



State of Oregon Department of Environmental Quality

Hollingsworth & Vose Fiber Company

Air Quality Questions and Answers

Oregon Department of Environmental Quality
Western Region-Salem Office
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Q: What happened at H&V?

A: H&V conducted testing of their air emissions in 2014 and 2015. The test results showed that emission levels for two pollutants -- carbon monoxide and fluorides -- exceeded the air permit limits. DEQ took enforcement action and issued a penalty for the violations. DEQ is requiring the company to obtain additional air permits and to conduct an evaluation of the health impacts for carbon monoxide and fluorides.

Q: Did H&V increase its emissions or did DEQ have the wrong information?

A: The emission levels have not increased since their last approved expansion in the permit application submitted in 1996. DEQ did have the wrong information for carbon monoxide and fluorides in 1996. H&V was using standard emission calculations for burning natural gas. The recent emission test results showed the emission factors used in the calculations were incorrect for three pollutants. Carbon monoxide emissions are higher, and nitrogen oxides and particulates are actually lower. The fluoride emissions are higher due to a change in EPA's definition of fluorides to include all inorganic fluorides except hydrogen fluoride. H&V was previously accounting for only gaseous fluorides based on direct measurements of their emission stacks.

Q: How did this happen? Doesn't DEQ require companies to verify their emissions?

A: Yes, DEQ does require companies to verify their emissions. This is done by reviewing available test data for emission sources. In the absence of direct measurements from a companies' equipment, or similar equipment, engineering estimates combined with testing verification is done.

In this case, there were well documented emission factors for burning natural gas available. H&V used the DEQ emission factors for burning natural gas to calculate their emissions. Emission factors are developed from the results of many data sets of direct measurements on similar equipment. Using published emission factors is accepted by DEQ and regulatory agencies nationally because they are based upon direct measurements from like equipment. DEQ did not have any reason to believe that burning natural gas in the H&V process, specifically their fiberizers, was any different than other natural gas burning processes.

Emission testing is required if specified by a rule or if it is required for emission factor verification. There was no specific rule that required H&V to verify their emission factors for burning natural gas. DEQ required emission factor verification testing after considering citizen input during the last permit renewal. The test results were very unexpected. Further investigation revealed the unique nature of natural gas combustion in the company's fiberizers. There are only four other companies nationally that produce similar products as H&V which limited the availability of emission data.

Q: What are the potential health effects of the higher carbon monoxide and fluoride emissions?

A: DEQ does not conduct site specific health studies but relies on the U.S. Environmental Protection Agency (EPA) standards which are based on extensive scientific and technical assessments and undergo extensive review. The Clean Air Act requires EPA to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. The NAAQS are health based standards set by EPA to protect public health and the environment. EPA has set levels called significant emission rates, or SERs, for many pollutants. SERs are screening levels used to evaluate if emissions are protective of air quality. Emission levels below the SER are considered protective. Emissions above SER do not necessarily indicate they will have a negative impact on air quality, but does require the source to complete a comprehensive analysis to demonstrate that the emissions will be protective of human health and the environment.

Q: What is the comprehensive analysis required for carbon monoxide and fluorides?

A: This is a multi-step process. First, the source is required to determine the maximum pollutant levels operating at 100% capacity (24 hrs/day, 7/days week). Next, these levels are then put into a computer model which predicts the maximum levels in the air surrounding the facility. It should be noted that the predicted maximum levels are always higher than actual emissions and therefore provide a protective safety margin.

The maximum pollutant levels are compared to set ambient standards. If they are above the standards, the source must reduce emissions or put on additional pollution controls. There is a NAAQS standard for carbon monoxide. There is no national ambient standard for fluorides. However, there are several states that have established ambient fluoride standards.

The last step in the comprehensive analysis is a review of emission controls. The source must demonstrate that they are controlling their emission with the best available control technology or BACT. H&V currently uses wet scrubbers to clean the exhaust from their emission stacks.

H&V has submitted their analysis of carbon monoxide and fluorides in the PSD permit application and the Fluoride Modeling Report. Links to these documents are at the end of this page. DEQ is in the process of completing a comprehensive review of the reports.

Q: Will DEQ require H&V to reduce the nitrogen oxide and particulate emissions?

A: No. However, the lower nitrogen oxide and particulate matter emissions factors will result in a reduction of the plant site emission limits for those two pollutants.

Q: What enforcement action has DEQ taken to address H&V's air quality violations?

A: DEQ signed a mutual agreement and order with H&V to address air quality violation on December 16, 2015. In the order, H&V agreed to pay the \$182,742 civil penalty for not obtaining the proper permits and for not following DEQ's permitting procedures. H&V was also required to pay \$57,526 in back permit fees for the years 1996 to present.

Q: Who was involved in negotiating the MAO?

A: The MAO was negotiated between DEQ and H&V.

Q: What are the next steps in the permitting process for H&V?

A: H&V currently operates under an air contaminant discharge permit which DEQ issued in 2008. This permit is in effect until the new permits are issued. H&V submitted the PSD permit application and Fluoride Modeling Report on January 29, 2016. DEQ is currently reviewing these documents. DEQ has scheduled an informational meeting to provide information, answer questions, and receive public input on the PSD application on March 30, 2016. After the informational meeting DEQ will begin to draft the permit. Once the permit is drafted, DEQ will put the permit out for public review and comment and schedule a public hearing. After reviewing public input and making any necessary modifications, DEQ will issue the PSD permit. The PSD permit will act as an operating permit until the Title V permit is issued.

H&V will be required to submit a Title V Operating Permit application within 180 days of the issuance of the PSD permit. It can take from four to twelve months to review the Title V permit application and draft the permit. The draft Title V permit will also be put on public notice with a public hearing offering an opportunity for public review and comment.

Q: What is a PSD permit?

A: A prevention of significant deterioration permit is a type of construction permit that involves a thorough analysis of air quality impacts and review of emission controls for a proposed new or modified facility. As part of the permit process, DEQ identifies the best available control technology that H&V must install to minimize emissions from their modified facility or a facility with increased emissions. This PSD permit is a retroactive construction and operating permit that would have been required in 1996 when the facility last expanded.

Q: What is a Title V Operating Permit?

A: Title V of the Clean Air Act requires major sources of air pollutants, and certain other sources, to obtain and operate in compliance with an operating permit. Sources with a Title V permit are required to certify compliance with the applicable requirements of their permits at least semi-annually. Title V permits are required to have adequate testing, monitoring, recordkeeping, and reporting requirements to ensure compliance with air quality rules and permit conditions.

Q: How can I participate in DEQ's decision making about the new permits?

A: There will be several opportunities for people to be involved:

- DEQ has scheduled an informational meeting on the PSD permit application on March 30, 2016. Details can be found at the link below.
- DEQ will hold a public comment period and a public hearing when the PSD permit has been drafted.
- DEQ will hold a public comment period and a public hearing when the Title V permit has been drafted.
- You may send any questions and concerns to DEQ at hvaqpermit@deq.state.or.us

Links

[Mutual Agreement and Order](#)

[PSD Permit Application](#)

[Fluoride Modeling Report](#)

[Public Notice](#)