In addition, changes in the project that reduce emissions would not trigger a new conformity determination.<sup>101</sup> However, although not required by the regulations, a conformity evaluation may be prudent to document that there no increase in emissions or that any emission increases are below de minimis levels, in case the action is challenged.

<sup>96</sup>40 CFR 93.153(b) and (c)(1).

- <sup>97</sup>40 CFR 93.150 (a) and (b). <sup>98</sup>58 FR 63214, 63239.
- <sup>99</sup>40 CFR 93.157(c).
- <sup>100</sup>40 CFR 93.153(d)(1).

<sup>101</sup>40 CFR 93.157(c).

- 37. If a project is found to be de minimis, and at a later date the region's SIP status changes (converts from non-attainment to maintenance or vice versa), what happens to the project? Is the de minimis threshold dependent on the year of the determination or the year in which the work is performed?
- A: The conformity determination is a one-time decision that is made prior to the Federal agency taking an action.<sup>102</sup> If the attainment status or classification of an area changes, a new determination would not be necessary unless the project was changed or not completed with in the specified time limits.<sup>103</sup> (See questions #33, #34 and #35.)

#### **Emission Controls and Offsets**

- 38. What is the difference between an emission control measure as part of the project design, a mitigation measure, an offset, and an emission reduction credit?
- A: All of these terms refer to emission reductions associated with the project or future projects. Which term is used depends upon the purpose of the emission reduction, documentation requirements, as well as when and where the reductions occur.

Most projects incorporate a series of measures in their <u>design</u> to reduce the environmental impact of the project. This is a normal part of the design process. These emission reductions are included in the net emissions calculation for the total direct and indirect emissions for project<sup>104</sup> and used when comparing the project emissions with the de minimis emission levels.<sup>105</sup> For example, design of a new terminal could include the use of electrified gates (i.e., to provide the aircraft parked at the gate with centrally produced electric power and conditioned air), which could reduce the emissions from aircraft and GSE.

<u>Mitigation measures</u> are used to reduce the impact of emission increases from a project and are generally emissions reductions that occur at the facility, which are not specifically related to the project but can be used to demonstrate conformity for the project. Mitigation measures are a form of offsets and can be used when offsets are allowed. For example, existing gates could be electrified to mitigate the increase in emissions from a runway expansion. Since the reductions are not related to the project, they would not be used in evaluating whether the project's emission were below the de

<sup>105</sup>40 CFR 93.153(b).

<sup>&</sup>lt;sup>102</sup>40 CFR 93.150(b).

<sup>&</sup>lt;sup>103</sup>40 CFR 93.157.

<sup>&</sup>lt;sup>104</sup>40 CFR 93.152 see definition of "total direct and indirect emissions."

minimis levels but could be used to demonstrate conformity with a SIP.<sup>106</sup> However, such mitigation requires written commitment to implement.<sup>107</sup>

<u>Offsets</u> are emission reductions, which occur off-site and are used to demonstrate conformity.<sup>108</sup> Since the emission reductions are being provided by a third party, a number of restrictions apply to the use of offsets. The regulations require that the emission reductions used as offsets be quantifiable, consistent with the applicable SIP, surplus to required emission reductions, enforceable at both the State and Federal levels, and permanent within the timeframe specified by the program.<sup>109</sup>

<u>Emission reduction credits</u><sup>110</sup> occur when an airport reduces emissions before the reductions are needed for a conformity determination. The local or State air quality agency can credit the airport with the reduction for use in a later conformity determination. For example, the Port of Seattle has reach an agreement with the Puget Sound Clean Air Agency to allow crediting of emission reductions at Seattle-Tacoma International Airport and to use later for a future project conformity determination. For a State or local air quality agency to give credit, the emission reductions must be quantifiable, consistent with the applicable SIP, surplus to required emission reductions, enforceable at both the State and Federal levels, and permanent within the timeframe specified by the program.<sup>111</sup> EPA and FAA encourage airports and local or State air quality agencies to develop agreements that allow credits to be granted to the airport. Quantifiable emission reductions from FAA's Inherently Low Emission Airport Vehicle (ILEAV) Pilot Program are likely to qualify for such credits and EPA encourages local and State air quality agencies to work with airport operators to develop programs for crediting the emission reductions resulting from the ILEAV programs.

<sup>106</sup>40 CFR 93.158(a)(5)(iii).

<sup>107</sup>40 CFR 93.160(b).

<sup>108</sup>40 CFR 93.158(a)(5)(iii).

<sup>109</sup>40 CFR 93.152 see definition of "emission offsets" and 58 FR 63214, 63238 col. 3.

<sup>110</sup>Improving Air Quality with Economic Incentive Programs, USEPA, Office of Air and Radiation, EPA453/R-01-001, January 2001.

<sup>111</sup>40 CFR 93.152 see definition of "emission offsets," 93.160, and 58 FR 63214, 63238 col. 3.

- 39. What actions are acceptable as mitigation measures? For ozone, if project-related emissions exceed the de minimis levels, must all project-related emissions be offset?
- A: Mitigation measures should generally meet the same criteria as emission offsets and emission reduction credits, i.e., quantifiable, consistent with the SIP, surplus, enforceable and permanent<sup>112</sup> (See question 38 above.) Any emission reductions which meet those criteria could potentially be used as a mitigation measure.

The FAA, in working with the airport operators, can use a combination of methods to demonstrate conformity in ozone and  $NO_2$  non-attainment and maintenance areas.<sup>113</sup> For example, part of the emission increase might be included in the SIP, part of the emission increase might be mitigated, and the rest of the emission increase could be offset. The combination of methods must account for all of the emission increases, not just the increase above the de minimis levels.<sup>114</sup>

<sup>&</sup>lt;sup>112</sup>40 CFR 93.152 see definition of "emission offsets" and 58 FR 63214, 63238 col. 3.

<sup>&</sup>lt;sup>113</sup>40 CFR 93.158(a)(2) and 93.158(a)(5)(iii).

<sup>&</sup>lt;sup>114</sup>40 CFR 93.158(a)(5)(iii).

# Appendix A LIST OF ACRONYMS

AIP	Airport Improvement Plan
ALP	Airport Layout Plan
CO	Carbon Monoxide
CFR	Code of Federal Regulations
CEQ	Council on Environmental Quality
EDMS	Emission Dispersion Modeling System
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GSE	Ground Support Equipment
ICAO	International Civil Aviation Organization
MPO	Metropolitan Planning Organization
NASA	National Aeronautic and Space Administration
NEPA	National Environmental Policy Act
NSR	New Source Review
NO <sub>2</sub>	Nitrogen Dioxide
NOx	Oxides of Nitrogen
Ops spec	Operations Specifications
PM	Particulate Matter
PFC	Passenger Facility Charge
PSD	Prevention of Significant Deterioration
SAE	Society of Automotive Engineers
SIP	State Implementation Plan
$SO_2$	Sulfur Dioxide
TIP	Transportation Improvement Plan
VOC	Volatile Organic Compounds