

Quincy

MICROSOFT MWH DATA CENTER (FORMERLY MICROSOFT OXFORD) AIR PERMIT REVISION

CONTACTS & INFORMATION

Comments accepted:

October 6, 2016 - November 4, 2016

Submit comments to:

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Document review locations

ONLINE:

www.ecy.wa.gov/programs/air/ quincydatacenter

Quincy City Hall 115 1st Avenue SW Quincy, WA 98848

Quincy Library 208 Central Avenue S Quincy, WA 98848

Ecology Eastern Regional Office 4601 North Monroe Street Spokane, WA 99205

Ecology invites public input on proposed revisions to the air permit for Microsoft MWH Data Center.

Microsoft Corporation has applied to Ecology to revise its permit for an existing air pollution source in Grant County. Formerly called Microsoft Oxford, the newly-named Microsoft MWH Data Center is located at 1515 Port Industrial Parkway in Quincy.

In August 2014, Ecology approved an air permit for 37 diesel backup generators at the facility. In 2015, Microsoft submitted a revision to the permit, but it was never finalized because Microsoft needed to make additional changes. In April 2016, Microsoft submitted a new revision to the permit, including the facility name change from Oxford to MWH.

The primary source of air contaminants at the facility are 37 diesel generators, which provide emergency backup power to Microsoft's data servers during an electrical outage. The updated permit adds 8 new reserve backup generators to serve as "backups to the backups." The new generators will only be used if one of the original backup engines fails. The permit update also reflects changes to the height and diameter of the engine exhaust stacks to match the actual dimensions.

The proposed permit includes:

- 37 previously-permitted diesel-powered engines to serve as primary backup to the facility's operations
 - 32 engines will be rated at 2.5 megawatt electrical capacity (MWe)
 - 4 engines will be rated at 2.0 MWe
 - 1 engine will be rated at 0.75 MWe
- 32 previously-permitted cooling towers
- change in engine identification numbers
- 8 more reserve engines rated at 2.50 MWe
- modification to engine-testing requirements to make the testing more representative of actual operations
- A modification to engine stack heights and diameters to match the asbuilt dimensions

The permit includes conditions to protect the public from air pollution, including fuel limits and specified hours of operation for generators.





Language assistance

Para asistencia en español (509) 329-3506 preguntas@ecy.wa.gov

Special accommodations

For special accommodations or documents in alternate format, call (509) 329-3400, 711 (relay service), or 877-833-6341 (TTY).



After review of the facility's application and the health risk assessment, Ecology has determined that this project will meet the General Regulations for Air Pollution Sources (Chapter 173-400 WAC).

How Ecology evaluates diesel engine exhaust

When Ecology reviews the permit application for a data center, they look at how much the project will add to the air pollutants in the area. Ecology cannot approve a permit that allows pollutants to be emitted often enough or in high enough levels to cause health problems.

Ecology relies on computer models to estimate where the wind will carry the pollutants in the exhaust from diesel-powered backup generators. The models predict the amount of toxic air pollutants that could be in the air. Ecology reviews modeling information and assesses the possible health risks.

Modeling impacts from all data centers in Quincy

Ecology evaluates the emissions from each individual data center as well as the combined emissions from all data centers and other air sources in the Quincy area. To do this, a computer modeling process adds any new data center emissions to those from other air sources and determines if the collective emissions would likely be harmful to human health. We refer to this cumulative modeling process as "community modeling." Community modeling was used in Quincy because many companies built data centers there.

The health risks

Diesel engine exhaust contains fine particles that can cause health problems for people who are exposed frequently and at high enough levels. The toxic air pollutants in diesel engine exhaust include nitrogen dioxide, carbon monoxide, organic compounds, and tiny particles called diesel exhaust particles. Ecology evaluates the levels of all these pollutants during the permit review process. The ones most likely to be produced in high enough amounts to potentially affect health are diesel exhaust particles and nitrogen dioxide.

For detailed information about the health effects of these pollutants, read Ecology's publication *Focus on Diesel Exhaust Health Risks* which is available in <u>English</u> and <u>Spanish</u> on our website. For more information, go to our data center webpage:

http://www.ecy.wa.gov/programs/air/quincydatacenter.