

practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, this proposed rule does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), because the SIP is not approved to apply in Indian country located in the State, and EPA notes that it will not impose substantial direct costs on tribal governments or preempt tribal law.

#### List of Subjects

##### 40 CFR Part 52

Environmental protection, Air pollution control, Intergovernmental relations, Nitrogen oxides, Ozone, Reporting and recordkeeping requirements, and Volatile organic compounds.

##### 40 CFR Part 81

Environmental protection, Air pollution control, National parks, Wilderness areas.

**Authority:** 42 U.S.C. 7401 *et seq.*

Dated: September 28, 2010.

**Gwendolyn Keyes Fleming,**

Regional Administrator, Region 4.

[FR Doc. 2010-25291 Filed 10-6-10; 8:45 am]

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## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 261

[EPA-R03-RCRA-2010-0132; FRL-9211-7]

### Hazardous Waste Management System; Identification and Listing of Hazardous Waste; Proposed Exclusion

**AGENCY:** Environmental Protection Agency.

**ACTION:** Proposed rule.

**SUMMARY:** The Environmental Protection Agency (EPA, also the Agency or we in this preamble) is proposing to grant a petition submitted by Babcock & Wilcox Nuclear Operations Group, Inc., the current owner, and to BWX Technologies, Inc., as predecessor in interest to the current owner, identified collectively hereafter in this preamble as "B&W NOG," to exclude (or delist) on a one-time basis from the lists of hazardous waste, a certain solid waste generated at its Mt. Athos facility near Lynchburg, Virginia.

The Agency has tentatively decided to grant the petition based on an evaluation of specific information provided by the petitioner. This tentative decision, if finalized, would conditionally exclude the petitioned

waste from the requirements of the hazardous waste regulations under the Resource Conservation and Recovery Act (RCRA).

The Agency is requesting comments on this proposed decision.

**DATES:** To make sure we consider your comments on this proposed exclusion, they must be received by November 22, 2010. Comments received after the close of the comment period will be designated as late. These late comments may not be considered in formulating a final decision.

Any person may request a hearing on this tentative decision to grant the petition by filing a request by October 22, 2010. The request must contain the information prescribed in 40 CFR 260.20(d).

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA-R03-RCRA-2010-0132 by one of the following methods:

- *Federal eRulemaking Portal:* <http://www.regulations.gov>: Follow the on-line instructions for submitting comments.
- *E-mail:* [friedman.davidm@epa.gov](mailto:friedman.davidm@epa.gov).
- *Mail:* David M. Friedman, Environmental Protection Agency Region III, Land and Chemicals Management Division, Office of Technical and Administrative Support, Mail Code: 3LC10, 1650 Arch Street, Philadelphia, PA 19103-2029.
- *Hand Delivery or Courier:* Deliver your comments to: David M. Friedman, Environmental Protection Agency Region III, Land and Chemicals Management Division, Office of Technical and Administrative Support, Mail Code: 3LC10, 1650 Arch Street, Philadelphia, PA 19103-2029. Comments delivered in this manner are only accepted during normal hours of operation.

**Instructions:** Direct your comments to Docket ID No. EPA-R03-RCRA-2010-0132. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at [http://www/regulations.gov](http://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 <http://www.regulations.gov> or e-mail. The <http://www.regulations.gov> Web site is an "anonymous access" system, which means 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 EPA without going through <http://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 that is made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, 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. For additional information about EPA's public docket, visit the EPA Docket Center homepage at [http://www/epa.gov/epahome/dockets.htm](http://www.epa.gov/epahome/dockets.htm).

**Docket:** All documents in the electronic docket are listed in the <http://www.regulations.gov> index. Although listed in the index, some information is not 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. Publicly available docket materials are available either electronically in <http://www.regulations.gov> or in hard copy at the Environmental Protection Agency, Land and Chemicals Division, Office of Technical and Administrative Support, Mail Code: 3LC10, 1650 Arch Street, Philadelphia, PA 19103-2029. The hard copy RCRA regulatory docket for this proposed rule, EPA-R03-RCRA-2010-0132, is available for viewing from 8 a.m. to 3 p.m., Monday through Friday, excluding Federal holidays. You may copy material from any regulatory docket at a cost of \$0.15 per page for additional copies. EPA requests that you contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section to schedule your inspection. You should make an appointment with the office at least 24 hours in advance.

**FOR FURTHER INFORMATION CONTACT:** For further technical information concerning this document or for appointments to view the docket or the B&W NOG facility petition, contact David M. Friedman, Environmental Protection Agency Region III, Land and Chemicals Division, Office of Technical and Administrative Support, Mail Code: 3LC10, 1650 Arch Street, Philadelphia, PA 19103-2029, by calling 215-814-3395 or by e-mail at [friedman.davidm@epa.gov](mailto:friedman.davidm@epa.gov).

**SUPPLEMENTARY INFORMATION:** The information in this preamble is organized as follows:

- I. Background
  - A. What is a listed hazardous waste?
  - B. What laws and regulations give EPA the authority to delist waste?
  - C. What is a delisting petition?
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- III. Waste-Specific Information
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- IV. EPA's Evaluation of the Petition
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- V. Conditions for Exclusion
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## I. Background

### A. What is a listed hazardous waste?

EPA published amended lists of hazardous wastes from non-specific and specific sources on January 16, 1981, as part of its final and interim final regulations implementing Section 3001 of RCRA. These lists have been amended several times, and are found at 40 CFR 261.31 and 261.32.

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

We also define residues from the treatment, storage, or disposal of listed hazardous wastes and mixtures containing listed hazardous wastes as hazardous wastes. (*See* 40 CFR 261.3(a)(2)(iv) and (c)(2)(i), referred to as the "mixture" and "derived-from" rules, respectively).

### B. What laws and regulations give EPA the authority to delist waste?

Individual waste streams may vary, however, depending on raw materials, industrial processes, and other factors. Thus, while a waste that is described in these regulations generally is hazardous, a specific waste from an individual facility that would otherwise meet the listing description may not be.

For this reason, a procedure to exclude or delist a waste was established based on the discretionary

authority of Section 2002(a)(1) of RCRA. This procedure is contained in 40 CFR 260.20 and 260.22 and it allows a person to petition EPA or an authorized state in order to demonstrate that a specific listed waste from a particular generating facility should not be regulated as a hazardous waste.

### C. What is a delisting petition?

A delisting petition is a request from a facility to EPA or an authorized State to exclude waste from the list of hazardous wastes on a site-specific basis. A facility petitions EPA because it does not believe the waste should be hazardous under RCRA regulations.

In a delisting petition, the petitioner must show that waste generated at a particular facility does not meet any of the criteria for which the waste was listed. The criteria which EPA uses to evaluate a waste for listing are found in 40 CFR 261.11. An explanation of how these criteria apply to a waste is contained in the background document for that particular listed waste.

In addition to the criteria that we used when we originally listed the waste, a petitioner must demonstrate that the waste does not exhibit any of the hazardous waste characteristics found in 40 CFR part 261, subpart C, and must present sufficient information for EPA to decide whether factors other than those for which the waste was listed warrant retaining it as a hazardous waste as required by Section 3001(f) of RCRA (42 U.S.C. 6921(f)) and 40 CFR 260.22(a).

Generators remain obligated under RCRA to confirm that their waste remains nonhazardous based on the hazardous waste characteristics even if EPA or an authorized state has "delisted" the waste and to ensure that future generated wastes meet the conditions set forth.

## II. What did B&W NOG request in its petition?

On September 30, 1994, B&W NOG (then known as Babcock and Wilcox) petitioned EPA to exclude from the lists of hazardous waste listed at 40 CFR 261.31, both past and currently generated sludge produced by its wastewater treatment facility. This sludge was derived from the treatment of wastewaters in the pickle acid treatment system and was designated as EPA Hazardous Waste No. F006 (wastewater treatment sludge from electroplating operations). On August 9, 1999 (64 FR 42317), EPA proposed, and on January 14, 2000 (65 FR 2337), EPA finalized, a conditional exclusion for the facility (then known as BWX Technologies) delisting the currently

generated filter cake solids from its pickle acid wastewater treatment system.

As explained in EPA's proposed exclusion of August 4, 1999, the previously generated sludge was classified as a "mixed waste" under RCRA. A mixed waste is defined as a waste that contains both a radioactive component subject to the Atomic Energy Act (AEA), and a hazardous component subject to RCRA.

RCRA regulations are promulgated under one of two statutory authorities which are (1) the original RCRA authority (or base program) and (2) the Hazardous and Solid Waste Amendments of 1984 (HSWA). The hazardous components of mixed wastes are subject to RCRA base program jurisdiction. Under Section 3006 of RCRA, EPA may authorize qualified states to administer and enforce the RCRA hazardous waste program within the state. When new, more stringent federal requirements are promulgated or enacted, the state is obligated to enact equivalent authority within specified time frames. New federal requirements do not take effect in authorized states until the state adopts the requirements as state law.

Up until 1986, the applicability of RCRA to mixed waste was unclear. To address this issue, EPA issued a clarification notice on July 3, 1986 (51 FR 24504). In that notice, EPA announced that the hazardous component of mixed waste was subject to RCRA jurisdiction and that the radioactive portion of the waste (source, special nuclear, and by-product material) was subject to the Atomic Energy Act (AEA). EPA also required states which had obtained RCRA base program authorization prior to the July 3, 1986 notice to revise their programs to clarify the regulatory status of mixed waste (*i.e.*, to include the hazardous component of mixed waste in their program definition of solid waste), and to apply to EPA for authorization of their revised program. The Commonwealth of Virginia had been granted authorization to administer the RCRA base program prior to July 3, 1986. However, when EPA granted the above referenced exclusion on January 14, 2000, Virginia had not been specifically authorized for mixed waste.

In a State which was authorized for the RCRA base program, but not specifically authorized for mixed waste, the waste was not subject to the Federal hazardous waste requirements. Mixed waste remained outside Federal jurisdiction until the State revised its program and received authorization specifically for mixed waste. Therefore,

at the time of the January 14, 2000 exclusion, EPA could not consider the previously generated sludge at B&W NOG for exclusion.

The Virginia Department of Environmental Quality's (VADEQ's) authorization for the mixed waste portion of the RCRA program became effective on September 29, 2000. At that time, mixed waste in the Commonwealth of Virginia became subject to Federal RCRA jurisdiction.

Beginning in May 2001, B&W NOG informally submitted information on the sludge that was deposited in two on-site surface impoundments designated as Final Effluent Ponds (FEPs) 1 and 2. Because FEP 1 received effluent from the low level radioactive waste treatment system in the past and FEP 2 currently receives effluent from the low level radioactive waste treatment system, the FEP sludge in both units includes a Nuclear Regulatory Commission (NRC) regulated radioactive component, and therefore, is a mixed waste designated as EPA hazardous waste No. F006.

On February 21, 2003, BWX Technologies, Inc. petitioned EPA to exclude from the lists of hazardous waste contained in 40 CFR 261.31 on a one-time basis, the sludge which was deposited in FEPs 1 and 2 because it believed that the petitioned waste did not meet any of the criteria for which the waste was listed and because there were no additional constituents or factors that would cause the waste to be hazardous. The volume of sludge contained in each FEP was, at that time, determined to be 6,600 cubic yards, for a combined sludge volume of 13,200 cubic yards.

On September 3, 2008, B&W NOG notified EPA that it had successfully completed a sludge removal project at FEPs 1 and 2. Sludge was removed from these units and disposed of at a mixed waste disposal facility permitted under the authority of both RCRA and the Atomic Energy Act, as amended. B&W NOG conservatively estimated that of the 13,200 cubic yards of sludge in both units, only 148 cubic yards (less than 2 percent of the original volume) remained. In this notification, B&W NOG requested that its petition be amended to reflect the reduced volume, and that the Agency proceed with the delisting request based on the new volume.

### III. Waste-Specific Information

#### A. How was the waste generated?

B&W NOG is engaged in the production and assembly of nuclear components primarily for the United

States government at its Mt. Athos facility near Lynchburg, Virginia. This activity includes the use of special nuclear materials, primarily unirradiated enriched uranium. B&W NOG's operations include the recovery and purification of scrap uranium and uranium downblending. B&W NOG's operations are regulated under Nuclear Regulatory Commission License SNM-42.

B&W NOG is primarily a metal fabricator (SIC No. 3443), involving the fabrication of metal components from stock metals through various machining processes, welding, grinding, pickling and final assembly. Secondary operations include the recovery of uranium fuel, the research and development of uranium fuel manufacturing techniques and downblending operations.

Hydrofluoric acid and nitric acid are used in combination by B&W NOG in the pickling and cleaning of specialty metals. Some of these spent pickling and cleaning solutions and rinse waters are treated on-site in the pickle acid and low level radioactive wastewater treatment systems.

Support facilities at the Mt. Athos site include a steam plant, process water treatment and wastewater treatment facilities.

The Lynchburg Technology Center (LTC) houses B&W NOG headquarters, B&W Nuclear Power Generation Group, Inc. laboratories and B&W Corporate Service Centers. Wastewater generated at the LTC is piped to the B&W NOG for treatment. Solid wastes produced at the LTC are delivered to B&W NOG for recycling and/or disposal.

The wastewaters generated at the B&W NOG facility are treated in an on-site wastewater treatment plant that consists of four discrete wastewater treatment systems. They are the low level radioactive waste treatment system, pickle acid waste treatment system, sanitary waste treatment system, and water production waste treatment system. Once-through non-contact cooling water does not require treatment and discharges directly to FEP 1. Both FEPs have each received a combination of these wastewater streams during their operating history.

The FEPs are two surface impoundments located adjacent to the James River at the B&W NOG Mt. Athos site. The FEPs are part of the VADEQ permitted industrial wastewater system (Virginia Pollutant Discharge Elimination System (VPDES) Permit No. VA0003697) and they provide equalization of the liquid effluent for control of pH and suspended solids.

B&W NOG's wastewater neutralization processes generate precipitation solids which are removed by filter presses. The remaining suspended solids are discharged with wastewater and gradually accumulate in the FEPs as sludge. The FEP sludge consists in part of suspended solids which carry over into the units in the effluent from the filter presses that remove solids in the pickle acid waste treatment system, and additional suspended solids which enter the units from the low level radioactive, and grit-blast wastewater treatment systems.

FEP 1 was placed in service in 1973, with a nominal capacity of 2,000,000 gallons. FEP 2 was placed in service in 1979, with a nominal capacity of 1,900,000 gallons. Although the routing of treated wastewaters into these FEPs has changed throughout the operating history of the units, at some point in their history they have both received suspended solids from the pickle acid treatment system and the low level radioactive treatment system, as well as various process or sanitary wastewaters. It is the pickle acid treatment system suspended solids that resulted in the formation of F006 sludge prior to the January 14, 2000 delisting.

The current configuration of wastewater streams discharged to each FEP is as follows:

FEP 1 receives non-industrial processing operations wastewater consisting of wastewater from the water production (deionized and make-up non-contact cooling water) treatment system and once through non-contact cooling water.

FEP 2 receives industrial processing operations wastewater consisting of wastewater from the pickle acid waste treatment system, the low level radioactive treatment system and the grit blast waste treatment system.

Wastewater from the sanitary waste treatment system discharges directly to the James River through a VPDES permitted outfall.

#### B. What information did B&W NOG submit to support its petition?

To provide a comprehensive sludge sampling strategy of the FEPs, a two-phase sampling and analysis plan was implemented by B&W NOG.

Phase 1 involved the collection of fully penetrating core samples of sludge from four representative locations in each FEP. These samples were analyzed for a comprehensive list of chemical constituents and other analytical parameters, including the 40 CFR Part 264 Appendix IX (Ground-Water Monitoring List) analytes for the metal, volatile organic carbon, semivolatile

organic compound, polychlorinated biphenyl (PCB), and dioxin/furan groups; plus formaldehyde, based on process knowledge. Other analytical parameters included total cyanide, fluoride, oil and grease, sulfide, water content, corrosivity and ignitability. The sludge characterization included analyses for both total concentrations and toxicity characteristic leaching procedure (TCLP) concentrations. In addition to the standard TCLP performed on all samples using an acidic leaching fluid, one sample from each FEP was tested utilizing the TCLP procedure but substituting two different leaching fluids. The additional leaching fluids were: (1) Reagent water with a neutral pH; and (2) an alkaline solution of sodium bicarbonate and sodium carbonate with a pH of 10.

The Phase 2 chemical characterization involved the collection and analysis of thirteen independent composite samples of sludge, seven from FEP 1 and six from FEP 2. Each composite sample was comprised of continuous sludge cores collected from four randomly selected locations within a 10,000 square foot sub-section of the unit. Samples were analyzed for an abbreviated list of constituents which were selected based on the results of the comprehensive chemical analyses performed on sludge samples collected in the Phase 1 chemical characterization. The Phase 2 analytes were fluoride, 1,2-dichloroethane, tetrachloroethane, trichloroethene, cadmium, copper, mercury, nickel, thallium, PCBs and dioxins/furans.

The Phase 2 sludge samples were analyzed for both total and leachable concentrations of each analyte. In Phase 2, only one leaching test using the TCLP procedure was performed for each analyte. Each analyte was tested using the leaching fluid that produced the highest soluble concentration of that analyte in the Phase 1 characterization.

The maximum total constituent and maximum leachate concentrations for all detected inorganic constituents in B&W NOG's waste samples are presented in Table 1.

The detection limits presented in Table 1 represent the lowest concentrations quantifiable by B&W NOG using appropriate methods to analyze the waste.

TABLE 1—MAXIMUM TOTAL CONSTITUENT AND LEACHATE CONCENTRATIONS <sup>1</sup> IN SLUDGE

Inorganic constituents	Total constituent concentration (mg/kg)	TCLP Leachate concentration (mg/l)
Antimony .....	1.12	0.002555
Arsenic .....	2.56	0.000972
Barium .....	52.3	0.355
Beryllium .....	0.429	0.00914
Cadmium .....	14	0.0323
Chromium .....	198	0.132
Cobalt .....	2.03	0.0546
Copper .....	2390	633
Lead .....	7.73	0.00528
Mercury .....	1.7	<0.00004
Nickel .....	93.1	2.49
Selenium .....	0.447	0.00181
Silver .....	148	0.0351
Thallium .....	0.544	0.00481
Tin .....	279	0.01375
Vanadium .....	9.6	0.028
Zinc .....	126	1.75
Cyanide (total) .....	0.245	0.01225
Fluoride .....	722	182

<sup>1</sup> These levels represent the highest concentration of each constituent found in any sample. These levels do not necessarily represent the specific levels found in any one sample.  
 < Denotes that the constituent was not detected at the concentration specified in the table.

The maximum total constituent and maximum leachate concentrations for all detected organic constituents in

B&W NOG's waste samples are presented in Table 2.  
 The detection limits presented in Table 2 represent the lowest

concentrations quantifiable by B&W NOG using appropriate methods to analyze the waste.

TABLE 2—MAXIMUM TOTAL CONSTITUENT AND LEACHATE CONCENTRATIONS <sup>1</sup> IN SLUDGE

Organic constituents	Total constituent concentration (mg/kg)	TCLP leachate concentration (mg/l)
Acetone .....	0.371	0.212
Benzene .....	0.0051	0.0026
Benzoic acid .....	< 4.57	0.0028
Benzo(b)fluoranthene .....	0.388	<0.0115
bis(2-Ethylhexyl)phthalate .....	2.265	0.0028
2-Butanone (methyl ethyl ketone) .....	0.0544	< 0.01
Carbon disulfide .....	0.0136	<0.01
Carbon tetrachloride .....	<0.0202	0.0024

TABLE 2—MAXIMUM TOTAL CONSTITUENT AND LEACHATE CONCENTRATIONS<sup>1</sup> IN SLUDGE—Continued

Organic constituents	Total constituent concentration (mg/kg)	TCLP leachate concentration (mg/l)
Chloroform .....	< 0.0202	0.0024
1,2-Dichloroethane .....	< 0.0202	0.0029
1,1-Dichloroethene .....	< 0.0202	0.0026
cis-1,2-Dichloroethene .....	0.0136	< 0.01
Diethylphthalate .....	< 4.57	0.0056
Diphenylamine .....	< 4.57	0.0135
Fluoranthene .....	3.385	0.0021
2-Hexanone .....	0.0253	< 0.01
1-Methylnaphthalene .....	< 4.57	0.0012
2-Methylnaphthalene .....	< 4.57	0.0011
3-Methylphenol (m-cresol) .....	< 4.57	0.0017
4-Nitroaniline .....	< 4.57	0.0027
Total PCBs .....	0.23	< 0.0084
Pyrene .....	0.535	< 0.0115
2,3,7,8-TCDD <sup>2</sup> .....	0.0000035	0.0000000101
Tetrachloroethene .....	0.220	0.0083
1,1,1,-Trichloroethane .....	< 0.0202	0.0014
Trichloroethene .....	1.2	0.015
Trichlorofluoromethane .....	< 0.0202	0.0011
1,2,4-Trimethylbenzene .....	0.0232	< 0.01
m,p-Xylenes .....	< 0.0202	0.0018

<sup>1</sup> These levels represent the highest concentration of each constituent found in any sample. These levels do not necessarily represent the specific levels found in any one sample.

<sup>2</sup> For risk assessment of PCDDs and PCDFs compounds, toxicity values are expressed as 2,3,7,8-TCDD equivalents (TEQs).

< Denotes that the constituent was not detected at the concentration specified in the table.

B&W NOG also submitted groundwater monitoring data to support its delisting request. Three groundwater monitoring wells had previously been installed to monitor groundwater quality in the vicinity of the FEPs as a requirement of VPDES Permit No. VA0003697, because it was thought that constituents from the FEPs may be impacting groundwater quality in the vicinity of the ponds. An additional groundwater monitoring well located further downgradient between the ponds and the James River was added to the monitoring network as a result of RCRA corrective action investigations at the site.

Groundwater was sampled by B&W NOG over five quarters (starting in February 2001) to support this delisting request. These samples were analyzed for the 40 CFR Part 264 Appendix IX (Ground-Water Monitoring List) analytes for the metal, volatile organic carbon, semivolatile organic compound, and polychlorinated biphenyl (PCB) groups. Other analytical parameters included total cyanide, fluoride, and sulfide. An examination of the results shows that several chemicals were detected in one or more wells, some above an established Agency health-based level (e.g., a Maximum Contaminant Level (MCL) promulgated at 40 CFR part 141, pursuant to the Safe Drinking Water Act, 41 U.S.C. Section 300g-1). However, in order to evaluate

the source of contamination, upgradient and downgradient concentrations of contaminants were compared. Based on an evaluation of this data, it was determined that the FEPs are not the source of the groundwater contamination with one exception. Of the constituents that are elevated above a health-based level in downgradient wells, only fluoride cannot be attributed to a contamination source upgradient of the FEPs. Fluoride is present at elevated levels in all three of the downgradient wells and exceeded EPA's MCL in one of these wells with a maximum fluoride concentration of 18.1 mg/l.

EPA requires that petitioners submit signed certifications affirming the truthfulness, accuracy and completeness of the information in their delisting petitions (See 40 CFR 260.22(i)(12)). B&W NOG submitted signed certifications stating that all submitted information is true, accurate and complete.

#### IV. EPA's Evaluation of the Petition

##### A. What method did EPA use to evaluate risk?

Because the sludge that is the subject of this delisting petition contains low levels of radioactivity, it is, and if delisted by EPA, will remain subject to NRC regulations. Although the sludge currently resides in the FEPs and will continue to do so for many years, the FEPs will be subject to NRC

decommissioning rules when they are taken out of service. At that time, any sludge remaining in the units will have to be removed and disposed of in a facility licensed to accept low-level radioactive waste.

We evaluated B&W NOG's waste using the Agency's Delisting Risk Assessment Software Program (DRAS) version 3.0 to estimate the potential releases of waste constituents and to predict the risk associated with those releases. DRAS performs a multi-pathway and multi-chemical risk assessment to determine the potential impact of a waste disposed of in a landfill or surface impoundment. The sludge which is the subject of this petition is not a liquid, however, it currently resides in units that are designed as surface impoundments. In order to be conservative in our evaluation of potential risk, we performed an evaluation of this waste using the DRAS surface impoundment module in addition to the DRAS landfill module. The process that we used to adapt the sludge data for use in the surface impoundment module is described in the docket for this proposed rule.

For the DRAS evaluation, we considered transport of the hazardous waste constituents present in the waste through groundwater, surface water and air. The evaluation is based on a reasonable worst-case (least protective)

disposal scenario for B&W NOG's petitioned waste even though the waste will remain subject to more stringent NRC disposal regulations.

DRAS uses a fate and transport model to predict the release of hazardous constituents from the petitioned waste, in order to evaluate the potential impact on human health and the environment. DRAS accomplishes this using several EPA models including the EPA Composite Model for Leachate Migration with Transformation Products (EPACMTP) fate and transport model which calculates dilution/attenuation factors for evaluating impacts on groundwater. From a release to groundwater, DRAS considers routes of exposure to a human receptor of direct 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 runoff, DRAS evaluates the exposure to a human receptor by ingestion of fish and direct ingestion of drinking water. From a release of volatile emissions from a surface impoundment and waste particles, and a release of volatile emissions to the 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 with subsequent ingestion of the contaminated soil by a child.

The volatile emission evaluation in the DRAS version 3.0 surface impoundment module currently does not produce valid results due to an operational problem with the software. Furthermore, the methodology currently used by DRAS to estimate volatile emissions does not produce a very conservative estimate of average volatile emission rates. Therefore, we prepared an independent calculation of volatile emissions from these surface impoundments using the methodologies presented in Chapter 5.0 (Surface Impoundments and Open Tanks) of the EPA report, "Air Emissions Models for Waste and Wastewater," November 1994, EPA-453/R-94-080A. This report can be found at: [http://www.epa.gov/ttn/chief/software/water/air\\_emission\\_models\\_waste\\_wastewater.pdf](http://www.epa.gov/ttn/chief/software/water/air_emission_models_waste_wastewater.pdf). Chapter 5.0 of this report is included in the docket for this proposed rule.

The calculated emission rates were then run through a dispersion model to estimate downwind concentrations. The methodology used is described in section 2.3.2.4 (Calculation of Downwind Waste Constituent Concentration in Air at the POE Surface

Impoundment) of Chapter 2 of the RCRA Delisting Technical Support Document. Risk and hazard from these estimated downwind concentrations were determined using the methods presented in Chapter 4 (Risk and Hazard Assessment) of the DRAS Delisting Technical Support Document.

For a detailed description of the DRAS program, the software itself, the Delisting Technical Support Document, and the DRAS version 3.0 User's Guide, go to: <http://www.epa.gov/reg5rcra/wptdiv/hazardous/delisting/dras-software.html>.

In addition to the chemical constituents contained in the DRAS database and whose properties are described in the RCRA Delisting Technical Support Document, Appendix A, Chemical Specific Data, three additional constituents were detected in B&W NOG's sludge samples. These chemical constituents are 1-methylnaphthalene, 1,2,4-trimethylbenzene, and 2-hexanone. These chemicals were added to the DRAS database so that they would be included in the risk analysis. The chemical specific data that we used for each of these chemical constituents can be found in the docket for this proposed rule.

For constituents which are not detected in leachate analysis, DRAS requires that the detection limit be entered along with the other data. In these circumstances, DRAS uses one-half the detection limit to calculate risk. We believe it is inappropriate to evaluate constituents which are not detected in any sample analyzed if an appropriate analytical method was used.

Similarly, DRAS also predicts possible risks associated with releases of waste constituents through surface pathways (e.g., volatilization or wind-blown particulate from the landfill). As in the groundwater analyses, DRAS uses the established acceptable risk level, the health-based data, and standard risk assessment and exposure algorithms to perform this assessment.

In most cases, because a delisted waste is no longer subject to hazardous waste regulation, the Agency is generally unable to predict, and does not presently control, how a petitioner will manage a waste after it is excluded. Therefore, we believe that it is inappropriate to consider extensive site-specific factors when applying the fate and transport model.

However, as discussed earlier in this preamble, the waste that is being considered for delisting in this B&W NOG petition contains a radioactive component and, therefore, will remain subject to NRC jurisdiction.

For a one-time delisting petition, we determine cumulative risk. Beginning with the leachate and total waste concentrations for each constituent in the waste (source concentrations), the waste volume and exposure parameters are used to estimate the upper-bound excess lifetime cancer risks (risk) and noncarcinogenic hazards (hazard).

If a delisting evaluation is performed for a one-time exclusion, DRAS computes the cumulative carcinogenic risk by summing the carcinogenic risks for all waste constituents for a given exposure pathway and then summing the carcinogenic risks for each pathway analyzed in the delisting risk assessment. DRAS also computes the cumulative noncarcinogenic hazard by summing the Hazard Quotients for all waste constituents for a given exposure pathway to obtain exposure pathway-specific Hazard Indices (HIs), and then summing the HIs associated with each exposure pathway analyzed.

For a one-time delisting, EPA Region III evaluates the cumulative cancer risk and cumulative hazard index of the petitioned waste. A cumulative cancer risk less than  $1 \times 10^{-4}$  and a cumulative hazard index less than or equal to 1 are considered to be protective of human health and will be considered acceptable for this type of delisting determination.

#### *B. What other factors did EPA consider in its evaluation?*

We also consider the applicability of groundwater monitoring data during the evaluation of delisting petitions where the petitioned waste is currently managed or was once managed in a land-based unit (e.g., a landfill or surface impoundment).

We use the results of groundwater monitoring data evaluations as a check on the reasonable worst case evaluations performed, in order to provide an additional level of confidence in our delisting decisions. Because groundwater monitoring data are normally descriptive of the impact of the petitioned waste under actual conditions, and not reasonable worst case assumptions, evidence of groundwater contamination originating from a land-based waste management unit may be a factor resulting in petition denial.

Regarding the fluoride in the groundwater, B&W NOG makes the argument that the fluoride concentrations can be attributed to a source other than the FEP sludge which is the subject of this delisting request. As previously discussed in this preamble, the FEPs are used as equalization ponds for treating

industrial effluent and are part of B&W NOG's VPDES permitted wastewater treatment system that discharges to the James River.

In support of its position that the sludge is not the source of the fluoride in the groundwater, B&W NOG submitted the following two documents regarding the chemistry of fluoride: A declaration of David W. Griffiths, Ph.D., regarding the use and disposition of fluorine containing compounds at the Mt. Athos site dated February 17, 2003, and a white paper on calcium fluoride solubility submitted to EPA on July 27, 2009. Both of these documents can be found in the docket for this proposed rule.

Based on the wastewater treatment chemistry, B&W NOG has demonstrated that the fluoride in the sludge is present in the form of calcium fluoride, an insoluble precipitate. In contrast, the fluoride in the effluent is in a dissolved form (sodium fluoride) that can migrate through the soil and affect the underlying groundwater. The fluoride content in this effluent is regulated under B&W NOG's existing VPDES permit. The fluoride in the groundwater has been evaluated through a site-specific risk assessment. The actual area of fluoride contamination is very limited and the conclusion of the risk assessment accepted by VADEQ was that the risk to human health and the environment was so low that no action by B&W NOG was required to address this contamination.

### C. What conclusion did EPA reach?

EPA has concluded that the information provided by B&W NOG provides a reasonable basis to grant B&W NOG's petition. We, therefore, propose to grant B&W NOG a one-time delisting for the 148 cubic yards of petitioned sludge currently residing in the FEPs. The data submitted to support the petition and the Agency's evaluation show that the constituents in the FEP sludge are below health-based levels used by the Agency for delisting decision-making, and that the sludge does not exhibit any of the characteristics of a hazardous waste as described in 40 CFR part 261 subpart C.

For this delisting determination, we used information gathered to identify plausible exposure routes (*i.e.*, groundwater, surface water, air) for hazardous constituents present in the petitioned waste. We applied the DRAS described above to predict potential concentrations of hazardous constituents that may be released from the petitioned waste after disposal using both the landfill and surface impoundment modules. We performed a

separate and more conservative evaluation of volatile emissions from surface impoundments using the methodology described in the EPA report, "Air Emissions Models for Waste and Wastewater" (as described earlier in this preamble.) We determined the potential impact of the disposal of B&W NOG's waste on human health and the environment.

The estimated total cumulative risk as calculated using the DRAS landfill scenario is  $2.5 \times 10^{-7}$ . The estimated total cumulative risk as calculated using both the DRAS surface impoundment scenario and the methodology in the EPA report, "Air Emissions Models for Waste and Wastewater" is  $2.0 \times 10^{-6}$ . We conclude that these risks are acceptable because, for a one-time delisting, EPA Region III considers a cumulative cancer risk less than  $1 \times 10^{-4}$  to be protective of human health.

The estimated cumulative hazard index for this waste as calculated by DRAS using the landfill scenario is  $4.6 \times 10^{-2}$ . The estimated cumulative hazard index for this waste as calculated using both the DRAS surface impoundment scenario and the methodology in the EPA report, "Air Emissions Models for Waste and Wastewater" is  $1.3 \times 10^{-1}$ . We likewise conclude that these risks are acceptable because, for a one-time delisting, EPA Region III considers a cumulative hazard index less than or equal to 1 to be protective of human health.

We conclude that the data submitted in support of the petition show that the waste will not pose a threat when relieved of Subtitle C requirements. We, therefore, propose to grant B&W NOG's request for a one-time delisting for the 148 cubic yards of sludge currently residing in B&W NOG's FEPs.

### V. Conditions for Exclusion

#### A. What conditions are associated with this exclusion?

The proposed exclusion would apply only to the estimated 148 cubic yards of sludge currently residing in B&W NOG's FEPs.

If B&W NOG discovers that a condition or assumption related to the characterization of this waste that was used in the evaluation of this petition is not as reported in the petition, B&W NOG will be required to report any information relevant to that condition or assumption in writing to the Regional Administrator and the Virginia Department of Environmental Quality within 10 calendar days of discovering that condition.

The purpose of this condition is to require B&W NOG to disclose new or

different information that may be pertinent to the delisting. This provision will allow us to reevaluate the exclusion based on this new information in order to determine if our original decision was correct. If we discover such information from any source, we will act on it as appropriate. Further action may include repealing the exclusion, modifying the exclusion, or other appropriate action deemed necessary to protect human health or the environment. EPA has the authority under RCRA and the Administrative Procedures Act, 5 U.S.C. 551 *et seq.* (1978), (APA), to reopen the delisting under the conditions described above.

In order to adequately track wastes that have been delisted, in the event that a decision is made to dispose of all or of part of the sludge off-site, we will require that B&W NOG provide a one-time notification to any state regulatory agency to which or through which the delisted waste will be transported for disposal. B&W NOG will be required to provide this notification at least 60 calendar days prior to commencing these activities. Failure to provide such notification will be a violation of the delisting, and may be grounds for revocation of the exclusion.

#### B. What happens if B&W NOG fails to meet the conditions of this exclusion?

If B&W NOG violates the terms and conditions established in the exclusion, the Agency may start procedures to withdraw the exclusion, and may initiate enforcement actions.

### VI. How would this action affect states?

This proposed exclusion, if promulgated, would be issued under the Federal RCRA delisting program. States, however, may impose more stringent regulatory requirements than EPA pursuant to Section 3009 of RCRA. These more stringent requirements may include a provision which prohibits a Federally-issued exclusion from taking effect in the State. Because a petitioner's waste may be regulated under a dual system (*i.e.*, both Federal (RCRA) and State (RCRA) or State (non-RCRA) programs), petitioners are urged to contact State regulatory authorities to determine the current status of their wastes under the State laws.

Furthermore, some States are authorized to administer a delisting program in lieu of the Federal program (*i.e.*, to make their own delisting decisions). Therefore, this proposed exclusion, if promulgated, may not apply in those authorized States, unless it is adopted by the State. If the petitioned waste is managed in any State with delisting authorization, B&W

NOG must obtain delisting authorization from that State before the waste may be managed as nonhazardous in that State.

#### VII. When would the proposed exclusion be finalized?

EPA is today making a tentative decision to grant B&W NOG's petition. This proposed rule, if made final, will become effective immediately upon such final publication. The Hazardous and Solid Waste Amendments of 1984 amended Section 3010 of RCRA to allow rules to become effective in less than six months when the regulated community does not need the six-month period to come into compliance. That is the case here, because this rule, if finalized, would reduce the existing requirements for a facility generating hazardous wastes. In light of the unnecessary hardship and expense that would be imposed on this petitioner by an effective date six months after publication and the fact that a six-month deadline is not necessary to achieve the purpose of RCRA Section 3010, EPA has determined that this exclusion should be effective immediately upon final publication. These reasons also provide a basis for making this rule effective immediately, upon final publication, under the Administrative Procedures Act, 5 U.S.C. 553(d).

#### VIII. Statutory and Executive Order Reviews

Under Executive Order 12866, "Regulatory Planning and Review" (58 FR 51735, October 4, 1993), this rule is not of general applicability and therefore is not a regulatory action subject to review by the Office of Management and Budget (OMB). This rule 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 applies to a particular facility only. Because this rule is of particular applicability relating to a particular facility, it is not subject to the regulatory flexibility provisions of the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*), or to sections 202, 204, and 205 of the Unfunded Mandates Reform Act of 1995 (UMRA) (Pub. L. 104-4). Because this rule will affect only a particular facility, it will not significantly or uniquely affect small governments, as specified in section 203 of UMRA. Because this rule will affect only a particular facility, this proposed rule 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, as specified in Executive Order 13132, "Federalism," (64 FR 43255, August 10, 1999). Thus, Executive Order 13132 does not apply to this rule. Similarly, because this rule will affect only a particular facility, this proposed rule does not have tribal implications, as specified in Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments" (65 FR 67249, November 9, 2000). Thus, Executive Order 13175 does not apply to this rule. This rule also is not subject to Executive Order 13045, "Protection of Children from Environmental Health Risks and Safety Risks" (62 FR 19885, April 23, 1997), because it is not economically significant as defined in Executive Order 12866, and because the Agency does not have reason to believe the environmental health or safety risks addressed by this action present a disproportionate risk to children. The basis for this belief is that the Agency used the DRAS program, which considers health and safety risks to infants and children, to calculate the cumulative carcinogenic and noncarcinogenic risk. This rule is not subject to Executive Order 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use" (66 FR 28355 (May 22, 2001)), because it is not a significant regulatory action under Executive Order 12866. This rule does not involve technical standards; thus, the requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) do not apply. As required by section 3 of Executive Order 12988, "Civil Justice Reform," (61 FR 4729, February 7, 1996), in issuing this rule, EPA has taken the necessary steps to eliminate drafting errors and ambiguity, minimize potential litigation, and provide a clear legal standard for affected conduct. The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report which includes a copy of the rule to each House of the Congress and to the Comptroller General of the United States. Section 804 exempts from section 801 the following types of rules: (1) rules of particular applicability; (2) rules relating to agency management or personnel; and (3) rules of agency organization, procedure, or practice that

do not substantially affect the rights or obligations of non-agency parties, 5 U.S.C. 804(3). EPA is not required to submit a rule report regarding this action under section 801 because this is a rule of particular applicability. Executive Order (EO) 12898 (59 FR 7629 (Feb. 16, 1994)) establishes Federal executive policy on environmental justice. Its main provision directs federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States. EPA has determined that this proposed rule 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 did not identify risks from management of this material in a RCRA Subtitle D landfill or surface impoundment. Therefore, EPA does not believe that any populations in proximity of the landfills or surface impoundments used by this facility should be adversely affected by common waste management practices for this delisted waste.

#### List of Subjects in 40 CFR Part 261

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

**Authority:** Sec. 3001(f) RCRA, 42 U.S.C. 6921(f).

Dated: September 24, 2010.

**William C. Early,**

*Acting Regional Administrator, Region III.*

For the reasons set forth in the preamble, 40 CFR part 261 is proposed to be amended 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, and 6938.

2. Table 1 of Appendix IX of Part 261 is amended to add the following waste stream in alphabetical order by facility to read as follows:

**Appendix IX to Part 261—Wastes Excluded Under §§ 260.20 and 260.22**

