

ATSDR Responses to the International Joint Commission Comments for the AOC Report

- 1. John Mills, Regional Director General
Environment Canada, Ontario Region
4905 Dufferin Street
Downsview, On M3H 5T4**

→Reviewer's Comment

“There is substantial difficulty in drawing links between human health and exposure to toxic substances, even in situations where clearly defined exposures and target populations exist. Attempting to identify causal relationships through the kind of analyses conducted in the subject report becomes even more tentative and the associations raised in the report are highly qualified. One might question the utility of undertaking this kind of work in the first place but I will leave that determination to the health professionals.”

ATSDR's Response

This document is an investigative report of the environmental conditions that prevail at various AOC sites and the county health outcomes that have been recorded for the counties within the AOCS. ATSDR will not be making causal inferences based on the information presented.

However, ATSDR is reporting instances in which exposure to certain chemicals may potentially be related to a particular health outcome. An example is the AOC site where a transient increase in bladder cancer was observed. Benzidine, a bladder carcinogen, happened to be detected at this very same site.

As a rule, before formal epidemiologic studies are undertaken, preliminary small-scale pilot studies are initiated. These pilot studies help the researcher to determine if a more extensive investigation is needed. This report acts as a fact-finding pilot investigation providing information about sites that may require follow up due to contaminants and their potential for causing adverse health effects. If experts who are familiar with the site believe further studies are needed and funds are available, then further work of a more specific nature may possibly be undertaken at a future time.

- 2. Mark Elster, Senior Program Analyst
USEPA Great Lakes National Program Office**

→Reviewer's Comment

“These maps [referring to the report's GIS maps] should be noted as draft. Definitive boundary maps are being created by EPA.”

ATSDR's Response

At the onset of the AOC project, EPA was consulted for this and another report to determine if they had developed GIS maps that designated the AOC boundaries. ATSDR was told that these maps were being developed. Since county information was available and was the smallest geographic area in proximity to the AOC site, the county data were used for the GIS maps. The report will note that USEPA is developing more definitive maps of the AOCs.

→*Reviewers Comment*

“Any discussions on the future of this type of research would benefit from discussions with the Parties, too. Also, a potentially new Annex 2 Working Group under the WQB recognized the need to identify research needs in the AOCs. This would seem like an opportunity to help make this happen.”

ATSDR's Response

If future research is undertaken by ATSDR, the IJC and other relevant parties would be consulted for their recommendations.

→*Reviewer's Comment*

“County-wide health outcomes may not be indicative of the potential impacts of sub-county sized AOCs. There is no one-to-one geographic correspondence. AOC specific health outcomes data most likely does not exist; the Report should make this clear when discussing its findings.”

ATSDR's Response

This report is not an epidemiologic study investigating an exposure to specific contaminants suspected of being associated with a particular health outcome at a specific site. A planned study, such as described above, would generate area and population specific data. This type of study would only be undertaken if some degree of certainty existed that the epidemiologic study would produce a viable outcome. A preliminary investigation as found in this report will help determine if further studies are needed. Since this is not a full-blown epidemiologic study, existing data were used (e.g., AOC maps not available from EPA so available county map data used). Use of county data rather than AOC specific data, if anything, would tend to dilute rather than enhance any effect seen. It is not the best method, but it was the best ATSDR could do given the limited existing data. ATSDR will document these limitations as noted by the reviewer and as stated above.

→*Reviewer's Comment*

“The report presents a problem in that it reviews areas not only outside of AOC boundaries but also multiple watersheds. For example, the information on the Muskegon Lake and White Lake AOCs are combined and also includes the Mona Lake watershed, which is not part of any AOC.”

ATSDR's Response

If possible, ATSDR will separate out the information on the Muskegon Lake and White Lake AOCs and exclude information on the Mona Lake watershed. However, it is important to note that more exacting type information was not available in the form of GIS maps from EPA that would provide more accurate information about locations of specific AOC sites.

→Reviewer's Comment

Re - Passage from Report: "The information in this document may support relative rankings across AOCs taking into account contaminants, exposure pathways, health outcome data, and vulnerable populations."

"This would be doable only if the AOC maps are correct and if health data matched more closely with the geographic extent of the AOCs. At that point, the Report might be able to support relative rankings."

ATSDR's Response

Again, that limitation will be included in the report.

→Reviewer's Comment

"While the report clearly prefaces that health outcome data (e.g., birth defects) examined in counties in the Areas of Concern were not used to make causal inferences between exposure and health effects, additional consideration needs to be given to potential misunderstanding or misuse of the report. Some people still may draw an inappropriate connection between AOC proximity and negative health effects."

ATSDR's Response

That limitation will be included in the report. The fact that the health outcome represented an outcome for a larger area than the AOC would tend to minimize the effect rather than exaggerate it.

→Reviewer's Comment

"It is recognized that ATSDR compiled a tremendous amount of information together for this report. As part of their review, 115 hazard waste assessments were evaluated in 54 counties. Although this is a tremendous undertaking, the review of these particular assessments may not be a representative sample of environmental health. The hazard waste assessments used in the report were conducted at NPL/CERCLIS sites in or in proximity to the AOCs. There may be other health assessments completed in the AOC vicinity at RCRA or TSCA regulated sites that if added to the report may improve the representativeness of health assessments."

ATSDR Response

The 1986 amendments (SARA) to the 1980 CERCLA mandates ATSDR to perform health assessments on all sites listed on the NPL. Based on discussions with the ATSDR Division of Health Assessment and Consultation, it is very likely that many of the RCRA

or TSCA sites are included in the NPL/CERCLIS sites. ATSDR is in the process of adding the National Pollutant Discharge Elimination System (NPDES) data to the AOC report. The addition of the NPDES data will increase the representative attribute of this report.

→***Reviewer's Comment***

“The report identifies NPL/CERCLIS sites on the AOC maps using the color green. The reader can only identify the NPL/CERCLIS sites which had negative or underdetermined health assessments. It would be helpful if the remaining NPL/CERCLIS sites could be identified as either sites with no health assessment or sites with no health hazard or apparent health hazard assessment.”

ATSDR's Response

The AOC report selected the ATSDR public health assessments with the categories of Urgent Public Health Hazard, Public Health Hazard, and Indeterminant Public Health Hazard. These categories represented 92% of the ATSDR public health assessments conducted at the AOC sites. The remaining 8% were No or No Apparent Public Health Hazard categories. The 8% represented around 10 sites. It is very likely that the NPL/CERCLIS sites with no health hazard or no apparent health hazard assessment would fall into these categories. Although inclusion of these sites might be interesting, it would not add to the general purpose of the report which was to determine the public health implications of hazardous substances found at the AOC sites.

**3. Carri Lohse-Hanson
Minnesota Department of Health**

→***Reviewer's Comment***

Carri Lohse-Hanson has sent information about the use of the Toxic Equivalents (TEQs) as a more meaningful measure of toxicity of PCDD/F compounds.

ATSDR's Response

As the documentation sent by the reviewer states, EPA requires facilities to report TRI dioxin data in units of total grams or the TM-17 method. In addition, EPA does not require reporting of the distribution of dioxin and dioxin-like compounds unless the data is available. The distribution is needed to calculate the TEQ. Based on discussions with the ATSDR Division of Health Assessment and Consultation, most facilities do not report the distribution of the dioxin and dioxin-like congeners.

→***Reviewer's Comment***

“In Table 6-12, please remove the lines that refer to Potlatch Corp. in Cook since the city of Cook is at least 20 miles outside the St. Louis River watershed and isn't even in the Lake Superior basin. This will alter the TRI number in the report. Also, the name of the Potlatch facility in Cloquet has changed to Sappi Cloquet LLC.”

ATSDR's Response

The Potlatch Corp. in Cook will be deleted from the data concerning the St. Louis River AOC. The name change will also be noted.

→*Reviewer's Comment*

“Also, it is my understanding that the TRI reports dioxin in a rather unusual way as TM17. This is the Total Mass of 17 dioxin and furan compounds. Since Table 6-11 reports PCDD + PCDFs, either there is a mistake or the consultant who prepared the report has a method for equating TM17 with total PCDD/PCDF. If there is such a method, I would really appreciate it if you could give me a contact name so we could improve some dioxin inventory work we are doing for the Lake Superior LaMP.”

ATSDR's Response

The “PCDD and PCDF” in Table 6-11 are meant to show that the mass of the dioxin and dioxin-like compounds are included in the display of Total Air Emissions, Surface Water Discharges, and other factors extracted from the TRI data for this table.

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