

US-Citizens Aviation Watch

“Protecting the public’s health, environment, property and promoting safety.”

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April 7, 1998

Testimony of Jack Saporito to the US-Environmental Protection Agency on behalf of US-Citizens Aviation Watch Association and the Alliance of Residents Concerning O'Hare.

The Honorable Carol Browner,
Administrator (1101)
OPPTS-400122
OPPT Document Control Officer (7407)
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
401 M Street, SW
Room G-099, East Tower
Washington, DC 20460

cc: Dr. Lynn Goldman, Assistant Administrator for
Prevention Pesticides and Toxic Substances (7101)
cc: Susan Hazen (7408)

Comments to add Standard Industrial Classification
Code 45, Transportation By Air, to list of facilities
required to report Toxic Releases

Dear Administrator Browner:

According to the Illinois Environmental Protection Agency, Chicago O'Hare International Airport is one of the top hazardous and toxic emissions polluters in Illinois. I use O'Hare as an example of a worst case scenario, since historically it has been the world's busiest airport.

Advocating a sustainable, equitable and accountable aviation industry

Actually, if the airport pollution is calculated correctly, as if in a 3,500 foot toxic waste bubble, I assure you that O'Hare Airport is, probably one of the largest, if not the largest, single, man-made source polluters in the world. Many of our nations medium to large airports would also be in this category.

And yet airports are a relatively ungoverned major source polluter and are not required to report much of their emissions. O'Hare is the worst site -- yet, it has never been studied or had limits set. If it were any other industry, like General Motors, it would be under indictment.

While recognizing the importance of aviation, we also see first-hand the damage that the industry causes. We are seriously troubled about the existing conditions of air-water-ground-noise pollution, and damage to public health to possibly scores of millions, some living as far away as dozens of miles away from airports.

Hazardous and toxic air pollution from aircraft exhaust, is a major source, although it has been largely ignored and addressed as a side issue. Concern or focus upon automobile and other air pollution impacts at airports has diverted attention from the danger to public health, increased cancer risk and other higher than normal increased disease risks¹ caused by jet exhaust.

All pollution produced by airport/aircraft operations should be weighed as if from one source. Airports/aircraft and its collateral operations are a significant source polluter. (The "bubble" concept is the area in and around the airport.) When aircraft emissions are combined with other aircraft operation sources they produce twice² the Volatile Organic Materials (Compounds) per year than all the on-road vehicles at and near O'Hare, including automobiles, which are known to be the primary source of air pollution problems in the region.

What this means for the residents living around major airports is that they are exposed to at least double the levels of daily criteria and toxic air pollution as other residents of the region located some distance from the airport sources. Area residents already suffer from immense amounts of ground vehicle traffic pollution. O'Hare is one of the busiest ground traffic sites in Illinois, if not the world, with close to 200,000 cars and trucks

¹ A- McCulley, Frick and Gilman Inc. "Air Quality Survey Final Result" January 1995, pp.26,27,36.

B- EPA "Toxics Emissions from Aircraft Engines Air RISC Information Support Center." July 22, 1993, p.13.

C- McCartney, M. "Airplane Emissions Department of Environmental Health Sciences" 21, April 1986, p.99.

D- ViGYAN Inc. US-EPA Air and Radiation Report. "Estimation and Evaluation of Cancer Risks Attributed to Air Pollution in Southwest Chicago." April, 1993.

E- Lewis, R.A. "Hazardous Chemical Desk Reference." 2nd Edition. Van Nostrand Reinhold. 1991.

F- Puget Sound Air Pollution Control Agency 1993 Air Quality Data Summary, p.62.

² Mary Gade, IEPA, correspondence to Illinois Senator Peter Fitzgerald, Sept. 26, 1996 p. 2.

entering and leaving the airport daily. Similar conditions exist at airports around our nation and are totally unacceptable. Clearly maintenance, private and commercial vehicles and facilities are not incidental to operations. They are part of the process, part of the problem!

1. According to the Illinois Environmental Protection Agency, O'Hare Airport operations emit -- 2679.1 Tons Per Year of Volatile Organic Materials. (This does NOT even include On-Road Vehicles [Those on-near airport property]).³
2. In 1993, it was estimated that O'Hare Aircraft operations emit 25 Tons of benzene, 21 Tons of 1,3-butadiene, 140 Tons of formaldehyde per year.⁴
3. One two minute 747 take-off is equal to operating 2.4 million lawnmowers for 20 minutes (Nitrogen oxides, Carbon monoxide, Hydrocarbons). That is four states' worth of lawnmowers.
4. One 747 takeoff is equal to the following number of cars driven three miles for each pollutant:
CO = 11.58 cars, HC = 136, NO_x = 24,083, SO_x = 550,000.⁵
5. One lawnmower running for 30 minutes, "...releases the same level of pollution as driving a new car 170 miles."⁶
6. One, two minute DC-10 takeoff is equal to driving 21,530 cars one mile (NO_x), at 30 miles per hour.

An independent study of airport pollution facts⁷ disclosed serious environmental risks to communities and the environment adjacent to airports, as well as a significant contribution to global warming from stratospheric aircraft air pollution. Due to the mode of delivery, aircraft emissions are responsible for one-half of the atmospheric man-made nitrogen oxides burden⁸.

Discharges of hazardous chemicals such as glycols, metals, solvents, etc., to the waters of the United States, are not being controlled. For many years, O'Hare has not only been poisoning our surface water, like the Des Plaines River, but possibly our underground water supply, since O'Hare sits on top of an un-confined aquifer. ...and O'Hare's claim to the amount of deicing and anti-icing fluid that they use a year differs from our estimates -- by several million gallons. Many hazardous and toxic discharges are not

³ Mary Gade, IEPA, correspondence to Illinois Senator Peter Fitzgerald, Sept. 23, 1996. p.2.

⁴ ViGYAN Inc. US-EPA Air and Radiation Report. "Estimation and Evaluation of Cancer Risks Attributed to Air Pollution in Southwest Chicago." April, 1993. p. 13.

⁵ Claudio Parazzoli, Ph.D, physicist -- Boeing Aircraft Manufacturing Company. [Equation made using a 10 minute take-off cycle to compensate for the differences of the aircraft industry using emission data from BRAND NEW AIRCRAFT ENGINE TESTING. For cars, Mobile 5a emission data from 1995 was used. This is a fleet MIX of average cars (new and used) on the road today.]

⁶ Northern Illinois Gas. Consumer News. June/July 1997.

⁷ Natural Resources Defense Council. "Flying Off Course: Environmental Impacts of America's Airports." Oct. 1996.

⁸ Egli, Robert. *Air Traffic Facts: Status*. Nov. 22, 1995. p. 2.

disclosed to the EPA or to the residents in the surrounding communities⁹. Many other chemicals used are proprietary in nature; and thus, EPA and Water Reclamation officials do not even know what is being discharged into our water supply.¹⁰

Despite the Clean Water Act having been in effect for more than twenty-five years, its provisions remain un-enforced at America's airports. Those in the aviation industry continue to dump many millions of gallons of highly toxic chemical compounds directly into our waterways without benefit of any treatment, whatsoever. They do so in direct violation of applicable permits, or even in the absence of required permits. So far, US-CAW has found that our drinking water in Baltimore is likely poisoned by deicing and anti-icing chemicals¹¹⁻¹². LaGuardia and Seattle-Tacoma have found petrochemicals and jet fuel compounds in large quantities in underground water resources¹³. SEA-TAC Agreed Order Study admits to ground and ground water contaminants which include both ethylene and propylene glycol. We highly suspect that incidents such as these are happening at many, if not all airports in the U.S. Because the air transport industry has been in control for decades, the whole process has been inadequate.

Underground fuel tank leaks are being ignored¹⁴. NASA and FAA officials predict that air capacity needs will double by 2008, triple in 20 years. When considering the massive anticipated increases in aviation, the environmental situation is already totally unacceptable.

In Chicago, from just one airport O'Hare, the problem affects a large percentage of the population, probably millions, conceivably one-fourth of the state's population, and airport overcrowding is not just an annoyance, but a major health problem. One cannot even imagine how many people are affected nationwide.

Many of the compounds emitted from the airport cause cancer. Other airport produced toxic pollutants are highly suspected to cause many other maladies such as, birth defects, respiratory illnesses, liver damage, heart diseases and a host more.

Aviation emissions are transmitted by a spray that is dispersed overhead, that cannot be filtered out by our lungs and is directly transmitted into our blood stream. The mist is a sticky substance that attaches to vegetation and thus, is also ingested and drank.

⁹ Letter to C. Browner, EPA, from Natural Resources Defense Council et. al. *Petition to Add Standard Industrial Classification Code 45, Transportation by Air, to the List of Facilities Required to Report Releases of Toxic Chemicals*. Apr. 16, 1997.

¹⁰ NBC Documentary. Ross Simpson. WEEKEND HEADLINER: "Safe Skies - Safe Water." NBC Extra. April/May 1997. Mutual Broadcasting System. NBC Networks. Arlington, VA.

¹¹ Airport Coordinating Team, Inc. "BWI Discharges Toxins into Local Waters." Baltimore, MD. Feb. 26, 1997.

¹² A. Scott McDowell. *Sawmill Creek-Watershed "Restoration" Project*. Baltimore, MD. Mar 1997.

¹³ Waste Action Project vs. Port of Seattle.

¹⁴ Natural Resources Defense Council. "Flying Off Course: Environmental Impacts of America's Airports." Oct. 1996. p.59.

With that said:

1. The air that we breathe from O'Hare most likely produces hundreds of times more cancer risks than a toxic waste dump¹⁵.
2. According to their own figures, O'Hare is the fifth largest producer of Smog forming gases (NO_x & VOC's) in the area, which produces serious respiratory illness.
3. Yet, airports are NOT subjected to the same scrutiny and do not have to follow the same environmental rules that other industries must. As a result, businesses and private citizens must compensate by being regulated more and paying more.
 - "One aircraft take-off burns up tens of thousands of pounds of fuel.""A Boeing physicist¹⁶ remarked at a recent town meeting, that the pollution levels from one 747 take-off are somewhat similar to setting the local gas station on fire and flying it overhead."

Keep in mind that O'Hare has about 900,000 flights a year!

* Airports are both a stationary and a mobile source producer of heavy pollution in the region. Yet most aircraft and airport emissions are exempt from Toxic Release Inventories.

Please use existing regulatory authority to add airports and all on-site activities/facilities, as well as all off-site related airport activities and aircraft emissions from all pertinent geomode cycles to the Toxic Release Inventory.

We need to resolve the following:

- All emissions from airports and aircraft operations must be reported as a single source - so that it can be easily targeted for reform.
- We have a right to know what all the emissions are, how many emissions, and how those emissions are harming us and our family.
- Before this situation gets any further out of hand, the time is now to take real, permanent meaningful action.

Lastly, more flights in an already over-taxed system just mean more unacceptable pollution. There are better alternatives, such as high-speed rail, than adding the predicted massive amounts of air traffic.

¹⁵ VIGYAN Inc. US-EPA "Estimation and Evaluation of Cancer Risks Attributed to Air Pollution in Southwest Chicago: Final Summary Report Region 5 Air and Radiation Division". April, 1993.

¹⁶ Claudio Parazzoli, Ph.D, physicist -- Boeing Aircraft Manufacturing Company.

Thank you.

Sincerely,

Jack Saporito
President, US-Citizens Aviation Watch
Executive Director, Alliance of Residents Concerning O'Hare

c: President W. Clinton, Vice President A. Gore, HONS. T. Lott, T. Daschle, N. Gingrich, R. Arney, R. Gephardt, J. Reno, R. Slater, C. Browner, J. Garvey, K. McGinty.

Encl. supporting documentation:

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Letter to C. Browner, EPA, from Natural Resources Defense Council et. al. Petition to Add Standard Industrial Classification Code 45, Transportation by Air, to the List of Facilities Required to Report Releases of Toxic Chemicals. Apr. 16, 1997.

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Audio tape of: Are Airports Polluting our Local Waterways? Producer: Steve Frenkel. Great Lakes Radio Consortium. National Public Radio. March 23, 1998.