

Form Series B Instructions – Emission Units

Form Series B collects information on the emission units at the stationary source. These emission units constitute the building blocks of the permit application. If this Title V application is for the stationary source's *initial* Title V permit, emission units numbers established in the current stationary source Permit-to-Operate and/or Alaska Title I permits should be used consistently in Form Series B. Form Series B must be completed for each initial and renewal application and for each emission unit at the stationary source.

If this Title V application is for a Title V renewal, the first page of Form B should be used to indicate emission units that have changed or have been added to the stationary source since the most recent issuance of the Title V permit. The second page should be used to indicate Title V permitted emission units that have not been modified.

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Note that “not applicable” or “N/A” may be an appropriate response to some of the data elements presented in these forms. However, the intent of standard application forms is to provide a template that prompts the applicant for all of the information necessary to fully describe a stationary source, emission units, control devices etc. Some information that may not be needed to determine specific regulatory applicability will assist the permit drafter to fully understand the stationary source and emission units and will preclude a possible information request at a later date. Information included on other application forms within the current application may be referenced.

APPLICABLE AND NON-APPLICABLE REQUIREMENTS

All state and federal standards applicable to each emission unit at the stationary source must be identified as well as non-applicable requirements for which the applicant is requesting a permit shield. Additionally, requirements established in the stationary source Permit-to-Operate and current Alaska Title I permits must be identified. Information on Alaska standards can be found here: <http://www.dec.state.ak.us/air/ap/regulati.htm>. Current federal standards can be found here: <http://ecfr.gpoaccess.gov/> and/or through hard copy and other electronic media.

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The Department has provided one table for applicable requirements and one table for non-applicable requirements at the end of each B# form. If space is needed for additional requirements, the Department has provided supplement tables. See *Form B Supplement - Emission Unit-Specific Applicable Requirements*, and *Form B Supplement - Emission Unit-Specific Permit Shield Request*.

Applicable Requirements

The regulatory applicability for each emission unit should be identified in the table provided for “Applicable Requirements”. For example, for a fuel oil-fired boiler, rule 18 AAC 50.055(a)(1) is an applicable requirement, and should be cited in the applicable requirements table under “Applicable Requirement Citation”.

- Enter the current Title V operating permit number (if applicable), Permit-to-Operate, or Alaska Title I permit number followed by a dash “-”, and the condition number.
- Enter the applicable requirements. If an applicable requirement is a rule, enter the complete citation (e.g., 18 AAC 50.055(a)(1)).
- Enter the parameter, pollutant, or work practice to which the rule condition applies (e.g., for the rule cited above, visible emissions).
- Enter the limit or standard established by the applicable requirement (e.g., for the rule cited above, “20 percent averaged over any six consecutive minutes”).
- Write “yes” if the emission unit is currently in compliance with the limit/standard. Write “no” if the emission unit is currently out of compliance with the limit/standard. If the answer is “out,” the owner/operator **must** attach a compliance schedule for the emission unit.
- Identify the monitoring, record keeping, and reporting method that is the basis for the compliance determination. If an EPA-granted waiver, exemption, or custom monitoring plan applies, indicate in the space provided and attach a copy of the applicable documentation to this permit application.

Non-Applicable Requirements

Regulations for which the owner/operator would like a permit shield should be identified in the table provided for “Non-Applicable Requirements”. Complete this table for each emission unit. The table must be completed and returned even if no shields are requested. If no shields are requested, simply type “NO SHIELD REQUEST” on the first line under “Non Applicable Requirements”.

The “Non-Applicable Requirements” table collects information about specified requirements that are not applicable to the emission unit at the time of permit issuance. If any of the requirements for which a permit shield is granted becomes applicable during the permit term, the Permittee shall comply with such requirements on a timely basis including, but not limited to, providing appropriate notification to EPA, obtaining a construction permit and/or an operating permit revision.

In this table, the owner/operator will explain the basis for each permit shield request. In the first column, enter the state or federal citation for which the owner/operator is requesting a permit shield. In the second column, explain why the rule does not apply to the emissions unit, and include the citation/basis.

Reasons for Regulatory Applicability Determination

Owners/operators are required to identify in their permit applications all requirements that are applicable to their operations. In addition, non-applicable regulations for which the owner/operator would like a permit shield must be identified. The purpose for these requirements is three-fold:

- First, the applicable requirements constitute the skeleton of the permit that the Department will write. As such, the full range of applicable requirements must be identified in the permit application so that the Department will have adequate information to structure the permit correctly.
- Second, if the owner/operator identifies all applicable and non-applicable requirements, the Department can grant a permit shield. If the stationary source is in compliance with all of the conditions in the permit, the shield protects the owner/operator from third-party lawsuits.

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- Third, permitted stationary sources are required to certify continuous or intermittent compliance with all applicable requirements annually by March 31. The information used to determine compliance will be based on the monitoring required in the permit, which will be established separately for each applicable requirement. Thus, the owner/operator needs to identify all applicable requirements comprehensively and accurately so that the stationary source's monitoring activities are appropriate.

FORM B – EMISSION UNIT LISTING FOR THIS APPLICATION

The first page of Form B gathers emission unit information on emission units to be added, modified, or deleted by this application, and should be completed for all initial applications. Provide brief supplemental information in the “notes” field, such as the unit that was replaced, date that unit was modified, or date that the unit ceased operation, etc. For renewals, *significant* emission units in the current Title V permit that have not been modified should be included on the second page of Form B, and *insignificant* units should be included on the third page. Forms B1 through B4 are for typical emission units located at Alaska Title V stationary sources. Form B5 is a generic emission unit form and can be used for all emission units *not* covered in the other Form Series B forms. Forms B9.# are “archived” forms which should be used if applicable, but are considered to be atypical emission units in Alaska.

If more than one operating scenario is defined for the stationary source or an emission unit in Form A3, complete a B# form for each operating scenario under which the emission unit may operate.

Before proceeding to complete the appropriate forms in this series, the owner/operator should review the discussion on “dates” below.

Date installation/construction commenced

The emission unit forms request the date that the owner/operator commenced construction/installation of the emission unit. This date is collected for purposes of determining the applicability of certain standards, specifically NSPS, NESHAP, MACT, and NSR/PSD. In completing this question, the owner/operator should understand the definition of the term *commenced*. This term often refers to the date on which the owner/operator first made a financial commitment to install or construct the device/process. In some cases, such as with internal combustion engines subject to 40 C.F.R. 60 Subpart IIII, the construction date refers to the engine model year. Consult applicable regulations to determine the proper response for each emission unit.

Date installed

The emission unit forms also request the date that the device/process was installed and operational. If the emission unit being described is new, the owner/operator should provide the anticipated date when installation of the emission unit will be completed.

Emissions Data

These forms collect the emission unit-specific *design* information but do *not* collect emissions data for the emission unit. Emissions data is summarized in by Form Series D.

Form Series B Instructions – Emission Units

FORM B1 – EXTERNAL COMBUSTION EQUIPMENT (BOILERS AND HEATERS)

Complete one form for *each* external combustion unit (e.g., boiler, heater) at the stationary source. Inclusion of identical units with identical regulatory applicability on a single form is allowed.

1. Enter the Emission Unit ID Number and operating scenario. Operating scenario does not need to be noted if there is only one operating scenario for the external combustion unit.
2. Enter the date that construction/installation of the external combustion emission unit commenced (see page 2 of these instructions for discussion of the correct date for use here).
3. Enter the date that the external combustion emission unit was installed. If before 1970, provide only the year.
4. Enter the serial number from the external combustion emission unit nameplate or other physical component.
5. Does the external combustion emission unit have special control requirements as a result of NSR/PSD (yes or no)? If yes, discuss.
6. Enter the name of the manufacturer of the external combustion emission unit.
7. Briefly describe the external combustion emission unit including any add-on control devices and the firing method. Include any additional information needed to adequately describe the firing method. For example, if a boiler is a traveling grate stoker, indicate whether it is overfeed or underfeed.

For liquid/gaseous fuels:

- tangential
- normal
- other (specify)

For solid fuels:

- traveling grate stoker
- spreader stoker
- other (specify)

8. Enter the rated design capacity (heat input) in millions of British Thermal Units per hour.
9. Enter the maximum steam production rate (lbs/hr).
10. Enter the maximum operating steam pressure in pounds per square inch (gauge pressure).
11. Enter the maximum operating steam temperature, in degrees Fahrenheit.
12. Fuel usage: List all of the fuels that can be burned in the external combustion unit (e.g., natural gas, #2 distillate, residual oil, etc.) and the maximum firing rate (e.g., cubic feet per hour, gallons per hour, etc.).
13. If waste heat generated by the external combustion emission unit is utilized for any purpose, provide a description of how the waste heat is utilized, (e.g. production or process heat, etc.)

Attach any applicable EPA-granted waivers, exemptions, or custom monitoring plans specific to the external combustion emission unit.

See the discussion on Applicable and Non-Applicable Requirements on pages 1 and 2 for instructions on completing the Applicable and Non-Applicable Requirements tables at the end of this form.

FORM B2 – INTERNAL COMBUSTION EQUIPMENT (ENGINES AND TURBINES)

Complete one form for *each* internal combustion emission unit (i.e., turbine or IC engine) at the stationary source. Inclusion of identical units with identical regulatory applicability on a single form is allowed.

1. Enter the Emission Unit ID Number and operating scenario. Operating scenario does not need to be noted if there is only one operating scenario for the emission unit.
2. Enter the date that construction/installation of the internal combustion emission unit commenced (see page 2 of these instructions for discussion of the correct date for use here).
3. Enter the date that the internal combustion emission unit was installed. If before 1970, provide only the year.
4. Enter the serial number from the internal combustion emission unit nameplate, engine block, or other physical component.
5. Does the internal combustion emission unit have special control requirements as a result of NSR/PSD (yes or no)? If yes, discuss.
6. Enter the name of the manufacturer and the model number of the internal combustion emission unit.
7. Enter the type of combustion device (e.g., simple cycle combustion turbine, combined cycle combustion turbine, internal combustion engine, etc.)
8. For engines, enter the rated design capacity in horsepower.
9. For turbines, enter the rated design capacity (heat input) in millions of British Thermal Units per hour.
10. If used for power generation, indicate the maximum electrical output (kW)
11. Enter the type(s) of fuel (e.g., natural gas, #2 distillate, etc.) and maximum amount of fuel used on an hourly basis.
12. Describe any specific modifications to the emission unit that must be addressed in the permit, (e.g. injector modifications or replacement, turbochargers, intercooler upgrades; or decreases such as permitting a 1,500 kW generator set as a 1,250 kW generator set).

Attach any applicable EPA-granted waivers, exemptions, or custom monitoring plans specific to the internal combustion emission unit.

See the discussion on Applicable and Non-Applicable Requirements on pages 1 and 2 for instructions on completing the Applicable and Non-Applicable Requirements tables at the end of this form.

FORM B3 - INCINERATORS

Complete one form for *each* incinerator at the stationary source. Inclusion of identical units with identical regulatory applicability on a single form is allowed.

1. Enter the Emission Unit ID Number and operating scenario. Operating scenario does not need to be noted if there is only one operating scenario for the emission unit.
2. Enter the date that construction/installation of the incinerator commenced (see page 2 of these instructions for discussion of the correct date for use here).
3. Enter the date that the incinerator was installed. If before 1970, provide only the year.
4. Enter the serial number from the emission unit nameplate or other physical component.
5. Does the incinerator have special control requirements as a result of NSR/PSD (yes or no)? If yes, discuss.
6. Enter the name of the manufacturer.
7. Indicate the type of waste incinerated. Select from the following.
 - solid
 - infectious
 - other (specify)
8. Briefly describe the type of incinerator (e.g., multiple chamber controlled air).
9. Provide the charging information for the incinerator.
 - Indicate whether the incinerator is batch or continuous feed.
 - Describe the charging method.
 - Describe how the charge is measured.
10. Provide the following information about the primary combustion chamber.
 - Enter the minimum temperature in °F at which the primary combustion gases are maintained.
 - Enter the rated heat input of the burner, in millions of British Thermal Units per hour.
 - Enter the type and grade (if applicable) of fuel used by the burner.
11. Provide the following information about the secondary combustion chamber (if applicable).
 - Enter the minimum temperature in °F at which the secondary combustion gases are maintained.
 - Enter the residency time at which the combustion gases are held at the temperature listed.
 - Enter the rated heat input of the burner, in millions of British Thermal Units per hour.
 - Enter the type and grade (if applicable) of fuel used by the burner.
12. Indicate (yes or no) whether the incinerator is equipped with automatically controlled auxiliary burners.
13. Indicate (yes or no) whether the incinerator is equipped with an interlock system.
14. Indicate (yes or no) whether the incinerator is equipped with an air lock system.
15. Indicate (yes or not) whether the incinerator is equipped with a waste heat boiler.
16. Enter the maximum flue gas outlet temperature.
17. Enter the rated manufacturer's capacity, in tons of material burned per day.
18. Indicate whether the incinerator has an emergency bypass stack. If it does, describe the operating conditions which would require use of the stack.
19. Provide the design efficiency of the unit in incinerating the materials charged. Attach calculations.
20. For *each* incinerated material, provide the following:
 - Enter the type of material (e.g., garbage, biological waste, cultures, sharps, construction debris, office waste).
 - Enter the origin of the material (e.g., municipalities, hospitals, research labs, generated on site).
 - Estimate the percentage of the annual tons of material charged that comes from this type of waste.
 - If heat is recovered from the process, estimate the heating value from burning this type of material.
21. Attached a diagram showing the following: [Note that an electronic version of this diagram/blueprint is not required.]
 - combustion chambers
 - waste feed ports
 - emissions stack
 - air supply fans and air feed

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- auxiliary burner
- control equipment
- continuous monitoring system sites

22. Attach energy balance equations for the materials incinerated.

Attach any applicable EPA-granted waivers, exemptions, or custom monitoring plans specific to the emission unit.

See the discussion on Applicable and Non-Applicable Requirements on pages 1 and 2 for instructions on completing the Applicable and Non-Applicable Requirements tables at the end of this form.

FORM B4 – VOLATILE LIQUID STORAGE TANKS

Complete one form for *each* volatile liquid storage tank at the stationary source. Inclusion of identical units with identical regulatory applicability on a single form is allowed. EPA TANK's run detail may be provided in TANKS output format without transcribing to Form B4.

1. Enter the Emission Unit ID Number and operating scenario. Operating scenario does not need to be noted if there is only one operating scenario for the emission unit.
2. Enter the date that construction/installation of the tank commenced (see page 2 of these instructions for discussion of the correct date for use here).
3. Enter the date that the tank was installed. If before 1970, provide only the year.
4. Does the tank have special control requirements as a result of NSR/PSD (yes or no)? If yes, discuss.
5. Enter the rated capacity of the tank, in gallons.
6. Enter the height of the tank, in feet.
7. Enter the diameter of the tank, in feet.
8. Enter the approximate age of the tank.
9. Indicate (yes or no) whether the tank has a submerged fill pipe.
10. Indicate the type of tank. Select from the following.
 - external floating roof
 - fixed roof with internal floating roof
 - variable vapor space
 - pressurized
 - open top
 - fixed roof
 - other (please specify)
11. Indicate (yes or no) whether the tank is an underground storage tank. If the answer is "yes," indicate which of the following apply:
 - single point fill tube and poppeted vapor return
 - separate fill tube and vapor return points inside on well
 - Parker Hannifin single point fill tube
 - separate fill tube and vapor return points not inside on well.
12. If the tank is an above ground storage tank, provide the following information:
 - Pipe material.
 - Pipe size.
 - Piping drainage: Indicate (yes or no) whether the piping continuously drains downward. If the answer is "no," describe the condensate collection tank.
 - Isolation valves installed in piping (yes/no).
13. Pressure/vacuum relief valves.
 - Enter the pressure settings of the vents in pounds per square inch absolute
 - Enter the months in which the relief valves are removed to prevent freezing
14. Indicate (yes or no) whether the tank has a vent intended to conserve pressure. If the answer is "yes," specify at what pressure the vent is set, in pounds per square inch absolute.
15. Fixed roof tanks.
 - Enter the color of the roof.
 - Enter the color of the shell.
 - Enter the height of the vapor space inside the tank, on an estimated annual average.
 - Indicate the shell condition of the tank and whether it is lined with gunite:

light rust	gunite lined
dense rust	other (specify)
16. Floating roof tanks.
 - Enter the type of construction of the tank.

- For guidance on completing the information requested in number 21, refer to AP-42 Section 12.**
- Attach any applicable EPA-granted waivers, exemptions, or custom monitoring plans specific to the emission unit.
- See the discussion on Applicable and Non-Applicable Requirements on pages 1 and 2 for instructions on completing the Applicable and Non-Applicable Requirements tables at the end of this form.

FORM B5 – MISCELLANEOUS EMISSION UNITS

Complete one form for *each* emission unit for which no other specific emission unit form is available. Inclusion of identical units with identical regulatory applicability on a single form is allowed.

1. Enter the Emission Unit ID Number and operating scenario. Operating scenario does not need to be noted if there is only one operating scenario for the emission unit.
2. Enter the date that construction/installation of the emission unit commenced (see page 2 of these instructions for discussion of the correct date for use here).
3. Enter the date that the emission unit was installed. If before 1970, provide only the year.
4. Enter the serial number from the emission unit nameplate or other physical component if applicable.
5. Does the emission unit have special control requirements as a result of NSR/PSD (yes or no)? If yes, discuss.
6. Briefly describe the emission unit, including any add-on pollution control devices.
7. Indicate whether the emission unit is continuous or batch. If batch, list the maximum number of batches processed per hour.
8. Raw material usage. Complete for *each* raw material used, as applicable.
 - Enter the type of raw material used in the emission unit.
 - For both continuous and batch processes, enter the maximum amount of raw material used in the emission unit operating at rated design capacity (pounds per hour or pounds per batch).
9. Production data. Complete for *each* product, as applicable.
 - Enter the type of product.
 - For both continuous and batch processes, enter the production of the process at maximum design capacity (pounds per hour or pounds per batch).
10. Attach any additional information necessary to describe the emission unit and its operating and usage parameters.

Attach any applicable EPA-granted waivers, exemptions, or custom monitoring plans specific to the emission unit.

See the discussion on Applicable and Non-Applicable Requirements on pages 1 and 2 for instructions on completing the Applicable and Non-Applicable Requirements tables at the end of this form.

FORM B9.1 – PAINTING OR COATING OPERATIONS

Complete this form *once* to summarize painting or coating operations at the stationary source. Inclusion of identical units with identical regulatory applicability on a single form is allowed.

1. Enter the Emission Unit ID Number and operating scenario. Operating scenario does not need to be noted if there is only one operating scenario for the emission unit.
2. Briefly describe the painting/coating operation.
3. Enter the date that construction/installation of the operation commenced (see page 2 of these instructions for discussion of the correct date for use here).
4. Enter the date that the operation was installed. If before 1970, provide only the year.
5. Describe the application method and technology. For example: conventional spray; HVLP (high volume low pressure) spray; airless assisted air spray; conventional roller; brush; etc.
6. Curing ovens information:
 - Enter the number of ovens
 - Enter the type and grade, if applicable, of fuel used to heat the ovens. [If the ovens are heated with fuel, the owner/operator will need to incorporate the ovens themselves into an appropriate emissions unit. The owner/operator will need to complete Form B9.12, Material Dryer Device, to describe the ovens.]
 - Enter the rated heat input to the ovens, in millions of British Thermal Units per hour.
7. Estimate the quantity (by weight) of painting and coating waste disposed of off-site during the year, and indicate approximately what percentage of the waste consists of Volatile Organic Compounds (VOC).
8. Does the emission unit have any control devices for controlling VOC emissions? [yes or no] If yes, enter the identification number(s) or label(s) from Form Series C# along with the capture, destruction, and overall control efficiency.
9. Are the controls described above the result of an NSR/PSD permitting action? [yes or no]
10. For *each* paint and coating (except clean-up solvents, addressed in question 11) used in the operation, provide the following information:
 - The name of the paint/coating.
 - The paint/coating category (e.g., air-dried, oven-dried).
 - Annual usage. This refers to the maximum projected usage rate during the permit term.
 - The density of the paint/coating, in pounds per gallon.
 - The percentage by weight of nonexempt solvents.
11. For *each* clean-up solvent used in the operation, provide the following information:
 - The name of the clean-up solvent.
 - Annual usage. This refers to the maximum projected usage rate during the permit term.
 - The density of the clean-up solvent, in pounds per gallon.
 - The percentage by weight of nonexempt solvents.

Attach any applicable EPA-granted waivers, exemptions, or custom monitoring plans specific to the emission unit.

See the discussion on Applicable and Non-Applicable Requirements on pages 1 and 2 for instructions on completing the Applicable and Non-Applicable Requirements tables at the end of this form.

FORM B9.2 - PRINTING OPERATIONS

Complete this form *once* to summarize printing operations at the stationary source. Inclusion of identical units with identical regulatory applicability on a single form is allowed.

1. Enter the Emission Unit ID Number and operating scenario. Operating scenario does not need to be noted if there is only one operating scenario for the emission unit.
2. Briefly describe the printing operation.
3. Enter the date that construction/installation of the operation commenced (see page 2 of these instructions for discussion of the correct date for use here).
4. Enter the date that the operation was installed. If before 1970, provide only the year.
5. Briefly describe or list the products printed.
6. Estimate the quantity (by weight) of painting and coating waste disposed of off-site during the year, and indicate approximately what percentage of the waste consists of Volatile Organic Compounds (VOC).
7. Does the emissions unit have any control devices for controlling VOC emissions? [yes or no] If yes, enter the identification number(s) or label(s) from Form Series C along with the capture, destruction, and overall control efficiency.
8. Are the controls described above the result of an NSR/PSD permitting action? [yes or no]
9. Provide the requested information for each dryer used in the process. [If the dryers are heated by burning fuel, the owner/operator will need to incorporate the dryers themselves into an appropriate emissions unit. The owner/operator will need to complete Form B9.12, Material Dryer Device, to describe the ovens.]
10. For *each* ink used in the operation, provide the following information:
 - The name of the paint/coating.
 - Annual usage. This refers to the maximum projected usage during the permit term.
 - The density of the ink in pounds per gallon.
 - The percentage by weight of nonexempt solvents.
11. For *each* clean-up solvent used in the operation, provide the following information:
 - The name of the clean-up solvent.
 - Annual usage. This refers to the maximum projected usage during the permit term.
 - The density of the clean-up solvent, in pounds per gallon.
 - The percentage by weight of nonexempt solvents.

Attach any applicable EPA-granted waivers, exemptions, or custom monitoring plans specific to the emission unit.

See the discussion on Applicable and Non-Applicable Requirements on pages 1 and 2 for instructions on completing the Applicable and Non-Applicable Requirements tables at the end of this form.

FORM B9.3 – STORAGE PILES

Complete this form *once* for the storage pile fugitive emissions unit at the stationary source. Fugitive emissions are emissions that cannot reasonably pass through a stack, chimney, vent, or other functionally equivalent opening. Examples include dust or VOC emissions from wood piles.

1. Enter the Emission Unit ID Number and operating scenario. Operating scenario does not need to be noted if there is only one operating scenario for the emission unit.
2. Briefly describe the operations and indicate whether the fugitive emissions unit is defined for particulate or VOC. If particulate, indicate whether the owner/operator will quantify PM₁₀ only or will distinguish between PM₁₀ and Particulate Matter (PM).
3. Enter the date that construction/installation of the operation commenced (see page 2 of these instructions for discussion of the correct date for use here).
4. Enter the date that the operation was installed. If before 1970, provide only the year.
5. Provide the following information for *each* individual storage pile in the emissions unit. [Use additional forms if there are more than 4 storage piles at the facility.] **For guidance on completing the information requested below, refer to AP-42, Section 11.2.7.**
 - Identify the material in the pile (e.g., gypsum, iron ore, clinker, wood chips, slag, road bed material, hog fuel, etc).
 - Identify the size of the pile (height x width x length) [ft].
 - Specify the number of disturbances (e.g., adding, removing, or moving material to, from, or within the storage pile) that occur in the pile on a regular basis (e.g., daily, weekly, monthly).
 - Identify the area of the disturbed surface (ft²).
 - Identify any fugitive controls used for the pile (e.g., watering, seeding, chemical suppression, physical enclosure).

Attach any applicable EPA-granted waivers, exemptions, or custom monitoring plans specific to the emission unit.

See the discussion on Applicable and Non-Applicable Requirements on pages 1 and 2 for instructions on completing the Applicable and Non-Applicable Requirements tables at the end of this form.

FORM B9.4 – MATERIALS HANDLING

Complete this form *once* for *each* materials handling fugitive emissions unit at the stationary source. Fugitive emissions are emissions that cannot reasonably pass through a stack, chimney, vent, or other functionally equivalent opening. Examples include fugitives from conveyors, outloading of rail cars, and pick-up and drop material handling activities.

1. Enter the Emission Unit ID Number and operating scenario. Operating scenario does not need to be noted if there is only one operating scenario for the emission unit.
2. Briefly describe the fugitive emissions unit (e.g., three conveyors, a rail car outloading system, front-end loader moving hog fuel from a pile to a conveyor, etc).
3. Enter the date that construction/installation of the operation commenced (see page 2 of these instructions for discussion of the correct date for use here).
4. Enter the date that the operation was installed. If before 1970, provide only the year.
5. For *each* source of fugitive emissions from material handling, provide the following information about fugitive emissions. **For guidance on completing the information requested below, refer to AP-42, Section 11.2.3.**
 - Enter the name of the emission unit.
 - Identify the material handled by the emission unit.
 - Specify the particle size of the fugitives from the material.
 - Specify the moisture content, in percent, of the material identified.
 - Specify the mean (average) wind speed, in miles per hour, associated with the fugitive emissions of the material.
 - Briefly describe any methods used to control the fugitive emissions (e.g., watering, physical enclosure, etc.)
 - Enter the frequency with which the material is transferred (e.g., number of times daily, weekly, monthly).
 - Enter the average quantity of material in each transfer (e.g., pounds, tons).

Attach any applicable EPA-granted waivers, exemptions, or custom monitoring plans specific to the emission unit.

See the discussion on Applicable and Non-Applicable Requirements on pages 1 and 2 for instructions on completing the Applicable and Non-Applicable Requirements tables at the end of this form.

FORM B9.5 – UNPAVED ROADS

Complete this form *once* for unpaved roads at the stationary source.

1. Enter the Emission Unit ID Number and operating scenario. Operating scenario does not need to be noted if there is only one operating scenario for the emission unit.
2. Provide the following information about fugitive particulate emissions from the unpaved road at the stationary source. **For guidance on completing the information requested, refer to AP-42, Section 11.2.1.**
 - Road ID or description
 - Enter the particle size multiplier for the road material.
 - Specify the silt content, in percent, of the road material.
 - Specify the mean (average) speed, in miles per hour, of the vehicles that travel on the road.
 - Enter the mean (average) vehicle weight, in tons, of the vehicles that travel on the road.
 - Enter the mean (average) number of wheels of the vehicles that travel on the road.
 - Enter the number of days per year with at least 0.01 inch of precipitation.
 - Identify any fugitive controls used (e.g., watering, chemical suppression).

Attach any applicable EPA-granted waivers, exemptions, or custom monitoring plans specific to the emission unit.

See the discussion on Applicable and Non-Applicable Requirements on pages 1 and 2 for instructions on completing the Applicable and Non-Applicable Requirements tables at the end of this form.

FORM B9.6 – INDUSTRIAL PAVED ROADS

Complete this form *once* for industrial paved roads at the stationary source.

1. Enter the Emission Unit ID Number and operating scenario. Operating scenario does not need to be noted if there is only one operating scenario for the emission unit.
2. Provide the following information about fugitive particulate emissions from the paved road at the stationary source. **For guidance on completing the information requested, refer to AP-42, Section 11.2.1.**
 - Road ID or description
 - Enter the industrial augmentation factor.
 - Specify the number of traffic lanes on the road.
 - Specify the silt content, in percent, of the surface material.
 - Specify the surface dust loading, in pounds per mile of road traveled.
 - Enter the mean (average) vehicle weight, in tons, of the vehicles that travel on the road.
 - Enter the vehicle miles traveled per month (maximum projected).
 - Enter the vehicle miles traveled per year (maximum projected).
 - Identify any fugitive controls used (e.g., watering, chemical suppression).

Attach any applicable EPA-granted waivers, exemptions, or custom monitoring plans specific to the emission unit.

See the discussion on Applicable and Non-Applicable Requirements on pages 1 and 2 for instructions on completing the Applicable and Non-Applicable Requirements tables at the end of this form.

FORM B9.7 – LUMBER DRY KILNS

Complete one form for *each* lumber dry kiln at the stationary source. Inclusion of identical units with identical regulatory applicability on a single form is allowed.

1. Enter the Emission Unit ID Number and operating scenario. Operating scenario does not need to be noted if there is only one operating scenario for the emission unit.
2. Enter the date that construction/installation of the kiln commenced (see page 2 of these instructions for discussion of the correct date for use here).
3. Enter the date that the kiln was installed. If before 1970, provide only the year.
4. Does the kiln have special control requirements as a result of NSR/PSD (yes or no)? If yes, discuss.
5. Enter the name of the manufacturer of the kiln.
6. Enter the heat source (e.g., steam, electricity, natural gas burner, etc.).
7. For each species of wood dried in the kiln, enter the average cycle time (e.g., drying time) and maximum design capacity.
8. If fuel is burned in the kiln, enter the type of fuel (e.g., natural gas, #2 distillate, etc.) and maximum amount of fuel used on an hourly basis.

Attach any applicable EPA-granted waivers, exemptions, or custom monitoring plans specific to the emission unit.

See the discussion on Applicable and Non-Applicable Requirements on pages 1 and 2 for instructions on completing the Applicable and Non-Applicable Requirements tables at the end of this form.

FORM B9.8 – CEMENT/LIME KILNS AND CALCINERS

Complete one form for *each* cement kiln, lime kiln, or calciner at the stationary source. Inclusion of identical units with identical regulatory applicability on a single form is allowed.

1. Enter the Emission Unit ID Number and operating scenario. Operating scenario does not need to be noted if there is only one operating scenario for the emission unit.
2. Enter the date that construction/installation of the emission unit commenced (see page 2 of these instructions for discussion of the correct date for use here).
3. Enter the date that the emission unit was installed. If before 1970, provide only the year.
4. Does the emission unit have special control requirements as a result of NSR/PSD (yes or no)? If yes, discuss.
5. Enter the name of the manufacturer of the emission unit.
5. Briefly describe the process, including any add-on pollution control devices.
7. Indicate whether this is a continuous or batch process.
8. Provide the maximum design capacity for each raw material processed.
9. Provide the maximum design capacity for each product.
10. Enter the type of fuel (e.g., natural gas, #2 distillate, etc.) and maximum amount of fuel used on an hourly basis.

Attach any applicable EPA-granted waivers, exemptions, or custom monitoring plans specific to the emission unit.

See the discussion on Applicable and Non-Applicable Requirements on pages 1 and 2 for instructions on completing the Applicable and Non-Applicable Requirements tables at the end of this form.

FORM B9.9 – MELT FURNACE SYSTEMS

Complete one form for *each* furnace system at the stationary source. This may be an electric arc furnace at a steel mill, or it may be a series of furnaces for alloying aluminum. Inclusion of identical units with identical regulatory applicability on a single form is allowed.

1. Enter the Emission Unit ID Number and operating scenario. Operating scenario does not need to be noted if there is only one operating scenario for the emission unit.
2. Enter the date that construction/installation of the furnace system commenced (see page 2 of these instructions for discussion of the correct date for use here).
3. Enter the date that the furnace system was installed. If before 1970, provide only the year.
4. Does the furnace system have special control requirements as a result of NSR/PSD (yes or no)? If yes, discuss.
5. Enter the name of the manufacturer of the furnace system.
6. Briefly describe the furnace system, including any add-on pollution control devices. Identify the type of furnace in the system (e.g., melting, holding, sweating, remelting, alloying, fluxing, refining, dross, etc.).
7. Enter the holding capacity of the system, in tons. If this form is completed for a series of furnaces performing a process, then base the holding capacity on the portion of the system that most limits production capacity--that is, the "bottleneck" of the system.
8. Enter the typical cycle time (e.g., tap to tap)
9. Enter the heat source (e.g., natural gas burner, electricity, etc.)
10. Provide the furnace rating, in millions of BTUs per hour, or, if electric, in kilowatt hours.
11. Identify the types of alloying materials processed (e.g., chromium, cadmium, lead, manganese, etc.), if applicable to the furnace system. Provide the annual usage of each material. Indicate the method of alloy material introduction (e.g., pure or alloyed) for each material. If this does not apply, enter "NA."
12. Provide the maximum design capacity for each product.
13. Enter the type of fuel (e.g., natural gas, #2 distillate, etc.) and maximum amount of fuel used on an hourly basis.

Attach any applicable EPA-granted waivers, exemptions, or custom monitoring plans specific to the emission unit.

See the discussion on Applicable and Non-Applicable Requirements on pages 1 and 2 for instructions on completing the Applicable and Non-Applicable Requirements tables at the end of this form.

FORM B9.10 – KRAFT RECOVERY FURNACES

Complete one form for *each* kraft recovery furnace at the stationary source. Inclusion of identical units with identical regulatory applicability on a single form is allowed.

1. Enter the Emission Unit ID Number and operating scenario. Operating scenario does not need to be noted if there is only one operating scenario for the emission unit.
2. Enter the date that construction/installation of the recovery furnace commenced (see page 2 of these instructions for discussion of the correct date for use here).
3. Enter the date that the recovery furnace was installed. If before 1970, provide only the year.
4. Does the furnace have special control requirements as a result of NSR/PSD (yes or no)? If yes, discuss.
5. Enter the name of the manufacturer of the recovery furnace.
6. Provide a brief description of the recovery process, including any add-on pollution control devices.
7. Indicate whether the hot flue gases from the recovery furnace have direct or indirect contact with the black liquor in the evaporator.
8. Provide the requested operating data for the recovery furnace's capacity.
 - Specify the rated design capacity of the furnace, in pounds of black liquor solids (BLS) per hour.
 - Specify the maximum firing rate of the furnace, in pounds of BLS per hour.
 - If the maximum firing rate is higher than the rated design capacity, please explain why.
9. Enter the range of BLS sulfidity, in percent.
10. Enter the range of BLS going to the recovery furnace, in percent.
11. Indicate (yes or no) whether the recovery furnace is equipped with a black liquor oxidation tower.
12. Specify the firing method for auxiliary fuel for the furnace. Select from the following.
 - tangential
 - vertical
 - other (specify)
13. Indicate (yes or no) whether the recovery furnace has load burners.
14. Indicate (yes or no) whether hazardous waste is burned in the recovery furnace.
15. Enter the type of auxiliary fuel (e.g., natural gas, #2 distillate, etc.) and maximum amount of fuel used on an hourly basis.

Attach any applicable EPA-granted waivers, exemptions, or custom monitoring plans specific to the emission unit.

See the discussion on Applicable and Non-Applicable Requirements on pages 1 and 2 for instructions on completing the Applicable and Non-Applicable Requirements tables at the end of this form.

FORM B9.11 – HARDBOARD/PARTICLEBOARD/PLYWOOD PRESSES

Complete one form for each hardboard\particleboard press at the stationary source. Inclusion of identical units with identical regulatory applicability on a single form is allowed.

1. Enter the Emission Unit ID Number and operating scenario. Operating scenario does not need to be noted if there is only one operating scenario for the emission unit.
2. Enter the date that construction/installation of the emission unit commenced (see page 2 of these instructions for discussion of the correct date for use here).
3. Enter the date that the emission unit was installed. If before 1970, provide only the year.
4. Does the emission unit have special control requirements as a result of NSR/PSD (yes or no)? If yes, discuss.
5. Enter the manufacturer of the press.
6. Indicate the type of product produced in the press. Select from the following.
 - oriented strandboard (OSB)
 - particleboard
 - hardboard
 - medium density fiberboard (MDF)
 - flakeboard
 - waferboard
 - plywood
 - other (specify)
7. Enter the range in thickness in which the product is produced (inches).
8. Enter the maximum dimensions of the pressed board (inches).
9. Indicate the type(s) of resin(s) and additive(s) used in the product.
10. Indicate the range in resin content of the product (%).
11. Indicate the range in the formaldehyde:urea mole ratio in the resin.
12. Indicate the range in wax content of the product (%).
13. Indicate the range in press temperature (°F).
14. Indicate the range in press cycle time (minutes).

For question 15, the Department requires the owner/operator to provide information on *actual* hourly and annual production rates as well as those production rates *corrected* to an industry-standard product thickness. If, for example, the stationary source produces 1,000 square feet per hour of 3/8" particleboard, the owner/operator would correct that to 500 square feet per hour of 3/4" particleboard. Use the following industry standards for the corrections:

- **3/4" basis for particleboard**
 - **1/8" basis for hardboards (MDF and OSB)**
 - **3/8" basis for plywood**
15. For *each* type of product and thickness identified in question 6, enter the maximum hourly production, as follows. The *maximum* production rate should be based on the maximum *capacity* of the press to produce the given thickness.
 - Identify the actual thickness (e.g., 1/2") of the board.
 - Identify the actual maximum hourly production rate, in square feet per hour, for that actual thickness.
 - Identify the press cycle time
 - Identify the corrected thickness, which is the actual thickness *corrected* to the industry-standard for the board type, as specified in the instructions above (e.g., 3/8" for particleboard).
 - Calculate the corrected hourly production rate, in square feet per hour. This is the hourly production rate of a based on the industry standard.

Attach any applicable EPA-granted waivers, exemptions, or custom monitoring plans specific to the emission unit. See the discussion on Applicable and Non-Applicable Requirements on pages 1 and 2 for instructions on completing the Applicable and Non-Applicable Requirements tables at the end of this form.

FORM B9.12 – MATERIAL DRYERS

Complete one form for each material particle dryer at the stationary source. Inclusion of identical units with identical regulatory applicability on a single form is allowed.

1. Enter the Emission Unit ID Number and operating scenario. Operating scenario does not need to be noted if there is only one operating scenario for the emission unit.
2. Enter the date that construction/installation of the dryer commenced (see page 2 of these instructions for discussion of the correct date for use here).
3. Enter the date that the dryer was installed. If before 1970, provide only the year.
4. Does the dryer have special control requirements as a result of NSR/PSD (yes or no)? If yes, discuss.
5. Enter the name of the manufacturer of the dryer.
6. Indicate the type of dryer. Select from the following:
 - rotary
 - tube
 - flashtube
 - other (specify)
7. Provide a description of the dryer.
8. List the type of materials dried.
9. List any additives (e.g., urea/formaldehyde resin) added to the material before entering the dryer. This may be intentional or a result of re-using left over material from the production process.
10. Indicate the source(s) of heat. Select from the following all that apply:
 - steam (indirect)
 - wood waste
 - natural gas
 - oil
 - sanderdust
 - other (specify)
11. Provide the following operating ranges for each type of material dried in the dryer.
 - Moisture content (%) of material entering the dryer;
 - Moisture content (%) of material exiting the dryer;
 - Dryer exhaust gas temperature
 - Maximum hourly production rate
12. Enter the type of fuel (e.g., natural gas, #2 distillate, etc.) and maximum amount of fuel used on an hourly basis.

Attach any applicable EPA-granted waivers, exemptions, or custom monitoring plans specific to the emission unit.

See the discussion on Applicable and Non-Applicable Requirements on pages 1 and 2 for instructions on completing the Applicable and Non-Applicable Requirements tables at the end of this form.

FORM B9.13 – VENEER DRYERS

Complete one form for each veneer dryer at the stationary source. Inclusion of identical units with identical regulatory applicability on a single form is allowed.

1. Enter the Emission Unit ID Number and operating scenario. Operating scenario does not need to be noted if there is only one operating scenario for the emission unit.
2. Enter the date that construction/installation of the dryer commenced (see page 2 of these instructions for discussion of the correct date for use here).
3. Enter the date that the dryer was installed. If before 1970, provide only the year.
4. Does the dryer have special control requirements as a result of NSR/PSD (yes or no)? If yes, discuss.
5. Enter the name of the manufacturer of the dryer.
6. Enter the type of dryer. Select from the following.
 - jet
 - longitudinal
 - crossflow
 - other (specify)
7. Enter the heat source for the dryer. Select from the following.
 - steam
 - wood
 - natural gas
 - other (specify)
8. Enter the number of decks in the dryer.
9. Enter the number of zones in the dryer.
10. Provide the following operating parameters:
 - Species
 - Thickness (inches)
 - Dryer temperature (°F), if there are multiple zones, provide the temperature for each zone
 - Maximum hourly production (ft²/hr)
11. Enter the type of fuel (e.g., natural gas, #2 distillate, etc.) and maximum amount of fuel used on an hourly basis.

Attach any applicable EPA-granted waivers, exemptions, or custom monitoring plans specific to the emission unit.

See the discussion on Applicable and Non-Applicable Requirements on pages 1 and 2 for instructions on completing the Applicable and Non-Applicable Requirements tables at the end of this form.