



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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November 30, 2012

Ms. Karen Wood
Air Quality Program
Eastern Regional Office
4601 N. Monroe Street
Spokane, WA 99205-1295

RE: Second Tier Petition by Vantage Data Centers Management Company, LLC (Quincy)

Dear Ms. Wood:

The Washington State Department of Ecology's Air Quality Program (Ecology) has completed their review of health risks from diesel engine exhaust particulate (DEEP) emissions from the proposed Vantage Data Centers Management Company, LLC. (Vantage) Data Center in Quincy, Washington.

Ecology's review indicates that the proposed project could result in an increased cancer risk of up to nine in one million (9×10^{-6}) at the maximally impacted residential location, which occurs along the residential property boundary immediately to the southwest of Vantage. A lower risk of about five in one million was estimated at the location of an existing structure on the same property. Ecology's review of non-cancer hazards indicates that the chronic non-cancer hazard quotient attributable to Vantage's DEEP emissions is much lower than unity (1) meaning that chronic non-cancer adverse health effects are unlikely. Because the increase in cancer risk attributable to the new data center alone is less than the maximum risk allowed by a second tier review of 10 in one million, and the non-cancer hazard is acceptable, the project is approvable under WAC 173-460-090.

As part of the community-wide approach in Quincy, Ecology also considered the cumulative impacts of DEEP emissions in the area. Emissions from Vantage and other local sources of DEEP could result in lifetime increased cancer risk of up to approximately 30 in one million (30×10^{-6}) at a location directly to the southwest of Vantage. The cumulative non-cancer hazard quotient at this location is much lower than unity (1) meaning that non-cancer adverse health effects are unlikely.

Ecology recommends approval of the proposed project because project related health risks are permissible under WAC 173-460-090 and the cumulative risk from diesel engine exhaust

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particulate emissions in Quincy is less than the cumulative maximum risk threshold established by Ecology for permitting data centers in Quincy (100 per million or 100×10^{-6}). Ecology recommends that Vantage be required to communicate health risks posed by their emissions to current residents near Vantage and potential new homeowners at undeveloped parcels adjacent to Vantage or to the local regulatory agency responsible for zoning and development in the affected area.

Although Vantage was not required to evaluate short-term impacts of nitrogen dioxide (NO₂), the HIA provided a brief evaluation of acute non-cancer hazards. Generally, Vantage's emissions by themselves are not expected to result in acute non-cancer hazards, but cumulative emissions of multiple emergency engines at other data centers could combine to create short-term NO₂ levels of concern. Ecology's evaluation of simultaneous emergency engine emissions in Quincy indicate that elevated NO₂ levels could occur, but the likelihood of a system-wide outage coinciding with unfavorable meteorology is very low.

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.

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

Sincerely,



Jeff Johnston, Ph.D.
Science and Engineering Section Manager
Air Quality Program

jj/te

Enclosure

cc: Erika Britney, ICF International
Sharon Douglas, ICF International
Mike Duffy, Vantage
Greg Flibbert, Ecology
Robert Koster, Ecology