

BEFORE THE
OHIO ENVIRONMENTAL PROTECTION AGENCY

1/7/2021

In the Matter of:

Commercial Hazardous Waste	:	<u>Director's Findings of Fact and</u>
Incinerator Capacity Assessment	:	<u>Capacity Assessment</u>
	:	
	:	

PREAMBLE

Amended Substitute House Bill no. 604 (HB 604), effective on April 15, 1993, enacted Ohio Revised Code (ORC) Sections 3734.123 and 3734.124 relating to, inter alia, commercial hazardous waste incinerator capacity. ORC Section 3734.123 requires the Director of Environmental Protection (Director) to prepare, publish, and issue a triennial assessment of the commercial hazardous waste incinerator capacity in Ohio. Except as otherwise provided in ORC Section 3734.124, ORC Section 3734.123 prohibits Ohio EPA from issuing hazardous waste facility installation and operation permits for new commercial hazardous waste incinerators and also prohibits Ohio EPA from modifying permits for existing commercial hazardous waste incinerators to increase either the treatment capacity or quantity of hazardous waste authorized to be treated.

ORC Section 3734.124 requires the Director, promptly after issuing a triennial assessment under ORC Section 3734.123, to determine whether it is necessary to continue the restrictions established in ORC Section 3734.123. ORC Section 3734.124 authorizes the future issuance of commercial hazardous waste incinerator permits and the modification of such incinerators only if the Director determines that the availability of additional commercial hazardous waste incinerator capacity is necessary or appropriate to protect human health or safety or the environment.

I. JURISDICTION

This Commercial Hazardous Waste Incinerator Capacity Assessment documents the Director's assessment of the commercial hazardous waste incinerator capacity in Ohio as of the effective date of this action. This Capacity Assessment is issued pursuant to the authority vested in the Director of the Ohio Environmental Protection Agency (Ohio EPA) by the Ohio General Assembly through the enactment of ORC Section 3734.123.

1. ORC Section 3734.123(B) requires the Director to "*prepare, publish, and issue as a final action an assessment of commercial hazardous waste incinerator capacity in this state,*" not sooner than three years after the effective date of ORC Section 3734.123 (i.e., not sooner than April 15, 1996), and triennially thereafter.
2. ORC Section 3734.123(B) provides that the assessment "shall determine the

amount of commercial hazardous waste incinerator capacity needed to manage the hazardous waste expected to be generated in this state and imported into this state for incineration at commercial hazardous waste incinerators during the next succeeding twenty calendar years."

3. ORC Section 3734.123(B) also provides that the assessment shall include at least all of the following:
 - a) A determination of the aggregate treatment capacity authorized at commercial hazardous waste incinerators located in Ohio;
 - b) A determination of the quantity of hazardous waste generated in Ohio that is being treated at commercial hazardous waste incinerators located in Ohio (hereinafter referred to as "in-state waste") and projections of the quantity of hazardous waste generated in Ohio that will be treated at those facilities;
 - c) A determination of the quantity of hazardous waste generated outside Ohio that is being treated at commercial hazardous waste incinerators located in Ohio (hereinafter referred to as "import waste") and projections of the quantity of hazardous waste generated outside Ohio that will be treated at those facilities;
 - d) A determination of the quantity of hazardous waste generated in Ohio that is being treated at commercial hazardous waste incinerators located outside Ohio (hereinafter referred to as "export waste"), and projections of the quantity of hazardous waste generated in Ohio that will be treated at those facilities;
 - e) The amount of commercial hazardous waste incinerator capacity that the Director reasonably anticipates will be needed during the first three years of the planning period to treat hazardous waste generated from the remediation of sites in Ohio that are on the National Priority List required under the "Comprehensive Environmental Response, Compensation, and Liability Act of 1980," 94 Stat. 2767, 42 U.S.C.A. 9601, as amended; as a result of corrective actions implemented under the "Resource Conservation and Recovery Act of 1976," 90 Stat. 2806, 42 U.S.C.A. 6921, as amended (RCRA); and as a result of clean-up activities conducted at sites listed on the Master Sites List prepared by Ohio EPA (hereinafter referred to as "remediation waste");
 - f) Based on available data, provided that the data are reliable and are compatible with the data base of the Ohio EPA, an identification of any hazardous waste first listed as a hazardous waste in regulations adopted under RCRA, on or after the effective date of ORC Section 3734.123 (i.e.,

April 15, 1993), and of

any hazardous waste that has been proposed for such listing by publication of a notice in the Federal Register on or before December 1 of the year immediately preceding the triennial assessment (i.e., December 1, 2010) (hereinafter referred to as "newly listed waste"); and

- g) An analysis of other factors that may result in capacity changes over the period addressed by the assessment.

II. FINDINGS OF FACT

This assessment presents the current and projected commercial hazardous waste incineration capacity in Ohio. This assessment is based upon data compiled by Ohio EPA.

1. Authorized Commercial Hazardous Waste Incinerator Treatment Capacity

- a) Currently, in Ohio, there are two "commercial hazardous waste incinerators," as that term is defined in ORC Section 3734.123(A). The first is located in Grafton, and is owned and operated by Ross Incineration Services, Inc. (Ross), and the second is located in East Liverpool, and is owned and operated by Heritage Thermal Services, Inc. (HTS).
- b) On January 29, 2014, Ohio EPA issued an Ohio hazardous waste facility installation and operation renewal permit to Ross. On January 17, 2019, Ohio EPA issued to HTS an Ohio hazardous waste facility installation and operation renewal permit.
- c) Based upon the above-referenced permits, Ohio EPA has determined that total authorized commercial hazardous waste incineration capacity in Ohio is 281,120 tons per year.
- d) There are no known factors that indicate a change in this authorized capacity figure in the future.

2. Current and Projected Commercial Hazardous Waste Incinerator Capacity: Process-Generated Hazardous Waste

- a) Hazardous waste generation and management capacity data is compiled primarily from biennial reports that hazardous waste generators submit to Ohio EPA pursuant to Ohio Administrative Code (OAC) Rule 3745-52-41, and from biennial reports that owners/operators of hazardous waste treatment, storage or disposal facilities submit to Ohio EPA pursuant to OAC Rule 3745-54-75. The calendar year 2019 was selected as the base year because it is

the most recent reporting year for which complete data is available at the time of this assessment.

- b) Quantities of hazardous waste projected to be treated at commercial hazardous waste incinerators are based upon current quantities of hazardous waste treated at such facilities, as reported in the 2019 biennial hazardous waste reports. The "import waste" and "in-state waste" quantities were determined from the biennial reports that commercial hazardous waste incinerator facilities file on the waste they treated during the year. The "export waste" quantity was determined from the annual reports that hazardous waste generators file on the waste they shipped out of state during the year.
- c) In 2019, a total of 12,502 tons of hazardous waste generated in Ohio was treated by commercial hazardous waste incinerators located in Ohio ("in-state waste"). See Table 1. Hazardous waste generated outside of Ohio and treated by commercial hazardous waste incinerators located in Ohio ("import waste") totaled 90,587 tons. Hazardous waste generated in Ohio and treated by commercial hazardous waste incinerators located outside Ohio ("export waste") totaled 21,880 tons.
- d) In projecting the quantity of hazardous waste that will be treated by commercial hazardous waste incinerators in the future, Ohio EPA anticipates that future quantities of process-generated hazardous waste treated by commercial hazardous waste incinerators will remain generally consistent with the 2019 data reported in Table 1. Accordingly, for the period 2021 - 2040, the quantity of hazardous waste to be generated in Ohio and treated by commercial incinerators in Ohio is projected to be 12,502 tons per year, the quantity of hazardous waste to be generated outside of Ohio and treated by commercial incinerators in Ohio is projected to be 90,587 tons per year, and the quantity of hazardous waste generated in Ohio and treated by commercial hazardous waste incinerators located outside Ohio is projected to be 21,880 tons per year.

TABLE 1 Commercial Hazardous Waste Incinerator Treatment Quantities 2019 (short tons)			
	Ross	HTS	Total
In-state waste	10,050	2,452	12,502
Import waste	45,793	44,794	90,597
Export waste			21,880

3. **Projected Commercial Hazardous Waste Incinerator Capacity: Remediation-Generated Hazardous Waste**

- a) The estimated quantities of remediation-generated hazardous waste are based upon biennial reports that hazardous waste generators submit to Ohio EPA pursuant to OAC Rule 3745-52-41, biennial reports that owners/operators of hazardous waste treatment, storage or disposal facilities submit to Ohio EPA pursuant to OAC Rule 3745-54-75.
- b) Based upon the data contained in the biennial reports described above, Ohio EPA projected the demand for commercial incineration capacity in 2021 - 2024 due to anticipated remediation activities. See Table 2. Quantities of remediation waste projected to be generated in Ohio and projected to be incinerated at Ohio commercial hazardous waste incinerator facilities are based upon current quantities of remediation waste generated in Ohio that are incinerated at Ohio commercial hazardous waste incinerator facilities. The maximum annual demand for commercial hazardous waste incinerator capacity due to anticipated remediation activities for the three year planning period is projected to be 812 tons in 2021.

TABLE 2 Remediation-Generated Hazardous Waste: Projected Demand for Commercial Incinerator Capacity by Source 2021 -2023 (short tons)			
	2021	2022	2023
Superfund Remedial or Emergency Response Action	277	277	277
State Program or Voluntary Cleanup	322	322	322
RCRA Corrective Action	23	23	23
RCRA Closure	0	0	0
Hazardous Substance USTs	2	2	2
Other Remediation	188	188	188
All Sources	812	812	812

Source: Ohio EPA, Biennial Reports Submitted by Large Quantity Hazardous Waste Generators, 2019.

4. **Demand for Commercial Hazardous Waste Incineration from Newly Listed Waste.**

- a) Newly listed hazardous waste may create a future demand for commercial hazardous waste incineration capacity. Table 3 lists hazardous wastes that were listed or proposed to be listed by U.S. EPA in the Federal Register during the period from April 15, 1993 through December 1, 2020.

TABLE 3 Newly Listed Hazardous Wastes and Hazardous Wastes Proposed for Listing by U.S. EPA April 15, 1993 through December 1, 2020		
Waste Codes	Proposal Date	Effective Date
Chlorinated Toluene Production Waste K149, K150, K151	10/11/1991	04/15/1993 (FR 10/15/1992)
Waste from Wood Surface Protection F033	04/27/1993	FR 01/04/1994 a
Beryllium Powder P015	--	06/20/1994 b (FR 06/20/1994)
Carbamate Production Wastes K156, K157, K158, K159, K160, K161, P127, P128, P185, P188, P189, P190, P192, P194, P196, P197, P198, P199, P201, P202, P203, P204, P205, U271, U277, U278, U279, U280, U364, U366, U367, U372, U373, U375, U376, U377, U378, U379, U381, U382, U383, U384, U385, U386, U387, U389, U390, U391, U392, U393, U394, U395, U396, U400, U401, U402, U403, U404, U407, U409, U410, U411	03/01/1994	08/09/1995 (FR 02/09/1995)
P128, P188, P198		04/17/1995 b (FR 04/17/1995)
P128		08/09/1995 b (FR 05/12/1995)
K156, K157, K158		05/29/1997 b (FR 06/17/1997)

TABLE 3 Continued		
Waste Codes	Proposal Date	Effective Date
K160, U277, U365, U366, U375, U376, U377, U378, U379, U381, U382, U383, U384, U385, U386, U390, U391, U392, U393, U396, U400, U401, U402, U403, U407		05/29/1997 c (FR 06/17/1997)
K159, K161, P127, P128, P185, P188, P189, P190, P191, P192, P194, P196, P197, P198, P199, P201, P202, P203, P204, P205, P271, P278, P279, P280, U364, U367, U372, U373, U387, U389, U394, U395, U404, U409, U410, U411		05/29/1997 d (FR 06/17/1997)
Organobromine Production Waste K140, U408	05/11/1994	08/10/1998 (FR 05/04/1998)
K140, U408		03/17/2000 c (FR 03/17/2000)
Wastes from Dye and Pigment Industries K162, K163, K164, K165, K166	12/22/1994	Not Yet Final
Petroleum Refining Process Waste K169, K170, K171, K172	11/20/1995	12/08/1998 (FR 08/06/1998)
F037		12/08/1998 b (FR 08/06/1998)
F037		06/08/2000 b (FR 06/08/2000)
Vacature of Waste Codes K064, K065, K066, K090, K091	Court Decision Dated 04/09/1999	10/20/1999 c (FR 10/20/1999)
Vacature of Waste Codes K064, K065, K066, K090, K091	Court Decision Dated 04/09/1999	10/20/1999 c (FR 10/20/1999)
Chlorinated Aliphatic Production Wastes K174, K175	08/25/1999	05/07/2001 (FR 11/08/2000)
Chlorinated Aliphatic Production Wastes K174, K175	08/25/1999	05/07/2001 (FR 11/08/2000)

TABLE 3 Continued		
Waste Codes	Proposal Date	Effective Date
Inorganic Chemical Manufacturing Wastes K176, K177, K178	09/14/2000	05/20/2002 (FR 11/20/2001)
Nonwastewaters from the Production of Dyes, Pigments, and Food, Drug, and Cosmetic Colorants, Mass-loading Based Listing K181	11/25/2003	08/23/2005 (FR 02/24/2005)
Wastewater Treatment Sludges from Zinc Phosphating in Motor Vehicle Manufacturing F019	01/18/2007	07/07/2008 b (FR 06/04/2008)
Removal of Saccharin and Its Salts from the Lists of Hazardous Wastes, Hazardous Constituents, and Hazardous Substances U202	04/22/2010	01/18/2011 c (FR 12/17/2010)
Coal Combustion Residuals- Special Wastes S001	06/21/2010	10/05/2020 (FR 10/19/2015)
P075 – Amended for nicotine		FR (02/22/2019) b
a. U.S. EPA decided not to list this waste at this time. b. U.S. EPA amended these waste codes. c. U.S. EPA removed these waste codes from the list. d. U.S. EPA maintained these waste codes without amendment.		

- b) Ohio EPA does not have past data to project the amount of newly listed hazardous waste that will be treated by commercial incineration. However, the few wastes that were listed since 2000 are not expected to significantly alter the projected demand for commercial hazardous waste incineration capacity because many such newly listed wastes are already considered to be hazardous waste and managed accordingly by many generators, due to the hazardous waste characteristics of such newly listed wastes, see OAC Rule 3745-51-20, et seq.

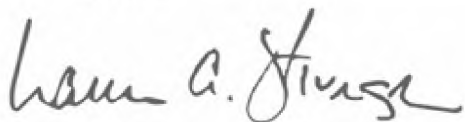
5. Other Factors Affecting Projected Demand for Commercial Hazardous Waste Incinerator Capacity

- a) Ohio EPA anticipates that the maximum annual demand for commercial hazardous waste incinerator capacity due to remediation activities during the period 2021 - 2023, will be 812 tons. This projection includes all of the remediation activities listed in Table 2.

- b) U.S. EPA and the states continue to focus resources on accelerating cleanups and minimizing risks to human health and the environment at Superfund sites, facilities required to implement RCRA corrective action and properties participating in state cleanup programs. This is likely to continue at least through 2023. This may result in the generation of additional remediation wastes beyond what was generated in 2019. However, according to the hazardous waste biennial reports submitted by Ohio generators in 2019, around three percent of that remediation waste was shipped to Ohio's commercial hazardous waste incinerators for treatment. Waste minimization efforts and the increasing reliance on land use and activity restrictions designed to limit exposure to hazardous waste that remains on-site will likely minimize any increased demand for commercial hazardous waste incineration capacity.

III. ASSESSMENT

1. Total commercial incineration capacity is projected to remain 281,120 tons per year during the period 2021 - 2040.
2. Total projected demand for commercial hazardous waste incineration of process-generated hazardous wastes (including "in-state waste" and "import waste") is 103,099 tons per year during the period 2021 - 2040.
3. Remediation-generated hazardous wastes constitute an additional annual demand for commercial hazardous waste incineration capacity of up to 812 tons during the period 2021 - 2040.
4. Newly listed hazardous wastes are not anticipated to significantly increase demand for commercial hazardous waste incineration capacity.
5. The Director concludes that there will be adequate capacity to handle the expected demand for commercial hazardous waste incineration during the period 2021 - 2040.



Laurie A. Stevenson
Director

1/7/2021

Date