



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

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February 17, 2016

Mrs. Karen Wood  
Department of Ecology  
Eastern Regional Office  
4601 N. Monroe Street  
Spokane, WA 99205-1295

**Re: Second Tier Petition by Yahoo! Corporation Regarding TAP Emissions Increases  
from Project Genesis Data Center in Quincy, WA**

Dear Mrs. Wood:

The Washington State Department of Ecology's Air Quality Program (Ecology) has completed a review of health risks from diesel particulate and nitrogen dioxide emissions from the Yahoo! Corporation (Yahoo!) Project Genesis Data Center in Quincy, WA. Ecology concluded that the health risk is acceptable and is recommending approval of the project.

Yahoo! proposes to build a new data center project, referred to as Project Genesis, near their existing data center in Quincy, WA. To ensure uninterrupted electrical power supply, project Genesis will use:

- Twenty 2.0 megawatt diesel powered emergency generators.
- Four 2.75 megawatt diesel powered emergency generators used as reserves.
- One 2.75 megawatt diesel powered emergency generator to support the administration building during power outages.

Although the proposed engines will only operate over a limited time (up to 100 hours per year per engine), two toxic air pollutants, diesel engine exhaust particulate matter and nitrogen dioxide, may be emitted at rates that exceed screening thresholds. As a result, Yahoo! is required to submit a health impact assessment describing the increased health risks from their potential emissions.

Diesel particle emissions resulted in an increase lifetime cancer risk of about seven in one million. The maximum risk was estimated at a residential location northeast of Genesis. As part of the community-wide approach in Quincy, Ecology also considered the cumulative impacts of

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diesel particle emissions in the area. Emissions from Genesis and other local sources of diesel particles could result in lifetime increased cancer risk of up to approximately 62 in one million ( $62 \times 10^{-6}$ ) at a location to the south of Genesis and just south of State Route 28.

Ecology's review of non-cancer hazards indicates that Genesis and other Quincy data center emissions under outage scenarios may cause nitrogen dioxide levels to be of concern for people with existing respiratory conditions. Because the meteorological conditions that would cause these higher levels are infrequent, and because power outages affecting data centers are not expected to occur frequently, the concentrations responsible for these hazards are not expected to occur often or be sustained for long periods of time.

Ecology recommends approval of the proposed project because project-related health risks are permissible under WAC 173-460-090 and the cumulative risk from DEEP emissions in Quincy is less than the cumulative maximum risk threshold established by Ecology for permitting data centers in Quincy (100 per million or  $100 \times 10^{-6}$ ).

This project has satisfied all requirements of a second tier analysis. Ecology recommends that you incorporate our findings as part of your ambient air impacts analysis and you may begin the public comment period when you are ready to do so. Ecology also recommends that outages at Quincy data centers be tracked and re-evaluated yearly to determine if the assumptions used in characterizing hazards during outage scenarios remain plausible.

If you would like to discuss this project further, please contact Gary Palcisko at (360) 407-7338 or [gary.palcisko@ecy.wa.gov](mailto:gary.palcisko@ecy.wa.gov).

Sincerely,



Chris Hanlon-Meyer  
Science and Engineering Section Manager  
Air Quality Program

gp/te

Enclosure

cc: Mark Bruner, Landau Associates  
Jolaine Johnson, Ecology  
Gary Palcisko, Ecology  
Mozan Totani, Yahoo!