



Form Series ED600 captures a variety of emissions data about the facility, as described in detail below.

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Before proceeding, review the discussions of Plant Site Emission Limit (PSELs) and Hazardous Air Pollutants (HAPs) in the [Application Guidebook](#). Provided below is a brief discussion of each form.

Form ED601, Categorically Insignificant Activities: DEQ has listed a number of activities as "categorically insignificant," meaning DEQ will not regulate them because their emissions are likely to be 'insignificant.' If these activities are present at the facility, the owner/operator does not need to estimate emissions from them. This form asks for identification of activities at the facility that are "categorically insignificant" as defined in [OAR 340-200-0020](#). Read the instructions carefully, as the activities listed in the regulation are considered "categorically insignificant" only *provided* that they are not part of the facility's primary business or production activities.

Form ED602, Aggregate Insignificant Activities: This form asks the owner/operator to identify and estimate the "aggregate insignificant emissions" activities. If aggregate emissions from some activities at the facility do not exceed certain specified thresholds, the owner/operator is not required to be fully permitted for those activities. This form asks the owner/operator to identify those activities and estimate their emissions. The emissions estimated on Form ED602 must be built into the pollutant-specific PSELs. To do so, follow the instructions in Form ED602 to copy the data into Form ED605, which summarizes requested PSELs.

Form ED603, Baseline Emission Rate: This form asks the owner/operator to provide baseline emissions data for those facilities that operated during the baseline period. The baseline period is defined as any 12-consecutive calendar months during 1977 and 1978 calendar years except for greenhouse gases. The baseline period for GHGs is a single consecutive 12 calendar month period during the calendar years 2000 through 2010. Baseline emissions will not be calculated for fine particulate matter (PM_{2.5}). See the "Instructions for Determining the PM_{2.5} Plant Site Emission Limit and Netting Basis" at <http://www.deq.state.or.us/aq/permit/tv/ed600.htm> for more detail. If the facility operated in the baseline period, provide the baseline emission levels for all devices and processes that operated during the baseline period. If a facility did not operate during the baseline period do not complete form ED603.

To calculate a baseline emission rate and PSEL for GHGs, see the greenhouse gas calculator at <http://www.deq.state.or.us/aq/permit/tv/tv.htm>.

This form should capture actual emissions data for all of the devices/processes that operated at the facility, and in the configuration that they operated at the facility, during the baseline period whether or not the devices/processes still exist at the facility. The actual emissions should be based on the highest 12-consecutive calendar month period during the 1977 and 1978 calendar years or 2000-2010 for GHGs. The baseline emission rate will not be re-evaluated unless it is discovered that a material mistake or an inaccurate statement was made in establishing the production basis for baseline emission rate.



State of Oregon
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Environmental
Quality

Form ED604, Netting Basis: This form asks the owner/operator to provide the emissions data supporting the Netting Basis. DEQ needs to evaluate all requested PSELs (those identified on Form ED605 and ED605A) relative to the facility's "netting basis" to determine whether the facility has exceeded, or will exceed, the Significant Emissions Rate and possibly trigger additional requirements in accordance with the PSEL and New Source Review rules (Divisions 222 and 224). The netting basis is equal to the baseline emission rate minus reductions required by rule minus any emission reduction credits used offsite plus any increases as a result of a New Source Review permitting action minus any emissions reductions required due to resetting actual emissions that were initially based on the potential to emit (applies to all pollutants for new or modified sources after 05/01/11 and greenhouse gases for sources that were permitted during 2000 to 2010, but had not begun normal operation during that time period).

Form ED605 should be filled out for PM_{2.5}. The PM_{2.5} netting basis should be based on the PM_{2.5} fraction of the PM₁₀ netting basis. See the "Instructions for Determining the PM_{2.5} Plant Site Emission Limit and Netting Basis" at <http://www.deq.state.or.us/aq/permit/tv/ed600.htm> for more detail.

If the facility did not operate during the baseline period and has not been subject to New Source Review, the netting basis is zero and the owner/operator does not have to complete Form ED604. If the facility operated during the baseline period but there have not been any emission reductions or increases mentioned above, the owner/operator is not required to complete Form ED604. In the later case, the Netting Basis will equal the Baseline Emission Rate.

For sources that the netting basis is established after 05/01/11 and the netting basis (or portion of the netting basis) is based on potential emissions, the netting basis will be reset to the highest actual emissions during the 10 year period after the netting basis was established (15 years for sources that have not begun normal operation within 10 years). Form ED605 should be completed to reset the netting basis

Form ED605, PM_{2.5} PSEL and Netting Basis: This form asks the owner/operator to provide emissions data to calculate the PM_{2.5} PSEL and netting basis from the PM₁₀ PSEL and Netting Basis. See the "Instructions for Determining the PM_{2.5} Plant Site Emission Limit and Netting Basis" at <http://www.deq.state.or.us/aq/permit/tv/ed600.htm> for more detail.

Form ED605A, Requested Annual PSEL: This form asks the owner/operator to provide emissions data supporting the requested annual PSEL. As mentioned above, the requested PSEL is compared to the Netting Basis to determine if there are any increases greater than the Significant Emission Rates (SER) defined in OAR 340-200-0020. If there are increases greater than the SER, the owner/operator will have to comply with additional requirements contained in OAR 340-222-0041 or OAR 340, Division 224.

If the requested PSEL is less than the Netting Basis by more than the SER and the requested PSEL represents the capacity of the facility, then the difference between the requested PSEL and the Netting Basis will be identified as unassigned emissions. Once established, unassigned emissions may be used at the facility for one permit term. At the next permit renewal, the remaining unassigned emissions will be reduced to the SER.

If the owner/operator is requesting a PSEL for HAPs, provide the information on Form ED605. Otherwise HAPs emissions are addressed on Form ED606.

Form ED605S, Short Term Emissions Detail: This form collects short term emissions data. This information is used to determine the capacity of the facility and may be used to establish short term PSELs for pollutants where a short term significant emission rate has been established (e.g., PM₁₀ in the Medford/Ashland AQMA). This form is only required for sources located in the Medford/Ashland AQMA.

Form ED606, Hazardous Air Pollutant Emissions: This form collects emissions data for the HAPs listed in Table 1 of OAR 340-244-0040.

Form ED607, Toxic Substance Usage: This form collects information on the facility's usage of a list of chemicals that DEQ has identified as chemicals of concern in addition to the 189 listed hazardous air pollutants. The list includes chemicals from the SARA Title III Section 313 list (OAR 340-135, Appendix 1) and from the list of accidental release pollutants (OAR 340-244-0230, Table 3). The accidental release pollutants are also considered "regulated air pollutants" and emissions of these pollutants should be estimated pursuant to OAR 340-218-0040. DEQ is providing a



less burdensome option for this requirement on Form ED607. Rather than quantifying emissions of these chemicals, identify which of the chemicals of concern listed in Table ED607 are found on-site. Identify the chemicals on Form ED607 and provide an estimate, within one of five specified quantity ranges, of the facility's annual **usage** of each chemical. DEQ's approach to this requirement allows the use of readily available information, such as purchase orders, to estimate annual usage. DEQ will correlate this data with other information to approximate emissions for planning purposes.

Form ED608, Stratospheric Ozone Protection: The owner/operator is required to demonstrate the applicability of the stratospheric ozone protection provisions of Section 601-618 of the 1990 Clean Air Act, as amended (40 CFR Part 82). Those provisions require the owner/operator of a facility that uses certain listed ozone-depleting substances to phase-out their usage. This form asks whether or not any of the listed ozone-depleting substances are used at the facility. If they are, identify which listed substances are used and which chemicals will be used as substitutes when the listed substances are phased out.

DETERMINING MAXIMUM VERSUS NORMAL FOR CALCULATING EMISSIONS

For those pollutants for which production/raw material usage/throughput rates are used to calculate emissions provide emissions data based on **maximum hourly** (or daily or weekly, if using other than an hourly short-term limit) and **normal annual** production. Keep in mind the following definitions of *maximum* and *normal*.

Maximum (also referred to as **capacity**) hourly production/raw material usage/throughput levels should reflect the absolute highest levels that can possibly be achieved in the device/process in an hour's time, assuming optimum conditions (e.g., unlimited labor, unlimited raw materials and resources, no mechanical difficulties, etc.).

Normal (also referred to as **anticipated**) annual production/raw material usage/throughput levels should reflect the normal levels of production expected for the device or process in a year. This level should be set taking into consideration the highest level that the device/process would be expected to achieve in any one year during the permit term. Normal annual levels should *not* reflect round-the-clock operation (i.e., 8,760 hours per year) unless that is the norm for the device/process.

Note: In most cases, actual production/raw material usage/throughput levels will be used to calculate emissions for the purpose of determining compliance with the PSELS. Operations may be restricted by the production/raw material usage/throughput levels used to establish the PSEL, unless the owner/operator can demonstrate compliance by other than recordkeeping of production/raw material usage/throughput levels.

PROVIDING EMISSIONS DETAIL

Provided below are examples of the information that should be included in the determination of emissions factors and subsequent emissions calculations, specific to the device or process for which the owner/operator is conducting the calculation. There is a completed sample Emission Detail Sheet provided in the [Application Guidebook](#).

Example 1: Fuel Burning Devices (including hogged fuel boilers, kilns, furnaces, and incinerators). In calculations take into consideration the following information for *each* fuel used:

- the name of the fuel;
- the higher heating value of the fuel, in British Thermal Units per unit of fuel (e.g., BTU/gal, BTU/ft³, etc);
- the maximum sulfur content of the fuel burned during the year, expressed as a percentage by weight;
- the average sulfur content of the fuel burned during the year, expressed as a percentage by weight;
- *if the nitrogen content of the fuel affects NO_x emissions*, the maximum fuel-bound nitrogen content of the fuel burned during the year, expressed as a percentage by weight.
- the maximum ash content of the fuel burned during the year, expressed as a percentage by weight;



- the maximum amount of fuel used per hour by the fuel burning device (specify units of measure); and
- the anticipated amount of fuel expected to be used per year by the fuel burning device (specify units of measure).

Example 2: Veneer or Wood Particle Dryers. In his/her calculations, the owner/operator should take into consideration the following information for *each* species dried:

- the species of wood;
- the maximum hourly production (pounds per hour or square feet per hour);
- the normal annual production (tons per year or square feet per year); and
- the percent redried annually.

FORM ED601 – CATEGORICALLY INSIGNIFICANT ACTIVITIES

Complete this form *once* for the facility.

Through this form identify all *categorically insignificant activities* at the facility. The owner/operator is not required to estimate emissions of regulated air pollutants from categorically insignificant activities. As defined in OAR 340-200-0020, a categorically insignificant activity is any listed pollutant-emitting activity that *supports the business but is not a part of the production or primary business activity*.

Example 1: The primary business of a petroleum refinery is refining petroleum. The refinery has an on-site laundry to wash the uniforms of its employees. The laundry is a supporting activity of the refinery. "On-site laundry" is listed in the rule as a categorically insignificant activity. Thus, the owner/operator may consider the on-site laundry a categorically insignificant activity. The owner/operator does not need to estimate emissions from the laundry.

Example 2: A business is an industrial laundry. Because the primary activity of the business is a laundry, the owner/operator does not qualify as a categorically insignificant "on-site laundry." The owner/operator thus must estimate the emissions from its laundering activity.

Remember that *exempt insignificant mixture usage* is a categorically insignificant activity and, as such, does not require emissions estimates. Exempt insignificant mixture usage is defined in OAR 340-200-0020 as the use, consumption, or generation of insignificant mixtures of chemicals that DEQ does not consider integral to the primary business activity. This definition excludes fuels, raw materials, and end products. For most facilities, examples of exempt insignificant mixture usage include WD-40, paint and paint thinner used to touch up equipment, and motor oil.

Instructions

Put an "X" in the appropriate space next to each listed activity:

- mark "yes" if the activity occurs at the facility; or
- mark "no" if the activity does not occur at the facility.

No further quantification or reporting is necessary for categorically insignificant activities.

FORM ED602 – AGGREGATE INSIGNIFICANT EMISSIONS

Background

"Aggregate insignificant emissions" are defined in OAR 340-200-0020 as those annual emissions from designated activities that are considered insignificant because they do not exceed certain thresholds to become "significant." If certain activities at a facility emit less than the threshold for a specific pollutant (criteria or hazardous air pollutant), then the owner/operator does not need to have those individual activities permitted. As a consequence, the regulatory burden can be reduced.



Thresholds for aggregate insignificant emissions

The owner/operator of the facility should estimate the emissions from suspected "insignificant" activities. If these activities *in aggregate* emit less than the threshold for a given pollutant, then the activities are considered insignificant *for that pollutant*. A series of activities may be considered *insignificant* for one pollutant and yet still be *significant*, and require permitting, for another pollutant. The thresholds for aggregate insignificant emissions are as follows:

- Lead: 120 pounds per year
- Each other criteria pollutant (except for PM₁₀ as described below): 2,000 pounds per year
- PM₁₀ in a PM₁₀ nonattainment area: 500 pounds per year
- Greenhouse gases: 2,756 tons CO₂e per year
- Each hazardous air pollutant *individually*, whichever is *less* of the following:
 - the threshold quantity for the pollutant as established in Table 3 of OAR 340-244-0230; OR
 - 1,000 pounds per year
- All hazardous air pollutants *collectively*: 5,000 pounds per year

Accounting for aggregate insignificant emissions in the PSEL

To account for the emissions from aggregate insignificant activities in the Plant Site Emissions Limits (PSELs) add the *threshold* levels of the pollutants emitted by the activities to the summary emissions data. The owner/operator of a facility that operated during the baseline period will need to add a line item for "aggregate insignificant emissions" to the baseline emissions data on Form ED603 as well as to the Requested PSELs data on Form ED605 or ED605A. If the facility underwent NSR/PSD permitting, the aggregate insignificant activities line item will have to be added to Form ED604, as well. All other facilities will enter an "aggregate insignificant emissions" line item only on Form ED605 or ED605A.

Example: A facility's aggregate insignificant activities emit 100 pounds per year of lead. The threshold level for lead is 120 pounds, as identified above. On Form ED605, in the column for Emissions Unit ID, the owner/operator will enter the words "aggregate insignificant emissions." Then, in the same row put "Pb" for lead in the pollutant column and **0.06 tons per year** (equivalent to **120 pounds**) in the Emissions column. All of the other columns may be left blank or include a reference to Form ED602.

By setting the PSEL based on the threshold level (120 pounds), rather than the actual, lower level of lead emissions (100 pounds), DEQ provides flexibility to vary the aggregate insignificant emission activities up to the point that they emit the threshold of 120 pounds of lead per year.

Estimating emissions

To determine the facility's aggregate insignificant emissions, the owner/operator should identify all regulated air pollutant-emitting activities at the facility and estimate the emissions from them. Exclude all categorically insignificant activities identified on Form ED601. As pollutant-emitting activities are identified, the owner/operator should NOT assume that, just because a particular activity has not been permitted in the past, its emissions are insignificant.

DEQ realizes emissions from "insignificant" activities are probably trivial compared to the regularly permitted emissions units at the facility. DEQ does not intend for the owner/operator to do extensive studies or spend unwarranted amounts of money to estimate emissions from "insignificant" activities. Estimates of emissions from insignificant activities do not require source testing, although source testing may be appropriate in certain instances, as described below. In general, emissions should be estimated using any available emission factors or material balance. DEQ shall review all reasonable proposals for estimating emissions from insignificant activities.

Source testing may be used in the following examples.

Example: A building has a vent or a stack. Multiple activities occur in the building. Rather than estimate emissions from each of the multiple activities individually, the owner/operator aggregates the activities and performs a source test of the building vent/stack.



Example: An owner/operator suspects that an activity may not be insignificant, but there is no means of estimating emissions. If a source test can be done, the owner/operator should consider doing so. Because the permit applications must be certified for truth, accuracy, and completeness, it may be prudent to conduct the source test. This should only be done as a last resort when an owner/operator has good reason to suspect emissions greater than the aggregate insignificant emissions.

Identifying insignificant versus significant activities

If, *in aggregate*, the emissions of a given pollutant from the identified activities do *not* exceed the threshold for that pollutant identified above, then the activities are, in fact, considered *aggregately insignificant*. Their emissions of the pollutant in question may be described on this form in the spaces provided. No additional information or quantification is required.

If the owner/operator determines, that the activities, in aggregate, *exceed* the emissions threshold for a given pollutant, then some of the emissions are considered significant, *not* aggregately insignificant. If the grouping of activities exceeds the threshold for a pollutant, the owner/operator should determine *which* of the activities should be permitted (i.e., that the owner/operator should address through Form Series DV200 to become an emissions unit, or part of an emissions unit). By removing one or more of the activities to Form Series DV200, the owner/operator may find that the aggregated emissions from the activities remaining now actually are insignificant. The owner/operator then may complete this Form ED602 for these qualifying insignificant activities.

Permitting significant activities

The owner/operator should seek to permit the *significant* activities identified through this exercise by completing the appropriate forms in Form Series DV200 to describe the devices/processes in these activities, and then integrating them into emissions units in Form Series EU500, as appropriate. Those forms will direct the owner/operator to quantify the emissions from the activity in the Emissions Data forms. If the significant activity operated during the baseline period, then the estimated emissions must be added into the facility's baseline emissions data on Form ED603 and Netting Basis on Form ED604, if applicable.

The purpose for adding newly-identified significant activities to the baseline emissions rate is to correct the facility's baseline emission rate, relative to the newly requested PSEL, so DEQ can determine whether the facility's emissions have triggered NSR/PSD.

The owner/operator may not have the information necessary for estimating emissions from the baseline period for these newly identified significant activities. In that event, baseline emission rates may be estimated using a ratio of current and baseline production levels.

Instructions

Complete one Form ED602 for each operating scenario if the aggregate insignificant activities vary by operating scenario. If there is no variation among operating scenarios complete this form only once.

Activity Summary table:

- Enter an aggregate insignificant activity in the first column.
- Enter the normal annual production/process rate (see definition of “normal” above) for the activity.
- Enter one or more pollutants that will be emitted at less than the aggregate insignificant threshold level. If there is more than one pollutant, then you will use more than one row for the aggregate insignificant activity.
- Enter the emission factor and units for the pollutant. The emission factor units should be the same as the units for the production process rate. For example, if the production/process rate for the activity is cubic feet of natural gas burned, then the emission factor units should be pounds of pollutant per cubic feet of natural gas burned (typically, this is expressed as lbs/10⁶ ft³).
- Provide the reference for the emission factor (e.g., AP-42, DEQ, Source Test, ACDP, etc.). Provide further



explanation if the factor was not obtained from documents readily available to DEQ.

- Calculate the emissions: annual production/process rate x emission factor x 1 ton/2000 lbs.
- Enter the next activity and repeat the steps outlined above.

Pollutant Summary table:

- Enter the aggregate insignificant pollutants identified in the Activity Summary table.
- For each pollutant, enter the sum of the emissions from all activities identified in the Activity Summary table.

Pollutant totals must be less than the aggregate insignificant threshold levels in order to be considered an “aggregate insignificant emissions” unit.

FORM ED603 – BASELINE EMISSION RATE

Complete one form for the facility. Remember that the emissions data provided here are from the facility's baseline period—1977/1978 except for greenhouse gases. For greenhouse gases, the baseline period is one consecutive 12 calendar month period during the calendar years 2000 through 2010. If the facility did not operate during the baseline period, do not complete this form; skip to ED604 or ED605. If the facility *did* operate in the baseline period, the owner/operator will complete this form and then may need to complete Form ED604 before proceeding to Form ED605 or ED605A.

Baseline emissions will not be calculated for fine particulate matter (PM_{2.5}). See the “Instructions for Determining the PM_{2.5} Plant Site Emission Limit and Netting Basis” at <http://www.deq.state.or.us/aq/permit/tv/ed600.htm> for more detail.

Device/process Summary table:

- Enter the baseline year. Two baseline years may be required. For pollutants other than greenhouse gases, the baseline year is any 12 consecutive month period during calendar years 1977 and 1978. For greenhouse gases, the baseline year is any 12 consecutive month period during calendar years 2000 through 2010.
- Enter a device or process in the first column.
- Enter one or more pollutants that were emitted from the device or process. If there is more than one pollutant, then you will use more than one row for the device or process.
- Enter the normal annual production/process rate (see definition of “normal” above) for the device or process.
- Enter the emission factor and units for the pollutant. The units should be the same as the units for the production/process rate. For example, if the production/process rate for the device is cubic feet of natural gas burned, then the emission factor units should be pounds of pollutant per cubic feet of natural gas burned (typically this is expressed as lbs/10⁶ ft³). (See below if emission factors were not used to determine actual emissions).
- Provide the reference for the emission factor (e.g., AP-42, DEQ, Source Test, etc.). Provide further explanation if the factor was not obtained from documents readily available to DEQ.
- Calculate the emissions: annual production/process rate x emission factor x 1 ton/2000 lbs.
- Enter the next device or process and repeat the steps outlined above.

If emissions were determined by material balance or continuous monitoring systems, leave the emission factor column blank and enter MB or CEM in the emission factor reference column. Enter the total emissions in the emissions column. If emissions were determined by material balance, attach supporting documentation showing how the emissions were calculated (e.g., types of material used, density of material, and VOC content).

Pollutant Summary table:

- Enter the pollutants identified in the Device/Process Summary table.



- For each pollutant, enter the sum of the emissions from all devices and processes identified in the Activity Summary table.

The totals are the “baseline emission rate” for each pollutant.

FORM ED604 – NETTING BASIS

If the facility is being permitted under New Source Review/Prevention of Significant Deterioration (NSR/PSD) after the baseline period or is required to reset the netting basis for any of the criteria specified in the definition of netting basis, complete this form for each regulated pollutant.

See the “Instructions for Determining the PM_{2.5} Plant Site Emission Limit and Netting Basis” at <http://www.deq.state.or.us/eq/permit/tv/ed600.htm> for more detail on calculating the PM_{2.5} netting basis.

Device/process Summary table:

- Enter a device or process in the first column.
- Enter one or more pollutants that were emitted from the device or process. If there is more than one pollutant, then you will use more than one row for the device or process.
- Enter the annual production/process rate for the device or process. This should be the same rate used in the NSR/PSD permitting action.
- Enter the emission factor and units for the pollutant. The units should be the same as the units for the production/process rate. For example, if the production/process rate for the device is cubic feet of natural gas burned, then the emission factor units should be pounds of pollutant per cubic feet of natural gas burned (typically this is expressed as lbs/10⁶ ft³).
- Provide the reference for the emission factor (e.g., AP-42, DEQ, Source Test, etc.). Provide further explanation if the factor was not obtained from documents readily available to DEQ.
- Calculate the emissions: annual production/process rate x emission factor x 1 ton/2000 lbs.
- Enter the next device or process and repeat the steps outlined above.

Pollutant Summary table:

- Enter the pollutants identified in the Device/Process Summary table.
- For each pollutant, enter the sum of the emissions from all devices and processes identified in the Device/Process Summary table.

The totals are the “netting basis” for each pollutant. Note that this form only provides the “netting basis” for pollutants that were subject to NSR/PSD. The “netting basis” for the other pollutants will either be the baseline emission rate, if the facility operated in the baseline period, or zero.

FORM ED605 – PM_{2.5} PSEL AND NETTING BASIS

This form applies to existing sources as of 05/01/11 and should be included in the first permit application required after 05/01/11. Subsequent changes to the PM_{2.5} PSEL should be requested using form ED605. Complete this form *once* for each operating scenario. On the form, the owner/operator will identify all emissions units. For each emissions unit, list the component devices/process and provide the requested emissions detail for PM_{2.5}. Then, summarize the PM_{2.5} emissions totals for each emissions unit. Total the PM_{2.5} emissions for the whole facility under the specified operating scenario. See the “Instructions for Determining the PM_{2.5} Plant Site Emission Limit and Netting Basis” at <http://www.deq.state.or.us/eq/permit/tv/ed600.htm> for more detail on calculating the PM_{2.5} PSEL.

Forms ED603 and ED604 were not structured by emissions unit and operating scenario. ED605 and ED605A



are structured in this manner because they capture the *requested* emissions data for the Permit and will determine how the facility can be operated.

Emissions Detail table:

- Enter an emissions unit in the first column
- Enter a device or process in the second column. If there is more than one device or process within the emissions unit, complete the pollutant information first and then enter another device or process.
- Enter the PM₁₀ PSEL in the third column.
- Enter the PM_{2.5} fraction of PM₁₀ emissions in the fourth column
- Provide the reference for the PM_{2.5} fraction (e.g., AP-42, DEQ, Source Test, etc.). Provide further explanation if the factor was not obtained from documents readily available to DEQ.
- Calculate the annual emissions using the PM₁₀ PSEL and the PM_{2.5} fraction.
- Enter the next device or process and repeat the steps for devices/processes outlined above.
- Enter the next emissions unit and repeat all of the steps outlined above.
- Total the PM₁₀ and PM_{2.5} PSELs at the bottom of columns 3 and 6.
- Calculate “R” which is the ratio of the PM_{2.5} PSEL to the PM₁₀ PSEL.
- Enter the PM₁₀ netting basis at the bottom of ED605.
- Calculate the PM_{2.5} netting basis by multiplying the PM₁₀ netting basis by R.

FORM ED605A – REQUESTED ANNUAL PSEL

Complete this form *once* for each operating scenario. On the form, the owner/operator will identify all emissions units. For each emissions unit, list the component devices/process and provide the requested emissions detail for each pollutant. Then, summarize the pollutant emissions totals for each emissions unit. Total the pollutant emissions for the whole facility under the specified operating scenario.

If any increase in the PSEL is requested at this time, the owner/operator should provide with this form detailed information about the increased emissions.

Emissions Detail table:

- Enter an emissions unit in the first column
- Enter a device or process in the second column. If there is more than one device or process within the emissions unit, complete the pollutant information first and then enter another device or process.
- Enter one or more pollutants that are emitted from the device or process. If there is more than one pollutant, then more than one row will be used for the device or process.
- Enter the annual normal production/process rate (see definition of “normal” above) for the device or process.
- Enter the emission factor and units for the pollutant. The units should be the same as the units for the production/process rate. For example, if the production/process rate for the device is cubic feet of natural gas burned, then the emission factor units should be pounds of pollutant per cubic feet of natural gas burned (typically, this is expressed as lbs/10⁶ ft³). (see below if emission factors are not used to estimate emissions)
- Provide the reference for the emission factor (e.g., AP-42, DEQ, Source Test, etc.). Provide further explanation if the factor was not obtained from documents readily available to DEQ.
- Calculate the annual emissions using the annual production/process rates and emission factors.
- Enter the next device or process and repeat the steps for devices/processes outlined above.
- Enter the next emissions unit and repeat all of the steps outlined above.

If emissions are estimated by material balance or continuous monitoring systems, leave the emission factor column blank and enter MB or CEM in the emission factor reference column. Enter the total emissions in the emissions



column. If emissions were determined by material balance, include a cross reference to the appropriate EU500 form.

Emissions Unit Summary table:

- Enter an emissions unit in the first column.
- List the pollutants emitted from the emissions unit in the next column. If there is more than one pollutant, then you will use more than one row for the emissions unit.
- For each pollutant, enter the sum of the emissions from all devices and processes identified in the Emission Detail table.

Pollutant Summary table:

- Enter all of the pollutants identified in the Emission Detail table in the first column.
- For each pollutant, enter the sum of the emissions from all emissions units identified in the Emissions Unit Summary table.

Unless otherwise requested, the permit will contain PSEs based on the facility-wide totals shown in the Pollutant Summary table.

FORM ED605S – SHORT TERM EMISSIONS DETAIL

Complete this form *once* for each operating scenario. On the form, the owner/operator will identify all emissions units. For each emissions unit, list the component devices/process and provide the requested emissions detail for each pollutant. Then, summarize the pollutant emissions totals for each emissions unit. Total the pollutant emissions for the whole facility under the specified operating scenario.

- Enter an emissions unit in the first column
- Enter a device or process in the second column. If there is more than one device or process within the emissions unit, complete the pollutant information first and then enter another device or process.
- Enter the maximum short term production/process rate (see definition of “maximum” above) for the device or process.
- Enter one or more pollutants that are emitted from the device or process. If there is more than one pollutant, then more than one row will be used for the device or process.
- Enter the emission factor and units for the pollutant. The units should be the same as the units for the production/process rate. For example, if the production/process rate for the device is cubic feet of natural gas burned, then the emission factor units should be pounds of pollutant per cubic feet of natural gas burned (typically, this is expressed as lbs/10⁶ ft³).
- Provide the reference for the emission factor (e.g., AP-42, DEQ, Source Test, etc.). Provide further explanation if the factor was not obtained from documents readily available to DEQ.
- Calculate the short term emissions using the short term production/process rates and emission factor. In most cases the short term emission should be on an hourly basis. However, if it is not possible to determine hourly emissions, calculate the emissions on as short of a basis as possible (e.g., daily or weekly), but not longer than monthly.
- Enter the next device or process and repeat the steps for devices/processes outlined above.
- Enter the next emissions unit and repeat all of the steps outlined above.

Emissions Unit Summary table:

- Enter an emissions unit in the first column.
- List the pollutants emitted from the emissions unit in the next column. If there is more than one pollutant, then you will use more than one row for the emissions unit.



- For each pollutant, enter the sum of the emissions from all devices and processes identified in the Emission Detail table.

FORM ED606 – HAZARDOUS AIR POLLUTANTS

Complete this form *once* for the facility. This form should capture the facility's *potential to emit* for the given HAPs.

- Enter a hazardous air pollutant from Table 1 of OAR 340-244-0040 that is emitted from the facility in the first column.
- Enter the emissions units or activities that emit the hazardous air pollutant. If there is more than one emissions unit or activity, then you will use more than one row for the pollutant.
- Enter the maximum annual production/process rate (see definition of “maximum” above) for the emissions unit or activity.
- Enter the emission factor and units for the pollutant. The units should be the same as the units for the production/process rate. For example, if the production/process rate for the device is cubic feet of natural gas burned, then the emission factor units should be pounds of pollutant per cubic feet of natural gas burned (typically this is expressed as lbs/10⁶ ft³).
- Provide the reference for the emission factor (e.g., AP-42, DEQ, Source Test, etc.). Provide further explanation if the factor was not obtained from documents readily available to DEQ.
- Calculate the emissions: annual production/process rate x emission factor x 1 ton/2000 lbs.
- Enter the next hazardous air pollutant and repeat the steps outlined above.
- Total the hazardous air pollutant emissions for the facility. Note that the total should represent the potential emissions and not actual emissions.
- DEQ requests information for any pollutant listed in OAR 340-246-0090(3) that is not listed in Table 1 of OAR 340-244-0040. In addition, many facilities are required to submit Toxic Release Inventory (TRI) reports. If the facility is required to submit TRI reports, include the most recent report and provide a discussion of any discrepancies between the TRI report and the information provided in Form AQ403.

FORM ED607 – TOXIC SUBSTANCE USAGE

Complete this form *once* for the entire facility.

The owner/operator's level of effort in completing this information should be minimal. For commercial chemicals and chemical mixtures used on-site, the owner/operator may refer to the manufacturers' Material Safety Data Sheets (MSDSs) to help ascertain which, if any, of the chemicals listed below is contained therein. In examining the facility's chemical uses, the owner/operator should not account for chemicals used in categorically insignificant activities identified on Form ED601.



Instructions

Toxic Substance Usage table: For each toxic substance listed in Table ED607 below that is used at the facility provide the following information.

- Enter the Chemical Abstract Service (CAS) number for the HAP, if available.
• Enter the name of the chemical.
• Enter the process that the chemical is used in. If it is used in more than one process, list all of the processes.
• Insert an "X" in the appropriate column indicating the range of estimated annual use/processing/manufacture of the pollutant in question. Choose from the following ranges:
o Insignificant: any volume equal to or less than 1,000 pounds per year.
o 1,001 to 10,000 pounds per year: any volume greater than or equal to 1,001 pounds, but less than or equal to 10,000 pounds.
o 10,001 to 20,000 pounds per year: any volume greater than or equal to 10,001 pounds, but less than or equal to 20,000 pounds.
o 20,001 to 50,000 pounds per year: any volume greater than or equal to 20,001 pounds, but less than or equal to 50,000 pounds.
o Over 50,000 pounds per year.

Table ED607, Toxic Substances and Accidental Release Pollutants

This table lists all chemicals for which the owner/operator should report any use, manufacture, or processing at the facility.

Table with 4 columns: CAS Number, Chemical Name, CAS Number, Chemical Name. Lists various toxic substances such as Acetaldehyde, Acetamide, Acetone, Benzal chloride, Benzamide, Benzene, etc.



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4680-78-8	C.I. Acid Green 3	615-05-4	2,4-Diaminoanisole
569-64-2	C.I. Basic Green 4	39156-41-7	2,4-Diaminoanisole sulfate
989-38-8	C.I. Basic Red 1	101-80-4	4,4'-Diaminodiphenyl ether
1937-37-7	C.I. Direct Black 38	25376-45-8	Diaminotoluene (mixed isomers)
2602-46-2	C.I. Direct Blue 6	95-80-7	2,4-Diaminotoluene
16071-86-6	C.I. Direct Brown 95	334-88-3	Diazomethane
2832-40-8	C.I. Disperse Yellow 3	132-64-9	Dibenzofuran
3761-53-3	C.I. Food Red 5	19287-45-7	Diborane
81-88-9	C.I. Food Red 15	96-12-8	1,2-Dibromo-3-chloropropane (DBCP)
3118-97-6	C.I. Solvent Orange 7	106-93-4	1,2-Dibromoethane (Ethylene dibromide)
97-56-3	C.I. Solvent Yellow 3	124-73-2	Dibromotetrafluoroethane (Halon 2402)
842-07-9	C.I. Solvent Yellow 14	84-74-2	Dibutyl phthalate
492-80-8	C.I. Solvent Yellow 34 (Aurimine)	25321-22-6	Dichlorobenzene (mixed isomers)
128-66-5	C.I. Vat Yellow 4	95-50-1	1,2-Dichlorobenzene
7440-43-9	Cadmium	541-73-1	1,3-Dichlorobenzene
156-62-7	Calcium cyanamide	106-46-7	1,4-Dichlorobenzene
133-06-2	Captan (1H-Isoindole-1,3(2H)-dione,3a,4,7,7a-tetrahydro-2-[(trichloromethyl)thio]-]	91-94-1	3,3'-Dichlorobenzidine
63-25-2	Carbaryl [1-Naphthalenol, methylcarbamate]	75-27-4	Dichlorobromomethane
75-15-0	Carbon disulfide	75-71-8	Dichlorodifluoromethane (CFC-12)
463-58-1	Carbon oxysulfide [Carbon oxide sulfide (COS)]	107-06-2	1,2-Dichloroethane (Ethylene dichloride)
56-23-5	Carbon tetrachloride	540-59-0	1,2-Dichloroethylene
463-58-1	Carbonyl sulfide	75-09-2	Dichloromethane (Methylene chloride)
120-80-9	Catechol	120-83-2	2,4-Dichlorophenol
133-90-4	Chloramben [Benzoic acid,3-amino-2,5-dichloro-]	78-87-5	1,2-Dichloropropane
57-74-9	Chlordane [4,7-Methanoindan,1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-]	78-88-6	2,3-Dichloropropene
7782-50-5	Chlorine	542-75-6	1,3-Dichloropropylene
10049-04-4	Chlorine dioxide	4109-96-0	Dichlorosilane [Silane, dichloro-]
7791-21-1	Chlorine monoxide [Chlorine oxide]	76-14-2	Dichlorotetrafluoroethane (CFC-114)
79-11-8	Chloroacetic acid	62-73-7	Dichlorvos [Phosphoric acid, 2 dichloroethenyl dimethyl ester]
532-27-4	2-Chloroacetophenone	115-32-2	Dicofol [Benzenemethanol, 4-chloro-.alpha.-(4-chlorophenyl)-.alpha.-(trichloromethyl)-]
108-90-7	Chlorobenzene	1464-53-5	Diepoxybutane
510-15-6	Chlorobenzilate [Benzenoacetic acid, 4-chloro-.alpha.-(4-chlorophenyl)-.alpha.-hydroxy-,ethyl ester]	111-42-2	Diethanolamine
75-00-3	Chloroethane (Ethyl chloride)	117-81-7	Di-(2-ethylhexyl) phthalate (DEHP)
67-66-3	Chloroform	84-66-2	Diethyl phthalate
74-87-3	Chloromethane (Methyl chloride)	64-67-5	Diethyl sulfate
542-88-1	Chloromethyl ether [Methane, oxybis [chloro-]	75-37-6	Difluoroethane [Ethane, 1,1-difluoro-]
107-30-2	Chloromethyl methyl ether	119-90-4	3,3'-Dimethoxybenzidine
126-99-8	Chloroprene	124-40-3	Dimethylamine [Methanamine, N-methyl-]
557-98-2	2-Chloropropylene [1-Propene, 2-chloro-]	60-11-7	4-Dimethylaminoazobenzene
590-21-6	1-Chloropropylene [1-chloro-]	119-93-7	3,3'-Dimethylbenzidine (o-Tolidine)
1897-45-6	Chlorothalonil [1,3-Benzenedicarbonitrile, 2,4,5,6-tetrachloro-]	79-44-7	Dimethylcarbaryl chloride
7440-47-3	Chromium	75-78-5	Dimethyldichlorosilane [Silane, dichlorodimethyl-]
7440-48-4	Cobalt	57-14-7	1,1-Dimethyl hydrazine
7440-50-8	Copper	105-67-9	2,4-Dimethylphenol
8001-58-9	Creosote	463-82-1	2,2-Dimethylpropane [Propane, 2,2-dimethyl-]
120-71-8	p-Cresidine	131-11-3	Dimethyl phthalate
1319-77-3	Cresol (mixed isomers)	77-78-1	Dimethyl sulfate
108-39-4	m-Cresol	99-65-0	m-Dinitrobenzene
95-48-7	o-Cresol	528-29-0	o-Dinitrobenzene
106-44-5	p-Cresol	100-25-4	p-Dinitrobenzene
4170-30-3	Crotonaldehyde [2-Butenal]	534-52-1	4,6-Dinitro-o-cresol
123-73-9	Crotonaldehyde, (E)- [2-Butenal, (E)-]	51-28-5	2,4-Dinitrophenol
98-82-8	Cumene	121-14-2	2,4-Dinitrotoluene
80-15-9	Cumene hydroperoxide	606-20-2	2,6-Dinitrotoluene
135-20-6	Cupferron [Benzenamine, N-hydroxy-N-nitroso,ammonium salt]	25321-14-6	Dinitrotoluene (mixed isomers)
460-19-5	Cyanogen [Ethanedinitrile]	117-84-0	n-Dioctyl phthalate
506-77-4	Cyanogen chloride	123-91-1	1,4-Dioxane
110-82-7	Cyclohexane	122-66-7	1,2-Diphenylhydrazine (Hydrazobenzene)
108-91-8	Cyclohexylamine [Cyclohexanamine]	106-89-8	Epichlorohydrin
94-75-7	2,4-D [Acetic acid,2,4-dichloro-phenoxy]-]	74-84-0	Ethane
75-19-4	Cyclopropane	110-80-5	2-Ethoxyethanol
1163-19-5	Decabromodiphenyl oxide	107-00-6	Ethyl acetylene [1-Butyne]
2303-16-4	Diallate [Carbamothioic acid,bis(1-methylethyl)-,S-(2,3-dichloro-2-propenyl) ester]	140-88-5	Ethyl acrylate
		75-04-7	Ethylamine [Ethanamine]
		100-41-4	Ethylbenzene
		75-00-3	Ethyl chloride [Ethane, chloro-]
		541-41-3	Ethyl chloroformate
		60-29-7	Ethyl ether [Ethane, 1,1'-oxybis-]



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75-08-1	Ethyl mercaptan [Ethanethiol]	101-14-4	4,4'-Methylenebis(2-chloroaniline)(MBOCA)
109-95-5	Ethyl nitrite [Nitrous acid, ethyl ester]	101-61-1	4,4'-Methylenebis (N,N-dimethyl) benzenamine
74-85-1	Ethylene	101-68-8	Methylenebis(phenylisocyanate) (MBI)
107-21-1	Ethylene glycol	74-95-3	Methylene bromide
107-15-3	Ethylenediamine [1,2-Ethanediamine]	101-77-9	4,4'-Methylenedianiline
151-56-4	Ethyleneimine (Aziridine)	78-93-3	Methyl ethyl ketone
75-21-8	Ethylene oxide	60-34-4	Methyl hydrazine
96-45-7	Ethylene thiourea	74-88-4	Methyl iodide
2164-17-2	Fluometuron [Urea, N,N-dimethyl-N'-[3-(trifluoromethyl)phenyl]-]	108-10-1	Methyl isobutyl ketone
7782-41-4	Fluorine	624-83-9	Methyl isocyanate
50-00-0	Formaldehyde	74-93-1	Methyl mercaptan [Methanethiol]
76-13-1	Freon 113 [Ethane 1,1,2-trichloro-1,2,2-trifluoro-]	80-62-6	Methyl methacrylate
110-00-9	Furan	115-11-7	2-Methylpropene [1-Propene, 2-methyl-]
76-44-8	Heptachlor [1,4,5,6,7,8,8-Heptachloro-3a,4,7,7a-tetrahydro-4,7-methano-1H-indene]	556-64-9	Methyl thiocyanate [Thiocyanic acid, methyl ester]
118-74-1	Hexachlorobenzene	75-79-6	Methyltrichlorosilane [Silane, trichloromethyl-]
87-68-3	Hexachloro-1,3-butadiene	90-94-8	Michler's ketone
77-47-4	Hexachlorocyclopentadiene	1313-27-5	Molybdenum trioxide
67-72-1	Hexachloroethane	76-15-3	Monochloropentafluoroethane (CFC-115)
1335-87-1	Hexachloronaphthalene	505-60-2	Mustard gas [Ethane, 1,1'-thiobis[2-chloro-]
680-31-9	Hexamethylphosphoramide	91-20-3	Naphthalene
302-01-2	Hydrazine	134-32-7	alpha-Naphthylamine
10034-93-2	Hydrazine sulfate	91-59-8	beta-Naphthylamine
7647-01-0	Hydrochloric acid	7440-02-0	Nickel
1333-74-0	Hydrogen	13463-39-3	Nickel carbonyl
74-90-8	Hydrogen cyanide	7697-37-2	Nitric acid
7664-39-3	Hydrogen fluoride	10102-43-9	Nitric oxide [Nitrogen oxide (NO)]
7783-07-5	Hydrogen selenide	139-13-9	Nitritotriacetic acid
7783-06-4	Hydrogen sulfide	99-59-2	5-Nitro-o-anisidine
123-31-9	Hydroquinone	98-95-3	Nitrobenzene
13463-40-6	Iron, pentacarbonyl- [Iron carbonyl (Fe(CO) ₅), (TB-5-11)-]	92-93-3	4-Nitrobiphenyl
75-28-5	Isobutane [Propane, 2-methyl]	1836-75-5	Nitrofen [Benzene, 2,4-dichloro-1-(4-nitrophenoxy)-]
78-84-2	Isobutyraldehyde	51-75-2	Nitrogen mustard [2-Chloro-N-(2-chloroethyl)-N-methylethanamine]
78-82-0	Isobutyronitrile [Propanenitrile, 2-methyl]	55-63-0	Nitroglycerin
78-78-4	Isopentane [Butane, 2-methyl-]	88-75-5	2-Nitrophenol
78-79-5	Isoprene [1,3-Butadiene, 2-methyl-]	100-02-7	4-Nitrophenol
67-63-0	Isopropyl alcohol (manufacturing-strong acid process, no supplier notification)	79-46-9	2-Nitropropane
75-29-6	Isopropyl chloride [Propane, 2-chloro-]	156-10-5	p-Nitrosodiphenylamine
108-23-6	Isopropyl chloroformate [Carbonochloridic acid, 1-methylethyl ester]	121-69-7	N,N-Dimethylaniline
75-31-0	Isopropylamine [2-Propanamine]	924-16-3	N-Nitrosodi-n-butylamine
80-05-7	4,4'-Isopropylidenediphenol	55-18-5	N-Nitrosodiethylamine
120-58-1	Isosafrole	62-75-9	N-Nitrosodimethylamine
7439-92-1	Lead	86-30-6	N-Nitrosodiphenylamine
58-89-9	Lindane [Cyclohexane 1,2,3,4,5,6-hex-achloro-(1.alpha.,2.alpha.,3.beta.,4.alpha.,5.alpha., 6.beta.)-]	621-64-7	N-Nitrosodi-n-propylamine
108-31-6	Maleic anhydride	4549-40-0	N-Nitrosomethylvinylamine
12427-38-2	Maneb [Carbamodithioic acid, 1,2-ethanediylbis-, manganese complex]	59-89-2	N-Nitrosomorpholine
7439-96-5	Manganese	759-73-9	N-Nitroso-N-ethylurea
7439-97-6	Mercury	684-93-5	N-Nitroso-N-methylurea
126-98-7	Methacrylonitrile [2-Propenenitrile, 2-methyl-]	16543-55-8	Nitrososnormicotine
74-82-8	Methane	100-75-4	N-Nitrosopiperidine
67-56-1	Methanol	2234-13-1	Octachloronaphthalene
72-43-5	Methoxychlor [Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-methoxy-]	8014-95-7	Oleum (Fuming Sulfuric acid) [Sulfuric acid, mixture with sulfur trioxide] ¹
109-86-4	2-Methoxyethanol	20816-12-0	Osmium tetroxide
96-33-3	Methyl acrylate	56-38-2	Parathion [Phosphorothioic acid, O,O-diethyl-O-(4-nitrophenyl) ester]
563-45-1	3-Methyl-1-butene	87-86-5	Pentachlorophenol (PCP)
563-46-2	2-Methyl-1-butene	504-60-9	1,3-Pentadiene
74-87-3	Methyl chloride [Methane, chloro-]	109-66-0	Pentane
79-22-1	Methyl chloroformate [Carbonochloridic acid, methylester]	109-67-1	1-Pentene
115-10-6	Methyl ether [Methane, oxybis-]	646-04-8	2-Pentene, (E)-
107-31-3	Methyl formate [Formic acid, methyl ester]	627-20-3	2-Pentene, (Z)-
1634-04-4	Methyl tert-butyl ether	79-21-0	Peracetic acid
74-89-5	Methylamine [Methanamine]	594-42-3	Perchloromethylmercaptan [Methanesulfonyl chloride, trichloro-]
		108-95-2	Phenol
		106-50-3	p-Phenylenediamine
		90-43-7	2-Phenylphenol
		75-44-5	Phosgene



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Table with 4 columns: ID, Name, ID, Name. Lists various chemical substances such as Phosphine, Phosphoric acid, Thiourea, and Titanium dioxide.

FORM ED608 – STRATOSPHERIC OZONE PROTECTIONS

Complete this form once for the facility.

Sections 601-618 of the 1990 Clean Air Act (also see 40 CFR Part 82) regulate the manufacture, sale, distribution, or use of ozone-depleting substances and require a phase-out of their use.

First, review Table ED608 on the following page. If the facility manufactures, sells, distributes, or uses any of the substances listed in that table proceed to the next step.

Second, if it is determined the facility does manufacture, sell, distribute, or use any of the listed ozone-depleting



substances, then the owner/operator must read Sections 601-618 of the Clean Air Act (or 40 CFR Part 82) to identify the applicable requirements for the facility. The owner/operator then should complete both questions on this form. In question 1, enter a "B" in the space provided and then provide the information requested in question 2.

- 1. After reviewing Table ED608, select one of the following two choices:
A. No, the facility does not manufacture, sell, distribute, or use any substances from the list, and the 1990 Clean Air Act, as amended, Sections 601-618 do not apply to the facility. (Do not continue.)
B. Yes, the facility does manufacture, sell, distribute, or use one or more of the substances from the list. (Proceed to question 2.)
2. Provide the following information for each listed ozone-depleting substance that the facility manufactures, sells, distributes, or uses.
- Enter the name of the substance.
- Indicate whether the substance is Class I (the left column of Table ED612) or Class II (the right column of Table ED612).
- Identify the chemical intended to replace the phased-out listed substance.

TABLE ED608, STRATOSPHERIC OZONE-DEPLETING SUBSTANCES

Table with two columns: CLASS I and CLASS II. CLASS I includes Group I (CFCs), Group II (Halon), Group III (CFCs), Group IV (Carbon Tetrachloride), Group V (Methyl chloroform), Group VI (Methyl Bromide), and Group VII (HBFCs). CLASS II includes HCFCs from 21 to 271.