

- 2. Additional information is needed on the design and operation of the dredged material recycling facility (DMRF) to allow for a reasonable technical evaluation.**
- a. There are two pugmill systems and two storage areas. Are both being built? If not, please choose one and provide an updated figure. Storage capacity is stated as 192,000 cubic yards at the DMRF. Does that include both storage areas in figure 1 C-3?**
  - b. How much raw dredge material can the facility process per day?**
  - c. Stormwater control measures should be addressed. Will the storage areas be covered? How will control of stormwater infiltration or discharge from the storage areas be managed? Are there any stormwater outfalls to the river?**
  - d. What type of monitoring or sampling will be done to ensure that the supernatant discharge from the dedicated dewatering scows meet water quality standards?**
  - e. This is a scow intensive operation, particularly since multiple scows will be used for settling/dewatering. How many scows are available for this project?**
  - f. Each time the storage areas become full, what is AES's plan for dredging operations? Will dredging cease until more storage area becomes available?**
  - g. Does AES intend to process the dredged material through the DMRF in six years when maintenance dredging is required?**

**Response:**

- 2.a.** Both pugmills and both storage areas are proposed for operation of the DMRF. The storage capacity of 192,000 cubic yards includes both of the storage areas indicated in figure C-3.
- 2.b** In response to Water Resources Question 11-c of FERC's July 11, 2007 data request, AES has stated that the DMRF is expected to process a daily average of approximately 7,613 cubic yards of dredged material during the construction period of the Project (assuming a 243 day dredging season). The type of DMRF proposed by AES would have an average processing capacity of 10,000 cubic yards per day.
- 2.c** The BWI Sparrows LLC Shipyard ("BWI") currently holds a discharge permit under the National Pollutant Discharge Elimination System ("NPDES"), State Discharge Permit No. 97-DP-0398 (NPDES Permit MD0001180), which was reissued on August 30, 2006. The permit is for discharge of non-contact ballast waters, storm water, steam condensate, and air conditioning condensate. The facility discharges these waste waters through 17 outfalls to the waters of the State. BWI also discharges storm water runoff from "non-process" areas, including the 45 acres of upland proposed for use by AES, directly to the Patapsco River, in accordance with their permit conditions.

AES has applied for coverage for the LNG Terminal under the Maryland General Permit for Stormwater Discharge Associated with Industrial Activity. AES's design for the LNG Terminal includes appropriate stormwater controls, and will collect and direct all storm water on the property through appropriate treatment as needed to meet the stringent criteria applied and enforced by the State of Maryland for discharge under the General Permit. Any storm water that comes in contact with industrial process areas will be routed separately, treated prior to discharge, and discharged with process wastewater routed to the Baltimore County Publicly Owned Treatment Works ("POTW"). Discharges to the POTW will be permitted,

monitored, and treated to meet the pre-treatment standards required by the Baltimore County POTW. The AES Sparrows Point LNG Terminal will occupy approximately 45 acres of upland area on the BWI site. Approximately 50% of the site will be categorized as process area in which the associated storm water runoff will be collected and treated on-site prior to discharge to the POTW. The redirection of the process area storm water runoff will result in an approximately 50% reduction in storm water being discharged to the Patapsco River (an improvement well in excess of the 10% improvement required in Intensely Developed Areas per provisions of Maryland's Critical Area Act). In addition, the currently permitted discharges associated with the property to be developed for the LNG Terminal would be eliminated, resulting in water quality improvements associated with cessation of these outfalls. As indicated in past submittals to MDE, if the agency desires AES to instead route some portion of the runoff or specific operations, such as the DMRF through a specific NPDES outfall, then AES will review this with MDE, submit an application as may be appropriate to the specific discharge, and meet the appropriate water quality criteria for the discharge.

**2.d.** In responses to Question 14 of ACOE's July 3, 2007 data request and question 8 of MDE's May 7, 2007 data request, AES has stated the following:

“Elutriate testing has been completed on the raw dredged material by AES. The results of these analyses are presented in Resource Report 2, *Water Use and Quality*. The elutriate analyses are representative of the expected chemical characteristics of the dredged material decant water. The results indicate that the dredge materials decant water from scows or the DMRF is not expected to have an adverse impact on water quality.”

As has been described, the operation involves settling of the decant water in a dedicated dewatering scow(s) for a period of not less than 24 hours or until the total suspended solids content is demonstrated to be less than 75 mg/L. This method has been employed by dredgers under the regulatory oversight of the New Jersey Department of Environmental Protection (“NJDEP”) and New York State Department of Environmental Conservation (“NYSDEC”) for over seven years. When the NJDEP or NYSDEC issues a Federal Consistency Determination or Water Quality Certificate for dredging activities in the New York/New Jersey Harbor area that includes scow dewatering prior to upland processing of raw dredged material, the following conditions are typically included in the permit:

- *“All decant water holding scows shall be water tight and of solid hull construction and shall be moored at the (dredging project location).”*
- *“All decant water shall be held in the decant holding scow a minimum of 24 hours after the last addition of water to the decant holding scow prior to discharge to the (waters at the dredging project location).”*
- *“Should the (project sponsor), or its contractor, wish to reduce the required holding time, it must be demonstrated that the reduced holding time is sufficient to meet a total suspended solids (TSS) action level of 75mg/L. The total suspended solids shall be determined through gravimetric analysis. No discharge shall be permitted from the decant holding scow until the results of the gravimetric analysis have confirmed that the 75 mg/L action level has been achieved. No additional water shall be added to the decant holding scow*

*between the time of sample acquisition and discharge. Upon successful demonstration that the reduced holding time is sufficient to meet the TSS action level of 75 mg/L, the monitoring of TSS may be suspended and the demonstrated settling time shall replace the 24 hour minimum. A successful demonstration of the reduced holding time efficiency shall be determined once three consecutive TSS analyses have confirmed that the 75 mg/L action level has been achieved by the reduced holding time, all records including time of last addition of decant water into the scow, time of TSS sampling and the results of TSS sampling shall be submitted to the (state regulatory agency) as soon as they become available, together with a request for a reduced holding time.”*

AES proposes an identical approach to monitoring decant water prior to discharge. If testing results indicate that the decant water exhibits a TSS concentration less than 75 mg/L in a time period less than 24 hours on a consistent basis, AES may propose to the MDE to reduce the required holding time for decant water prior to discharge.

- 2.e.** As would be typical for dredging projects of this size, multiple scows will be utilized. It is anticipated that a minimum of eight scows (in addition to the dedicated dewatering scows) will be utilized for this project. At any given time, two scows will be available for loading of raw dredged material at the dredging site, two loaded scows will be at the dewatering location, and two dewatered scows will be at the DMRF being offloaded. Two additional scows will be in transit between these locations or moored nearby for return to the dredging site. AES and its dredging contractor will furnish as many scows as is necessary to complete the project.
- 2.f.** Because processing dredged material at the DMRF renders material “transportable” immediately, even if storage capacity at the site is temporarily fully occupied, AES will still be able to transport dredged material offsite as it is processed, at a rate matching transport of processed dredged material offsite. This will have the effect of slowing dredging operations to some extent, but not completely shutting it down. Giving consideration to the amount of storage area available, the reliability of the dredging and processing equipment, and the numerous options available for the re-use of the dredged material, AES does not anticipate that the scenario described in this data request will be encountered in anything other than a highly unusual situation.
- 2.g.** It is AES’s intent to process the sediments obtained during the course of maintenance dredging activities through the DMRF.

In addition, AES has made it know through discussions with and submittals to the Maryland legislative and executive branches, discussions with and submittals to Maryland regulatory agencies, and media articles and advertisements, that the proposed DMRF could be used to “kick-start” a State-wide dredge recycling program as envisioned by the Maryland Dredged Material Management Act of 2001 and the Maryland Dredged Material Disposal Alternatives Act of 2004. The 2001 Act established an Executive Committee to oversee decisions about the management of dredged materials. Importantly, the Executive Committee adopted a 2003 recommendation that Maryland immediately begin serious efforts aimed at determining how to innovatively reuse (or recycle) dredged material, and recycle 500,000 cubic yards of dredged material by 2023. The 2004 Act established a program within the Department of

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Business and Economic Development to assist in creating beneficial use technologies for dredged material. Goals of the program include fostering beneficial reuse of dredged material, fostering markets for end-use products using dredged materials as a resource, and facilitating the reuse of at least 500,000 cubic yards of dredged material annually.

The “kick-start” described above might involve making available to the State of Maryland the facilities and infrastructure needed to process the dredged sediments obtained from State-sponsored dredging projects, periodic maintenance dredging of the Federal navigational channels, recreational and commercial dredging projects sponsored by local governments, and private sector access channel and berth improvement projects. These facilities and infrastructure, which would be developed and constructed at AES’s cost (not at taxpayers’ expense), would provide a means for Maryland to reduce its reliance on fill placement options. Of course, any program under which the State of Maryland and/or any other entity was to make use of the DMRF would have to be approved by State and federal regulatory agencies as would be appropriate. To date, neither the State of Maryland nor any other entity has given indication to AES that it would be interested in using the DMRF to meet Maryland’s dredge recycling goals. Thus, while this option may be pursued in the future, it should not be considered part of AES’s proposal at this time. AES will notify MDE of any changes to this course of action.