State of Utah

GARY HERBERT
Governor

GREG BELL
Lieutenant Governor

Department of
Environmental Quality

Amanda Smith
Executive Director

DIVISION OF SOLID AND
HAZARDOUS WASTE
Scott T. Anderson
Director

A regular meeting of the Utah Solid and Hazardous Waste Control Board has been scheduled for June 13, 2013 at 1:30 p.m. at the Utah Department of Environmental Quality, Multi-Agency State Office Building, Conference Room #1015, 195 North 1950 West, SLC, Utah (One or more Board members may participate telephonically.)

Agenda

I. Call to Order.

II. Approval of the Meeting Minutes for April 11, 2013 Board Meeting. **(Board Action Item)**

III. Underground Storage Tanks Update.

IV. Commercial/Federal Facilities.

A. Clean Harbors Grassy Mountain, LLC request for a site-specific treatment variance. **(Board Action Item)**

V. Commercial/Federal Facilities Program Overview.

VI. Director's Report.

VII. Other Business.

A. The next Board meeting is scheduled for July 11, 2013 at 1:30 p.m. in the UDEQ Conference Room #1015.

VIII. Adjourn.

In compliance with the Americans with Disabilities Act, individuals with special needs (including auxiliary communicative aids and services) should contact Brooke Baker, DEQ's Office of Human Resources, at (801) 536-4412 TDD (801) 536-4414.

Utah Solid and Hazardous Waste Control Board Meeting
Utah Department of Environmental Quality
195 North 1950 West (Conference Room #1015) SLC, Utah
April 11, 2013
1:30 p.m.

Board Members Present:	Jeff Coombs, Mark Franc, Brett Mickelson, Kevin Murray, Dennis Riding, Shane Whitney and Dwayne Woolley
Board Members Absent:	Gene Cole and Amanda Smith
Staff Members Present:	Scott Anderson, Brent Everett, Tom Ball, Therron Blatter, Edward Costomiris, Doug Hansen, Arlene Lovato, Tina Mercer, Terry Montgomery, Allan Moore, Deborah Ng, Rick Page, Don Verbica and Raymond Wixom
Others Present:	Russell Christensen, David Gibby, Drew Papodakis, Rob Yarosik, Brent Stephens, Michael Marlowe, Brett Dick, Les Ashwood, Scott Kuhn, Tim Orton, and Toni Mehraban

I. Call to Order.

Scott Anderson called the meeting to order at 1:30 p.m. Mr. Anderson conducted the meeting until the Board Chairman and Vice-Chairman were elected. Gene Cole and Amanda Smith were excused from the meeting.

II. Introduction of Board Members.

Board members introduced themselves and identified their position on the Board. Brett Mickelson has been appointed to the Professional Engineer position. Shane Whitney has been appointed to represent the Hazardous Waste Industry. Dennis Riding has been appointed to represent the Mining, Fuels and Manufacturing Industry. Kevin Murray is an environmental attorney and has been appointed to represent the general public. Dwayne Woolley is a civil engineer and fills one of two government, non-federal positions on the Board. Jeff Coombs, Deputy Director for the Tooele County Health Department, fills the other government, non-federal position. Mark Franc has been appointed to represent the Solid Waste Industry.

Mr. Anderson noted that additional information on the newly appointed Board members can be found on the Division's web page**.**

III. Election of Board Chairman and Vice-Chairman.

Dennis Riding nominated Kevin Murray as the Board Chairman; Dwayne Woolley seconded the motion and moved that the nominations be closed.

It was moved by Dennis Riding and seconded by Dwayne Woolley and UNANIMOUSLY CARRIED that Kevin Murray be elected as the Board Chairman.

It was moved by Kevin Murray and seconded by Shane Whitney and UNANIMOUSLY CARRIED that Dennis Riding be elected as the Board's Vice-Chairman.

IV. Approval of Meeting Minutes for the February 14, 2013 Board Meetings (Board Action Item).

It was moved by Brent Mickelson and seconded by Dennis Riding and UNANIMOUSLY CARRIED to approve the February 14, 2013 Board meeting minutes.

V. Underground Storage Tanks Update.

Brent Everett informed the Board members of the following items:

The preliminary cash balance of the Petroleum Storage Tank (PST) Trust Fund at the end of March 2013 was $11,421,077.00 and the final value at the end of February was $11,407,054.00. The Division of Environmental Response and Remediation (DERR) will continue to watch the cash balance to ensure sufficient coverage for the petroleum release liabilities covered by the PST Trust Fund.

Mr. Everett reminded the Board that with the passage of Senate Bill 21 in 2012, program rules under the jurisdiction of the Board are required to be updated to reflect the change of responsibility from Executive Secretary to Division Director. The DERR has considered most of the changes to be non-substantive changes and with assistance from the Attorney General's Office has made the required changes and submitted them to the Division of Administrative Rules (DAR).

Mr. Everett stated that a few changes to the rules are substantive changes and will be brought before the Board at a later date for formal rulemaking. The rules affected by Senate Bill 21 are the Underground Storage Tank Program Rules R311-200 through 212, with the exception of 202 and 210, as no references to the Executive Secretary exist in these two sections of the rules. Also, the Illegal Drug Operation Site Reporting and Decontamination Act and the Decontamination Specialist Certification Program (R311-505) were submitted to the DAR as non-substantive changes. Mr. Everett anticipates the changes will be published in the next DAR bulletin.

Mr. Everett reported on legislation that passed during the 2013 Legislative session.

HB241, Underground Petroleum Storage Tank Financial Viability Study, sponsored by Representative Steve Eliason, directs the UDEQ/DERR to study the adverse selection of participants in the program and the actuarial deficit of the fund; obtain an actuarial study and related consultation that provides the necessary calculations to minimize adverse selection in the program and the actuarial deficit of the fund; develop a risk characterization profile for participants in the program and recommend a fee schedule based on fair market rates (comparable to private insurance); develop a strategy to reduce the negative equity balance of the fund and, based on the fee schedule, a corresponding time schedule showing an actuarial reduction in the negative equity balance of the fund; and identify and study other adverse impacts to the program and the fund; and based on the information obtained and developed, prepare a recommendation to implement a strategy to minimize adverse selection of participants in the program and eliminate or reduce the actuarial deficit of the fund. The UDEQ/DERR is required to report to the Natural Resources, Agriculture and Environment Interim Committee before December 31, 2013, regarding the information obtained and any recommendations. (The DERR has proposed to be included on the November Interim Committee's agenda if the study is completed by then.) This bill also allowed the UDEQ/DERR to utilize up to $200,000 from the PST Fund to conduct the study ($148,000 was appropriated). A RFP has been implemented and will close on April 17, 2013. All responders will then be evaluated and a contract will be negotiated to move the study forward and complete it by the timeframe specified in the bill.

HB241 also changed the PST Fund cash balance cap from $20 million to $30 million. If $20 million is exceeded in the cash balance of the PST Fund, the surcharge on petroleum at the first point of sale would be reduced from its current half cent to a quarter cent. Increasing the cap to $30 million gives the DERR some flexibility and

assists with the negative equity balance with which Representative Eliason has expressed concern. Depending on the outcome of this study, legislation may be presented to the 2014 Legislature.

Dennis Riding asked what type of study will be conducted and what basis will be used to evaluate what the Legislature has mandated. Mr. Everett explained that the legislation requires an actuarial study to evaluate the viability of the PST Fund and to develop recommendations to address adverse selection and the negative equity balance.

Mr. Riding asked if engineering methods or financial methods will be considered regarding adverse selection. Mr. Everett stated that, at this point, nothing is off the table and those conducting the study will be asked to look at all options, including engineering and accounting methods.

Mr. Everett informed the Board that the EPA Region VIII has completed its End-of-Year Report on Utah's Underground Storage Tank and Leaking Underground Storage Tank (LUST) Programs for Federal Fiscal Year 2012. EPA reported that Utah has outstanding UST and LUST Programs. Mr. Everett thanked the Division staff for all their efforts resulting in the positive assessment from EPA. Mr. Everett thanked the Board for its role in administration of the programs. Mr. Everett also thanked the stakeholders and other entities with whom DERR works.

Mr. Everett welcomed the new and returning Board members and is looking forward to continuing his association with the Board over the next several years.

Kevin Murray congratulated Brent and his staff for the recognition they have received from the EPA, as it clearly sends a message of the DERR's expertise in implementing the UST and LUST programs.

VI. Administrative Rules.

A. Approval of proposed changes to Hazardous Waste Rules R315-1 through R315-102 and proposed changes to Solid Waste Rules R315-301 through R315-320. (Board Action Item)

Allan Moore, Hazardous Waste Management Section Manager, informed the Board that these rule changes were brought before the previous Board in its February meeting for approval to proceed with the formal rulemaking process. The changes to the rules are a result of Senate Bill (SB) 21 (2012 General Session). SB 21 removes authorities from the Solid and Hazardous Waste Control Board and its Executive Secretary and transfers them to the Director of the Division of Solid and Hazardous Waste. This change in the statute now requires that references in the rules to the "Board" and the "Executive Secretary" be changed to "Director" as appropriate. The rules impacted by this change are Hazardous Waste Rules R315-1 through R315-102 and Solid Waste Rules R315-301 through R315-320.

Mr. Moore explained that Rule R315-17 referenced a rule that no longer exists. The correction has been made and the rule has been re-submitted to the DAR as a non-substantive rule change, which requires no further action from the Board on this specific rule.

A 30-day public comment period began on March 1, 2013 and concluded on April 1, 2013. No comments were received. The Director recommends the Board approve the proposed changes with an effective date of April 15, 2013.

Mark Franc commented that the rule change from Executive Secretary to Director implies administrative changes but the rule change from Board to the Director implies removal of authority from the Board. He questioned if that was the intent of the proposed rulemaking changes.

Mr. Moore confirmed that the intent of SB 21 was to shift authority from the Board to the Director.

Mr. Franc questioned the reasoning for the change and asked what would happen if the Board does not approve the removal of its authority.

Kevin Murray was not sure what would happen if the Board did not approve the proposed rule changes. Scott Anderson stated that changes to the rules could be made as non-substantive changes in order to comply with the statute. Mr. Anderson also made it clear that neither the Division nor the Division Director asked for the change in authority and responsibilities; rather, the Legislature directed the change.

Raymond Wixom, counsel to the Board, clarified that the statute will trump/supersede the rules and the goal is to make the rules consistent with the statutes. If they are inconsistent, the UDEQ will comply with the statute.

It was moved by Jeff Coombs and seconded by Dwayne Woolley and UNANIMOUSLY CARRIED that the proposed changes to Hazardous Waste Rules R315-1 through R315-102 and proposed changes to Solid Waste Rules R315-301 through R315-320 be approved with an effective date of April 15, 2013.

VII. Commercial/Federal Facilities.

A. Proposed Stipulation and Consent Order between the Board and Clean Harbors, Aragonite Facility. (Board Action Item)

Shane Whitney recused himself on this matter.

Rick Page reviewed proposed Stipulation and Consent Order (SCO) No. 1208009 to resolve Notice of Violation (NOV) No. 1112033, issued to Clean Harbors Aragonite on April 16, 2012.

The NOV was based on findings documented during Division inspections at the Clean Harbors Aragonite facility on July 18-28, 2011. The NOV cited the following: instruments reading inaccurately; not following laboratory SOPs; improper characterization of wastes; failing to inspect and/or document inspections; failing to note deficiencies on the inspection logs and properly complete work orders; failing to provide all of the required training; failing to report a fire; not following proper procedures for manifest discrepancies and rejected wastes; waste tracking deficiencies; improper documentation of instrument calibrations; lack of dates and labels on hazardous waste containers; and open and leaking containers.

All violations cited in the NOV have been corrected. A 30-day public comment period began on February 12, 2013 and concluded on March 13, 2013. No comments were received. The Division Director recommends the Board approve the proposed SCO. The SCO includes a penalty of $85,017.00. Fifty thousand dollars of the penalty are being credited towards Supplemental Environmental Projects (SEPs). The SEPs are contributions to the Western States Project and the Association of State and Territorial Solid Waste Management Officials. The remainder of the penalty will be a cash payment of $35,017.00.

Kevin Murray noted the Board addresses these types of penalties and violations from this particular facility every year and asked if the Division had concerns with the on-going compliance issues at the Aragonite facility.

Don Verbica explained that the Aragonite Facility is a very large facility and processes a significant amount of waste each month. Even so, the Division is always concerned when compliance issues arise at any facility. Division staff is currently working with Clean Harbors' corporate management to implement the necessary changes to eliminate these violations at the facility.

Michael Marlowe, General Manager for Clean Harbors Aragonite Facility, addressed the Board. Mr. Marlowe began his employment with this facility in 2010. Previously, he worked at fiver other hazardous waste facilities as a compliance manager and has over 23 years of experience in environmental compliance.

Mr. Marlowe understands the magnitude of the issues and was assigned specifically to address the violations. Mr. Marlowe informed the Board that he has been working steady and consistently with Clean Harbors Aragonite Facility personnel to improve compliance at the facility. Many changes have been made to get the right personnel at the facility who will follow the regulations correctly.

Scott Kuhn, Vice-President of Corporate Environmental Compliance for Clean Harbors, also addressed the Board and explained that Clean Harbors' takes these violations very seriously. Mr. Kuhn was asked by his management to come out in response to this NOV to provide assistance to the facility.

Mr. Kuhn has worked directly with Mr. Marlowe and facility personnel over the past several months to correct the problems identified in the NOV. Also, other company personnel that are part of the corporate structure have come in to assist the facility. Mr. Kuhn informed the Board that he makes frequent visits to direct the company's efforts to correct the problems.

Mr. Kuhn reiterated that Mr. Marlowe was sent to this facility specifically to address the issues because he has both the compliance and operational experience to achieve compliance. Good progress has been made, including changes in personnel that are capable of meeting goals. A meeting will be held at the end of this month with Mr. Anderson and his staff to provide them with a progress report. Mr. Kuhn reiterated that the corporate office takes this matter very seriously and is dedicated to eliminate repeat violations that are coming before the Board.

Jeff Coombs asked if compliance at Aragonite is declining or improving. Don Verbica stated that some areas have seen improvement and other areas remain static.

Dwayne Woolley commented that the rules can be very complex, but wondered if there is a difference between confusing and complex. Mr. Marlowe responded that complexity depended on one's knowledge of the regulations and that it takes training and time to get the personnel to understand what needs to be done to comply. Employees who have not been willing to learn have been replaced. Mr. Marlowe felt the goal to have qualified personnel is achievable.

Kevin Murray observed that it does not go unnoticed by the public that this facility is before the Board annually and expressed hope that the facility's compliance will improve.

It was moved by Brent Mickelson and seconded by Dwayne Woolley and CARRIED to approve proposed Stipulation and Consent Order (SCO) No. 1208009 to resolve Notice of Violation (NOV) No. 1112033, between the Board and Clean Harbors, Aragonite Facility. (Shane Whitney recused himself and did not vote on this matter.)

B. EnergySolutions LLC request for a site-specific treatment variance for waste with codes D009 and U151. (Board Action Item)

Tom Ball, Environmental Scientist, Commercial Federal Facilities, informed the Board that on March 8, 2013, EnergySolutions submitted a request to the Director of the Division of Solid and Hazardous Waste to renew a one-time, site-specific treatment variance from the Utah Hazardous Waste Management Rules to stabilize a waste stream that carries waste codes D009 and U151 (High Mercury –Subcategory Organic and Inorganic). The treated waste will be disposed at the Mixed Waste Landfill Cell.

The technology-based treatment code for this material is either IMERC (incineration followed by recovery) or RMERC (roasting/retort followed by recovery). The RMERC and IMERC processes generate secondary waste

streams. The secondary waste streams, when greater than 260 mg/kg mercury, are required to be further stabilized to a level of 0.2 mg/L or 0.25 mg/L based on the toxicity characteristic leaching procedure (TCLP) in SW846. EnergySolutions is proposing to treat the waste directly with a stabilization method rather than going through the initial retort or incineration of the waste. This proposal is due to the mixed waste nature of the waste stream, i.e., a hazardous waste with a radioactive component. The hardship for this case is that radioactive mercury cannot be recycled and would require extra handling of the waste. The EPA has issued a Determination of Equivalent Treatment (DET) for such High Mercury Subcategory wastes. In its determination, the EPA concluded that, for wastes that contain mercury and are radioactive, the recovery portion of RMERC or IMERC may not be appropriate and that alternative treatment processes should be pursued utilizing the variance process.

EnergySolutions is proposing to stabilize the waste to a level below 0.2 mg/L or 0.25 mg/L, based on the TCLP. This would satisfy the high mercury subcategory requirement. In addition, LDR compliance will be met for all other waste codes associated with the waste prior to disposal. This variance, if granted, would be valid for once year from the date of issuance. EnergySolutions has requested similar one-time, site-specific treatment variances for High Subcategory Mercury. The Board approved those requests in January 2002, December 2003, June 2004, January 2005, January 2006, January 2007, March 2008, March 2009, March 2010, May 2011 and May 2012.

A 30-day public comment period began on March 12, 2013 and will conclude (today) April 11, 2013. A public hearing on the request was held in the Tooele County Courthouse on March 20, 2013. No comments have been received to date. Even though the comment period will not end until 5:00 pm, April 11, 2013, the Director recommends approval of this variance request, pending no adverse comments and based on the following findings: the proposed alternative treatment method meets the regulatory basis for a variance, will be as safe to human health and the environment as the required method, and the required method would create additional waste and would require waste handling that could possibly expose workers to unnecessary contact with the waste.

Jeff Coombs noted the Board sees these requests yearly and asked if EPA would consider changing the rules on variance requests. Mr. Ball stated that EPA prefers to handle these types of issues with a variance. Only a small number of facilities request and utilize variances so EPA does not see a need to change the process.

Dennis Riding asked if this is a contingency for possible receipt of this type of waste or is it received on a continual basis. Mr. Ball explained that approximately 1,500 cubic feet of the waste will be shipped over the next year.

Tim Orton, EnergySolutions, clarified that the waste can be received, but without a variance, it cannot be disposed in the Mixed Waste Landfill Cell.

Kevin Murray asked how much of this type of waste still exists. Mr. Orton explained that the waste is still being generated as DOE cleans up its facilities and will continue until DOE has cleaned up all its sites.

Raymond Wixom, Attorney General's Office, explained that a section in the Solid and Hazardous Waste Act (19-6-111) states that if the Board grants a variance for more than one year, the variance must include a time table for returning to compliance. Mr. Wixom noted the intent in this situation is to bury material in a permitted landfill and not have to handle it again. The effect of that is to state that a variance can only last for one year, after which time, the facility must request a new variance as no compliance schedule exists on these types of situations.

Dwayne Woolley asked how it is determined if a negative public comment is received. Scott Anderson explained that any comment opposing the variance would be considered a negative comment and addressed accordingly.

This request was not previously presented to the Board as an informational item, because no Board meeting was held in March 2013.

It was moved by Dennis Riding and seconded by Brent Mickelson and UNANIMOUSLY CARRIED that the Board approve for one year EnergySolutions' request for a site-specific treatment variance for waste with codes D009 and U151, pending no comments being received during the public comment period.

C. EnergySolutions LLC request for a site-specific treatment variance for site-generated PCB waste.

Tom Ball, Environmental Scientist, Commercial Federal Facilities, informed the Board that on March 8, 2013, EnergySolutions submitted a request to the Director of the Division of Solid and Hazardous Waste for renewal of a one-time site-specific treatment variance from the Utah Hazardous Waste Management Rules. EnergySolutions has requested a similar variance that was approved on February 9, 2012.

EnergySolutions' Mixed Waste Facility has generated waste containing listed hazardous constituents and also may contain Polychlorinated Biphenyls (PCBs) as Underlying Hazardous Constituents. Through treatability studies performed at the site, EnergySolutions has confirmed successful treatment below the treatment standards for all contaminants except PCBs. The PCB treatment standard is not attainable using the current chemical treatment technologies. If this waste did not carry the listed codes (contained only PCBs at these levels), then EnergySolutions would be permitted to directly dispose of this waste. EnergySolutions will generate approximately 50 tons of this waste. Following treatment of the listed waste contaminants, final disposal of the waste will occur in the Mixed Waste Landfill Cell at the EnergySolutions Mixed Waste Facility.

A 30-day public comment period began on March 12, 2013 and will conclude April 11, 2013. A public hearing to receive comment on the variance request was held on March 20, 2013 in the Tooele County Court House. No comments have been received to date.

This request was not previously presented to the Board as an information item because there was no Board meeting in March 2013. The Director recommends approval of this variance request pending no adverse comments and based on the following findings: the proposed alternative treatment method meets the regulatory basis for a variance, and will be as safe to human health and the environment as the required method. In addition, if these wastes did not contain hazardous contaminants the PCBs could be directly disposed without further treatment. If granted, this variance would be valid for one year from the date of issuance.

Shane Whitney asked about the levels of PCBs in the waste. Tim Orton explained that the PCB concentrations are approximately 1,000 to 2,000 ppm maximum.

It was moved by Dennis Riding and seconded by Brent Mickelson and UNANIMOUSLY CARRIED that the Board approve for one year EnergySolutions LLC request for a site-specific treatment variance for waste with codes D009 and U151, pending no comments being received during the public comment period.

VIII. Director's Report.

Scott Anderson discussed the agenda item titled "Director's Report." This is a new agenda item that will be listed periodically. The intent of the Report is to provide a report of program activities in the Division.

Mr. Anderson informed the Board that section managers will also be appearing before the Board in upcoming meetings to give them the opportunity to introduce themselves and their staff members and present specific in-depth information regarding their various programs.

Mr. Anderson provided an update on the Used Oil Program. The Used Oil Program is a model program, and one of the best in the nation. Deborah Ng is the Used Oil Section Manager. The focus of the program is the recycling of used oil throughout the State.

Over the years, the Used Oil Rules have been added to and amended. Currently, Ms. Ng and her staff have undertaken a major re-write of the Used Oil Rules. This endeavor requires a significant effort to streamline, clarify and delete language not needed. Once the proposed changes are finalized, they will be brought before the

Board for the formal rulemaking process. This rules update is being accomplished in addition to all the other responsibilities the staff have in implementing this program.

The Used Oil Program also has an active outreach program. Scott Hopkins, Environmental Scientist, is responsible to go out to public associations, trade groups, high schools, and any other interested organizations and present information regarding the Used Oil Recycling Program. This is a very effective and active outreach program and reaches hundreds of participants annually.

Funding for the Used Oil Program comes from a four-cent per quart fee on all oil sold at the point of retail sale. The funds are appropriated by the Legislature and pay for administration of the program, grants, reimbursement of used oil collected by used oil collection centers throughout the state and local health departments participation.

The used oil collection centers include companies such as Jiffy-Lube and Auto Zone. These collection centers typically accept used oil from multiple sources that include both businesses and individuals. For those individuals who change their own oil, these collection centers provide a great service, specifically in the rural areas in Utah. To date, there are approximately 400 used oil collection centers throughout the state. Additional information regarding the Used Oil Program can be found on the Division's webpage.

Mr. Anderson informed the Board that the Solid Waste Section administers permitting and compliance programs for non-hazardous solid waste treatment, storage and disposal facilities throughout the State. The Division regulates approximately 150 permitted solid waste management facilities throughout the state. Two more facilities have recently received a permit for new landfills; one located near the city of Clarkston to be operated by Logan City for municipal waste and a commercial construction demolition landfill located in Tooele County that will be operated by Dunn Construction.

Mr. Anderson briefly explained the Division's Corrective Action Program. Permitted facilities that have managed waste onsite over the years are required to assess these sites and perform corrective action if necessary, including active remediation, removal and/or closure in place with site management plans.

Mr. Anderson also provided an update on the Deseret Chemical Depot located in Tooele County. The facility has successfully destroyed the entire chemical weapons stockpile that was located at TOCDF and is now in the process of clean up and closure. Over the past three months, thirteen work plans, investigation plans, and implementation plans have been approved. Brad Maulding, Hazardous Waste Section Manger, is responsible for the program and will be introduced to the Board at an upcoming meeting.

Mr. Anderson informed the Board that years ago, the Division developed a risk rule (R315-101) to deal with sites where contamination would remain in place after closure. The purpose of the rule is to manage risk posed by the contamination. The Division is reviewing this rule and has established a work group to make recommended changes to the rule if needed. This is a significant effort because the philosophy and methodologies of risk management have changed. Dr. Eric Baiden is the chairman of this workgroup. There will be a scoping process associated with this rule and then it will be brought to the Board at a future date for the formal rulemaking process.

IX. Other Business.

A. Legislative Update.

Mr. Anderson provided a Legislative Update.

HB 231, Hazardous Waste and Mixed Waste Fees, sponsored by Representative Nelson. This bill adds clarifying language to the current statute regarding the flat fee for hazardous waste which affects two commercial hazardous waste facilities the Division regulates. One of these facilities expressed a concern that moving to a flat fee will impose difficulties with their business model and the way they collect disposal fees from their customers. The

additional language will clarify that hazardous waste disposal fees can be collected from the generators of the waste. This bill passed.

HB357, Waste Management Facilities Siting Amendments, sponsored by Representative Ronda Menlove. This bill modifies provisions relating to the information required for a proposed nonhazardous solid or hazardous waste operation plan. Specifically, this bill adds two requirements to the application process for solid and hazardous waste permits.

The first requirement is a traffic impact study that takes into account the safety, operation and condition of roadways serving the proposed facility. The study must be reviewed and approved by the Department of Transportation or a local highway authority (whichever has jurisdiction over each road serving the proposed facility) with the cost of the review paid by the person who submits the proposed operation plan.

The second requirement is financial disclosure for new nonhazardous solid waste facilities owned or operated by a local government, including all costs of establishing and operating the facility, land acquisition and leasing, construction, estimated annual operation, equipment, ancillary structures, roads, transfer stations; and using other operations that are not contiguous to the proposed facility but are necessary to support the facility's construction and operation. This bill is intended to provide transparency for local governments to give their residents information regarding the financial impacts of operating these types of facilities. This bill passed.

SCR001, Concurrent Resolution Approving Solid Waste Facility Landfill Permit, sponsored by Senator Hinkins. This concurrent resolution of the Legislature and the Governor gives approval for Dunn Construction to operate a Class VI landfill in Tooele County and receive nonhazardous construction and demolition waste, inert waste, and yard waste. This resolution passed.

Mr. Anderson also provided an update on a proposed bill regarding recycling of used mattresses. The intent of this bill was to provide a reimbursement incentive to recycle used mattresses by establishing a fee at the point of retail sale. A draft bill was prepared but did not move forward. Additional studies may take place to further identify the need and support for legislation in the 2014 Legislative session.

B. Weber County C&D Class VI Landfill, SW Permit #1101.

Kevin Murray informed the Board of an administrative proceeding that the previous Board conducted regarding the Weber County Class VI C&D landfill permit.

Raymond Wixom, Assistant Attorney General, counsel to the Board and to the Executive Secretary, reported that on February 14, 2013, Kevin Murray signed an Order resolving the challenge Counterpoint Construction Company brought against the Weber County Landfill Class VI Permit. In that Order, the Board directed the Executive Secretary to terminate the earlier Class IVb Permit that Weber County Landfill held, not later days 30 days after the Board's Order became final. Scott Anderson issued an Order to Weber County with a copy to Counterpoint Construction on March 28, 2013 stated that the Class IVb permit was terminated. This matter is now complete.

C. Misc. Information Items.

The next regularly scheduled meeting will be held on May 9, 2013. Mr. Anderson reminded the Board that if a meeting is not needed, the Board will be contacted at the earliest possible time of the cancellation, but requested that the Board members continue to reserve the second Thursday of each month for board meetings. The meetings will begin at 1:30 p.m.

X. Adjourn.

The meeting concluded at 2:30 p.m.

UST STATISTICAL SUMMARY
May 1, 2012 -- April 30, 2013

PROGRAM

	May	June	July	August	September	October	November	December	January	February	March	April	(+/-) OR Total
Regulated Tanks	3,790	3,781	3,787	3,783	3,772	3,752	3,750	3,754	3,757	3,756	3,758	3,766	**(24)**
Tanks with Certificate of Compliance	3,706	3,693	3,691	3,688	3,678	3,675	3,682	3,688	3,688	3,688	3,687	3,681	**(25)**
Tanks without COC	84	88	96	95	94	77	68	66	69	68	71	85	**1**
Cumulative Facilitlies with Registered A Operators	1,333	1,340	1,343	1,355	1,358	1,354	1,355	1,357	1,358	1,356	1,355	1,362	**97.77%**
Cumulative Facilitlies with Registered B Operators	1,333	1,340	1,343	1,355	1,358	1,354	1,355	1,357	1,358	1,356	1,355	1,363	**97.85%**
New LUST Sites	10	4	8	11	5	3	12	4	3	13	4	4	**81**
Closed LUST Sites	10	1	9	10	9	3	10	6	2	9	13	10	**92**
Cumulative Closed LUST Sites	4507	4510	4519	4532	4541	4545	4556	4561	4565	4575	4586	4600	**93**

FINANCIAL

	May	June	July	August	September	October	November	December	January	February	March	April	(+/-)
Tanks on PST Fund	2,806	2,789	2,772	2,767	2,748	2,742	2,798	2,802	2,809	2,817	2,816	2,806	**0**
PST Claims (Cumulative)	596	598	602	603	604	603	604	604	610	610	615	617	**21**
Equity Balance	-$21,143,324	-$20,600,717	-$20,656,841	-$20,515,964	-$20,637,392	-$18,512,856	-$18,616,627	-$18,763,106	-$19,037,913	-$19,622,110	-$19,608,086	-$19,285,917	**$1,857,407**
Cash Balance	$11,831,830	$11,816,031	$11,759,907	$11,938,494	$12,058,013	$12,516,308	$12,412,538	$12,266,058	$11,991,251	$11,407,054	$11,421,077	$11,743,246	**($88,584)**
Loans	1	0	1	2	0	0	0	0	0	0	0	0	**-1**
Cumulative Loans	91	91	92	94	94	94	94	94	94	94	94	94	**3**
Cumulative Amount	$2,729,287	$2,729,287	$2,864,907	$2,912,795	$2,912,795	$2,912,795	$2,912,795	$2,912,795	$2,912,795	$2,912,795	$2,912,795	$2,912,795	**$183,508**
Defaults/Amount	0	0	0	0	0	0	0	0	0	0	0	0	**0**

	May	June	July	August	September	October	November	December	January	February	March	April	TOTAL
Speed Memos	35	49	37	24	14	49	47	24	25	22	37	47	**410**
Compliance Letters	7	11	20	12	4	1	5	9	13	8	4	3	**97**
Notice of Intent to Revoke	2	11	0	0	0	1	0	0	0	1	0	0	**15**
Orders	31	2	1	3	2	0	1	3	2	2	5	2	**54**

UTAH SOLID AND HAZARDOUS WASTE CONTROL BOARD
Executive Summary
Clean Harbors Grassy Mountain, LLC
June 13, 2013

What is the issue before the Board?	Clean Harbors Grassy Mountain, LLC has requested a site-specific treatment variance from the Utah Hazardous Waste Management Rules. The Grassy Mountain Facility seeks authorization to stabilize a High Mercury – Subcategory Inorganic waste stream that has the characteristic waste code D009. The treated waste will then be disposed in a hazardous waste cell at the facility.
What is the historical background or context for this issue?	The Grassy Mountain Facility proposes to stabilize and dispose of a mercury waste stream that is generated at the Clean Harbors Aragonite Facility. The waste stream has the waste code for High Mercury-Inorganic Subcategory. The waste stream, profile number GM91-2669-HIHG, is generated from the air pollution control system during operations at the Aragonite Facility. The technology-based treatment code is RMERC, which is roasting or retorting of the waste followed by mercury recovery. The RMERC process generates a secondary waste stream. Should the secondary waste stream be generated from the RMERC process and contain less than or equal to 260 mg/kg total mercury, the land disposal standard is 0.20 mg/l TCLP. If the secondary waste is not a residue of RMERC, and the waste stream initially contained less than 260 mg/l, the standard is .025 mg/L, based on the toxicity characteristic leaching procedure (TCLP) in SW-846. The Grassy Mountain Facility is proposing to treat the waste directly with a stabilization method rather than going through the initial retorting or roasting of the waste. The hardship for Clean Harbors is that there currently is no alternative way for the company to dispose of this waste. Facilities that can retort the waste stream are not permitted to treat waste that has waste codes not associated with mercury, and this particular waste stream has numerous codes in addition to the code for mercury. The Grassy Mountain Facility has conducted a treatability study on the waste stream. The treatment formula developed for this waste stream resulted in mercury concentrations below the requested concentration of 0.025 mg/L TCLP. In addition, LDR compliance will be met for all other waste codes associated with the waste prior to disposal. Clean Harbors Grassy Mountain has requested, and the Board has approved, identical site-specific treatment variances in March 2009 and November 2010.

	A notice for public comment was published in the May 7, 2013 issues of *The Salt Lake Tribune*, *The Deseret Morning News* and *The Tooele County Transcript Bulletin*. The comment period began on May 7, 2013, and concluded on June 6, 2013. A public hearing was held on June 4, 2013. No comments were received. This variance, if granted, will be valid until June 17, 2014.
What is the governing statutory or regulatory citation?	Variances are provided for in 19-6-111 of the Utah Solid and Hazardous Waste Act and R315-2-13 of the Utah Administrative Code. This is a site-specific variance from an applicable treatment standard as allowed by R315-13-1 (40 CFR 268.44(h)(2) by reference).
Is Board action required?	Yes. Action is required by the Board.
What is the Division/Executive Secretary's recommendation?	The Director recommends that the request for the site-specific treatment variance be approved.
Where can more information be obtained?	Questions may be directed to Ed Costomiris at ecostomiris@utah.gov or (801) 536-0219. **A copy of the Request Site-Specific Treatment Variance for High Mercury – Inorganic Subcategory is enclosed in the Board Packet.**

Clean Harbors Grassy Mountain, LLC.
P.O. Box 22750
Salt Lake City, UT 84122
Tel: 435.884.8900
Fax: 435.884.8990
www.cleanharbors.com

May 1, 2013

Mr. Scott T. Anderson
Executive Secretary
Utah Solid and Hazardous Waste Control Board
195 North 1950 West
Salt Lake City, UT 84116

RE: Request for Renewal of the Site-Specific Treatment Variance from Technology-Based Requirements for D009 (High Mercury-Inorganic Subcategory) Clean Harbors Aragonite Bag House Waste
Clean Harbors Grassy Mountain, LLC., EPA ID No. UTD991301748

Dear Mr. Anderson:

In accordance with Utah Administrative Code R315-2-13, Clean Harbors Grassy Mountain, LLC. (CHGM) is requesting a renewal of a Site-Specific Treatment Variance seeking authorization to stabilize one waste stream carrying the waste code D009 (High Mercury-Inorganic Subcategory). The waste identified in this request is characterized by Waste Material Profile Sheet GM91-2669-HIHG. The treatment technology code for this subcategory is RMERC. The RMERC technology is described as: *Retorting or roasting in a thermal processing unit capable of volatilizing mercury and condensing the volatilized mercury for recovery.* The RMERC process generates secondary waste streams that require further stabilization.

This request is submitted in accordance with R315-13-1 (40 CFR 268.44 incorporated by reference), which may allow a site-specific variance from an applicable treatment standard provided that the following condition is met:

> 40 CFR 268.44(h)(2) It is inappropriate to require the waste to be treated to the level specified in the treatment standard or by the method specified as the treatment standard, even though such treatment is technically possible.

This request is submitted in accordance with the requirements of 40 CFR 260.20(b).

40 CFR 260.20(b)(1): This petition is being submitted by

Clean Harbors Grassy Mountain, LLC.
3 Miles East, 7 Miles North of Knolls
Exit 41, Off I-80
Knolls, Utah 84029

40 CFR 260.20(b)(2): CHGM requests approval of a variance from the 40CFR 268.40-Treatment Standards for Hazardous Wastes and 40CFR 268.42-Treatment Standards Expressed as Specific Technologies for the EPA waste code D009 (High Mercury-Inorganic Subcategory). CHGM proposes to treat, using stabilization technologies, High-Mercury Subcategory residue wastes from the Clean Harbors Aragonite, LLC incinerator. All actions will be performed in accordance with the Clean Harbors Grassy Mountain State-issued Part B Permit.

40 CFR 260.20(b)(3): CHGM is proposing to dispose of treated High Mercury Subcategory hazardous waste that has been treated below a mercury concentration of 0.25mg/l using the Toxicity Characteristic Leaching Procedure (TCLP). Stabilization is the standard treatment method for waste containing D009 (Low Mercury Subcategory) and CHGM is permitted to perform stabilization processes. CHGM has previously conducted stabilization treatability studies on this waste stream and determined that this waste can be successfully treated to the applicable treatment standard of 0.025 mg/l TCLP specified for D009 (Low Mercury Subcategory) in 40CFR, Part 268.40. Prior to final disposal of the waste in the landfill, CHGM will confirm that the treatment process is successful in meeting the land disposal restriction treatment standards.

40 CFR 260.20(b)(4): The D009 High Mercury-Inorganic Subcategory is described in the 40 CFR 268.40 "Treatment Standards for Hazardous Wastes" table. The description is as follows:

> "Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity characteristic leaching procedure (TCLP) in SW846; and contain greater than or equal to 260 mg/kg total mercury that are inorganic, including incinerator residues and residues from RMERC. (High Mercury-Inorganic Subcategory)."

The listed treatment technology in 40CFR 268.40 for D009 High Mercury-Inorganic Subcategory waste is RMERC.

The need and justification for this action is as follows:

- The intent of the RMERC treatment process is to retort or roast materials in a thermal processing unit in order to recover elemental mercury for recycling. However, the waste stream carries several EPA codes which the mercury retorter is not permitted to accept and does not meet their variance under the Boiler and Industrial Furnace (BIF) exemption. Attached with this variance request are correspondences, dated April 22, 2010 and April 22, 2013, from Mercury Waste Solutions, LLC (MWS) documenting the unacceptability of this waste for retort.
- Grassy Mountain was previously granted a treatment variance by the Board on March 12, 2009 and a request for renewal on November 23, 2010 for D009 High Mercury-Inorganic Subcategory residue waste streams from the Aragonite facility. Grassy Mountain was able to successfully stabilize the waste to meet the land disposal treatment standards.
- Analyses for the current containers of bag house dust indicate that the levels of mercury are within the parameters of waste that was previously stabilized to meet land disposal treatment standards. Copies of the current associated analytical data for the waste to be treated are included with this request. Additionally, copies of the previous mercury treatability study demonstrating CHGM's ability to successfully treat the waste are included with this submittal.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

If you have any questions, please call me or Les Ashwood at (435) 884-8900.

Sincerely,

Shane B. Whitney

Shane B. Whitney
General Manager
Grassy Mountain Facility

cc: Ed Costomiris-UDEQ/DSHW
Myron Bateman, EHS, MPA Health Officer, Tooele County Health Department
Grassy Mountain File

WASTE MATERIAL PROFILE SHEET

Clean Harbors Profile No. GM91-2669-HIHG

A. GENERAL INFORMATION

GENERATOR EPA ID #/REGISTRATION # *UTD982595795* GENERATOR NAME. *Clean Harbors Clive, LLC*

GENERATOR CODE (Assigned by Clean Harbors) *UC* CITY *Grantsville* STATE/PROVINCE *UT* ZIP/POSTAL CODE *84029*

ADDRESS *3.5 Miles South of Exit 49 off I80*

PHONE:

CUSTOMER CODE (Assigned by Clean Harbors) *UC* CUSTOMER NAME *Clean Harbors Clive, LLC*

ADDRESS *3.5 Miles South of Exit 49 off I80* CITY *Grantsville* STATE/PROVINCE *UT* ZIP/POSTAL CODE *84029*

B. WASTE DESCRIPTION

WASTE DESCRIPTION: *48288 BAGHOUSE DUST HIGH MERCURY*

PROCESS GENERATING WASTE: **AIR POLLUTION CONTROL**

IS THIS WASTE CONTAINED IN SMALL PACKAGING CONTAINED WITHIN A LARGER SHIPPING CONTAINER ? **No**

C. PHYSICAL PROPERTIES (at 25C or 77F)

PHYSICAL STATE
- [x] SOLID WITHOUT FREE LIQUID
- [ ] POWDER
- [ ] MONOLITHIC SOLID
- [ ] LIQUID WITH NO SOLIDS
- [ ] LIQUID/SOLID MIXTURE
  - % FREE LIQUID
  - % SETTLED SOLID
  - % TOTAL SUSPENDED SOLID
- [ ] SLUDGE
- [ ] GAS/AEROSOL

NUMBER OF PHASES/LAYERS

1 2 3

% BY VOLUME (Approx.)

TOP *0.00*
MIDDLE *0.00*
BOTTOM *0.00*

VISCOSITY (If liquid present)
- 1 - 100 (e.g. Water)
- 101 - 500 (e.g. Motor Oil)
- 501 - 10,000 (e g. Molasses)
- > 10,000

COLOR

varies

ODOR
- [x] NONE
- [ ] MILD
- [ ] STRONG

Describe:

BOILING POINT °F (°C)
- <= 95 (<=35)
- 95 - 100 (35-38)
- 101 - 129 (38-54)
- >= 130 (>54)

MELTING POINT °F (°C)
- < 140 (<60)
- 140-200 (60-93)
- [x] > 200 (>93)

TOTAL ORGANIC CARBON
- [x] <= 1%
- 1-9%
- >= 10%

FLASH POINT °F (°C)
- < 73 (<23)
- 73 - 100 (23-38)
- 101 -140 (38-60)
- 141 -200 (60-93)
- > 200 (>93)

pH
- <= 2
- 2.1 - 6.9
- [x] 7 (Neutral)
- 7 1 - 12.4
- >= 12.5

SPECIFIC GRAVITY
- < 0 8 (e g Gasoline)
- 0 8-1.0 (e g Ethanol)
- 1.0 (e.g. Water)
- 1 0-1.2 (e g Antifreeze)
- [x] > 1.2 (e.g. Methylene Chlonde)

ASH
- < 0 1
- 0.1 - 1.0
- 1 1 - 5.0
- 5 1 - 20 0
- > 20
- [x] Unknown

BTU/LB (MJ/kg)
- [x] < 2,000 (<4.6)
- 2,000-5,000 (4.6-11.6)
- 5,000-10,000 (11.6-23.2)
- > 10,000 (>23.2)

Actual

D. COMPOSITION (List the complete composition of the waste, include any inert components and/or debris. Ranges for individual components are acceptable. If a trade name is used, please supply an MSDS Please do not use abbreviations)

CHEMICAL	MIN	–	MAX	UOM
ALUMINUM OXIDE (AL2O3) (9CI)		–		Trace
ANTIMONY OXIDE		–		Trace
ARSENIC OXIDE (AS2O3)		–		Trace
BAG HOUSE DUST	95.0000000	–	100.0000000	%
BARIUM OXIDE		–		Trace
BENZENE		–		Trace
BENZYL CHLORIDE		–		Trace
BERYLLIUM OXIDE		–		Trace
CADMIUM OXIDE		–		Trace
CARBON TETRACHLORIDE		–		Trace

DOES THIS WASTE CONTAIN ANY HEAVY GAUGE METAL DEBRIS OR OTHER LARGE OBJECTS (EX , METAL PLATE OR PIPING >1/4" THICK OR >12" LONG, METAL REINFORCED HOSE >12" LONG, METAL WIRE >12" LONG, METAL VALVES, PIPE FITTINGS, CONCRETE REINFORCING BAR OR PIECES OF CONCRETE >3")? YES [x] NO

If yes, describe, including dimensions:

DOES THIS WASTE CONTAIN ANY METALS IN POWDERED OR OTHER FINELY DIVIDED FORM? YES [x] NO

DOES THIS WASTE CONTAIN OR HAS IT CONTACTED ANY OF THE FOLLOWING, ANIMAL WASTES, HUMAN BLOOD, BLOOD PRODUCTS, BODY FLUIDS, MICROBIOLOGICAL WASTE, PATHOLOGICAL WASTE, HUMAN OR ANIMAL DERIVED SERUMS OR PROTEINS OR ANY OTHER POTENTIALLY INFECTIOUS MATERIAL? YES [x] NO

I acknowledge that this waste material is neither infectious nor does it contain any organism known to be a threat to human health This certification is based on my knowledge of the material. Select the answer below that applies:

The waste was never exposed to potentially infectious material YES NO

Chemical disinfection or some other form of sterilization has been applied to the waste. YES NO

I ACKNOWLEDGE THAT THIS PROFILE MEETS THE CLEAN HARBORS BATTERY PACKAGING REQUIREMENTS YES NO

I ACKNOWLEDGE THAT MY FRIABLE ASBESTOS WASTE IS DOUBLE BAGGED AND WETTED YES NO

SPECIFY THE SOURCE CODE ASSOCIATED WITH THE WASTE. *G09* SPECIFY THE FORM CODE ASSOCIATED WITH THE WASTE. *W304*

E. CONSTITUENTS

Are these values based on testing or knowledge? ☑ Knowledge ☐ Testing

If based on knowledge, please describe in detail, the rationale applied to identify and characterize the waste material. Please include reference to Material Safety Data Sheets (MSDS) when applicable. Include the chemical or trade-name represented by the MSDS, and or detailed process or operating procedures which generate the waste.

.

Please indicate which constituents below apply. Concentrations must be entered when applicable to assist in accurate review and expedited approval of your waste profile. Please note that the total regulated metals and other constituents sections require answers.

RCRA	REGULATED METALS	REGULATORY LEVEL (mg/l)	TCLP mg/l	TOTAL	UOM	NOT APPLICABLE
D004	ARSENIC	5 0				☑
D005	BARIUM	100 0				☑
D006	CADMIUM	1.0				☑
D007	CHROMIUM	5.0				☑
D008	LEAD	5.0				☑
D009	MERCURY	0.2				☑
D010	SELENIUM	1.0				☑
D011	SILVER	5.0				☑
	VOLATILE COMPOUNDS					
D018	BENZENE	0 5				
D019	CARBON TETRACHLORIDE	0 5				
D021	CHLOROBENZENE	100 0				
D022	CHLOROFORM	6 0				
D028	1,2-DICHLOROETHANE	0 5				
D029	1,1-DICHLOROETHYLENE	0.7				
D035	METHYL ETHYL KETONE	200.0				
D039	TETRACHLOROETHYLENE	0 7				
D040	TRICHLOROETHYLENE	0.5				
D043	VINYL CHLORIDE	0 2				
	SEMI-VOLATILE COMPOUNDS					
D023	o-CRESOL	200.0				
D024	m-CRESOL	200 0				
D025	p-CRESOL	200.0				
D026	CRESOL (TOTAL)	200 0				
D027	1,4-DICHLOROBENZENE	7 5				
D030	2,4-DINITROTOLUENE	0 13				
D032	HEXACHLOROBENZENE	0.13				
D033	HEXACHLOROBUTADIENE	0 5				
D034	HEXACHLOROETHANE	3.0				
D036	NITROBENZENE	2.0				
D037	PENTACHLOROPHENOL	100.0				
D038	PYRIDINE	5 0				
D041	2,4,5-TRICHLOROPHENOL	400 0				
D042	2,4,6-TRICHLOROPHENOL	2 0				
	PESTICIDES AND HERBICIDES					
D012	ENDRIN	0 02				
D013	LINDANE	0 4				
D014	METHOXYCHLOR	10.0				
D015	TOXAPHENE	0 5				
D016	2,4-D	10 0				
D017	2,4,5-TP (SILVEX)	1 0				
D020	CHLORDANE	0.03				
D031	HEPTACHLOR (AND ITS EPOXIDE)	0.008				

OTHER CONSTITUENTS	MAX	UOM	NOT APPLICABLE
BROMINE			☑
CHLORINE			☑
FLUORINE			☑
IODINE			☑
SULFUR			☑
POTASSIUM			☑
SODIUM			☑
AMMONIA			☑
CYANIDE AMENABLE			☑
CYANIDE REACTIVE			☑
CYANIDE TOTAL			☑
SULFIDE REACTIVE			☑

HOCs

☑ NONE
< 1000 PPM
>= 1000 PPM

PCBs

☑ NONE
< 50 PPM
>=50 PPM

IF PCBS ARE PRESENT, IS THE WASTE REGULATED BY TSCA 40 CFR 761?

YES ☑ NO

ADDITIONAL HAZARDS

DOES THIS WASTE HAVE ANY UNDISCLOSED HAZARDS OR PRIOR INCIDENTS ASSOCIATED WITH IT, WHICH COULD AFFECT THE WAY IT SHOULD BE HANDLED?

YES ☑ NO (If yes, explain)

CHOOSE ALL THAT APPLY

DEA REGULATED SUBSTANCE	EXPLOSIVE	FUMING	OSHA REGULATED CARCINOGENS
POLYMERIZABLE	RADIOACTIVE	REACTIVE MATERIAL	☑ NONE OF THE ABOVE

[redacted]

F. REGULATORY STATUS

☑ YES ☐ NO USEPA HAZARDOUS WASTE?

D004 D005 D006 D007 D008 D009 D010 D011 F001 F002 F003 F004 F005 F006 F007 F008 F009 F010 F011 F012 F019

YES ☑ NO DO ANY STATE WASTE CODES APPLY?

Texas Waste Code

YES ☑ NO DO ANY CANADIAN PROVINCIAL WASTE CODES APPLY?

☑ YES ☐ NO IS THIS WASTE PROHIBITED FROM LAND DISPOSAL WITHOUT FURTHER TREATMENT PER 40 CFR PART 268?

LDR CATEGORY: *Meets LDR Standards*
VARIANCE INFO:

YES ☑ NO IS THIS A UNIVERSAL WASTE?

YES ☐ NO IS THE GENERATOR OF THE WASTE CLASSIFIED AS CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (CESOG)?

YES ☐ NO IS THIS MATERIAL GOING TO BE MANAGED AS A RCRA EXEMPT COMMERCIAL PRODUCT, WHICH IS FUEL (40 CFR 261.2 (C)(2)(II))?

YES ☑ NO DOES TREATMENT OF THIS WASTE GENERATE A F006 OR F019 SLUDGE?

YES ☑ NO IS THIS WASTE STREAM SUBJECT TO THE INORGANIC METAL BEARING WASTE PROHIBITION FOUND AT 40 CFR 268.3(C)?

YES ☑ NO DOES THIS WASTE CONTAIN VOC'S IN CONCENTRATIONS >=500 PPM?

YES ☐ NO DOES THE WASTE CONTAIN GREATER THAN 20% OF ORGANIC CONSTITUENTS WITH A VAPOR PRESSURE >= .3KPA (.044 PSIA)?

YES ☑ NO DOES THIS WASTE CONTAIN AN ORGANIC CONSTITUENT WHICH IN ITS PURE FORM HAS A VAPOR PRESSURE > 77 KPA (11.2 PSIA)?

YES ☑ NO IS THIS CERCLA REGULATED (SUPERFUND) WASTE ?

YES ☑ NO IS THE WASTE SUBJECT TO ONE OF THE FOLLOWING NESHAP RULES?

Hazardous Organic NESHAP (HON) rule (subpart G) Pharmaceuticals production (subpart GGG)

☑ YES ☐ NO IF THIS IS A US EPA HAZARDOUS WASTE, DOES THIS WASTE STREAM CONTAIN BENZENE?

☑ YES ☐ NO Does the waste stream come from a facility with one of the SIC codes listed under benzene NESHAP or is this waste regulated under the benzene NESHAP rules because the original source of the waste is from a chemical manufacturing, coke by-product recovery, or petroleum refinery process?

YES ☑ NO Is the generating source of this waste stream a facility with Total Annual Benzene (TAB) >10 Mg/year?

What is the TAB quantity for your facility? *1.000000* Megagram/year (1 Mg = 2,200 lbs)

The basis for this determination is: Knowledge Of the Waste Or Test Data ☑ Knowledge ☐ Testing

Describe the knowledge .

G. DOT/TDG INFORMATION

DOT/TDG PROPER SHIPPING NAME:

NA3077, HAZARDOUS WASTE, SOLID, N.O.S., (BAGHOUSE), 9, PG III

H. TRANSPORTATION REQUIREMENTS

ESTIMATED SHIPMENT FREQUENCY ONE TIME WEEKLY ☑ MONTHLY QUARTERLY YEARLY OTHER *Other*

☑ **CONTAINERIZED**

1-2000 CONTAINERS/SHIPMENT

STORAGE CAPACITY:
CONTAINER TYPE:

CUBIC YARD BOX PALLET
TOTE TANK ☑ DRUM
OTHER.
DRUM SIZE *55*

BULK LIQUID

GALLONS/SHIPMENT: *0 Min -0 Max* GAL

BULK SOLID

SHIPMENT UOM. TON YARD

TONS/YARDS/SHIPMENT: *0 Min - 0 Max*

I. SPECIAL REQUEST

COMMENTS OR REQUESTS:

GENERATOR'S CERTIFICATION

I certify that I am authorized to execute this document as an authorized agent. I hereby certify that all information submitted in this and attached documents is correct to the best of my knowledge. I also certify that any samples submitted are representative of the actual waste. If Clean Harbors discovers a discrepancy during the approval process, Generator grants Clean Harbors the authority to amend the profile, as Clean Harbors deems necessary, to reflect the discrepancy

AUTHORIZED SIGNATURE William Cooke NAME (PRINT) William Cooke TITLE Outbound Disposal DATE 4/18/13

[redacted]

Addendum

D. COMPOSITION

CHEMICAL	MIN	–	MAX	UOM
CHLOROFORM		--		Trace
CHROMIUM OXIDE		–		Trace
COPPER COMPOUNDS		–		Trace
FE O.		–		Trace
FIBERGLASS BAGS	0.0000000	–	5.000000	%
FIBERGLASS BAGS.	0.0000000	–	5.000000	%
LEAD COMPOUNDS		–		Trace
MERCURY	260.00000000	–	2500.0000000	PPM
MERCURY OXIDE		--		Trace
MIBK		--		Trace
NICKEL OXIDE		--		Trace
SELENIUM OXIDE		--		Trace
SI O2.		--		Trace
SILVER COMPOUNDS		–		Trace
SODIUM CHLORIDE		–		Trace
TETRACHLOROETHENE		–		Trace
THALLIUM OXIDE (TH2O3)		–		Trace
TRICHLOROETHENE		–		Trace
VANADIUM OXIDE		–		Trace
ZINC OXIDE (ZNO)		–		Trace
ZINC OXIDE (ZNO).		–		Trace

F. REGULATORY STATUS

USEPA HAZARDOUS WASTE?

F024 F025 F032 F034 F035 F037 F038 F039 K001 K009 K010 K011 K013 K014 K015 K016 K017 K018 K019 K020 K021 K022 K023 K024 K025 K026 K027 K029 K030 K031 K032 K033 K034 K035 K036 K037 K038 K039 K040 K041 K042 K046 K048 K049 K050 K051 K052 K060 K062 K069 K071 K073 K083 K084 K085 K086 K087 K093 K094 K095 K096 K097 K098 K100 K101 K102 K103 K104 K105 K107 K108 K109 K110 K111 K112 K113 K114 K115 K116 K117 K118 K123 K124 K125 K126 K136 K156 K169 K170 K171 K172 P001 P002 P003 P004 P005 P006 P007 P008 P009 P010 P011 P012 P013 P014 P015 P016 P017 P018 P020 P021 P022 P023 P024 P026 P027 P028 P029 P030 P031 P033 P034 P036 P037 P038 P039 P040 P041 P042 P043 P044 P045 P046 P047 P048 P049 P050 P051 P054 P056 P057 P058 P059 P060 P062 P063 P064 P066 P067 P068 P069 P070 P071 P072 P073 P074 P075 P077 P082 P084 P085 P087 P088 P089 P092 P093 P094 P095 P096 P097 P098 P099 P101 P102 P103 P104 P105 P108 P108 P109 P110 P111 P113 P114 P115 P116 P118 P119 P120 P121 P122 P123 P185 P186 P189 P191 P192 P197 U001 U002 U003 U004 U005 U006 U007 U008 U009 U010 U011 U012 U014 U015 U016 U017 U018 U019 U020 U021 U022 U024 U025 U026 U027 U028 U029 U030 U031 U032 U034 U035 U036 U037 U038 U039 U041 U042 U043 U044 U045 U046 U047 U048 U049 U050 U051 U052 U053 U055 U056 U057 U058 U059 U060 U061 U062 U063 U064 U066 U067 U068 U069 U070 U071 U072 U073 U074 U075 U076 U077 U076 U079 U080 U081 U082 U083 U084 U085 U086 U087 U068 U089 U060 U091 U092 U093 U094 U095 U097 U098 U099 U101 U102 U103 U105 U106 U107 U108 U109 U110 U111 U112 U113 U114 U115 U116 U117 U118 U119 U120 U121 U122 U123 U124 U125 U126 U127 U128 U129 U130 U131 U132 U134 U135 U136 U137 U138 U140 U141 U142 U143 U144 U145 U146 U147 U148 U149 U150 U152 U153 U154 U155 U156 U157 U158 U159 U161 U162 U163 U164 U165 U166 U167 U168 U169 U170 U171 U172 U173 U174 U176 U177 U178 U179 U180 U181 U182 U183 U184 U185 U186 U187 U188 U190 U191 U192 U193 U194 U196 U197 U200 U201 U203 U204 U205 U206 U207 U208 U209 U210 U211 U213 U214 U215 U216 U217 U218 U219 U220 U221 U222 U223 U225 U226 U227 U228 U235 U236 U237 U236 U239 U240 U243 U244 U246 U247 U248 U249 U328 U353 U359 U364 U367 U394 U395 U404

WM Mercury Waste, Inc.
21211 Durand Avenue
Union Grove, Wisconsin 53182-9711
800.741.3343 or 262.878 2599
262.878.2699 Fax

WASTE MANAGEMENT®

April 22, 2013

Mr. Scott Sullivan
Clean Harbors, Inc.
42 Longwater Drive
Norwell, MA 02061

Dear Mr. Sullivan,

Based upon our previous discussions, WM Mercury Waste, Inc. is not able to accept for retort the incineration residues with high mercury concentrations from your Aragonite Facility. Based upon the information you have provided regarding the characterization of the waste, we are not permitted to receive the material at our facility. In addition the waste does not meet the criteria for waste materials we are able to accept for retort in 40 CFR 266.100(d).

If you have any questions regarding our acceptance criteria, please feel free to call at anytime at 262-878-2599.

Sincerely,

Patrick Baskfield
Sr. Manager Operations
WM Mercury Waste, Inc.

CC: Clean Harbors File

Mercury Waste Solutions, LLC

21211 Durand Avenue
Union Grove, Wisconsin 53182-9711

800.741.3343 or 262.878.2599
262.878.2699 Fax

www.mwsi.com

April 22, 2010

Ms. Karen Asnes
Clean Harbors, Inc.
42 Longwater Drive
Norwell, MA 02061

Dear Ms. Asnes:

Mercury Waste Solutions will not be able to accept the incineration residues with high mercury concentrations from Clean Harbors Aragonite for retort which you requested. Based on your description of the waste stream, it carries several EPA waste codes which we are not permitted to accept and does not meet our variance under the BIF exemption.

If you have specific questions regarding our acceptance criteria, please feel free to give me a call at anytime.

Sincerely,

Patrick Baskfield
General Manager
Mercury Waste Solutions, LLC

CC: Justine Bryant

HSWA Analytical Review

Matrix Baghouse Dust

BOX ID 410481

IN SERVICE DATE
From: 3/24/2013
To: 3/25/2013

	YES	NO
Dioxin Campaign:	☒	☐
K061 Campaign:	☒	☐

FAILED TREATMENT STANDARDS

TCLP Metals
Daily Composite

Analyte	Waste Codes	Treatment Standard (mg/L)	Result	Units
Cd	D006 F006-009 F011-12 F039 K028 K069 K100 UTS	0.11	23.9	mg/L
Pb	F006-009 F011-012 F039 K001 K046 K062 K069 K086-087 K100 P110 U051 U144-146 UTS	0.75	1.23	mg/L
Hg	D009	0.2	1.33	mg/L
Hg	F039 K071 K106 P092 UTS	0.025	1.33	mg/L
Zn	K061 UTS	4.3	18.4	mg/L

ROLLOFF BOX
TOTAL MERCURY 261mg/Kg

Reviewed by: David Lunt

LIMS Number 1304151	*Sample Fraction 07*			*Sample Fraction ID* 410481	
Sample Date 4/13/2013	Hg		*Report*		
BH Mercury Only	*Result*	*Units*	*Limit*	*Analyst*	*Date of Analysis*
Metals					
Mercury 7471A	261	mg/Kg	0.055	cn	4/15/2013

No waste codes requiring Thallium or Zinc treatment standards were incinerated on this HSWA date.

HSWA Analytical Review

Matrix Baghouse Dust

BOX ID 255081

IN SERVICE DATE
From: 3/27/2013
To: 3/28/2013

	YES	NO
Dioxin Campaign:	☒	☐
K061 Campaign:	☒	☐

FAILED TREATMENT STANDARDS

TCLP Metals
Daily Composite

Analyte	Waste Codes	Treatment Standard (mg/L)	Result	Units
Cd	D006 F006-009 F011-12 F039 K028 K069 K100 UTS	0.11	8.29	mg/L
Hg	D009	0.2	26.3	mg/L
Hg	F039 K071 K106 P092 UTS	0 025	26.3	mg/L
Ag	D011 F006-009 F011-12 F039 P099 P104 UTS	0.14	0.478	mg/L
Zn	K061 UTS	4.3	26.1	mg/L

ROLLOFF BOX
TOTAL MERCURY **885mg/Kg**

Reviewed by: David Lunt

LIMS Number 1304151	*Sample Fraction* 09			*Sample Fraction ID*	
Sample Date 4/13/2013	Hg		*Report*	255081	
BH Mercury Only	*Result*	*Units*	*Limit*	*Analyst*	*Date of Analysis*
Metals					
Mercury 7471A	885	mg/Kg	0.055	cn	4/15/2013

No waste codes requiring Thallium or Zinc treatment standards were incinerated on this HSWA date.

HSWA Analytical Review

Matrix Baghouse Dust

BOX ID 404982

IN SERVICE DATE
From: 3/23/2013
To: 3/24/2013

	YES	NO
Dioxin Campaign:	[X]	[ ]
K061 Campaign:	[X]	[ ]

FAILED TREATMENT STANDARDS

TCLP Metals
Daily Composite

Analyte	Waste Codes	Treatment Standard (mg/L)	Result	Units
Cd	D006 F006-009 F011-12 F039 K028 K069 K100 UTS	0.11	23.9	mg/L
Pb	F006-009 F011-012 F039 K001 K046 K062 K069 K086-087 K100 P110 U051 U144-146 UTS	0.75	1.57	mg/L
Hg	F039 K071 K106 P092 UTS	0.025	0.058	mg/L
Zn	K061 UTS	4.3	28.6	mg/L

ROLLOFF BOX
TOTAL MERCURY 482mg/Kg

Reviewed by: David Lutt

LIMS Number 1304151	*Sample Fraction* 06			*Sample Fraction ID*	
Sample Date 4/13/2013	Hg		*Report*	404982	
BH Mercury Only	*Result*	*Units*	*Limit*	*Analyst*	*Date of Analysis*
Metals					
Mercury 7471A	482	mg/Kg	0 055	cn	4/15/2013

No waste codes requiring Thallium or Zinc treatment standards were incinerated on this HSWA date.

HSWA Analytical Review

Matrix Baghouse Dust

BOX ID **410101**

IN SERVICE DATE
From: 3/26/2013
To: 3/27/2013

	YES	NO
Dioxin Campaign:	[X]	[ ]
K061 Campaign:	[X]	[ ]

FAILED TREATMENT STANDARDS

TCLP Metals
Daily Composite

Analyte	Waste Codes	Treatment Standard (mg/L)	Result	Units
As	D004 F038-039 K031 K084 K101-102 K161	5	7.12	mg/L
Cd	D006 F006-009 F011-12 F039 K028 K069 K100 UTS	0.11	8.29	mg/L
Hg	D009	0.2	11 1	mg/L
Hg	F039 K071 K106 P092 UTS	0.025	11 1	mg/L
Ag	D011 F006-009 F011-12 F039 P099 P104 UTS	0 14	0.317	mg/L
Zn	K061 UTS	4.3	18.2	mg/L

ROLLOFF BOX
TOTAL MERCURY **905mg/Kg**

Reviewed by: David Lust

LIMS Number 1304151	*Sample Fraction 10*			*Sample Fraction ID* 410101	
Sample Date 4/13/2013 Hg			*Report*		
BH Mercury Only	*Result*	*Units*	*Limit*	*Analyst*	*Date of Analysis*
Metals					
Mercury 7471A	**905**	mg/Kg	0.055	CN	4/15/2013

No waste codes requiring Thallium or Zinc treatment standards were incinerated on this HSWA date.

HSWA Analytical Review

Matrix Baghouse Dust

BOX ID 410105

IN SERVICE DATE
From: 3/27/2013
To: 3/27/2013

	YES	NO
Dioxin Campaign:	[x]	[ ]
K061 Campaign:	[x]	[ ]

FAILED TREATMENT STANDARDS

TCLP Metals
Daily Composite

Analyte	Waste Codes	Treatment Standard (mg/L)	Result	Units
Cd	D006 F006-009 F011-12 F039 K028 K069 K100 UTS	0.11	8 29	mg/L
Hg	D009	0.2	11.1	mg/L
Hg	F039 K071 K106 P092 UTS	0 025	11.1	mg/L
Ag	D011 F006-009 F011-12 F039 P099 P104 UTS	0 14	0.317	mg/L
Zn	K061 UTS	4.3	18.2	mg/L

ROLLOFF BOX
TOTAL MERCURY **655mg/Kg**

Reviewed by: David Lust

LIMS Number 1304151	*Sample Fraction 08*			*Sample Fraction ID*	
Sample Date 4/13/2013	Hg		*Report*	410105	
BH Mercury Only	*Result*	*Units*	*Limit*	*Analyst*	*Date of Analysis*
Metals					
Mercury 7471A	655	mg/Kg	0.055	cn	4/15/2013

No waste codes requiring Thallium or Zinc treatment standards were incinerated on this HSWA date.

HSWA Analytical Review

Matrix Baghouse Dust

BOX ID 410129

IN SERVICE DATE
From: 3/29/2013
To: 3/29/2013

	YES	NO
Dioxin Campaign:	[X]	[ ]
K061 Campaign:	[X]	[ ]

FAILED TREATMENT STANDARDS

TCLP Metals
Daily Composite

Analyte	Waste Codes	Treatment Standard (mg/L)	Result	Units
Cd	D006 F006-009 F011-12 F039 K028 K069 K100 UTS	0.11	2 29	mg/L
Hg	D009	0.2	9 43	mg/L
Hg	F039 K071 K106 P092 UTS	0.025	9.43	mg/L
Ag	D011 F006-009 F011-12 F039 P099 P104 UTS	0.14	0.477	mg/L
Zn	K061 UTS	4.3	36.1	mg/L

ROLLOFF BOX
TOTAL MERCURY 357mg/Kg

Reviewed by: David Hunt

LIMS Number	1304151	*Sample Fraction*	12		*Sample Fraction ID*	
Sample Date	4/13/2013	Hg		*Report*	410129	
BH Mercury only		*Result*	*Units*	*Limit*	*Analyst*	*Date of Analysis*

Metals

Mercury 7471A	357	mg/Kg	0.055	CN	4/15/2013

No waste codes requiring Thallium or Zinc treatment standards were incinerated on this HSWA date.

HSWA Analytical Review

Matrix Baghouse Dust

BOX ID 410211

IN SERVICE DATE
From: 3/28/2013
To: 3/29/2013

	YES	NO
Dioxin Campaign:	[X]	[ ]
K061 Campaign:	[X]	[ ]

FAILED TREATMENT STANDARDS

TCLP Metals
Daily Composite

Analyte	Waste Codes	Treatment Standard (mg/L)	Result	Units
Cd	D006 F006-009 F011-12 F039 K028 K069 K100 UTS	0.11	7.25	mg/L
Hg	D009	0.2	26.3	mg/L
Hg	F039 K071 K106 P092 UTS	0 025	26.3	mg/L
Ag	D011 F006-009 F011-12 F039 P099 P104 UTS	0 14	0.478	mg/L
Zn	K061 UTS	4 3	36.1	mg/L

ROLLOFF BOX
TOTAL MERCURY **430mg/Kg**

Reviewed by: David Lunt

LIMS Number 1304151	*Sample Fraction* 11			*Sample Fraction ID*	
Sample Date 4/13/2013	Hg		*Report*	410211	
BH Mercury Only	*Result*	*Units*	*Limit*	*Analyst*	*Date of Analysis*
Metals					
Mercury 7471A	430	mg/Kg	0.055	CN	4/15/2013

No waste codes requiring Thallium or Zinc treatment standards were incinerated on this HSWA date.

HSWA Analytical Review

Matrix Baghouse Dust

BOX ID 410298

IN SERVICE DATE
From: 3/24/2013
To: 3/24/2013

	YES	NO
Dioxin Campaign:	[X]	[ ]
K061 Campaign:	[X]	[ ]

FAILED TREATMENT STANDARDS

TCLP Metals
Daily Composite

Analyte	Waste Codes	Treatment Standard (mg/L)	Result	Units
Cd	D006 F006-009 F011-12 F039 K028 K069 K100 UTS	0.11	23.9	mg/L
Pb	F006-009 F011-012 F039 K001 K046 K062 K069 K086-087 K100 P110 U051 U144-146 UTS	0.75	1.23	mg/L
Hg	F039 K071 K106 P092 UTS	0.025	0 058	mg/L
Zn	K061 UTS	4.3	18.4	mg/L

ROLLOFF BOX
TOTAL MERCURY **460mg/Kg**

Reviewed by: David Lunt

LIMS Number 1304151	*Sample Fraction* 05			*Sample Fraction ID* 410298	
Sample Date 4/13/2013 Hg			*Report*		
BH Mercury Only	*Result*	*Units*	*Limit*	*Analyst*	*Date of Analysis*
Metals					
Mercury 7471A	460	mg/Kg	0.055	cn	4/15/2013

No waste codes requiring Thallium or Zinc treatment standards were incinerated on this HSWA date.

Mercury Treatability Study

Generator:	Clean Harbors Aragonite					
Waste Name	Baghouse Dust					
Profile Number	GM91-2669					
Sample Number	A38176 0710210-02 GM081022-1			Total Hg	291 mg/kg	
Sample Date	10/21/2008					
	Reagent	**Test Wt (gm)**	**Ratio**	**Element**	**UTS (mg/l)**	**Results (mg/l)**
	Waste	100.0	1.0	Sb	1.15	ND
	Water	29.4	0.29	As	5.0	ND
	CPS	3.9	0.04	Ba	21	0.407
	DTC	2.0	0.02	Be	1.22	ND
	KD	20.0	0.20	Cd	0.11	ND
	ENVB	10.0	0.10	Cr	0.60	ND
				Pb	0.75	ND
				Hg	0.025	ND
				Ni	11	ND
				Se	5.7	ND
				Ag	0.14	ND
				Tl	0.20	ND
				V	1.6	ND
				Zn	4.3	ND
Summary				**PASS/FAIL**		**PASS**

Generator:	Clean Harbors Aragonite					
Waste Name	Baghouse Dust					
Profile Number	GM91-2669					
Sample Number	410621 0710211-02 GM081022-2			Total Hg	1070 mg/kg	
Sample Date	10/21/2008					
	Reagent	**Test Wt (gm)**	**Ratio**	**Element**	**UTS (mg/l)**	**Results (mg/l)**
	Waste	100.0	1.0	Sb	1.15	0.234
	Water	29.4	0.29	As	5.0	ND
	CPS	3.9	0.04	Ba	21	0.390
	DTC	2.0	0.02	Be	1.22	ND
	KD	20.0	0.20	Cd	0.11	ND
	ENVB	10.0	0.10	Cr	0.60	ND
				Pb	0.75	ND
				Hg	0.025	ND
				Ni	11	ND
				Se	5.7	ND
				Ag	0.14	ND
				Tl	0.20	ND
				V	1.6	ND
				Zn	4.3	ND
Summary				**PASS/FAIL**		**PASS**

Mercury Treatability Study

Generator:	Clean Harbors Aragonite
Waste Name	Baghouse Dust
Profile Number	GM91-2669
Sample Number	410651 0710211-03 GM081022-3 Total Hg 284 mg/kg
Sample Date	10/21/2008

	Reagent	Test Wt (gm)	Ratio	Element	UTS (mg/l)	Results (mg/l)
	Waste	100.0	1.0	Sb	1.15	ND
	Water	44.9	0.45	As	5.0	ND
	CPS	4.0	0.04	Ba	21	0.287
	DTC	2.0	0.02	Be	1.22	ND
	KD	22.6	0.23	Cd	0.11	ND
	ENVB	10.0	0.10	Cr	0.60	ND
				Pb	0.75	ND
				Hg	0.025	ND
				Ni	11	ND
				Se	5.7	ND
				Ag	0.14	ND
				Tl	0.20	ND
				V	1.6	ND
				Zn	4.3	ND
Summary				**PASS/FAIL**		**PASS**

Generator:	Clean Harbors Aragonite
Waste Name	Baghouse Dust
Profile Number	GM91-2669
Sample Number	410625 0710211-04 GM081022-4 Total Hg 311 mg/kg
Sample Date	10/21/2008

	Reagent	Test Wt (gm)	Ratio	Element	UTS (mg/l)	Results (mg/l)
	Waste	100.3	1.0	Sb	1.15	0.653
	Water	35.2	0.35	As	5.0	ND
	CPS	4.0	0.04	Ba	21	0.426
	DTC	2.0	0.02	Be	1.22	ND
	KD	20.0	0.20	Cd	0.11	ND
	ENVB	10.0	0.10	Cr	0.60	ND
				Pb	0.75	ND
				Hg	0.025	ND
				Ni	11	ND
				Se	5.7	ND
				Ag	0.14	ND
				Tl	0.20	ND
				V	1.6	ND
				Zn	4.3	ND
Summary				**PASS/FAIL**		**PASS**

Mercury Treatability Study

Generator:	Clean Harbors Aragonite					
Waste Name	Baghouse Dust					
Profile Number	GM91-2669					
Sample Number	260065 070958-03 GM081022-5			Total Hg	316 mg/kg	
Sample Date	10/21/2008					
	Reagent	**Test Wt (gm)**	**Ratio**	**Element**	**UTS (mg/l)**	**Results (mg/l)**
	Waste	100.3	1.0	Sb	1.15	ND
	Water	32.2	0.32	As	5.0	ND
	CPS	4.0	0.04	Ba	21	0.184
	DTC	2.0	0.02	Be	1.22	ND
	KD	20.0	0.20	Cd	0.11	ND
	ENVB	10.0	0.10	Cr	0.60	ND
				Pb	0.75	ND
				Hg	0.025	ND
				Ni	11	ND
				Se	5.7	ND
				Ag	0.14	ND
				Tl	0.20	ND
				V	1.6	ND
				Zn	4.3	ND
Summary				**PASS/FAIL**		**PASS**

Generator:	Clean Harbors Aragonite					
Waste Name	Baghouse Dust					
Profile Number	GM91-2669					
Sample Number	410148 0809179-02 GM081022-6			Total Hg	2470 mg/kg	
Sample Date	10/21/2008					
	Reagent	**Test Wt (gm)**	**Ratio**	**Element**	**UTS (mg/l)**	**Results (mg/l)**
	Waste	100.0	1.0	Sb	1.15	1.02
	Water	44.0	0.44	As	5.0	ND
	CPS	4.0	0.04	Ba	21	0.512
	DTC	2.0	0.02	Be	1.22	ND
	KD	20.0	0.20	Cd	0.11	ND
	ENVB	10.0	0.10	Cr	0.60	ND
				Pb	0.75	ND
				Hg	0.025	ND
				Ni	11	ND
				Se	5.7	ND
				Ag	0.14	ND
				Tl	0.20	ND
				V	1.6	ND
				Zn	4.3	ND
Summary				**PASS/FAIL**		**PASS**