



Nebraska New Source Performance Standards (NSPS) Applicability Review DEQ For the General Incinerator Operating Permit Application

Instructions:

You must review the applicability criteria of each of the NSPS that apply to various types of incinerators to see if a NSPS applies to your incinerator. NSPS applicability to a small incinerator disqualifies that incinerator from having a general incinerator operating permit; however most small incinerators are **not** subject to any NSPS.

Changes in federal regulations have resulted in changes to the applicability determinations for incinerators. For example, if your incinerator is a burn-off oven and it had an exemption from 40 CFR 60 Subpart CCCC, *Standards of Performance for Commercial and Industrial Solid Waste Incineration Units*, when you last applied for a General Incinerator Operating permit, the NSPS has changed. The USEPA now defines a burn-off oven as any rack reclamation unit, part reclamation unit, or drum reclamation unit. The definition further states for purposes of Subpart CCCC: “A burn-off oven is not an incinerator, waste-burning kiln, an energy recovery unit or a small, remote incinerator under this subpart.” Therefore, your burn-off oven is no longer an exempt source but rather is now simply not subject. **Note:** the Nebraska Department of Environmental Quality, Air Division (NDEQ) considers burn-off ovens to be incinerators.

If your incinerator is subject to a NSPS, you cannot apply for a General Incinerator Operating Permit. You will need to apply for a different type of operating permit instead, such as a Class II operating permit. Please contact the Compliance Assistance Coordinator for help determining the type of permit needed for your incinerator and the application forms you will need to complete.

Definitions:

The following selected definitions are from NSPS that apply to various types of incinerators. You may find them helpful as you complete the NSPS applicability review. If you have questions about the definitions, you may contact the NSPS/NESHAP Coordinator at (402) 471-3139 or via e-mail at NDEQ.AirQuality@nebraska.gov

The U.S. Environmental Protection Agency (USEPA) uses different terms for incinerators in its regulations. These regulations were written at different points in time and some are related to solid waste regulations and consequently use terminology from the solid waste regulations. As you work through the NSPS Applicability Review, which uses the terminology of the pertinent regulations, you will find incinerators are referred to as incinerators, waste combustors, waste combustion units, or incineration unit.

Definitions – Subparts Ea, Eb, and AAAA

Modification or modified municipal waste combustor unit means a municipal waste combustor unit to which changes have been made if the cumulative cost of the changes, over the life of the unit, exceed 50 percent of the original cost of construction and installation of the unit (not including the cost of any land purchased in connection with such construction or installation) updated to current costs; or any physical change in the municipal waste combustor unit or change in the method of operation of the municipal waste combustor unit increases the amount of any air pollutant emitted by the unit for which standards have been established under section 129 or section 111. Increases in the amount of any air pollutant emitted by the municipal waste combustor unit are determined at 100-percent physical load capability and downstream of all air pollution control devices, with no consideration given for load restrictions based on permits or other nonphysical operational restrictions.



Nebraska New Source Performance Standards (NSPS) Applicability Review DEQ For the General Incinerator Operating Permit Application

Reconstruction means rebuilding an MWC unit for which the cumulative costs of the construction over the life of the unit exceed 50 percent of the original cost of construction and installation of the unit (not including any cost of land purchased in connection with such construction or installation) updated to current costs (current dollars).

Municipal solid waste or municipal-type solid waste or MSW means household, commercial/retail, and/or institutional waste. Household waste includes material discarded by single and multiple residential dwellings, hotels, motels, and other similar permanent or temporary housing establishments or facilities. Commercial/retail waste includes material discarded by stores, offices, restaurants, warehouses, nonmanufacturing activities at industrial facilities, and other similar establishments or facilities. Institutional waste includes material discarded by schools, nonmedical waste discarded by hospitals, material discarded by nonmanufacturing activities at prisons and government facilities, and material discarded by other similar establishments or facilities. Household, commercial/retail, and institutional waste does not include used oil; sewage sludge; wood pallets; construction, renovation, and demolition wastes (which includes but is not limited to railroad ties and telephone poles); clean wood; industrial process or manufacturing wastes; medical waste; or motor vehicles (including motor vehicle parts or vehicle fluff). Household, commercial/retail, and institutional wastes include:

- (1) Yard waste;
- (2) Refuse-derived fuel; and
- (3) Motor vehicle maintenance materials limited to vehicle batteries and tires except as specified in §60.50b(g).

Definitions – Subpart Ec

Hospital/medical/infectious waste incinerator or HMIWI or HMIWI unit means any device that combusts any amount of hospital waste and/or medical/infectious waste.

Medical/infectious waste means any waste generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals that is listed in paragraphs (1) through (7) of this definition. The definition of medical/infectious waste does not include hazardous waste identified or listed under the regulations in part 261 of this chapter; household waste, as defined in §261.4(b)(1) of this chapter; ash from incineration of medical/infectious waste, once the incineration process has been completed; human corpses, remains, and anatomical parts that are intended for interment or cremation; and domestic sewage materials identified in §261.4(a)(1) of this chapter.

- (1) Cultures and stocks of infectious agents and associated biologicals, including: cultures from medical and pathological laboratories; cultures and stocks of infectious agents from research and industrial laboratories; wastes from the production of biologicals; discarded live and attenuated vaccines; and culture dishes and devices used to transfer, inoculate, and mix cultures.
- (2) Human pathological waste, including tissues, organs, and body parts and body fluids that are removed during surgery or autopsy, or other medical procedures, and specimens of body fluids and their containers.
- (3) Human blood and blood products including:



Nebraska New Source Performance Standards (NSPS) Applicability Review DEQ For the General Incinerator Operating Permit Application

- (i) Liquid waste human blood;
 - (ii) Products of blood;
 - (iii) Items saturated and/or dripping with human blood; or
 - (iv) Items that were saturated and/or dripping with human blood that are now caked with dried human blood; including serum, plasma, and other blood components, and their containers, which were used or intended for use in either patient care, testing and laboratory analysis or the development of pharmaceuticals.
Intravenous bags are also include in this category.
- (4) Sharps that have been used in animal or human patient care or treatment or in medical, research, or industrial laboratories, including hypodermic needles, syringes (with or without the attached needle), pasteur pipettes, scalpel blades, blood vials, needles with attached tubing, and culture dishes (regardless of presence of infectious agents). Also included are other types of broken or unbroken glassware that were in contact with infectious agents, such as used slides and cover slips.
 - (5) Animal waste including contaminated animal carcasses, body parts, and bedding of animals that were known to have been exposed to infectious agents during research (including research in veterinary hospitals), production of biologicals or testing of pharmaceuticals.
 - (6) Isolation wastes including biological waste and discarded materials contaminated with blood, excretions, exudates, or secretions from humans who are isolated to protect others from certain highly communicable diseases, or isolated animals known to be infected with highly communicable diseases.
 - (7) Unused sharps including the following unused, discarded sharps: hypodermic needles, suture needles, syringes, and scalpel blades.

Modification or Modified HMIWI means any change to an HMIWI unit after the effective date of these standards such that:

- (1) The cumulative costs of the modifications, over the life of the unit, exceed 50 per centum of the original cost of the construction and installation of the unit (not including the cost of any land purchased in connection with such construction or installation) updated to current costs, or
- (2) The change involves a physical change in or change in the method of operation of the unit which increases the amount of any air pollutant emitted by the unit for which standards have been established under section 129 or section 111.

Reconstruction means the replacement of components of an existing facility to such an extent that:

- (1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, and
- (2) It is technologically and economically feasible to meet the applicable standards set forth in this part.

(“Fixed capital cost” means the capital needed to provide all the depreciable components.)



Nebraska New Source Performance Standards (NSPS) Applicability Review DEQ For the General Incinerator Operating Permit Application

Definitions – Subpart O

Modification means any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted.

“*Reconstruction*” means the replacement of components of an existing facility to such an extent that:

- (1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, and
- (2) It is technologically and economically feasible to meet the applicable standards set forth in this part.

(“Fixed capital cost” means the capital needed to provide all the depreciable components.)

Definitions – Subpart CCCC

Burn-off oven means any rack reclamation unit, part reclamation unit, or drum reclamation unit. A burn-off oven is not an incinerator, waste-burning kiln, an energy recovery unit or a small, remote incinerator under Subpart CCCC.

Commercial and industrial solid waste incineration (CISWI) unit means any distinct operating unit of any commercial or industrial facility that combusts, or has combusted in the preceding 6 months, any solid waste as that term is defined in 40 CFR part 241. If the operating unit burns materials other than traditional fuels as defined in § 241.2 that have been discarded, and you do not keep and produce records as required by § 60.2175(v), the operating unit is a CISWI unit. While not all CISWI units will include all of the following components, a CISWI unit includes, but is not limited to, the solid waste feed system, grate system, flue gas system, waste heat recovery equipment, if any, and bottom ash system. The CISWI unit does not include air pollution control equipment or the stack. The CISWI unit boundary starts at the solid waste hopper (if applicable) and extends through two areas: The combustion unit flue gas system, which ends immediately after the last combustion chamber or after the waste heat recovery equipment, if any; and the combustion unit bottom ash system, which ends at the truck loading station or similar equipment that transfers the ash to final disposal. The CISWI unit includes all ash handling systems connected to the bottom ash handling system.

Modification or modified CISWI unit means a CISWI unit that has been changed later than August 7, 2013 and that meets one of two criteria:

- (1) The cumulative cost of the changes over the life of the unit exceeds 50 percent of the original cost of building and installing the CISWI unit (not including the cost of land) updated to current costs (current dollars). To determine what systems are within the boundary of the CISWI unit used to calculate these costs, see the definition of CISWI unit.
- (2) Any physical change in the CISWI unit or change in the method of operating it that increases the amount of any air pollutant emitted for which section 129 or section 111 of the Clean Air Act has established standards.

Reconstruction means rebuilding a CISWI unit and meeting two criteria:



Nebraska New Source Performance Standards (NSPS) Applicability Review DEQ For the General Incinerator Operating Permit Application

- (1) The reconstruction begins on or after June 1, 2001.
- (2) The cumulative cost of the construction over the life of the incineration unit exceeds 50 percent of the original cost of building and installing the CISWI unit (not including land) updated to current costs (current dollars). To determine what systems are within the boundary of the CISWI unit used to calculate these costs, see the definition of CISWI unit

Exempt from Subpart CCCC (§ 60.2020)

(a) *Pathological waste incineration units.* Incineration units burning 90 percent or more by weight (on a calendar quarter basis and excluding the weight of auxiliary fuel and combustion air) of pathological waste, low-level radioactive waste, and/or chemotherapeutic waste as defined in § 60.2265 are not subject to this subpart if you meet the two requirements specified in paragraphs (a)(1) and (2) of this section.

- (1) Notify the Administrator that the unit meets these criteria.
- (2) Keep records on a calendar quarter basis of the weight of pathological waste, low-level radioactive waste, and/or chemotherapeutic waste burned, and the weight of all other fuels and wastes burned in the unit.

(b) [Reserved]

(c) *Municipal waste combustion units.* Incineration units that are regulated under subpart Ea of this part (Standards of Performance for Municipal Waste Combustors); subpart Eb of this part (Standards of Performance for Large Municipal Waste Combustors); subpart Cb of this part (Emission Guidelines and Compliance Time for Large Municipal Combustors); subpart AAAA of this part (Standards of Performance for Small Municipal Waste Combustion Units); or subpart BBBB of this part (Emission Guidelines for Small Municipal Waste Combustion Units).

(d) *Medical waste incineration units.* Incineration units regulated under subpart Ec of this part (Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996) or subpart Ce of this part (Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators).

(e) *Small power production facilities.* Units that meet the three requirements specified in paragraphs (e)(1) through (3) of this section.

- (1) The unit qualifies as a small power-production facility under section 3(17)(C) of the Federal Power Act (16 U.S.C. 796(17)(C)).
- (2) The unit burns homogeneous waste (not including refuse-derived fuel) to produce electricity.
- (3) You submit a request to the Administrator for a determination that the qualifying cogeneration facility is combusting homogenous waste as that term is defined in § 60.2265. The request must include information sufficient to document that the unit meets the criteria of the definition of a small power production facility and that the waste material the unit is proposed to burn is homogeneous.

(f) *Cogeneration facilities.* Units that meet the three requirements specified in paragraphs (f)(1) through (3) of this section.

- (1) The unit qualifies as a cogeneration facility under section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)).



Nebraska New Source Performance Standards (NSPS) Applicability Review DEQ For the General Incinerator Operating Permit Application

- (2) The unit burns homogeneous waste (not including refuse-derived fuel) to produce electricity and steam or other forms of energy used for industrial, commercial, heating, or cooling purposes.
 - (3) You submit a request to the Administrator for a determination that the qualifying cogeneration facility is combusting homogenous waste as that term is defined in § 60.2265. The request must include information sufficient to document that the unit meets the criteria of the definition of a cogeneration facility and that the waste material the unit is combusting is homogeneous.
- (g) *Hazardous waste combustion units.* Units for which you are required to get a permit under section 3005 of the Solid Waste Disposal Act.
- (h) *Materials recovery units.* Units that combust waste for the primary purpose of recovering metals, such as primary and secondary smelters.
- (i) *Air curtain incinerators.* Air curtain incinerators that burn only the materials listed in paragraphs (i)(1) through (3) of this section are only required to meet the requirements under “Air Curtain Incinerators” (§§ 60.2245 through 60.2260).
- (1) 100 percent wood waste.
 - (2) 100 percent clean lumber.
 - (3) 100 percent mixture of only wood waste, clean lumber, and/or yard waste.
- (j)-(1) [Reserved]
- (m) *Sewage treatment plants.* Incineration units regulated under subpart O of this part (Standards of Performance for Sewage Treatment Plants).
- (n) *Sewage sludge incineration units.* Incineration units combusting sewage sludge for the purpose of reducing the volume of the sewage sludge by removing combustible matter that are subject to subpart LLLL of this part (Standards of Performance for Sewage Sludge Incineration Units) or subpart MMMM of this part (Emission Guidelines for Sewage Sludge Incineration Units). Sewage sludge incineration unit designs include fluidized bed and multiple hearth.
- (o) *Laboratory Analysis Units.* Units that burn samples of materials for the purpose of chemical or physical analysis.

Definitions – Subpart EEEE

Air curtain incinerator means an incineration unit operating by forcefully projecting a curtain of air across an open, integrated combustion chamber (fire box) or open pit or trench (trench burner) in which combustion occurs. For the purpose of this subpart and subpart FFFF of this part only, air curtain incinerators include both firebox and trench burner units.

Institutional waste incineration unit means any combustion unit that combusts institutional waste (as defined in this subpart) and is a distinct operating unit of the institutional facility that generated the waste. Institutional waste incineration units include field-erected, modular, cyclonic burn barrel, and custom built incineration units operating with starved or excess air, and any air curtain incinerator that is a distinct operating unit of the institutional facility that generated the institutional waste (except those air curtain incinerators listed in § 60.2888(b)).

Modification or modified unit means an incineration unit you have changed on or after June 16, 2006 and that meets one of two criteria:



Nebraska New Source Performance Standards (NSPS) Applicability Review DEQ For the General Incinerator Operating Permit Application

- (1) The cumulative cost of the changes over the life of the unit exceeds 50 percent of the original cost of building and installing the unit (not including the cost of land) updated to current costs (current dollars). For an OSWI unit, to determine what systems are within the boundary of the unit used to calculate these costs, see the definition of OSWI unit.
- (2) Any physical change in the unit or change in the method of operating it that increases the amount of any air pollutant emitted for which section 129 or section 111 of the Clean Air Act has established standards.

Other solid waste incineration (OSWI) unit means either a very small municipal waste combustion unit or an institutional waste incineration unit, as defined in this subpart. Unit types listed in § 60.2887 as being excluded from the subpart are not OSWI units subject to this subpart. While not all OSWI units will include all of the following components, an OSWI unit includes, but is not limited to, the municipal or institutional solid waste feed system, grate system, flue gas system, waste heat recovery equipment, if any, and bottom ash system. The OSWI unit does not include air pollution control equipment or the stack. The OSWI unit boundary starts at the municipal or institutional waste hopper (if applicable) and extends through two areas:

- (1) The combustion unit flue gas system, which ends immediately after the last combustion chamber or after the waste heat recovery equipment, if any; and
- (2) The combustion unit bottom ash system, which ends at the truck loading station or similar equipment that transfers the ash to final disposal. The OSWI unit includes all ash handling systems connected to the bottom ash handling system.

Reconstruction means rebuilding an incineration unit and meeting two criteria:

- (1) The reconstruction begins on or after June 16, 2006.
- (2) The cumulative cost of the construction over the life of the incineration unit exceeds 50 percent of the original cost of building and installing the unit (not including land) updated to current costs (current dollars). For an OSWI unit, to determine what systems are within the boundary of the unit used to calculate these costs, see the definition of OSWI unit.

Excluded Units in Subpart EEEE (§ 60.2887)

This subpart excludes the types of units described in paragraphs (a) through (q) of this section, as long as you meet the requirements of this section.

- (a) *Cement kilns.* Your unit is excluded if it is regulated under subpart LLL of part 63 of this chapter (National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry).
- (b) *Co-fired combustors.* Your unit, that would otherwise be considered a very small municipal waste combustion unit, is excluded if it meets the five requirements specified in paragraphs (b)(1) through (5) of this section.
 - (1) The unit has a Federally enforceable permit limiting the combustion of municipal solid waste to 30 percent of the total fuel input by weight.
 - (2) You notify the Administrator that the unit qualifies for the exclusion.
 - (3) You provide the Administrator with a copy of the Federally enforceable permit.
 - (4) You record the weights, each calendar quarter, of municipal solid waste and of all other fuels combusted.



Nebraska New Source Performance Standards (NSPS) Applicability Review DEQ For the General Incinerator Operating Permit Application

- (5) You keep each report for 5 years. These records must be kept on site for at least 2 years. You may keep the records off site for the remaining 3 years.
- (c) *Cogeneration facilities.* Your unit is excluded if it meets the three requirements specified in paragraphs (c)(1) through (3) of this section.
- (1) The unit qualifies as a cogeneration facility under section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)).
 - (2) The unit burns homogeneous waste (not including refuse-derived fuel) to produce electricity and steam or other forms of energy used for industrial, commercial, heating, or cooling purposes.
 - (3) You notify the Administrator that the unit meets all of these criteria.
- (d) *Commercial and industrial solid waste incineration units.* Your unit is excluded if it is regulated under subparts CCCC or DDDD of this part and is required to meet the emission limitations established in those subparts.
- (e) *Hazardous waste combustion units.* Your unit is excluded if it meets either of the two criteria specified in paragraph (e)(1) or (2) of this section.
- (1) You are required to get a permit for your unit under section 3005 of the Solid Waste Disposal Act.
 - (2) Your unit is regulated under 40 CFR part 63, subpart EEE (National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors).
- (f) *Hospital/medical/infectious waste incinerators.* Your unit is excluded if it is regulated under subparts Ce or Ec of this part (New Source Performance Standards and Emission Guidelines for Hospital/Medical/Infectious Waste Incinerators).
- (g) *Incinerators and air curtain incinerators in isolated areas of Alaska .* Your incineration unit is excluded if it is used at a solid waste disposal site in Alaska that is classified as a Class II or Class III municipal solid waste landfill, as defined in § 60.2977.
- (h) *Rural institutional waste incinerators .* Your incineration unit is excluded if it is an institutional waste incineration unit, as defined in § 60.2977, and the application for exclusion described in paragraphs (h)(1) and (2) of this section has been approved by the Administrator.
- (1) Prior to initial startup, an application and supporting documentation demonstrating that the institutional waste incineration unit meets the two requirements specified in paragraphs (h)(1)(i) and (ii) of this section must be submitted to and approved by the Administrator.
 - (i) The unit is located more than 50 miles from the boundary of the nearest Metropolitan Statistical Area,
 - (ii) Alternative disposal options are not available or are economically infeasible.
 - (2) The application described in paragraph (h)(1) of this section must be revised and resubmitted to the Administrator for approval every 5 years following the initial approval of the exclusion for your unit.
 - (3) If you re-applied for an exclusion pursuant to paragraph (h)(2) of this section and were denied exclusion by the Administrator, you have 3 years from the expiration date of the



Nebraska New Source Performance Standards (NSPS) Applicability Review DEQ For the General Incinerator Operating Permit Application

current exclusion to comply with the emission limits and all other applicable requirements of this subpart.

(i) *Institutional boilers and process heaters.* Your unit is excluded if it is regulated under 40 CFR part 63, subpart DDDDD (National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters).

(j) *Laboratory Analysis Units.* Your unit is excluded if it burns samples of materials only for the purpose of chemical or physical analysis.

(k) *Materials recovery units.* Your unit is excluded if it combusts waste for the primary purpose of recovering metals. Examples include primary and secondary smelters.

(l) *Pathological waste incineration units.* Your institutional waste incineration unit or very small municipal waste combustion unit is excluded from this subpart if it burns 90 percent or more by weight (on a calendar quarter basis and excluding the weight of auxiliary fuel and combustion air) of pathological waste, low-level radioactive waste, and/or chemotherapeutic waste as defined in § 60.2977 and you notify the Administrator that the unit meets these criteria.

(m) *Small or large municipal waste combustion units.* Your unit is excluded if it is regulated under subparts AAAA, BBBB, Ea, Eb, or Cb, of this part and is required to meet the emission limitations established in those subparts.

(n) *Small power production facilities.* Your unit is excluded if it meets the three requirements specified in paragraphs (n)(1) through (3) of this section.

- (1) The unit qualifies as a small power-production facility under section 3(17)(C) of the Federal Power Act (16 U.S.C. 796(17)(C)).
- (2) The unit burns homogeneous waste (not including refuse-derived fuel) to produce electricity.
- (3) You notify the Administrator that the unit meets all of these criteria.

(o) *Temporary-use incinerators and air curtain incinerators used in disaster recovery.* Your incineration unit is excluded if it is used on a temporary basis to combust debris from a disaster or emergency such as a tornado, hurricane, flood, ice storm, high winds, or act of bioterrorism and you comply with the requirements in § 60.2969.

(p) *Units that combust contraband or prohibited goods.* Your incineration unit is excluded if the unit is owned or operated by a government agency such as police, customs, agricultural inspection, or a similar agency to destroy only illegal or prohibited goods such as illegal drugs, or agricultural food products that can not be transported into the country or across State lines to prevent biocontamination. The exclusion does not apply to items either confiscated or incinerated by private, industrial, or commercial entities.

(q) *Incinerators used for national security.* Your incineration unit is excluded if it meets the requirements specified in either (q)(1) or (2) of this section.

- (1) The incineration unit is used solely during military training field exercises to destroy national security materials integral to the field exercises.
- (2) The incineration unit is used solely to incinerate national security materials, its use is necessary to safeguard national security, you follow the exclusion request requirements in paragraphs (q)(2)(i) and (ii) of this section, and the Administrator has approved your request for exclusion.



Nebraska **New Source Performance Standards (NSPS) Applicability Review** **DEQ For the General Incinerator Operating Permit Application**

- (i) The request for exclusion and supporting documentation must demonstrate both that the incineration unit is used solely to destroy national security materials and that a reliable alternative to incineration that ensures acceptable destruction of national security materials is unavailable, on either a permanent or temporary basis.
- (ii) The request for exclusion must be submitted to and approved by the Administrator prior to initial startup.