6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 261

[EPA-R10-RCRA-2019-0662; SW-FRL-10001-79-Region 10]

Hazardous Waste Management System; Proposed Exclusion for Identifying and Listing Hazardous Waste

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule and request for comment.

SUMMARY: The Environmental Protection Agency (also, "the Agency" or "we" in this preamble) is proposing to grant three petitions submitted jointly by Emerald Kalama Chemical, LLC (Emerald) and Fire Mountain Farms, Inc (FMF) (Petitioners), in Lewis County, Washington to exclude (or "delist") a one-time amount up to 20,100 cubic yards of U019 (benzene) and U220 (toluene) mixed material from the list of federal hazardous wastes. These wastes are limited to those associated with closure of hazardous waste management units at three facilities owned and operated by FMF pursuant to closure plans to be approved by the Washington State Department of Ecology (Ecology). The Agency is proposing to grant the petition based on an evaluation of waste-specific information provided by the Petitioners. This proposed decision, if finalized, conditionally excludes the petitioned waste from the requirements of hazardous waste regulations under the Resource Conservation and Recovery Act.

DATES: Comments must be received on or before **[Insert date 30 days after publication in the FEDERAL REGISTER]**. Requests for an informal hearing must

reach the EPA by **[Insert date 15 days after publication in the FEDERAL REGISTER]**.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R10-RCRA-2019-0662 using one of the following methods:

• www.regulations.gov: Follow the on-line instructions for submitting comments.

• Mail: to Dr. David Bartus, Office of Air and Waste, EPA, Region 10, 1200 6th Avenue, Suite 155, M/S 15-H04, Seattle, Washington 98101.

• Hand Delivery: to Dr. David Bartus, Office of Air and Waste, EPA, Region 10, 1200 6th Avenue, Suite 155, OAW-150, Seattle, Washington 98101. Such deliveries are only accepted during normal hours of operation. Please contact David Bartus at (206) 553-2804.

Instructions: Direct your comments to Docket ID No. EPA-R10-RCRA-2019-0662. The EPA's policy is that all comments received will be included in the public docket without change and may be made available online at www.regulations.gov, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through www.regulations.gov or e-mail. The www.regulations.gov website is an "anonymous access" system, which means the EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to the EPA without going through www.regulations.gov your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an

electronic comment, the EPA recommends that you include your name and other contact information in the body of your comment and with any physical media you submit. If the EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, the EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

Any person may request an informal hearing on this proposed decision by filing a request with Timothy Hamlin, Director, Office of Land, Chemicals and Redevelopment Division, EPA, Region 10, 1200 6th Ave., Suite 155, M/S 15-H04, Seattle, Washington 98101. The request must contain the information prescribed in 40 Code of Federal Regulations CFR 260.20(d).

Docket: All documents in the docket are listed in the www.regulations.gov index. Although listed in the index, some information may not be publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through www.regulations.gov or in hard copy at the RCRA Records Center, 16th floor, U.S. EPA, Region 10, 1200 6th Avenue, Suite 155, M/S 16-C09, Seattle, Washington 98101. This facility is open from 8:30 a.m. to 4:00 p.m., Monday through Friday, excluding legal holidays. We recommend you telephone David Bartus at (206) 553-2804 before visiting the Region 10 office. The public may copy material from the regulatory docket at 15 cents per page.

FOR FURTHER INFORMATION, CONTACT: Dr. David Bartus, EPA, Region 10,

1200 6th Avenue, Suite 155, M/S 15-H04, Seattle, Washington 98070; telephone number: (206) 553-2804; fax number (206) 553-8509; e-mail address: bartus.dave@epa.gov.

As discussed in Section V below, Ecology is evaluating the Petitioners' petitions under state authority. Information on Ecology's action may be found at https://fortress.wa.gov/ecy/publications/SummaryPages/1907021.html

SUPPLEMENTARY INFORMATION:

The information in this section is organized as follows:

I. Overview Information

The EPA is proposing to grant three petitions submitted jointly by Emerald Kalama Chemical, LLC (Emerald) and Fire Mountain Farms, Inc (FMF) (Petitioners), in

Lewis County, Washington to exclude (or "delist") a one-time combined amount up to 20,100 cubic yards of U019 (benzene) and U220 (toluene) hazardous wastes from the list of federal hazardous waste set forth in 40 Code of Federal Regulations CFR 261.33[1]. These three petitions apply to three separate facilities owned and operated by FMF, and each manage wastes that are sufficiently similar that the EPA is electing to propose its decision to grant the petitions concurrently through this Federal Register notice. The Petitioners claim that each of the petitioned wastes do not meet the criteria for which the EPA listed it, and that there are no additional constituents or factors which could cause the waste to be hazardous. These exclusions apply only to wastes associated with closure of hazardous waste management units at the three FMF facilities pursuant to an approved closure plan. The exclusion is effective when the wastes are removed from the respective hazardous waste management units, or otherwise generated pursuant to the corresponding approved closure plan.

Based on our review described in Section III, we propose to make a determination that the petitioned wastes are non-hazardous with respect to listed waste codes that originally applied. As part of our supporting analysis, we reviewed the description of the process which generated the wastes and the analytical data submitted by the Petitioners. We believe that the petitioned wastes do not meet the criteria for which the waste was originally listed, that they do not exhibit any hazardous waste characteristic, and that there are no other factors which might cause the waste to be hazardous. Accordingly, EPA is proposing to find that the petitioned wastes may be safely managed as non-listed hazardous wastes. EPA notes that while the burden of demonstrating that a delisted waste

[1] The facility-specific waste volumes are documented in Section III.A.

does not also exhibit a hazardous characteristic remains with the facility, the data provided by the Petitioners demonstrate that the candidate wastes do not exhibit a hazardous characteristic. Subject to state-only requirements within the state of Washington, or federally-authorized or state-only requirements in other states where the subject wastes may be disposed of, the petitioned wastes must be disposed of in a Subtitle D landfill which is permitted, licensed, or registered by a State to manage industrial solid waste.

II. Background

A. What are the listed wastes associated with this Petition?

The EPA published an amended list of discarded commercial chemical products, off-specification species, container residues and spill residues thereof on November 25, 1980 (45 FR 78541), as part of its final and interim final regulations implementing § 3001 of Resource Conservation and Recovery Act (RCRA). The EPA has amended this list several times and published it in 40 CFR 261.33.

We list these wastes as hazardous because: (1) they typically and frequently exhibit one or more of the characteristics of hazardous wastes identified in 40 CFR part 261 Subpart C (that is, ignitability, corrosivity, reactivity, and toxicity) or (2) they meet the criteria for listing contained in § 261.11(a)(2) or (3).

B. What is a delisting petition?

Individual waste streams may vary depending on raw materials, industrial processes, and other factors. Thus, while a waste from a source listed in the regulations as "hazardous" is by definition hazardous, a specific waste from an individual generating facility and from a source meeting the listing description may produce wastes that vary

significantly from the wastes EPA considered in establishing the waste listing.

A procedure to exclude or delist a waste is provided in 40 CFR 260.20 and 260.22 which allows a person or a facility to submit a petition to the EPA or to an authorized state demonstrating that a specific waste from a particular generating facility should not be regulated as hazardous.[2]

In a delisting petition, the petitioner must show that a waste does not meet any of the criteria for listed wastes in 40 CFR 261.11 and that the waste does not exhibit any of the hazardous waste characteristics of ignitability, reactivity, corrosivity, or toxicity. The petitioner must present sufficient information for EPA to decide whether any factors in addition to those for which the waste was listed warrant retaining it as a hazardous waste. (See 40 CFR 260.22 and 42 U.S.C. 6921(f).) EPA's basis for originally listing the wastes associated with this petition may be found at 45 FR 78532.

If a delisting petition is granted, the specific waste(s) identified in the delisting will be excluded from the associated lists(s) of hazardous waste in 40 CFR part 261 Subpart D so long as conditions in the delisting are met. A waste which is so excluded, however, may still exhibit a characteristic and thus be a hazardous waste by operation of 40 CFR part 261 Subpart C. EPA notes that while the burden of demonstrating that a delisted waste does not also exhibit a hazardous characteristic remains with the facility, the data provided by the Petitioners demonstrate that the candidate wastes do not exhibit a hazardous characteristic.

C. What factors did EPA consider in deciding whether to grant a delisting petition?

[2] Washington State's promulgated regulations at WAC 173-303-910(3) correspondence to the federal regulation. However, Washington State has not received final authorization to implement these regulations in lieu of federal program. As such, they are effective concurrent with 40 CFR 260.20 and 260.22 on a state-only basis.

In reviewing this petition, we considered the original listing criteria and the additional factors required by the Hazardous and Solid Waste Amendments of 1984 (HSWA). See § 222 of HSWA, 42 U.S.C. 6921(f), and 40 CFR 260.22(d)(2) through (4). We evaluated the petitioned wastes against the listing criteria and factors cited in § 261.11(a)(2) and (3).

In addition to the criteria in 40 CFR 260.22(a), 261.11(a)(2) and (3), 42 U.S.C. 6921(f), and in the background documents for the listed wastes, EPA also considered any factors (including additional constituents) other than those for which we listed the waste if these additional factors could cause the waste to be hazardous.

Our proposed decision to grant the petitions to delist the waste from the identified FMF facilities in Lewis County, Washington is based on our evaluation of the wastes for factors or criteria which could cause the waste to be hazardous. These factors included: (1) whether the waste is considered acutely toxic; (2) the toxicity of the constituents; (3) the concentration of the constituents in the waste; (4) the tendency of the constituents to migrate and to bioaccumulate; (5) the persistence in the environment of any constituents once released from the waste; (6) plausible and specific types of management of the petitioned waste; (7) the quantity of waste produced; and (8) waste variability.

The EPA must also consider as hazardous wastes mixtures containing listed hazardous wastes and wastes derived from treating, storing, or disposing of listed hazardous waste. See 40 CFR 261.3(a)(2)(iv) and (c)(2)(i), called the "mixture" and "derived-from" rules, respectively. Mixture and derived-from wastes are also eligible for exclusion but remain hazardous until excluded.

III. EPA's Evaluation of the Waste Information and Data

A. What waste did the Petitioners petition the EPA to delist?

Emerald manufactures various organic chemicals used as artificial flavors and fragrances, food preservatives, plasticizers, and intermediates at their facility in Kalama, Washington. Most of the chemicals produced are derived from toluene or from the oxidation products of toluene, including benzoic acid and benzaldehyde. Additional products are produced as derivatives of benzoic acid and benzaldehyde. Products are typically purified by continuous or batch distillation. In conjunction with its manufacturing processes, Emerald operates an industrial wastewater treatment system, consisting of an anaerobic digestion process and an aerobic oxidation system, both of which are biological treatment systems very similar to municipal wastewater treatment systems. This treatment system produces industrial wastewater treatment plant biological solids (IWBS). As documented in the Petitioner's delisting petition, the IWBS designates as U019 (benzene) and U220 (toluene).

FMF operates receiving, storage, treatment, and land application facilities in Lewis County, Washington for wastewater treatment plant treatment solids received from municipal, industrial, and private wastewater treatment plants. FMF is not permitted or otherwise authorized to manage, treat, or dispose of hazardous or dangerous wastes[3]. Emerald contracted with FMF to land apply Emerald's IWBS beginning in October 1995. FMF mixed Emerald's IWBS with treatment solids from other facilities and land applied or stored the mixed IWBS/treatment solids wastes at several FMF facilities. The RCRA

[3] Within Ecology's authorized hazardous waste program, "hazardous" refers to those wastes regulated by the federal RCRA program. "Dangerous" refers to additional wastes that Ecology's regulates as a broader in scope provision of their program.

rules require that listed hazardous wastes, when mixed with other materials, continue to be regulated as listed hazardous wastes (40 CFR 261.3). The mixed IWBS/treatment solids wastes are currently stored at three FMF facilities: Burnt Ridge located at 856 Burnt Ridge Road, Onalaska, Washington; Newaukum Prairie located at 349 State Route 508, Chehalis, Washington; and Big Hanaford located at 307 Big Hanaford Road, Centralia, Washington[4]. Under a separate action (See footnote 4), the Washington State Department of Ecology is requiring that Emerald and FMF remove these wastes from the three units according to closure plans approved pursuant to WAC 173-303-610.

The Petitioners have requested that up to 4,700 cubic yards at the Burnt Ridge facility, 10,400 cubic yards at the Newaukum Prairie facility, and 5,000 cubic yards at the Big Hanaford facility of IWBS/treatment solids be excluded from the list of hazardous wastes[5].

B. How did the Petitioners generate the waste?

In a delisting petition for its IWBS wastes separate from today's proposed exclusions, Emerald documented that its industrial wastewater treatment system from which IWBS is derived manages wastewaters from multiple sources within the facility.

[4] The Washington State Department of Ecology has entered into a litigation settlement (Docket Entry 3) with Fire Mountain Farms and Emerald-Kalama that, in part, requires closure of the units managing dangerous waste considered int his proposed delisting rule. In this context, today's proposed delisting rule is a "one-time" delisting that, if finalized, will allow the fixed volume of wastes to be generated pursuant to closure of these three units as non-hazardous.

[5] The delisting petitions submitted by the Petitioners requested exclusion of a waste volumes less than those cited in this proposed rule. Because these wastes will be managed on a one-time basis as part of closure of the respective waste management units at the three FMF facilities, the EPA and Ecology have determined that it is appropriate to propose exclusion of a waste volume double that in the respective delisting petitions as a safety measure that will account for any additional wastes that may be generated pursuant to closure activities such as liners, debris, etc. The EPA notes that the requested quantity of wastes in the delisting petition itself was expressed on a mass (ton) basis. The "Waste Characterization Plan, Fire Mountain Farms, Mixed Material Storage Units, Lewis County, Washington" included in the petition, however, estimates the quantity of waste on a volumetric basis. The expanded waste volume in this proposed delisting reflect a doubling of the volumetric waste volumetric estimate documented in the Waste Characterization Plan.

The first source consists of contaminated groundwater from an extensive groundwater recovery system to prevent contaminated water from leaving the plant site. Water pumped from the North Impact Area (NIA), West Impact Area (WIA), and Intermediate Sand Recovery Wells (ISRW) contains commercial product toluene from historical releases and therefore the IWBS carry the listed hazardous waste code U220 (toluene). Historical data from 2014 through 2017 indicates that an average of 33.1 million gallons per year with a maximum of 38.6 million gallon per year was treated in the wastewater treatment unit (WWTU) that generates IWBS. The second source consists of stormwater that falls on the manufacturing process areas of the facility, which may become contaminated by spills or releases of the various raw materials, intermediates, products or byproducts of its manufacturing operations. The third source consists of process wastewater from manufacturing processes. These second and third sources may be impacted by trace amounts of pure product benzene from *de minimus* spills that are captured by the treatment system; therefore, the IWBS from the second and third source categories carry the listed hazardous waste code U019 (benzene).

Emerald provided the EPA with a detailed process flow diagram (Docket Entry 1) of the overall wastewater management system that documents the source of all wastewaters from which the candidate IWBS are generated and the various management processes that are applied to the wastewaters. Generally, process wastewater expected to have higher quantities of organic constituents from process units is routed to either the anaerobic digesters (ANTs) or to the aerobic digesters (BIOX), depending upon the types and concentrations of chemicals present. All of the effluent from ANTs is routed to

BIOX for final treatment. Groundwater and stormwater[6] with a low chemical oxygen demand (COD) are routed to the aerobic digesters (BIOX). This process flow arrangement, including flexibility to re-route wastewaters depending on their chemical makeup, helps ensure that concentrated free product from manufacturing process wastes or from spills is not introduced into the balance of the wastewater treatment system, and that the concentration of waste constituents entering the treatment system is maintained in a range that fosters microbial degradation. Wastewaters from the API separator are then routed to the aerobic digester system. The use of the API separator for wastewaters expected to have higher levels of organic constituents helps ensure that significant excursions in waste composition do not adversely affect performance of the wastewater treatment system. The effluent of the ANTS system is then routed to the aerobic digester and sludge filtration systems. Groundwater and stormwater expected to have lower COD levels bypass the API separator and are fed directly to the aerobic digester treatment system.

At the Burnt Ridge facility, FMF mixed IWBS from Emerald, treatment solids from municipal and industrial wastewater treatment plants, and cow manure water runoff from a barn in a surface impoundment that has approximate dimensions of 220 feet on each side and 14 feet deep. Once FMF mixed the IWBS with the other material, the mixed material became regulated as U019 and U220 listed hazardous wastes as noted earlier.

At the Newaukum Prairie facility, FMF mixed IWBS from Emerald and treatment

[6] Emerald also provide the EPA with a map of the facility indicating areas where stormwater is collected from various areas of the facility. See Docket Entry 2.

solids from municipal and industrial wastewater treatment plants in a surface impoundment that has approximate dimensions of 220 feet on each side and 12 feet deep. Once FMF mixed the IWBS with the other material, the mixed material became regulated as U019 and U220 listed hazardous wastes.

At the Big Hanaford facility, FMF mixed IWBS from Emerald and treatment solids from municipal and private wastewater treatment plants in a roofed concrete panel storage unit that has approximate dimensions of 100 feet by 60 feet and 11.5 feet deep. Once FMF mixed the IWBS with the other material, the mixed material became regulated as U019 and U220 listed hazardous wastes.

C. How did the Petitioners sample and analyze the petitioned wastes?

FMF conducted an investigation of the wastes at each of the three storage units in September 2014.[7] Three composite samples of the mixed IWBS/treatment solids wastes were collected from each storage unit. At Burnt Ridge and Newaukum Prairie, each composite sample consisted of nine grab samples collected from various depths. Each composite sample collected at Big Hanaford consisted of six grab samples collected from various depths.

Each composite sample was analyzed for the following constituents or constituent groups: volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), total metals, total cyanide, and total solids. The specific analytes included in the analysis are defined by the analytical method used for each group.

In addition, two composite samples from the Newaukum Prairie storage unit and

[7] This investigation is documented in the first report in Appendix C of the three delisting petitions (Docket Entries 7-9).

one composite sample each from the Burnt Ridge and Big Hanaford storage units were analyzed for the following parameters or constituent groups: pesticides; polychlorinated biphenyl (PCB) Aroclors; dioxins and furans, reported as 2,3,7,8-tetrachlorodibenzodioxin toxicity equivalence quotient (2,3,7,8-TCDD TEQ); ammonia; Total Kjeldahl Nitrogen (TKN); pH, nitrite; and nitrate + nitrite (the concentration of nitrate was calculated by the analytical laboratory). Fourteen grab samples from the Newaukum Prairie storage unit and seven grab samples each from the Burnt Ridge and Big Hanaford storage units were analyzed for total fecal coliform.

Emerald conducted additional sampling of the mixed IWBS/treatment solids wastes at each of the three storage units in August and October 2017.[8] Emerald performed the additional sampling based on the preliminary delisting levels and the September 2014 investigation. Samples from the storage units at Burnt Ridge, Newaukum Prairie, and Big Hanaford were analyzed for selected volatile organic compounds (acetone, benzene, methanol, and toluene), total solids, and pH. Samples from Big Hanaford were analyzed for total acrylonitrile; cobalt; 4-methylphenol; 2,4-dinitrotoluene; 2,6-dinitrotoluene; and naphthalene.

D. What were the results of EPA's analysis of the Petitioner's Waste?

The first step in the EPA's analysis of the petitioned wastes was to establish a list of potential constituents of concern (COCs) to guide further analysis of the waste and to establish initial delisting exclusion criteria. The EPA applied four criteria for identifying potential constituents of concern: (1) whether the constituent is used as an input to, or

[8] Results of these sampling activities are documented in the third report in Appendix C of the three delisting petitions (Docket Entries 7-9).

created as an intermediate, byproduct or finished product from Emerald's production processes; (2) whether the IWBS designates as hazardous for a particular constituent; (3) the expected frequency of occurrence in the IWBS; and (4) the toxicity of the constituent of concern. The EPA also considered results of the 2014 waste characterization study in Appendix C of the three petitions, as well as any additional constituents that may be typically found in municipal wastewater treatment biosolids.

The EPA first considered organic COCs. Based on the hazardous waste codes associated with wastewater that ultimately results in generation of IWBS (D018, U019, U220, U154 and U001), the EPA determined that benzene, toluene, methanol and acetaldehyde are COCs.[9] The EPA notes that benzene is generally regarded as difficult to treat and is an excellent indicator of overall performance of the WWTU processes, and the ability of the WWTU to effectively treat other organic constituents other than benzene. Based on principal products of Emerald's processes, the EPA determined that additional organic constituents including benzaldehyde, benzoic acid, formic acid, benzyl alcohol, and phenol should be retained as COCs. While at least some of these constituents are associated with products for human consumption or exposure, they have a level of toxicity that warrants retention as COCs for purposes of evaluating the candidate waste stream. Although several additional organic constituents are associated with Emerald's production processes, they are associated with products for human consumption or exposure, such as food preservatives and vitamins, fragrances and perfumes, and

[9] As noted in the delisting petition, IWBS designate only for U019 (benzene) and U220 (toluene) because due to an exception to RCRA's derived from rule, certain codes applicable to the wastewater do not carry through to the IWBS. However, as part of its evaluation of the IWBS waste stream and identification of COCs, the EPA also considered hazardous waste codes applicable to the wastewaters managed by the WWTU generating IWBS.

sunscreens, and do not have a degree of toxicity that warrants retention as COCs (Docket Entry 17). In addition, most if not all these additional organic constituents are highly amenable to biological treatment in the WWTS and are not expected to be present in the IWBS at levels anywhere near health-based levels that would be of concern in the delisting process.

Emerald's production process uses a range of catalysts, including several metallic catalysts that include cobalt, copper and nickel. On this basis, cobalt, copper and nickel are identified as constituents of concern. Although these three metals are not hazardous constituents, they are retained as "other factors" that may cause the waste to be retained as hazardous. Other metallic constituents are reported to have been detected in the IWBS waste stream that do not have a clear source related to Emerald's organic manufacturing process. These constituents include barium and zinc. Barium is a hazardous constituent and is present at levels in the IWBS so barium is retained as an "other factor" that may cause the waste to be retained as hazardous. Zinc is a common contaminant in industrial wastewater and is found in the IWBS at concentrations as high as 1,350 ppm dry weight, so zinc is retained as a constituent as an "other factor" that may cause the waste to be retained as hazardous.

In Emerald's production process, cobalt is used as a catalyst in both its metallic form (sponge cobalt) and as cobalt acetate. Although cobalt acetate poses environmental and human health risks, the acetate functional group is expected to be readily degraded in the WWTS, leaving metallic cobalt in the IWBS. Further, cobalt acetate is soluble in water, so that any remaining cobalt acetate that is not degraded to metallic cobalt in the WWTS is likely to partition into the effluent wastewater managed separately from the

IWBS. Thus, all forms of cobalt are considered to be metallic for purposes of the delisting evaluation of Emerald's IWBS.

Emerald's IWBS only constitute a small percentage (between 5% and 8%) of the total mixed IWBS/treatment solids wastes at each of the three storage units.

With respect to the biosolids component of the petitioned waste, the 2014 waste characterization report in Appendix C of the delisting petitions considered a very broad range of potential constituents of concern. The EPA first compared these characterization data reports to preliminary delisting levels (See the second report in Appendix C of the delisting petitions) calculated using the Delisting Risk Assessment Software (DRAS) model.[10] Any detected constituents at concentrations less than the preliminary delisting levels were removed from further consideration.[11] The remaining detected constituents exceeding a preliminary delisting level were retained for further evaluation in the 2017 waste characterization plan, also included in the second report in Appendix C of the delisting petitions. Results from this latter characterization work were then used as input to the DRAS modelling program discussed in the following section. After consideration of constituents typically found in biosolids (for example, as documented in the U.S. EPA National Sewage Sludge Survey available at https://www.epa.gov/biosolids/sewage-sludge-surveys), the EPA determined that no additional constituents of concern should be added for consideration in the delisting process.

The final list of constituents of concern evaluated in the delisting process are documented in Tables 2-4 below.

[10] Preliminary delisting levels were obtained for all DRAS constituents on a unit-specific basis considering the expected waste volume associated with each unit to be closed.

[11] The specific decision criteria that considered total concentrations, bounding leachability, and laboratory analysis detection limits are documented in the second report in Appendix C of the delisting petitions.

E. How did the EPA evaluate the risk of delisting this waste?

For this delisting determination, we evaluated the risk that the waste would be disposed of as a non-hazardous waste in a RCRA Subtitle D landfill and we considered transport of waste constituents through ground water, surface water and air. We evaluated the Petitioner's analysis of petitioned waste using the DRAS software to predict the concentration of hazardous constituents that might be released from the petitioned waste and to determine if the waste would pose a threat to human health and the environment. The DRAS software and associated documentation can be found at www.epa.gov/hw/hazardous-waste-delisting-risk-assessment-software-dras.

To predict the potential for release to groundwater from landfilled wastes and subsequent routes of exposure to a receptor, the DRAS uses dilution attenuation factors derived from the EPA's Composite Model for leachate migration with Transformation Products. From a release to ground water, the DRAS considers routes of exposure to a human receptor through ingestion of contaminated groundwater, inhalation from groundwater while showering and dermal contact from groundwater while bathing.

From a release to surface water by erosion of waste from an open landfill into storm water run-off, DRAS evaluates the exposure to a human receptor by fish ingestion and ingestion of drinking water. From a release of waste particles and volatile emissions to air from the surface of an open landfill, DRAS considers routes of exposure of inhalation of volatile constituents, inhalation of particles, and air deposition of particles on residential soil and subsequent ingestion of the contaminated soil by a child. The technical support document and the user's guide to DRAS are available at https://www.epa.gov/hw/hazardous-waste-delisting-risk-assessment-software-dras.

The EPA used the following inputs to its DRAS analysis of the Petitioner's wastes, as summarized in Table 2.

Table 1 – Emerald and FMF Delisting DRAS Input

DRAS Input Parameter	**Value**	**Assumptions**
Waste Management Unit Type	Landfill[12]	Waste planned for disposal in a municipal solid waste landfill
Waste Volume – one-year batch	4,700 cubic yards for Burnt Ridge 10,400 cubic yards for Newaukum Prairie 5,000 cubic yards for Big Hanaford	Conservative estimation value based on facility-specific information
Waste Management Unit Active Life	One Year Batch	N/A - DRAS does not allow a year input for the One Year Batch
Target risk – carcinogenic risk level	$1x10^{-5}$	Based on risk ranges in the EPA's RCRA Delisting Technical Support Document (2008)
Target risk – health quotient	1.0	Based on risk ranges in the EPA's RCRA Delisting Technical Support Document (2008)

At a target cancer risk of 1×10^{-5} and a target hazard quotient of 1.0, the DRAS program determined maximum allowable concentrations for each constituent in both the waste and the leachate. The EPA used the maximum estimated waste volumes and the maximum reported total and estimated leachate concentrations as inputs to estimate the constituent concentrations in the ground water, soil, surface water or air. Tables 2, 3, and

[12] Although two of the petitioned waste streams originate in a surface impoundment, the wastes being delisted will be removed from the surface impoundments through an approved closure process. The removed wastes will be managed in accordance with the closure plan to allow disposal in a solid waste landfill. Therefore, the waste management unit used for modelling waste performance using DRAS is "Landfill" for all three units.

4 document the constituent-specific maximum total and TCLP sample results used as input to the DRAS analysis, and the resulting modeling results from DRAS for the Burnt Ridge, Newaukum Prairie, and Big Hanaford storage units, respectively.

Table 2 – Sampling Data and DRAS Modeling Results for Burnt Ridge

Constituent of Concern	Maximum Observed Concentration[1]		Modeling Results			
			Total Concentrations		TCLP Concentration	
	Total[1](mg/kg)	TCLP (mg/L)[4]	Limiting Concentration (mg/kg)[2]	Limiting Pathway[3]	Limiting Concentration (mg/L)[2]	Limiting Pathway[3]
Barium	N/A	N/A	21,100,000	Air Particulate Inhalation	1,090	Maximum Contaminant Level
Cobalt	48	0.108	94,400	Air Particulate Inhalation	6.28	Groundwater Ingestion
Copper	417	N/A	18,200,000	Fish Ingestion	716	Maximum Contaminant Level
Nickel	45	N/A	3,540,000	Air Particulate Inhalation	408	Groundwater Ingestion
Zinc	969	N/A	47,100,000	Fish Ingestion	6,170	Groundwater Ingestion
Benzaldehyde	N/A	N/A	2,320,000,000	Soil Ingestion	1,760	Groundwater Ingestion
Benzene	0.00101	N/A	1,600,000	Air Volatile Inhalation	2.35	Maximum Contaminant Level
Benzoic Acid	N/A	N/A	83,100,000,000	Fish Ingestion	70,400	Groundwater Ingestion
Formic Acid	N/A	N/A	8,080,000	Air Volatile Inhalation	1,130	Groundwater Inhalation
Benzyl alcohol	N/A	N/A	11,600,000,000	Soil Ingestion	8,800	Groundwater Ingestion
Methanol	<0.01 U	N/A	11,600,000,000	Soil Ingestion	8,800	Groundwater Ingestion
Phenol	<0.310 U	N/A	6,950,000,000	Soil Ingestion	5,280	Groundwater Ingestion
Toluene	0.035	N/A	369,000,000	Fish Ingestion	460	Maximum Contaminant Level

1. Maximum concentration documented in the Petitioner's Burnt Ridge delisting petition, Tables B-1, B-3, and B-4.
2. The Limiting Concentration is the lowest risk-based concentration developed in DRAS for the potential receptor pathways and specified target risk levels. See text in Section IV.C for the EPA's consideration of limiting concentrations exceeding 1,000,000 mg/kg for total concentrations or 1,000,000 mg/L for TCLP concentrations.
3. The Limiting Pathway is the corresponding potential receptor pathway for the Limiting Concentration.
4. For detected constituents, the maximum analytical result was used. For non-detect constituents (annotated with a "U"), the practical quantitation limit (PQL) was used.

Table 3 – Sampling Data and DRAS Modeling Results for Newaukum Prairie

Constituent of Concern	Maximum Observed Concentration[1]		Modeling Results			
			Total Concentrations		TCLP Concentration	
	Total[1](mg/kg)	TCLP (mg/L)[4]	Limiting Concentration (mg/kg)[2]	Limiting Pathway[3]	Limiting Concentration (mg/L)[2]	Limiting Pathway[3]
Barium	N/A	N/A	11,000,000	Air Particulate Inhalation	498	Maximum Contaminant Level
Cobalt	89	0.184	49,100	Air Particulate Inhalation	2.92	Groundwater Ingestion
Copper	503	N/A	9,290,000	Fish Ingestion	332	Maximum Contaminant Level
Nickel	30	N/A	1,840,000	Air Particulate Inhalation	184	Groundwater Ingestion
Zinc	1,060	N/A	24,000,000	Fish Ingestion	2,820	Groundwater Ingestion
Benzaldehyde	N/A	N/A	1,210,000,000	Soil Ingestion	809	Groundwater Ingestion
Benzene	<0.0039 U	N/A	955,000	Air Volatile Inhalation	1.08	Maximum Contaminant Level
Benzoic Acid	N/A	N/A	42,500,000,000	Fish Ingestion	32,400	Groundwater Ingestion
Formic Acid	N/A	N/A	4,830,000	Air Volatile Inhalation	519	Groundwater Inhalation
Benzyl alcohol	N/A	N/A	6,060,000,000	Soil Ingestion	4,040	Groundwater Ingestion
Methanol	<0.01 U	N/A	6,060,000,000	Soil Ingestion	4,040	Groundwater Ingestion
Phenol	0.63	N/A	3,640,000,000	Soil Ingestion	2,430	Groundwater Ingestion
Toluene	150	N/A	189,000,000	Fish Ingestion	211	Maximum Contaminant Level

1. Maximum concentration documented in the Petitioner's Newaukum Prairie delisting petition, Tables B-1, B-3, and B-4.
2. The Limiting Concentration is the lowest risk-based concentration developed in DRAS for the potential receptor pathways and specified target risk levels. See text in Section IV.C for the EPA's consideration of limiting concentrations exceeding 1,000,000 mg/kg for total concentrations or 1,000,000 mg/L for TCLP concentrations.
3. The Limiting Pathway is the corresponding potential receptor pathway for the Limiting Concentration.
4. For detected constituents, the maximum analytical result was used. For non-detect constituents (annotated with a "U"), the practical quantitation limit (PQL) was used.

Table 4 – Sampling Data and DRAS Modeling Results for Big Hanaford

Constituent of Concern	Maximum Observed Concentration[1]		Modeling Results			
			Total Concentrations		TCLP Concentration	
	Total[1](mg/kg)	TCLP (mg/L)[4]	Limiting Concentration (mg/kg)[2]	Limiting Pathway[3]	Limiting Concentration (mg/L)[2]	Limiting Pathway[3]
Barium	N/A	N/A	20,100,000	Air Particulate Inhalation	1,030	Maximum Contaminant Level
Cobalt	165	1.10	89,900	Air Particulate Inhalation	5.92	Groundwater Ingestion
Copper	521	N/A	17,300,000	Fish Ingestion	674	Maximum Contaminant Level
Nickel	42	N/A	3,370,000	Air Particulate Inhalation	384	Groundwater Ingestion
Zinc	1,100	N/A	44,700,000	Fish Ingestion	5,800	Groundwater Ingestion
Benzaldehyde	N/A	N/A	2,210,000,000	Soil Ingestion	1,660	Groundwater Ingestion
Benzene	0.00115	N/A	1,530,000	Air Volatile Inhalation	2.21	Maximum Contaminant Level
Benzoic Acid	N/A	N/A	78,900,000,000	Fish Ingestion	66,300	Groundwater Ingestion
Formic Acid	N/A	N/A	7,760,000	Air Volatile Inhalation	1,060	Groundwater Inhalation
Benzyl alcohol	N/A	N/A	11,000,000,000	Soil Ingestion	8,290	Groundwater Ingestion
Methanol	<0.01 U	N/A	11,000,000,000	Soil Ingestion	8,290	Groundwater Ingestion
Phenol	23	N/A	6,620,000,000	Soil Ingestion	4,970	Groundwater Ingestion
Toluene	120	N/A	350,000,000	Fish Ingestion	433	Maximum Contaminant Level

1. Maximum concentration documented in the Petitioner's Big Hanaford delisting petition, Tables B-1 and B-3.
2. The Limiting Concentration is the lowest risk-based concentration developed in DRAS for the potential receptor pathways and specified target risk levels. See text in Section IV.C for the EPA's consideration of limiting concentrations exceeding 1,000,000 mg/kg for total concentrations or 1,000,000 mg/L for TCLP concentrations.
3. The Limiting Pathway is the corresponding potential receptor pathway for the Limiting Concentration.
4. For detected constituents, the maximum analytical result was used. For non-detect constituents (annotated with a "U"), the practical quantitation limit (PQL) was used.

F. What are EPA's proposed findings regarding the petitioned wastes?

The maximum reported concentrations of the hazardous constituents found in these wastes are presented in the tables above. The tables also present the maximum allowable concentrations, above which the waste is not excluded from the applicable hazardous waste listings.

We therefore propose to conclude that the Petitioner's mixed IWBS/treatment

solids wastes are not a substantial or potential hazard to human health and the environment when disposed of in a Subtitle D landfill. Further, the data presented by the Petitioners in their petitions support the EPA's proposed conclusion that the petitioned waste does not exhibit any hazardous characteristic for which the waste is listed, and that there are no other factors that would warrant retaining the waste as hazardous. On this basis, we propose to grant the Petitioner's petitions to delist these wastes. If this exclusion is finalized, and subject to the conditions of the final delisting, the Petitioners must dispose of these wastes in a Subtitle D landfill permitted or licensed by a state and will remain obligated to verify that the wastes continue to meet the allowable concentrations set forth here. The Petitioners must also to demonstrate that the wastes do not exhibit any hazardous characteristics pursuant to 40 CFR Part 261 Subpart C. The Petitioners may make this demonstration based on the existing characterization data provided in the delisting petition. As noted in Section II.B, the data provided by the Petitioners demonstrate that the candidate wastes do not exhibit a hazardous characteristic.

IV. Conditions for Exclusion

A. How will the Petitioners manage the waste if it is delisted?

If the petitioned wastes are delisted as proposed, the Petitioners must dispose of them in a Subtitle D landfill which is permitted, licensed, or registered by a state to manage industrial waste.

B. What are the maximum allowable concentrations of hazardous constituents in the waste?

Concentrations of the following constituents measured in the wastes located at

FMF's Burnt Ridge, Newaukum Prairie, and Big Hanaford facilities, respectively, must not exceed the concentrations in Table 5.

Table 5 – Verification Constituents and Compliance Concentrations
DRAS Model Output

	Burnt Ridge		Newaukum Prarie		Big Hanaford	
	Total (mg/kg)	TCLP (mg/l)	Total (mg/kg)	TCLP (mg/l)	Total (mg/kg)	TCLP (mg/l)
Constituent						
Barium	N/A	1,090	N/A	498	N/A	1,030
Cobalt	94,400	6.28	49,100	2.92	89,900	5.92
Copper	N/A	716	N/A	332	N/A	674
Nickel	N/A	408	N/A	184	N/A	384
Zinc	N/A	6,170	N/A	2,820	N/A	5,800
Benzaldehyde	N/A	1,760	N/A	809	N/A	1,660
Benzene	N/A	2.35	N/A	1.08	N/A	2.21
Benzoic Acid	N/A	70,400	N/A	32,400	N/A	66,300
Formic Acid	N/A	1,130	N/A	519	N/A	1,060
Benzyl alcohol	N/A	8,800	N/A	4,040	N/A	8,290
Methanol	N/A	8,800	N/A	4,040	N/A	8,290
Phenol	N/A	5,280	N/A	2,430	N/A	4,970
Toluene	N/A	460	N/A	211	N/A	433

The EPA notes that in multiple instances the maximum allowable total constituent concentrations provided by the DRAS model exceed 100% of the waste – these DRAS results are an artifact of the risk calculations that do not have physical meaning. In instances where DRAS predicts a maximum constituent greater than 100 percent of the waste (that is, greater than 1,000,000 mg/kg or mg/L, respectively, for total and TCLP concentrations), the EPA is not proposing to require the Petitioners to perform sampling and analysis for that constituent and sampling type (total or TCLP). In these instances, the corresponding entry in Table 5 above is "N/A."

C. How frequently must the Petitioners test the waste?

The Petitioner's delisting petitions did not provide complete sampling data for some constituents that EPA has retained as constituents of concern. More specifically, characterization data for barium, benzaldehyde, benzoic acid, formic acid, and benzyl alcohol, which are retained as verification constituents, do not have any existing characterization data. Therefore, the candidate wastes are excluded only if the Petitioners analyze three representative composite samples of the mixed IWBS/treatment solids wastes from each FMF facility for these constituents prior to the start of closure activities to demonstrate that the constituents of concern in the petitioned waste do not exceed the concentrations of concern in Section IV.C above. The Petitioners need only sample an extract of the wastes from EPA SW-846 Method 1311 for purposes of comparison to the TCLP standard in Table 5 and Condition 1 of the proposed amendments to 40 CFR part 261. If results of any composite sample do not reflect compliance with delisting exclusion limits, the EPA may require the Petitioners to conduct additional verification sampling to better define the volume of waste with waste constituent concentrations exceeding the delisting exclusion limits. The EPA believes that this sampling rate will provide an appropriate level of certainty for determining whether or not all delisted waste satisfy the delisting criteria presented in Table 5 above. The Petitioners must use methods with appropriate analytical sensitivity quality control procedures, as documented in a written quality assurance project plan. EPA publication SW-846 Method 1311 must be used for generation of the leachate extract used in the testing of the subject waste. SW-846 Method 1311 is incorporated by reference in 40 CFR 260.11.

A total analysis of the waste (accounting for any filterable liquids and the dilution factor inherent in the TCLP method) may be used to estimate the TCLP concentration as

provided for in section 1.2 of Method 1311.

D. What data must the Petitioners submit?

The Petitioners must submit the data obtained through verification testing to U.S. EPA Region 10, Office of Land, Chemicals and Redevelopment, 1200 6th Avenue, Suite 155, M/S 15-H04, Seattle, Washington 98101 within 10 days after receiving the final results from the laboratory. The Petitioners must make those records available for inspection. All data must be accompanied by a signed copy of the certification statement in 40 CFR 260.22(i)(12). Provided that the data demonstrate compliance with the verification standards in Condition 1 of the delisting rule, no further action is required of the Petitioners.

E. What happens if the Petitioners fail to meet the conditions of the exclusion?

If the Petitioners violate the terms and conditions established in the exclusion, the Agency may start procedures to withdraw the exclusion. Additionally, the terms of the exclusion provide that "[a]ny waste volume for which representative composite sampling does not reflect full compliance with the exclusion criteria in Condition 1 must continue to be managed as hazardous."

If the verification testing of the waste does not demonstrate compliance with the delisting concentrations described in section IV.C above, or other data (including but not limited to leachate data or groundwater monitoring data from the final land disposal facility) relevant to the delisted waste indicates that any constituent is at a concentration in waste above specified delisting verification concentrations in Table 5, the Petitioners must notify the Agency within 10 days, or such later date as the EPA may agree to in writing, after receiving the final verification testing results from the laboratory or of first

possessing or being made aware of other relevant data. The EPA may require the Petitioners to conduct additional verification sampling to better define the particular volume of wastes within the affected unit that does not fully satisfy delisting criteria. For any volume of wastes for which the corresponding representative sample(s) do not reflect full compliance with delisting exclusion levels, the exclusion by its terms does not apply, and the waste must be managed as hazardous.

The EPA has the authority under RCRA and the Administrative Procedures Act, 5 U.S.C. § 551 (1978*) et seq.* to reopen a delisting decision if we receive new information indicating that the conditions of this exclusion have been violated or are otherwise not being met.

F. What must the Petitioners do if the process changes?

Since the wastes that are the subject of this proposed de-listing already exist and are not expected to change as part of closure process for each of the units where the wastes are currently stored, there are no proposed requirements addressing process changes.

V. When would the EPA finalize the proposed delisting exclusion?

HSWA specifically requires the EPA to provide notice and an opportunity for comment before granting or denying a final exclusion. Thus, EPA will not make a final decision or grant an exclusion until it has addressed all timely public comments on today's proposal, including any at public hearings. Upon receipt and consideration of all comments, EPA will publish its final determination as a final rule.

Since this rule would reduce the existing requirements for persons generating hazardous wastes, the regulated community does not need a six-month period to come into

compliance in accordance with § 3010 of RCRA as amended by HSWA.

VI. How would this action affect the states?

Because the EPA is proposing to issue this exclusion under the federal RCRA delisting regulations, only states subject to federal RCRA delisting provisions will be affected. This exclusion may not be effective in states which have received authorization from the EPA to make their own delisting decisions.

RCRA allows states to impose more stringent regulatory requirements than RCRA's under § 3009 of RCRA. These more stringent requirements may include a provision that prohibits a federally issued exclusion from taking effect in the state. We urge petitioners to contact the state regulatory authority to establish the status of their wastes under the state law.

The EPA has also authorized some states to administer a delisting program in place of the federal program, that is, to make state delisting decisions. Therefore, this exclusion does not apply in those states. If the Petitioners manage the wastes in any state with delisting authorization, the Petitioners must obtain delisting authorization or other determination from the receiving state before it can manage the waste as nonhazardous in that state.

While Washington State has received final authorization to implement most of its dangerous waste program regulations in lieu of the federal program, including the listing and identification of U019 and U220 wastes (See 51 Federal Register 3782), it has not been authorized to implement its delisting regulations program in lieu of the federal program. The EPA notes that Washington State has provisions in the Washington Administrative Code (WAC) 173-303-910(3) similar to the federal provisions upon

which this delisting is based. These provisions are in effect as a matter of state law. Thus, the Petitioners must seek de-listing approval from Washington State in addition to this proposed delisting for this delisting to be effective as a matter of state law in Washington. In the absence of approval from Washington, the wastes proposed for de-listing by EPA in this action will continue to be regulated as "dangerous waste" under state law.

VII. Statutory and Executive Order Reviews

Additional information about these statutes and Executive Orders can be found at http://www2.epa.gov/laws-regulations/laws-and-executive-orders.

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This proposed action is exempt from review by the Office of Management and Budget because it is a rule of particular applicability, not general applicability. The proposed action approves a delisting petition under RCRA for the petitioned waste at a particular facility.

B. Executive Order 13771: Reducing Regulations and Controlling Regulatory Costs

This proposed action is not an Executive Order 13771 regulatory action because actions such as approval of delisting petitions under RCRA are exempted under Executive Order 12866.

C. Paperwork Reduction Act

This proposed action does not impose an information collection burden under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq*.) because it only applies to a particular facility.

D. Regulatory Flexibility Act

Because this rule is of particular applicability relating to a particular facility, it is not subject to the regulatory flexibility provision of the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*).

E. Unfunded Mandates Reform Act

This proposed action does not contain any unfunded mandate as described in the Unfunded Mandates Reform Act (2 U.S.C. 1531–1538) and does not significantly or uniquely affect small governments. The action imposes no new enforceable duty on any state, local, or tribal governments or the private sector.

F. Executive Order 13132: Federalism

This proposed action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

G. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments

This proposed action does not have tribal implications as specified in Executive Order 13175. This proposed action applies only to a particular facility on non-tribal land. Thus, Executive Order 13175 does not apply to this action.

H. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks

This proposed action is not subject to Executive Order 13045 because it is not economically significant as defined in Executive Order 12866, and because the EPA does not believe the environmental health or safety risks addressed by this action present a

disproportionate risk to children. This proposed action's health and risk assessments using the Agency's Delisting Risk Assessment Software (DRAS), which considers health and safety risks to children, are described in section III.E above. The technical support document and the user's guide for DRAS are included in the docket.

I. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution or Use

This proposed action is not subject to Executive Order 13211, because it is not a significant regulatory action under Executive Order 12866.

J. National Technology Transfer and Advancement Act

This proposed action does not involve technical standards as described by the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note).

K. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

The EPA believes that this proposed action does not have disproportionately high and adverse human health or environmental effects on minority populations, low-income populations, and/or indigenous peoples. The EPA has determined that this proposed action will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it does not affect the level of protection provided to human health or the environment. The Agency's risk assessment, as described in section III.E above, did not identify risks from management of this material in an authorized, solid waste landfill (e.g. RCRA Subtitle D landfill, commercial/industrial solid waste landfill, etc.). Therefore, the EPA believes that any populations in proximity of the landfills used by this facility should not be adversely

affected by common waste management practices for this delisted waste.

L. Congressional Review Act

This proposed action is exempt from the Congressional Review Act (5 U.S.C. 801 *et seq.*) because it is a rule of particular applicability.

List of Subjects in 40 CFR Part 261

Environmental protection, Hazardous waste, Recycling, and Reporting and recordkeeping requirements.

Dated: October 11, 2019.

Timothy B. Hamlin,

Director,

Land, Chemicals and Redevelopment Division.

For the reasons set out in the preamble, the EPA proposes to amend 40 CFR Part 261 as follows:

PART 261--IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

1. The authority citation for part 261 continues to read as follows:

Authority: 42 U.S.C. 6905, 6912(a), 6921, 6922, 6924(y) and 6938.

2. Amend Table 1 of Appendix IX to Part 261 by adding the following waste stream entry "Emerald Kalama Chemical, LLC and Fire Mountain Farms, Inc" in alphabetical order to read as follows:

APPENDIX IX TO PART 261—WASTES EXCLUDED UNDER §§ 260.20 AND 260.22.

TABLE 1—WASTES EXCLUDED FROM NON-SPECIFIC SOURCES

Facility	Address	Waste description
* * *	* *	* *
Emerald Kalama Chemical, LLC and Fire Mountain Farms, Inc.	Lewis County, Washington	Mixtures of hazardous wastewater treatment sludges, U019 (benzene) and U220 (toluene) and other non-hazardous solid wastes to be removed by Emerald Kalama Chemical, LLC and Fire Mountain Farms, Inc (Petitioners) pursuant to closure plans approved by the Washington State Department of Ecology and currently in storage in Fire Mountain Farm's Burnt Ridge, Newaukum Prarie and Big Hanford facilities in Lewis County, Washington. The maximum amount of wastes that may be managed pursuant to this exclusion is 4,700 cubic yards at the Burnt Ridge facility, 10,400 cubic yards at the Newaukum Prairie facility, and 5,000 cubic yards at the Big Hanaford facility, present at each facility as of the effective date of this exclusion, subject to the conditions below. Wastes managed under this exclusion must be disposed of in a Subtitle D landfill which is licensed, permitted, or otherwise authorized by a state to accept the delisted mixed material. The exclusion becomes effective as of [[the date of final publication].]. 1. Delisting Levels: The constituent concentrations in a representative sample of the waste must not exceed the following levels. For each constituent, the delisting verification level is provided for Burnt Ridge, Newaukum Prarie and Big Hanaford, respectively. Total concentrations (mg/kg): Cobalt – 94,400, 49,100, 89,900; TCLP Concentrations (mg/l in the waste extract): Barium – 1,090, 498, 1,030; Cobalt – 6.28, 2.92, 5.92; Copper – 716, 332, 674; Nickel – 408, 184, 384; Zinc – 6,170, 2,820, 5,800; Benzaldehyde – 1,760, 809, 1,660; Benzene – 2.35, 1.08, 2.21; Benzoic Acid – 70,400, 32,400, 66,300; Formic Acid – 1,130, 519, 1,060; Benzyl Alcohol – 8,800, 4,040, 8,290; Methanol – 8,800, 4,040, 8,290; Phenol – 5,280, 2,430, 4,970; Toluene – 460, 211, 433. 2. Verification Testing: To verify that the waste does not exceed the delisting concentrations specified in Condition 1, the Petitioners must collect and analyze an extract using EPA SW-846 Method 1311 (TCLP extraction) from three representative composite samples for barium, benzaldehyde, benzoic acid, formic acid, and benzyl alcohol of the mixed IWBS/treatment solids wastes from each FMF facility prior to the start of closure activities to demonstrate that the constituents of concern in the petitioned waste do not exceed the concentrations of concern in Condition 1. If results from analysis of any composite sample do not reflect compliance with delisting exclusion limits, the EPA may require the Petitioners to conduct additional verification sampling to better define the volume of waste with

		waste constituent concentrations exceeding the delisting exclusion limits. The Petitioners must conduct all verification sampling according to a written sampling plan and associated quality assurance project plan which is approved in advance by the EPA that ensures analytical data are suitable for their intended use. Sampling data must be submitted to the EPA no later than 10 days after receiving the final results from the laboratory, or such later date as the EPA may agree to in writing. Any waste volume for which representative composite sampling does not reflect full compliance with the exclusion criteria in Condition 1 must continue to be managed as hazardous. The Petitioners must also submit to EPA a certification that all wastes satisfying the delisting concentrations in Condition 1 have been disposed of in a Subtitle D landfill which is licensed, permitted, or otherwise authorized by a state to accept the delisted mixed material of wastewater treatment sludge, and the quantity of waste disposed from each facility. This submission must be submitted to EPA within 60 days of completion of closure according to the approved closure plan. 3. Data Submittals: The Petitioners must submit the data obtained through verification testing and as required by other conditions of this rule, to the Director, Land, Chemical, & Redevelopment Division, U.S. EPA Region 10, 1200 6th Avenue Suite 155, M/S 15-H04, Seattle, Washington, 98070 or his or her equivalent. Electronic submission via electronic mail, physical electronic media (e.g., USB flash drive), or an electronic file transfer system is acceptable. The Petitioners must compile, summarize, and maintain for a minimum of five years, records of analytical data and waste disposal required by this rule. The Petitioners must make these records available for inspection. All data must be accompanied by a signed copy of the certification statement in 40 CFR 260.22(i)(12). If the Petitioners fail to submit the required data within the specified time or maintain the required records for the specified time, the EPA may, at its discretion, consider such failure a sufficient basis to reopen the exclusion as described in Condition 4. 4. Reopener Language: (A) If, any time after disposal of the delisted waste, the Petitioners possess or are otherwise made aware of any data, including but not limited to leachate data or groundwater monitoring data from the final land disposal facility, relevant to the delisted waste indicating that any constituent is at a higher than the specified delisting concentration, then the Petitioners must report such data, in writing, to the Director, Land, Chemical, & Redevelopment Division, EPA Region 10 at the address above, or his or her equivalent, within 10 days of first possessing or being made aware of those data. (B) Based on the information described in Condition 4(A) and any other information received from any source, the EPA will make a preliminary determination as to whether the reported information requires Agency action to protect human health or the environment. Further action may include

		suspending, or revoking the exclusion, or other appropriate response necessary to protect human health and the environment. (C) If the EPA determines that the reported information does require Agency action, the EPA will notify the Petitioners in writing of the actions it believes are necessary to protect human health and the environment. The notice shall include a statement of the proposed action and a statement providing the Petitioners with an opportunity to present information as to why the proposed Agency action is not necessary or to suggest an alternative action. The Petitioners shall have 30 days from the date of the EPA's notice to present the information. (D) If after 30 days the Petitioners present no further information or after a review of any submitted information, the EPA will issue a final written determination describing the Agency actions that are necessary to protect human health or the environment. Any required action described in the EPA's determination shall become effective immediately unless the EPA provides otherwise.
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