February 29, 1996

Mr. Dennis Ossenkop
Northwest Mountain Region FAA
1601 Lind Avenue Southwest
Renton, WA 98055-4056

Comments on Draft General Conformity Determination for the Sea-Tac Airport Runway and Associated Development Projects

Dear Mr. Ossenkop:

I have reviewed the FEIS for the expansion project, the Supplement to the State Implementation Plan (SIP) and general conformity. I have had extreme difficulty in determining what legal criteria are applicable to the draft General Conformity Determination. I will attempt to outline some of my concerns below and then to comment on what I feel are certain, verifiable problems with a positive finding of conformity for the third runway project.

The Draft EIS and FEIS Air Pollutant Methodology

Although the draft Conformity statement concludes that there are no unmitigatable predicted violations of the NAAQS for CO hot-spots identified in the FEIS, there are existing condition violations of the 8 hour standard which have no planned mitigation measures proposed. A proposal to reduce project related increases in the severity of the violations is in keeping with the letter of the law, but allowing the no-build violations to continue is inconsistent with the heart and intent of the law. (CAA)

Although the requirements for a finding of conformity for this project contain criteria relating to the creation of a new violation, increased severity or delaying of attainment, the existing violations in intersections along International Boulevard (transportation related) and along the curb-front on airport property, are both areas of public access where violations are occurring in the present condition which may or may not be mitigated by improvements. Expansion of airport parking facilities, drives and additional gates prior to North Unit Terminal build-out have not been considered as additive in the model.

Additionally, the FEIS predicts NO_2 violations in an area of restricted public access. This recent discovery of an NO_2 violation could be considered a new violation of the standard since significant increases in aircraft operations have occurred over a relatively short period of time which have not been modeled until recently and has not been previously identified in the SIP. (South 154th street) There is an expected new project related violation predicted to occur in the future in an area of public access along South 188th street for aircraft operation related NO_2. This could be considered a new, direct NAAQS

project related violation or an attainment delay. (ozone precursor) Neither nitrogen dioxide hot-spots are identified in the SIP or for mitigation measures in the FEIS.

Comments to increase the existing condition worst-case scenario peak aircraft operations numbers by EPA and other interested public, were used in the FEIS. However, the worst-case scenario which considered greater peak aircraft operation numbers, used greater light aircraft numbers than the previous annual average day level operations figures used in the draft EIS. Additionally, the model did not consider future peak aircraft operations considering the following which could contribute far greater NOx and therefore, NO_2 levels than those predicted:

1. Future larger aircraft emit more NOx.
2. Future fleet mix expected to include more larger aircraft and more jets over light aircraft.
3. High-bypass engines emit more NOx and will be included in the future fleet mix at Sea-Tac Airport.
4. The dual simultaneous departure capabilities of the third runway.
5. The ability for increased airport capacity accommodating up to 175,000 additional annual aircraft operations. (Jet fuel consumption is expected to increase by 72% over existing use [1994] by 2020. Logically, a 72% jet fuel use would indicate a much greater increase in peak hour takeoffs than that which has been assessed by the FEIS)

It would be reasonable to conclude, considering all the above, that an existing NO_2 violation predicted at South 154th street, would worsen in the future and that there would be far more exceedances of the standard than merely one additional receptor at South 188th. The existing condition has been modeled with 43.9 peak annual day average flights or roughly 385,000 flights per year. Technical Report #8 states that the third runway will accommodate an increase in operations to approximately 560,000 flights per year adding 175,000 flights per year. This figure equals a peak annual day average of 63.9 flights per hour. This is not peak, this is average. If NO_2 violations can be predicted to occur using 43.9, then surely this rate will increase with averages of 63.9.

If an NO_2 present condition violation can occur at South 154th due to takeoffs, this same scenario should also tend to occur during peak hour when the departures are to the north. If the same number of aircraft can depart during peak hour going to the south in south flow when winds are from the south, then the same exceedance should be expected to occur at South 188th in north flow when planes are taking off to the north in peak hour when winds are from the north unless it could be proven that winds are generally different for some reason when coming from the north or if north flow is somehow different than south flow during a given peak hour.

The documentation supporting nitrogen dioxide violations including predictions, modeling and monitoring was cited as comments on the draft EIS. Supportive evidence from an EPA/FAA study of Hartsfield Atlanta Airport which included modeling and monitoring of NO_2 indicated that jet aircraft operations could be expected to be creating very high rates of NO_2 in the business and residential areas surrounding airports. Additional studies support these conclusions and were also cited. The likelihood of nitrogen dioxide violations occurring around airports has been an unstudied hypothesis for decades.

Short-term NO_2 monitoring at Sea-Tac Airport in the baggage area detected levels of 0.1 average and 0.3 high, both parts per million. The high level is nearly five times greater than the highest NOx level measured by a recent Ecology NOx saturation study which used the same time period and mobile monitoring from north of Seattle to Enumclaw. This particular study concentrated heavily in Seattle and Bellevue but completely bypassed the Sea-Tac Airport area due to Ecology's assertion that Sea-Tac is not a large producer of ozone precursors (see enclosed), which is in direct contradiction to Ecology's own 1991 study which showed a great potential for NO_2 violations occurring in the neighborhoods and business districts around the airport with peak NO_2 rates estimated at 28.0 ppm.

Using figures from the draft EIS airport inventory and comparing only NOx and VOC emission totals to the inventory for regional ozone precursors and dividing the results by area provides the conclusion that Sea-Tac Airport produces ozone precurosrs at a rate 50 times greater than the average regional nonattainment acre.

The State Implementation Plan (SIP)

The way aircraft are considered a non-road mobile source rather than a point source in the SIP implies that this operation is a regional air pollution problem. Snow-blowers, lawn mowers and the like do not all operate within a few limited regional acres like Sea-Tac airport. Airports are more typical of a point source where pollution levels are high and concentrated within a limited geographical area. There are potentially no greater single regional sources of ozone precursors, carcinogenic hydrocarbons, toxic and very fine diameter particulate matter (once predicted to violate the NAAQS and should have input in the model to estimate contribution and potential transport and impact to nearby nonattainment area) carbon monoxide, sulfur oxides and nitrogen oxides. This chemical zoo could very well be responsible for the increased disease rates being reported by doctors treating airport neighbors. Potential for carcinogenic nitrousamines, nitrous and nitro compounds for which the Clean Air Act once addressed concern where high rates of nitrogen oxides occur, have not been evaluated. Considering that large quantities of criteria pollutants are emitted continuously at the airport, an area of only 2400 acres, it is irresponsible to average out this problem over the region. One group of citizens, (a minority in comparison to regional population) are experiencing an unfair burden of

impacts in violation of SEPA's provision for an inalienable right to a healthful environment.

I believe it should be the responsibility of the agencies who develop the SIP to make as complete and thorough evaluation of emissions as possible. This was not accomplished in regard to the emission rates for the aircraft operations at Sea-Tac Airport for 1995 SIP.

The 1995 SIP levels are nearly three times higher in tons per year for CO, VOCs and NOx than the estimates presented in the FEIS.

	1995 SIP Airport (Aircraft)			**1994 FEIS Airport (Sources/Aircraft)**		
	CO	VOC	NOx	CO	VOC	NOx
Tons/yr	5,880	1,092	2,476	1,188	358	1,199

Total SIP: 9,448 tons/year **Total FEIS: 2,745 tons/year**

Difference: 6,703 tons/year

The difference is equal to more than three times the 1994 FEIS estimates. These figures were derived, each from two scientifically based, technically oriented organizations, the SIP non-road mobile sources emission data supplied by PSAPCA in consultation with EPA 1992 Seattle Study data, and an experienced consultant using information supplied by the Port of Seattle. Both studies estimated pollution production levels using fleet mix and operational data obtained from the Port of Seattle/FAA. Yet each study came up with such vastly divergent estimates that the conclusions cast doubt on the accuracy of ***either one***. The disparity between these two estimates demands a third party to evaluate the methods, data and conclusions used by each study and then render an unbiased opinion of either the flaw(s) of each or develop an entirely new study for comparative purposes.

The goal of the SIP is to chart air pollution and improvements over time to eventually reach attainment of the standards to protect public health and better the environment. Implementation of control measures and identifying hot spots are two very important elements in achieving attainment of the Carbon Monoxide and Ozone standards. Many costly studies and control measures have been implemented to this end. If the airport project general conformity determination is approved with the existing predicted carbon monoxide and ozone precursor NO_2 violations continuing without any TCM or mitigation to bring levels to at or below the standards, the purpose and intent of the State Implementation Plan is not achieved, and public money has been wasted.

Additionally, it should be the responsibility of those regulatory agencies with the charge over air quality in the region to identify the airport hot-spots in the SIP. With CO and

NO_2 violations occurring in the FEIS which uses below reality existing condition numbers of operations rather than real worst-case figures and unsubstantiated projections for improvements with the third runway, it is inconceivable that the hot-spots went unidentified by EPA, Ecology and/or PSAPCA when the much higher SIP numbers were developed. There could conceivably be more hot-spots of violations within the region which have, as yet, not been identified if the airport SIP failed to identify rates which could be triple 18.0 ppm 8/hour CO at Sea-Tac.

Conformity and the Clean Air Act

"The purpose of conformity is to ensure that transportation activities improve, or at least do not worsen air quality." [1] "The key conformity requirements are that transportation activities:

- Cannot cause or contribute to any new violation of national ambient air quality standards
- Cannot increase the frequency or severity of any existing violation of the standards
- Cannot delay timely attainment of the standards"[2]

"If conformity is not achieved then the plan, program, or project cannot be approved or funded. Since projects from non-conforming TIPs cannot be approved or funded, a single project can prevent all other projects in the nonattainment area from being built if it results in the regional TIP not being able to conform."[3]

Since predicted violations in CO hot-spots, and NO_2 exceedances of the NAAQS have been identified in the FEIS, it does not appear that the above criteria have been satisfied.

Although the CO hot-spots are predicted to worsen with project related impacts, the analysis assumes improvements in automobile combustion and congestion which may or may not be forthcoming. Additionally, 509 extension project is expected to create some benefit for congestion on SR99 and I-5, however, the project level analysis for 509 was not in agreement with the FEIS identification of hot-spots and this apparent contradiction between benefits and the enabling effect to bring more traffic through this area rather than along I-5 has not been considered contributory, additive or cumulative to existing impacts. The FEIS should analyze more thoroughly, the cumulative or additive effects of overall traffic increases for a number of contributory projects such as:

1. SASA aircraft maintenance base (Aircraft engine run-ups/testing)
2. Cargo distribution center to be located at or near SASA site.
3. The cumulative effects of atmospheric VOCs emitted from a planned

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[1] Supplement to the State Implementation Plan WDOE January 1993 page 5-9
[2] Ibid page 5-10
[3] Supplement to the SIP page 5-14

bio-chemical manufacturing plant to be constructed on airport property.

4. Road widening projects for 24th South, South 200th, South 192nd, International Boulevard, airport drives, South Access roadway, etc.
5. 2,000 local heavy-heavy duty haul truck trips per day for 2 and a half to five years, 16 hours/day, 6 days per week for PM_{10} and NOx as additive short and/or long term impacts.

Thorough air quality analysis for these multiple projects should be included in the airport Master Plan FEIS since these projects aid the overall development, are necessary as integral parts of the development, are directly related to the project such as SASA which could contribute as much as 9,000 tons/year of air pollutant levels to the same general area as presently modeled airport existing operations, are on land bought with federal funds, are of a federal benefit or are actual federal facilities.

I believe that if all these were considered as additive and cumulative for this relatively small regional area, planners would be surprised at the amount and frequency of potential significant and extreme environmental degradation residents would be expected to bear.

Does this project meet the hot-spot criteria of §51.424, (58 FR 62223), §51.434 (58 FR 62225)? If so, has EPA called for an SIP revision? 58 FR 63222 states:

> "The exclusive definition, in effect, includes an examination of the duties, continuing program responsibilities, and controls that a Federal agency can practicably implement. When the Federal agency owns or operates a facility, Federal responsibility for the direct and indirect emissions from that facility is clear. Where the Federal agency has the authority to impose lease conditions controlling future activities on the leased Federal land, these emissions must be analyzed in the conformity determination."

These considerations include projected future emissions as well as direct and indirect. The above criteria would apply to SASA, Federal Detention Center, CTI and other cargo distribution developments in the south end of airport property. There are other planned developments on airport property and to the north which will all be conducted on Federal land, such as a hotel which will generate significant peak hour traffic increases through the airport area, a parking garage north of SR 518, Aviation Business Center, etc.

The project sponsor continuously asserts that similar impacts would occur with or without a third runway. This premise is faulty because it forces the conclusion that if significant increases in frequency of flights could be accommodated without a new runway then why does this project propose the urgent need for a third runway? Secondly, this situation ignores EPAs request to analyze capacity enhancement, which

is what this runway is all about. Lastly, with the tremendous impact that jet aircraft have on the quality of the environment, it is irresponsible to forward the idea that 175,000 more aircraft operations per year will fall below de minimus levels with conclusions of annual negligible and less than zero future additional criteria pollutant build contribution.

Conclusions and Recommendations

- An independent third party is needed to support or correct the conclusions arrived at by the Port of Seattle consultant.
- An independent study of the SIP in comparison to the FEIS inventory should be undertaken.
- Regulators should attempt to justify how the hot-spots for CO and NO_2 were overlooked during the development of the SIP.
- Particulate matter for jet aircraft operations, which has been completely eliminated from the EDMS model should be estimated and considered additive with haul truck particulate in areas of simultaneous impact.
- All projects and direct and/or indirect impacts should be reevaluated for multiple, cumulative and additive air quality impacts for all foreseeable construction and operation of improved and new facilities.

This project does not satisfy the heart and intent of the Clean Air Act requirements to reduce air pollution in areas where pollution problems pose a threat to human health and the environment, and especially this area of dense population and sensitive land uses.

Sincerely,

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Encl.

cc: Governor Lowry
EPA
Ecology
PSAPCA
ACC

Layout Plan in and of itself does not necessarily constitute an action that must meet conformity.[1] If a conditional approval is not a Federal action for the purpose of conformity, and if the activities to be fully approved are separate and independent from the conditionally approved activities, then a conformity finding is not needed for the conditional approval. In ve of this, a conformity finding must be made for the unconditionally approved us, based on available information, it appears that the FAA proposed approac ur concerns regarding the limits on segmentation in the conformity regulatio we stated in our prior letter, we expect that as air quality issues deling or monitoring, appropriate mitigation actions will be the state.

estion of construction emissions and de minimis levels established ations, non-road construction emission are reasonably foreseeable. eluctance to calculate emissions without the certainty of a contract with other portions of the Environmental Impact Statement, we reate a likely or even conservative scenario of non-road carbon sions. "Reasonably foreseeable emissions" are broadly defined in the conformity rule. Further, while the rule does not require an agency to conduct a conformity determination for all emission scenarios, it does require that the conformity determination be based on a reasonable expectation of future activity resulting from a Federal action. Yet it should also be noted that in the case of this Master Plan, the environmental impact of non-road CO emissions on the intersections analyzed for the activity that would be approved is not likely to be significant. Due to the rapid dispersion rate of carbon monoxide and the location of most of the non-road emissions sources, we understand and agree with FAA's assertion that it is unlikely that non-road emissions will significantly affect the CO concentrations at the intersections evaluated in the hot spot analyses. As we have discussed in past meetings, emissions from cars and other mobile sources have the largest impact on CO concentrations at these intersections. Further, it should be noted that the FEIS did address the more important transportation emissions associated with construction. Thus with the additional modeling that the Port has committed to, our concerns on construction have been addressed.

Whether to use non-oxygenated or oxygenated gasoline in the analysis is less certain. The current State Implementation Plan does mandate the use of oxygenated fuel, while the recently submitted maintenance plan presumes a switch back to non-oxygenated gasoline. On June 11, 1996, EPA proposed to approve the maintenance plan (61 FR 29515-29518). However, our proposed approval came several months after the publication of the FEIS. However, because during the development of the FEIS, the regulatory agencies had discussed this proposed change with FAA, it would have been a more conservative analysis to assume the use of non-oxygenated gasoline in analyzing air quality impacts. Yet due to the circumstances surrounding the timing of EPA's proposed approval, the use of oxygenated fuel does not appear to be a violation of the conformity provisions. Nonetheless, as discussed in our letter to you dated June 6, 1996, it is still

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[1] However, at the point the FAA receives an application for funding a project with ALP approval, the FAA would have to make a conformity determination before funding is approved. See July 21, 1995 memorandum from Robert Moyer to Shirley Edwards.