



# MARYLAND DEPARTMENT OF THE ENVIRONMENT

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January 3, 2011

## **BY CERTIFIED MAIL**

Edward R. Muller, President & CEO  
Mirant Corporation  
(GenOn Energy, Inc.)  
1155 Perimeter Center West, Suite 100  
Atlanta, GA 30338

Mark M. Jacobs, President and COO  
GenOn Energy, Inc.  
1000 Main Street  
Houston, TX 77002

Robert Gaudette, President & CEO  
Mirant (GenOn) Mid-Atlantic, LLC  
601 13<sup>th</sup> Street, Suite 850 North  
Washington, DC 20005

James P. Garlick, Senior Vice President  
Mirant (GenOn) Mid-Atlantic, LLC/  
Mirant (GenOn) Maryland Ash Management, LLC  
2711 Centerville Road  
Wilmington, DE 19808

The Honorable Lisa P. Jackson  
Administrator  
U.S. Environmental Protection Agency  
Ariel Rios Building (1101A)  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460

Shawn Garvin, Regional Administrator  
U.S. Environmental Protection Agency  
Region 3  
1650 Arch Street (SRA00)  
Philadelphia, PA 19103-2029

The Honorable Eric H. Holder, Jr.  
United States Attorney General  
U.S. Department of Justice  
950 Pennsylvania Avenue, NW  
Washington, DC 20530

Re: Notice of Intent to File Citizen Suit for Violations of the Clean Water Act at the  
Mirant Faulkner Coal Combustion Waste Disposal Site in Charles County, Maryland

Dear Mr. Muller, Mr. Jacobs, Mr. Gaudette, Mr. Garlick, Administrator Jackson, Regional Administrator Garvin, and Attorney General Holder:

The State of Maryland, Department of the Environment ("Department") hereby gives notice that it intends to bring suit under Section 505 of the Clean Water Act, 33 U.S.C. Section 1365, against Mirant Mid-Atlantic, LLC ("Mirant Mid-Atlantic"), and Mirant Maryland Ash Management, LLC ("Mirant Ash"), (collectively "Mirant"), for significant and ongoing violations of state and federal water pollution laws at the Faulkner disposal site in Charles County, Maryland. Clean Water Act, 33 U.S.C. Section 1251 *et seq.*; Maryland's Water Pollution Control Law, Md. Ann. Code, Environment Article, Section 9-301 *et seq.*; *U.S. Dept. of Energy v. Ohio*, 503 U.S. 607, 617, 112 S.Ct. 1627, 1634 (1992).



According to correspondence filed by Mirant with the Department on December 17, 2010, on December 3, 2010, RRI Energy, Inc. and Mirant Corporation completed a merger to form GenOn Energy, Inc. Mirant has advised that the wholly owned subsidiaries and permit holders changed their names to GenOn Mid-Atlantic, LLC and GenOn Maryland Ash Management, LLC. Section 4A-708 of the Corporations Article of the Annotated Code of Maryland governs the effective date of mergers, and provides as follows: "A merger is effective as of the later of: (1) The time [the State Department of Assessments and Taxation ("SDAT")] accepts the articles of merger for record; or (2) The time established under the articles of merger, not to exceed 30 days after the articles of merger are accepted for record." In this case, as of the date of filing of this Notice of Intent, the articles of merger have not been accepted by the SDAT. The only document on file with the SDAT is a reservation of the name, GenOn Energy, Inc., which has been filed monthly to hold that name since April 2010. Accordingly, the Department has identified the entities at issue in this Notice of Intent as Mirant entities but has addressed and served the Notice of Intent on both the Mirant and GenOn Energy, Inc. Presidents, Chief Executive Officers, and Chief Operating Officers.

Mirant Mid-Atlantic, the parent company of Mirant Ash, owns and operates the Morgantown electrical generation station located in Charles County, Maryland and directs environmental compliance and technical support functions at the Mirant Faulkner disposal site ("Disposal Site"). The process of electrical generation through the combustion of coal produces waste. Mirant Mid-Atlantic and Mirant Ash dispose of and partially treat this waste at the Disposal Site located in Charles County, in and around the Zekiah Swamp watershed, North Bowling Creek, South Bowling Creek, and unnamed tributaries of Zekiah Swamp Run, which ultimately flows into the Wicomico River, placing pollutants in a location where they may enter the waters of the State.

#### **A. Coal Combustion Waste**

Mirant Mid-Atlantic generates millions of tons of coal combustion waste at its electrical generating stations, including Morgantown. This waste is the residue generated by burning coal and is derived primarily from incombustible mineral material. Coal combustion waste contains a myriad of pollutants including high concentrations of toxic pollutants such as arsenic, cadmium, copper, lead, mercury, selenium and zinc.

These pollutants, when improperly disposed of or controlled, leach or are otherwise discharged into groundwater and surface water, thereby causing the contamination or other alteration of the physical, chemical, or biological properties of these waters. This contamination adversely impacts water supplies, aquatic organisms, wildlife, and humans, and renders the waters harmful or detrimental to public health, safety, or welfare and legitimate beneficial uses.

#### **B. Disposal of Coal Combustion Waste at the Disposal Site**

The Disposal Site consists of approximately 800 acres, of which 180 acres are utilized for the disposal of coal combustion waste. These 180 acres are divided into Disposal Pit 1 (also known as Phases I and II), which operated from 1970 through 1979; Disposal Pit 2 (also known as Phases III and IV), which



operated from 1979 through 1989; and the Curtis Disposal Pit, which began operation in 1989 and is slated for closure. None of the disposal pits were adequately lined to prevent leachate from migrating from the disposal site to groundwater or surface waters. Disposal Pits 1 and 2 were covered with soil but not with an impermeable cap. The Curtis Disposal Pit will be closed once Mirant Ash submits a plan for closure and capping that is approved by the Department.

More than 5.5 million cubic yards, or 8,434,800 tons, of coal combustion waste have been deposited at the Disposal Site over the last forty years.

Because the disposal pits were inadequately lined and impermeable caps were not installed, rainwater and snow melt penetrate the disposal pits, flow through the accumulated waste, and leach out toxic pollutants, which then enter the groundwater and are discharged into Bowling Creek, Lower Bowling Creek, Upper Bowling Creek, North Stream, South Stream, and unnamed tributaries of Zekiah Swamp Run. These toxic pollutants include, but are not limited to, aluminum, arsenic, barium, beryllium, boron, cadmium, chloride, chromium, cobalt, copper, cyanide, iron, lead, magnesium, manganese, mercury, nickel, pH, selenium, silver, sulfates, total suspended solids, tin, and zinc.

### **C. Wastewater and Leachate Collection and Treatment**

To address the unauthorized discharge of pollutants to groundwater and surface waters, Mirant Ash installed pumps, subsurface drains, walls, liners, and settling ponds to collect leachate from the disposal pits. Six settling ponds are used to collect groundwater and leachate pumped from Disposal Pit 1. Wastewater in the ponds is aerated and treated with soda ash before it is discharged via Outfall 001. This leachate collection and treatment system fails to prevent polluted leachate from entering waters of the State. Because the settling ponds were not adequately lined, heavy metals that sink to the bottom of the ponds continue to leach into the groundwater aquifer, which is hydro-geologically connected to tributaries of Zekiah Swamp Run.

As a result of continued unauthorized discharges of pollutants, Mirant Ash proposed to construct a passive treatment system, which it claimed would prevent the disposal of coal combustion waste from causing adverse impacts to groundwater and tributaries of Zekiah Swamp Run due to unauthorized discharges. The passive treatment system consisted of a series of wetlands, limestone beds and organic-rich reactive cells intended to attenuate low pH and high concentrations of metal in the collected leachate and groundwater. The system was constructed in December 2002, but failed to prevent leachate from entering groundwater and surface waters from the disposal pits, settling ponds, and outfalls. Many of the pollutants in the ponds do not settle, dissolve in the water in the ponds, and then discharge directly to Upper Bowling Creek via Outfalls A and C, and to a point down-gradient of the Curtis Disposal Pit via Outfall F.

According to a May 18, 2006 Maryland Department of Natural Resources Power Plant Research Program study, despite the passive system, the coal combustion waste was a continuing source of sulfates and metals in groundwater and surface water. The study concluded that there had been no significant change



in the spatial extent of analytes or chemical parameters in monitoring locations since 1995, and recommended that additional remedial measures be taken.

#### **D. Water Bodies Impacted**

Upper Bowling Creek, Lower Bowling Creek, Bowling Creek, North Stream, South Stream, unnamed tributaries of Zekiah Swamp Run, Zekiah Swamp Run, and the Wicomico River are navigable waters of the United States and waters of the State of Maryland. 33 U.S.C. § 1362(7); Md. Code Ann., Envir. § 9-101(l). They are Use I waters of the State protected for water contact recreation, fishing, aquatic life and wildlife. The Zekiah Swamp watershed is a valuable and unique ecological area located within the Chesapeake Bay Watershed.

The Disposal Site lies within the Coastal Plain Physiographic Province. Surficial terrace deposits are characterized by undifferentiated sands, clays and gravel forming the Alluvial aquifer. Thus, the Disposal Site sits over a shallow unconfined water table, with the impacted groundwater infiltrating the aquifer and detrimentally affecting water quality beneath the fill areas. The general groundwater flow direction at the site is to the east toward the Zekiah Swamp Run. As a consequence, pollutants in the groundwater that leach from the disposal pits and settling ponds migrate to the east and discharge into Zekiah Swamp Run. Groundwater and surface water sampling confirms that pollutants present in the groundwater below the disposal pits discharge to Bowling Creek and tributaries of Zekiah Swamp Run.

#### **E. The Discharge Permit**

On February 1, 1997, the Department issued National Pollutant Discharge Elimination System (“NPDES”) Discharge Permit No. MD-0056928 (State Discharge Permit No. 93-DP-1623) (the “Discharge Permit”) to the Potomac Electric Power Company (“PEPCO”), the prior owner of the Disposal Site, authorizing the discharge of certain pollutants from Outfalls 001 and 002. On or about December 22, 2000, when Mirant Ash purchased the Disposal Site from PEPCO, the existing discharge permit was transferred from PEPCO to Mirant Ash, and Mirant Ash assumed PEPCO’s obligations under the Discharge Permit.

The Discharge Permit was based on an application submitted by PEPCO on June 8, 1993. While the permit application identified the following pollutants as “present,” the concentrations disclosed were very low and not at levels that would cause or contribute to violations of water quality standards: arsenic, cadmium, copper, lead, mercury, nickel, selenium, silver, and zinc. Consequently, the Discharge Permit did not include effluent limitations for these pollutants based upon the representations made in the application that the pollutants present in the discharges from the authorized outfalls would not pose a risk to water quality.

The Discharge Permit does not authorize the discharge of pollutants from Outfalls 001 and 002 that are not expressly authorized by the permit. It also does not authorize discharges of any pollutants into Bowling Creek and tributaries of Zekiah Swamp Run from any point other than through Outfalls 001 and



002. The Discharge Permit does not authorize any discharges via Outfalls A, C and F to surface waters. It does not authorize discharges of any pollutants to groundwater, which then flows to tributaries of Zekiah Swamp Run.

Discharges of pollutants from Outfall 001 or Outfall 002 reported to be present, but at concentrations that would not cause or contribute to violations of water quality standards in the 1993 application and not included in the Discharge Permit, are unauthorized if discharged in concentrations that would cause or contribute to an exceedance of water quality standards. Discharges of pollutants in any concentrations to Bowling Creek or tributaries of Zekiah Swamp Run through leaks in the disposal pits, settling ponds and passive treatment systems are also unauthorized and a violation of the law.

On or about June 11, 2001, Mirant Ash submitted to the Department an application for renewal of the Discharge Permit. In this application, Mirant Ash reported that most of the pollutants identified as "believed present" in the 1993 application were "believed absent." Pollutants that Mirant Ash reported as "believed absent" include aluminum, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, cyanide, lead, mercury, selenium, silver, and tin. Mirant Ash made these representations despite more than thirty years of data on the constituents of leachate and discharges from coal combustion waste. In addition, Mirant Ash failed to identify sodium and chloride as being present in the discharge.

Mirant Ash is required to collect groundwater samples at the Site, as well as samples from Bowling Creek and South Stream, and report the findings at each of the monitoring wells and surface water locations. The Disposal Site is monitored by twenty-three groundwater wells as described in the Discharge Permit. Water quality of Bowling Creek and South Stream are sampled from four surface water locations that border the Disposal Site, and water quality of the treatment cells and discharges are sampled from Outfalls A, C and F.

#### **F. Unauthorized Discharges of Pollutants**

Discharges of pollutants from Outfalls A, C and F are not authorized in any concentrations because these outfalls are not identified as discharge points in the Discharge Permit. Sampling of discharges from Outfalls A, C and F, however, show concentrations of cadmium, copper, lead and selenium exceeding water quality standards and Total Suspended Solids exceeding 30 mg/l. Surface water sample results reported by Mirant Ash show cadmium above numerical chronic ambient water quality criteria at all four surface water sampling locations within Bowling Creek and South Stream.

The Discharge Permit does not authorize discharges of pollutants to groundwater in any concentration. Monitoring results submitted by Mirant Ash and Mirant Mid-Atlantic from groundwater monitoring wells around the disposal pits demonstrate unauthorized discharges of sulfates, total dissolved solids ("TDS"), manganese, iron, chlorides, cadmium, aluminum, and pH. Fifteen monitoring wells have shown results above the 250 mg/l secondary maximum contaminant level ("MCL") for sulfates with the highest concentration of 2800 mg/l occurring in monitoring well FC-3. Furthermore, nine wells reported



TDS levels higher than the 500 mg/l secondary MCL with FN-3 having the highest concentration at 3400 mg/l. Monitoring wells have consistently shown high concentrations of manganese and iron. At least seven of the wells reported manganese levels 50 to 60 times greater than the secondary MCL. Dissolved cadmium levels have exceeded the MCL in approximately nine wells. Several wells showed significant levels of aluminum and chlorides in excess of the secondary MCL. Eight wells showed sulfate levels that are 5 to 8 times the secondary MCL.

Outfall, surface water, and groundwater samples collected on October 5, 2010 revealed excessive amounts of selenium and chloride that violate water quality standards. A sample from Outfall 001 revealed a selenium concentration of 7.0 ug/l. A surface water sample taken from a sampling station in Upper Bowling Creek revealed a selenium concentration of 5.7 ug/l. Both of those test results constitute exceedances of the Maryland numerical water quality criteria and the national recommended water quality criteria established by the EPA of 5.0 ug/l for selenium. A sample from Outfall 001 revealed a chloride concentration of 724 mg/l. A surface water sample taken from monitoring well F-8 revealed a chloride concentration of 610 mg/l. Thus, both of those test results constitute violations of the chronic national non-priority pollutant water quality standard of 230 mg/l for chloride.

Furthermore, Mirant Ash submitted five quarterly discharge monitoring reports between the first quarter of 2009 and the first quarter of 2010 showing exceedances of MCLs in all of the groundwater monitoring wells that are required to be sampled under the Discharge Permit. Following is a list of MCL exceedances at each well during the above time period, identifying the well and the number of quarterly reports showing exceedances of a particular pollutant:

<u>Monitoring Well</u>	<u>Pollutant</u>	<u>Number of quarterly reports showing exceedances of Pollutant (First Quarter 2009 – First Quarter 2010)</u>
Well FN-1	Dissolved Iron	5
	Dissolved Manganese	5
	pH	3
	Chloride	1
	Sulfate	5
	Total Dissolved Solids (TDS)	5
Well FN-2	Dissolved Iron	5
	Dissolved Aluminum,	5
	Dissolved Cadmium	2
	pH	5
	Sulfate	5
	TDS	5



<u>Monitoring Well</u>	<u>Pollutant</u>	<u>Number of quarterly reports showing exceedances of Pollutant (First Quarter 2009 – First Quarter 2010)</u>
Well FN-3	pH	5
	Dissolved Iron	4
	Dissolved Aluminum	5
	Dissolved Manganese	5
	Chloride	4
	Sulfate	5
	TDS	5
Well FN-4	Dissolved Aluminum	1
	Dissolved Iron	1
	Dissolved manganese	1
	TDS	1
Well FN-5	Dissolved Manganese	3
	Dissolved Iron	2
Well FN-6	pH	4
	Dissolved Iron	5
	Dissolved Manganese	5
	Chloride	3
	Sulfate	5
	TDS	5
Well FC-1	pH	1
	Dissolved Aluminum	3
	Dissolved Manganese	4
	Dissolved Iron	2
	Dissolved Cadmium	1
	Chloride	1
	TDS	3
Well FC-2	pH	5
	Dissolved Aluminum	5
	Dissolved Iron	4
	Dissolved Manganese	5
	Dissolved Cadmium	5
	Chloride	3
	Sulfate	3
	TDS	4



<u>Monitoring Well</u>	<u>Pollutant</u>	<u>Number of quarterly reports showing exceedances of Pollutant (First Quarter 2009 – First Quarter 2010)</u>
Well FC-3	pH	5
	Dissolved Aluminum	5
	Dissolved Cadmium	5
	Dissolved Manganese	5
	TDS	5
	Dissolved Iron	1
	Chloride	4
	Sulfate	5
Well FC-4:	pH	5
	Dissolved Aluminum	5
	Dissolved Cadmium	4
	Dissolved Manganese	5
	TDS	5
	Chloride	3
	Sulfate	5

In violation of 33 U.S.C. § 1311 and Md. Code Ann., Envir. §§ 9-322 and 9-323, sampling results from groundwater monitoring wells, from outfalls 001, A, C and F, and from Bowling Creek and South Stream demonstrate that Mirant Ash and Mirant Mid-Atlantic are discharging and continue to discharge pollutants, including but not limited to, aluminum, arsenic, barium, beryllium, boron, cadmium, chlorides, chromium, cobalt, copper, cyanide, iron, lead, manganese, mercury, molybdenum, nickel, pH, selenium, silver, sulfates, TDS, tin, and zinc from the disposal pits, the treatment cells, the settling ponds and through Outfalls 001, 002, A, C and F into Bowling Creek and tributaries of Zekiah Swamp Run directly or through discharges to groundwater that is hydro-geologically connected to surface waters that are not authorized, or in amounts that are not authorized, by the Discharge Permit. In addition, Mirant Ash and Mirant Mid-Atlantic continue to discharge from Outfalls A, C and F, which are discharges not authorized by the Discharge Permit. Further, sample results of the leachate in the treatment ponds demonstrate the presence of unauthorized pollutants in a position likely to pollute Bowling Creek and tributaries of Zekiah Swamp Run, which constitutes a discharge under Maryland law. All of these unauthorized discharges are continuing and have been occurring daily since at least December 1, 2005.

Until the disposal area is completely lined or enclosed to prevent the discharge of pollutants to surface waters or groundwater of the State and/or until all leachate is collected and treated prior to discharge to State waters, Mirant Ash and Mirant Mid-Atlantic will continue to unlawfully discharge pollutants entrained in leachate from the coal combustion waste to ground and surface waters of the State and navigable waters of the United States.



These illegal discharges to groundwater and surface water into Upper Bowling Creek, Lower Bowling Creek, Bowling Creek, North Stream, South Stream, unnamed tributaries of Zekiah Swamp Run, and Zekiah Swamp Run, which flow into the Wicomico River, constitute significant and ongoing violations of state and federal water pollution laws, contaminating the groundwater and surface waters of the State of Maryland, thereby causing an adverse impact on the environment. Consequently, notice of the State's intent to file suit is hereby given.

Sincerely,



Robert M. Summers, Ph.D.  
Acting Secretary

cc: The Honorable Martin O'Malley, Governor of Maryland  
The Honorable Douglas F. Gansler, Attorney General of Maryland

