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**VIA ELECTRONIC MAIL**

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**RE: Application for NRG Morgantown Generating Station State Discharge Permit 14DP0841, NPDES Permit MD0002674; Comments of the Sierra Club, Environmental Integrity Project, Chesapeake Climate Action Network, Chesapeake Physicians for Social Responsibility, Clean Water Action, and Potomac Riverkeeper**

Dear Mr. Richardson:

The Sierra Club, Environmental Integrity Project, Chesapeake Climate Action Network, Chesapeake Physicians for Social Responsibility, Clean Water Action, and Potomac Riverkeeper respectfully submit the following comments regarding the draft tentative determination for the Morgantown Generating Station (Morgantown) dated July 5, 2017. For the reasons set forth below, the Maryland Department of the Environment's (Department's) final National Pollutant Discharge Elimination System (NPDES) permit for Morgantown must require that the facility achieve compliance with the U.S. Environmental Protection Agency's (EPA's) 2015 Effluent Limitation Guidelines (ELGs) for flue gas desulfurization wastewater by no later than November 1, 2020. Not only is this compliance timeframe consistent with EPA's recent September 18, 2017 rulemaking clarifying the status of the 2015 ELGs, but also, as set forth below and in the accompanying expert report of Dr. Ranajit Sahu (attached as Exhibit 1), it is readily achievable at an affordable cost to NRG. In addition, the final permit should (i) require more, not less, monitoring to ensure compliance with the 2015 ELGs and other permit conditions, and (ii) tighten the time frame for NRG to provide the studies and analyses required to establish Best Technology Available to minimize impingement and entrainment mortality from the facility's cooling water intake structures.

**A. The Final NPDES Permits Must Require that Morgantown Comply with EPA's 2015 Effluent Limitation Guidelines for Steam Electric Generating Units by No Later than November 1, 2020 for Flue Gas Desulfurization Wastewater<sup>1</sup>**

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<sup>1</sup> The compliance date for the ELG for Nonchemical Metal Cleaning Waste must be no later than November 1, 2018. However, as noted in the Fact Sheet accompanying the tentative determination, the 2015 ELGs did not modify the discharge requirements applicable this waste stream, so there are no additional requirements to implement.

1. NPDES Permits Issued Today Must Establish a Deadline for Compliance with the 2015 ELGs

The Clean Water Act requires NPDES permits to include effluent limits based on the level of performance achievable through the use of technology that “will result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants.” 33 U.S.C. § 1311(b)(2)(A)(i), *see also id.* § 1311(b)(1)(A). Technology-based effluent limitations (“TBELs”) constitute the minimum level of control that must be included in a permit “regardless of a discharge’s effect on water quality.” *Am. Petroleum Inst. v. EPA*, 661 F.2d 340, 344 (5th Cir. 1981).

For sources such as Morgantown, discharges of pollutants must be eliminated or controlled through application of Best Available Technology (“BAT”). *See* 33 U.S.C. § 1311(b)(2)(A). In accordance with the Act’s goal of eliminating all discharges of pollutants, BAT limits “shall require the elimination of discharges of all pollutants if the Administrator finds, on the basis of information available to him . . . that such elimination is technologically and economically achievable . . .” *Id.*

The requirement to meet the BAT standard is ongoing; it compels polluting industries to meet ever more stringent limitations on the path towards complete elimination of water pollution. *See NRDC v. EPA*, 822 F.2d 104, 123 (D.C. Cir. 1987). With each renewal of a NPDES permit, permitting agencies must reconsider whether further pollution reductions and technologies are attainable. The objective of the law is continuous, rapid improvement:

The BAT standard reflects the intention of Congress to use the latest scientific research and technology in setting effluent limits, pushing industries toward the goal of zero discharge as quickly as possible. In setting BAT, EPA uses not the average plant, but the optimally operating plant, the pilot plant which acts as a beacon to show what is possible.

*Kennecott v. EPA*, 780 F.2d 445, 448 (4th Cir. 1985) (citing 1 *Legislative History of the Federal Water Pollution Control Act of 1972*, 798 (Committee Print compiled for the Senate Committee on Public Works by the Library of Congress), Ser. No. 93-1 (1973)).

EPA periodically promulgates national effluent limitation guidelines (“ELGs”) for NPDES permits that reflect BAT for particular discharges, pollutants, and activities found in a category of point sources. *See* 40 C.F.R. § 423. Where those guidelines have been set, they establish the floor or minimum level of control that must be imposed in a NPDES permit. In 2015, EPA updated ELGs for steam electric power plants such as Morgantown. 80 Fed. Reg. 67,838 (Nov. 3, 2015) (codified at 40 C.F.R. Pt. 423) (“2015 ELGs”). EPA’s final rule noted: “Steam electric power plants contribute the greatest amount of all toxic pollutants discharged to surface waters by industrial categories regulated under the [Clean Water Act].” *Id.* Among other things, the new rule prohibits the discharge of pollutants from bottom ash and limits the amount of arsenic, mercury, selenium, and nitrate that may be discharged in FGD wastewater. 40 C.F.R. §§ 423.13 (g)(1)(i) & (k)(1)(i). Prior to this long overdue rulemaking, the ELGs were “out of date” and did “not adequately control the pollutants (toxic metals and other) discharged by”

power plants, “nor [did] they reflect relevant process and technology advances that ha[d] occurred in the last 30-plus years.” 80 Fed. Reg. at 67,840. The 2015 ELGs became effective January 4, 2016. *Id.*

On September 18, 2017, EPA published a final rule adjusting certain compliance dates for the 2015 ELGs and reaffirming the rule’s effectiveness by withdrawing a previously-issued stay of the rule. 82 Fed. Reg. 43,494 (Sept. 18, 2017) (lifting stay, clarifying 2015 ELG in effect). This action removed the “uncertainty” referenced in the draft tentative determination (Draft TD at 30) regarding both the current status of the 2015 ELG as well as the applicable compliance deadlines. As discussed below, the final determination for the facility needs to be modified to implement the 2015 ELG on a time frame consistent with the September 18, 2017 final rule.<sup>2</sup>

2. The Compliance Deadline for the 2015 ELGs Must Be No Later than November 1, 2020 for Flue Gas Desulfurization Wastewater

The November 3, 2015 final ELGs specified that, when revising permits for coal plants that discharge directly to surface waters, state permitting authorities must specify the compliance deadline for the revised ELGs, which is to be “as soon as possible beginning November 1, 2018.” *See* 40 C.F.R. § 423.13(g)(1)(i). On September 18, 2017, EPA issued a final rule adjusting the compliance date for two specific waste streams: flue gas desulfurization wastewater and bottom ash transport water. 82 Fed. Reg. 43,494. For these two waste streams, the compliance date is now “as soon as possible beginning November 1, 2020.” The phrase “as soon as possible” means on November 1, 2020 in the case of flue gas desulfurization wastewater and bottom ash transport water unless the permitting authority establishes a later date based on a well-documented justification and the authority’s consideration of certain enumerated factors in the final rule. 40 C.F.R. § 423.11(t). EPA instructs permitting authorities to “provide a well-documented justification for how [they] determined the ‘as soon as possible’ date in the fact sheet or administrative record for the permit” and to “explain why allowing additional time to meet the limitations is appropriate,” if that is the authority’s conclusion. *See* TSD at 14-11.

For FGD wastewater, the draft tentative determination purports to give NRG 12 months from the date that the 2015 ELG becomes effective again to accept the voluntary limits set forth in 40 C.F.R. § 423.13(g)(3)(i) or to submit a major permit modification proposing a timeline for meeting the limits set forth in 40 C.F.R. § 423.13(g)(1)(i). Draft TD at 30. In the event that NRG submits such a major permit modification, the compliance deadline for the discharge limits in the ELG would default to December 31, 2023 until the modification is issued or denied. *Id.* In light of the removal of the uncertainty regarding the status of the 2015 ELGs, this approach must be modified in the final permit. As an initial matter, the ELGs have become effective again, and—excepting the five months period from April 12, 2017 to September 18, 2017 when they were stayed by EPA—have been effective since January 4, 2016. Despite having had more than fifteen months during which time the ELGs were in effect and not stayed, NRG to date has

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<sup>2</sup> Due to the likelihood of legal challenges to EPA’s September 18 postponement rule, we recommend that the Department include an alternative “as soon as possible” compliance date that is as soon as possible after November 1, 2018.

provided no documented justification to the Department to support a later compliance date.<sup>3</sup> Particularly now, with the initial compliance deadline postponed by two additional years, there is no basis for granting NRG an extension beyond November 1, 2020 to achieve compliance with the ELG for FGD wastewater. Instead, the Department should establish an expeditious deadline by which NRG must notify the Department whether or not it will comply with the voluntary limits set forth in 40 C.F.R. § 423.13(g)(3)(i). If NRG declines those limits, the permit should make clear that the compliance deadline for the limits set forth in 40 C.F.R. § 423.13(g)(1)(i) is November 1, 2020, and require NRG to demonstrate progress toward those limits through a schedule of compliance with interim milestones for identifying and testing new pollution control technologies.

Expeditious compliance with the ELGs for FGD wastewater is critical at Morgantown in light of ongoing discharges of arsenic and selenium that routinely exceed ELG limits. As discharge monitoring data demonstrate, for both arsenic and selenium, the facility frequently discharges these harmful pollutants at concentrations that exceed—and sometimes far exceed—even the weaker baseline ELG standards set forth in 40 C.F.R. § 423.13(g)(1)(i). Under the 2015 ELG, the baseline arsenic limit is 11 ug/L (0.011 mg/L) as a daily maximum and 8 ug/L (0.008 mg/L) as a 30-day average. *Id.* The baseline selenium limit is 23 ug/L (0.023 mg/L) as a daily maximum and 12 ug/L (0.012 mg/L) as a 30-day average. *Id.* Morgantown exceeded the ELG’s baseline daily maximum or 30-day average for arsenic in FGD wastewater 85 times between July 2013 and June 2017 and exceeded the ELG’s baseline daily maximum or 30-day average for selenium in FGD wastewater 91 times between July 2013 and June 2017. The highest discharged concentrations of arsenic were more than 13 times the baseline daily maximum in the ELG and the highest discharged concentrations of selenium were more than 40 times the baseline daily maximum in the ELG. The relevant DMR data downloaded from EPA’s Enforcement and Compliance History Online are presented in Appendix A.

3. NRG Can Readily Meet the ELG Limits for FGD Wastewater by 2020 at Low Cost; MDE Must Require NRG to Do So

As described above, there is currently no uncertainty about the applicability of the 2015 ELG Rule. The stay of certain compliance deadlines issued by EPA in April 2017 has been withdrawn,<sup>4</sup> and the Best Available Technology (BAT) limits on FGD wastewater apply to the forthcoming permit cycle. The default compliance date for these BAT limits is November 1, 2020.<sup>5</sup> Although MDE has the discretion to establish a later compliance date, it can only do so if NRG provides a persuasive justification that adheres to the requirements of 40 C.F.R. § 423.11(t).<sup>6</sup> As described below and in Exhibit 1, NRG can easily meet the default 2020

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<sup>3</sup> Email from Jonathan Rice, MDE, to Josh Berman, Sierra Club (Sept. 18, 2017) (confirming no submission by NRG of any information regarding the timing of its ability to comply with the ELGs).

<sup>4</sup> 82 Fed. Reg. 43496.

<sup>5</sup> 40 C.F.R. § 423.11(t), 82 Fed. Reg. 43500.

<sup>6</sup> See, e.g., 40 C.F.R. § 432.13(g)(1)(i), establishing compliance dates for the BAT limits on FGD wastewater. Any later compliance date would have to be no later than December 31, 2023 and would be required to be well-documented and reflect consideration of the following factors: (a) Time to expeditiously plan (including time to raise capital), design, procure, and install equipment to comply with the requirements of the final rule. 40 C.F.R. §423.11(t)(1). EPA further explains in its Technical Development Document that “the permitting authority should evaluate what operational changes are expected at the plant to meet the new BAT limitations for each waste stream, including the

deadline for complying with the BAT limits in the ELG rule at low cost, and does not need an extension. MDE must therefore apply a deadline of November 1, 2020 for these limits.

The timely and cost-effective achievability of the BAT limits for FGD wastewater is clear on multiple levels. At the industry level, the rulemaking record for the 2015 ELG Rule demonstrates that the 2015 BAT limits for FGD wastewater are routinely being achieved in practice. At the company level, NRG's stated cost of compliance relative to its revenue shows that the ELG limits are economically achievable. Finally, at the facility level, the attached expert report shows that the Morgantown plant can easily meet the 2020 deadline at low cost.

a. The ELG Limits Have Been Widely Achieved in Practice

At the national level, EPA has unequivocally demonstrated that chemical and biological treatment (for FGD wastewater) meet the legal definition of Best Available Technology. A technology is "available" if it is in use in the industry, even if only by the best-performing plant in the industry, or if it can be demonstrated to be available through pilot studies or its use in other industries.<sup>7</sup> A technology is economically achievable if the "costs can be reasonably borne by the industry."<sup>8</sup>

EPA's rulemaking record shows that technologies capable of meeting the BAT limits in the 2015 ELG rule for FGD wastewater are widely used. The BAT limits are based on a combination of chemical precipitation and biological treatment.<sup>9</sup> Both of these technologies are currently being used by multiple coal plants. Specifically, EPA found that 39 plants use chemical precipitation to treat FGD wastewater and 6 use biological treatment; at least four plants use both

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types of new treatment technologies that the plant plans to install, process changes anticipated, and the timeframe estimated to plan, design, procure, and install any relevant technologies." (b) Changes being made or planned at the plant in response to new or existing requirements at fossil fuel-fired power plants under the Clean Air Act, as well as regulations for the disposal of coal combustion residuals under subtitle D of the Resource Conservation and Recovery Act. 40 C.F.R. § 423.11(t)(2). (c) For FGD wastewater requirements only, an initial commissioning period to optimize the installed equipment. 40 C.F.R. § 423.11(t)(3). EPA explains in the Technical Development Document that its "record demonstrates that plants installing the FGD technology basis spent several months optimizing its operation (initial commissioning period). Without allowing additional time for optimization, the plant would likely not be able to meet the limitations because they are based on the operation of optimized systems." TDD at 14-11. And (d) Other factors as appropriate. 40 C.F.R. § 423.11(t)(4). EPA encourages permitting authorities to "provide a well-documented justification for how it determined the 'as soon as possible' date in the fact sheet or administrative record for the permit," and to "explain why allowing additional time to meet the limitations is appropriate," if that is the authority's conclusion. TDD at 14-11. Any information that permittees provide to the Department regarding their potential to comply by November 2018 or 2020 should be made available to the public and subjected to close scrutiny and verification by your office. Prompt compliance will also help the state achieve compliance with water quality standards and improve drinking water quality.

<sup>7</sup> *Chem. Mfrs. Ass'n v. EPA*, 870 F.2d at 226 ("Congress intended these [BAT] limitations to be based on the performance of the single best-performing plant in an industrial field."); see also *Nat. Res. Def. Council, Inc. v. EPA*, 863 F.2d 1420, 1426 (9th Cir. 1988); *Kennecott v. EPA*, 780 F.2d 445, 448 ("In setting BAT, EPA uses not the average plant, but the optimally operating plant, the pilot plant which acts as a beacon to show what is possible."); *Am. Petroleum Inst. v. EPA*, 858 F.2d 261, 265 (5th Cir. 1988) (stating that under BAT, "a process is deemed 'available' even if it is not in use at all"); *FMC Corp. v. Train*, 539 F.2d 973, 983-84 (4th Cir. 1976) (finding EPA justified in setting BAT for chemical oxygen demand based on performance data from a single pilot plant).

<sup>8</sup> *Waterkeeper Alliance, Inc. v. EPA*, 399 F.3d at 516; *Rybachek v. EPA*, 904 F.2d at 1290-91 (discussing this standard).

<sup>9</sup> 80 Fed. Reg. 67850.

technologies together.<sup>10</sup> Another 51 plants go even further, and have no liquid FGD wastewater discharge at all.<sup>11</sup> Overall, EPA found that 45% of plants with wet FGD scrubbers have equipment or processes in place to meet the final BAT limits for FGD wastewater.<sup>12</sup> There can be no question, then, that these technologies are available and in use by the industry. FGD treatment technologies are also economically achievable, as shown by EPA's analysis of the cost to revenue ratio for total compliance (including FGD and other wastestreams). According to the Agency, "[p]lants incurring costs below one percent of revenue are unlikely to face economic impacts."<sup>13</sup> Virtually the entire industry (96% of plants, and 90-92% of parent entities) falls below this threshold, with compliance costs equal to less than 1% of revenue.<sup>14</sup> In other words, the industry is unlikely to face significant economic impacts from ELG compliance costs, and the BAT limits in the rule are economically achievable.

b. NRG Can Achieve the ELGs at Morgantown by November 1, 2020 at Low Cost

For NRG in particular, projected ELG compliance costs that the company reported in its 2016 Security and Exchange Commission form 10-K were equal to just 0.3% of revenue, much less than the 1% "economic impacts" threshold.<sup>15</sup> It is beyond question that NRG can afford to comply with the 2015 ELG Rule.

Moreover, in relation to Morgantown, NRG can easily and affordably comply with the 2020 default compliance date in the ELG Rule. The attached report prepared by Dr. Ranajit Sahu<sup>16</sup> shows that Morgantown's FGD discharge is already compliant, or very close to compliant, with the ELG limits on mercury and nitrate/nitrite. In order to meet the arsenic and selenium limits in the ELG Rule, NRG could install an additional biological treatment component to its wastewater treatment system. Dr. Sahu recommends that NRG install GE's ABMet biological system (in addition to a larger equalization tank to ensure water flow through the system at all times). The ABMet system has been proven to meet the ELG limits. NRG can install an ABMet system and bring it into full operation in as little as eight months or, at most, in less than two years (i.e., before the 2020 compliance deadline). Capital costs for NRG should be in the range of \$5-10 million, or perhaps even less if NRG can reduce the flow rate to the wastewater treatment system. Dr. Sahu also notes that NRG could comply with the rule using other available and achievable technologies, including zero discharge technologies. Compliance

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<sup>10</sup> Id. These numbers reflect the state of the industry as of 2015 and may have changed in the past two years.

<sup>11</sup> U.S. EPA, Technical Development Document for the Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category, EPA-821-R-15-007, page 7-3 (Sept., 2015).

<sup>12</sup> Id. at 8-7.

<sup>13</sup> 80 Fed. Reg. 67865.

<sup>14</sup> 80 Fed. Reg. 67865-67866.

<sup>15</sup> Comments of Sierra Club et al. on the Postponement of Certain Compliance Dates for the Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category, Proposed Rule (July 6, 2017), attached hereto as Exhibit 2. *See also* Declaration of Elizabeth A. Stanton, Ex. 19 to Plaintiffs' Motion for Summary Judgment, *Clean Water Action v. Pruitt*, No. 17-cv-00817-KBJ, ECF Doc. 20 (D.D.C. Motion filed June 14, 2017), attached hereto as Exhibit 3.

<sup>16</sup> R. Sahu, Comments on the Flue Gas Desulfurization (FGD) Wastewater Limits in Draft State Discharge Permit 14DP0841, NPDES Permit MD0002674 for NRG Morgantown (2017), attached hereto as Exhibit 1.

with the bottom ash transport water limits in the ELG Rule is not an issue at Morgantown, as the facility is already using a dry bottom ash removal system that complies with the ELG Rule.

In short, ELG compliance at Morgantown is both achievable by 2020 and affordable. MDE therefore has a legal obligation to finalize the permit with a compliance date of no later than November 1, 2020.

**B. The Final Permit Should Require More, Not Less, Monitoring to Ensure Compliance With the ELG Rule and Other Permit Conditions**

NRG has asked for “a reduction in sampling for metals at MP 801.”<sup>17</sup> This would be inappropriate and MDE must deny NRG’s request. According to Dr. Sahu (Attachment A), the discharge data continue to show considerable variability and can only be accurately characterized with continued monitoring. EPA’s NPDES Permit Writer’s Manual states that “a highly variable discharge should require more frequent monitoring than a discharge that is relatively consistent over time.”<sup>18</sup> Moreover, EPA regulations explicitly require monitoring at a “frequency sufficient to yield data which are representative of the monitored activity including, when appropriate, continuous monitoring.”<sup>19</sup> The limits on FGD wastewater set forth in the ELG Rule include both monthly average and daily maximum limits. Since the final permit must include these limits, and since the discharge has been variable in recent years, MDE will need monitoring data on a weekly basis, if not more frequently, to provide reasonable assurance of compliance.

**C. The Proposed Determination Provides NRG an Unjustifiably Long Time to Submit the Studies and Analyses Required to Establish Best Technology Available to Minimize Impingement and Entrainment Mortality**

**1. Regulation of Cooling Water Intake Structures Under the Clean Water Act**

Power plants, through their cooling water intakes, cause severe adverse environmental impacts to populations of fish and other aquatic organisms. Section 316(b) of the CWA requires that the “location, design, construction, and capacity of cooling water intake structures reflect the best technology available [“BTA”] for minimizing adverse environmental impact”—including, entrainment, and increased water temperature.<sup>20</sup> In 2014, the EPA issued a final rule implementing CWA Section 316(b) at existing facilities withdrawing over 2 million gallons of water a day (2014 Rule).<sup>21</sup> This rule requires existing facilities to adhere to one of seven compliance options as BTA for impingement and mortality reduction and requires permitting agencies such as MDE to establish a BTA-based standard for entrainment using BPJ.<sup>22</sup> The facility must also generate supporting studies to submit to the permitting agency relating to their method of compliance.

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<sup>17</sup> NRG, Discharge Permit Renewal – MD0002674 (Morgantown Generating Station) (Nov. 13, 2013).

<sup>18</sup> U.S EPA, NPDES Permit Writer’s Manual, 8-5 (Nov. 2010).

<sup>19</sup> 40 C.F.R. § 122.48(b).

<sup>20</sup> 33 U.S.C. § 1326(b).

<sup>21</sup> 79 Fed. Reg. 48,300 (Aug. 15, 2014).

<sup>22</sup> 40 C.F.R. § 125.98(i).

## 2. The Tentative Determination Grants NRG an Unjustifiable Amount of Time to Submit the Studies Required by 316(b)

EPA finalized its regulations implementing Section 316(b) more than three years ago. As noted in the preamble to the final 2014 Rule, these regulations build upon Phase II regulations from a decade earlier (February 2004) that were suspended in July 2007.<sup>23</sup> Under the 2014 Rule, plant owners must complete certain studies and analyses, which permitting agencies will use to make BTA determinations (Section 122.21(r) information). For facilities whose permits expire after July 14, 2018, plant owners are expected to submit the Section 122.21(r) information as part of their next permit renewal application.<sup>24</sup> As July 14, 2018 is 45 months after the October 14, 2014 effective date of the 2014 Rule, facilities subject to Section 125.95(a) whose permits expired in July 2018 would have 39 months to complete and submit the required studies and analyses (which must be submitted at least 180 days prior to the expiration date of the permit). For facilities like Morgantown whose permits expire on or before July 14, 2018, Section 125.95(b) prescribes that the permitting agency establish a schedule for submission of the information required in 40 CFR 122.21(r).<sup>25</sup> The tentative determination would grant NRG 42 months from the effective date of the permit to supply the Section 122.21(r) information.<sup>26</sup>

Allowing NRG 42 months to supply the Section 122.21(r) information is unjustified. As an initial matter, 42 months is longer than the amount of time the rule grants to owners of facilities whose permits expire in the third quarter of 2018.<sup>27</sup> As noted above, a facility whose permit expired in July 2018, would have only 39 months to submit the Section 122.21(r) information. In addition, providing NRG an additional 42 months from the effective date of this permit renewal implicitly assumes, and would effectively reward NRG for, more than three years of inaction following finalization of the 2014 Rule. The 2014 Rule was finalized in August 2014 and became effective in October of that year. Treating NRG as though it is being presented with the Section 122.21(r) submittal requirements for the first time in late 2017 is unsupported and inappropriate. Indeed, EPA observed in the preamble to the 2014 rule that owners of facilities like Morgantown, that were subject to the Phase II rule “were already collecting some information required at § 122.21(r).”<sup>28</sup> If NRG has already commenced the required studies and analyses either under the Phase II rule or pursuant to the 2014 rule, it does not need an additional 42 months to submit those studies. And if NRG has never taken any action to collect the information required by the Phase II rule or the 2014 Rule, the company should not be rewarded for this inaction. Finally, the 2014 Rule states that the plant’s cooling water intake system must be brought into compliance with CWA Section 316(b) “as soon as possible”<sup>29</sup> and, in the interim, should be subject to additional requirements to reduce impacts of impingement and entrainment. The Department should significantly shorten the time frame for submittal of the Section 122.21(r) information, and should impose interim requirements to address impingement and entrainment mortality.

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<sup>23</sup> 79 Fed. Reg. at 48,368.

<sup>24</sup> 40 C.F.R. § 125.95(a)(1).

<sup>25</sup> 40 C.F.R. § 125.95(a)(2).

<sup>26</sup> Morgantown Draft Tentative Determination MD0002674 at 28.

<sup>27</sup> 40 C.F.R. § 125.95(a)(1).

<sup>28</sup> 79 Fed. Reg. at 48,368.

<sup>29</sup> 140 C.F.R. § 122.47.



Thank you for your consideration.

Respectfully submitted,

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## APPENDIX A

### Morgantown Arsenic Discharges from Outfall 801 Exceeding 2015 ELG for FGD Wastewater (July 2013 through June 2017)<sup>30</sup>

Outfall	Monitoring Period End Date	DMR Value	Units	Monthly/Daily
801	7/31/2013	= 0.014	mg/L	Monthly avg.
801	7/31/2013	= 0.014	mg/L	Daily max.
801	8/31/2013	= 0.064	mg/L	Monthly avg.
801	8/31/2013	= 0.064	mg/L	Daily max.
801	9/30/2013	= 0.092	mg/L	Monthly avg.
801	9/30/2013	= 0.092	mg/L	Daily max.
801	10/31/2013	= 0.027	mg/L	Monthly avg.
801	10/31/2013	= 0.027	mg/L	Daily max.
801	11/30/2013	= 0.023	mg/L	Monthly avg.
801	11/30/2013	= 0.023	mg/L	Daily max.
801	12/31/2013	= 0.083	mg/L	Monthly avg.
801	12/31/2013	= 0.083	mg/L	Daily max.
801	1/31/2014	= 0.017	mg/L	Monthly avg.
801	1/31/2014	= 0.017	mg/L	Daily max.
801	2/28/2014	= 0.054	mg/L	Monthly avg.
801	2/28/2014	= 0.054	mg/L	Daily max.
801	3/31/2014	= 0.054	mg/L	Monthly avg.
801	3/31/2014	= 0.054	mg/L	Daily max.
801	4/30/2014	= 0.019	mg/L	Monthly avg.
801	4/30/2014	= 0.019	mg/L	Daily max.
801	5/31/2014	= 0.023	mg/L	Monthly avg.
801	5/31/2014	= 0.023	mg/L	Daily max.
801	6/30/2014	= 0.025	mg/L	Monthly avg.
801	6/30/2014	= 0.025	mg/L	Daily max.
801	7/31/2014	= 0.021	mg/L	Monthly avg.
801	7/31/2014	= 0.021	mg/L	Daily max.
801	8/31/2014	= 0.046	mg/L	Monthly avg.
801	8/31/2014	= 0.046	mg/L	Daily max.
801	9/30/2014	= 0.011	mg/L	Monthly avg.
801	10/31/2014	= 0.036	mg/L	Monthly avg.
801	10/31/2014	= 0.036	mg/L	Daily max.
801	11/30/2014	= 0.028	mg/L	Monthly avg.
801	11/30/2014	= 0.028	mg/L	Daily max.
801	12/31/2014	= 0.034	mg/L	Monthly avg.
801	12/31/2014	= 0.034	mg/L	Daily max.
801	1/31/2015	= 0.017	mg/L	Monthly avg.
801	1/31/2015	= 0.017	mg/L	Daily max.

<sup>30</sup> Data downloaded from EPA's Enforcement and Compliance History Online (<https://echo.epa.gov/>).

801	2/28/2015	= 0.029	mg/L	Monthly avg.
801	2/28/2015	= 0.029	mg/L	Daily max.
801	4/30/2015	= 0.012	mg/L	Monthly avg.
801	4/30/2015	= 0.012	mg/L	Daily max.
801	5/31/2015	= 0.011	mg/L	Monthly avg.
801	6/30/2015	= 0.0094	mg/L	Monthly avg.
801	7/31/2015	= 0.076	mg/L	Monthly avg.
801	7/31/2015	= 0.076	mg/L	Daily max.
801	8/31/2015	= 0.093	mg/L	Monthly avg.
801	8/31/2015	= 0.093	mg/L	Daily max.
801	9/30/2015	= 0.089	mg/L	Monthly avg.
801	9/30/2015	= 0.089	mg/L	Daily max.
801	10/31/2015	= 0.065	mg/L	Monthly avg.
801	10/31/2015	= 0.065	mg/L	Daily max.
801	11/30/2015	= 0.078	mg/L	Monthly avg.
801	11/30/2015	= 0.078	mg/L	Daily max.
801	12/31/2015	= 0.0407	mg/L	Monthly avg.
801	12/31/2015	= 0.0407	mg/L	Daily max.
801	1/31/2016	= 0.0277	mg/L	Monthly avg.
801	1/31/2016	= 0.0277	mg/L	Daily max.
801	2/29/2016	= 0.0426	mg/L	Monthly avg.
801	2/29/2016	= 0.0426	mg/L	Daily max.
801	3/31/2016	= 0.08	mg/L	Monthly avg.
801	3/31/2016	= 0.08	mg/L	Daily max.
801	4/30/2016	= 0.012	mg/L	Monthly avg.
801	4/30/2016	= 0.012	mg/L	Daily max.
801	5/31/2016	= 0.0322	mg/L	Monthly avg.
801	5/31/2016	= 0.0322	mg/L	Daily max.
801	6/30/2016	= 0.0915	mg/L	Monthly avg.
801	6/30/2016	= 0.0915	mg/L	Daily max.
801	7/31/2016	= 0.0716	mg/L	Monthly avg.
801	7/31/2016	= 0.0716	mg/L	Daily max.
801	8/31/2016	= 0.146	mg/L	Monthly avg.
801	8/31/2016	= 0.146	mg/L	Daily max.
801	10/31/2016	= 0.0808	mg/L	Monthly avg.
801	10/31/2016	= 0.0808	mg/L	Daily max.
801	11/30/2016	= 0.0698	mg/L	Monthly avg.
801	11/30/2016	= 0.0698	mg/L	Daily max.
801	12/31/2016	= 0.0364	mg/L	Monthly avg.
801	12/31/2016	= 0.0364	mg/L	Daily max.
801	1/31/2017	= 0.0872	mg/L	Monthly avg.
801	1/31/2017	= 0.0872	mg/L	Daily max.
801	3/31/2017	= 0.0416	mg/L	Monthly avg.
801	3/31/2017	= 0.0416	mg/L	Daily max.
801	4/30/2017	= 0.012	mg/L	Monthly avg.

801	4/30/2017	= 0.012	mg/L	Daily max.
801	5/31/2017	= 0.0093	mg/L	Monthly avg.
801	6/30/2017	= 0.0215	mg/L	Monthly avg.
801	6/30/2017	= 0.0215	mg/L	Daily max.

**Morgantown Selenium Discharges from Outfall 801 Exceeding 2015 ELG for FGD Wastewater (July 2013 through June 2017)**

<b>Outfall</b>	<b>Monitoring Period End Date</b>	<b>DMR Value</b>	<b>Units</b>	<b>Monthly/Daily</b>
801	7/31/2013	= 0.059	mg/L	Monthly avg.
801	7/31/2013	= 0.059	mg/L	Daily max.
801	8/31/2013	= 0.078	mg/L	Monthly avg.
801	8/31/2013	= 0.078	mg/L	Daily max.
801	9/30/2013	= 0.57	mg/L	Monthly avg.
801	9/30/2013	= 0.57	mg/L	Daily max.
801	10/31/2013	= 0.2	mg/L	Monthly avg.
801	10/31/2013	= 0.2	mg/L	Daily max.
801	11/30/2013	= 0.07	mg/L	Monthly avg.
801	11/30/2013	= 0.07	mg/L	Daily max.
801	12/31/2013	= 0.61	mg/L	Monthly avg.
801	12/31/2013	= 0.61	mg/L	Daily max.
801	1/31/2014	= 0.018	mg/L	Monthly avg.
801	2/28/2014	= 0.12	mg/L	Monthly avg.
801	2/28/2014	= 0.12	mg/L	Daily max.
801	3/31/2014	= 0.14	mg/L	Monthly avg.
801	3/31/2014	= 0.14	mg/L	Daily max.
801	4/30/2014	= 0.094	mg/L	Monthly avg.
801	4/30/2014	= 0.094	mg/L	Daily max.
801	5/31/2014	= 0.44	mg/L	Monthly avg.
801	5/31/2014	= 0.44	mg/L	Daily max.
801	6/30/2014	= 0.2	mg/L	Monthly avg.
801	6/30/2014	= 0.2	mg/L	Daily max.
801	7/31/2014	= 0.092	mg/L	Monthly avg.
801	7/31/2014	= 0.092	mg/L	Daily max.
801	8/31/2014	= 0.16	mg/L	Monthly avg.
801	8/31/2014	= 0.16	mg/L	Daily max.
801	9/30/2014	= 0.25	mg/L	Monthly avg.
801	9/30/2014	= 0.25	mg/L	Daily max.
801	11/30/2014	= 0.078	mg/L	Monthly avg.
801	11/30/2014	= 0.078	mg/L	Daily max.
801	12/31/2014	= 0.097	mg/L	Monthly avg.
801	12/31/2014	= 0.097	mg/L	Daily max.
801	1/31/2015	= 0.053	mg/L	Monthly avg.

801	1/31/2015	= 0.053	mg/L	Daily max.
801	2/28/2015	= 0.091	mg/L	Monthly avg.
801	2/28/2015	= 0.091	mg/L	Daily max.
801	3/31/2015	= 0.25	mg/L	Monthly avg.
801	3/31/2015	= 0.25	mg/L	Daily max.
801	4/30/2015	= 0.25	mg/L	Monthly avg.
801	4/30/2015	= 0.25	mg/L	Daily max.
801	5/31/2015	= 0.071	mg/L	Monthly avg.
801	5/31/2015	= 0.071	mg/L	Daily max.
801	6/30/2015	= 0.15	mg/L	Monthly avg.
801	6/30/2015	= 0.15	mg/L	Daily max.
801	7/31/2015	= 0.79	mg/L	Monthly avg.
801	7/31/2015	= 0.79	mg/L	Daily max.
801	8/31/2015	= 0.98	mg/L	Monthly avg.
801	8/31/2015	= 0.98	mg/L	Daily max.
801	9/30/2015	= 0.73	mg/L	Monthly avg.
801	9/30/2015	= 0.73	mg/L	Daily max.
801	10/31/2015	= 0.69	mg/L	Monthly avg.
801	10/31/2015	= 0.69	mg/L	Daily max.
801	11/30/2015	= 0.68	mg/L	Monthly avg.
801	11/31/2015	= 0.68	mg/L	Daily max.
801	12/31/2015	= 0.344	mg/L	Monthly avg.
801	12/31/2015	= 0.344	mg/L	Daily max.
801	1/31/2016	= 0.145	mg/L	Monthly avg.
801	1/31/2016	= 0.145	mg/L	Daily max.
801	2/29/2016	= 0.601	mg/L	Monthly avg.
801	2/29/2016	= 0.601	mg/L	Daily max.
801	3/31/2016	= 0.367	mg/L	Monthly avg.
801	3/31/2016	= 0.367	mg/L	Daily max.
801	4/30/2016	= 0.25	mg/L	Monthly avg.
801	4/30/2016	= 0.25	mg/L	Daily max.
801	5/31/2016	= 0.15	mg/L	Monthly avg.
801	5/31/2016	= 0.15	mg/L	Daily max.
801	6/30/2016	= 0.849	mg/L	Monthly avg.
801	6/30/2016	= 0.849	mg/L	Daily max.
801	7/31/2016	= 0.595	mg/L	Monthly avg.
801	7/31/2016	= 0.595	mg/L	Daily max.
801	8/31/2016	= 0.807	mg/L	Monthly avg.
801	8/31/2016	= 0.807	mg/L	Daily max.
801	10/31/2016	= 0.676	mg/L	Monthly avg.
801	10/31/2016	= 0.676	mg/L	Daily max.
801	11/30/2016	= 0.636	mg/L	Monthly avg.
801	11/30/2016	= 0.636	mg/L	Daily max.
801	12/31/2016	= 0.29	mg/L	Monthly avg.
801	12/31/2016	= 0.29	mg/L	Daily max.

801	1/31/2017	= 0.57	mg/L	Monthly avg.
801	1/31/2017	= 0.57	mg/L	Daily max.
801	2/28/2017	= 0.0616	mg/L	Monthly avg.
801	2/28/2017	= 0.0616	mg/L	Daily max.
801	3/31/2017	= 0.193	mg/L	Monthly avg.
801	3/31/2017	= 0.193	mg/L	Daily max.
801	4/30/2017	= 0.25	mg/L	Monthly avg.
801	4/30/2017	= 0.25	mg/L	Daily max.
801	5/31/2017	= 0.063	mg/L	Monthly avg.
801	5/31/2017	= 0.063	mg/L	Daily max.
801	6/30/2017	= 0.168	mg/L	Monthly avg.
801	6/30/2017	= 0.168	mg/L	Daily max.