Rivera, Jose

From: Ron Rodrique <ron.rodrique@aes.com>
Sent: Tuesday, March 17, 2015 10:26 AM
To: Rivera, Jose
Subject: Emailing: AESPR - Stormwater - Response to Inspection Report - Cover letter
Attachments: AESPR - Stormwater - Response to Inspection Report - Cover letter.pdf

Jose,

Please find attached the cover letter as requested.

3/17/15

AES
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Mr. Jose Rivera
Senior Environmental Engineer
Caribbean Environmental Protection Division
US Environmental Protection Agency, Region 2
City View Plaza, Suite 7000
#48 165 RD. Km 1.2
Guaynabo, PR 00968-8069

Re: AES Puerto Rico LP Written Response to EPA Water Compliance Inspection Report

Dear Mr. Rivera:

At your request, I write on behalf of AES Puerto Rico LP (AESPR) concerning your June 19, 2014 inspection of the AESPR facility ("Inspection") as reflected in the EPA's September 16, 2014 Water Compliance Inspection Report ("Inspection Report") reporting on EPA's assessment of AESPR's compliance with stormwater requirements in the applicable 2008 multi-sector general permit ("MSGP") and the December 22, 2011 Administrative Consent Order between EPA and AESPR ("2011 ACO").

We have considered carefully the issues in your Inspection Report, and as summarized on the attached Response of AES Puerto Rico LP to EPA's September 16, 2014 Water Compliance Inspection Report ("AESPR Response"), AESPR submits that it has addressed each of the issues raised in your Inspection Report regarding AESPR's compliance with the 2011 ACO and the MSGP.

We believe the attached AESPR Response (previously submitted to EPA on January 27, 2015) also would address fully EPA's request in EPA's proposed new consent order for a description of each action to be taken to address each of the findings EPA included in the Inspection Report. We ask that you please confirm that this submission obviates the need for a further submission and that paragraph 72.a of the proposed new consent order can be removed.

Best regards,

Manuel Mata

President AES Puerto Rico

zinfle

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Response of AES Puerto Rico LP to EPA's
September 16, 2014 Water Compliance Inspection Report

AES Puerto Rico LP ("AESPR") hereby submits this response to EPA's September 16, 2014 Water Compliance Inspection Report ("Inspection Report"). For ease of reference, AESPR will follow EPA's Findings of the Facility Walkthrough.

7. Findings of EPA Facility Walkthrough.

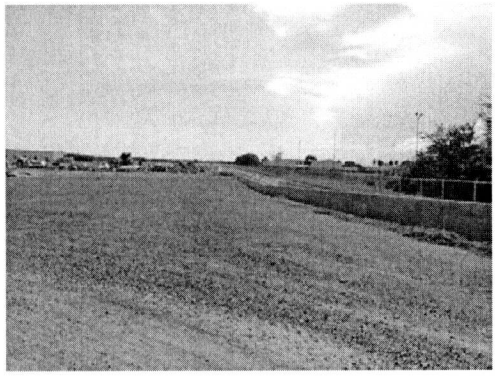
EPA organized its finding's by reference to parts of the Multi-Sector General Permit ("MSGP"). AESPR will respond to each in turn:

a. MSGP Part 2.1.2.1: Minimize Exposure –

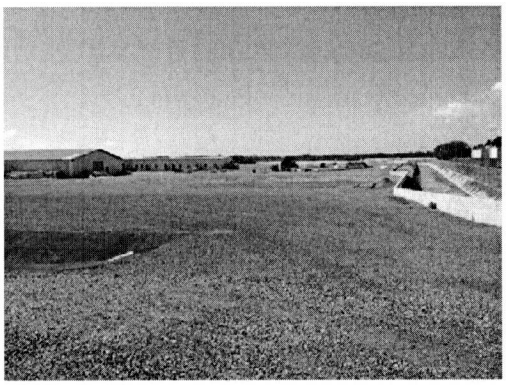
Minimize the exposure of material storage areas (loading and unloading, and storage) to rain and runoff by either locating these industrial materials and activities inside or protecting them with storm-resistant coverings.

> EPA Finding: One of the warehouses in plant yards was undergoing cleaning. AES was storing equipment and materials exposed to precipitation without storm resisting coverings. (See EPA Picture 19)
>
> AESPR Response: AESPR disputes the alleged violation as the exposed equipment and materials did not contain any uncovered cleaning materials or similar materials that would pose a risk if added to storm water. The items identified in EPA's Inspection Report were covered with storm-resistant coverings and then returned to storage as soon as the warehouse cleaning work was completed. (ASEPR After Picture 19). In addition, AESPR has implemented the following measures:
>
> - Revised the Storm Water Pollution Prevention Plan (SWPPP) to include specific provisions in the Exposure Minimization section to address material storage. *See* SWPPP at page 13
> - Provide and document training to all employees and required contractors about these exposure minimization requirements.
> - During the Routine Facility Inspection, *see* SWPPP at page 22__, all site areas will be inspected for material and equipment that are exposed and may require cover, *see* SWPPP at Worksheet #5 .
> - Have available at the plant storm-resistant covering in case equipment or materials may be exposed to a storm event.

EPA Picture 19



AESPR After (Picture 19)

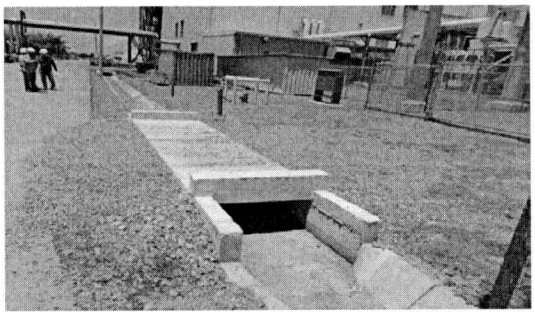


b. MSGP Part 2.1.2.2: Good Housekeeping – Keep clean all exposed areas that are potential sources of pollutants, using such measures as sweeping at regular intervals.

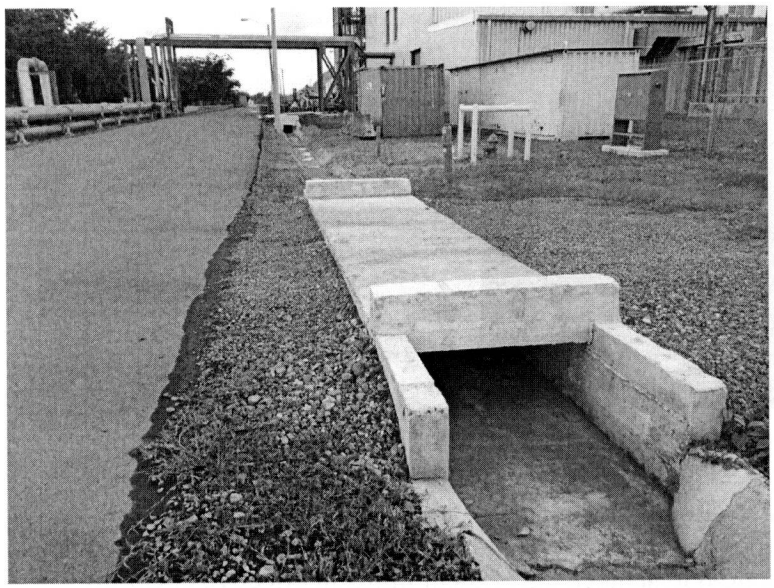
EPA Finding b.(1): The storm water concrete swale located on the west area of the Site (near the electrical grid) was observed with sediment and gravel accumulation and lacking good housekeeping. (EPA Picture 9).

AESPR Response to EPA Finding b.(1): AESPR addressed the housekeeping in the noted area by removing the limited gravel in the swale. (AESPR After Picture 9). AESPR disputes this was a violation. Moreover, the gravel present alongside the swale (AESPR Picture 9) does not represent poor housekeeping, but is situated there to provide truck access to the opposite side of the channel. Nevertheless, to address the EPA's concern, each concrete swale was assigned an AESPR "area owner" who is responsible to inspect, maintain and clean the swale at least once per month or before an expected storm. AESPR has also revised the SWPPP to include a Storm Water Maintenance Matrix. *See* SWPPP at Appendix 1. The Matrix specifies the area owner, describes the specific areas covered and the required tasks, and identifies frequency for each task. These areas will also be inspected during the quarterly Routine Facility Inspection.

EPA Picture 9



AESPR After Picture 9



EPA Finding b.(2): The storm water concrete culvert located beneath the fly ash loading area was found with debris, sediment, and ash, and lacked maintenance. (EPA Picture 10).

AESPR Response to EPA Finding b.(2). EPA addressed the specific area identified in EPA's Inspection Report. (AESPR After Picture 10). In addition, the SWPPP was revised to include concrete culverts and swales in the Housekeeping Section, with all concrete culvert sections now specifically included the facility's Storm Water Maintenance Matrix to assure regular housekeeping. SWPPP at Appendix 1. Further, these culverts will now be inspected during the Quarterly Routine Facility Inspection.

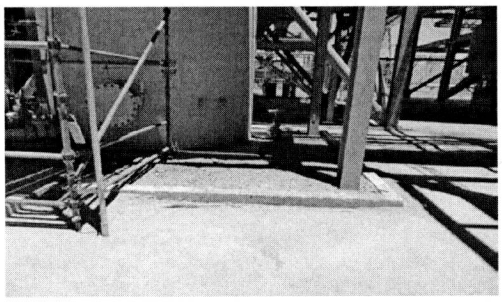
EPA Picture 10

AESPR After Picture 10

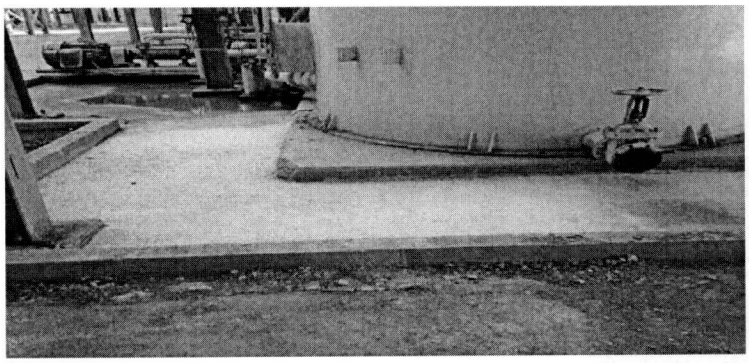
c. MSGP Part 2.1.2.3 – Maintenance: - Regularly maintain and repair systems to avoid situations that may result in releases of pollutants in storm water discharged to receiving waters. Maintain all control measures that are used to achieve the effluent limits in effective operating condition.

> EPA Finding c.(1): EPA observed crushed stone construction residues inside a containment area (CDS/ESP) reducing capacity. (EPA Picture 11).
>
> AESPR Response to EPA Finding c. (1): All crushed stone construction residues were removed and a concrete slab was constructed inside the CDS/ESP containment area. (AESPR After Picture 11). These containment areas are equipped with process water drains to avoid any contaminated water from reaching the storm water conveyance system. The process water drains flow to the oil and water separator in the cooling tower make up water pond.

EPA Picture 11



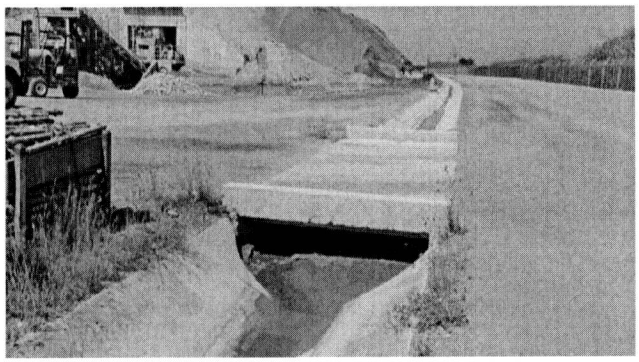
AESPR After (Picture 11)



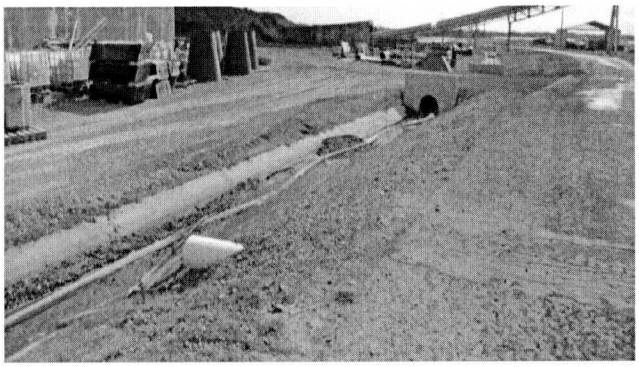
EPA Finding c.(2): The concrete swale along the Agremax™ pile and coal piles areas were observed with gravel, dust, Agremax™, and coal, and lacked housekeeping. (EPA Pictures 12-14). (Picture 14 showed a PVC pipe that the Report asserted was an illegal connection carrying process wastewater into the Storm Water Runoff Pond.)

AESPR Response to EPA Finding c.(2): AESPR disputes the assertion that Agremax was present in the observed areas. However, the materials observed during the Inspection were addressed. The observed PVC piping has been capped (EPA Picture 13, AESPR After Picture 13) (EPA Picture 14, AESPR After Picture 14). Further, to address the EPA's concern, all concrete swales along the Agremax and coal pile areas were assigned an AESPR staff owner responsible for proper housekeeping of the area and to maintain and clean it at least once per month or before an expected storm. AESPR also revised its SWPPP to include a Storm Water Maintenance Matrix to specify the area owner, describe the specific area to be addressed, and identify the frequency for each task. Each of these areas is also included in the Quarterly Routine Facility Inspection to better ensure continuous compliance with this responsibility.

EPA Picture 12

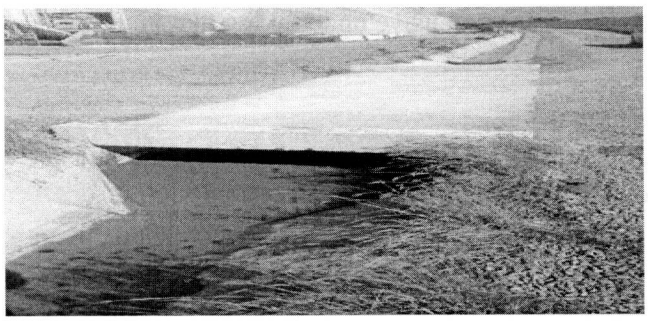


EPA Picture 13

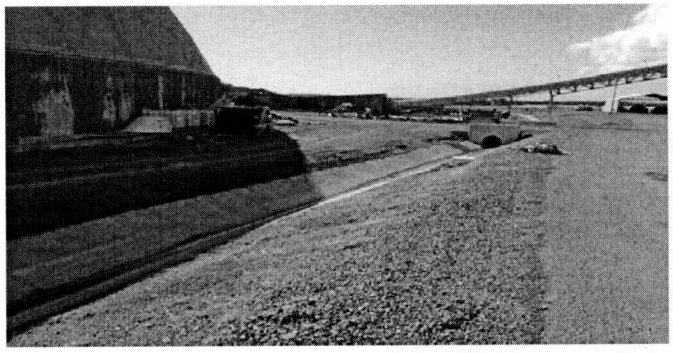


EPA Picture 14

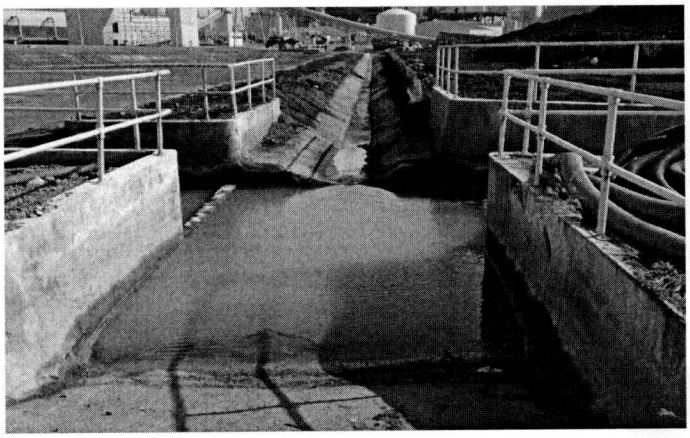
AESPR After (Picture 12)



AESPR After (Picture 13)



AESPR After (Picture 14)



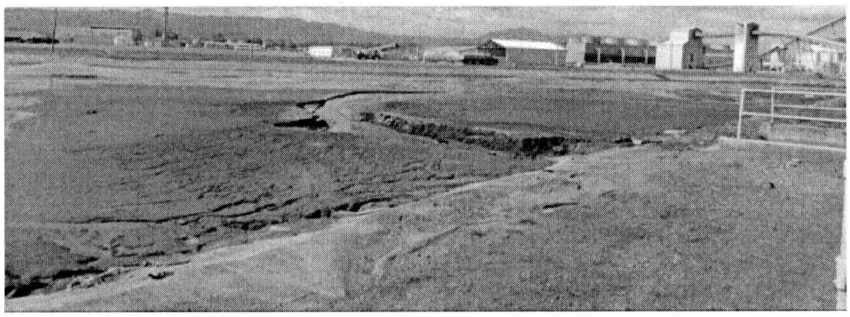
EPA Finding c.(3): AES was in the process of emptying the Coal Pile Pond for cleaning and repair, which is a required maintenance activity to eliminate overflow discharges of storm water and process wastewater into wetlands through outfall 003: AES has failed to complete this task since it was found during the July 2011 CEI. (EPA Pictures 15-16).

AESPR Response to EPA Finding c.(3): As AESPR has documented previously for EPA, the company was delayed due to problems beyond its control with its contractor,

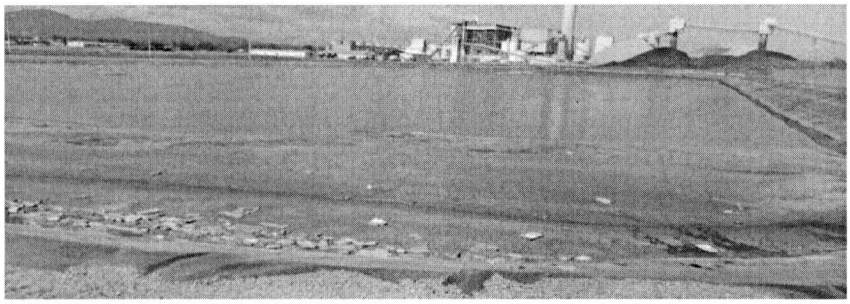
one of only a few located in Puerto Rico that the company believed had the experience and capabilities to perform this job. Regardless, the Coal Pile Runoff Pond cleaning was finished on December 31, 2014. This activity was an extensive undertaking that included the following:

- Removal of all water then contained in the pond.
- Removal of all sediment from the pond. The sediment was composed of ash and coal residue and was stored at the inactive coal pile for boiler consumption in combination with coal.
- Removal and disposal of the damaged liner sections.
- Soil preparation where the liner was removed.
- Installation of new liner sections.
- Pin holes repair and sediment traps cleaning.

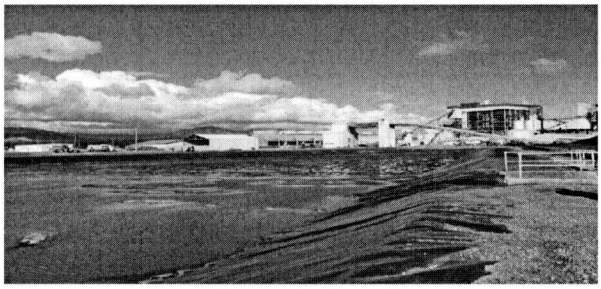
EPA Picture 15



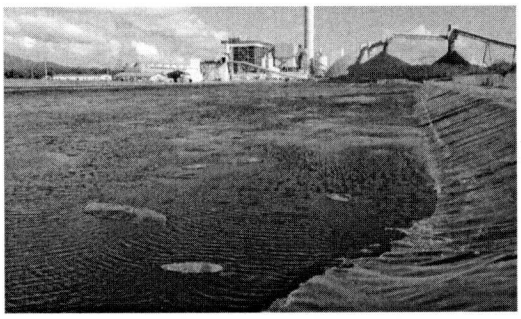
EPA Picture 16



AESPR After (Picture 15)



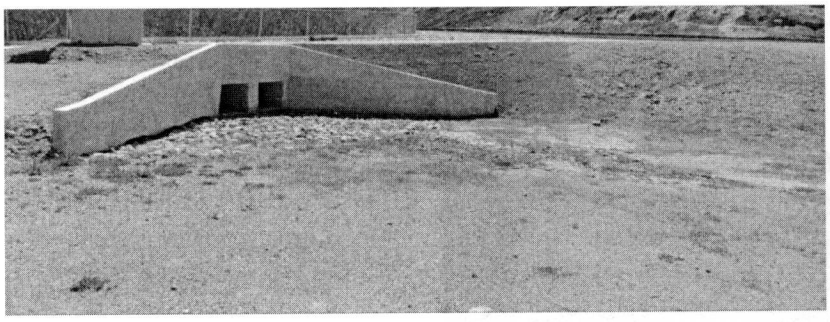
AESPR After Picture 16



d. MSGP Part 2.1.2.5 - Erosion and Sediment Controls – Stabilize exposed areas and contain runoff using structural and/or non-structural BMPs to minimize on-site erosion and sedimentation, and the resulting discharge of pollutants. Place flow velocity dissipation devices at discharge locations and within outfall channels where necessary to reduce erosion and/or settle out pollutants.

> EPA Finding d.(1): There was exposed soil without adequate stabilization within the southeast corner of the Site, near the concrete culvert that discharges through outfall 002. (EPA Picture 17).
>
> AESPR Response to Finding d.(1): The area identified in the Inspection Report (in the southeast corner of the Site, near the concrete culvert that discharges through outfall 002) was seeded to improve vegetation growth (AESPR Picture 17). In addition, the maintenance of this area is included in the landscaping maintenance contract.

EPA Picture 17



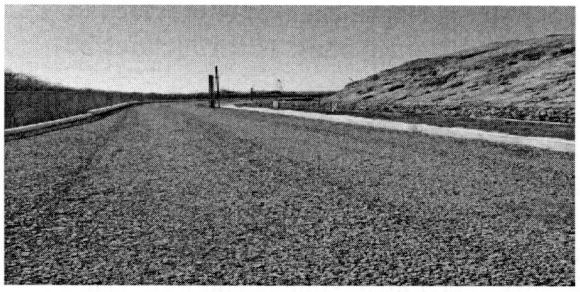
AESPR After (Picture 17)

EPA Finding d. (2): The dirt road that borders the south boundary of the Site was found without adequate soil stabilization. Traffic on this road was causing excessive fugitive dust emission into the air and adjacent wetlands fallout. (EPA Picture 18).

AESPR Response to Finding (2): AESPR disputes that the dirt road was not stabilized sufficiently or was causing excessive fugitive dust into the air or adjacent wetlands. However, the dirt road identified in the Inspection Report has been further stabilized with gravel. (AESPR After Picture 18). In fact, AESPR has enhanced the stabilization of site unpaved roads and unpaved areas with a gravel application. Further, an area owner among AESPR staff has been who is responsible for ensuring these areas are well-maintained and continue to be stabilized properly, as reflected in the Storm Water Maintenance Matrix, which is part of the SWPPP. In addition, during the quarterly Routine Facility Inspection, AESPR will inspect the roads to assess and identify any locations where maintenance is required.

EPA Picture 18

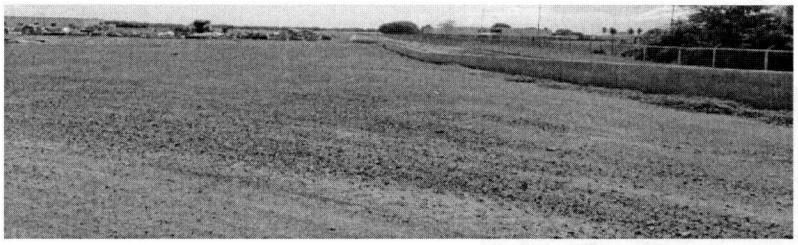
AESPR After Picture 18



EPA Finding d.(3): Several plant yards were observed with inadequate soil stabilization. For example, the yards between the cooling tower and maintenance shop building were found in such condition. (EPA Picture 19).

AESPR Response to EPA Finding d.(3): AESPR disputes that the plant yards lacked adequate stabilization. However, the yards between the cooling tower and maintenance shop building identified in the Inspection Report are now further stabilized with gravel (AESPR After Picture 19). In addition, as noted AESPR has stabilized all site unpaved roads and unpaved areas with a gravel cover. Further, an area owner among AESPR staff have been designated as responsible for ensuring these areas are well-maintained and continue to be stabilized properly, as reflected in the Storm Water Maintenance Matrix, which is part of the SWPPP. In addition, during the quarterly Routine Facility Inspection, AESPR will inspect the roads to assess and identify any locations where maintenance is required.

EPA Picture 19

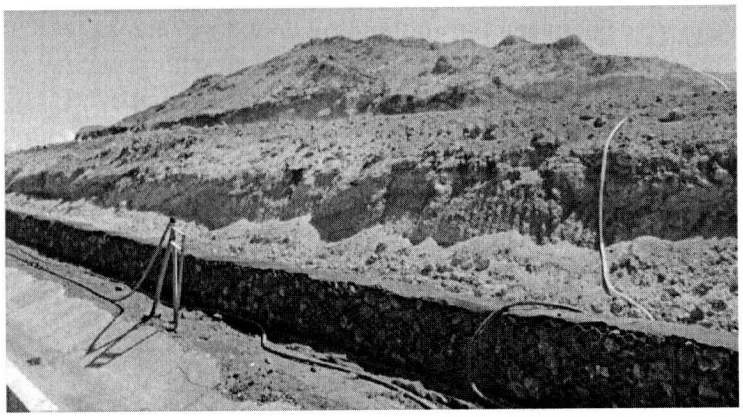


AESPR After Picture 19

EPA Finding d.(4): Slope stabilization and storm water management are not provided in the Agremax storage pile and in some slopes of the coal storage piles. (EPA Pictures 20-25).

AESPR Response to EPA Finding d.(4): AESPR disputes that stormwater management has not been provided for the inventory of Agremax stored at the AESPR property or at the coal storage pile. The facility has implemented an extensive stormwater management program to collect and route all stormwater run-off to the coal storage runoff pond. The Agremax pile and the coal pile are considered active. Their area, volume and form change over time make it difficult to establish a permanent slope. However, AESPR has taken and is taking steps to address the EPA's concerns about the controls surrounding the Agremax inventory, to reduce run-off and if there is run-off, to collect and route run-off to the coal storage run-off pond.

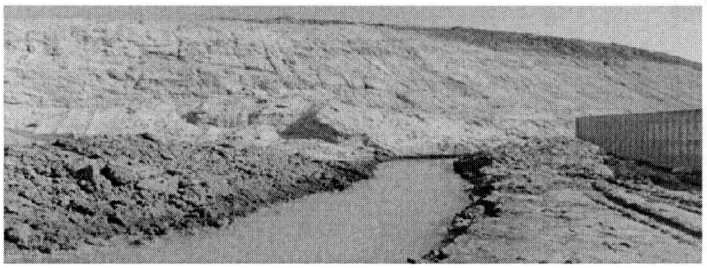
EPA Picture 20



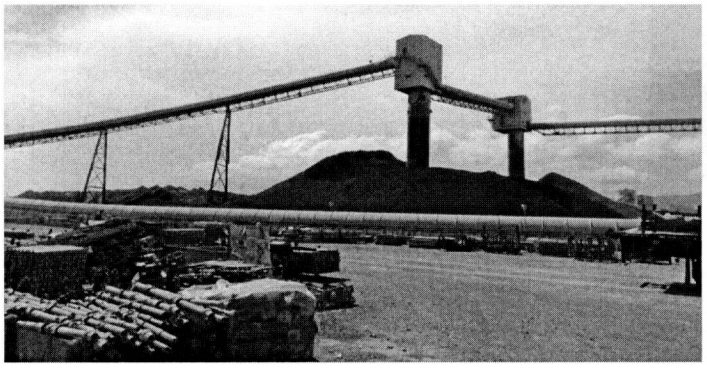
EPA Picture 21

EPA Picture 22

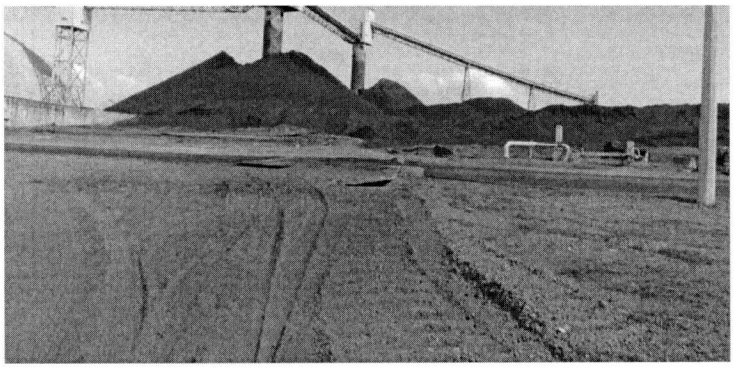
EPA Picture 23



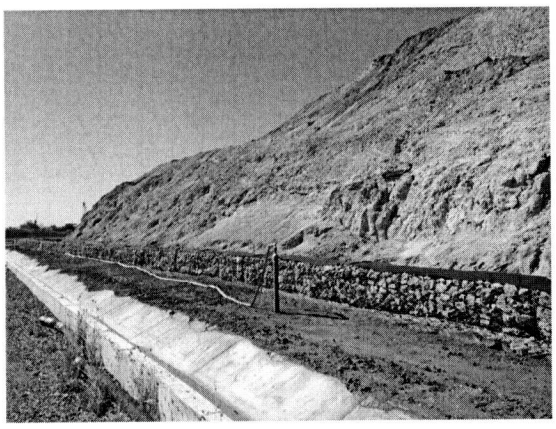
EPA Picture 24



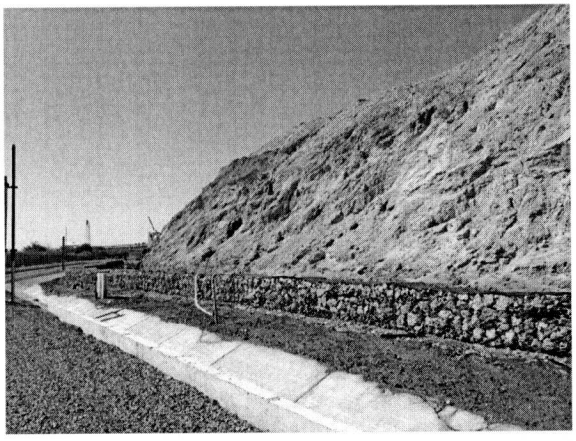
EPA Picture 25



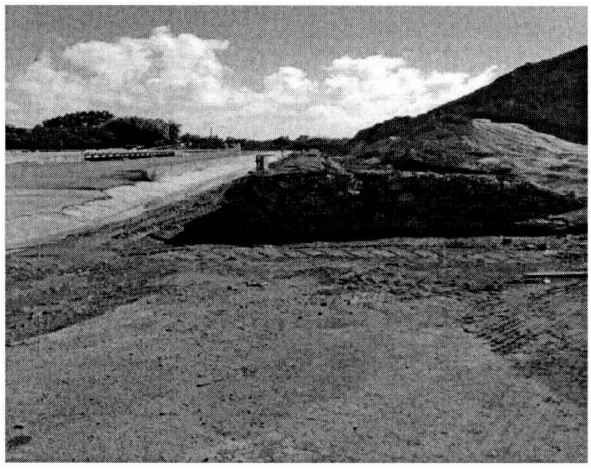
AESPR After (Picture 20)



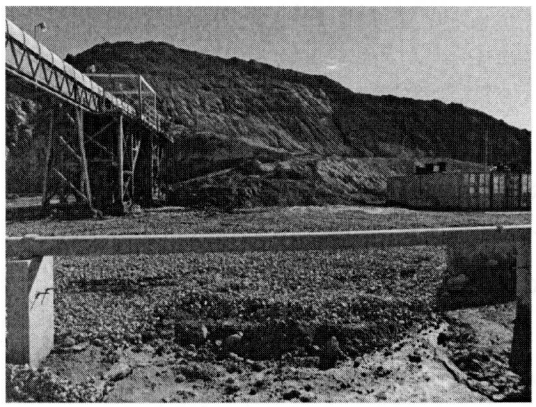
AESPR After (Picture 21)



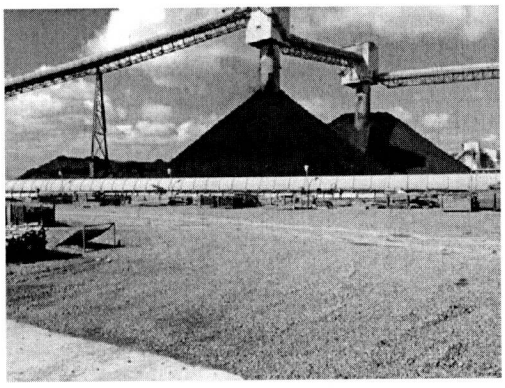
AESPR After (Picture 22)



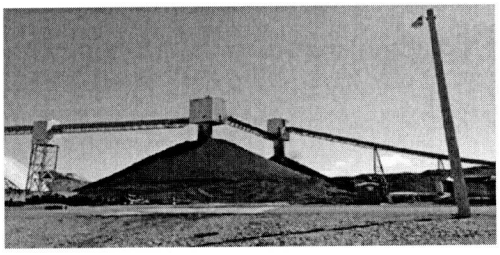
AESPR After (Picture 23)



AESPR After (Picture 24)



AESPR After (Picture 25)

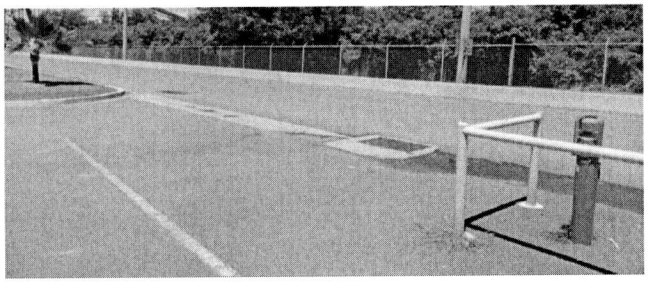


e. MSGP Part 2.1.2.6 - Management of Runoff: Divert, infiltrate, reuse, contain, or otherwise reduce stormwater runoff, to minimize pollutants in the discharges.

EPA Finding d. (1): Certain storm water inlets did not have inlet protection. (EPA Picture 26).

AESPR Response to Finding e. (1): The drain identified in the Inspection Report is located near the administrative building, not in the process area. All inlet catch basin drains within process areas are protected with drain guards. (For example, AESPR After Picture 26). The drain guards are inspected and replaced frequently as required by the Storm Water Maintenance Matrix, which, as noted, is incorporated into the facility SWPPP. An area owner who is responsible for inspecting and replacing drain guards as needed has been assigned. The drains are also inspected Quarterly as part of the Routine Facility Inspection .

EPA Picture 26

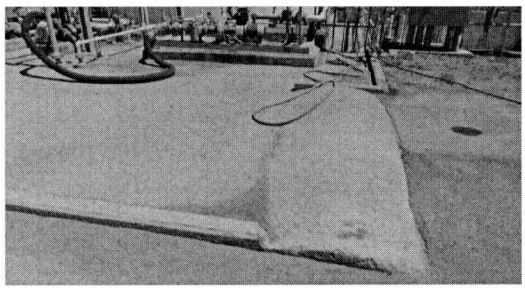


AESPR After (Picture 26)

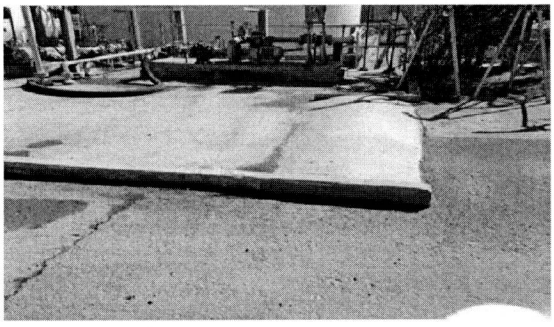
EPA Finding e. (2): One (1) corner of the concrete low wall secondary containment located near the diesel unloading area was broken. (Picture 27).

AESPR Response to EPA Finding e.(2): The broken corner of the low wall at the secondary containment located at the diesel unloading areas was repaired. (AESPR After Picture 27).

EPA Picture 27



AESPR After (Picture 27)

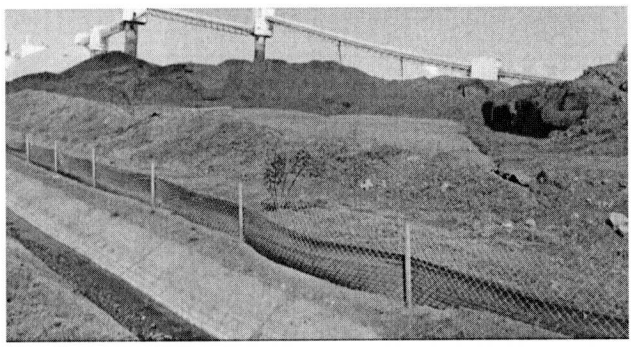


EPA Finding e.(3): AES has not replaced and/or installed silt fence at the perimeter of the coal storage piles and coal handling areas. (Picture 27).

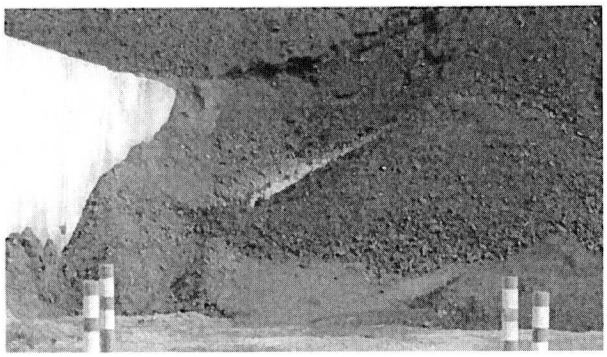
AESPR Response to EPA Finding e.(3): AESPR disputes that the silt fence was not sufficient to manage the coal storage piles and coal handling areas, as the silt fence was in

very good condition in significant areas surrounding the perimeter of the coal storage piles and the coal handling areas. To address EPA's concerns, AESPR has replaced the silt fence in locations along the inactive coal pile. In addition, the requirement to inspect and if necessary repair or replace sections of the silt fence has been included in the Storm Water Maintenance Matrix, which is part of the facility SWPPP. As such, an area owner has been assigned who is responsible to maintain this BMP. Moreover, this area is also inspected as part of the Routine Facility Inspection to evaluate this BMP and ensure corrective measures are taken, if necessary.

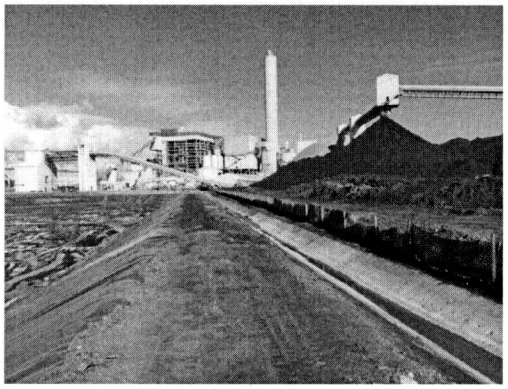
EPA Picture 27



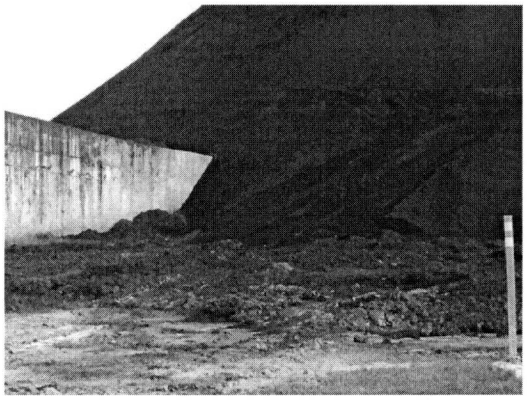
EPA Picture 28



AESPR After Picture 27



After 28



f. MSGP Part 2.1.2.12 - Dust Generation and Vehicle Tracking of Industrial Materials – Minimize generation of dust and off-site tracking of raw, final, or waste materials.

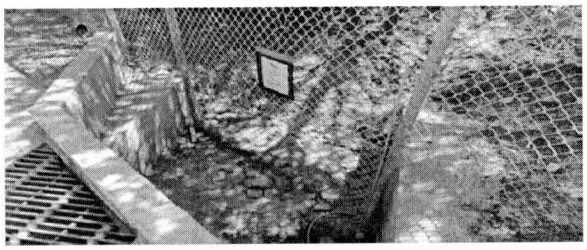
EPA Finding f. (1): See Picture 25 above for example of coal off-site tracking

AESPR Response to EPA Finding f.(1): AESPR disputes that the facility is not complying with the cited provision of the MSGP. To the extent that there is dust from the active coal pile that is found in stormwater, that stormwater is being collected and routed to the stormwater and coal pile runoff ponds. As a result, there are no discharge or stormwater compliance issues here. That said, AESPR has taken steps to address the EPA's concern, including improved overall housekeeping, inspections, and if necessary, additional measures. This will be achieved through its compliance matrix, assigned inspections, Quarterly Routine Facility Inspection, and SWPPP implementation.

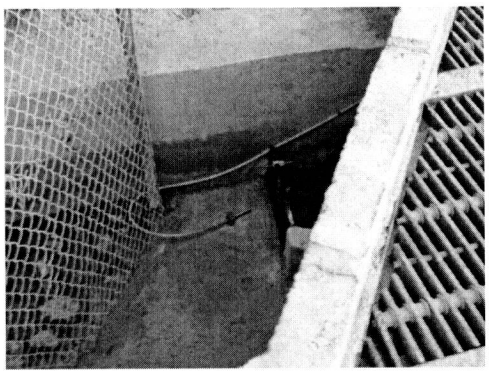
EPA Finding f. (4): Off-site tracking of what appears to be Aggremax™ fine particles was observed at the wetlands (outfall 002). Picture 29 depicts this finding.

AESPR Response to EPA Finding f.(4) – AESPR disputes the assertion that Agremax particles were present at the wetlands or that Picture 29 depicted the presence of such particles. It is AESPR's view that what was observed was dirt.

Picture 29



After (Picture 29)



g. MSGP Part 8.0.4.1 - Fugitive Dust Emissions - Minimize fugitive dust emissions from coal handling areas, (which EPA's Inspection Report defines to include the Agremax™ storage pile, limestone storage dome and supporting areas such as roads. By installing specially designed tires or washing vehicles in a designated area before they leave the site, and controlling the washwaters.

EPA Finding g.(1): The EPA Inspectors observed one (1) water tank-mounted truck in operation. Given the amount of area to be covered at the Site, which is located in a semi-arid area of Puerto Rico, one (1) truck isn't sufficient to control dust in the areas in which dust control is required.

AESPR Response to EPA Finding g.(1): AESPR disputes that an additional truck was or is needed to address the site, particularly now that there is a system of nine sprinklers to cover the Agremax pile. One water truck is more than adequate to cover the remainder of the facility.

EPA Finding g.(2): Fugitive emissions were observed during the entire Inspection's walkthrough, especially in areas in which ashes are handled.

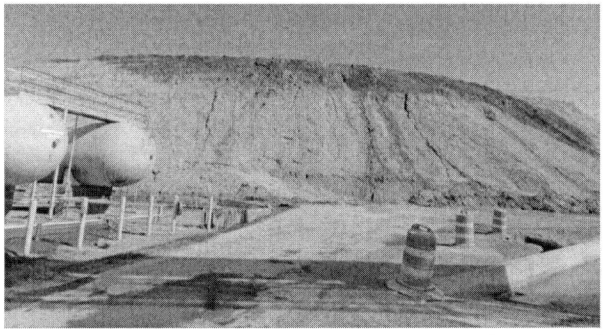
AESPR Response to EPA Finding g.(2): AESPR disputes that fugitive emissions are an issue at the plant generally or specifically in areas in which coal ash is handled. The ash is directed to silos and then directed for use or manufactured into Agremax. In addition,

the management of the Agremax inventory has been improved through the addition of eight additional sprinklers and related equipment to facilitate coverage over the inventory.

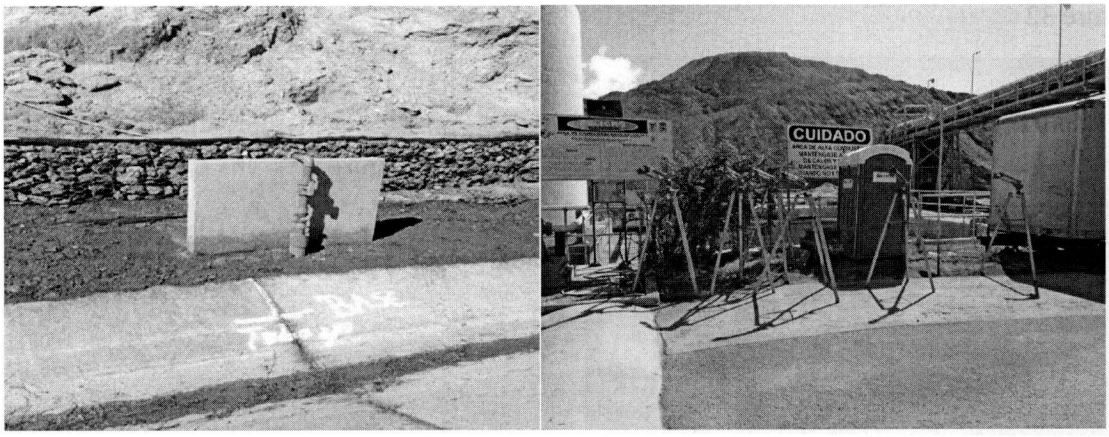
EPA Finding g.(3): AES lacks an adequate and effective dust control system for the Agremax storage pile. Although hoses were feeding water to several sprinklers located on the top side areas of the slopes, most of the slopes were dry and emitting fugitive dust caused by wind. (EPA Picture 30).

AESPR Response to EPA Finding g.(3): AESPR disputes that it lacked an adequate or effective dust control system for its Agremax inventory. However, in response to EPA, AESPR has completed a significant capital project which includes the installation of a new pump with substantially greater capacity to provide water, a new HPVC distribution header pipe, and eight (8) new sprinkler connections (for a total of nine sprinklers). This upgraded system will enhance water sprinkler distribution to provide improved dust control coverage at the Agremax inventory.

EPA Picture 30



AESPR After (Picture 30)

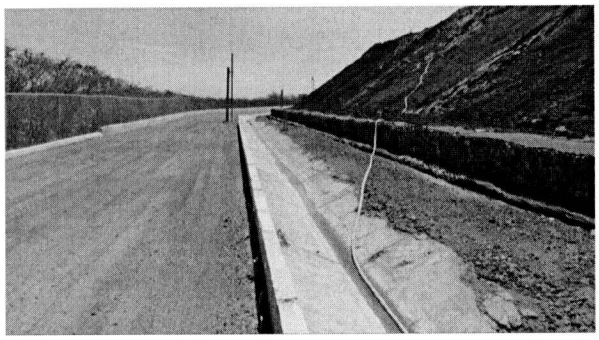


h. MSGP Part 8.0.4.11: Ash Loading Areas - Reduce or control the tracking of ash and residue from ash loading areas. Clear the ash building floor and immediately adjacent roadways of spillage, debris, and excess water before the departure of each loaded vehicle.

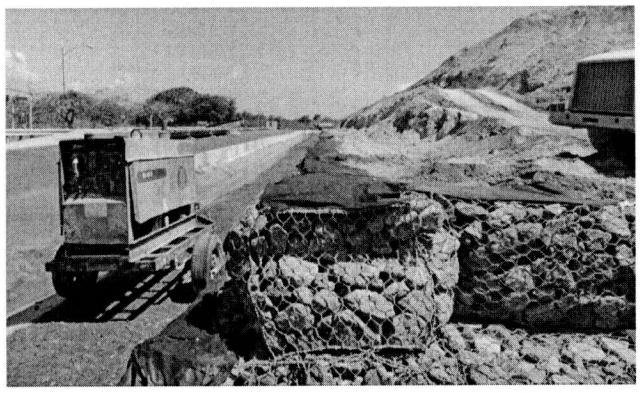
EPA Finding h.(1): Certain slope bottoms of the Agremax™ storage pile were observed on top of the gabion BMP structure, precluding this designed BMP (and its attached silt fence) from functioning. EPA also observed AESPR personnel using mechanical equipment to remove Agremax™ away from the gabions to allow space for the required buffer area. (Pictures 31-32).

AESPR Response to EPA Finding h.(1): AESPR disputes that the presence of observed Agremax precluded the function of this BMP. However, AESPR has addressed the slope bottoms observed on the BMP structure. (AESPR After Pictures 31-32). A buffer zone (of up to 10 feet) has been established between the Agremax storage pile and the gabions wall in order to ensure the storm water filtering system in this BMP is able to function fully. As the pile is actively being used, the slope bottoms will adjust, but the buffer zone will be maintained through routine inspections. The need for the buffer zone is now included in the Storm Water Maintenance Matrix and an area owner has been assigned to inspect and maintain this requirement. The presence of a buffer zone will also be inspected during the Quarterly Routine Facility Inspection.

EPA Picture 31



EPA Picture 32



AESPR After (Picture 31)

AESPR After (Picture 32)

EPA Finding h.(2)AES installed a dust control system in the fly ash loading area to minimize dust emissions.

AESPR Response to EPA Finding h. (2) – AESPR disputes there were any previous issues with dust emissions, but agrees that this system has been installed.

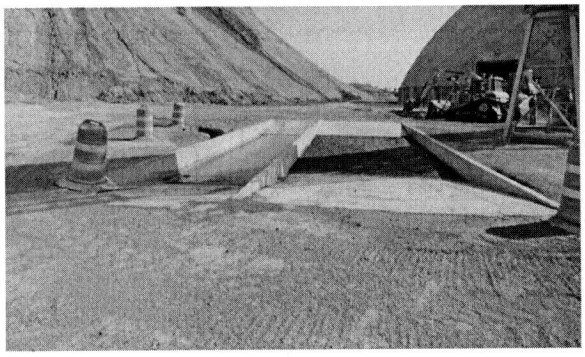
i. MSGP Part 8.0.4012 - Areas Adjacent to Disposal Ponds – Minimize contamination of surface runoff from areas adjacent to disposal ponds. Reduce ash residue that may be tracked on to access roads traveled by residue handling vehicles, and reduce ash residue on exit roads leading into and out of residue handling areas.

EPA Finding i.(1): AES constructed a structural BMP between the Agremax™ storage pile and the limestone storage dome to reduce tracking of sediments into roads at the plant. EPA found the construction of the structural BMP was adequate but the exit path to the road lack soil stabilization control. (EPA Picture 33).

AESPR Response to EPA Finding i.(1): AESPR disputes that the exit path lacked sufficient stabilization. However, to address EPA's observation, the exit path of the

wheel washer BMP was further stabilized with gravel. (AESPR After Picture 33). In addition, the area is on the Storm Water Maintenance Matrix and will be maintained by assigned plant staff.

EPA Picture 33

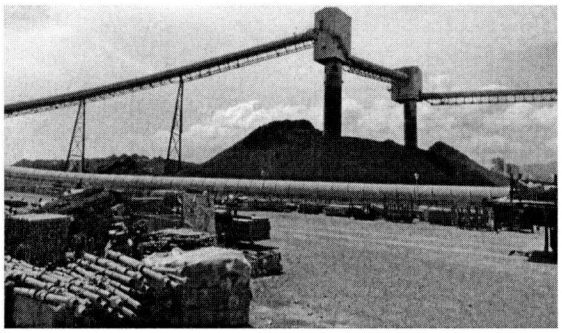


AESPR After (Picture 33)

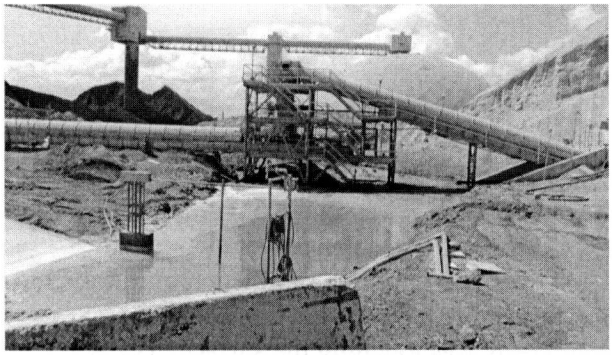
EPA Finding i.(2): The plant yards behind the south side of the limestone storage dome were observed without soil stabilization. Also, the process wastewater basin located in this area was not constructed following best engineering practices to allow for adequate sedimentation and slope stabilization. (EPA Pictures 34-35).

AESPR Response to EPA Finding i.(2): AESPR disputes the plant yards behind the south side of storage dome lacked sufficient soil stabilization. However, all site unpaved roads and unpaved areas have been stabilized further with a gravel cover. (AESPR After Picture 34). Further, AESPR disputes that there is any current compliance issue with the wastewater basin warranting further action by AESPR, as the basin is sufficient to manage storm water as needed at this area of the facility; the original design foresaw that any water collected in this area would transferred to the coal pile water run off collection pond, which is and has been occurring. In addition, an area owner has been assigned to maintain these areas to ensure they continue to be properly stabilized. This is included in the Storm Water Maintenance Matrix which is part of the SWPPP. Further, these areas will be inspected as part of the Quarterly Routine Facility Inspections.

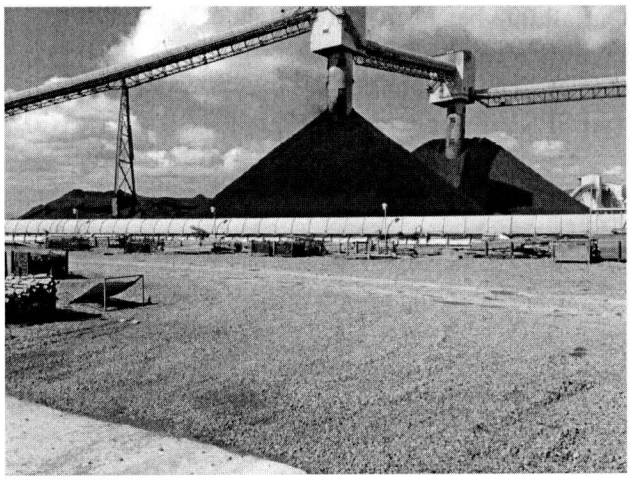
EPA Picture 34



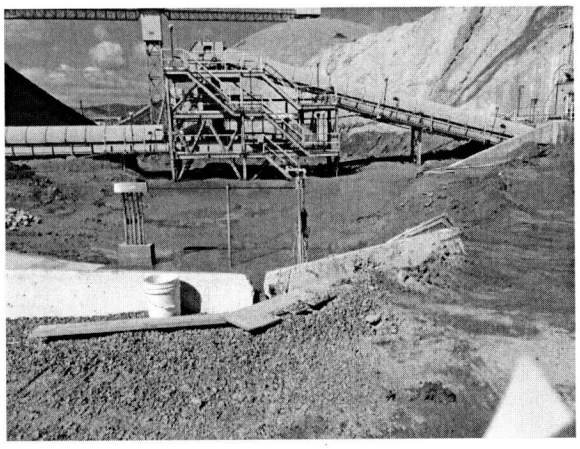
Picture 35



AESPR After (Picture 34)



AESPR After (Picture 35)

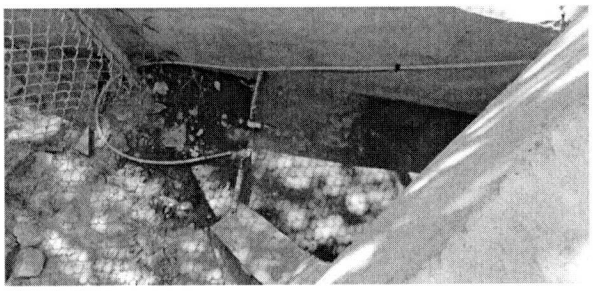


j. Other EPA Findings

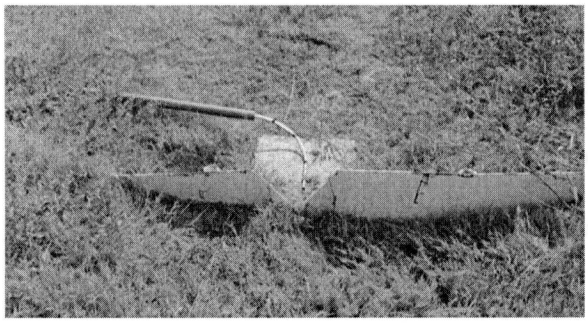
EPA Finding j.(1): AES installed two V-notch weirs to provide for a free and unobstructed flow when sampling the storm water discharges associated with industrial activity through outfalls 002 and 003. AES also installed two solar-powered automatic samplers for sampling points 002 and 003. However, the tip of the samplers tubing was observed touching the surface; and therefore, the sample tubing were not installed properly. Also, the bottom of the V-notch weir crests was touching the surface. (EPA Pictures 36-37).

AESPR Response to EPA Finding j.(1): Outfall 002 has been reconstructed. (AESPR After Picture 36). The tip of the samplers tubing's from SP-002 and SP-003 was modified to avoid contact with the channel inlet. The bottom of the v-notch weirs have been re-installed above the channel inlet. (AESPR After Picture 37).

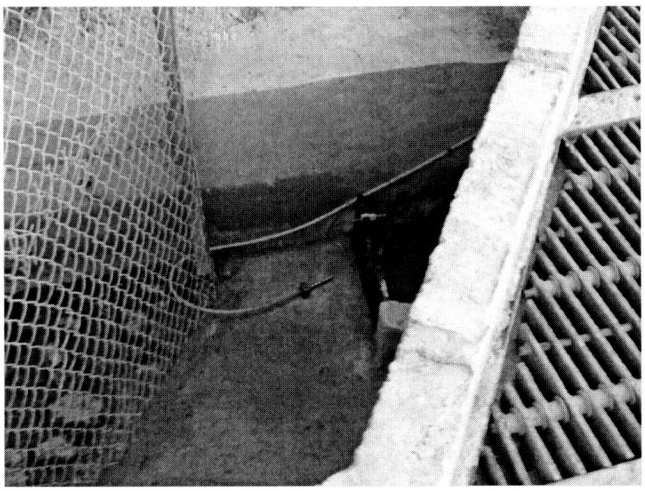
EPA Picture 36



EPA Picture 37



After (Picture 36)

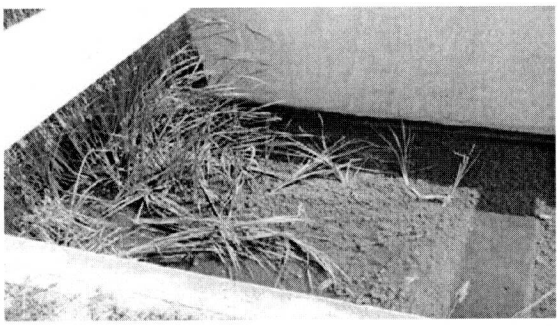


AESPR After Picture 37

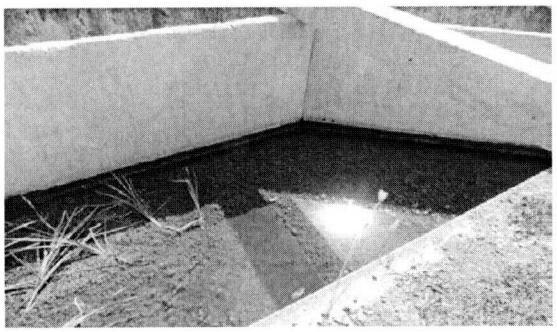
EPA Finding j.(2): EPA observed vegetation growth and lack of maintenance along the concrete channel that discharges through Outfall 003. This is causing backflow and algae growth. (EPA Pictures 38-39).

AESPR Response to EPA Finding j (2): AESPR disputes that the channel was not reasonably maintained, given its location and the Puerto Rico climate. Regardless, the observed vegetation was removed and additional maintenance has been conducted along the concrete channel that discharges through Outfall 003. In addition, this area is covered by the Storm Water Maintenance Matrix, which is part of the facility SWPPP, and the Quarterly Routine Facility Inspections.

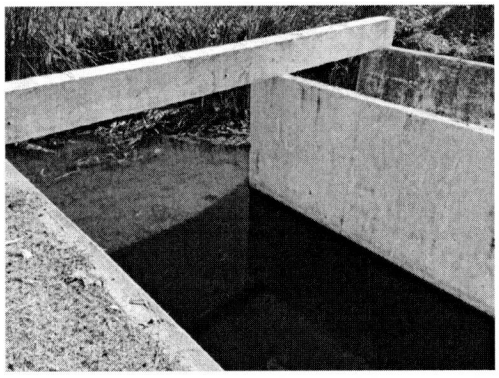
EPA Picture 38



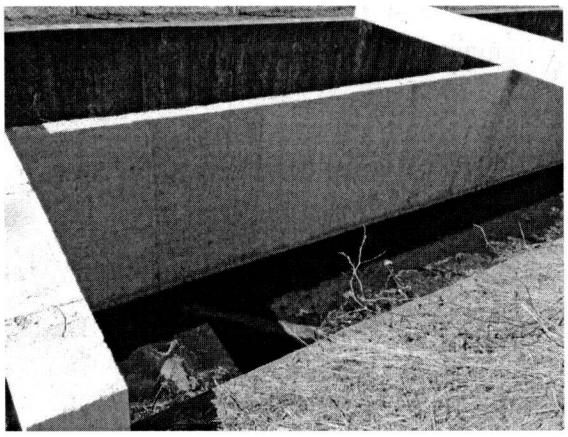
EPA Picture 39



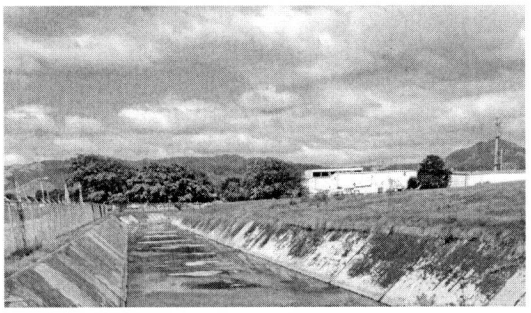
AESPR After Picture 38



AESPR After Picture 39



AESPR After Picture 39



EPA Finding j.(3): EPA found AES did not comply with Part 3.2 (Conditions Requiring Review to Determine if Modifications Are Necessary) and Part 6.2.1.2 (Benchmark Monitoring Schedule) of the MSGP, which requires AES to review the selection, design, installation, and implementation of control measures to determine if modifications are necessary to meet the effluent limits in the MSGP.

According to EPA, the basis for this findings is that the average of all monitoring data for SP-001, SP-002, and SP-003 exceeded the applicable benchmarks for aluminum and iron, and AES did not conduct/document the required selection, design, installation, and implementation of control measures to determine if modifications are necessary to meet the effluent limits in the MSGP. These modifications are beyond the non-structural and structural BMPs that AES selected and EPA approved in the May 5, 2013 letter.

AESPR Response to EPA Finding j.(3): AESPR disputes that the company is not in compliance with Parts 3.2 and 6.2.1.2 of the MSGP. AESPR has been operating under an ACO with EPA to implement literally dozens of new structural and non-structural BMPs at its facility since December 2011. The facility has invested over $3.5 million to implement the requirements, some of which were time consuming to design, construct and implement and were not completed until this past year. Beginning in 2013 the facility began to show consistent data below the benchmarks, and as the chart below shows, focusing on 2014, the results are substantially below the applicable benchmarks,

particularly during the last two quarters when all outfalls were sampled (Q2, Q3 of 2014) and the maximum number of BMPs were in place. Specifically:

- Outfall 001: Lead (Q2, Q3, Q4), Aluminum (Q3, Q4), Iron (Q3, Q4) and Zinc (Q3, Q4)
- Outfall 002: Lead (Q2, Q3, Q4), Aluminum (Q2, Q3), Iron (Q2, Q3) and Zinc (Q2, Q3, Q4)
- Outfall 003: Lead (Q2, Q3), Aluminum (Q2, Q3), Iron (Q2, Q3) and Zinc (Q2, Q3)

A more sensible approach would be to allow the full set of BMPs to be in place for at least an additional two to three quarters of data gathering before initiating an additional assessment as to whether further modifications are necessary.

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Response of AES Puerto Rico LP to EPA's September 16, 2014 Water Compliance Inspection Report

AES Puerto Rico LP ("AESPR") hereby submits this response to EPA's September 16, 2014 Water Compliance Inspection Report ("Inspection Report"). For ease of reference, AESPR will follow EPA's Findings of the Facility Walkthrough.

7. Findings of EPA Facility Walkthrough.

EPA organized its finding's by reference to parts of the Multi-Sector General Permit ("MSGP"). AESPR will respond to each in turn:

a. MSGP Part 2.1.2.1: Minimize Exposure –

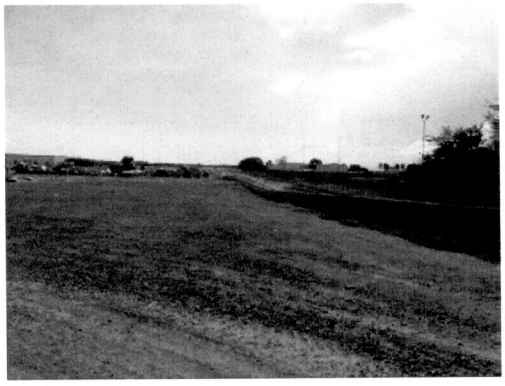
Minimize the exposure of material storage areas (loading and unloading, and storage) to rain and runoff by either locating these industrial materials and activities inside or protecting them with storm-resistant coverings.

EPA Finding: One of the warehouses in plant yards was undergoing cleaning. AES was storing equipment and materials exposed to precipitation without storm resisting coverings. (See EPA Picture 19)

AESPR Response: AESPR disputes the alleged violation as the exposed equipment and materials did not contain any uncovered cleaning materials or similar materials that would pose a risk if added to storm water. The items identified in EPA's Inspection Report were covered with storm-resistant coverings and then returned to storage as soon as the warehouse cleaning work was completed. (ASEPR After Picture 19). In addition, AESPR has implemented the following measures:

- Revised the Storm Water Pollution Prevention Plan (SWPPP) to include specific provisions in the Exposure Minimization section to address material storage. *See* SWPPP at page 13
- Provide and document training to all employees and required contractors about these exposure minimization requirements.
- During the Routine Facility Inspection, *see* SWPPP at page 22__, all site areas will be inspected for material and equipment that are exposed and may require cover, *see* SWPPP at Worksheet #5 .
- Have available at the plant storm-resistant covering in case equipment or materials may be exposed to a storm event.

EPA Picture 19



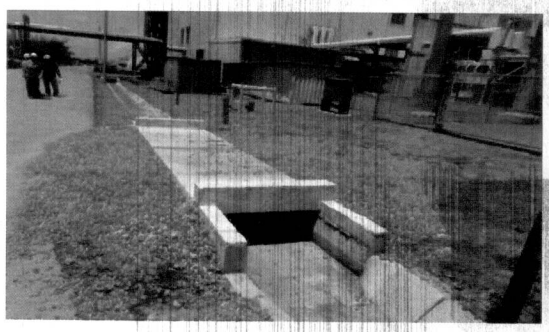
AESPR After (Picture 19)

b. MSGP Part 2.1.2.2: Good Housekeeping – Keep clean all exposed areas that are potential sources of pollutants, using such measures as sweeping at regular intervals.

EPA Finding b.(1): The storm water concrete swale located on the west area of the Site (near the electrical grid) was observed with sediment and gravel accumulation and lacking good housekeeping. (EPA Picture 9).

AESPR Response to EPA Finding b.(1): AESPR addressed the housekeeping in the noted area by removing the limited gravel in the swale. (AESPR After Picture 9). AESPR disputes this was a violation. Moreover, the gravel present alongside the swale (AESPR Picture 9) does not represent poor housekeeping, but is situated there to provide truck access to the opposite side of the channel. Nevertheless, to address the EPA's concern, each concrete swale was assigned an AESPR "area owner" who is responsible to inspect, maintain and clean the swale at least once per month or before an expected storm. AESPR has also revised the SWPPP to include a Storm Water Maintenance Matrix. *See* SWPPP at Appendix 1. The Matrix specifies the area owner, describes the specific areas covered and the required tasks, and identifies frequency for each task. These areas will also be inspected during the quarterly Routine Facility Inspection.

EPA Picture 9



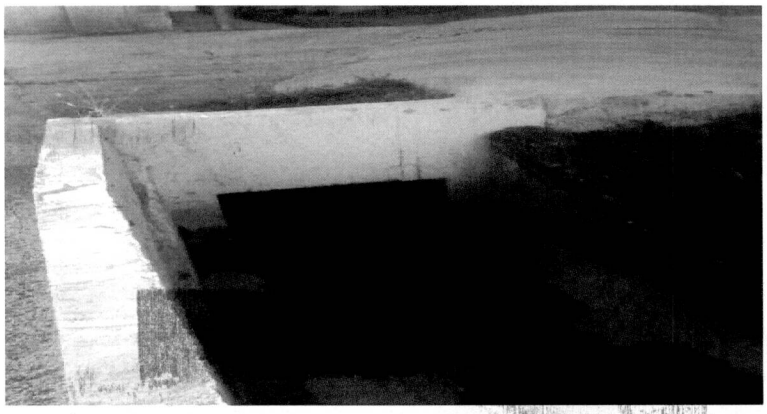
AESPR After Picture 9

EPA Finding b.(2): The storm water concrete culvert located beneath the fly ash loading area was found with debris, sediment, and ash, and lacked maintenance. (EPA Picture 10).

AESPR Response to EPA Finding b.(2). EPA addressed the specific area identified in EPA's Inspection Report. (AESPR After Picture 10). In addition, the SWPPP was revised to include concrete culverts and swales in the Housekeeping Section, with all concrete culvert sections now specifically included the facility's Storm Water Maintenance Matrix to assure regular housekeeping. SWPPP at Appendix 1. Further, these culverts will now be inspected during the Quarterly Routine Facility Inspection.

EPA Picture 10

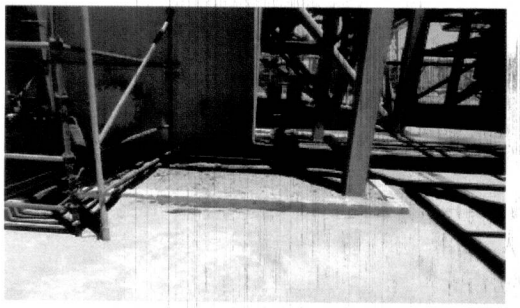
AESPR After Picture 10



c. MSGP Part 2.1.2.3 – Maintenance: - Regularly maintain and repair systems to avoid situations that may result in releases of pollutants in storm water discharged to receiving waters. Maintain all control measures that are used to achieve the effluent limits in effective operating condition.

> EPA Finding c.(1): EPA observed crushed stone construction residues inside a containment area (CDS/ESP) reducing capacity. (EPA Picture 11).
>
> AESPR Response to EPA Finding c. (1): All crushed stone construction residues were removed and a concrete slab was constructed inside the CDS/ESP containment area. (AESPR After Picture 11). These containment areas are equipped with process water drains to avoid any contaminated water from reaching the storm water conveyance system. The process water drains flow to the oil and water separator in the cooling tower make up water pond.

EPA Picture 11

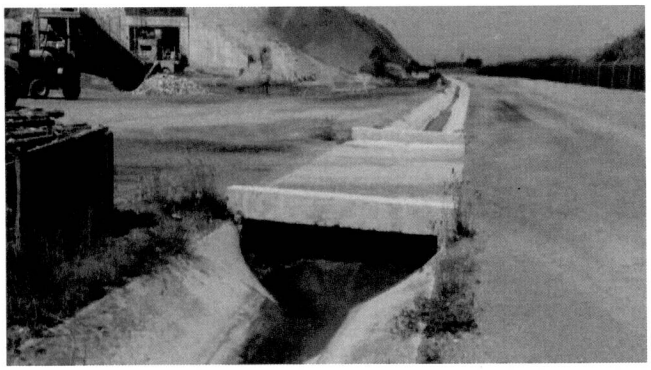


AESPR After (Picture 11)

EPA Finding c.(2): The concrete swale along the Agremax™ pile and coal piles areas were observed with gravel, dust, Agremax™, and coal, and lacked housekeeping. (EPA Pictures 12-14). (Picture 14 showed a PVC pipe that the Report asserted was an illegal connection carrying process wastewater into the Storm Water Runoff Pond.)

AESPR Response to EPA Finding c.(2): AESPR disputes the assertion that Agremax was present in the observed areas. However, the materials observed during the Inspection were addressed. The observed PVC piping has been capped (EPA Picture 13, AESPR After Picture 13) (EPA Picture 14, AESPR After Picture 14). Further, to address the EPA's concern, all concrete swales along the Agremax and coal pile areas were assigned an AESPR staff owner responsible for proper housekeeping of the area and to maintain and clean it at least once per month or before an expected storm. AESPR also revised its SWPPP to include a Storm Water Maintenance Matrix to specify the area owner, describe the specific area to be addressed, and identify the frequency for each task. Each of these areas is also included in the Quarterly Routine Facility Inspection to better ensure continuous compliance with this responsibility.

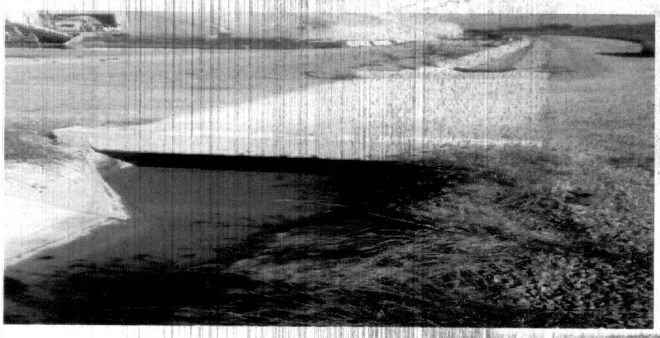
EPA Picture 12



EPA Picture 13

EPA Picture 14

AESPR After (Picture 12)



AESPR After (Picture 13)

AESPR After (Picture 14)

EPA Finding c.(3): AES was in the process of emptying the Coal Pile Pond for cleaning and repair, which is a required maintenance activity to eliminate overflow discharges of storm water and process wastewater into wetlands through outfall 003: AES has failed to complete this task since it was found during the July 2011 CEI. (EPA Pictures 15-16).

AESPR Response to EPA Finding c.(3): As AESPR has documented previously for EPA, the company was delayed due to problems beyond its control with its contractor,

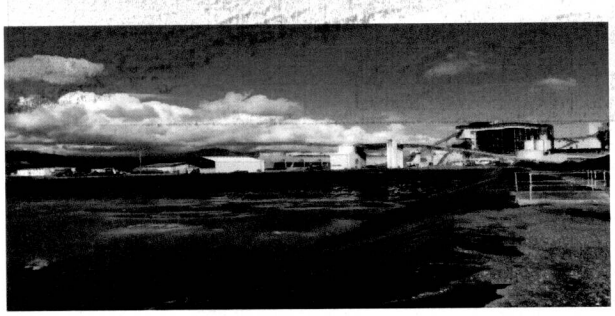
one of only a few located in Puerto Rico that the company believed had the experience and capabilities to perform this job. Regardless, the Coal Pile Runoff Pond cleaning was finished on December 31, 2014. This activity was an extensive undertaking that included the following:

- Removal of all water then contained in the pond.
- Removal of all sediment from the pond. The sediment was composed of ash and coal residue and was stored at the inactive coal pile for boiler consumption in combination with coal.
- Removal and disposal of the damaged liner sections.
- Soil preparation where the liner was removed.
- Installation of new liner sections.
- Pin holes repair and sediment traps cleaning.

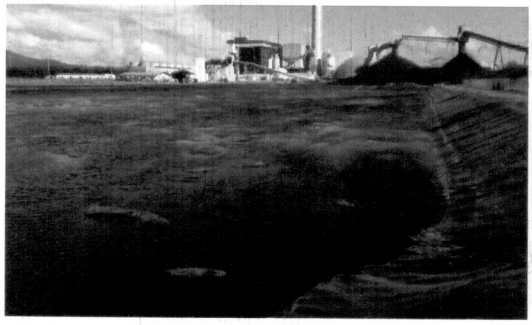
EPA Picture 15

EPA Picture 16

AESPR After (Picture 15)



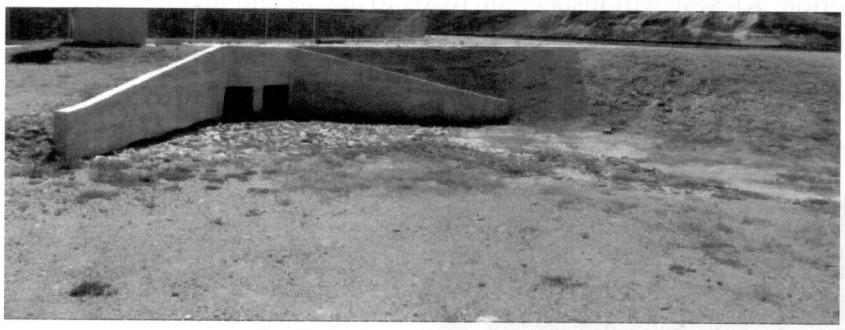
AESPR After Picture 16



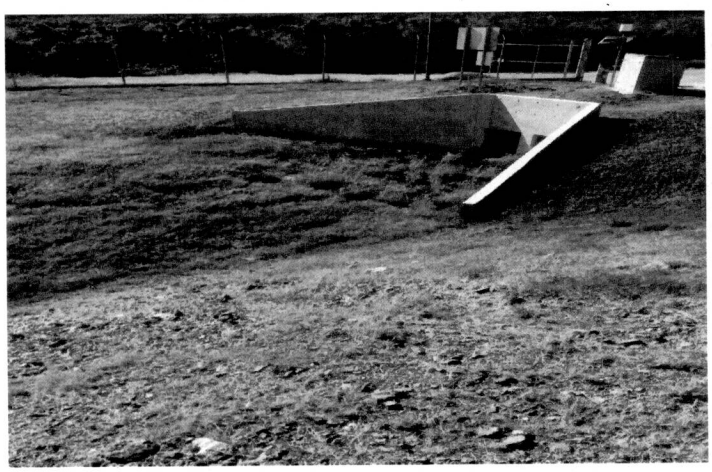
d. MSGP Part 2.1.2.5 - Erosion and Sediment Controls – Stabilize exposed areas and contain runoff using structural and/or non-structural BMPs to minimize on-site erosion and sedimentation, and the resulting discharge of pollutants. Place flow velocity dissipation devices at discharge locations and within outfall channels where necessary to reduce erosion and/or settle out pollutants.

> EPA Finding d.(1): There was exposed soil without adequate stabilization within the southeast corner of the Site, near the concrete culvert that discharges through outfall 002. (EPA Picture 17).
>
> AESPR Response to Finding d.(1): The area identified in the Inspection Report (in the southeast corner of the Site, near the concrete culvert that discharges through outfall 002) was seeded to improve vegetation growth (AESPR Picture 17). In addition, the maintenance of this area is included in the landscaping maintenance contract.

EPA Picture 17



AESPR After (Picture 17)

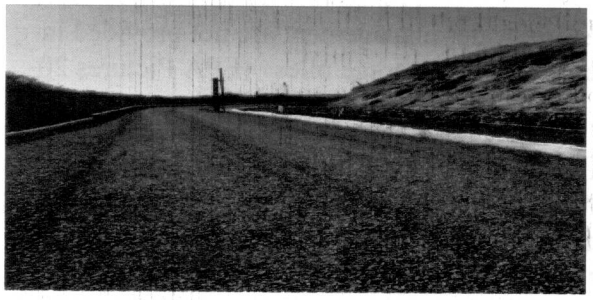


EPA Finding d. (2): The dirt road that borders the south boundary of the Site was found without adequate soil stabilization. Traffic on this road was causing excessive fugitive dust emission into the air and adjacent wetlands fallout. (EPA Picture 18).

AESPR Response to Finding (2): AESPR disputes that the dirt road was not stabilized sufficiently or was causing excessive fugitive dust into the air or adjacent wetlands. However, the dirt road identified in the Inspection Report has been further stabilized with gravel. (AESPR After Picture 18). In fact, AESPR has enhanced the stabilization of site unpaved roads and unpaved areas with a gravel application. Further, an area owner among AESPR staff has been who is responsible for ensuring these areas are well-maintained and continue to be stabilized properly, as reflected in the Storm Water Maintenance Matrix, which is part of the SWPPP. In addition, during the quarterly Routine Facility Inspection, AESPR will inspect the roads to assess and identify any locations where maintenance is required.

EPA Picture 18

AESPR After Picture 18



EPA Finding d.(3): Several plant yards were observed with inadequate soil stabilization. For example, the yards between the cooling tower and maintenance shop building were found in such condition. (EPA Picture 19).

AESPR Response to EPA Finding d.(3): AESPR disputes that the plant yards lacked adequate stabilization. However, the yards between the cooling tower and maintenance shop building identified in the Inspection Report are now further stabilized with gravel (AESPR After Picture 19). In addition, as noted AESPR has stabilized all site unpaved roads and unpaved areas with a gravel cover. Further, an area owner among AESPR staff have been designated as responsible for ensuring these areas are well-maintained and continue to be stabilized properly, as reflected in the Storm Water Maintenance Matrix, which is part of the SWPPP. In addition, during the quarterly Routine Facility Inspection, AESPR will inspect the roads to assess and identify any locations where maintenance is required.

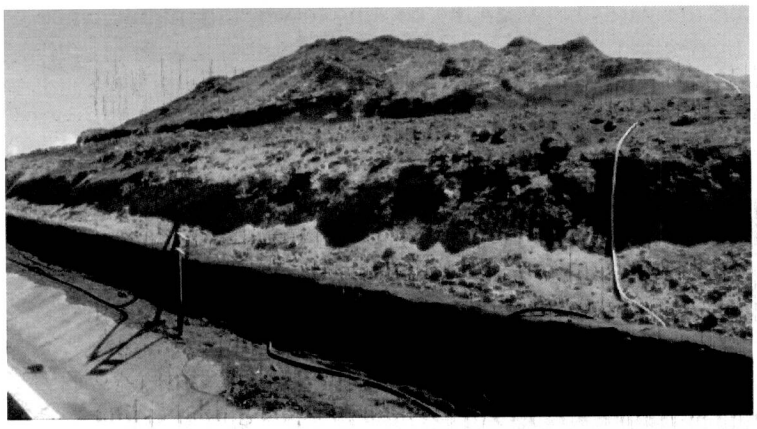
EPA Picture 19

AESPR After Picture 19

EPA Finding d.(4): Slope stabilization and storm water management are not provided in the Agremax storage pile and in some slopes of the coal storage piles. (EPA Pictures 20-25).

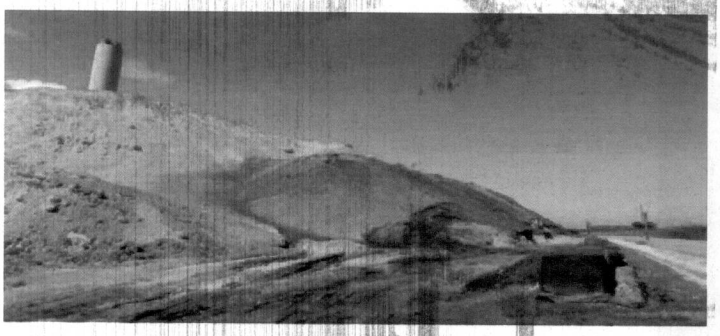
AESPR Response to EPA Finding d.(4): AESPR disputes that stormwater management has not been provided for the inventory of Agremax stored at the AESPR property or at the coal storage pile. The facility has implemented an extensive stormwater management program to collect and route all stormwater run-off to the coal storage runoff pond. The Agremax pile and the coal pile are considered active. Their area, volume and form change over time make it difficult to establish a permanent slope. However, AESPR has taken and is taking steps to address the EPA's concerns about the controls surrounding the Agremax inventory, to reduce run-off and if there is run-off, to collect and route run-off to the coal storage run-off pond.

EPA Picture 20

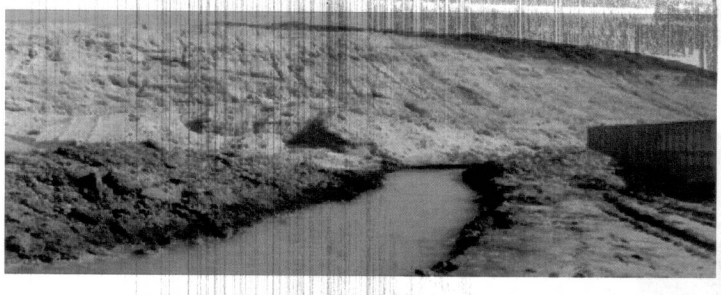


EPA Picture 21

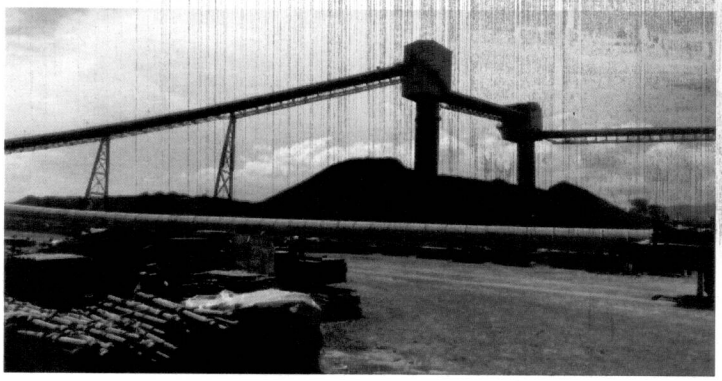
EPA Picture 22



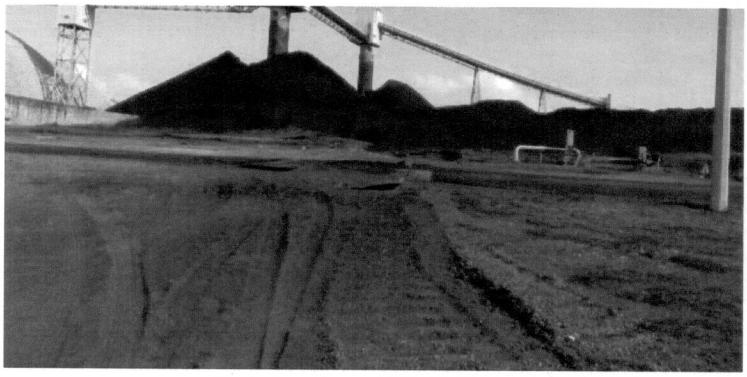
EPA Picture 23



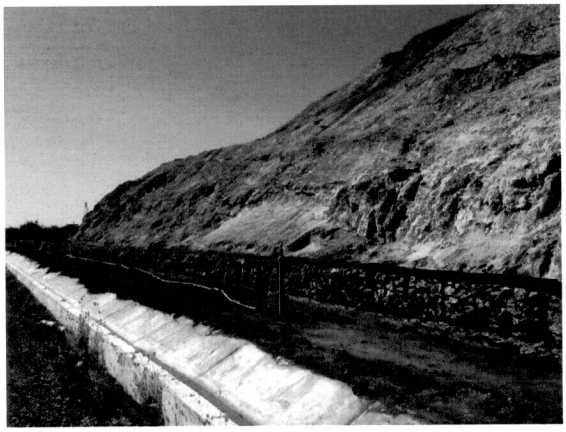
EPA Picture 24



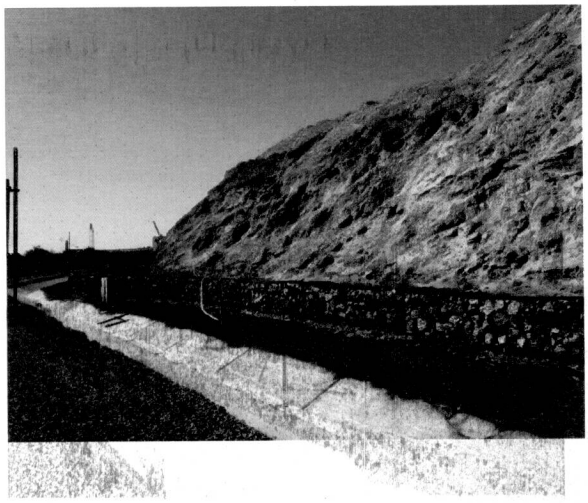
EPA Picture 25



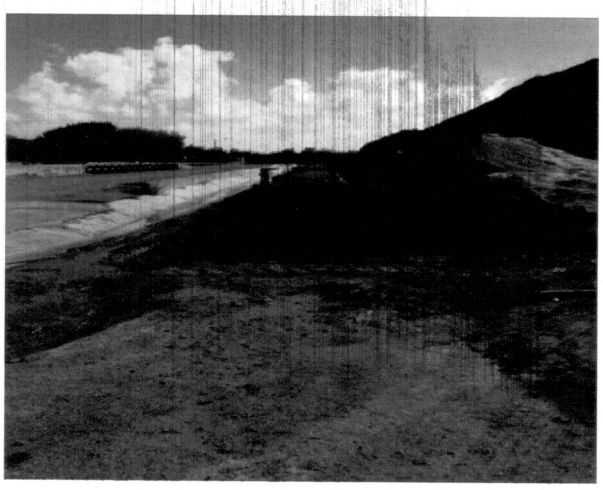
AESPR After (Picture 20)



AESPR After (Picture 21)

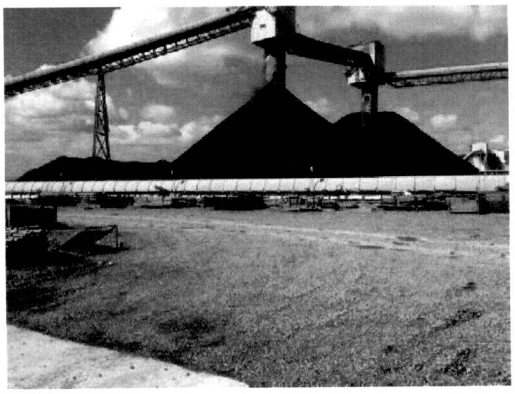


AESPR After (Picture 22)

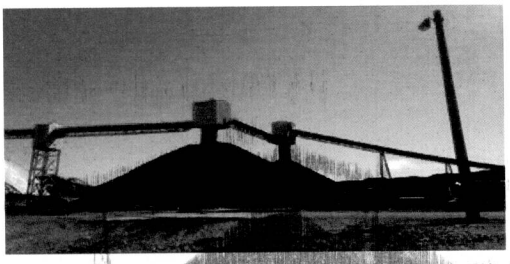


AESPR After (Picture 23)

AESPR After (Picture 24)



AESPR After (Picture 25)

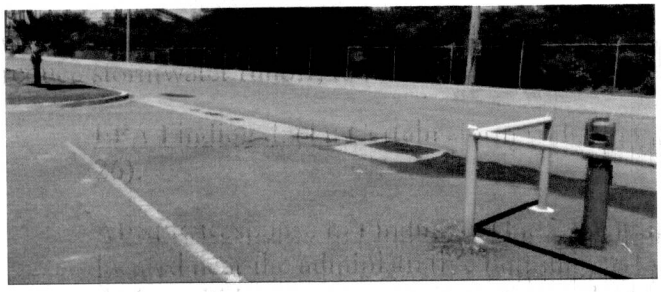


e. MSGP Part 2.1.2.6 - Management of Runoff: Divert, infiltrate, reuse, contain, or otherwise reduce stormwater runoff, to minimize pollutants in the discharges.

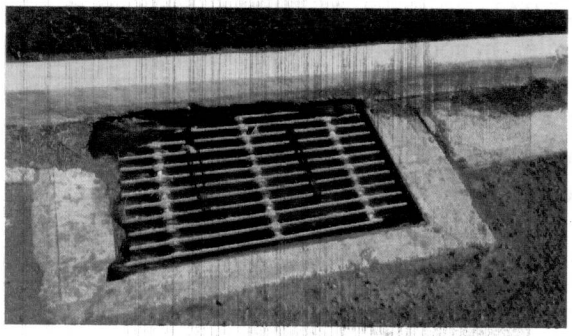
EPA Finding d. (1): Certain storm water inlets did not have inlet protection. (EPA Picture 26).

AESPR Response to Finding e. (1): The drain identified in the Inspection Report is located near the administrative building, not in the process area. All inlet catch basin drains within process areas are protected with drain guards. (For example, AESPR After Picture 26). The drain guards are inspected and replaced frequently as required by the Storm Water Maintenance Matrix, which, as noted, is incorporated into the facility SWPPP. An area owner who is responsible for inspecting and replacing drain guards as needed has been assigned. The drains are also inspected Quarterly as part of the Routine Facility Inspection .

EPA Picture 26



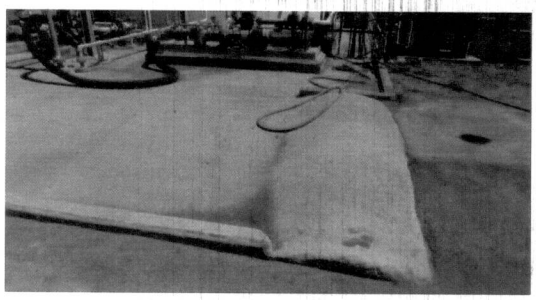
AESPR After (Picture 26)



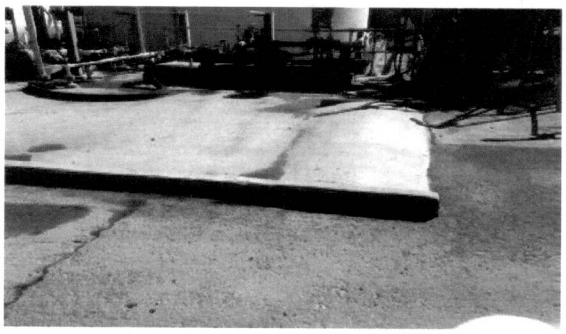
EPA Finding e. (2): One (1) corner of the concrete low wall secondary containment located near the diesel unloading area was broken. (Picture 27).

AESPR Response to EPA Finding e.(2): The broken corner of the low wall at the secondary containment located at the diesel unloading areas was repaired. (AESPR After Picture 27).

EPA Picture 27



AESPR After (Picture 27)

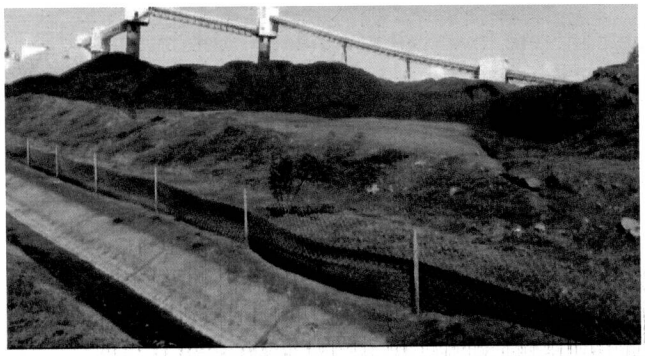


EPA Finding e.(3): AES has not replaced and/or installed silt fence at the perimeter of the coal storage piles and coal handling areas. (Picture 27).

AESPR Response to EPA Finding e.(3): AESPR disputes that the silt fence was not sufficient to manage the coal storage piles and coal handling areas, as the silt fence was in

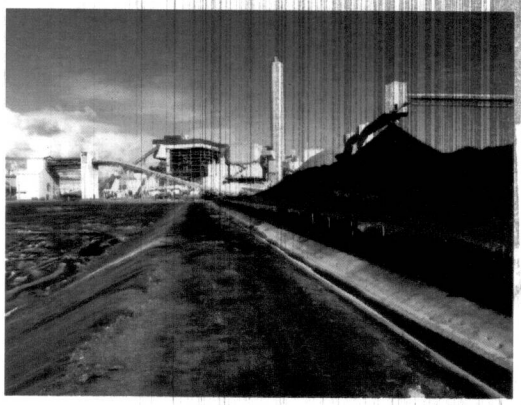
very good condition in significant areas surrounding the perimeter of the coal storage piles and the coal handling areas. To address EPA's concerns, AESPR has replaced the silt fence in locations along the inactive coal pile. In addition, the requirement to inspect and if necessary repair or replace sections of the silt fence has been included in the Storm Water Maintenance Matrix, which is part of the facility SWPPP. As such, an area owner has been assigned who is responsible to maintain this BMP. Moreover, this area is also inspected as part of the Routine Facility Inspection to evaluate this BMP and ensure corrective measures are taken, if necessary.

EPA Picture 27

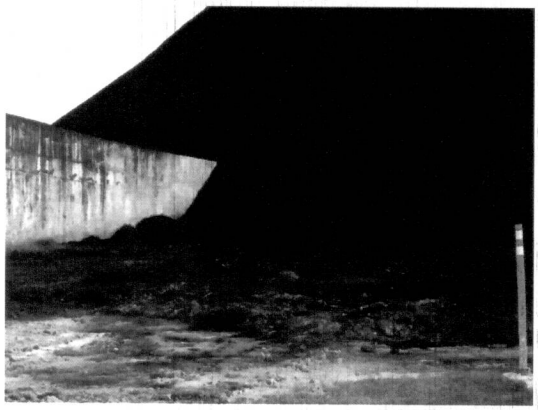


EPA Picture 28

AESPR After Picture 27



After 28



f. MSGP Part 2.1.2.12 - Dust Generation and Vehicle Tracking of Industrial Materials – Minimize generation of dust and off-site tracking of raw, final, or waste materials.

EPA Finding f. (1): See Picture 25 above for example of coal off-site tracking

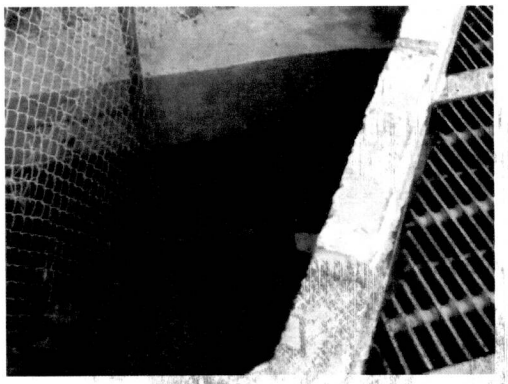
AESPR Response to EPA Finding f.(1): AESPR disputes that the facility is not complying with the cited provision of the MSGP. To the extent that there is dust from the active coal pile that is found in stormwater, that stormwater is being collected and routed to the stormwater and coal pile runoff ponds. As a result, there are no discharge or stormwater compliance issues here. That said, AESPR has taken steps to address the EPA's concern, including improved overall housekeeping, inspections, and if necessary, additional measures. This will be achieved through its compliance matrix, assigned inspections, Quarterly Routine Facility Inspection, and SWPPP implementation.

EPA Finding f. (4): Off-site tracking of what appears to be Aggremax™ fine particles was observed at the wetlands (outfall 002). Picture 29 depicts this finding.

AESPR Response to EPA Finding f.(4) – AESPR disputes the assertion that Agremax particles were present at the wetlands or that Picture 29 depicted the presence of such particles. It is AESPR's view that what was observed was dirt.

Picture 29

After (Picture 29)



g. MSGP Part 8.0.4.1 - Fugitive Dust Emissions - Minimize fugitive dust emissions from coal handling areas, (which EPA's Inspection Report defines to include the Agremax™ storage pile, limestone storage dome and supporting areas such as roads. By installing specially designed tires or washing vehicles in a designated area before they leave the site, and controlling the washwaters.

EPA Finding g.(1): The EPA Inspectors observed one (1) water tank-mounted truck in operation. Given the amount of area to be covered at the Site, which is located in a semi-arid area of Puerto Rico, one (1) truck isn't sufficient to control dust in the areas in which dust control is required.

AESPR Response to EPA Finding g.(1): AESPR disputes that an additional truck was or is needed to address the site, particularly now that there is a system of nine sprinklers to cover the Agremax pile. One water truck is more than adequate to cover the remainder of the facility.

EPA Finding g.(2): Fugitive emissions were observed during the entire Inspection's walkthrough, especially in areas in which ashes are handled.

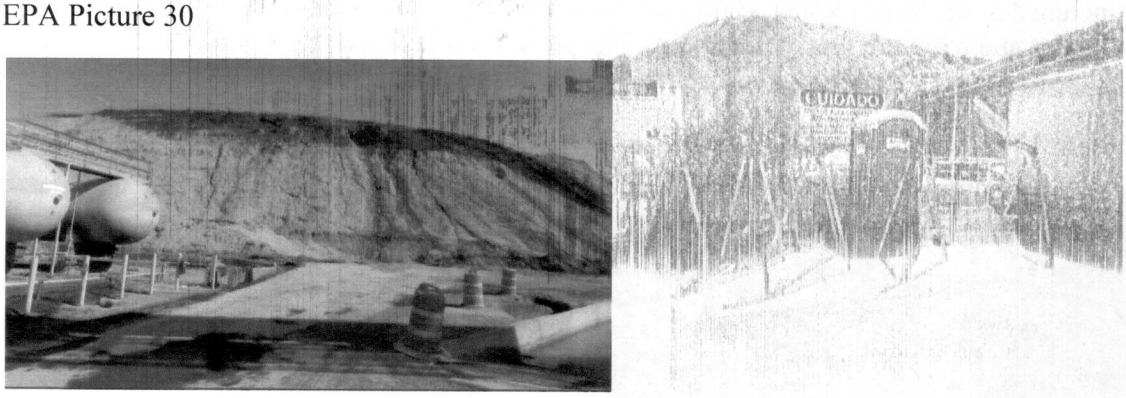
AESPR Response to EPA Finding g.(2): AESPR disputes that fugitive emissions are an issue at the plant generally or specifically in areas in which coal ash is handled. The ash is directed to silos and then directed for use or manufactured into Agremax. In addition,

the management of the Agremax inventory has been improved through the addition of eight additional sprinklers and related equipment to facilitate coverage over the inventory.

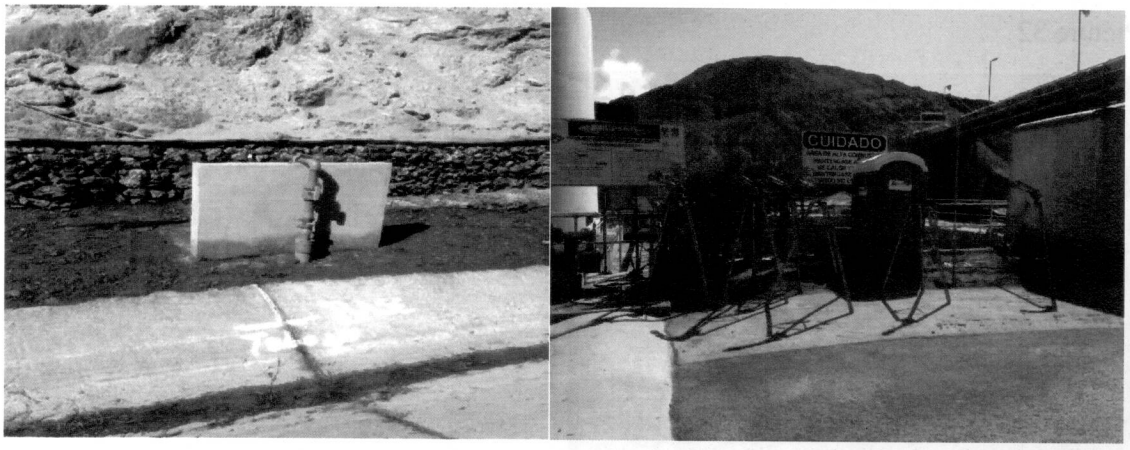
EPA Finding g.(3): AES lacks an adequate and effective dust control system for the Agremax storage pile. Although hoses were feeding water to several sprinklers located on the top side areas of the slopes, most of the slopes were dry and emitting fugitive dust caused by wind. (EPA Picture 30).

AESPR Response to EPA Finding g.(3): AESPR disputes that it lacked an adequate or effective dust control system for its Agremax inventory. However, in response to EPA, AESPR has completed a significant capital project which includes the installation of a new pump with substantially greater capacity to provide water, a new HPVC distribution header pipe, and eight (8) new sprinkler connections (for a total of nine sprinklers). This upgraded system will enhance water sprinkler distribution to provide improved dust control coverage at the Agremax inventory.

EPA Picture 30



AESPR After (Picture 30)

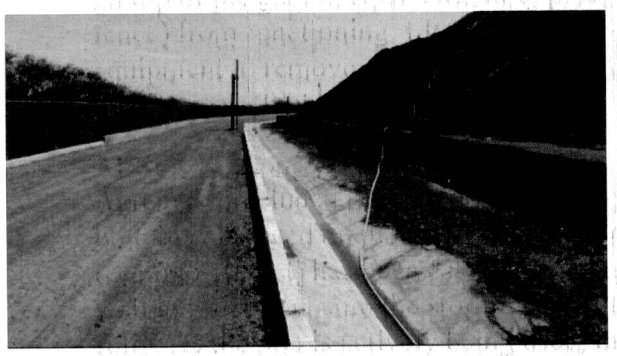


h. MSGP Part 8.0.4.11: Ash Loading Areas - Reduce or control the tracking of ash and residue from ash loading areas. Clear the ash building floor and immediately adjacent roadways of spillage, debris, and excess water before the departure of each loaded vehicle.

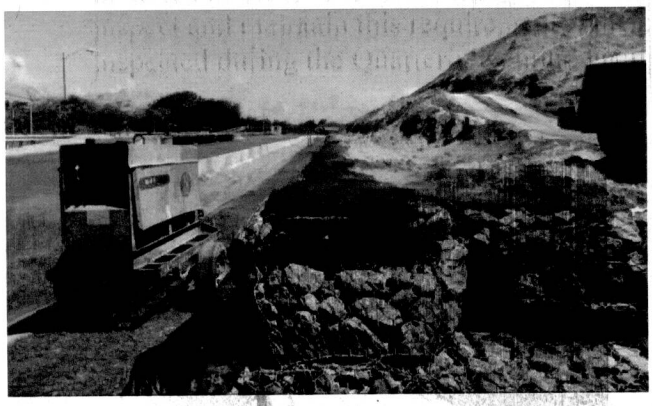
EPA Finding h.(1): Certain slope bottoms of the Agremax™ storage pile were observed on top of the gabion BMP structure, precluding this designed BMP (and its attached silt fence) from functioning. EPA also observed AESPR personnel using mechanical equipment to remove Agremax™ away from the gabions to allow space for the required buffer area. (Pictures 31-32).

AESPR Response to EPA Finding h.(1): AESPR disputes that the presence of observed Agremax precluded the function of this BMP. However, AESPR has addressed the slope bottoms observed on the BMP structure. (AESPR After Pictures 31-32). A buffer zone (of up to 10 feet) has been established between the Agremax storage pile and the gabions wall in order to ensure the storm water filtering system in this BMP is able to function fully. As the pile is actively being used, the slope bottoms will adjust, but the buffer zone will be maintained through routine inspections. The need for the buffer zone is now included in the Storm Water Maintenance Matrix and an area owner has been assigned to inspect and maintain this requirement. The presence of a buffer zone will also be inspected during the Quarterly Routine Facility Inspection.

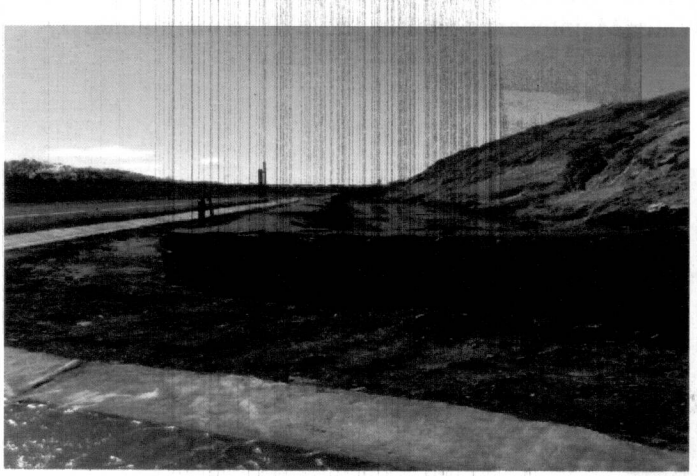
EPA Picture 31



EPA Picture 32



AESPR After (Picture 31)



AESPR After (Picture 32)

EPA Finding h.(2)AES installed a dust control system in the fly ash loading area to minimize dust emissions.

AESPR Response to EPA Finding h. (2) – AESPR disputes there were any previous issues with dust emissions, but agrees that this system has been installed.

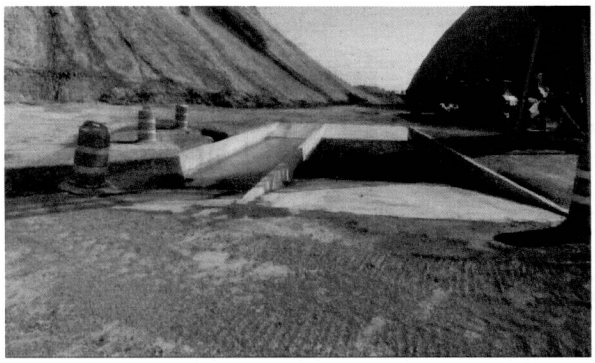
i. MSGP Part 8.0.4012 - Areas Adjacent to Disposal Ponds – Minimize contamination of surface runoff from areas adjacent to disposal ponds. Reduce ash residue that may be tracked on to access roads traveled by residue handling vehicles, and reduce ash residue on exit roads leading into and out of residue handling areas.

EPA Finding i.(1): AES constructed a structural BMP between the Agremax™ storage pile and the limestone storage dome to reduce tracking of sediments into roads at the plant. EPA found the construction of the structural BMP was adequate but the exit path to the road lack soil stabilization control. (EPA Picture 33).

AESPR Response to EPA Finding i.(1): AESPR disputes that the exit path lacked sufficient stabilization. However, to address EPA's observation, the exit path of the

wheel washer BMP was further stabilized with gravel. (AESPR After Picture 33). In addition, the area is on the Storm Water Maintenance Matrix and will be maintained by assigned plant staff.

EPA Picture 33



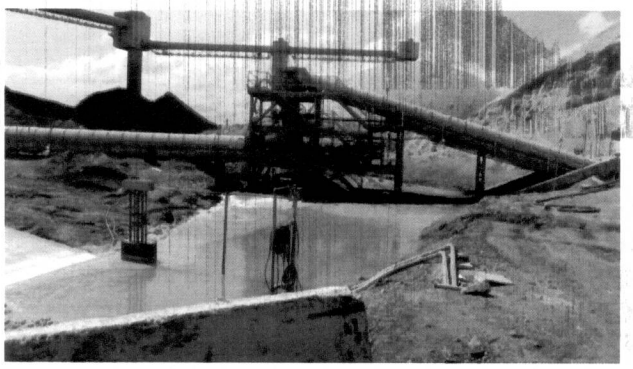
AESPR After (Picture 33)

EPA Finding i.(2): The plant yards behind the south side of the limestone storage dome were observed without soil stabilization. Also, the process wastewater basin located in this area was not constructed following best engineering practices to allow for adequate sedimentation and slope stabilization. (EPA Pictures 34-35).

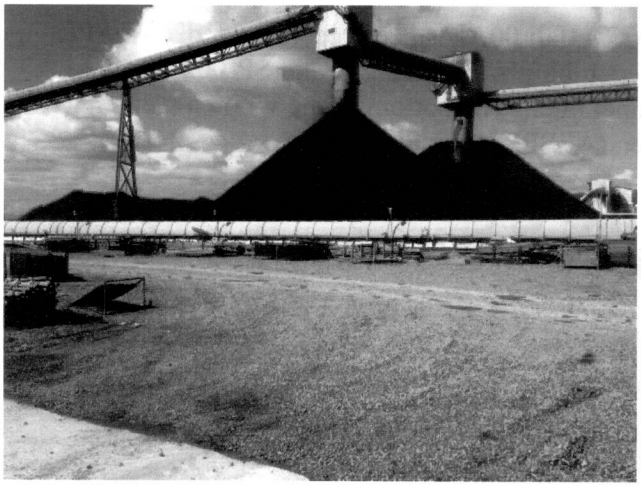
AESPR Response to EPA Finding i.(2): AESPR disputes the plant yards behind the south side of storage dome lacked sufficient soil stabilization. However, all site unpaved roads and unpaved areas have been stabilized further with a gravel cover. (AESPR After Picture 34). Further, AESPR disputes that there is any current compliance issue with the wastewater basin warranting further action by AESPR, as the basin is sufficient to manage storm water as needed at this area of the facility; the original design foresaw that any water collected in this area would transferred to the coal pile water run off collection pond, which is and has been occurring. In addition, an area owner has been assigned to maintain these areas to ensure they continue to be properly stabilized. This is included in the Storm Water Maintenance Matrix which is part of the SWPPP. Further, these areas will be inspected as part of the Quarterly Routine Facility Inspections.

EPA Picture 34

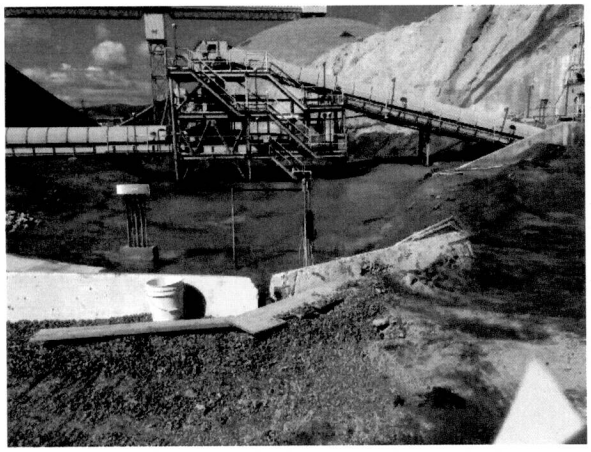
Picture 35



AESPR After (Picture 34)



AESPR After (Picture 35)



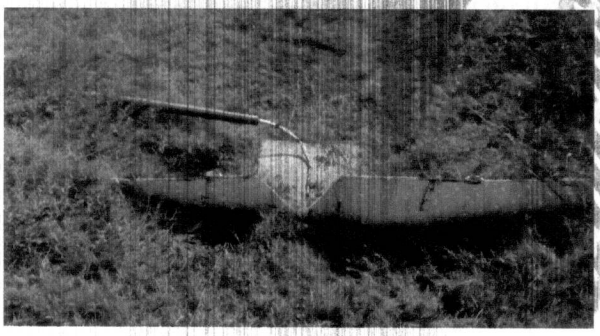
j. Other EPA Findings

EPA Finding j.(1): AES installed two V-notch weirs to provide for a free and unobstructed flow when sampling the storm water discharges associated with industrial activity through outfalls 002 and 003. AES also installed two solar-powered automatic samplers for sampling points 002 and 003. However, the tip of the samplers tubing was observed touching the surface; and therefore, the sample tubing were not installed properly. Also, the bottom of the V-notch weir crests was touching the surface. (EPA Pictures 36-37).

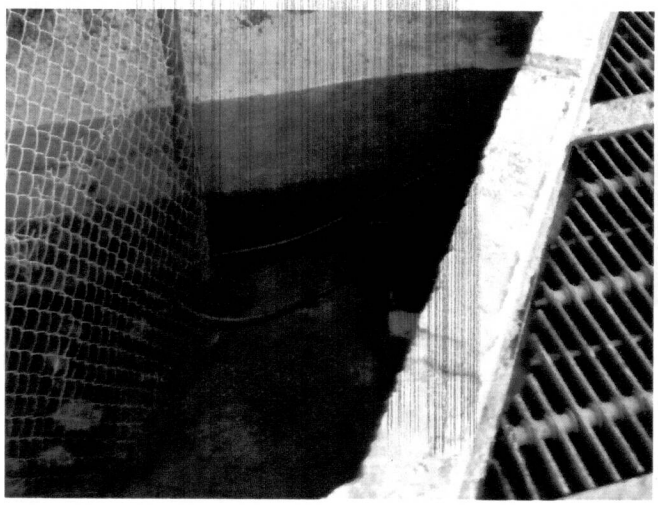
AESPR Response to EPA Finding j.(1): Outfall 002 has been reconstructed. (AESPR After Picture 36). The tip of the samplers tubing's from SP-002 and SP-003 was modified to avoid contact with the channel inlet. The bottom of the v-notch weirs have been re-installed above the channel inlet. (AESPR After Picture 37).

EPA Picture 36

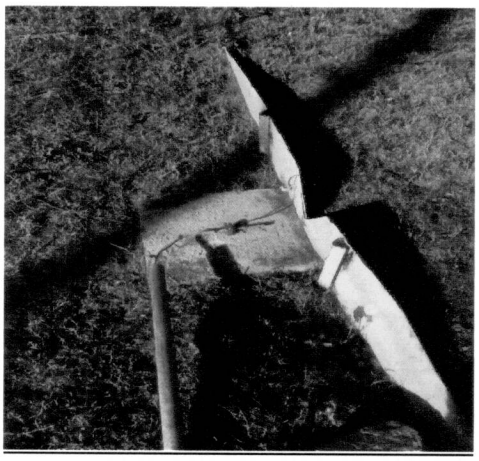
EPA Picture 37



After (Picture 36)



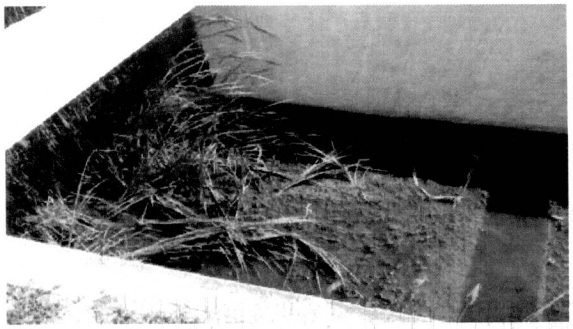
AESPR After Picture 37



EPA Finding j.(2): EPA observed vegetation growth and lack of maintenance along the concrete channel that discharges through Outfall 003. This is causing backflow and algae growth. (EPA Pictures 38-39).

AESPR Response to EPA Finding j (2): AESPR disputes that the channel was not reasonably maintained, given its location and the Puerto Rico climate. Regardless, the observed vegetation was removed and additional maintenance has been conducted along the concrete channel that discharges through Outfall 003. In addition, this area is covered by the Storm Water Maintenance Matrix, which is part of the facility SWPPP, and the Quarterly Routine Facility Inspections.

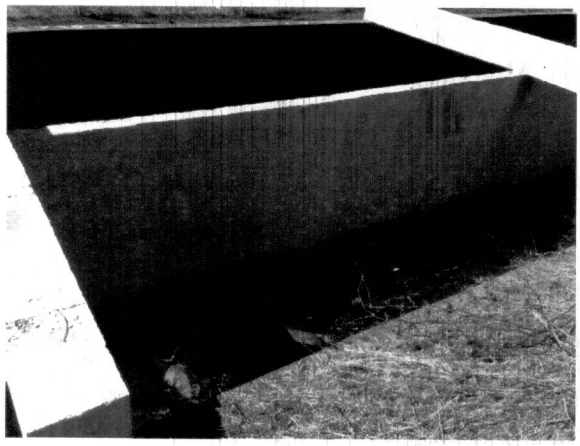
EPA Picture 38



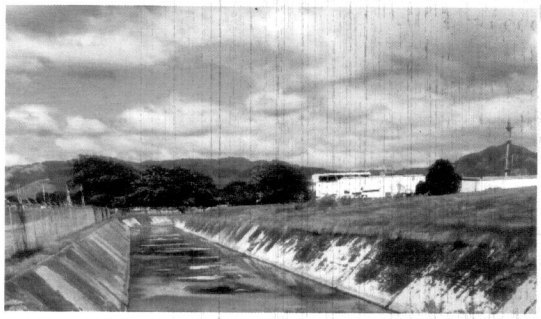
EPA Picture 39

AESPR After Picture 38

AESPR After Picture 39



AESPR After Picture 39



EPA Finding j.(3): EPA found AES did not comply with Part 3.2 (Conditions Requiring Review to Determine if Modifications Are Necessary) and Part 6.2.1.2 (Benchmark Monitoring Schedule) of the MSGP, which requires AES to review the selection, design, installation, and implementation of control measures to determine if modifications are necessary to meet the effluent limits in the MSGP.

According to EPA, the basis for this findings is that the average of all monitoring data for SP-001, SP-002, and SP-003 exceeded the applicable benchmarks for aluminum and iron, and AES did not conduct/document the required selection, design, installation, and implementation of control measures to determine if modifications are necessary to meet the effluent limits in the MSGP. These modifications are beyond the non-structural and structural BMPs that AES selected and EPA approved in the May 5, 2013 letter.

AESPR Response to EPA Finding j.(3): AESPR disputes that the company is not in compliance with Parts 3.2 and 6.2.1.2 of the MSGP. AESPR has been operating under an ACO with EPA to implement literally dozens of new structural and non-structural BMPs at its facility since December 2011. The facility has invested over $3.5 million to implement the requirements, some of which were time consuming to design, construct and implement and were not completed until this past year. Beginning in 2013 the facility began to show consistent data below the benchmarks, and as the chart below shows, focusing on 2014, the results are substantially below the applicable benchmarks,

particularly during the last two quarters when all outfalls were sampled (Q2, Q3 of 2014) and the maximum number of BMPs were in place. Specifically:

- Outfall 001: Lead (Q2, Q3, Q4), Aluminum (Q3, Q4), Iron (Q3, Q4) and Zinc (Q3, Q4)

- Outfall 002: Lead (Q2, Q3, Q4), Aluminum (Q2, Q3), Iron (Q2, Q3) and Zinc (Q2, Q3, Q4)

- Outfall 003: Lead (Q2, Q3), Aluminum (Q2, Q3), Iron (Q2, Q3) and Zinc (Q2, Q3)

A more sensible approach would be to allow the full set of BMPs to be in place for at least an additional two to three quarters of data gathering before initiating an additional assessment as to whether further modifications are necessary.

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Response of AES Puerto Rico LP to EPA's
September 16, 2014 Water Compliance Inspection Report

AES Puerto Rico LP ("AESPR") hereby submits this response to EPA's September 16, 2014 Water Compliance Inspection Report ("Inspection Report"). For ease of reference, AESPR will follow EPA's Findings of the Facility Walkthrough.

7. Findings of EPA Facility Walkthrough.

EPA organized its finding's by reference to parts of the Multi-Sector General Permit ("MSGP"). AESPR will respond to each in turn:

a. MSGP Part 2.1.2.1: Minimize Exposure –

Minimize the exposure of material storage areas (loading and unloading, and storage) to rain and runoff by either locating these industrial materials and activities inside or protecting them with storm-resistant coverings.

EPA Finding: One of the warehouses in plant yards was undergoing cleaning. AES was storing equipment and materials exposed to precipitation without storm resisting coverings. (See EPA Picture 19)

AESPR Response: AESPR disputes the alleged violation as the exposed equipment and materials did not contain any uncovered cleaning materials or similar materials that would pose a risk if added to storm water. The items identified in EPA's Inspection Report were covered with storm-resistant coverings and then returned to storage as soon as the warehouse cleaning work was completed. (ASEPR After Picture 19). In addition, AESPR has implemented the following measures:

- Revised the Storm Water Pollution Prevention Plan (SWPPP) to include specific provisions in the Exposure Minimization section to address material storage. *See* SWPPP at page 13
- Provide and document training to all employees and required contractors about these exposure minimization requirements.
- During the Routine Facility Inspection, *see* SWPPP at page 22__, all site areas will be inspected for material and equipment that are exposed and may require cover, *see* SWPPP at Worksheet #5 .
- Have available at the plant storm-resistant covering in case equipment or materials may be exposed to a storm event.

EPA Picture 19

AESPR After (Picture 19)

b. MSGP Part 2.1.2.2: Good Housekeeping – Keep clean all exposed areas that are potential sources of pollutants, using such measures as sweeping at regular intervals.

EPA Finding b.(1): The storm water concrete swale located on the west area of the Site (near the electrical grid) was observed with sediment and gravel accumulation and lacking good housekeeping. (EPA Picture 9).

AESPR Response to EPA Finding b.(1): AESPR addressed the housekeeping in the noted area by removing the limited gravel in the swale. (AESPR After Picture 9). AESPR disputes this was a violation. Moreover, the gravel present alongside the swale (AESPR Picture 9) does not represent poor housekeeping, but is situated there to provide truck access to the opposite side of the channel. Nevertheless, to address the EPA's concern, each concrete swale was assigned an AESPR "area owner" who is responsible to inspect, maintain and clean the swale at least once per month or before an expected storm. AESPR has also revised the SWPPP to include a Storm Water Maintenance Matrix. *See* SWPPP at Appendix 1. The Matrix specifies the area owner, describes the specific areas covered and the required tasks, and identifies frequency for each task. These areas will also be inspected during the quarterly Routine Facility Inspection.

EPA Picture 9

AESPR After Picture 9

EPA Finding b.(2): The storm water concrete culvert located beneath the fly ash loading area was found with debris, sediment, and ash, and lacked maintenance. (EPA Picture 10).

AESPR Response to EPA Finding b.(2). EPA addressed the specific area identified in EPA's Inspection Report. (AESPR After Picture 10). In addition, the SWPPP was revised to include concrete culverts and swales in the Housekeeping Section, with all concrete culvert sections now specifically included the facility's Storm Water Maintenance Matrix to assure regular housekeeping. SWPPP at Appendix 1. Further, these culverts will now be inspected during the Quarterly Routine Facility Inspection.

EPA Picture 10

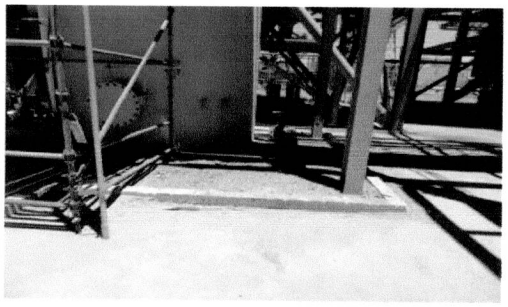
AESPR After Picture 10

c. MSGP Part 2.1.2.3 – Maintenance: - Regularly maintain and repair systems to avoid situations that may result in releases of pollutants in storm water discharged to receiving waters. Maintain all control measures that are used to achieve the effluent limits in effective operating condition.

EPA Finding c.(1): EPA observed crushed stone construction residues inside a containment area (CDS/ESP) reducing capacity. (EPA Picture 11).

AESPR Response to EPA Finding c. (1): All crushed stone construction residues were removed and a concrete slab was constructed inside the CDS/ESP containment area. (AESPR After Picture 11). These containment areas are equipped with process water drains to avoid any contaminated water from reaching the storm water conveyance system. The process water drains flow to the oil and water separator in the cooling tower make up water pond.

EPA Picture 11

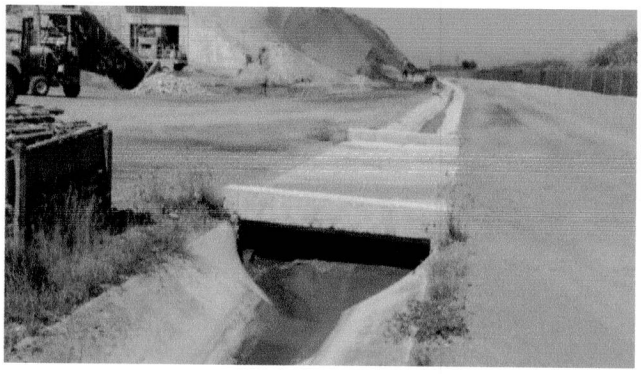


AESPR After (Picture 11)

EPA Finding c.(2): The concrete swale along the Agremax™ pile and coal piles areas were observed with gravel, dust, Agremax™, and coal, and lacked housekeeping. (EPA Pictures 12-14). (Picture 14 showed a PVC pipe that the Report asserted was an illegal connection carrying process wastewater into the Storm Water Runoff Pond.)

AESPR Response to EPA Finding c.(2): AESPR disputes the assertion that Agremax was present in the observed areas. However, the materials observed during the Inspection were addressed. The observed PVC piping has been capped (EPA Picture 13, AESPR After Picture 13) (EPA Picture 14, AESPR After Picture 14). Further, to address the EPA's concern, all concrete swales along the Agremax and coal pile areas were assigned an AESPR staff owner responsible for proper housekeeping of the area and to maintain and clean it at least once per month or before an expected storm. AESPR also revised its SWPPP to include a Storm Water Maintenance Matrix to specify the area owner, describe the specific area to be addressed, and identify the frequency for each task. Each of these areas is also included in the Quarterly Routine Facility Inspection to better ensure continuous compliance with this responsibility.

EPA Picture 12



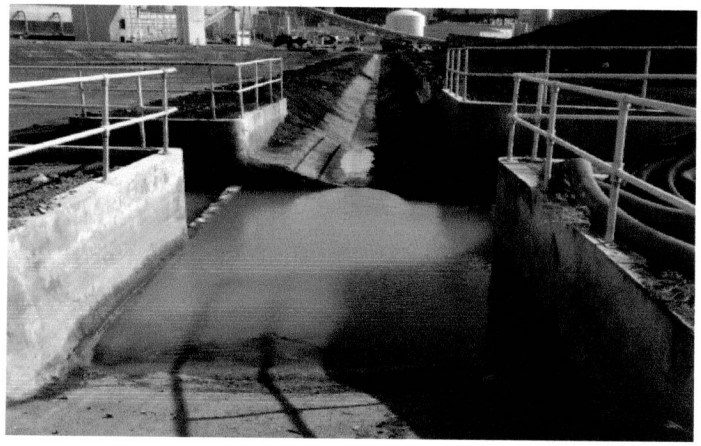
EPA Picture 13

EPA Picture 14

AESPR After (Picture 12)

AESPR After (Picture 13)

AESPR After (Picture 14)



EPA Finding c.(3): AES was in the process of emptying the Coal Pile Pond for cleaning and repair, which is a required maintenance activity to eliminate overflow discharges of storm water and process wastewater into wetlands through outfall 003: AES has failed to complete this task since it was found during the July 2011 CEI. (EPA Pictures 15-16).

AESPR Response to EPA Finding c.(3): As AESPR has documented previously for EPA, the company was delayed due to problems beyond its control with its contractor,

one of only a few located in Puerto Rico that the company believed had the experience and capabilities to perform this job. Regardless, the Coal Pile Runoff Pond cleaning was finished on December 31, 2014. This activity was an extensive undertaking that included the following:

- Removal of all water then contained in the pond.
- Removal of all sediment from the pond. The sediment was composed of ash and coal residue and was stored at the inactive coal pile for boiler consumption in combination with coal.
- Removal and disposal of the damaged liner sections.
- Soil preparation where the liner was removed.
- Installation of new liner sections.
- Pin holes repair and sediment traps cleaning.

EPA Picture 15

EPA Picture 16

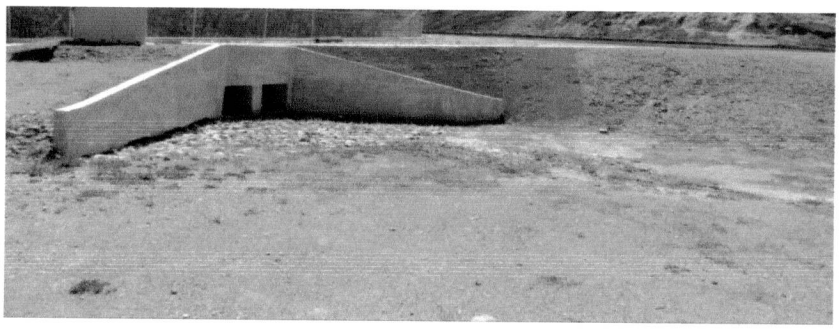
AESPR After (Picture 15)

AESPR After Picture 16

d. MSGP Part 2.1.2.5 - Erosion and Sediment Controls – Stabilize exposed areas and contain runoff using structural and/or non-structural BMPs to minimize on-site erosion and sedimentation, and the resulting discharge of pollutants. Place flow velocity dissipation devices at discharge locations and within outfall channels where necessary to reduce erosion and/or settle out pollutants.

> EPA Finding d.(1): There was exposed soil without adequate stabilization within the southeast corner of the Site, near the concrete culvert that discharges through outfall 002. (EPA Picture 17).
>
> AESPR Response to Finding d.(1): The area identified in the Inspection Report (in the southeast corner of the Site, near the concrete culvert that discharges through outfall 002) was seeded to improve vegetation growth (AESPR Picture 17). In addition, the maintenance of this area is included in the landscaping maintenance contract.

EPA Picture 17

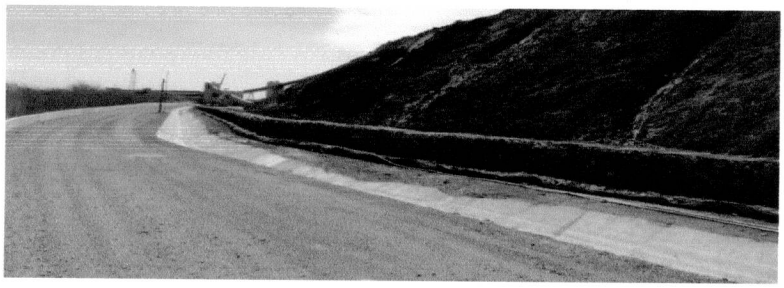


AESPR After (Picture 17)

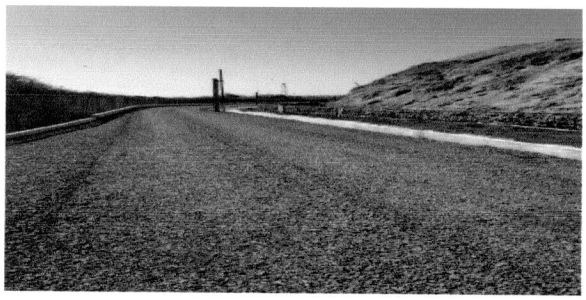
EPA Finding d. (2): The dirt road that borders the south boundary of the Site was found without adequate soil stabilization. Traffic on this road was causing excessive fugitive dust emission into the air and adjacent wetlands fallout. (EPA Picture 18).

AESPR Response to Finding (2): AESPR disputes that the dirt road was not stabilized sufficiently or was causing excessive fugitive dust into the air or adjacent wetlands. However, the dirt road identified in the Inspection Report has been further stabilized with gravel. (AESPR After Picture 18). In fact, AESPR has enhanced the stabilization of site unpaved roads and unpaved areas with a gravel application. Further, an area owner among AESPR staff has been who is responsible for ensuring these areas are well-maintained and continue to be stabilized properly, as reflected in the Storm Water Maintenance Matrix, which is part of the SWPPP. In addition, during the quarterly Routine Facility Inspection, AESPR will inspect the roads to assess and identify any locations where maintenance is required.

EPA Picture 18



AESPR After Picture 18

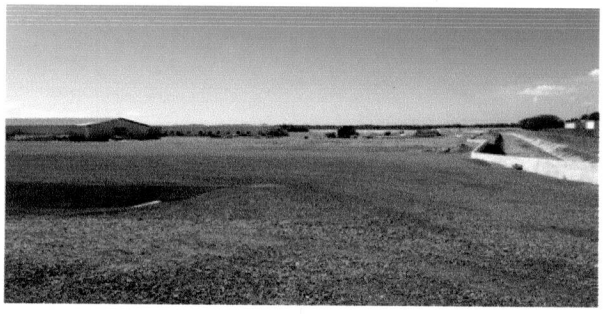


EPA Finding d.(3): Several plant yards were observed with inadequate soil stabilization. For example, the yards between the cooling tower and maintenance shop building were found in such condition. (EPA Picture 19).

AESPR Response to EPA Finding d.(3): AESPR disputes that the plant yards lacked adequate stabilization. However, the yards between the cooling tower and maintenance shop building identified in the Inspection Report are now further stabilized with gravel (AESPR After Picture 19). In addition, as noted AESPR has stabilized all site unpaved roads and unpaved areas with a gravel cover. Further, an area owner among AESPR staff have been designated as responsible for ensuring these areas are well-maintained and continue to be stabilized properly, as reflected in the Storm Water Maintenance Matrix, which is part of the SWPPP. In addition, during the quarterly Routine Facility Inspection, AESPR will inspect the roads to assess and identify any locations where maintenance is required.

EPA Picture 19

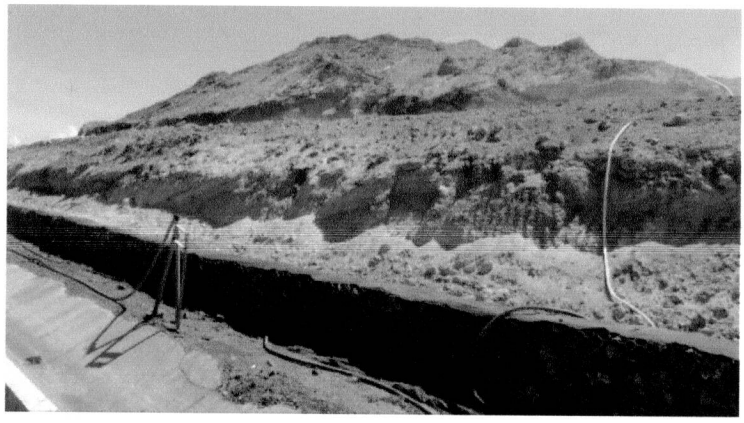
AESPR After Picture 19



EPA Finding d.(4): Slope stabilization and storm water management are not provided in the Agremax storage pile and in some slopes of the coal storage piles. (EPA Pictures 20-25).

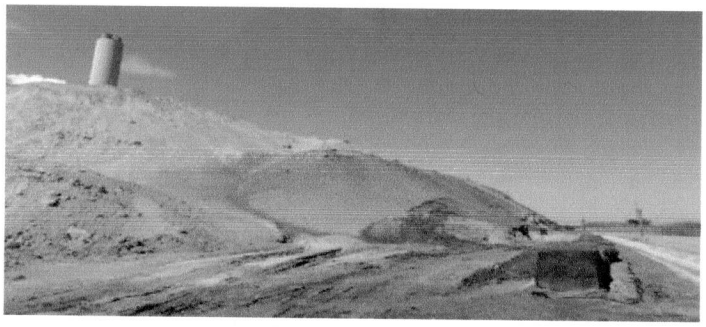
AESPR Response to EPA Finding d.(4): AESPR disputes that stormwater management has not been provided for the inventory of Agremax stored at the AESPR property or at the coal storage pile. The facility has implemented an extensive stormwater management program to collect and route all stormwater run-off to the coal storage runoff pond. The Agremax pile and the coal pile are considered active. Their area, volume and form change over time make it difficult to establish a permanent slope. However, AESPR has taken and is taking steps to address the EPA's concerns about the controls surrounding the Agremax inventory, to reduce run-off and if there is run-off, to collect and route run-off to the coal storage run-off pond.

EPA Picture 20



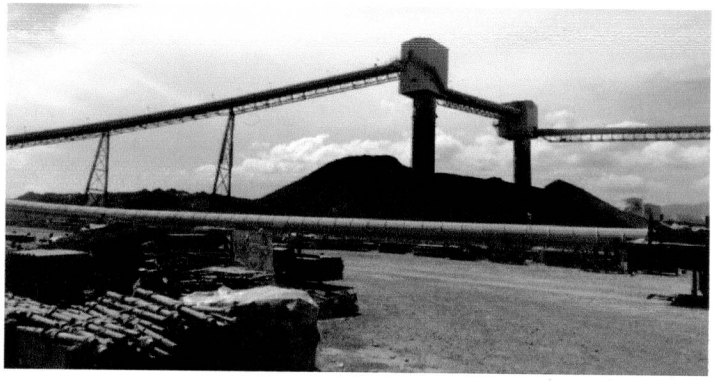
EPA Picture 21

EPA Picture 22

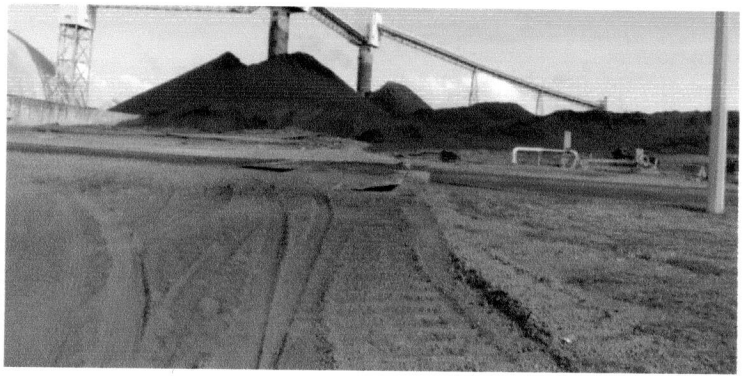


EPA Picture 23

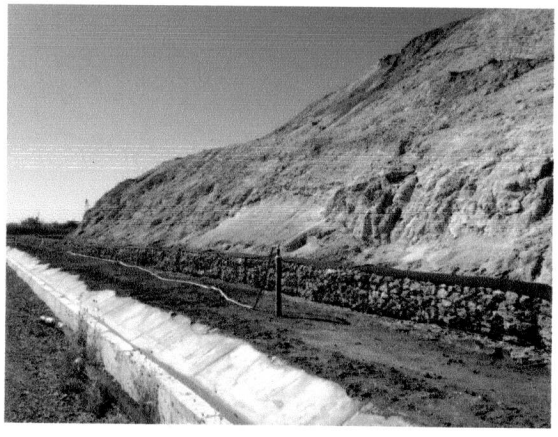
EPA Picture 24



EPA Picture 25

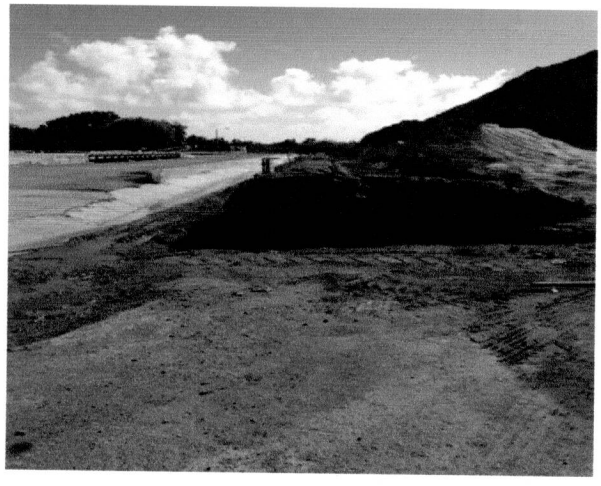


AESPR After (Picture 20)

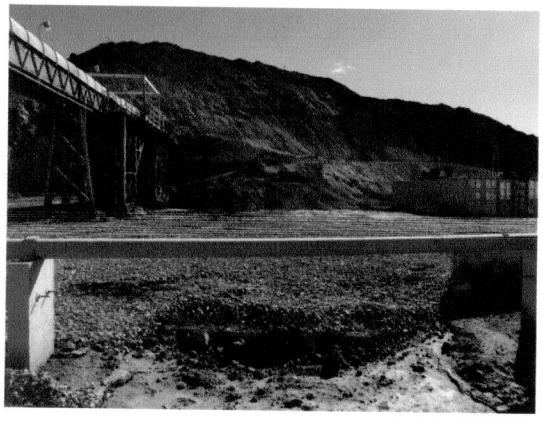


AESPR After (Picture 21)

AESPR After (Picture 22)

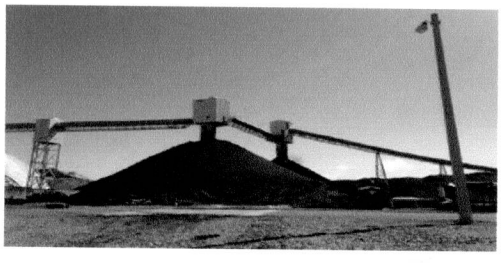


AESPR After (Picture 23)



AESPR After (Picture 24)

AESPR After (Picture 25)



e. MSGP Part 2.1.2.6 - Management of Runoff: Divert, infiltrate, reuse, contain, or otherwise reduce stormwater runoff, to minimize pollutants in the discharges.

EPA Finding d. (1): Certain storm water inlets did not have inlet protection. (EPA Picture 26).

AESPR Response to Finding e. (1): The drain identified in the Inspection Report is located near the administrative building, not in the process area. All inlet catch basin drains within process areas are protected with drain guards. (For example, AESPR After Picture 26). The drain guards are inspected and replaced frequently as required by the Storm Water Maintenance Matrix, which, as noted, is incorporated into the facility SWPPP. An area owner who is responsible for inspecting and replacing drain guards as needed has been assigned. The drains are also inspected Quarterly as part of the Routine Facility Inspection .

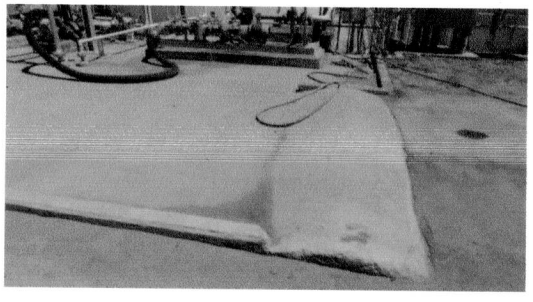
EPA Picture 26

AESPR After (Picture 26)

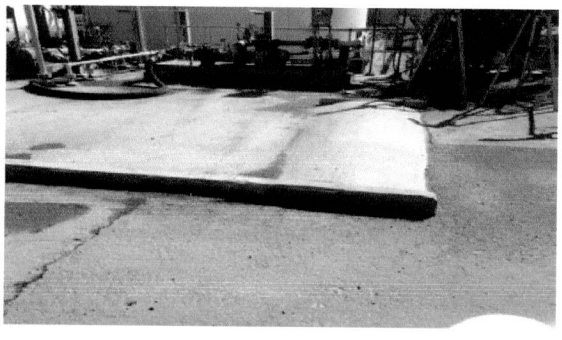
EPA Finding e. (2): One (1) corner of the concrete low wall secondary containment located near the diesel unloading area was broken. (Picture 27).

AESPR Response to EPA Finding e.(2): The broken corner of the low wall at the secondary containment located at the diesel unloading areas was repaired. (AESPR After Picture 27).

EPA Picture 27



AESPR After (Picture 27)

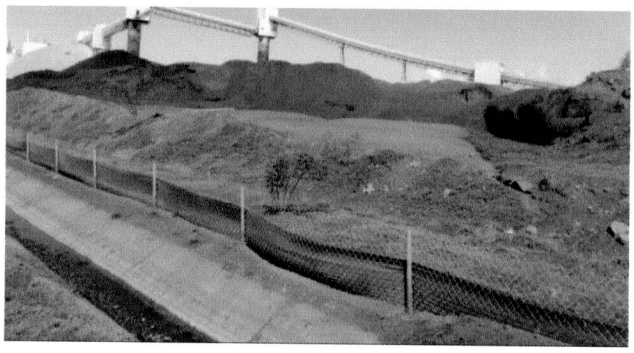


EPA Finding e.(3): AES has not replaced and/or installed silt fence at the perimeter of the coal storage piles and coal handling areas. (Picture 27).

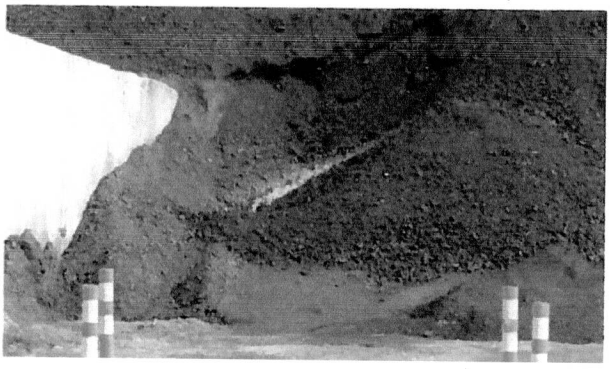
AESPR Response to EPA Finding e.(3): AESPR disputes that the silt fence was not sufficient to manage the coal storage piles and coal handling areas, as the silt fence was in

very good condition in significant areas surrounding the perimeter of the coal storage piles and the coal handling areas. To address EPA's concerns, AESPR has replaced the silt fence in locations along the inactive coal pile. In addition, the requirement to inspect and if necessary repair or replace sections of the silt fence has been included in the Storm Water Maintenance Matrix, which is part of the facility SWPPP. As such, an area owner has been assigned who is responsible to maintain this BMP. Moreover, this area is also inspected as part of the Routine Facility Inspection to evaluate this BMP and ensure corrective measures are taken, if necessary.

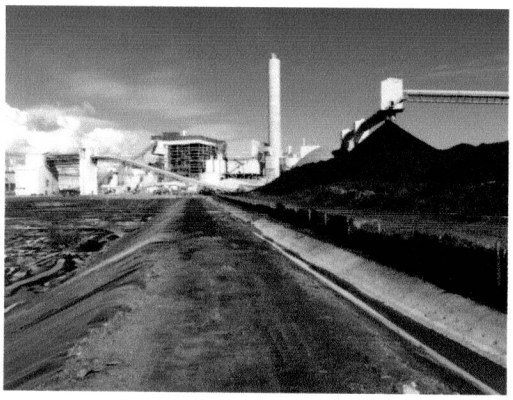
EPA Picture 27



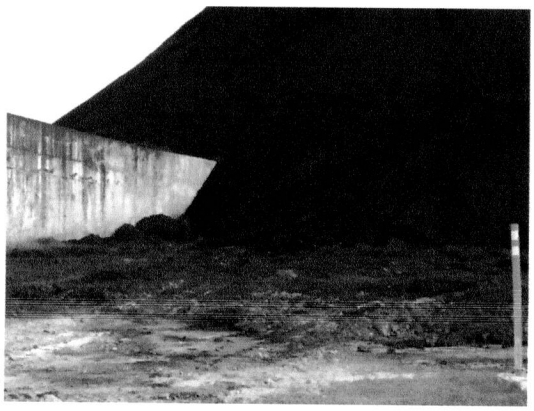
EPA Picture 28



AESPR After Picture 27



After 28



f. MSGP Part 2.1.2.12 - Dust Generation and Vehicle Tracking of Industrial Materials – Minimize generation of dust and off-site tracking of raw, final, or waste materials.

EPA Finding f. (1): See Picture 25 above for example of coal off-site tracking

AESPR Response to EPA Finding f.(1): AESPR disputes that the facility is not complying with the cited provision of the MSGP. To the extent that there is dust from the active coal pile that is found in stormwater, that stormwater is being collected and routed to the stormwater and coal pile runoff ponds. As a result, there are no discharge or stormwater compliance issues here. That said, AESPR has taken steps to address the EPA's concern, including improved overall housekeeping, inspections, and if necessary, additional measures. This will be achieved through its compliance matrix, assigned inspections, Quarterly Routine Facility Inspection, and SWPPP implementation.

EPA Finding f. (4): Off-site tracking of what appears to be Aggremax™ fine particles was observed at the wetlands (outfall 002). Picture 29 depicts this finding.

AESPR Response to EPA Finding f.(4) – AESPR disputes the assertion that Agremax particles were present at the wetlands or that Picture 29 depicted the presence of such particles. It is AESPR's view that what was observed was dirt.

Picture 29

After (Picture 29)

g. MSGP Part 8.0.4.1 - Fugitive Dust Emissions - Minimize fugitive dust emissions from coal handling areas, (which EPA's Inspection Report defines to include the Agremax™ storage pile, limestone storage dome and supporting areas such as roads. By installing specially designed tires or washing vehicles in a designated area before they leave the site, and controlling the washwaters.

EPA Finding g.(1): The EPA Inspectors observed one (1) water tank-mounted truck in operation. Given the amount of area to be covered at the Site, which is located in a semi-arid area of Puerto Rico, one (1) truck isn't sufficient to control dust in the areas in which dust control is required.

AESPR Response to EPA Finding g.(1): AESPR disputes that an additional truck was or is needed to address the site, particularly now that there is a system of nine sprinklers to cover the Agremax pile. One water truck is more than adequate to cover the remainder of the facility.

EPA Finding g.(2): Fugitive emissions were observed during the entire Inspection's walkthrough, especially in areas in which ashes are handled.

AESPR Response to EPA Finding g.(2): AESPR disputes that fugitive emissions are an issue at the plant generally or specifically in areas in which coal ash is handled. The ash is directed to silos and then directed for use or manufactured into Agremax. In addition,

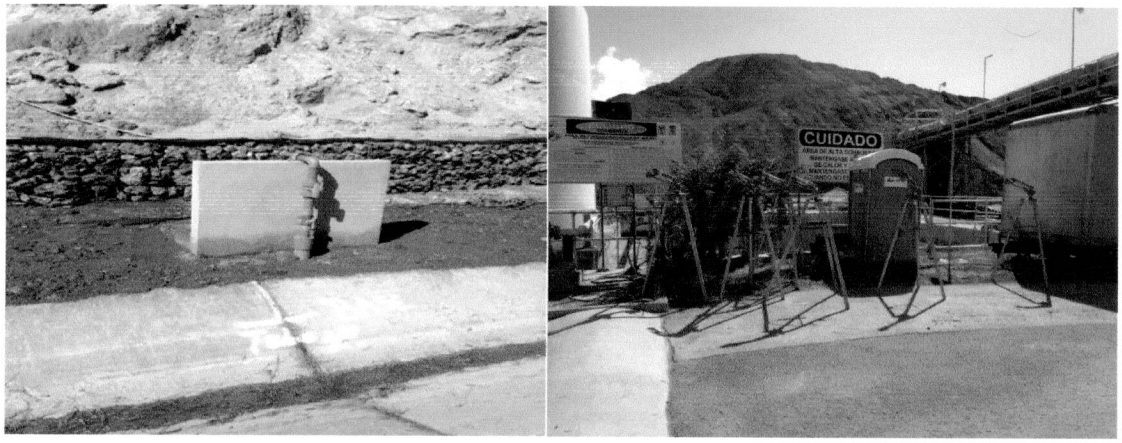
the management of the Agremax inventory has been improved through the addition of eight additional sprinklers and related equipment to facilitate coverage over the inventory.

EPA Finding g.(3): AES lacks an adequate and effective dust control system for the Agremax storage pile. Although hoses were feeding water to several sprinklers located on the top side areas of the slopes, most of the slopes were dry and emitting fugitive dust caused by wind. (EPA Picture 30).

AESPR Response to EPA Finding g.(3): AESPR disputes that it lacked an adequate or effective dust control system for its Agremax inventory. However, in response to EPA, AESPR has completed a significant capital project which includes the installation of a new pump with substantially greater capacity to provide water, a new HPVC distribution header pipe, and eight (8) new sprinkler connections (for a total of nine sprinklers). This upgraded system will enhance water sprinkler distribution to provide improved dust control coverage at the Agremax inventory.

EPA Picture 30

AESPR After (Picture 30)



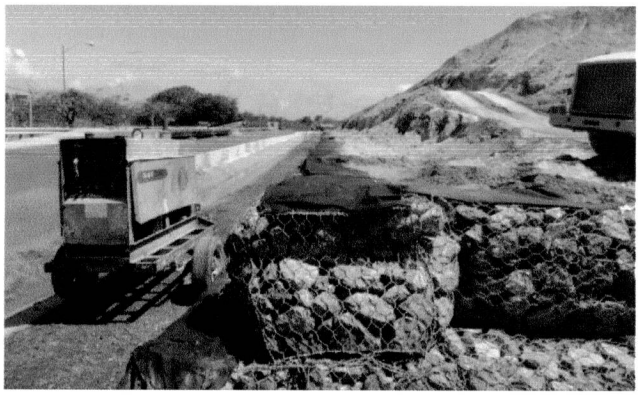
h. MSGP Part 8.0.4.11: Ash Loading Areas - Reduce or control the tracking of ash and residue from ash loading areas. Clear the ash building floor and immediately adjacent roadways of spillage, debris, and excess water before the departure of each loaded vehicle.

EPA Finding h.(1): Certain slope bottoms of the Agremax™ storage pile were observed on top of the gabion BMP structure, precluding this designed BMP (and its attached silt fence) from functioning. EPA also observed AESPR personnel using mechanical equipment to remove Agremax™ away from the gabions to allow space for the required buffer area. (Pictures 31-32).

AESPR Response to EPA Finding h.(1): AESPR disputes that the presence of observed Agremax precluded the function of this BMP. However, AESPR has addressed the slope bottoms observed on the BMP structure. (AESPR After Pictures 31-32). A buffer zone (of up to 10 feet) has been established between the Agremax storage pile and the gabions wall in order to ensure the storm water filtering system in this BMP is able to function fully. As the pile is actively being used, the slope bottoms will adjust, but the buffer zone will be maintained through routine inspections. The need for the buffer zone is now included in the Storm Water Maintenance Matrix and an area owner has been assigned to inspect and maintain this requirement. The presence of a buffer zone will also be inspected during the Quarterly Routine Facility Inspection.

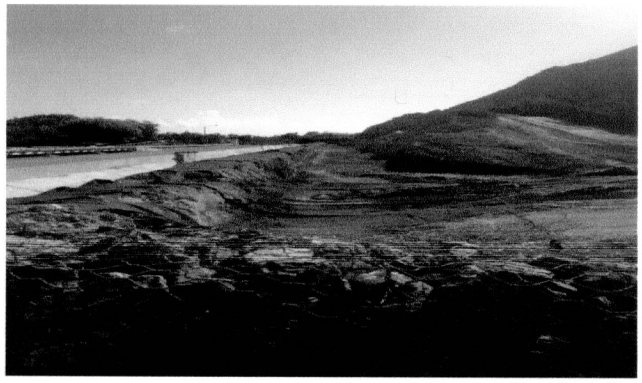
EPA Picture 31

EPA Picture 32



AESPR After (Picture 31)

AESPR After (Picture 32)



EPA Finding h.(2)AES installed a dust control system in the fly ash loading area to minimize dust emissions.

AESPR Response to EPA Finding h. (2) – AESPR disputes there were any previous issues with dust emissions, but agrees that this system has been installed.

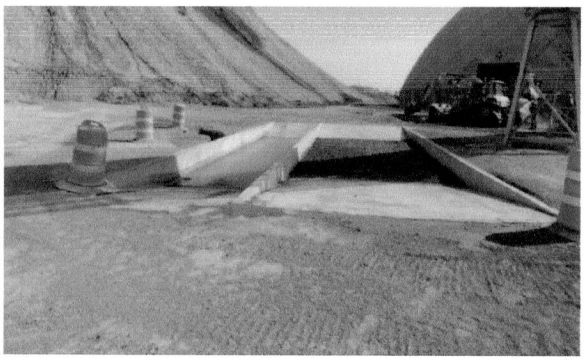
i. MSGP Part 8.0.4012 - Areas Adjacent to Disposal Ponds – Minimize contamination of surface runoff from areas adjacent to disposal ponds. Reduce ash residue that may be tracked on to access roads traveled by residue handling vehicles, and reduce ash residue on exit roads leading into and out of residue handling areas.

EPA Finding i.(1): AES constructed a structural BMP between the Agremax™ storage pile and the limestone storage dome to reduce tracking of sediments into roads at the plant. EPA found the construction of the structural BMP was adequate but the exit path to the road lack soil stabilization control. (EPA Picture 33).

AESPR Response to EPA Finding i.(1): AESPR disputes that the exit path lacked sufficient stabilization. However, to address EPA's observation, the exit path of the

wheel washer BMP was further stabilized with gravel. (AESPR After Picture 33). In addition, the area is on the Storm Water Maintenance Matrix and will be maintained by assigned plant staff.

EPA Picture 33

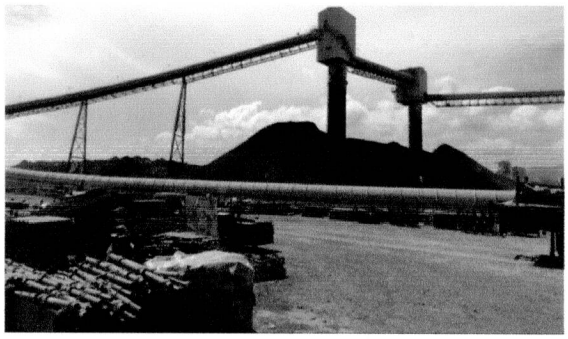


AESPR After (Picture 33)

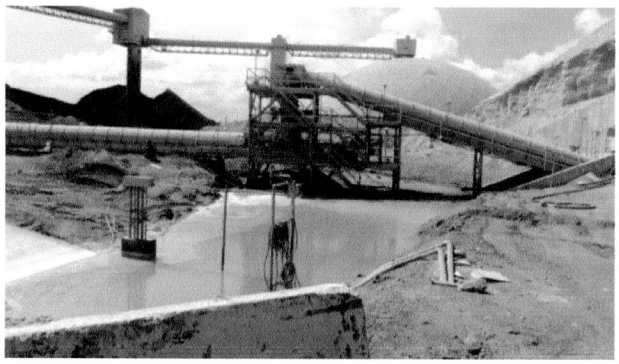
EPA Finding i.(2): The plant yards behind the south side of the limestone storage dome were observed without soil stabilization. Also, the process wastewater basin located in this area was not constructed following best engineering practices to allow for adequate sedimentation and slope stabilization. (EPA Pictures 34-35).

AESPR Response to EPA Finding i.(2): AESPR disputes the plant yards behind the south side of storage dome lacked sufficient soil stabilization. However, all site unpaved roads and unpaved areas have been stabilized further with a gravel cover. (AESPR After Picture 34). Further, AESPR disputes that there is any current compliance issue with the wastewater basin warranting further action by AESPR, as the basin is sufficient to manage storm water as needed at this area of the facility; the original design foresaw that any water collected in this area would transferred to the coal pile water run off collection pond, which is and has been occurring. In addition, an area owner has been assigned to maintain these areas to ensure they continue to be properly stabilized. This is included in the Storm Water Maintenance Matrix which is part of the SWPPP. Further, these areas will be inspected as part of the Quarterly Routine Facility Inspections.

EPA Picture 34

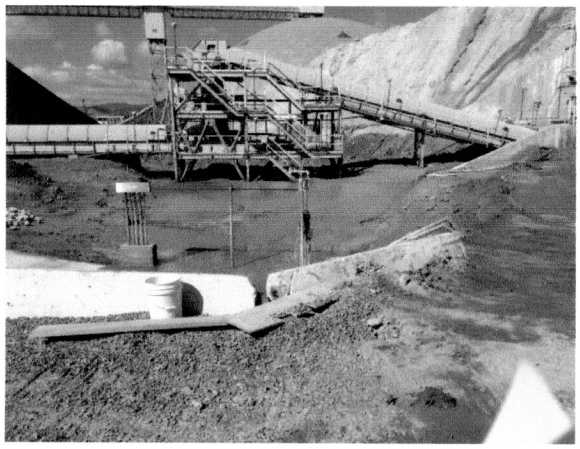


Picture 35



AESPR After (Picture 34)

AESPR After (Picture 35)

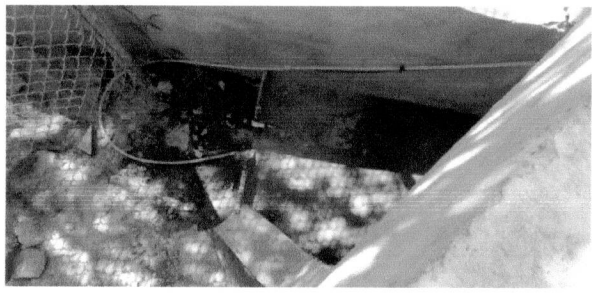


j. Other EPA Findings

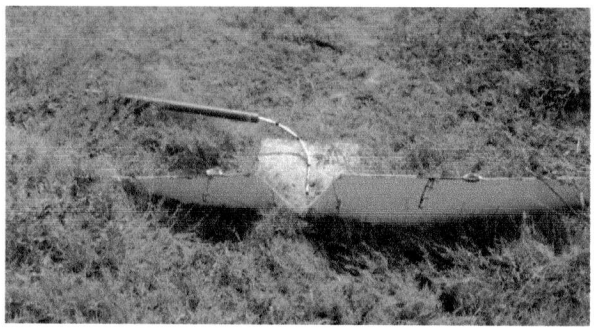
EPA Finding j.(1): AES installed two V-notch weirs to provide for a free and unobstructed flow when sampling the storm water discharges associated with industrial activity through outfalls 002 and 003. AES also installed two solar-powered automatic samplers for sampling points 002 and 003. However, the tip of the samplers tubing was observed touching the surface; and therefore, the sample tubing were not installed properly. Also, the bottom of the V-notch weir crests was touching the surface. (EPA Pictures 36-37).

AESPR Response to EPA Finding j.(1): Outfall 002 has been reconstructed. (AESPR After Picture 36). The tip of the samplers tubing's from SP-002 and SP-003 was modified to avoid contact with the channel inlet. The bottom of the v-notch weirs have been re-installed above the channel inlet. (AESPR After Picture 37).

EPA Picture 36



EPA Picture 37



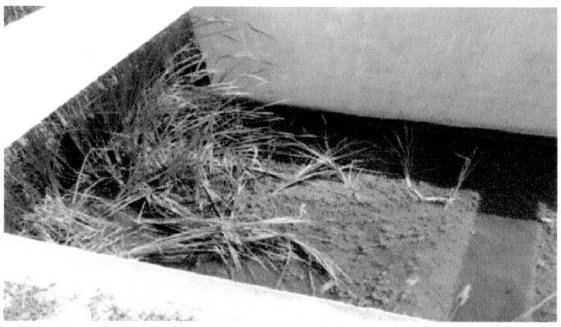
After (Picture 36)

AESPR After Picture 37

EPA Finding j.(2): EPA observed vegetation growth and lack of maintenance along the concrete channel that discharges through Outfall 003. This is causing backflow and algae growth. (EPA Pictures 38-39).

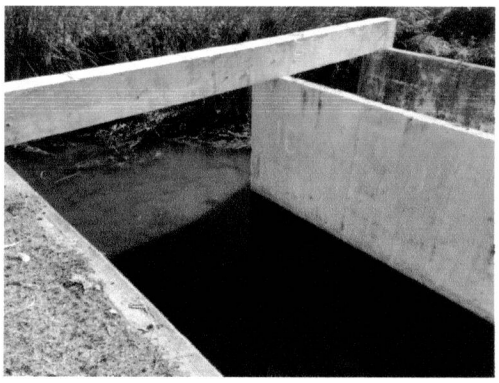
AESPR Response to EPA Finding j (2): AESPR disputes that the channel was not reasonably maintained, given its location and the Puerto Rico climate. Regardless, the observed vegetation was removed and additional maintenance has been conducted along the concrete channel that discharges through Outfall 003. In addition, this area is covered by the Storm Water Maintenance Matrix, which is part of the facility SWPPP, and the Quarterly Routine Facility Inspections.

EPA Picture 38



EPA Picture 39

AESPR After Picture 38



AESPR After Picture 39

AESPR After Picture 39

EPA Finding j.(3): EPA found AES did not comply with Part 3.2 (Conditions Requiring Review to Determine if Modifications Are Necessary) and Part 6.2.1.2 (Benchmark Monitoring Schedule) of the MSGP, which requires AES to review the selection, design, installation, and implementation of control measures to determine if modifications are necessary to meet the effluent limits in the MSGP.

According to EPA, the basis for this findings is that the average of all monitoring data for SP-001, SP-002, and SP-003 exceeded the applicable benchmarks for aluminum and iron, and AES did not conduct/document the required selection, design, installation, and implementation of control measures to determine if modifications are necessary to meet the effluent limits in the MSGP. These modifications are beyond the non-structural and structural BMPs that AES selected and EPA approved in the May 5, 2013 letter.

AESPR Response to EPA Finding j.(3): AESPR disputes that the company is not in compliance with Parts 3.2 and 6.2.1.2 of the MSGP. AESPR has been operating under an ACO with EPA to implement literally dozens of new structural and non-structural BMPs at its facility since December 2011. The facility has invested over $3.5 million to implement the requirements, some of which were time consuming to design, construct and implement and were not completed until this past year. Beginning in 2013 the facility began to show consistent data below the benchmarks, and as the chart below shows, focusing on 2014, the results are substantially below the applicable benchmarks,

particularly during the last two quarters when all outfalls were sampled (Q2, Q3 of 2014) and the maximum number of BMPs were in place. Specifically:

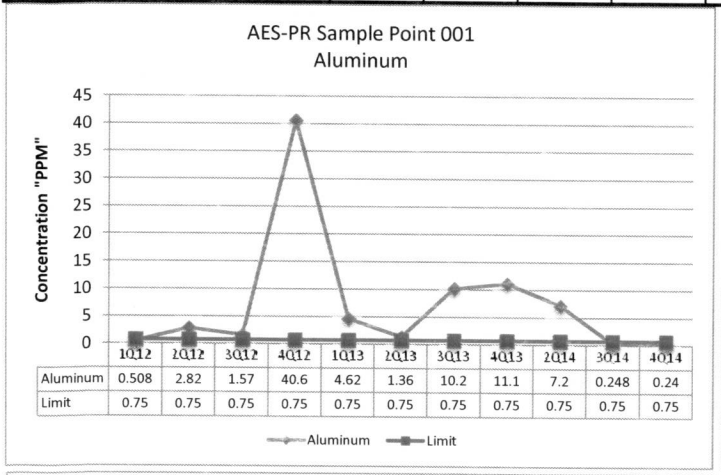
- Outfall 001: Lead (Q2, Q3, Q4), Aluminum (Q3, Q4), Iron (Q3, Q4) and Zinc (Q3, Q4)

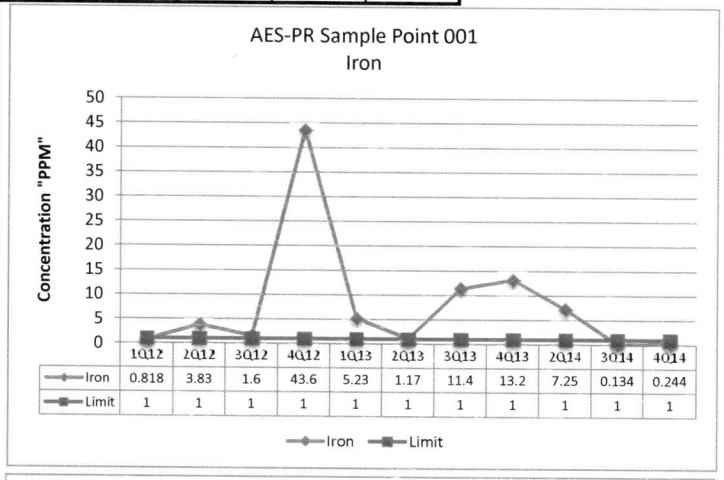
- Outfall 002: Lead (Q2, Q3, Q4), Aluminum (Q2, Q3), Iron (Q2, Q3) and Zinc (Q2, Q3, Q4)

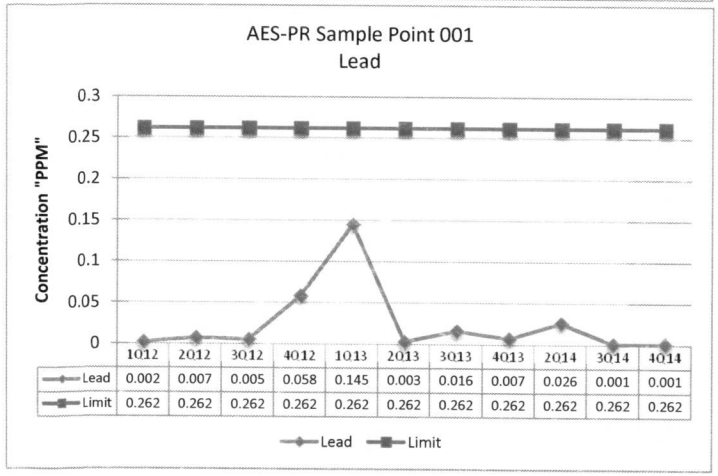
- Outfall 003: Lead (Q2, Q3), Aluminum (Q2, Q3), Iron (Q2, Q3) and Zinc (Q2, Q3)

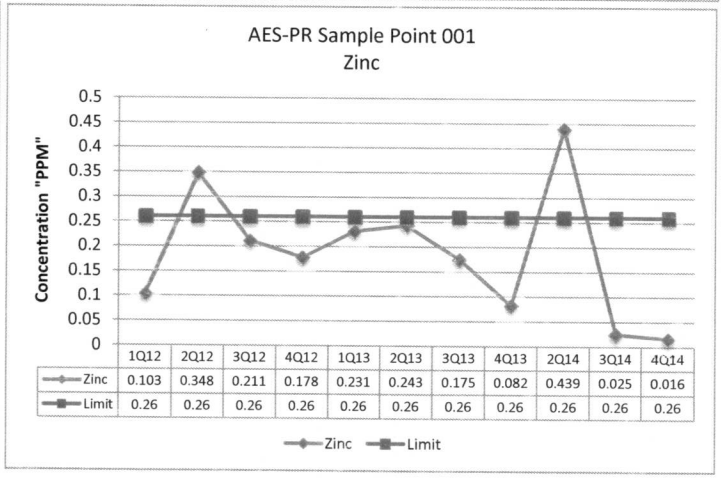
A more sensible approach would be to allow the full set of BMPs to be in place for at least an additional two to three quarters of data gathering before initiating an additional assessment as to whether further modifications are necessary.

Quarter	1Q12	2Q12	3Q12	4Q12	1Q13	2Q13	3Q13	4Q13	2Q14	3Q14	4Q14
Aluminum	0.508	2.82	1.57	40.6	4.62	1.36	10.2	11.1	7.2	0.248	0.24
Limit	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Quarter	1Q12	2Q12	3Q12	4Q12	1Q13	2Q13	3Q13	4Q13	2Q14	3Q14	4Q14
Iron	0.818	3.83	1.6	43.6	5.23	1.17	11.4	13.2	7.25	0.134	0.244
Limit	1	1	1	1	1	1	1	1	1	1	1
Quarter	1Q12	2Q12	3Q12	4Q12	1Q13	2Q13	3Q13	4Q13	2Q14	3Q14	4Q14
Lead	0.002	0.007	0.005	0.058	0.145	0.003	0.016	0.007	0.026	0.001	0.001
Limit	0.262	0.262	0.262	0.262	0.262	0.262	0.262	0.262	0.262	0.262	0.262
Quarter	1Q12	2Q12	3Q12	4Q12	1Q13	2Q13	3Q13	4Q13	2Q14	3Q14	4Q14
Zinc	0.103	0.348	0.211	0.178	0.231	0.243	0.175	0.082	0.439	0.025	0.016
Limit	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26

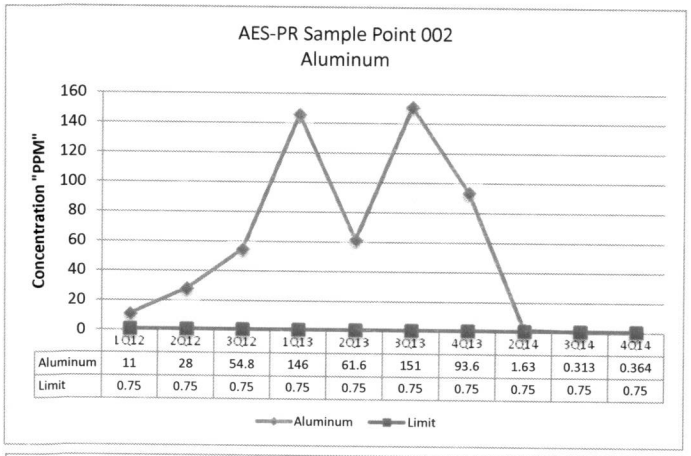


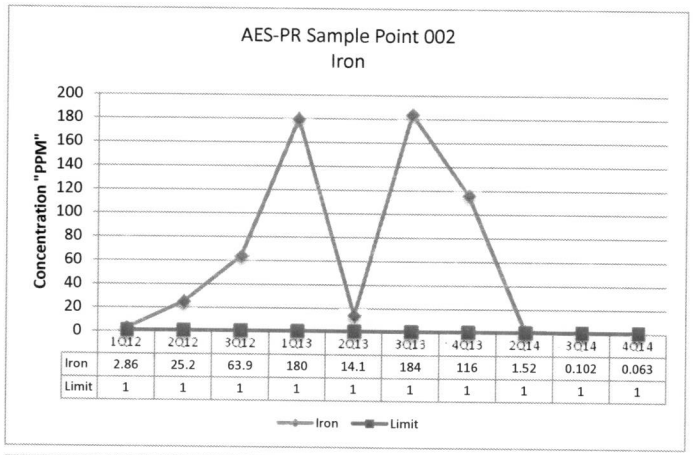


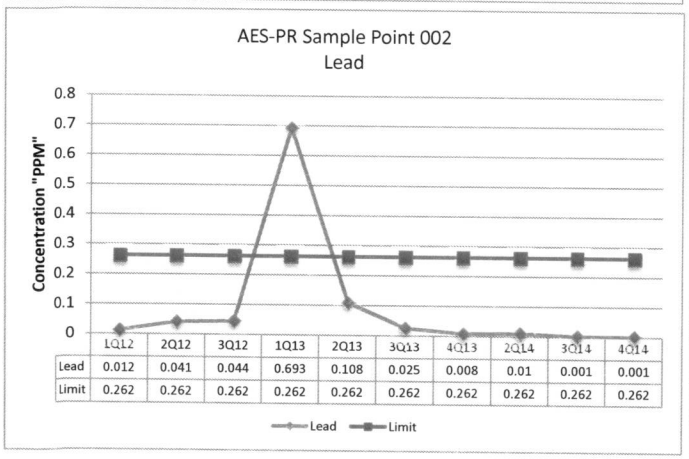


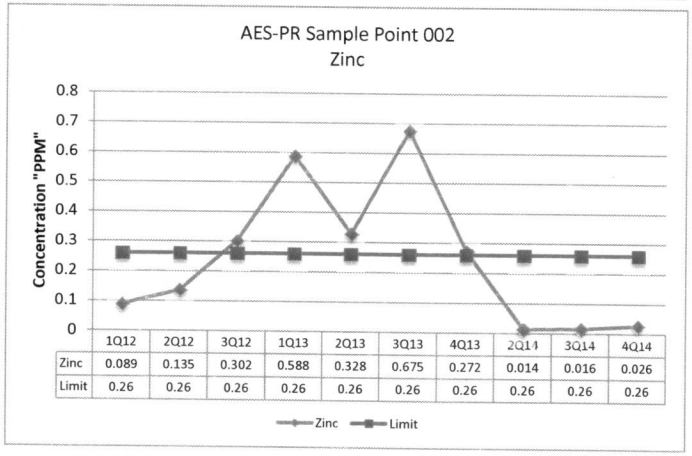


Quarter	1Q12	2Q12	3Q12	1Q13	2Q13	3Q13	4Q13	2Q14	3Q14	4Q14
Aluminum	11	28	54.8	146	61.6	151	93.6	1.63	0.313	0.364
Limit	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Quarter	1Q12	2Q12	3Q12	1Q13	2Q13	3Q13	4Q13	2Q14	3Q14	4Q14
Iron	2.86	25.2	63.9	180	14.1	184	116	1.52	0.102	0.063
Limit	1	1	1	1	1	1	1	1	1	1
Quarter	1Q12	2Q12	3Q12	1Q13	2Q13	3Q13	4Q13	2Q14	3Q14	4Q14
Lead	0.012	0.041	0.044	0.693	0.108	0.025	0.008	0.01	0.001	0.001
Limit	0.262	0.262	0.262	0.262	0.262	0.262	0.262	0.262	0.262	0.262
Quarter	1Q12	2Q12	3Q12	1Q13	2Q13	3Q13	4Q13	2Q14	3Q14	4Q14
Zinc	0.089	0.135	0.302	0.588	0.328	0.675	0.272	0.014	0.016	0.026
Limit	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26

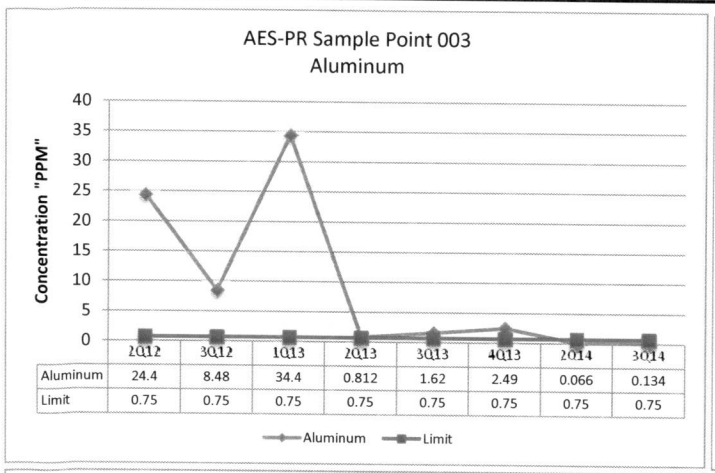


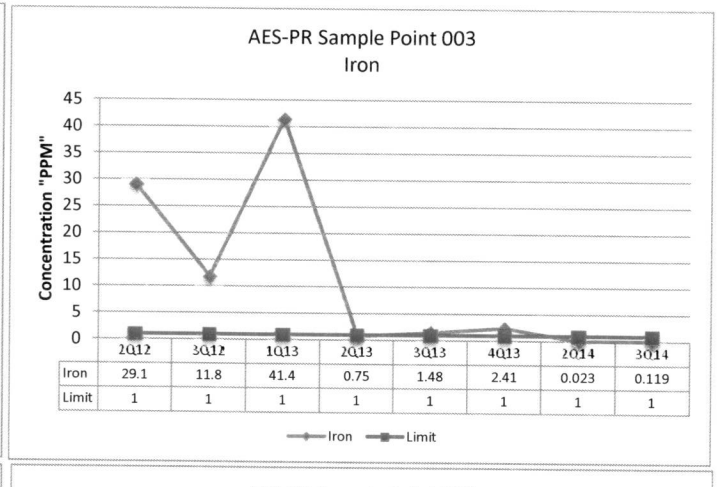


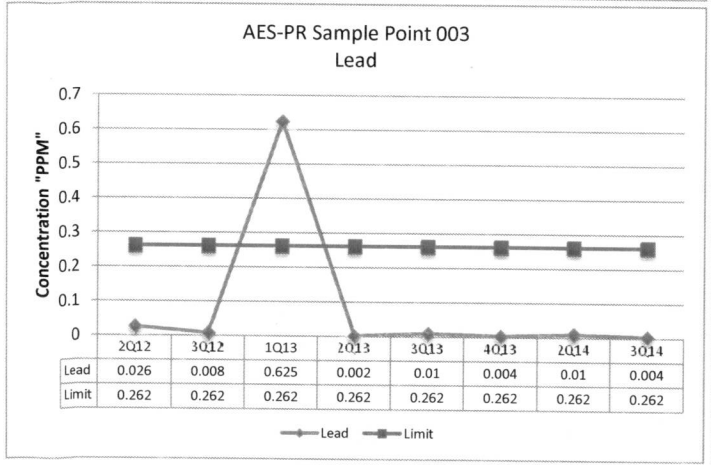


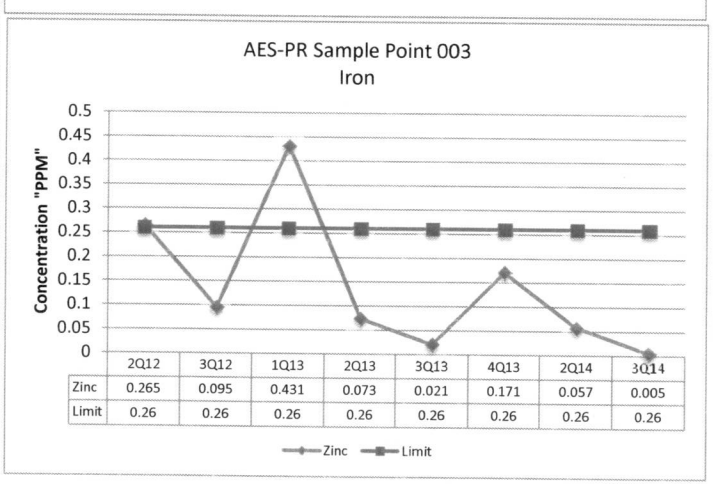


Quarter		2Q12	3Q12	1Q13	2Q13	3Q13	4Q13	2Q14	3Q14
Aluminum		24.4	8.48	34.4	0.812	1.62	2.49	0.066	0.134
Limit		0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Quarter		2Q12	3Q12	1Q13	2Q13	3Q13	4Q13	2Q14	3Q14
Iron		29.1	11.8	41.4	0.75	1.48	2.41	0.023	0.119
Limit		1	1	1	1	1	1	1	1
Quarter		2Q12	3Q12	1Q13	2Q13	3Q13	4Q13	2Q14	3Q14
Lead		0.026	0.008	0.625	0.002	0.01	0.004	0.01	0.004
Limit		0.262	0.262	0.262	0.262	0.262	0.262	0.262	0.262
Quarter		2Q12	3Q12	1Q13	2Q13	3Q13	4Q13	2Q14	3Q14
Zinc		0.265	0.095	0.431	0.073	0.021	0.171	0.057	0.005
Limit		0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26









EPA

United States Environmental Protection Agency
Washington, D.C. 20460

Water Compliance Inspection Report

Form Approved.
OMB No. 2040-0057
Approval expires 8-31-98

Section A: National Data System Coding (i.e., PCS)

Transaction Code	NPDES	yr/mo/day	Inspection Type	Inspector	Fac Type
1 N 2	3 PRR05BL65 11	12 140619 17	18	19 L	20 2

Remarks

2 SW Inspection 2008 MSGP 66

Inspection Work Days	Facility Self-Monitoring Evaluation Rating				Reserved
6 1 69	70 n/a	71 n/a	B1 72 n/a	QA 73	74 75 80

Section B: Facility Data

Name and Location of Facility Inspected *(for industrial users discharging to POTW, also include POTW name and NPDES permit number*

AES PUERTO RICO, L.P.
State Road 3, Km. 142, Barrio Jobos
Guayama, Puerto Rico 00784

Entry Time/Date	Permit Effective Date
06/19/14 9:45 am	See attached Supplement.
Exit Time/Date	**Permit Expiration Date**
06/19/14 6:40 pm	See attached Supplement.

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)

See attached Supplement.

Name, Address of Responsible Official/Title/Phone and Fax Number(s)

Manuel Mata, President

Contacted: X Yes ☐ No

Other Facility Data

See attached Supplement.

Section C: Areas Evaluated During Inspection *(Check only those areas evaluated)*

X	Permit		Flow Measurement		Operations & Maintenance		CSO/SSO (Sewer Overflow)
X	Records/Reports	X	Self-Monitoring Program		Sludge Handling/Disposal	X	Pollution Prevention (SWPPP)
X	Facility Site Review	X	Compliance Schedules		Pretreatment		Multimedia
X	Effluent/Receiving Water		Laboratory	X	Storm Water	X	Other: Compliance with ACO

Section D: Summary of Findings/Comments *(Attach additional sheets of narrative and checklists as necessary)*

See attached Supplement.

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone and Fax Numbers	Date
José A. Rivera, BSCE, Senior Env. Engineer	USEPA/02/CEPD	08/26/14
Alex O. Rivera, EIT, Environmental Engineer	Tel.: (787) 977-5865	8/26/14
	rivera.jose@epa.gov / rivera.alex@epa.gov	
Signature of Management Q A Reviewer	**Agency/Office/Phone and Fax Numbers**	**Date**
Nancy Rodríguez, P.E., Chief, MPCB	USEPA/02/CEPD; (787) 977-5865	9/16/14

EPA Form 3560-3 (Rev 9-94) Previous editions are obsolete

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PRU020663

EPA

United States Environmental Protection Agency
Washington, D.C. 20460

Water Compliance Inspection Report

Form Approved.
OMB No. 2040-0057
Approval expires 8-31-98

Section A: National Data System Coding (i.e., PCS)

Transaction Code	NPDES	yr/mo/day	Inspection Type	Inspector	Fac Type
1 N 2	3 PRR12A435 11	12 140619 17	18	19 L	20 2

Remarks

2 Construction SW Inspection 2012 CGP 66

Inspection Work Days	Facility Self-Monitoring Evaluation Rating				Reserved
6 1 69	70 n/a	71 n/a	B1	72 n/a QA	73 74 75 80

Section B: Facility Data

Name and Location of Facility Inspected *(for industrial users discharging to POTW, also include POTW name and NPDES permit number*

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State Road 3, Km. 142, Barrio Jobos
Guayama, Puerto Rico 00784

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06/19/14 6:40 pm	See attached Supplement.

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)

See attached Supplement.

Name, Address of Responsible Official/Title/Phone and Fax Number(s)

Manuel Mata, President

Contacted: X Yes ☐ No

Other Facility Data

See attached Supplement.

Section C: Areas Evaluated During Inspection *(Check only those areas evaluated)*

X	Permit		Flow Measurement		Operations & Maintenance		CSO/SSO (Sewer Overflow)
X	Records/Reports		Self-Monitoring Program		Sludge Handling/Disposal	X	Pollution Prevention (BMPs)
X	Facility Site Review	X	Compliance Schedules		Pretreatment		Multimedia
	Effluent/Receiving Water		Laboratory	X	Storm Water	X	Other: NOI/NOT

Section D: Summary of Findings/Comments *(Attach additional sheets of narrative and checklists as necessary)*

See attached Supplement.

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone and Fax Numbers	Date
José A. Rivera, BSCE, Senior Env. Engineer	USEPA/02/CEPD	08/26/14
Alex O. Rivera, EIT, Environmental Engineer	Tel.: (787) 977-5865	8/26/14
	rivera.jose@epa.gov / rivera.alex@epa.gov	
Signature of Management Q A Reviewer	**Agency/Office/Phone and Fax Numbers**	**Date**
Nancy Rodríguez, P.E., Chief, MPCB	USEPA/02/CEPD; (787) 977-5865	9/16/14

AES PUERTO RICO, L.P.

Coal-Fired Steam Power Plant
State Road 3, Km. 142, Barrio Jobos, Guayama, Puerto Rico 00784
P. O. Box 1890, Guayama, Puerto Rico 00785
Telephone Number: (787) 866-8117
Facsimile Number: (787) 866-8139
Coordinates: Latitude 17° 56' 42" N; Longitude 66° 09' 02" W

2008 MSGP Tracking Number PRR05BL65
2012 CGP Tracking Number PRR12A435

1. INTRODUCTION

a. This Supplement to the Water Compliance Inspection Report Form is prepared to include all findings and observations concerning the Enforcement Case Support Inspection (Inspection) conducted by environmental engineers and enforcement officers, José A. Rivera (Inspector JR) and Alex O. Rivera (Inspector AR), of the United States Environmental Protection Agency's (EPA) Caribbean Environmental Protection Division at the AES Puerto Rico, L.P. (AES) coal-fired steam power plant located (the "Facility," "Site," or "Plant") in Guayama, Puerto Rico. The AES marine cargo handling dock facilities and conveyor systems were not part of the Inspection walkthrough.

b. The purposes of the Inspection were to evaluate AES's compliance with:

1) the Administrative Compliance Order (ACO), Docket Number CWA-02-2012-3100, issued by EPA under Section 309(a) of the Federal Water Pollution Control Act (CWA), as amended, on December 16, 2011; and

2) the 2008 National Pollutant Discharge Elimination System (NPDES) Storm Water Multi-Sector General Permit for Industrial Activities (MSGP).

c. Upon showing of credentials to the guard on-duty and engineer Héctor M. Ávila, AES's Environmental Coordinator, during the entry meeting, the Inspection was performed pursuant to the authority in Section 308(a) of the CWA.

d. The Inspection took place on Thursday, June 19, 2014, from 9:45 a.m. to 6:40 p.m., local time. Dry weather and sunny skies prevailed during the Inspection.

e. The AES individuals that participated in the Inspection's activities, including the entry meeting, the Site walkthrough and the exit meeting were: engineer Manuel Mata, President; engineer Csaba Kiss, Engineering Manager; engineer Ramiro Rivera, Maintenance Manager; engineer Carlos M. González, Coal Combustion Products Team Leader; engineer Héctor M. Ávila, Environmental Coordinator; and Eitel Figueroa, CCP Project Manager.

2. AES PUERTO RICO, L.P.

a. AES Puerto Rico, L.P. (AES) is a for-profit corporation organized under the laws of the State of Delaware, United States of America. AES was registered in the Department of State of the Commonwealth of Puerto Rico on August 9, 1999, under registration number 11062 (Source: www.estado.gobierno.pr).

b. On or about November 2002, AES began to operate its coal-fired electric power plant ("Facility" or "Site") and marine cargo handling facilities in the municipality of Guayama, Puerto Rico (Source: www.aespuertorico.com).

c. AES is a corporation and as such, meets the definition of a "person" pursuant to Section 502(5) of the CWA.

3. THE COAL-FIRED STEAM ELECTRIC POWER PLANT

a. The Site is a gated 84-acre parcel of land and leveled above the 100-year flood elevation. AES employs about 130 employees.

b. The Facility is bordered to the north by TAPI Puerto Rico Inc. pharmaceutical facility and open lands owned by the Puerto Rico Land Administration (PRLA); to the east by Chevron Phillips Chemical Puerto Rico Core Inc. (CPC) former petrochemical complex; to the south by wetlands and Las Mareas Bay; and to the west by AES Ilumina, LLC, photovoltaic power generation complex. **Figure 1** below depicts an aerial view of the Site (source: Google Earth).[1]

Figure 1

[1] Located on a flood plain near Las Mareas Bay. See Figure 5 for the location of Las Mareas Bay.

c. The Facility is mainly comprised of: employee parking facilities; two (2) coal-fired electric power plants that host two (2) electric generators; above-ground coal storage piles; a limestone storage dome; above-ground fly/bed ashes storage pile known as "Aggremax™"; an office building; material and equipment storage buildings; four (4) retention ponds (Coal Pile Runoff Pond, Storm Water Runoff Pond, Patillas Channel Pond, and Make-up Water Pond); a cooling tower; water treatment facilities; and contaminated and non-contaminated storm water collection and discharge systems.[2]

d. The primary operations at the Facility are best described by the Standard Industrial Classification (SIC) Code 4911. SIC Code 4911 includes establishments engaged in the generation, transmission, and/or distribution of electricity or gas or steam.

General Description about the Storm Water Collection and Discharge

e. The Facility has two (2) distinct storm water collection and discharge systems that serve to collect and convey storm water runoff generated at adjacent properties (north and northwest of the Site and between TAPI and the Facility) into wetlands. The storm water runoff collected and discharged into wetlands it is not regulated under Section 402(p) of the CWA and its implementing regulations at 40 C.F.R. § 122.26 because these discharges are not associated with any industrial activity at the Site. **Figure 2** depicts the approximate location of these systems.

Figure 2

f. The regulated storm water runoff associated with the industrial activities at the Facility is handled through two (2) collection and discharge systems mainly composed of inlets, culverts, swales, concrete channels, Storm Water Runoff

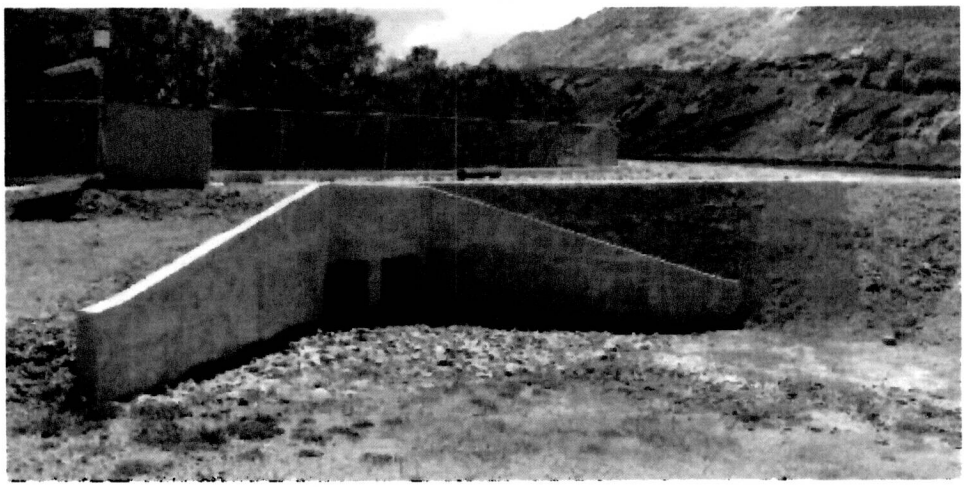
[2] Generation: 525 megawatts (gross production) and 454 megawatts (net production).

Pond, and two (2) discharge points into adjacent wetlands located on the south boundary of the Site. AES reuses the storm water runoff collected in the Storm Water Runoff Pond and the Coal Pile Runoff Pond, by means of transferring the collected water to the Make-up Water Pond, which is used in power generating activities. **Figure 3** depicts the approximate location of these systems.

Figure 3 – Storm Water Collection and Discharge Locations

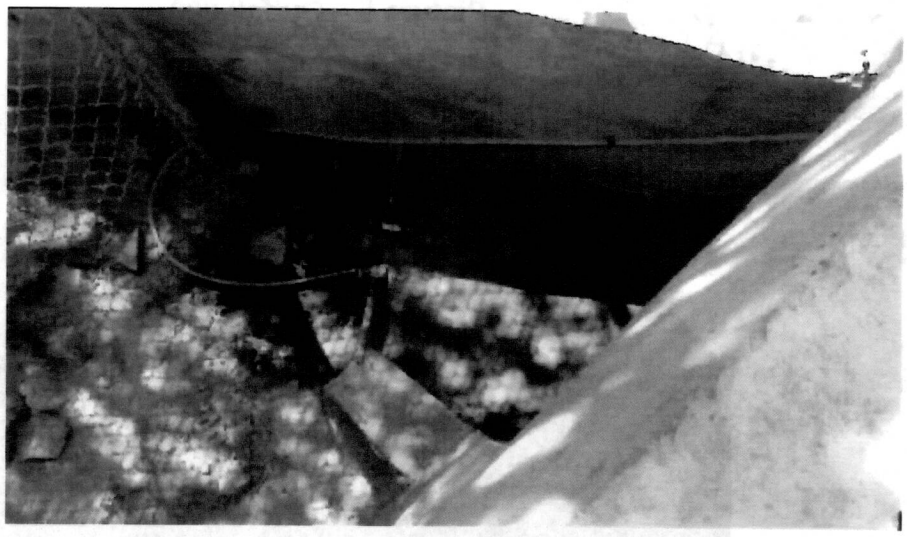
g. **Picture 1** depicts the concrete box culvert that conveys the storm water runoff from the east areas of the Site through outfall 002. This picture also depicts an automatic sampler and weather station powered by solar energy. **Picture 2** depicts the outfall 002. **Picture 3** depicts the sampling point for outfall 002.

Picture 1 – Concrete Box Culvert



Picture 2 – Outfall 002

Picture 3 – Sampling Point for Outfall 002



h. Most of the storm water runoff associated with industrial activities within the Site's central areas (*e.g.*, roof drains, yards, internal roads) is conveyed into the Storm Water Runoff Pond for water re-use. During the rain events that exceeds this Pond holding time, an overflow takes place into a swale covered with rip-rap. This swale discharges into a concrete channel that ultimately flows into the wetlands.

i. **Picture 4** depicts the Storm Water Runoff Pond, which was enlarged and provided with a new synthetic liner.

Picture 4 – Storm Water Runoff Pond

j. **Picture 5** depicts the outfall 003.

Picture 5 – Outfall 003

k. **Picture 6** depicts the sampling point for outfall 002 (see red ellipse), which is located at an elevation that will not be affected by flooding during a 100-year storm.

Picture 6 – Sampling Point for Outfall 003

General Description about the Non-Storm Water Collection and Water Re-use

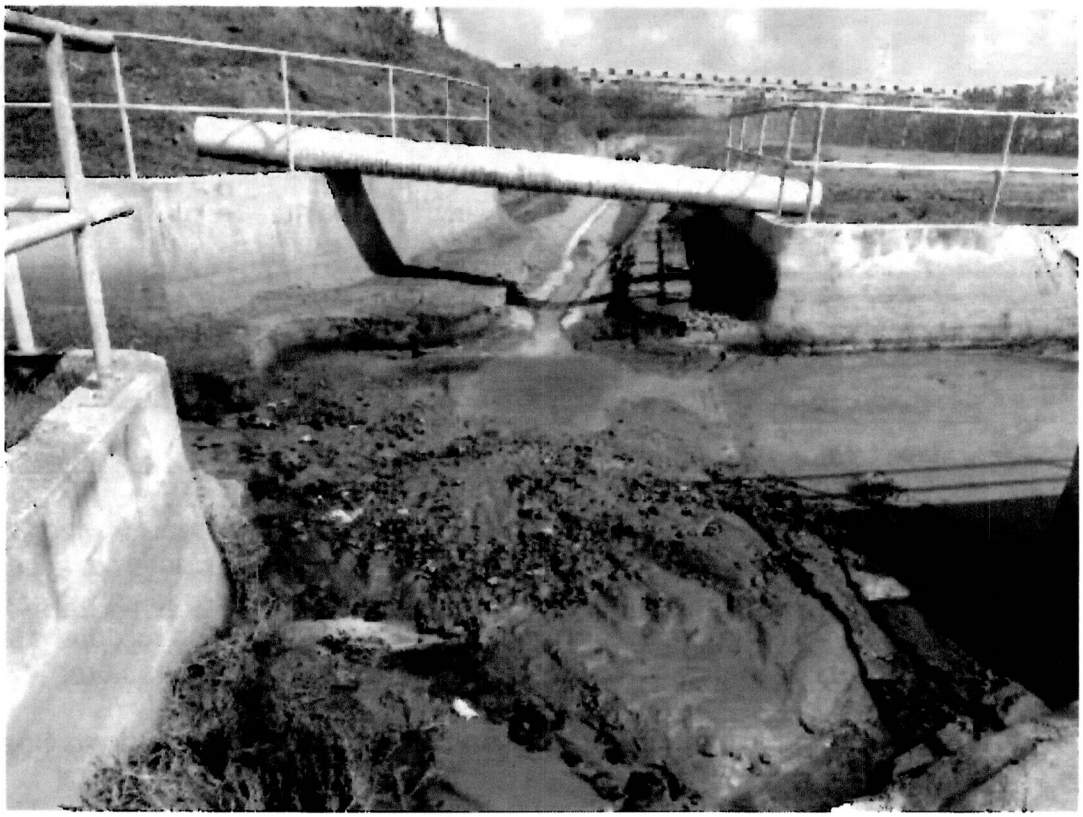
l. The storm water runoff and process wastewater from areas in which fly/bed ashes, Aggremax™, limestone and coal are handled, including internal access roads, are conveyed through concrete swales into the Coal Pile Pond for water re-used (e.g., dust control in Aggremax™ pile, hydration of fly/bed ash mixture, Make-up Water Pond). The Coal Pile Pond does not have a discharge structure.

m. **Figure 4** depicts the collection and conveyance system into the Coal Pile Runoff Pond.

Figure 4 – Conveyance System into Coal Pile Pond

n. **Picture 7** depicts the location in which the concrete swales located on the north and south storage areas commingle before discharging into the Coal Pile Pond.

Picture 7 – Commingling of Concrete Swales



o. **Picture 8** (next page) depicts the Coal Pile Pond.

p. The storm water associated with industrial and non-storm water (as authorized in the MSGP) are discharged into wetlands adjacent to Las Mareas Bay. The wetlands are a water of the United States. Las Mareas Bay is a navigable water of the United States.

q. **Figure 5** (next page) depicts a portion of the hydrologic areas near Site, including Las Mareas Bay.

4. APPLICABLE REGULATIONS AND PERMIT COVERAGE

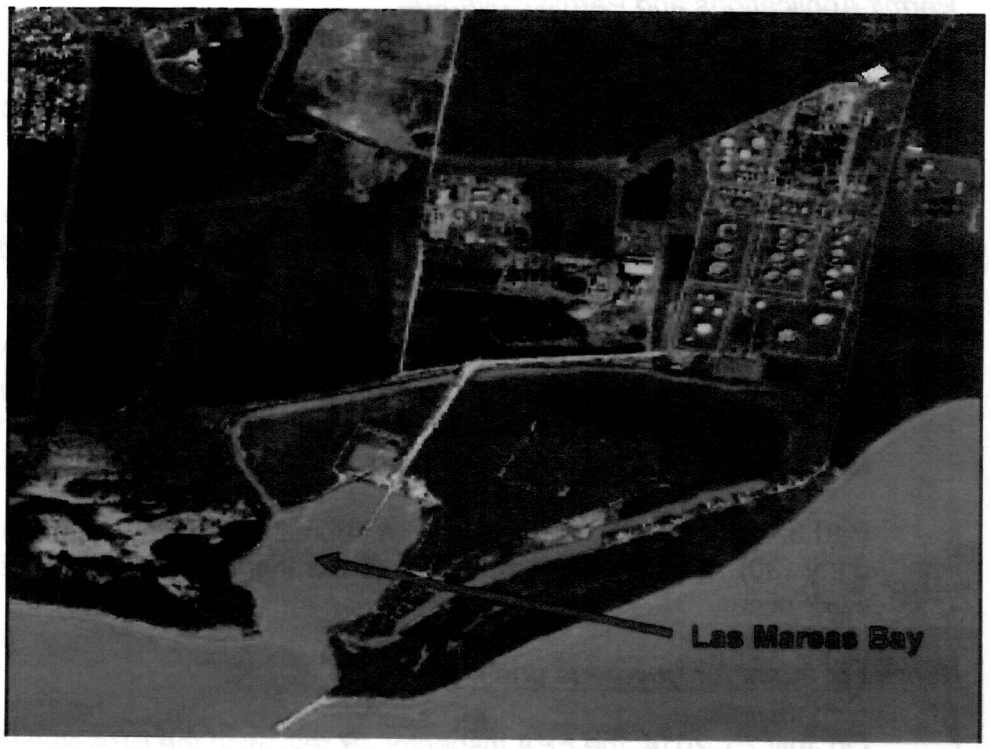
Regulations

a. Section 402 of the CWA authorizes the Administrator of EPA to issue NPDES permits to owners/operators of certain point sources that discharge pollutants into

waters of the United States. In particular, Section 402(p)(2)(B) of the CWA authorizes the Administrator of EPA to issue NPDES permits to storm water discharges associated with industrial activity.

Picture 8 – Coal Pile Runoff Pond

Figure 5 – Hydrologic Areas near Site



b. Coal-fired steam electric power plants were included in the definition of storm water discharges associated with industrial activity. Category VII includes those facilities that are engaged in steam electric power generation (SIC Code 4911), including coal handling sites [40 C.F.R. § 122.26(b)(14)(vii)].

c. Pursuant to Sections 301(a) and 402(p) of the CWA, 33 U.S.C. §§ 1311(a) and 1342(p), and 40 C.F.R. §§ 122.21 and 122.26(e), AES was required to apply for and obtain NPDES permit coverage for all its non-storm water and storm water discharges associated with industrial activity from the Facility into waters of the United States.

d. EPA promulgated New Source Performance Standards (NSPS) for the steam electric point source category. See 40 C.F.R. § 423.15.

e. The NSPS establishes a pH effluent limit of 6-9 SU. See 40 C.F.R. § 423.15(a).

f. The NSPS also established a Total Suspended Solids (TSS) effluent limit of 50 mg/l for discharges from coal pile runoff. See 40 C.F.R. § 423.15(k).

g. The NSPS indicates that any untreated overflow from facilities designed, constructed, and operated to treat the coal pile runoff which result from a 10-year, 24-hour rainfall event shall not be subject to the TSS effluent limit. See 40 C.F.R. § 423.15(l).

Permit Applications and Permit Coverage

h. On September 29, 2008, EPA re-issued and published the MSGP in the Federal Register (73 Fed. Reg. 56,572). The MSGP became effective on September 29, 2008 and expired on September 29, 2013.

i. Pursuant to 5 U.S.C. § 558(c) and 40 C.F.R. § 122.6(a), coverage under the MSGP was administratively extended for those operators that obtained coverage under the MSGP prior to its expiration date (September 29, 2013).

j. On February 16, 2012, EPA re-issued and published the 2012 National Pollutant Discharge Elimination System General Permit for Discharges from Construction Activities (CGP) in the Federal Register (77 FR 12286). The CGP became effective on February 16, 2012 and expires on February 16, 2017.

k. Part 8.4 of the CGP requires AES to submit a Notice of Termination (NOT) within thirty (30) calendar days after one of the triggering conditions in Part 8.2 of the CGP occur.

Notices of Intent for Coverage under the MSGP

l. On July 25, 2014, the EPA Inspector JR reviewed the EPA NOI Processing Center

Database,[3] and found that:

1) on January 26, 2009, AES filed a Notice of Intent (NOI) form to seek coverage under the MSGP for the storm water discharges associated with industrial activity from marine cargo handling dock facilities into waters of the United States;[4]

2) the MSGP tracking number assigned to the AES was PRR05BL65;

3) EPA acknowledged receipt of the January 26, 2009 NOI in a letter dated January 26, 2009. The letter indicated that it was issued to acknowledge receipt of a complete NOI form but that it was not an EPA determination on the validity of the information provided in the NOI form, and that eligibility for coverage under the MSGP is based on the validity of the certification of the information provided;

4) the January 26, 2009 was incomplete and inaccurate (see footnote 4 above); and, therefore, AES did not obtain coverage under the MSGP for the Facility and the marine cargo handling dock facilities;

5) on August 29, 2013, AES filed a modification to the NOI form to seek coverage under the MSGP for the storm water discharges associated with industrial activity from the Facility and the marine cargo handling dock facilities into waters of the United States;

6) The EPA Inspector JR reviewed the August 29, 2013 NOI modification, and found it complete and accurate.

m. **Figure 6** (see next page) depicts information about the January 26, 2009 NOI and the August 29, 2013 NOI modification.

Notice of Intent for Coverage under the CGP

n. Based upon the EPA September 13, 2013 review of the EPA NOI Processing Center Database, AES submitted a complete and accurate electronic Notice of Intent (eNOI) to EPA to seek coverage under the CGP, dated June 14, 2013.[5]

o. EPA provided notice that coverage under the 2012 CGP begins at the conclusion of the fourteen (14) day waiting period on June 27, 2013. EPA assigned tracking number PRR12A435 to AES.

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[3] The EPA NOI Processing Center Database is found at "cfpub.epa.gov/npdes/stormwater/noi."
[4] See the Water Compliance Inspection Report, dated October 3, 2011, which provided detailed information about the EPA Inspector JR initial review of the NOIs filed by AES for coverage under the 2000 MSGP and 2008 MSGP.
[5] See NPDES Water Compliance Inspection Report, dated December 17, 2013, and cover letter dated, March 19, 2014, which provides detailed information about the EPA Inspector JR review of AES's CGP coverage for the implementation of structural BMPs.

Figure 6

NOI Application Detail

Notice of Intent (NOI) for Stormwater Discharges Associated with Industrial Activity Under the NPDES General Permit PRR050000

Tracking Number for this Project		
PRR05BL65	Submitted Date: January 26, 2009	Status: Active
Operator Information		
Name: AES-PUERTO RICO		
Street: PO Box 1890		
City: Guayama	State: PR	Zip Code: 00785
Phone: 787-866-8117		
Project/Facility Information		
Project/Site Name: AES Puerto Rico, LP		
Project Street/Location: Road #3 Km 142, Jobos Ward		
City: Guayama	State: PR	Zip Code: 00784-00784
Latitude / Longitude Type : Degrees/Minutes/Seconds	Latitude / Longitude Source : GPS	
Latitude: 17.56.50	Longitude: 066.09.00	
Is facility/project located on Indian Land: N	Reservation Name: Not Applicable	
Is this a Federal facility/project: N		
Certification		
Certified By: Ron Rodrique	Date Certified: 01/26/2009	

NOI Correspondence and Forms

Form (Click to open file)	Submitted By	Submitted Date
MSGP Monitoring Requirements (PDF)	Ron Rodrique	08/29/2013 08:05:53
MSGP NOI Form (PDF)	Ron Rodrique	08/29/2013 08:05:53
NOI (Construction & Industrial) Acknowledgement (PDF)	Ron Rodrique	08/29/2013 08:05:53
MSGP Monitoring Requirements (PDF)	Ramiro Rivera	01/26/2009 01:56:09
MSGP NOI Form (PDF)	Ramiro Rivera	01/26/2009 01:56:09
NOI (Construction & Industrial) Acknowledgement (PDF)	Ramiro Rivera	01/26/2009 01:56:09

p. **Figure 7** depicts information about the June 14, 2013 eNOI.

Figure 7

U.S. ENVIRONMENTAL PROTECTION AGENCY

National Pollutant Discharge Elimination System (NPDES)

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CGP REVIEW

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Project/Site Name: *Improvements to AES-PR Facility to meet with Administrative Compliance Order CWA-02-2012-3100*
Operator's Name: *AES Puerto Rico*
Tracking Number: *PRR12A435*
Status: *Active/Original*

Interview Page Answers

Is your project/site located in Indian Country lands? *No*
Are you requesting coverage under this NOI as a 'federal operator' as defined in Appendix A? *No*
Select the state where your project/site is located: *Puerto Rico*

Operator Information

Operator's Name: *AES Puerto Rico*

Mailing Address:
Street Line 1: *PO Box 1890*
Street Line 2:
City: *Guayama* State : *Puerto Rico* Zip: *00785*

Point of Contact:
First Name: *Hector* Middle Initial: Last Name: *Avila*
Phone: *787-866-8117* Ext:
Fax:
IRS Employer Identification Number (EIN): *66 0947978*

Project Information

Project/Site Address
Project/Site Name: *Improvements to AES-PR Facility to meet with Administrative Compliance Order CWA-02-2012-3100*
Street Line 1: *Km. 142.0, State Road PR-3 Jobos Ward*
General Location of the Site:
Street Line 2:
City: *Guayama* State : *Puerto Rico* Zip: *00785*

Additional Project Information
Is your project an 'emergency-related project' as defined in Appendix A? *No*
Have stormwater discharges from your project/site been covered previously under an NPDES permit? *Yes*
Previous Tracking Number: *PRR05BL65*
Estimated project start date: *6/15/2013* End date: *9/30/2013*
Have earth-disturbing activities commenced on your project/site? *No*
County or Similar government subdivision *Guayama*

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You will need Adobe Reader to view some of the files on this page. Files are best viewed in Internet Explorer and Adobe 8.0 or higher. See EPA's

q. On July 29, 2014, the EPA Inspector JR reviewed the EPA NOI Processing Center Database, and found that AES has not submitted a NOT, as required in Part 8.4 of the CGP.

5. SUMMARY OF EPA PREVIOUS INSPECTIONS AND ENFORCEMENT ACTIONS

a. On April 12, 2011, EPA sent to AES a request for information (RFI) letter (RFI Number CEPD-CWA-02-IR-2011-002) pursuant to Section 308(a) of the CWA. The April 12, 2011 letter concerned a notification from AES about an unauthorized discharge of pollutants from a cooling tower basin into wetlands that took place on February 20, 2011. By letter dated May 12, 2011, AES submitted its response to the RFI.

b. On July 20, 2011 and July 26, 2011, EPA performed a Compliance Evaluation Inspection (CEI) of the Facility. The findings of the CEI were included in the NPDES Water Compliance Inspection Report (CEI Report), dated October 3, 2011. On November 23, 2011, AES sent its response to the EPA CEI Report, and proposed to implement a series of BMPs to become eligible under the terms and conditions of the MSGP, and that upon completion/implementation of such BMPs, it would file a NOI for coverage under the MSGP.

c. Upon further review of the findings and observations of the CEI, AES' responses and compliance actions plans, review of additional documentation, and the findings and observations of a follow-up Facility Inspection that the EPA Inspector JR conducted on December 8, 2011, EPA issued the ACO to AES.

d. On March 20, 2012, the EPA Regional Administrator ratified the Consent Agreement and Final Order (CA/FO), Docket Number CWA-02-2012-345, entered between AES and EPA for violations of Section 301(a) of the CWA, which were found during the CEI.[6] AES paid an administrative penalty of $170,000.

e. Following several meetings, discussions and exchanges of comments concerning the engineering analysis and construction of structural BMPs compliance schedules required in the ACO, EPA approved the selection and construction of structural BMPs in a letter dated May 5, 2013.

f. On August 16, 2013, the EPA Inspector JR performed a Compliance Evaluation Inspection (Construction CEI) of the Facility for the purpose of determining AES' compliance with, among other requirements, the CGP and the construction of the structural BMPs pursuant to the EPA May 5, 2013 letter and the ACO.

g. The findings of the Construction CEI were included in the NPDES Water

[6] Discharges of storm water associated with industrial activity though outfall serials numbers 001 through 005 into waters of the United States and discharges of industrial wastewater and/or storm water associated with industrial activity through outfall serial number 003 into a water of the United States, without an NPDES permit.

Compliance Inspection Report, dated December 17, 2013. The EPA Inspector JR found that fifty percent (50%) of the construction activities associated with the structural BMPs had been completed.

6. ENTRY MEETING

Prior to the Facility Walkthrough, the EPA Inspectors met with AES's representatives (engineers Mata, González and Ávila) to discuss the purpose and focus of the Inspection, the areas to be visited and documentation needed for review.

7. FINDINGS OF THE FACILITY WALKTHROUGH

Upon completing of the entry meeting, in which the EPA Inspector JR explained the purpose of the Inspection, a site walkthrough was performed. Engineers Ávila and González were AES's principal representatives during the course of the walkthrough. The EPA Inspectors observed the following deficiencies and areas of concern and/or non-compliance with the MSGP:

a. **Requirement: Minimize Exposure** (Part 2.1.2.1) – Minimize the exposure of material storage areas (loading and unloading, and storage) to rain and runoff by either locating these industrial materials and activities inside or protecting them with storm resistant coverings.[7]

Finding: One of the warehouses in plant yards was undergoing cleaning. AES was storing equipment and materials exposed to precipitation without storm resisting coverings.[8]

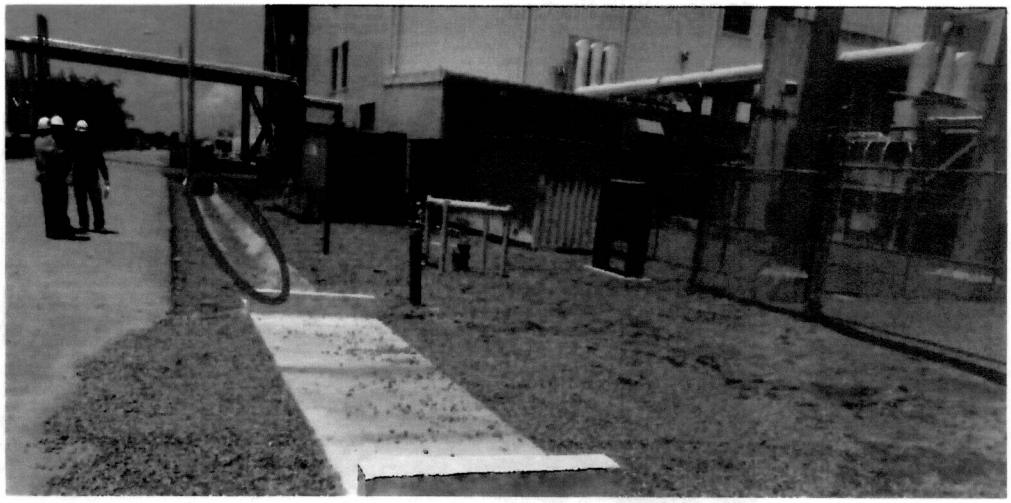
b. **Requirement: Good Housekeeping** (Part 2.1.2.2) – Keep clean all exposed areas that are potential sources of pollutants, using such measures as sweeping at regular intervals.[9]

1) **Finding:** The storm water concrete swale located on the west area of the Site (near the electrical grid) was observed with sediment and gravel accumulation, and lacking good housekeeping. **Picture 9** depicts this finding.

---

[7] Aggremax™ does not need to be enclosed or covered if storm water runoff from affected areas will not be discharged to receiving waters.
[8] See Picture 19 for storage without storm resistant coverings.
[9] AES does not have a mechanical sweeper to remove sediments, gravel and fine particles from Plant's areas.

Picture 9



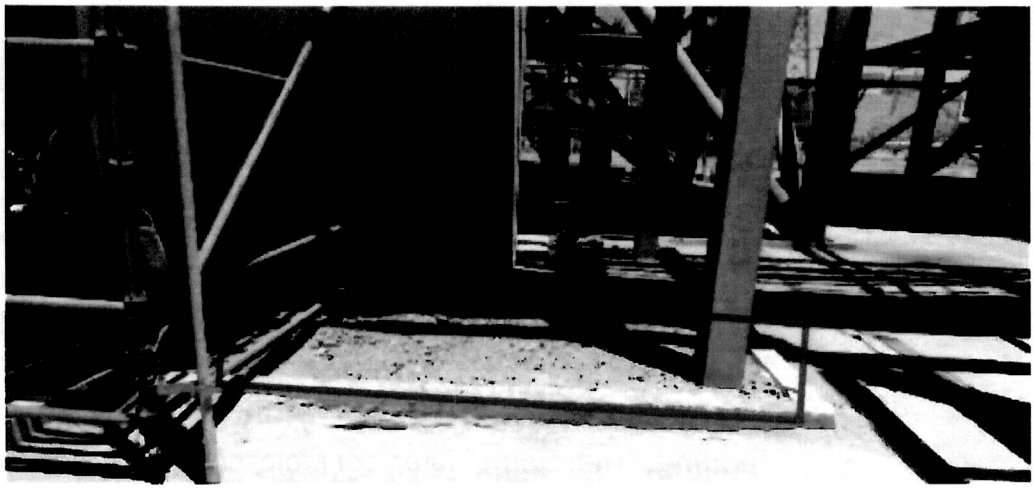
2) **Finding**: The storm water concrete culvert located beneath the fly ash loading area was found with debris, sediment, and ash, and lacked maintenance. **Picture 10** depicts this finding.

Picture 10

c. **Requirement: Maintenance** (Part 2.1.2.3) – Regularly maintain and repair systems to avoid situations that may result in releases of pollutants in storm water discharged to receiving waters. Maintain all control measures that are used to achieve the effluent limits in effective operating condition.

1) **Finding:** Crushed stone construction residues were observed inside a containment area (CDS/ESP) reducing containment capacity. **Picture 11** depicts this finding.

Picture 11



2) **Finding:** The concrete swale along the Aggremax™ pile and coal piles areas were observed with gravel, dust, Aggremax™, and coal, and lacked housekeeping. **Pictures 12-14** depict this finding.

Picture 12

Picture 13[10]

Picture 14

[10] The PVC pipeline shown of the photo constituted an illegal connection. This pipeline would carry process wastewater into the Storm Water Runoff Pond.

3) **Finding:** AES was in the process of emptying the Coal Pile Pond for cleaning and repair, which is a required maintenance activity to eliminate overflow discharges of storm water and process wastewater into wetlands through outfall 003. AES has failed to complete this task since it was found during the July 2011 CEI. **Pictures 15-16** depict this finding.

Picture 15

Picture 16

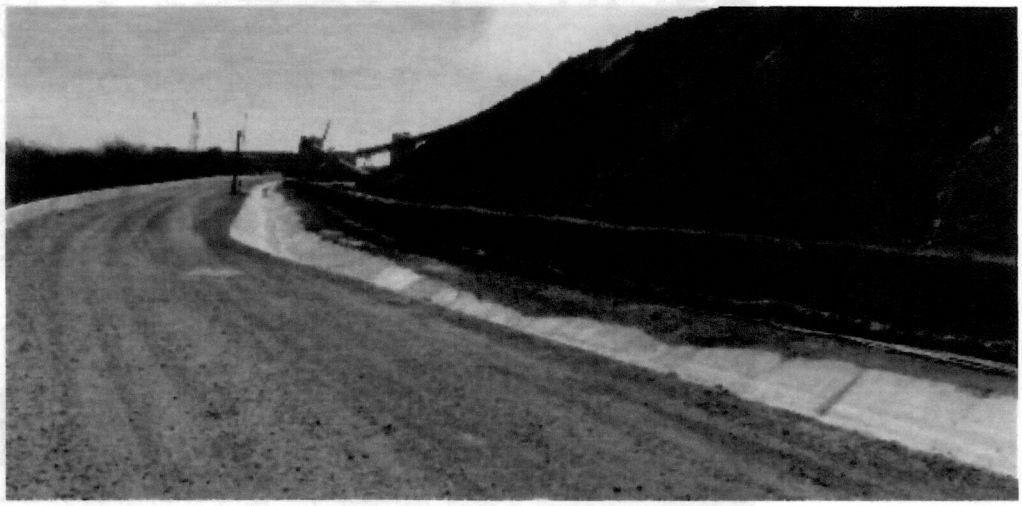
d. **Requirement: Erosion and Sediment Controls** (Part 2.1.2.5) – Stabilize exposed areas and contain runoff using structural and/or non-structural BMPs to minimize on-site erosion and sedimentation, and the resulting discharge of pollutants. Place flow velocity dissipation devices at discharge locations and within outfall channels where necessary to reduce erosion and/or settle out pollutants.

1) **Finding:** There was exposed soil without adequate stabilization within the southeast corner of the Site, near the concrete culvert that discharges through outfall 002. **Picture 17** depicts this finding.

Picture 17

2) **Finding:** The dirt road that borders the south boundary of the Site was found without adequate soil stabilization. Traffic on this road was causing excessive fugitive dust emission into the air and adjacent wetlands fallout. **Picture 18** depicts this finding.

Picture 18



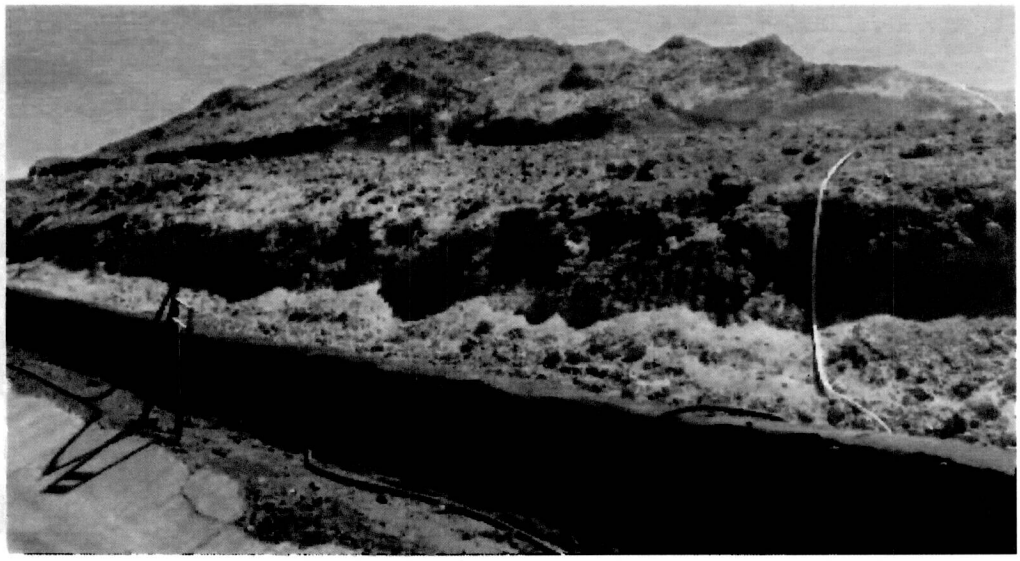
3) **Finding:** Several plant yards were observed with inadequate soil stabilization. For example, the yards between the cooling tower and

maintenance shop building were found in such condition, as depicted in **Picture 19**.

Picture 19

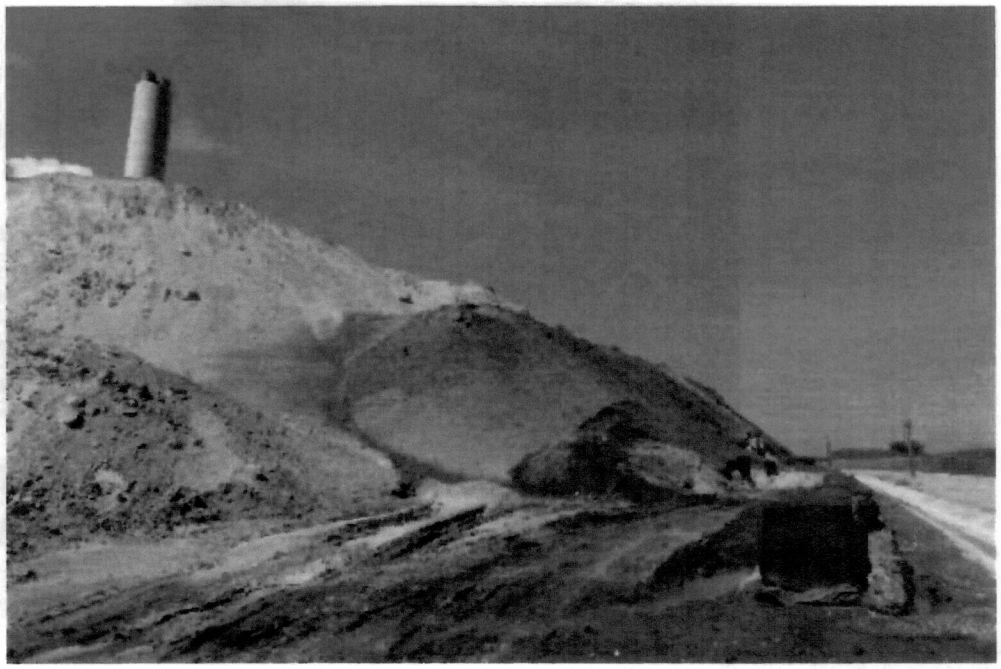
4) **Finding:** Slope stabilization and storm water management are not provided in the Aggremax™ storage pile and in some slopes of the coal storage piles. **Pictures 20-25** depict this findings.

Picture 20 – East Side of Aggremax™ Storage Pile

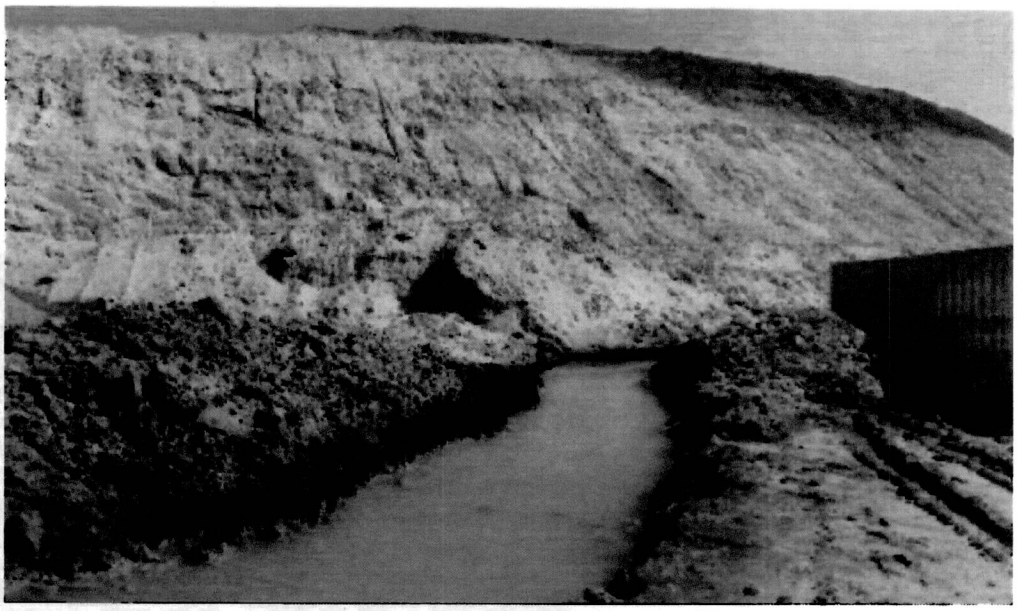


Picture 21 – South Side of Aggremax™ Storage Pile

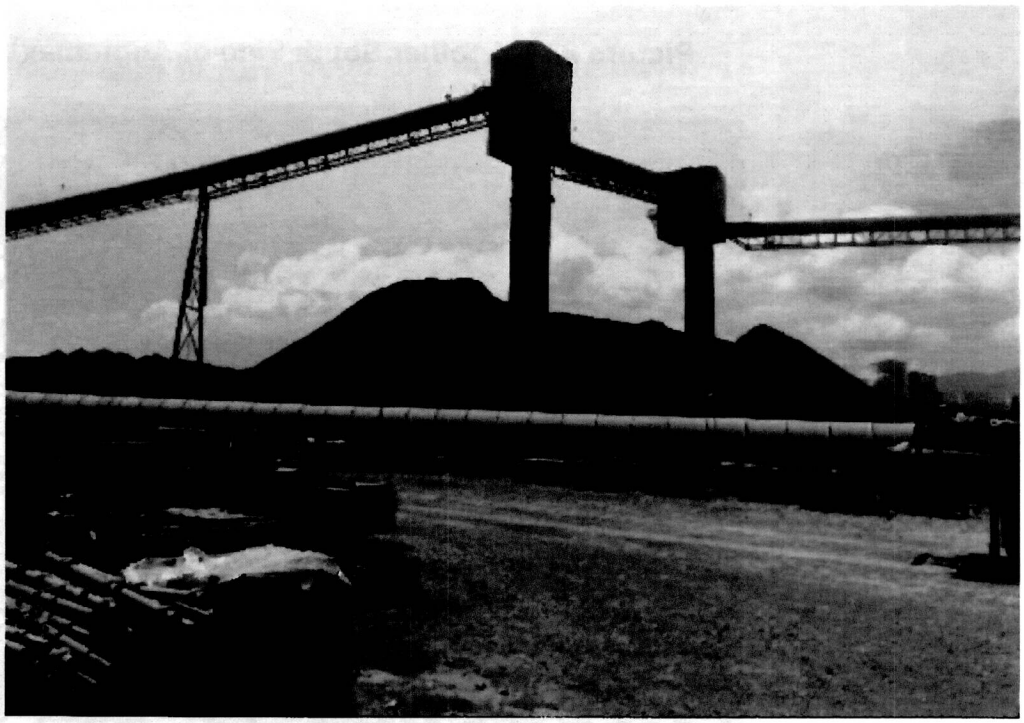
Picture 22 – Another South Side of Aggremax™ Storage Pile



Picture 23 – North Side of Aggremax™ Storage Pile

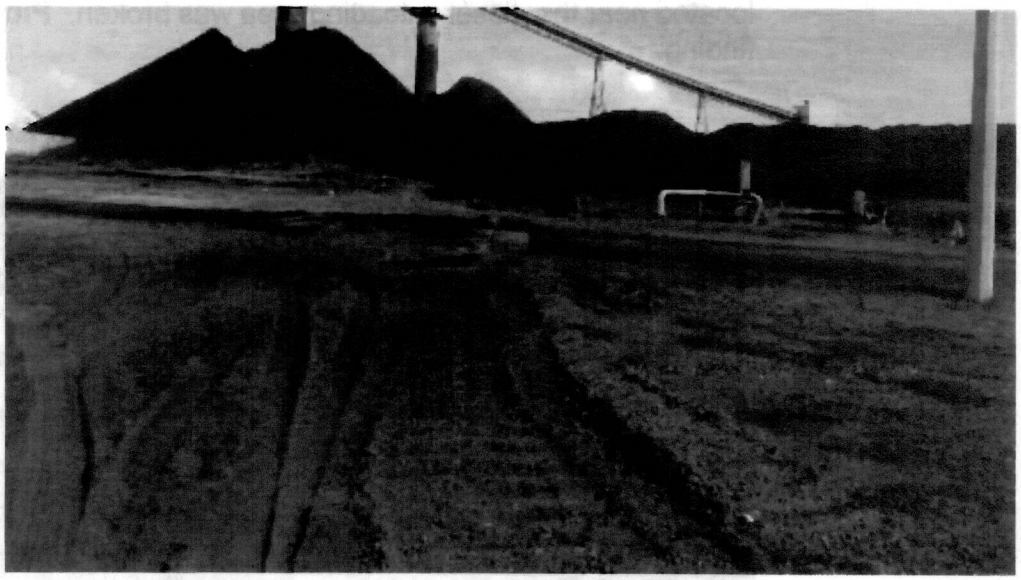


Picture 24 – South Side of Coal Storage Piles[11]



[11] This photograph also depicts inadequate soil stabilization (*e.g.*, insufficient crushed stone soil coverage) and inadequate dust control (*e.g.*, lack of water sprinklers).

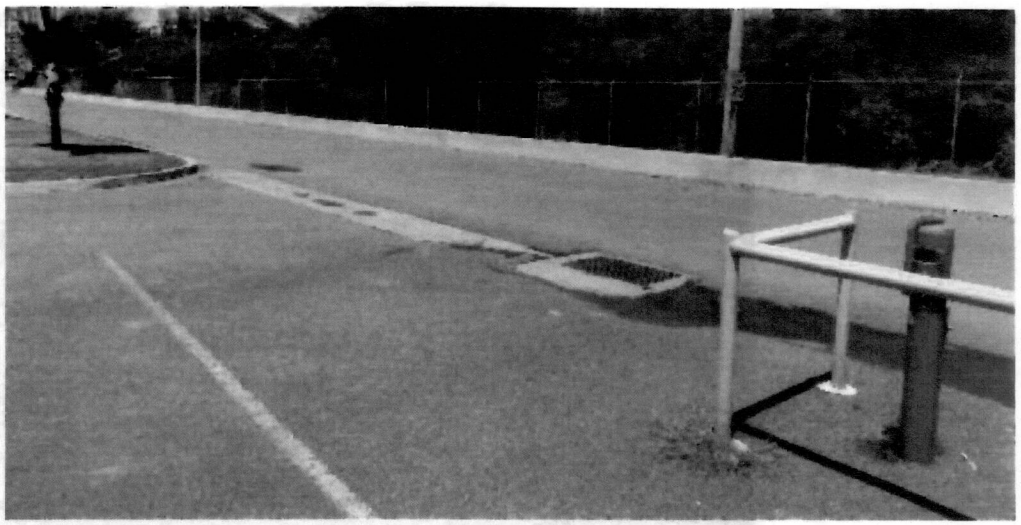
Picture 25 – North Side of Coal Storage Piles[12]



e. **Requirement: Management of Runoff** (Part 2.1.2.6) – Divert, infiltrate, reuse, contain, or otherwise reduce storm water runoff, to minimize pollutants in the discharges.

1) **Finding:** The EPA Inspectors found that the storm water Inlets did not have inlet protection. **Picture 26** depicts this finding.

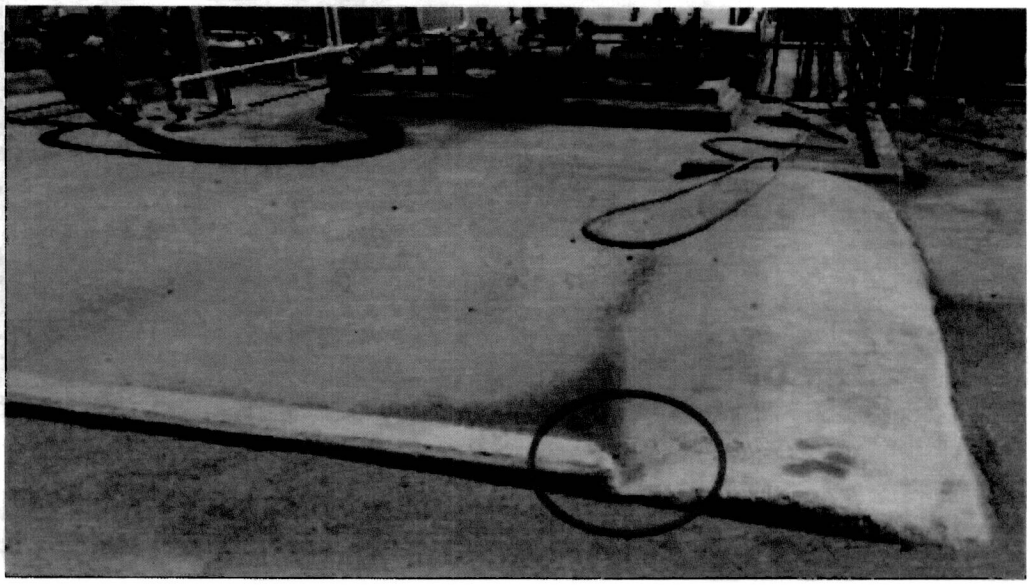
Picture 26



[12] This photograph also depicts coal off-site tracking into plant yard areas and fine soils without dust and stabilization controls.

2) **Finding:** One (1) corner of the concrete low wall secondary containment located near the diesel unloading area was broken. **Picture 27** depicts this finding.

Picture 27



3) **Finding:** AES has not replaced and/or installed silt fence at the perimeter of the coal storage piles and coal handling areas. **Pictures 27-28** depict this finding.

Picture 27 – In Need of Replacement

Picture 28 – Lack of Silt Fence at Perimeter[13]

f. **Requirement: Dust Generation & Vehicle Tracking of Industrial Materials** (Part 2.1.2.12) – Minimize generation of dust and off-site tracking of raw, final, or waste materials.

1) **Finding:** See **Picture 25** above for example of coal off-site tracking.

4) **Finding:** Off-site tracking of what appears to be Aggremax™ fine particles was observed at the wetlands (outfall 002). **Picture 29** depicts this finding.

Picture 29

[13] This photograph also depicts spontaneous coal combustion at coal storage pile.

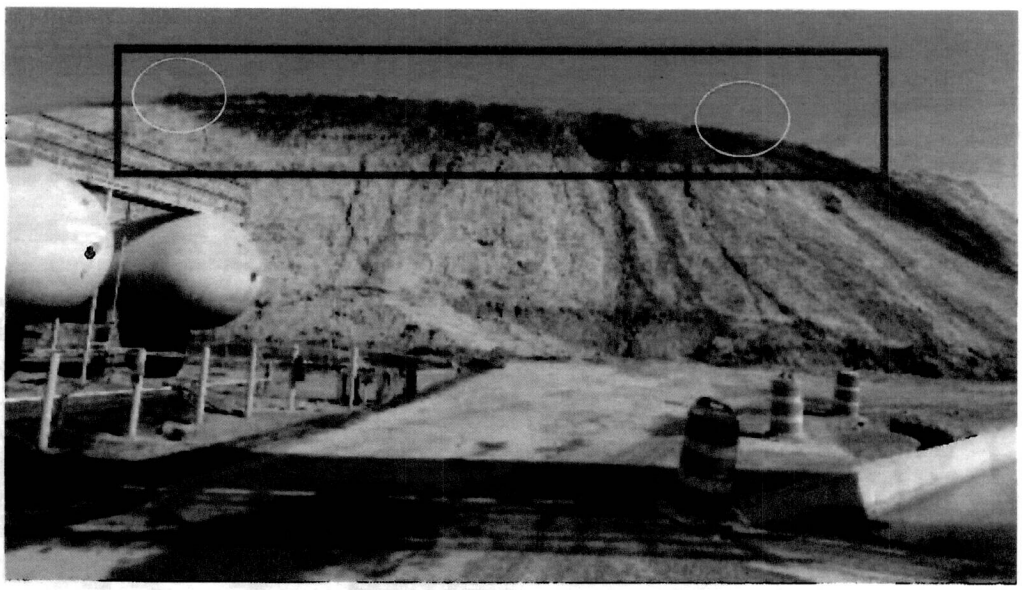
g. **Requirement: Fugitive Dust Emissions** (Part 8.O.4.1) – Minimize fugitive dust emissions from coal handling areas.[14,15]

1) **Finding:** The EPA Inspectors observed one (1) water tank-mounted truck in operation. Given the amount of area to be covered at the Site, which is located in a semi-arid area of Puerto Rico, one (1) truck isn't sufficient to control dust in the areas in which dust control is required.

2) **Finding:** Fugitive emissions were observed during the entire Inspection's walkthrough, especially in areas in which ashes are handled.

3) **Finding**: AES lacks an adequate and effective dust control system for the Aggremax™ storage pile. Although few hoses were feeding water to several sprinklers located on the top side areas of the slopes, most of the slopes were dry and emitting fugitive dust caused by wind. **Picture 30** depicts two (2) sprinklers at the top of the Aggremax™ storage pile (north side of pile), but most of the slope were dry and the sprinkled water could reach the entire length of the slope.

Picture 30



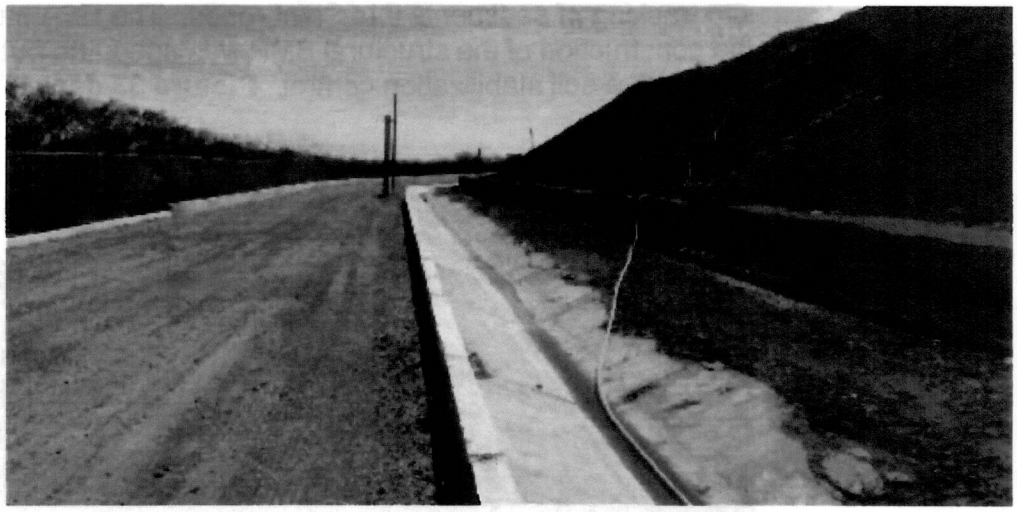
h. **Requirement: Ash Loading Areas** (Part 8.O.4.11) – Reduce or control the tracking of ash and residue from ash loading areas. Clear the ash building floor

[14] Coal handling areas in the Plant include Aggremax™ storage pile, limestone storage dome and supporting areas such as roads.
[15] By installing specially designed tires or washing vehicles in a designated area before they leave the site, and controlling the washwaters.

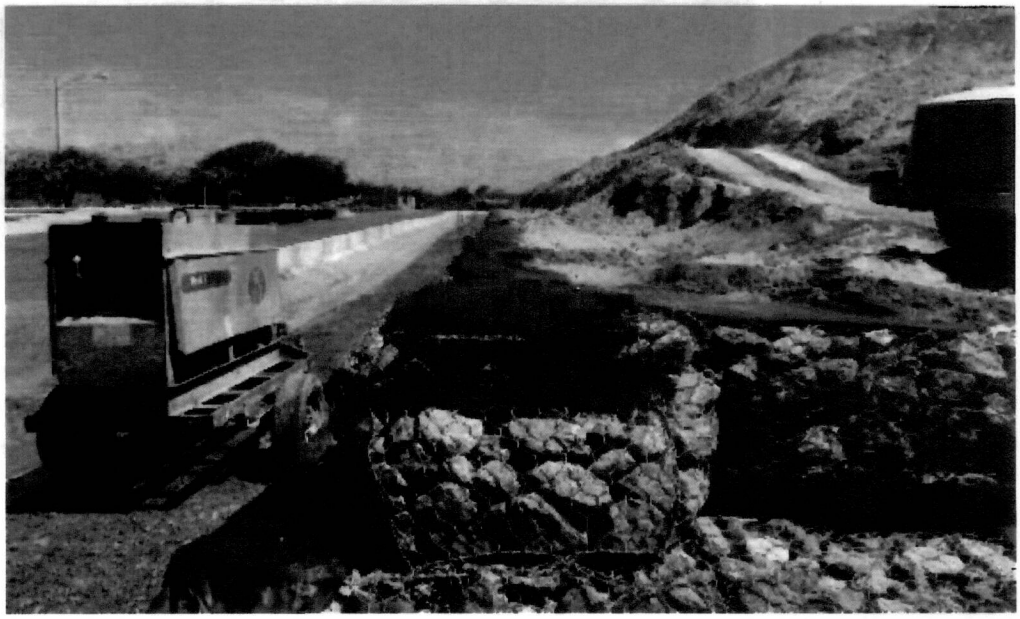
and immediately adjacent roadways of spillage, debris, and excess water before the departure of each loaded vehicle.

1) **Finding:** Certain slope bottoms of the Aggremax™ storage pile were observed on top of the gabion BMP structure, precluding this designed BMP (and its attached silt fence) to function as a storm water filtering system. The EPA Inspectors also observed AES personnel using mechanical equipment to remove Aggremax™ away from the gabions to allow space for the required buffer area. **Pictures 31-32** depict this finding.

Picture 31



Picture 32



2) Finding: AES installed a dust control system in the fly ash loading area to minimize dust emissions.

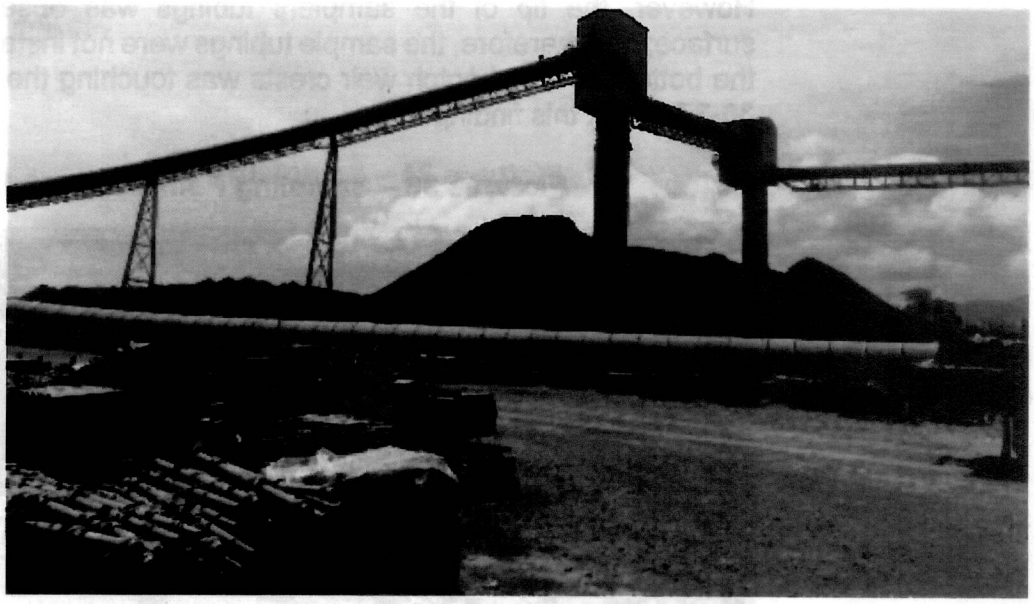
i. **Requirement: Areas Adjacent to Disposal Ponds** (Part 8.O.4.12) – Minimize contamination of surface runoff from areas adjacent to disposal ponds. Reduce ash residue that may be tracked on to access roads traveled by residue handling vehicles, and reduce ash residue on exit roads leading into and out of residue handling areas.

1) **Finding:** AES constructed a structural BMP between the Aggremax™ storage pile and the limestone storage dome, which serves as reduce of site tracking of sediments into Plant roads. The EPA Inspectors found that the construction of the structural BMP was adequate but the exit path to the road lack a soil stabilization control. **Picture 33** depicts this finding.

Picture 33

2) **Finding:** The plant yards behind the south side of the limestone storage dome were observed without soil stabilization. Also, the process wastewater basin located in this area was not constructed following best engineering practices to allow for adequate sedimentation and slope stabilization. **Pictures 34-35** depict this finding.

Picture 34



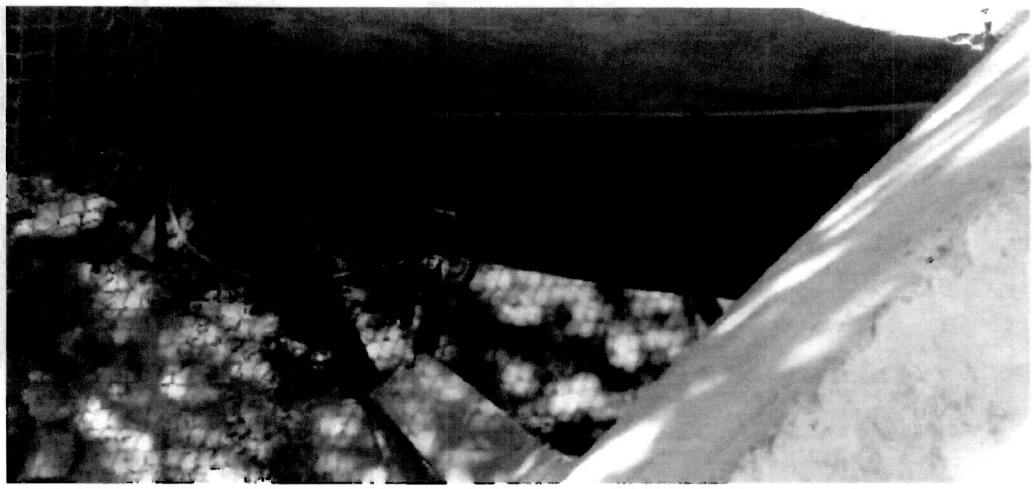
Picture 35

j. Others Findings

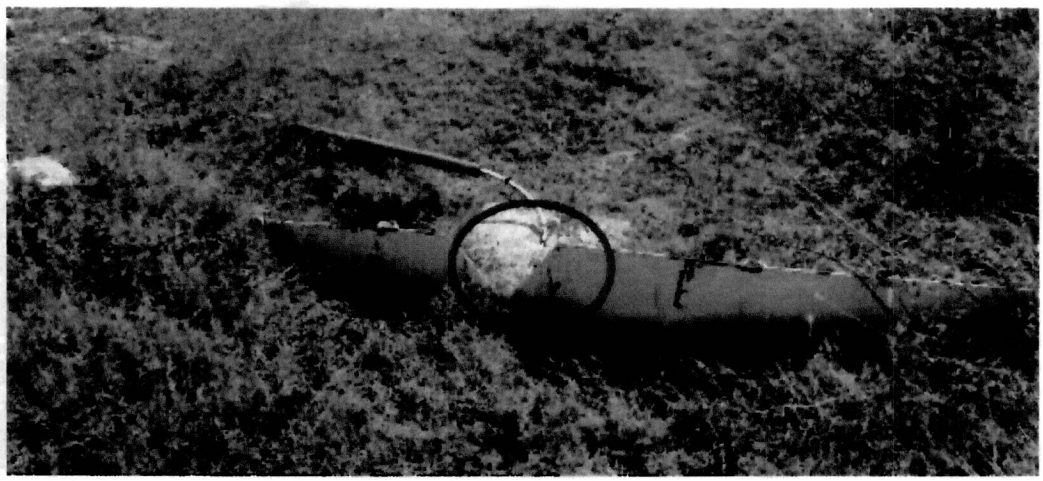
1) **Finding:** AES installed two (2) V-notch weirs to provide for a free and unobstructed flow when sampling the storm water discharges associated with industrial activity through outfalls 002 and 003. AES also installed two

(2) solar-powered automatic samplers for sampling points 002 and 003. However, the tip of the samplers tubings was observed touching the surface; and therefore, the sample tubings were not installed properly. Also, the bottom of the V-notch weir crests was touching the surface. **Pictures 36-37** depict this finding.

Pictures 36 – Sampling Point for Outfall 002



Pictures 37 – Sampling Point for Outfall 003



2) **Finding**: The EPA Inspectors observed vegetation growth and lack of maintenance along the concrete channel that discharges through Outfall 003. This is causing unnecessary backflow and algae growth. **Pictures 38-39** depict this finding.

Picture 38

Picture 39

3) **Finding**: The EPA Inspector JR found that AES did not comply with Part 3.2 (Conditions Requiring Review to Determine if Modifications Are Necessary) and Part 6.2.1.2 (Benchmark Monitoring Schedule) of the MSGP, which requires AES to review the selection, design, installation, and implementation of control measures to determine if modifications are necessary to meet the effluent limits in the MSGP.

The basis for this findings is that the average of all monitoring data for SP-001, SP-002, and SP-003 exceeded the applicable benchmarks for aluminum and iron, and AES did not conduct/document the required selection, design, installation, and implementation of control measures to determine if modifications are necessary to meet the effluent limits in the MSGP. These modifications are beyond the non-structural and structural BMPs that AES selected and EPA approved in the May 5, 2013 letter.

8. REVIEW OF AES'S COMPLIANCE WITH THE ACO

Paragraph 28.B of the ACO requires AES to submit to EPA bi-monthly Status Reports, including a cost report detailing the expenses incurred as of the date of the Status Report. The bi-monthly Status Reports are due on the 15th day of the following month, and shall include the actions that were taken as of the date of the Status Report concerning the milestones and activities performed towards meeting the provisions of the ACO. The ACO included twenty eight (28) ordered provision that AES must comply with.

The following documents the findings of the EPA Inspector JR's review of the NPDES files concerning the Plant and the marine cargo handling dock facilities. The files are located at the EPA's office in Guaynabo, Puerto Rico. The focus of the file's review was to determine AES's compliance with the ACO. The EPA Inspector JR is hereby addressing each of the provisions in Parts V and VII of the ACO.[16]

With Respect to Acknowledgment of Receipt

a. **Provision 1** (Submittal of Acknowledgment of Receipt; Due Date: Immediately) – By letter dated December 22, 2011, AES submitted to EPA its acknowledgment of receipt of the ACO. No further action is required concerning to this Provision.

With Respect to Request for Information

b. **Provision 2** (Submittal of Information; Due Date: January 21, 2012) – By letter dated January 19, 2012, AES submitted to EPA the information required in this Provision. No further action is required concerning to the submittal of information in this provision.

[16] EPA sent two (2) letters to AES, in which certain provisions of the Order were evaluated and addressed. See the EPA June 15, 2012 and May 5, 2013 letters to AES.

c. **Provision 3** (Request for Opportunity to Confer with EPA; Due Date: December 29, 2011) – AES and EPA discussed the information request in Provision 2 of the ACO during an EPA and AES December 8, 2011 face-to-face meeting at the Facility. AES did not request to confer with EPA upon issuance of the ACO. No further action is required concerning this provision.

With Respect to Topographic Survey and Hydrology/Hydraulic Study

d. **Provision 4** (Performance and Submittal of As-Built Topographic Survey; Due Date: February 20, 2012) – By letter dated January 19, 2012, AES submitted a copy of the as-built topographic survey. No further action is required concerning this Provision.

e. **Provision 5** (Performance and Submittal of Hydrology/Hydraulic Study; Due Date: April 20, 2012) – On February 8, 2012, representatives from EPA and AES discussed the preliminary results of the Hydrology/Hydraulic Study (H/H Study) concerning regulated and unregulated storm water runoff from off-site areas. AES submitted to EPA the preliminary results of the H/H Study in a letter dated February 10, 2012.

AES submitted the H/H Study in a letter dated April 19, 2012. On April 25, 2012, representatives from EPA and AES discussed the results of the H/H Study, which included runoff from the off-site and on-site areas of the Site. No further action is required concerning the H/H Study.

With Respect to Engineering Analysis, Design and Construction

f. **Provision 6** (Performance of Engineering Analysis Study; Due Date: June 19, 2012) – On July 13, 2012, AES submitted a letter to EPA requesting an extension of time until August 31, 2012, to submit and comply with Provision 7 of the ACO. On July 13, 2012, EPA sent a letter to AES granting the requested extension of time until August 31, 2012. On August 31, 2012, AES submitted to EPA the Engineering Analysis Study Report. No further action is required concerning the Engineering Analysis Study.

g. **Provision 7** (Submittal of Engineering Analysis Study; Due Date: July 19, 2012) – As indicated above, AES submitted to EPA the Engineering Analysis Report (EAR) on August 31, 2012.

EPA conducted EAR's reviews, face-to-face meetings, and a Facility walkthrough during the August 31, 2012 to February 20, 2013 period, for the purposes of evaluating and determining if the structural and non-structural BMPs included in the EAR met the requirements of the MSGP.

On May 15, 2013, AES submitted to EPA a revised structural BMP Matrix and implementation schedule. On May 31, 2013, AES submitted to EPA an electronic

file containing a set of engineering drawings titled "Detail Design of Structural Stormwater Measures – Amendment B," dated May 22, 2013. The drawings contain details for the structural BMPs included in the structural BMP Matrix.

EPA approved the structural BMP Matrix and the implementation schedule in the EPA May 5, 2013 letter. No further action is required concerning the submittal of the EAR.

h. **Provision 8** (Notification of Implementation of BMP Implementation Plan; Due Date: Upon Implementation) – As of the date of this Inspection Report, AES has not completed the implementation of all structural BMPs that EPA approved in the May 5, 2013 letter. This is a pending action.

With Respect to Rainfall Precipitation Collection, Measurement and Record Keeping

i. **Provision 9** (Installation of Rain Gauge; Due Date: January 6, 2012) – AES reported in the 1st by-monthly Status Report, dated January 16, 2012, that a wireless weather station was installed on December 21, 2011. No further action is required concerning the installation of the rain gauge.

j. **Provision 10** (Submittal of Rain Gauge SOP; Due Date: January 21, 2012) – On January 19, 2012, AES submitted to EPA a document titled "Rainfall Data Collection Management and Recordkeeping Procedure" (Rain Gauge SOP), dated January 19, 2012.

The EPA Inspector JR reviewed the Rain Gauge SOP, and provided comments in the EPA June 15, 2012 letter. By letter dated July 3, 2012, AES submitted to EPA a revised Rain Gauge SOP, which addressed the comments provided by EPA. No further action is required concerning the Rain Gauge SOP.

With Respect to Development and Modification of the SWPPP

k. **Provision 11** (Development and Submittal of Modified SWPPP; Due Date: August 20, 2012) – On August 31, 2012, AES submitted to EPA a copy of the draft modified Storm Water Pollution Prevention Plan (SWPPP) for Industrial Activities, dated August 2012.[17] No further action is required concerning the submittal of the modified SWPPP for industrial activities.

l. **Provision 12** (Development and Submittal of Final SWPPP; Due Date: January 31, 2013) – As of the date of this Inspection Report, AES has not developed and submitted to EPA a final SWPPP for Industrial Activities. Therefore, this is a pending action.

[17] On August 19, 2013, AES submitted to EPA a copy of the SWPPP for Construction Activities, dated June 14, 2013.

With Respect to Implementation of the SWPPP

m. **Provision 13** (Implementation of Non-Structural BMPs; Due Date: July 19, 2012) and **Provision 14** (Notification of Implementation of Non-Structural BMPs; Due Date: Upon Implementation) – As further discussed in Provision 18 below, AES submitted an EAR and implementation schedule, which was approved by EPA in May 5, 2013 letter. The approved milestones and compliance schedules included eighty six (86) actions, of which thirty one (31) involved the construction/installation of structural BMPs.

Based on the Inspection walkthrough and the EPA Inspector JR review of the Bi-Monthly Status Reports that AES has submitted as of the date of this Report, it was found that AES did not construct, install and/or implement the following BMPs:

1) Action Item 18 to 23 (Approved Due Date: August 13, 2013) – Implementation of inlet protection to prevent contaminants from entering into the four storm water catch basins;

2) Action Items 14 and 33 (Approved Due Date: September 21, 2013) – Implementation of BMPs for slope stabilization at the coal and Aggremax™ piles to address off-site tracking of sediments;

3) Action Item 30 (Approved Due Date: September 22, 2013) – Construction of concrete pad with secondary containment and roof to host water storage containers for spill prevention and housekeeping;

4) Action Item 60 (Approved Due Date: August 13, 2013) – Construction of concrete wall in the earth channel that discharges process water into the Coal Pile Runoff Pond;

5) Action Item 68 (Approved Due Date: September 21, 2013) – Cleaning and repair of liner associated with the Coal Pile Runoff Pond;

6) Action Item 71 (Approved Due Date: June 14, 2013) – Installation of roof over water clarifying chemical storage totes for spill prevention; and

7) Action Item 74 (Approved Due Date: June 14, 2013) – Installation of signage to control heavy equipment traffic direction and velocity for control of off-site tracking of sediments and fugitive emissions;[18]

n. **Provision 15** (Implementation of Final SWPPP; Due Date: July 19, 2012) – As of the date of this Inspection Report, AES has not developed and submitted to EPA a final SWPPP for Industrial Activities. Therefore, this is a pending action.

[18] AES constructed a metal curtain structure, which covers the fly/bed ashes loading into trucks. This structural BMPs was not part of the BMPs approved by EPA.

o. **Provision 16** (Notification of Implementation of Final SWPPP; Due Date: Upon Implementation) – As of the date of this Inspection Report, AES has not developed and submitted to EPA a final SWPPP for Industrial Activities. Therefore, this is a pending action.

With Respect to Operation and Maintenance of the On-Site and Off-Site Conveyance Systems

p. **Provision 17** (Performance of Inspection, Cleaning and Repair of Storm water Conveyance System; Due Date: June 19, 2012) – Based on the Conveyance System Inspection Report (CSIR), dated July 18, 2012, AES performed a dry weather inspection of the on-site conveyance system and the off-site conveyance system on July 5, 2012. No further action is required concerning the inspection of the systems.

q. **Provision 18** (Submittal of Conveyance System Inspection Report; Due Date: July 19, 2012) – Based on the requirements of this Provision, the CSIR did not include the as-built site drainage/storm sewer drawings for the systems and did not provide information about the cleaning of the system.

Maintenance of the on-site conveyance system and the off-site conveyance system must be conducted in accordance with Part 2.1.2.3 (Maintenance) of the MSGP and the schedule included in the modified SWPPP. The modified SWPPP provides that maintenance will be performed before the next anticipated storm event, or as necessary to maintain the continued effectiveness of storm water controls. The modified SWPPP also indicates that if maintenance prior to the next anticipated storm event is impracticable, maintenance will be scheduled and accomplished as soon as practicable. Maintenance of the systems is a pending action.

With Respect to Routine Inspections

r. **Provision 19** (Performance of Routine Inspections; Due Date: Until Termination of ACO) – AES submitted a copy of a document titled "Stormwater Industrial Routine Facility Inspection Report" (RIR). The EPA Inspector JR reviewed the RIR, and provided comments in the EPA June 15, 2012 letter. By letter dated July 3, 2012, AES submitted to EPA a revised RIR, which addressed the comments provided by EPA.

Based on the requirements of Part 4.1 of the MSGP and Provision 19 of the ACO, AES is required to conduct and document quarterly routine facility inspections during the January-March, April-June, July-September and October-December periods each calendar year. The EPA Inspector JR performed a review of the quarterly routine facility inspection reports. **Table 1** includes a summary of the review of the quarterly routine facility inspection reports.

Table 1			
Quarterly Period	**Year 2012**	**Year 2013**	**Year 2014**
January to March	Inspection was conducted on March 26, 2012; and report was signed and certified on March 26, 2012. This report did not include weather information.	Dry weather inspection was conducted on March 28, 2013; and report was signed and certified on March 28, 2013.	Dry weather inspection was conducted on March 14, 2014; and report was signed and certified on March 14, 2014.
April to June	Dry weather inspection was conducted on June 28, 2012; and report was signed and certified on June 28, 2012.	Dry weather inspection was conducted on June 20, 2013; and report was signed and certified on June 20, 2013.	Dry weather inspection was conducted on May 23, 2014; and report was signed and certified on May 23, 2014.
July to September	Wet weather inspection was conducted on July 31, 2012; and report was signed and certified on August 1, 2012.	Dry weather inspection was conducted on September 5, 2013; and report was signed and certified on September 6, 2013.	
October to December	Dry weather inspection was conducted on December 27, 2012; and report was signed and certified on December 27, 2012.	Not submitted. This is a pending action.	

With Respect to Comprehensive Site Inspections

s. **Provision 20** (Performance of Annual Comprehensive Site Inspection; Due Date: November to December 2012 period) – AES conducted the Annual Comprehensive Site Inspection on December 13, 2012. No further action is required concerning the performance of the Annual Comprehensive Site Inspection.

t. **Provision 21** (Preparation and Submittal of Annual Comprehensive Site Inspection Report; Due Date: Forty Five Days upon Completion of Inspection) – Although AES conducted the Annual Comprehensive Site Inspection, and prepared and submitted to EPA the Annual Reporting Form for such inspection, AES did not document the results of the Annual Comprehensive Site Inspection as required in Provision 21 and Part 4.3.2 of the MSGP.[19] This is a pending action.

[19] Part 4.3.2 (Comprehensive Site Inspection Documentation) of the MSGP requires AES to document the findings of each comprehensive site inspection and maintain this documentation onsite with the SWPPP, as required in Part 5.4 of the MSGP. In addition, AES is required to submit this documentation in an annual report, as required in Part 7.2 of the MSGP.

With Respect to Annual Report

u. **Provision 22** (Preparation and Submittal of Annual Report; Due Date: January 27, 2013) – See comments on Provision 21 above. No further action is required concerning the preparation and submittal of the Annual Report.

With Respect to Temporary Sampling Points and Visual Assessments

v. **Provision 23** (Elimination of Outfall 005; Due Date: January 16, 2012) – AES provided photo-documentation in the 1st bi-monthly Status Report (Photos 2-3), dated January 16, 2012, showing that outfall 005 was eliminated. No further action is required concerning the elimination of outfall 005.

w. **Provision 24** (Performance of Quarterly Visual Assessments; Due Date: Until Termination of ACO) – AES submitted a copy of a document titled "MSGP Quarterly Visual Assessment Form" (QVAF). The EPA Inspector JR reviewed the QVAF, and provided comments in the EPA June 15, 2012 letter. By letter dated July 3, 2012, AES submitted to EPA a revised QVAF, which addressed the comments provided by EPA.

Based on the requirements of Part 4.2 of the MSGP and Provision 24 of the ACO, AES is required to conduct and document quarterly visual assessment of storm water discharges during the January-March, April-June, July-September and October-December periods each calendar year.[20]

The visual assessments of storm water discharges were to be performed at interim sampling points (SP-002, SP-003A, SP-003B, and SP-004) until the construction of the structural BMPs, which included the establishment of one sampling and discharge point (SP-001) in the marine cargo handling dock facilities, and two (2) sampling and discharge points (SP-002 and SP-003) within the Site. Upon the establishment of the permanent sampling points at the Site (SP-002 and SP-003), AES was to conduct all its visual assessment of storm water discharges at these permanent sampling points.

AES reported in its eleven Bi-monthly Status Report, dated September 30, 2013, that construction activities were completed. As such, AES was required to conduct a visual assessment of storm water discharges at the permanent sampling points beginning on or about September 30, 2013.

The EPA Inspector JR performed a review of the visual assessment of storm water discharges reports. **Tables 2** and **3** include a summary of the review of the visual assessment of storm water discharges.

[20] The assessment must be conducted within the first 60 minutes of sampling.

Table 2		
Quarterly Period	**Year 2012**	**Year 2013**
January to March	SP-002: The assessment was conducted on March 19, 2012. The assessment report was signed on March 20, 2012.	SP-002: The assessment was conducted on February 1, 2013. The assessment report was signed on February 1, 2013.
	SP-003A: The assessment was not conducted and the 3rd Bi-Monthly Status Report does not provide an explanation for not assessing the discharges at this outfall. The March 2012 Monthly Precipitation Data Log shows a precipitation on March 29, 2012, which is similar to the precipitation that occur on March 19, 2012. AES did not provide an explanation of why the assessment was not conducted in its July 3, 2012 letter.	SP-003A: The assessment was not conducted and the 8rd Bi-Monthly Status Report does not provide an explanation for not assessing the discharges at this outfall.
	SP-003B: The assessment was conducted on March 19, 2012. The assessment report was signed on March 20, 2012.	SP-003B: The assessment was conducted on February 1, 2013. The assessment report was signed on February 1, 2013.
	SP-004: The assessment was conducted on March 19, 2012. The assessment report was signed on March 20, 2012.	SP-004: The assessment was conducted on February 1, 2013. The assessment report was signed on February 1, 2013.
April to June	SP-002: The assessment was conducted on May 10, 2012. The assessment report was signed on May 11, 2012.	SP-002: The assessment was conducted on May 8, 2013. The assessment report was signed on May 8, 2013.
	SP-003A: The assessment was conducted on May 10, 2012. The assessment report was signed on May 11, 2012.	SP-003A: The assessment was conducted on May 22, 2013. The assessment report was signed on May 22, 2013.
	SP-003B: The assessment was conducted on May 10, 2012. The assessment report was signed on May 11, 2012.	SP-003B: The assessment was conducted on May 8, 2013. The assessment report was signed on May 8, 2013.
	SP-004: The assessment was conducted on May 10, 2012. The assessment report was signed on May 11, 2012.	SP-004: The assessment was conducted on May 8, 2013. The assessment report was signed on May 8, 2013.
July to September	SP-002: The assessment was conducted on July 20, 2012. The assessment report was signed on July 20, 2012.	SP-002: The assessment was conducted on September 12, 2013. The assessment report was signed on September 12, 2013.
	SP-003A: The assessment was conducted on July 20, 2012. The assessment report was signed on July 20, 2012.	SP-003A and SP-003B: The MSGP Quarterly Visual Assessment Form completed for the September 12, 2013 discharge shows that the sample was taken

Table 2		
Quarterly Period	**Year 2012**	**Year 2013**
	SP-003B: The assessment was conducted on July 20, 2012. The assessment report was signed on July 20, 2012.	at SP-003. The form was signed on September 12, 2013. This suggests that the permanent SP-003 was established during this period.
	SP-004: The assessment was conducted on July 20, 2012. The assessment report was signed on July 20, 2012.	SP-004: The assessment was conducted on September 12, 2013. The assessment report was signed on September 12, 2013.
October to December	SP-002: The assessment was conducted on December 3, 2012. The assessment report was signed on December 3, 2012.	
	SP-003A: See note 1.	
	SP-003B: See note 1.	
	SP-004: See note 1.	

Note: The AES Rain Data Log for the October to December 2012 period did not reflect measurement event. The EPA Inspector JR review of the National Weather Data for this period showed numerous measurable events for the Guayama region.

Table 3		
Quarterly Period	**Year 2013**	**Year 2014**
January to March	See Table 2 above.	SP-001, SP-002, and SP-003: The 13th Bi-Monthly Status Report, dated March 20, 2014 indicates that "rainfall during this period was not enough to produce storm water discharges, therefore no assessments were performed. The Report included rain data for the December 2013 to February 2014 period, missing the March 2014 data. However, the National Weather Data for this period and found that measurable events were not recorded for the Guayama region during this period.
April to June		SP-001: The assessment was conducted on April 2, 2014. The assessment report was signed on April 2, 2014.
		SP-002: The assessment was conducted on April 2, 2014. The assessment report was signed on April 2, 2014.
		SP-003: The assessment was conducted on April 9, 2014. The assessment report was signed on April 9, 2014.

Table 3		
Quarterly Period	**Year 2013**	**Year 2014**
July to September		
October to December	SP-001: The assessment was conducted on October 8, 2013. The assessment report was signed on October 8, 2013.	
	SP-002: The assessment was conducted on October 8, 2013. The assessment report was signed on October 8, 2013.	
	SP-003A: The assessment was conducted on October 8, 2013. The assessment report was signed on October 8, 2013.	

Notes: The SP-003A described in the ACO corresponds to the permanent SP-003 located at the Plant. The SP-004 described in the ACO corresponds to the permanent SP-001 located at the marine cargo handling dock facilities.

With Respect to Monitoring

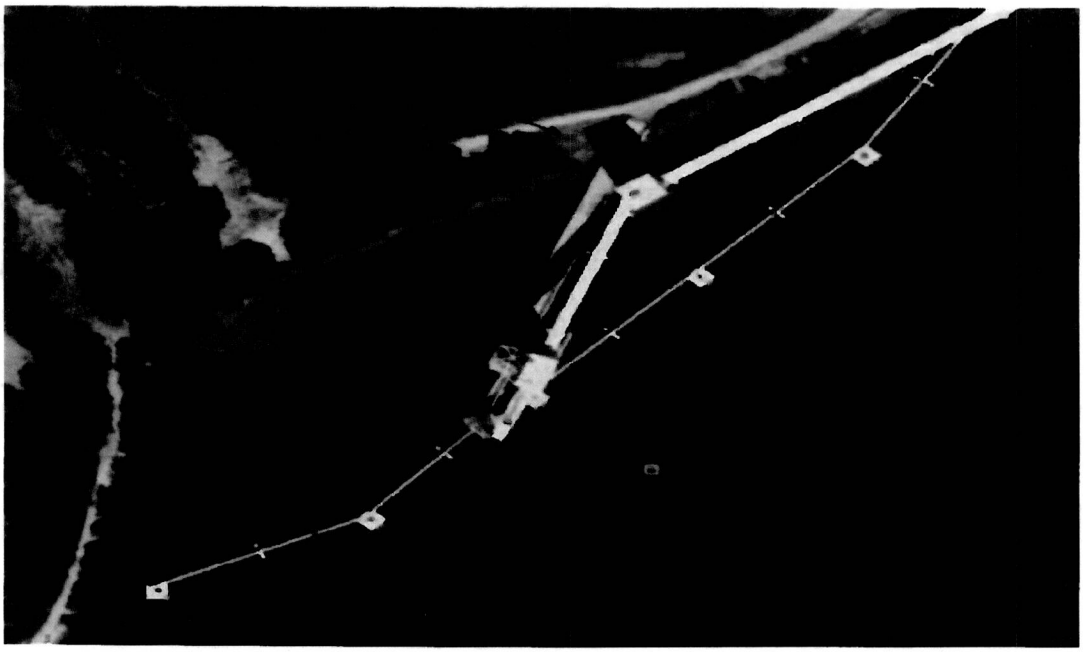
x. **Provisions 25** and **26** (Performance of Benchmark Monitoring and Reporting; Until Termination of the ACO) – Based on the requirements of Provisions 25-26 of the ACO, which makes reference to Parts 6.1, 6.2, 8.O.7, and 8.Q.6 of the MSGP, AES is required to conduct and document quarterly benchmark monitoring during the January-March, April-June, July-September and October-December periods until termination of the ACO.

As explained above, monitoring activities were to be performed at interim sampling points (SP-002, SP-003A, SP-003B, and SP-004) until the construction of the structural BMPs. Once construction is completed, AES was required to conduct its monitoring activities at the permanent sampling points (SP-001: marine cargo handling dock facilities; and (SP-002 and SP-003: Plant).

Figures 9 and **10** show the approximate location of the interim sampling points and the permanent sampling points.

Figure 9
Location of SP-002, SP-003A, and SP-003B

Figure 10
Location of SP-004



AES reported in its eleventh (11th) Bi-monthly Status Report, dated September 30, 2013, that construction activities were completed. As such, AES was required to conduct quarterly benchmark monitoring at the permanent sampling points beginning on or about September 30, 2013. The EPA Inspector JR performed a review of the quarterly benchmark monitoring for the temporary sampling points and the permanent sampling points. **Tables 4-7** include the data submitted and the findings of the data review.

The average values highlighted in bold indicates that the average of the reported data exceeds the benchmark valued for the specific parameter. AES reported in its 13th Status Report, dated March 21, 2014, that "rainfall during this reporting period [October-December 2013] was not enough to produce storm water discharges, therefore no benchmark monitoring were performed for this period [October-December 2013]. With respect to the January-March 2014 period, AES failed to notify EPA about its monitoring activities during this period.

Table 4
Temporary Outfall 002

Monitoring Date	PARAMETER			
	Aluminum (0.75 mg/L)	Iron (1.0 mg/L)	Lead (0.262 mg/L)	Zinc (0.26 mg/L)
02/21/2012	247	111	0.287	1.40
03/30/2012	11	2.86	0.012	0.089
05/29/2014	28.0	25.2	0.041	0.135
08/02/2012	54.8	63.9	0.044	0.32
12/14/2012	40.6	43.6	0.058	0.178
02/15/2013	146	180	0.693	0.588
05/08/2013	61.6	14.1	0.108	0.328
09/12/2013	151	184	0.025	0.675
10/08/2013	93.6	116	0.008	0.0272
04/02/2014	1.63	1.52	0.010	0.014
Average	**85.523**	**74.218**	0.129	.0375

Table 5
Temporary Outfall 003-A[21]

Monitoring Date	PARAMETER			
	Aluminum (0.75 mg/L)	Iron (1.0 mg/L)	Lead (0.262 mg/L)	Zinc (0.26 mg/L)
02/21/2012	No discharge; therefore, sample wasn't taken.			
03/30/2012	No discharge; therefore, sample wasn't taken.			
05/29/2014	24.4	29.1	0.026	0.265
08/02/2012	8.48	11.8	0.008	0.095
12/14/2012	No discharge; therefore, sample wasn't taken.			
02/15/2013	No discharge; therefore, sample wasn't taken.			
05/22/2013	3.84	4.32	0.008	0.110
09/12/2013	1.62	1.48	0.10	0.021
10/08/2013	2.49	2.41	0.004	0.171
04/10/14	0.066	0.023	0.010	0.057
Average	**6.816**	**8.189**	0.026	0.120

Table 6
Temporary Outfall 003-B[22]

Monitoring Date	PARAMETER			
	Aluminum (0.75 mg/L)	Iron (1.0 mg/L)	Lead (0.262 mg/L)	Zinc (0.26 mg/L)
03/30/2012	52.3	57.6	0.069	1.16
05/29/2014	2.36	2.76	0.003	0.093
08/02/2012	10.9	12.9	0.010	0.222
12/14/2012	No discharge; therefore, sample wasn't taken.			
02/15/2013	34.4	41.4	0.625	0.431
05/08/2013	0.812	0.750	0.002	0.073
Average	**20.15**	**23.1**	**0.142**	**0.40**

[21] Based on AES's eleventh Bi-Monthly Status Report, dated September 30, 2013, SP-003A was converted into SP-003 during the July-September 2013 period.

[22] AES indicated in its eleventh Bi-Monthly Status Report, dated September 30, 2013, that outfall 003 was eliminated during this monitoring period of July-September 2013.

Table 7
Temporary Outfall 004[23]

Monitoring Date	PARAMETER			
	Aluminum (0.75 mg/L)	Iron (1.0 mg/L)	Lead (0.262 mg/L)	Zinc (0.26 mg/L)
02/21/2012	2.52	3.03	0.010	0.202
03/30/2012	0.058	0.818	<0.002	0.103
05/29/2014	2.82	3.83	0.007	0.348
08/02/2012	1.57	1.60	0.005	0.211
12/14/2012	No discharge; therefore, sample wasn't taken.			
02/15/2013	4.62	5.23	0.145	0.231
05/08/2013	1.36	1.17	0.003	0.243
09/12/2013	10.2	11.4	0.016	0.175
10/08/2013	11.1	13.2	0.007	0.082
04/02/2014	7.20	7.25	0.026	0.439
Average	**4.605**	**5.281**	0.025	0.226

With Respect to MSGP Coverage

y. **Provision 27** (Submittal of NOI; Due Date: February 28, 2013) – AES filed a modification to the NOI form to seek coverage under the MSGP for the storm water discharges associated with industrial activity from the Facility and the marine cargo handling dock facilities into waters of the United States on August 29, 2013. No further action is required concerning the submittal of the NOI.

With Respect to Reporting and Notification

z. **Provision 28** (Reporting and Notification; Due Date: Immediately) – The first three (3) Bi-Monthly Status Reports were attached to cover letters dated January 16, 2012, March 14, 2012, and May 15, 2012. AES must continue to submit the Status Reports in accordance with this Provision of the ACO. **Table 8** includes the Status Reports submitted, and corresponding due dates and submittal dates.

Table 8

BI-MONTHLY STATUS REPORT NUMBER	DUE DATE	REPORT DATE
1st	January 16, 2012	January 16, 2012
2nd	March 15, 2012	March 14, 2012
3rd	May 15, 2012	May 15, 2012

[23] Temporary SP-004 and Permanent SP-001 are the same sampling points, which location did not change. Only the sampling point and discharge location names and number changed upon AES' completion of the structural BMPs on or about September 2013.

BI-MONTHLY STATUS REPORT NUMBER	DUE DATE	REPORT DATE
4th	July 16, 2012	July 16, 2012
5th	September 17, 2012	September 17, 2012
6th	November 15, 2012	November 14, 2012
7th	January 15, 2013	January 17, 2013
8th	March 15, 2013	March 15, 2013
9th	May 15, 2013	May 15, 2013
10th	July 15, 2013	July 15, 2013
11th	September 16, 2013	September 30, 2013
12th	November 15, 2013	November 21, 2013
13th	January 15, 2014	See note below.
14th	March 17, 2014	
15th	May 15, 2014	
16th	July 15, 2014	Not submitted

Note: AES submitted Status Reports on March 21, 2014 and June 13, 2014, but did not comply with the certain Status Reports submittals (*e.g.*, 1/15/14, 7/15/14).

9. EXIT MEETING

a. Upon completion of the Facility Walkthrough, the EPA Inspectors met with AES's representatives (engineers Mata, González and Ávila) to discuss the preliminary findings of the Inspection.

b. The EPA Inspector JR discussed several actions that are still pending completion, such as: maintenance of the Coal Pile Pond; stabilization to exposed storage materials (e.g., Aggremax™, pile, coal piles); and the revision of the SWPPP.

c. With respect to new Inspection's findings, the EPA Inspector JR indicated, among others: that the dust control in the Aggremax™ storage pile is inefficient; that fugitive emissions were observed through the Facility; that AES needs to re-configure the sampling points 002 and 003; that AES has not submitted a NOT; and that AES lacks an environmental management structure to handle all its environmental responsibilities.

d. The parties agreed to meet in mid-July 2014 to complete the discussions about the completion (or lack-of) of the structural BMPs approved in the EPA May 5, 2013 letter.

e. A copy of all the photographs and videos that the EPA's Inspector AR took during the course of the Inspection were provided on-site to engineer Ávila after completion of the exit meeting.

10. OTHER COMMENTS

a. The EPA Inspector AR main role in the Inspection was to conduct the Inspection's photo-documentation.

b. The EPA Inspector AR took all photographs and videos during the course of the Inspection using an EPA-owned camera, as described below:

Brand Name: Nikon
Model: Coolpix P510
Serial Number: 31106100.

11. POST INSPECTION MEETING WITH AES' REPRESENTATIVE

a. On July 16, 2014, the EPA Inspector JR met with AES' engineer Ávila at the EPA office in Guaynabo, Puerto Rico, to complete EPA's evaluation of AES' implementation of the structural BMPs at the Site pursuant to the EPA May 5, 2013 letter. In addition, EPA and AES representatives further discussed the preliminary findings of the Inspection, which are addressed herein above.

b. Engineer Ávila provided EPA with a pen drive containing draft documents (*e.g.*, draft report on BMP's implementation), which were used during this meeting.

c. Engineer Ávila clarified that AES produces between 22,000 and 25,000 tons of Aggremax™ per month, of which 70 percent is composed of fly/bed ashes and 30 percent is composed of water. He also indicated that the 70 percent of fly/bed ashes are composed on 20 percent bed ashes and 80 percent fly ashes.

d. Engineer Ávila also clarified that the typical barge that AES uses to export Aggremax™ has a volume storage between 25,000 and 35,000 tons, and that importation of Aggremax™ via barge transportation is very expensive.

12. POST INSPECTION RECORD'S REVIEW

The EPA Inspector JR performed a review of the documents submitted by AES, and the NPDES files available at the EPA Caribbean Environmental Protection Division located in Guaynabo, Puerto Rico.

The following findings concern the document review:

a. AES has not modified the SWPPP, as required by Part 5.2 of the MSGP and Provision 12 of the ACO.

b. AES was required to conduct another Annual Comprehensive Site Inspection on or before September 29, 2013 in accordance with Part 4.3.1 of the MSGP. By letter dated March 21, 2014, AES transmitted a copy of the Annual Reporting

Form, dated March 17, 2014, which corresponds to an Annual Comprehensive Site Inspection performed on December 19, 2013. The EPA Inspector JR reviewed this Annual Reporting Form, and found that:

1) AES did not include a copy of the Annual Comprehensive Site Inspection Report, as required in Part 7.2 of the MSGP;

2) the Annual Reporting Form was completed, signed and submitted late;[24]

3) the AES inspector found accumulated sediment in the drainage channel located at the southeast corner of the Facility. This situation was also found by the EPA Inspectors during the Facility Walkthrough.

c. The AES SWPPP does not contain a set of drawings depicting the areas where soils stabilization is required and the selected method, as required in Part 5.1.2 of the MSGP (*e.g.*, location of potential pollutant sources).

d. Part 7.1 of the MSGP requires AES to submit to EPA all monitoring data collected. When the EPA's online eNOI system isn't available, AES is required to submit the monitoring data using paper reporting forms. The paper reporting forms were to be sent to EPA within thirty (30) days of receiving the laboratory results. After review of the Bi-Monthly Status Reports, the EPA Inspector JR found that AES did not prepare and submit any EPA paper reporting forms to EPA including the for the benchmark monitoring laboratory data.[25]

13. RECOMMENDATIONS

a. It is recommended that a copy of this Report be provided to AES and the Environmental Quality Board of Puerto Rico. EPA should request AES to respond to all findings and observation of this Report.

b. Given AES' delays in complying with certain provisions of the ACO, which are discussed in this Report, it is recommended that EPA unilaterally close the ACO, and issued a new administrative compliance order (New ACO) pursuant to Section 309(a) of the CWA. This New ACO must require AES to comply with all pending provisions of the ACO and the non-compliance Inspection's findings with respect to the MSGP.

c. The New ACO should include request for information provisions to assure that AES submits a compliance plan of action including a detailed description of milestones and compliance dates.

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[24] AES should have submitted the annual report to EPA within forty five (45) days (February 2, 2014) after conducting the annual comprehensive site inspection.

[25] EPA strongly recommends that you use the MSGP discharge monitoring report (MDMR) available at www.epa.gov/npdes/stormwater/msgp.

End of Report

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08/26/14
Date

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Date