

Request for Comments

Proposed renewal of Air Quality Permit for Maxim Integrated Products, Inc.

The purpose of this notice is to invite you to provide written comments on this proposed air quality permit issuance.

DEQ's Role:

The Oregon Department of Environmental Quality (DEQ) is responsible for protecting and enhancing Oregon's water and air quality, for cleaning up spills and releases of hazardous materials, and for managing the proper disposal of hazardous and solid wastes. One way DEQ does this is by requiring permits for certain activities. DEQ issues permits to regulate the type and amount of air emissions at a regulated facility.

Comments due:

Written comments due: 5 p.m., February 23, 2010

Where can I send my comments?

Catherine Blaine, Permit Coordinator
(503)229-5582 or (800)452-4011 (Toll Free)
2020 SW 4th Ave., Suite 400
Portland, OR 97201
(503)674-5148 (Fax)
nwraqpermits@deq.state.or.us

Where can I get technical information?

Greg Grunow – Permit Writer
(503)667-8414, x55015 or (800)452-4011
1550 NW Eastman Pkwy., Suite 290
Gresham, OR 97030
(503)674-5148 (Fax)
grunow.greg@deq.state.or.us

Where can I get more information?

The draft permit and draft review Report are viewable online at the following link(s):

[Draft Permit](#)
[Draft Review Report](#)

You can review hard copies of the draft permit and draft review report at Beaverton City Library, located at 12375 SW Fifth Street in Beaverton, Oregon. The draft permit, draft review report and application are viewable at the DEQ Northwest Regional Office, 2020 SW Fourth Avenue, Suite 400, Portland, Oregon, 97201. For a review appointment at DEQ, call Susan Curry at (503)229-6736.

What is proposed?

DEQ proposes to renew an air permit for Maxim Integrated Products, Inc., and is inviting public

comment on the proposed permitting action.

During the comment period the public is invited to make comments related to specific conditions within the proposed permit.

The permittee is not proposing changes to the emission limits in the renewal permit.

Permit expiration

Oregon law requires facilities with a Standard Air Contaminant Discharge Permit to renew that permit every five years. Upon issuance, this permit will be effective for five years, expiring on November 1st, 2014.

Who is the applicant?

Maxim Integrated Products, Inc. (Maxim)
Permit No. 34-2804-ST-01

Where is the facility located?

14320 SW Jenkins Road
Beaverton, OR 97005

Who might have an interest?

People who work, live, and recreate in the area.

What does Maxim do that affects air quality?

The permittee operates a semiconductor (linear and mixed-signal integrated circuits) manufacturing and assembly facility. The associated operations include activities that result in air contaminant emissions to the atmosphere. The emissions include releases of predominantly volatile organic compounds (VOC) from semiconductor fabrication. This includes minor amounts of particulate matter (PM/PM₁₀) and hazardous air pollutants as well. Operation of natural gas fired equipment (boilers) results in pollutants associated with combustion: particulate matter, carbon monoxide (CO), oxides of nitrogen (NO_x), negligible amounts of sulfur dioxide (SO₂) and VOC.

What legal requirements apply?

Oregon Revised Statutes (ORS) 468A.040 and Oregon Administrative Rules (OAR) Chapter 340 Division 216 give DEQ the authority to issue permits. OAR Chapter 340 Divisions 200 through 268 contains all pertinent rules that govern the Air Quality program.



State of Oregon
Department of
Environmental
Quality

Northwest Region Air Quality

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subscriptions@deq.state.or.us

Please include your full name, e-mail address and mailing address so that we can purge you from our print mailing list, thus saving trees and taxpayer dollars.

Notice Issued: 01/22/2010
By: Catherine Blaine

How does DEQ determine what requirements go in the permit?

Various federal and state regulations may apply to a facility depending on the type of industry, the type and amount of pollutants emitted, and the location of the facility. All applicable regulations must be contained in the permit, including the appropriate recordkeeping, monitoring, and reporting requirements to ensure compliance with these rules.

Meeting air quality standards

Air quality in the Portland Metro area meets the National Ambient Air Quality Standards (NAAQS) established by the US Environmental Protection Agency (EPA) to protect public health. DEQ has determined that the air emissions from Maxim will not result in a violation of those standards. DEQ is responsible for establishing permit emissions limits that ensure air quality standards are not violated.

What pollutants are considered in determining permitted limits?

EPA and DEQ use six key pollutants as indicators of air quality. These are known as “criteria pollutants” and are compounds that may cause environmental damage or if inhaled in sufficient quantity and for sufficient duration, may lead to health effects that generally aggravate cardiovascular and respiratory disease. If the amount of criteria pollutants emitted is greater than a regulated minimum, then emission limits are established.

Hazardous air pollutants (HAPs) are compounds that, if inhaled in sufficient quantity and for sufficient duration, may pose a threat of adverse health effects such as acute or chronic toxicity, cancer, birth defects, or reproductive dysfunction. The mere presence of these pollutants in the air does not necessarily mean that a health risk exists. EPA has established a list of 187 compounds that are classified and regulated as HAPs. If the amount of HAPs released is greater than a regulated minimum level, then additional requirements may also apply.

For more information about criteria pollutants, go to:

<http://www.deq.state.or.us/aq/forms/annrpt.htm>

For more information about hazardous air pollutants, go to:

www.epa.gov/ttn/atw/hlthef/hapindex.html

How are the permitted substances measured?

Pollutant emissions from natural gas combustion at the facility are calculated using established emission factors (pounds of pollutants emitted per unit of gas combusted). VOC emissions associated with semiconductor manufacturing activities are calculated using company chemical inventory records and mass balance calculations.

Emissions and permit limits

Table 1 below presents the maximum allowable emissions for the facility. The Current Emission Limit reflects the maximum amount of emissions the facility can currently emit under its existing permit. The Proposed Emission Limit reflects the maximum amount of emissions the facility would be able to emit under the proposed permit (no change in emission limits is proposed in this permit action). Typically, a facility’s actual emissions are less than the maximum limits established in a permit; however, actual emissions can increase up to the permitted limit.

This facility does not have the potential to be a major source of HAPs. In addition, to date, EPA has not designated semiconductor manufacturing at area sources as a source category that warrants specific regulation for HAP emissions. In the past calendar year, Maxim estimated total HAP emissions of 2.5 tons per year. All individual HAPs had emission rates of less than 1 ton per year.

Compliance history:

The facility was inspected on 09/30/2003, 09/27/2006, and 09/01/2009 and was found to be in compliance with permit conditions.

What other DEQ permits are required?

Other permits issued or required by DEQ for this source include storm water discharge and waste water discharge permits. The facility is also registered as a hazardous waste generator, EPA ID #OR0000148833.

What other sources of air pollutants are in the vicinity of the facility?

Various sources within the greater Beaverton/Hillsboro area emit similar air pollutants including other semiconductor manufacturers in the vicinity. EPA and DEQ split up emission sources into 3 categories: point, area, and mobile sources. Point sources are primarily industrial facilities. Area sources are smaller than point sources and include backyard burning, woodstoves, consumer products, gasoline stations, etc. Mobile sources include cars, trucks, airplanes, ships, railroads, and construction equipment.



What happens next?

DEQ will consider and provide responses to all comments received at the close of the comment period. DEQ may modify provisions in the proposed permit based on received comments, but permit writers may only modify conditions of a permit in accordance with the rules and statutes under the authority of DEQ. Participation in the rulemaking or the legislative process is the only way to change the rules or statutes. Ultimately, if a facility meets all legal requirements, DEQ will issue the facility's air quality permit.

Accessibility information

DEQ is committed to accommodating people with disabilities. Please notify DEQ of any special physical or language accommodations or if you need information in large print, Braille or another format. To make these arrangements, contact DEQ Communications & Outreach (503) 229-5696 or toll free in Oregon at (800) 452-4011; fax to (503) 229-6762; or e-mail to deqinfo@deq.state.or.us.

People with hearing impairments may call the Oregon Telecommunications Relay Service for assistance(800-735-2900).

Table 1

Criteria Pollutant	Current Limit (tons/yr)	Proposed Limit (tons/yr)
Particulate Matter (PM/PM ₁₀)	14	14
Nitrogen Oxides (NO _x)	39	39
Carbon Monoxide (CO)	99	99
Volatile Organic Compounds (VOC)	75	75

Table 2

Hazardous Air Pollutants	Potential Emissions (tons/yr)	Actual Emissions (tons/yr)
Individual HAPs	≤ 9	all < 1
Total HAPs	≤ 24	2.5