

Annual CCR Management and Dust Control Report

Chesser Island Road MSW Landfill

367 Chesser Island Road

Folkston, Georgia 31537

Coal Combustion Residuals (CCR)

Management Plan Annual Update

Permit #: 024-006D(SL)

March 3, 2021



This CCR Management and Dust Control Report is provided for compliance with the Solid Waste Regulations 391-3-4 and was prepared in accordance with the *Annual Coal Combustion Residuals (CCR) Management Plan and Dust Control Report Guidance Document* provided by the Georgia Department of Natural Resources, Environmental Protection Division (GA EPD) dated May 2018 and OCGA Solid Waste Management Rule 391-3-4-.07(5).

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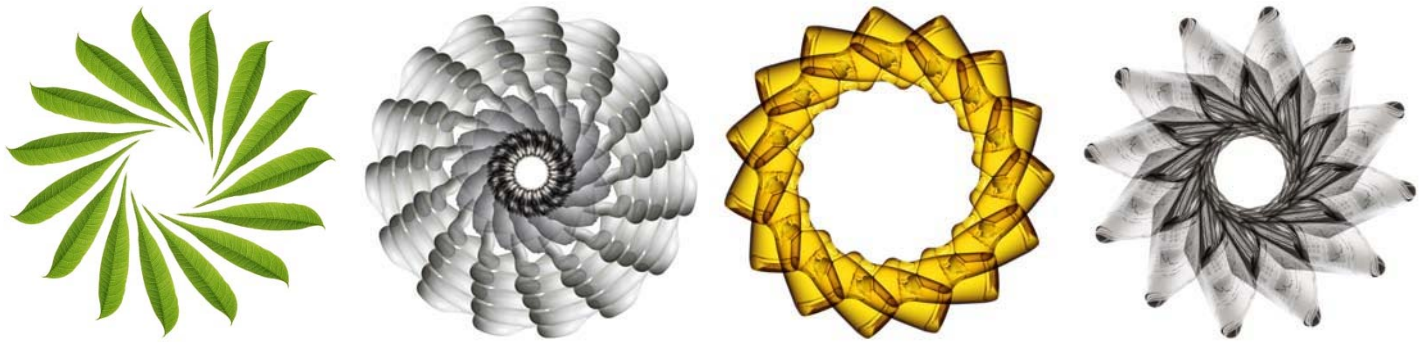
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Overview

The Chesser Island Road MSW Landfill is comprised of an active Municipal Solid Waste (MSW) Landfill (LF) unit that is separated in two phases and a closed MSW LF unit that also contains two phases. The closed areas are known as Phase 1 and Phase 2 while the active portions are Phase 3 and Phase 4. The facility's current CCR Management Plan was originally established through a minor modification approved by GA EPD on May 19, 2017. This plan was subsequently modified through an additional minor modification approved by GA EPD on February 21, 2020.

This CCR Management and Dust Control Report is prepared in accordance with the facilities current CCR Management Plan and approved D&O Plan. As described herein, CCR management practices at the facility were consistent with the approved CCR Management Plan during the past calendar year (i.e. January 1 through December 31). Additional customers or types of CCR were not added during the previous year. The CCR to non-CCR ratio for waste accepted at the facility was below the maximum permitted CCR to non-CCR ratio.

At this time, the facility has a CCR Management Plan minor modification application under review that was submitted on October 5, 2020. This Annual CCR Management and Dust Control Report is not proposing changes to the facility's operational practices, presenting additional calculations, adding additional CCR customers, or types of CCR shown in the permitted plan. As such, a Professional Engineer's (PE) seal is not required for this Annual Report per the *Annual Coal Combustion Residuals (CCR) Management Plan and Dust Control Report Guidance Document* dated May 2018. However, the facility's Design and Operational (D&O) Plan indicates the Annual CCR Report shall be sealed by a Georgia Registered PE; therefore, this Annual CCR Report has been sealed by a Georgia Registered PE.

CCR Management Activities

1. CCR and Non-CCR Waste received during the past year

a. CCR Monofill

- i. List of type and source(s) of CCR
- ii. Annual amount of CCR
- iii. Daily maximum amount of CCR

Not applicable. The facility did not place CCR waste in a monofill cell or monofill landfill.

b. Comingled CCR and Non-CCR Waste

- i. List of type(s) and source(s) of CCR, and other types of non-CCR waste, such as, municipal, industrial, or commercial solid waste

Hydrated CCR - Keystone Terminal

MSW, Commercial Waste, Industrial Waste, C&D, Inert Waste, and Sludge

- ii. Annual amount of CCR
594,866 tons

- iii. Daily maximum amount of CCR
3,038 tons

The estimated maximum CCR tonnages per day within the D&O Plan are based on an average determined by dividing the estimated CCR tonnages per a year by the number of operating days, thus not considering the possibility of a peak day events. If this same methodology was used to determine the daily amount of CCR in 2020, the average daily maximum would be 2,547 tons per day. This isolated occurrence did not have an impact on the overall waste mass density.

- iv. Annual amount of non-CCR waste
907,177 tons

- v. Daily maximum amount of non-CCR waste
3,842 tons

- vi. Maximum ratio of CCR to non-CCR waste
1:1.52

2. Waste Placement, Cover, and Recovery

a. Management and maximum area of the working face

Management of the working face and maximum area of the working face were maintained in accordance with Section 2 of the Operational Narrative on Sheet 26 of the D&O Plan.

b. Waste placement and compaction for CCR lifts and comingled waste

CCR waste received at the facility was placed in individual CCR only lifts "block filled" in Stages 3, 4, 5, and



6A. CCR waste was not co-mingled at the same working face as MSW. Procedures for controlled unloading, placement, and compaction of CCR waste were conducted in accordance with the approved CCR Management Plan. Due to the consistent physical nature of the CCR material and sourcing, the original test pad results have been used to guide placement and compaction efforts to date. The results of the original test pads are contained in Appendix A for reference.

- c. Leachate outbreaks frequency, corrective actions taken, and if there is a need to install drainage layers such as chimney drains
No leachate outbreaks were observed in layers of waste containing CCR wastes.
- d. Daily cover of comingled CCR and non-CCR waste
Procedures for the placement of daily cover were conducted in accordance with the Operational Narrative on Sheet 26 of the D&O Plan.
- e. Statement verifying that daily inspection reports are kept on-site in accordance with the current D&O Plans
Records of all waste transported to the site along with daily logs and operational records are retained at the facility site office building. All record keeping is in accordance with the Georgia Rules for Solid Waste Management 391-3-7-.07(3)(u).
- f. Management of solidification operation using CCR as a solidification agent, and sample records of paint filter tests, if applicable
CCR waste was not used in a solidification process.
- g. Recovery of previously disposed CCR for beneficial reuse, if applicable
None of the previously placed CCR material was harvested for beneficial reuse.

3. Fugitive Dust Control

- a. Actions taken to control CCR fugitive dust from CCR disposal unit, roads, conditioning areas, and solidification operation; and effectiveness of those actions
Wastes are transported on trucks with covers to prevent the escape of dust during transport. Only hydrated CCR material was accepted at the facility which was spread and compacted as it was received. The onsite water truck is used to control dust site-wide and was used on CCR material if additional dust control was needed. The facility has remained compliant with requirements established by Air Quality Rule 391-3-1-.02(2)(n)1.
- b. Records of Citizen Complaints specifically related to CCR Management, if applicable
The facility did not receive any complaints related to dust during the reporting period.
- c. Recommendations to improve dust control measures in the future, if applicable to CCR Materials
Adding water has proved to be most effective.

4. Leachate Collection and Removal System

- a. Any known issues with the Leachate Collection and Removal System (LCRS) that are directly attributed the CCR
The facility's leachate collection, removal, and storage system are in good working order with no known issues related to the disposal of CCR materials.



5. Storm Water - Management System

- a. Narrative describing measures used to ensure that surface water contacting CCR and non-CCR waste has not been discharged into the stormwater management system

The working face was managed to ensure that surface water contacting CCR and non-CCR waste was not discharged into the stormwater management system (a collection of permitted sediment ponds). This was accomplished by placing and compacting material away from the side slopes, using soil diversion berms near side slopes, use of silt fence and haybale features, and by sloping the working face into the waste mass. The sediment pond outfalls and site discharge points are monitored as part of the approved Groundwater and Surface Water Monitoring Plan. Monitoring for appropriate Appendix III/IV constituents is part of the plan for surface water points.

6. Waste Compatibility

- a. Any incompatibility issues and corrective measures taken

Per Section 3 of the Operational Narrative on Sheet 26 of the D&O Plan, all CCR waste streams entering the facility are to be tested for compatibility. The material sources and general physical characteristics have remained consistent with those indicated in the approved CCR Management Plan. Analytical laboratory results are included in Appendix B for reference. No known issues with CCR material compatibility were identified within the reporting period.

If acceptance of a new type of CCR material necessitates changes to the facility's design or operations, a CCR Management Plan modification application will be submitted the GA EPD.

- b. For a solidification process, if CCR is used as a solidification agent
 - i. List of types(s) and source(s) of CCR and types of liquid waste streams received for solidification prior to disposal
 - ii. Sample records of compatibility analyses

Not applicable. The facility did not use CCR waste in a solidification process.

7. Groundwater Monitoring

- a. The Environmental Monitoring Unit will assess groundwater monitoring data and will determine if the groundwater monitoring plan requires revision.

The environmental monitoring program for the facility was modified during the development of the CCR Management Plan to include appropriate Appendix III/IV analytical parameters in accordance with EPA recommendations and GA EPD Regulations suitable for detection of CCR related constituents. The approved Groundwater Monitoring Plan is in place and the current data does not suggest confirmed impacts at these monitoring points as a result of handling CCR material.

8. Emergencies

- a. Any event or circumstances that represented an operational or environmental emergency at the corrective actions taken specific to the management of CCR.

No operational or environmental emergency events or circumstances specific to the management of CCR were noted during this reporting period.



9. Documentation of Notification to Local Governments

- a. Per the facility's D&O Plan, the owner or operator shall notify the local governing authorities within the county in which the landfill is located if the CCR Management Plan is amended and approved by EPD. Copies of the correspondence to local governing authority must be provided to EPD.

An amended plan is not being issued as part of the Annual CCR Report submittal. As such, notifications to local governing authorities are not required at this time.

Conclusion

Landfill design considerations relative to CCR acceptance as outlined in the *Guidance Document for Coal Combustion Residuals (CCR) Management Plans* dated December 22, 2016 were addressed in the facility's CCR Management Plan approved by GA EPD. The landfill design does not need updates or revisions in connection with CCR material acceptance over the previous year.

The operational and maintenance activities at Chesser Island Road MSW Landfill relative to CCR disposal and management during the previous year were performed in compliance with the approved CCR Management Plan for the facility approved on February 21, 2020. No new sources of CCR were added and the facility maintained the CCR to non-CCR ratio below the maximum permitted ratio.

The current CCR management practices required by the facility's D&O Plan meet the CCR disposal requirements of the OCGA's Solid Waste Management Rule 391-3-4-.07(5), the *Guidance Document for Coal Combustion Residuals (CCR) Management Plans* dated December 22, 2016, and the *Annual Coal Combustion Residuals (CCR) Management Plan and Dust Control Report Guidance Document* dated May 2018.

The facility currently has a CCR Management Plan minor modification application under review that was submitted on October 5, 2020 which proposes the following:

- Optimizes the existing facility design and establishes the total allowable CCR acceptance tonnages for each stage. The CCR tonnages in the minor modification does not represent the CCR tonnages intended to be disposed at the facility but rather the maximum tonnage that the facility design can safely accept.
- Amended verbiage to better align and provide clarification as it pertains to the unloading of CCR material placed in individual lifts.
- Modifies CCR sources verbiage to align with other approved CCR Management Plans regarding the approval of new customers.

Since the CCR Management Plan minor modification under review incorporates all currently proposed changes, this Annual CCR Report does not propose additional modifications. The facilities operational protocols will remain unchanged until an amended CCR Management Plan is approved by GA EPD.

Appendix A

Test Pad Results

Ash

MOISTURE DENSITY TEST SHEET
NUCLEAR DENSITY GAUGE METHOD
ASTM D 3017 / 2922

PROJECT NUMBER: 1014.122DATE OF TEST: 10-1-16PROJECT TITLE: Phase 4, Stage 7ATESTED BY: DDPROJECT LOCATION: Folkston, Georgia

| | | | | | | | | |
|----------------------------------|-------|-------|-------|-------|--|--|--|--|
| TEST NUMBER | | A-35 | A-36 | A-37 | | | | |
| TEST LOCATION | NORTH | see | ~~~~~ | ~~~~~ | | | | |
| | EAST | map | ~~~~~ | ~~~~~ | | | | |
| TEST ELEVATION OR LIFT | | ~~~~~ | ~~~~~ | ~~~~~ | | | | |
| TEST DEPTH | | 12" | 12" | 12" | | | | |
| WET DENSITY (pcf) | | 101.5 | 95.9 | 88.6 | | | | |
| MOISTURE (%) | | 24.0 | 24.4 | 13.1 | | | | |
| DRY DENSITY (pcf) | | 81.9 | 77.1 | 78.4 | | | | |
| LABORATORY PROCTOR CURVE NUMBER | | A26-3 | A26-3 | A26-3 | | | | |
| MAXIMUM DRY DENSITY (pcf) | | 84.5 | 84.5 | 84.5 | | | | |
| OPTIMUM MOISTURE (%) | | 14.6 | 14.6 | 14.6 | | | | |
| PERCENT COMPACTION (%) | | 96.4 | 91.2 | 92.7 | | | | |
| DIFFERENCE FROM OPTIMUM MOISTURE | | +9.4 | +9.8 | -1.5 | | | | |
| DENSITY RESULT PASS/FAIL (P/F) | | ~~~~~ | ~~~~~ | ~~~~~ | | | | |
| MOISTURE RESULT PASS/FAIL (P/F) | | ~~~~~ | ~~~~~ | ~~~~~ | | | | |

SPECIFICATIONS:

DAILY STANDARD COUNT:

% STANDARD / MODIFIED PROCTOR: 90%

DENSITY COUNT: _____

% OF OPTIMUM MOISTURE CONTENT: NA

MOISTURE COUNT: _____

CHECKED BY: _____

DATE: _____

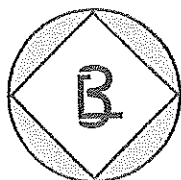
ATLANTIC COAST CONSULTING, INC

Asht 10-1-16



Appendix B

CCR Compatibility and Characterization Data



BECKTON ENVIRONMENTAL
LABORATORIES, INC.



REPORT OF ANALYSIS

ATTENTION: Mr. Héctor Ávila
COMPANY: AES Puerto Rico - Guayama

DATE: January 29, 2016

CONTRACT: AES - Guayama

SAMPLE IDENTIFICATION: AGREMAX

SAMPLER: Client (G. Rosario)
MATRIX: Solid
SAMPLE WT/VOL: 25 (g/mL) g

LAB. SAMPLE ID: BEL-1600190
LAB. FILE ID: 1600190
DATE SAMPLED: 01/20/16
DATE RECEIVED: 01/20/16
DATE EXTRACTED: 01/22/16 (TCLP)
DATE ANALYZED: 01/28/16 (Metals)
01/29/16 (Hg)

ANALYST: BTR (Metals)
HS (Hg)

MAXIMUM CONCENTRATION OF CONTAMINANTS FOR CHARACTERISTIC OF TCLP TOXICITY

| EPA HAZARDOUS WASTE NUMBER | CONTAMINANT | BEL-1600190 RESULTS (mg/L) | METHOD DETECTION LIMIT (mg/L) | REGULATORY LEVEL (mg/L) |
|-------------------------------|-------------|----------------------------------|-------------------------------------|-------------------------------|
|-------------------------------|-------------|----------------------------------|-------------------------------------|-------------------------------|

METALS (SW 846 6010C/7470A)

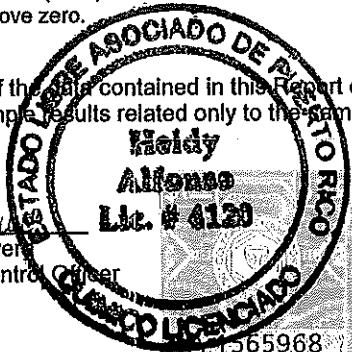
| | | | | |
|------|----------|----------|------------------------|-------|
| D004 | Arsenic | 0.004 | 0.002 | 5.0 |
| D005 | Barium | 0.198 | 0.002 | 100.0 |
| D006 | Cadmium | <0.001 | 0.001 | 1.0 |
| D007 | Chromium | 0.011 | 0.002 | 5.0 |
| D008 | Lead | 0.004 | 0.002 | 5.0 |
| D009 | Mercury | <0.00010 | 0.00010 ⁽¹⁾ | 0.2 |
| D010 | Selenium | 0.137 | 0.001 | 1.0 |
| D011 | Silver | <0.001 | 0.001 | 5.0 |

⁽¹⁾Dilution Factor: 2

Method Detection Limit (MDL)-The minimum concentration of a substance that can be measured and reported with 99% confidence that the value is above zero.

Certification and release of the data contained in this Report of Analysis has been authorized by the Laboratory Manager or the Manager's Designee. Sample results related only to the sample submitted.

Heidy E. Alfonso Rivero
Lda. Heidy E. Alfonso Rivero
Operations and Quality Control Officer
Chemist License 4120



Attachment: Chain of Custody Record (1)

THE NELAC CERTIFIED ANALYSES MEET THE REQUIREMENTS OF NELAC STANDARDS.
REFER OUR SERVICE DEPARTMENT FOR THE CURRENT LIST OF CERTIFIED ANALYSES.
CERTIFIED BY THE STATE OF FLORIDA DEPARTMENT OF HEALTH AND REHABILITATION SERVICES FOR ENVIRONMENTAL TESTING
• CERTIFICATION NUMBER E87556 •
192 VILLA STREET • PONCE, PR 00730-4875 • TEL. (787) 841-7373 • FAX (787) 841-7313



BECKTON ENVIRONMENTAL
LABORATORIES, INC.



REPORT OF ANALYSIS

ATTENTION: Mr. Héctor Ávila
COMPANY: AES Puerto Rico - Guayama

DATE: March 1, 2016

CONTRACT: AES - Guayama

SAMPLE IDENTIFICATION: AGREMAX

SAMPLER: Client (G. Rosario)
MATRIX: Solid
SAMPLE WT/VOL: 25 (g/mL) g

LAB. SAMPLE ID: BEL-1600469
LAB. FILE ID: 1600469
DATE SAMPLED: 02/11/16
DATE RECEIVED: 02/11/16
DATE EXTRACTED: 02/12/16 (TCLP)
DATE ANALYZED: 02/22/16 (Metals)
02/17/16 (Hg)

ANALYST: BTR (Metals)
HS (Hg)

MAXIMUM CONCENTRATION OF CONTAMINANTS FOR CHARACTERISTIC OF TCLP TOXICITY

| EPA HAZARDOUS WASTE NUMBER | CONTAMINANT | BEL-1600469 RESULTS (mg/L) | METHOD DETECTION LIMIT (mg/L) | REGULATORY LEVEL (mg/L) |
|-------------------------------|-------------|----------------------------------|-------------------------------------|-------------------------------|
|-------------------------------|-------------|----------------------------------|-------------------------------------|-------------------------------|

METALS (SW 846 6010C/7470A)

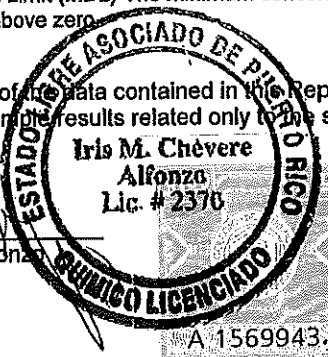
| | | | | |
|------|----------|----------|---------|-------|
| D004 | Arsenic | 0.013 | 0.002 | 5.0 |
| D005 | Barium | 0.125 | 0.002 | 100.0 |
| D006 | Cadmium | <0.001 | 0.001 | 1.0 |
| D007 | Chromium | 0.007 | 0.002 | 5.0 |
| D008 | Lead | 0.006 | 0.002 | 5.0 |
| D009 | Mercury | <0.00005 | 0.00005 | 0.2 |
| D010 | Selenium | 0.156 | 0.001 | 1.0 |
| D011 | Silver | <0.001 | 0.001 | 5.0 |

Method Detection Limit (MDL)-The minimum concentration of a substance that can be measured and reported with 99% confidence that the value is above zero.

Certification and release of the data contained in this Report of Analysis has been authorized by the Laboratory Manager or the Manager's Designee. Sample results related only to the sample submitted.

Iris M. Chévere
Alfonzo
Lic. # 2370

Lcda. Iris M. Chévere Alfonzo
Laboratory Director
Chemist License 2370



Attachment: Chain of Custody Record (1)

PAGE 1 OF 1

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REPORT OF ANALYSIS

ATTENTION: Mr. Héctor Ávila
COMPANY: AES Puerto Rico - Guayama

DATE: March 31, 2016

CONTRACT: AES - Guayama

SAMPLE IDENTIFICATION: AGREMAX

SAMPLER: Client
MATRIX: Solid
SAMPLE WT/VOL: 25 (g/mL) g

LAB. SAMPLE ID: BEL-1600809
LAB. FILE ID: 1600809
DATE SAMPLED: 03/15/16
DATE RECEIVED: 03/15/16
DATE EXTRACTED: 03/16/16 (TCLP)
DATE ANALYZED: 03/28/16 (Metals)
03/17/16 (Hg)

ANALYST: HS (Metals)
BTR (Hg)

MAXIMUM CONCENTRATION OF CONTAMINANTS FOR CHARACTERISTIC OF TCLP TOXICITY

| EPA HAZARDOUS WASTE NUMBER | CONTAMINANT | BEL-1600809 RESULTS (mg/L) | METHOD DETECTION LIMIT (mg/L) | REGULATORY LEVEL (mg/L) |
|-------------------------------|-------------|----------------------------------|-------------------------------------|-------------------------------|
|-------------------------------|-------------|----------------------------------|-------------------------------------|-------------------------------|

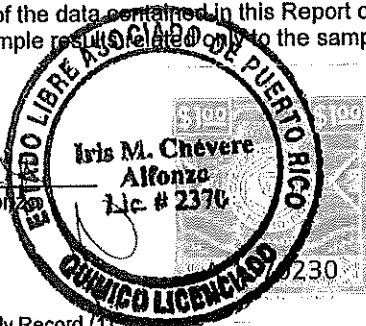
METALS (SW 846 6010C/7470A)

| | | | | |
|------|----------|----------|---------|-------|
| D004 | Arsenic | 0.004 | 0.002 | 5.0 |
| D005 | Barium | 0.091 | 0.002 | 100.0 |
| D006 | Cadmium | <0.001 | 0.001 | 1.0 |
| D007 | Chromium | 0.012 | 0.002 | 5.0 |
| D008 | Lead | 0.003 | 0.002 | 5.0 |
| D009 | Mercury | <0.00005 | 0.00005 | 0.2 |
| D010 | Selenium | 0.080 | 0.001 | 1.0 |
| D011 | Silver | <0.001 | 0.001 | 5.0 |

Method Detection Limit (MDL)-The minimum concentration of a substance that can be measured and reported with 99% confidence that the value is above zero.

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Lcda. Iris M. Chévere Alfonzo
Laboratory Director
Chemist License 2370



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REPORT OF ANALYSIS

ATTENTION: Mr. Héctor Ávila
COMPANY: AES Puerto Rico - Guayama

DATE: May 5, 2016

CONTRACT: AES - Guayama

SAMPLE IDENTIFICATION: Agremax

SAMPLER: Client
MATRIX: Solid
SAMPLE WT/VOL: 25 (g/mL) g.

LAB. SAMPLE ID: BEL-1601163
LAB. FILE ID: 1601163
DATE SAMPLED: 04/12/16
DATE RECEIVED: 04/12/16
DATE EXTRACTED: 04/21/16(TCLP)
DATE ANALYZED: 05/02/16 (Metals)
05/03/16 (Hg)

ANALYST: BTR (Metals)
HS (Hg)

MAXIMUM CONCENTRATION OF CONTAMINANTS FOR CHARACTERISTIC OF TCLP TOXICITY

| EPA HAZARDOUS WASTE NUMBER | CONTAMINANT | BEL-1601163 RESULTS (mg/L) | METHOD DETECTION LIMIT (mg/L) | REGULATORY LEVEL (mg/L) |
|-------------------------------|-------------|----------------------------------|-------------------------------------|-------------------------------|
|-------------------------------|-------------|----------------------------------|-------------------------------------|-------------------------------|

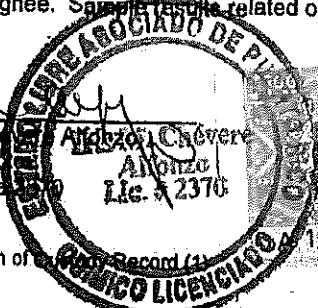
METALS (SW 846 6010C/7470A)

| | | | | |
|------|----------|----------|---------|-------|
| D004 | Arsenic | <0.002 | 0.002 | 5.0 |
| D005 | Barium | 0.222 | 0.002 | 100.0 |
| D006 | Cadmium | <0.001 | 0.001 | 1.0 |
| D007 | Chromium | 0.056 | 0.002 | 5.0 |
| D008 | Lead | 0.004 | 0.002 | 5.0 |
| D009 | Mercury | <0.00005 | 0.00005 | 0.2 |
| D010 | Selenium | 0.082 | 0.001 | 1.0 |
| D011 | Silver | <0.001 | 0.001 | 5.0 |

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the value is above zero.

Certification and release of the data contained in this Report of Analysis has been authorized by the Laboratory Manager or the Manager's Designee. Sample results related only to the sample submitted.

Lcda. Iris M. Chévere
Laboratory Director
Chemist License # 1575391



Attachment: Chain of Custody Record (1)

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•CERTIFICATION NUMBER E87556•

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REPORT OF ANALYSIS

ATTENTION: Mr. Héctor Ávila
COMPANY: AES Puerto Rico - Guayama

DATE: June 10, 2016

CONTRACT: AES - Guayama

SAMPLE IDENTIFICATION: AGREMAX

SAMPLER: Client (Gil Rosario)
MATRIX: Solid
SAMPLE WT/VOL: 150/10 (g/ml) g

LAB. SAMPLE ID: BEL-1601633
LAB. FILE ID: 1601633
DATE SAMPLED: 05/12/16
DATE RECEIVED: 05/12/16
DATE EXTRACTED: 05/19/16
DATE ANALYZED: 05/31/16 (Metals)
05/31/16 (Hg)

ANALYST: HS (Metals)
HS (Hg)

MAXIMUM CONCENTRATION OF CONTAMINANTS FOR CHARACTERISTIC OF TCLP TOXICITY

| EPA HAZARDOUS WASTE NUMBER | CONTAMINANT | BEL-1601633 RESULTS (mg/L) | METHOD DETECTION LIMIT (mg/L) | REGULATORY LEVEL (mg/L) |
|-------------------------------|-------------|----------------------------------|-------------------------------------|-------------------------------|
|-------------------------------|-------------|----------------------------------|-------------------------------------|-------------------------------|

METALS (SW 846 6010C/7470A)

| | | | | |
|------|----------|----------|---------|-------|
| D004 | Arsenic | <0.002 | 0.002 | 5.0 |
| D005 | Barium | 0.123 | 0.002 | 100.0 |
| D006 | Cadmium | <0.001 | 0.001 | 1.0 |
| D007 | Chromium | 0.003 | 0.002 | 5.0 |
| D008 | Lead | <0.002 | 0.002 | 5.0 |
| D009 | Mercury | <0.00005 | 0.00005 | 0.2 |
| D010 | Selenium | 0.081 | 0.001 | 1.0 |
| D011 | Silver | <0.001 | 0.001 | 5.0 |

PAGE 1 OF 5

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REPORT OF ANALYSIS

ATTENTION: Mr. Héctor Ávila
COMPANY: AES Puerto Rico - Guayama

DATE: July 12, 2016

CONTRACT: AES - Guayama

SAMPLE IDENTIFICATION: AGRE MAX

SAMPLER: Client (Gil Rosario)
MATRIX: Solid
SAMPLE WT/VOL: 120/10 (g/ml) g

LAB. SAMPLE ID: BEL-1602063
LAB. FILE ID: 1602063
DATE SAMPLED: 06/03/16
DATE RECEIVED: 06/16/16
DATE EXTRACTED: 06/17/16
DATE ANALYZED: 07/08/16 (Metals)
06/30/16 (Hg)

ANALYST: BTR (Metals)
HS (Hg)

MAXIMUM CONCENTRATION OF CONTAMINANTS FOR CHARACTERISTIC OF TCLP TOXICITY

| EPA HAZARDOUS WASTE NUMBER | CONTAMINANT | BEL-1602063 RESULTS (mg/L) | METHOD DETECTION LIMIT (mg/L) | REGULATORY LEVEL (mg/L) |
|-------------------------------|-------------|----------------------------------|-------------------------------------|-------------------------------|
|-------------------------------|-------------|----------------------------------|-------------------------------------|-------------------------------|

METALS (SW 846 6010C/7470A)

| | | | | |
|------|----------|----------|---------|-------|
| D004 | Arsenic | <0.002 | 0.002 | 5.0 |
| D005 | Barium | 0.491 | 0.002 | 100.0 |
| D006 | Cadmium | <0.001 | 0.001 | 1.0 |
| D007 | Chromium | 0.015 | 0.002 | 5.0 |
| D008 | Lead | <0.002 | 0.002 | 5.0 |
| D009 | Mercury | <0.00005 | 0.00005 | 0.2 |
| D010 | Selenium | 0.048 | 0.001 | 1.0 |
| D011 | Silver | <0.001 | 0.001 | 5.0 |

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THE NELAC CERTIFIED ANALYSES MEET ALL REQUIREMENTS OF NELAC STANDARDS.
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•CERTIFICATION NUMBER E87556•
CERTIFIED BY THE PUERTO RICO DEPARTMENT OF HEALTH (PRDOH) EPA CODE #PR00012
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REPORT OF ANALYSIS

ATTENTION: Mr. Héctor Ávila
COMPANY: AES Puerto Rico - Guayama

DATE: August 5, 2016

CONTRACT: AES - Guayama

SAMPLE IDENTIFICATION: AGREMAX

SAMPLER: Client (H. Ávila)
MATRIX: Solid
SAMPLE WT/VOL: 100 (g/ml) g

LAB. SAMPLE ID: BEL-1602448
LAB. FILE ID: 1602448
DATE SAMPLED: 07/19/16
DATE RECEIVED: 07/19/16
DATE EXTRACTED: 07/28/16
DATE ANALYZED: 08/02/16 (Metals)
08/02/16 (Hg)

ANALYST: BTR (Metals)
HS (Hg)

MAXIMUM CONCENTRATION OF CONTAMINANTS FOR CHARACTERISTIC OF TCLP TOXICITY

| EPA HAZARDOUS WASTE NUMBER | CONTAMINANT | BEL-1602448 RESULTS (mg/L) | METHOD DETECTION LIMIT (mg/L) | REGULATORY LEVEL (mg/L) |
|-------------------------------|-------------|----------------------------------|-------------------------------------|-------------------------------|
|-------------------------------|-------------|----------------------------------|-------------------------------------|-------------------------------|

METALS (SW 846 6010C/7470A)

| | | | | |
|------|----------|----------|---------|-------|
| D004 | Arsenic | 0.002 | 0.002 | 5.0 |
| D005 | Barium | 0.220 | 0.002 | 100.0 |
| D006 | Cadmium | <0.001 | 0.001 | 1.0 |
| D007 | Chromium | 0.010 | 0.002 | 5.0 |
| D008 | Lead | 0.008 | 0.002 | 5.0 |
| D009 | Mercury | <0.00005 | 0.00005 | 0.2 |
| D010 | Selenium | 0.178 | 0.001 | 1.0 |
| D011 | Silver | <0.001 | 0.001 | 5.0 |



REPORT OF ANALYSIS

ATTENTION: Mr. Héctor Ávila
COMPANY: AES Puerto Rico - Guayama

DATE: September 2, 2016

CONTRACT: AES - Guayama

SAMPLE IDENTIFICATION: AGREMAX

SAMPLER: Client (H. Ávila)
MATRIX: Solid
SAMPLE WT/VOL: 25 (g/ml) g

LAB. SAMPLE ID: BEL-1602842
LAB. FILE ID: 1602842
DATE SAMPLED: 08/10/16
DATE RECEIVED: 08/24/16
DATE EXTRACTED: 08/26/16
DATE ANALYZED: 09/01/16 (Metals)
08/30/16 (Hg)

ANALYST: HS (Metals)
HS (Hg)

MAXIMUM CONCENTRATION OF CONTAMINANTS FOR CHARACTERISTIC OF TCLP TOXICITY

| EPA HAZARDOUS WASTE NUMBER | CONTAMINANT | BEL-1602842 RESULTS (mg/L) | METHOD DETECTION LIMIT (mg/L) | REGULATORY LEVEL (mg/L) |
|-------------------------------|-------------|----------------------------------|-------------------------------------|-------------------------------|
|-------------------------------|-------------|----------------------------------|-------------------------------------|-------------------------------|

METALS (SW 846 6010C/7470A)

| | | | | |
|------|----------|----------|---------|-------|
| D004 | Arsenic | 0.004 | 0.002 | 5.0 |
| D005 | Barium | 0.167 | 0.002 | 100.0 |
| D006 | Cadmium | <0.001 | 0.001 | 1.0 |
| D007 | Chromium | 3.012 | 0.002 | 5.0 |
| D008 | Lead | <0.002 | 0.002 | 5.0 |
| D009 | Mercury | <0.00005 | 0.00005 | 0.2 |
| D010 | Selenium | 0.108 | 0.001 | 1.0 |
| D011 | Silver | <0.001 | 0.001 | 5.0 |

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REPORT OF ANALYSIS

ATTENTION: Mr. Héctor Ávila
COMPANY: AES Puerto Rico - Guayama

DATE: September 29, 2016

CONTRACT: AES - Guayama

SAMPLE IDENTIFICATION: AGREMAX

SAMPLER: Client (Gil Rosario)
MATRIX: Solid
SAMPLE WT/VOL: 25 (g/ml) g

LAB. SAMPLE ID: BEL-1603251
LAB. FILE ID: 1603251
DATE SAMPLED: 09/08/16
DATE RECEIVED: 09/20/16
DATE EXTRACTED: 09/22/16
DATE ANALYZED: 09/27/16 (Metals)
09/27/16 (Hg)

ANALYST: BTR (Metals)
HS (Hg)

MAXIMUM CONCENTRATION OF CONTAMINANTS FOR CHARACTERISTIC OF TCLP TOXICITY

| EPA HAZARDOUS WASTE NUMBER | CONTAMINANT | BEL-1603251 RESULTS (mg/L) | METHOD DETECTION LIMIT (mg/L) | REGULATORY LEVEL (mg/L) |
|-------------------------------|-------------|----------------------------------|-------------------------------------|-------------------------------|
|-------------------------------|-------------|----------------------------------|-------------------------------------|-------------------------------|

METALS (SW 846 6010C/7470A)

| | | | | |
|------|----------|----------|---------|-------|
| D004 | Arsenic | <0.002 | 0.002 | 5.0 |
| D005 | Barium | 0.279 | 0.002 | 100.0 |
| D006 | Cadmium | <0.001 | 0.001 | 1.0 |
| D007 | Chromium | 0.019 | 0.002 | 5.0 |
| D008 | Lead | 0.007 | 0.002 | 5.0 |
| D009 | Mercury | <0.00005 | 0.00005 | 0.2 |
| D010 | Selenium | 0.098 | 0.001 | 1.0 |
| D011 | Silver | <0.001 | 0.001 | 5.0 |

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REPORT OF ANALYSIS

ATTENTION: Mr. Héctor Ávila
COMPANY: AES Puerto Rico - Guayama

DATE: November 21, 2016

CONTRACT: AES - Guayama

SAMPLE IDENTIFICATION: AGREMAX

SAMPLER: Client (Gil Rosario)
MATRIX: Solid
SAMPLE WT/VOL: 25 (g/ml) g

LAB. SAMPLE ID: BEL-1603820
LAB. FILE ID: 1603820
DATE SAMPLED: 10/20/16
DATE RECEIVED: 10/20/16
DATE EXTRACTED: 10/27/16
DATE ANALYZED: 11/17/16 (Metals)
11/16/16 (Hg)

ANALYST: BTR (Metals)
HS (Hg)

MAXIMUM CONCENTRATION OF CONTAMINANTS FOR CHARACTERISTIC OF TCLP TOXICITY

| EPA HAZARDOUS WASTE NUMBER | CONTAMINANT | BEL-1603820 RESULTS (mg/L) | METHOD DETECTION LIMIT (mg/L) | REGULATORY LEVEL (mg/L) |
|-------------------------------|-------------|----------------------------------|-------------------------------------|-------------------------------|
|-------------------------------|-------------|----------------------------------|-------------------------------------|-------------------------------|

METALS (SW 846 6010C/7470A)

| | | | | |
|------|----------|----------|---------|-------|
| D004 | Arsenic | <0.002 | 0.002 | 5.0 |
| D005 | Barium | 0.347 | 0.002 | 100.0 |
| D006 | Cadmium | <0.001 | 0.001 | 1.0 |
| D007 | Chromium | 0.021 | 0.002 | 5.0 |
| D008 | Lead | <0.002 | 0.002 | 5.0 |
| D009 | Mercury | <0.00005 | 0.00005 | 0.2 |
| D010 | Selenium | 0.028 | 0.001 | 1.0 |
| D011 | Silver | <0.001 | 0.001 | 5.0 |

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REPORT OF ANALYSIS

ATTENTION: Mr. Héctor Ávila
COMPANY: AES Puerto Rico - Guayama

DATE: December 30, 2016

CONTRACT: AES - Guayama

SAMPLE IDENTIFICATION: Agremax

SAMPLER: Client (G. Rosario)
MATRIX: Solid
SAMPLE WT/VOL: 125/10 (g/mL) g

LAB. SAMPLE ID: BEL-1604343
LAB. FILE ID: 1604343
DATE SAMPLED: 11/23/16
DATE RECEIVED: 11/23/16
DATE EXTRACTED: 11/29/16
DATE ANALYZED: 12/06/16 (Metals)
12/06/16 (Hg)

ANALYST: BTR (Metals)
HS (Hg)

MAXIMUM CONCENTRATION OF CONTAMINANTS FOR CHARACTERISTIC OF TCLP TOXICITY

| EPA HAZARDOUS WASTE NUMBER | CONTAMINANT | BEL-1604343 RESULTS (mg/L) | METHOD DETECTION LIMIT (mg/L) | REGULATORY LEVEL (mg/L) |
|-------------------------------|-------------|----------------------------------|--|-------------------------------|
|-------------------------------|-------------|----------------------------------|--|-------------------------------|

METALS (SW 846 6010C/7470A)

| | | | | |
|------|----------|----------|---------|-------|
| D004 | Arsenic | <0.002 | 0.002 | 5.0 |
| D005 | Barium | 0.232 | 0.002 | 100.0 |
| D006 | Cadmium | <0.001 | 0.001 | 1.0 |
| D007 | Chromium | 0.018 | 0.002 | 5.0 |
| D008 | Lead | <0.002 | 0.002 | 5.0 |
| D009 | Mercury | <0.00005 | 0.00005 | 0.2 |
| D010 | Selenium | 0.082 | 0.001 | 1.0 |
| D011 | Silver | <0.001 | 0.001 | 5.0 |

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REPORT OF ANALYSIS

ATTENTION: Mr. Héctor Ávila
COMPANY: AES Puerto Rico - Guayama

DATE: January 23, 20117

CONTRACT: AES - Guayama

SAMPLE IDENTIFICATION: AGREMAX

SAMPLER: Client (Gil Rosario)
MATRIX: Solid
SAMPLE WT/VOL: 25 (g/ml) g

LAB. SAMPLE ID: BEL-1604876
LAB. FILE ID: 1604876
DATE SAMPLED: 12/27/16
DATE RECEIVED: 12/27/16
DATE EXTRACTED: 01/05/17
DATE ANALYZED: 01/13/17 (Metals)
01/12/17 (Hg)

ANALYST: BTR (Metals)
HS (Hg)

MAXIMUM CONCENTRATION OF CONTAMINANTS FOR CHARACTERISTIC OF TCLP TOXICITY

| EPA HAZARDOUS WASTE NUMBER | CONTAMINANT | BEL-1604876 RESULTS (mg/L) | METHOD DETECTION LIMIT (mg/L) | REGULATORY LEVEL (mg/L) |
|-------------------------------|-------------|----------------------------------|-------------------------------------|-------------------------------|
|-------------------------------|-------------|----------------------------------|-------------------------------------|-------------------------------|

METALS (SW 846 6010C/7470A)

| | | | | |
|------|----------|----------|---------|-------|
| D004 | Arsenic | 0.004 | 0.002 | 5.0 |
| D005 | Barium | 0.502 | 0.002 | 100.0 |
| D006 | Cadmium | <0.001 | 0.001 | 1.0 |
| D007 | Chromium | 0.035 | 0.002 | 5.0 |
| D008 | Lead | 0.006 | 0.002 | 5.0 |
| D009 | Mercury | <0.00005 | 0.00005 | 0.2 |
| D010 | Selenium | 0.100 | 0.001 | 1.0 |
| D011 | Silver | <0.001 | 0.001 | 5.0 |

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