

Walker, Elizabeth (AIR)

From: DeVore, Susan
Sent: Thursday, November 19, 2009 8:22 AM
To: Walker, Elizabeth (AIR)
Subject: FW: SAC Alternate Fuel Meeting
Attachments: 2009_11_17 RAI_5 RAI Response-Final.pdf

Susan DeVore, P.E.
Bureau of Air Regulation
New Source Review
Telephone (850) 921-8968

From: Max Lee [mailto:mlee@kooglerassociates.com]
Sent: Wednesday, November 18, 2009 4:52 PM
To: DeVore, Susan
Cc: Vielhauer, Trina; Koerner, Jeff; Linero, Alvaro; Kirts, Christopher; Strong, Greg; forney.kathleen@epa.gov; abrams.heather@epamail.epa.gov; feely.ken@epa.gov; Fitchhorn.Larry@epamail.epa.gov; 'Horton Joe'; 'Martini Celso'; 'Messer Tom'; 'Cole Krishna'; 'Wold, James'
Subject: RE: SAC Alternate Fuel Meeting

Dear Susan,

The attached letter will be mailed to you today. On behalf of Suwannee American Cement, I appreciate your review and guidance in this process. Please note that in the mailed hardcopy cover letter, the third page states Attachment A. Page 3 is revised in the attached version to correctly state Attachment 1.

Best Regards,
Max

From: Horton Joe [mailto:JBHorton@vcnainc.com]
Sent: Wednesday, July 01, 2009 4:20 PM
To: Horton Joe; feely.ken@epa.gov; Johnson.Otis@epamail.epa.gov; Fitchhorn.Larry@epamail.epa.gov; Linero, Alvaro; DeVore, Susan; Wold, James; mlee@kooglerassociates.com; talley.mazzie@epa.gov
Cc: Martini Celso; Messer Tom; Lago Natacha; Cole Krishna; Vermeire Marc; Little Wilson; Vroegh Martin
Subject: RE: SAC Alternate Fuel Meeting

Ladies and Gentlemen:

Please see attached the presentation that is to be presented during the meeting tomorrow so everyone may follow along on the conference call.

In addition Ken Freely asked that I also send the group the attached letter as well for discussion tomorrow.

Thanks,
Joe Horton

From: Horton Joe
Sent: Tuesday, June 30, 2009 9:39 AM
To: 'Ken Feely (feely.ken@epa.gov)'; Johnson.Otis@epamail.epa.gov; Fitchhorn.Larry@epamail.epa.gov; Linero, Alvaro;

DeVore, Susan; Wold, James; 'mlee@kooglerassociates.com'

Cc: Martini Celso; Messer Tom; Lago Natacha; Cole Krishna; Vermeire Marc; Little Wilson; Vroegh Martin

Subject: SAC Alternate Fuel Meeting

Ladies and Gentlemen,

Thank you for your time and interest in participating in the following meeting/conference call to discuss the Suwannee American Cement (SAC) recent request to use alternate fuels and specifically Auto Filter Fluff.

The meeting/conference call is scheduled for the following:

Date/Time:

Thursday, July 2nd @ 10am to 11:30am

Location:

EPA Offices
61 Forsyth St SW
Atlanta, GA 30303

For those of you participating via conference call the following is the dial-in information:

Call In-Number:

US/Canada Toll Free: 866-596-5280

Direct Dial: 416-406-5763 (Back-up)

Conference ID:

1010355

The tentative agenda would be as follows:

- Introductions
- Brief overview of SAC (PowerPoint Presentation)
- Overview of the SAC proposed Alternate Fuel Test Program (PowerPoint Presentation)
- Open discussion on current and applicable regulations for Auto Filter Fluff
 - o Current and Future TSCA Regulations and PCB
- Summary and Next Steps

The PowerPoint Presentation will be shared to all attendees prior to the meeting to allow for those participating via conference call to participate.

The following attendees from SAC will be attending in person:

Celso Martini – Vice President of Operations North America

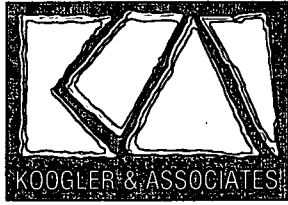
Krishna Cole – SAC Environmental Engineer

Joe Horton – Environmental Manager Florida

Others to participate via conference call include representatives from the Florida Department of Environmental Protection, Gerdau Ameristeel, Koogler and Associates (consultant to SAC), as well as other members of the SAC team from the Plant and Cooperate office in Toronto, Canada. Please feel free to include any others from your respective group to participate in the conference call.

Should you have any questions please feel free to contact me.

Thanks,
Joe Horton



ENVIRONMENTAL SERVICES

4014 NW THIRTEENTH STREET
GAINESVILLE, FLORIDA 32609
352/377-5822 ▪ FAX/377-7158

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KA 624-08-04
November 18, 2009

BUREAU OF AIR REGULATION

Ms. Susan Devore
Bureau of Air Regulation
Department of Environmental Protection
2600 Blair Stone Road, MS # 5500
Tallahassee, Florida 32399-2400

SUBJECT: Response to Requests for Additional Information (RAI) dated August 21, 2009 and September 18, 2009
Suwannee American Cement – Branford, Suwannee County
DEP File No. 1210465-016-AC (PSD-FL-259G)
Alternative Fuel Materials Testing – SAC Cement Kiln
P.E. Certification

Dear Ms. Devore:

This letter provides the RAI response information requested by your letters to Tom Messer of Suwannee American Cement dated August 21, 2009 and September 18, 2009 regarding the subject permit application. In accordance with Rule 62-4.050(3), I have sealed this letter with enclosure as certification by a professional engineer. Enclosed please find four (4) copies of this RAI response. I trust this response addresses the information of your request and appreciate your review.

Please feel free to contact me at (352) 377-5822 or mlee@kooglerassociates.com if you have any questions regarding this submittal.

Sincerely,


Max Lee, Ph.D., P.E.

Date

NOV 18 2009

P.E. Seal: 58091

via email

Trina Vielhauer, FDEP: Trina.Vielhauer@dep.state.fl.us

Jeff Koerner, FDEP: Jeff.Koerner@dep.state.fl.us

A.A. Linero, FDEP: alvaro.linero@dep.state.fl.us

Chris Kirts, FDEP NED: christopher.kirts@dep.state.fl.us

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Kathy Forney, EPA Region 4: forney.kathleen@epa.gov

Heather Abrams, EPA Region 4: abrams.heather@epa.gov

Ken Feely, EPA Region 4: feely.ken@epa.gov

Larry Fitchhorn, EPA Region 4: Fitchhorn.Larry@epa.gov

Joe Horton, SAC: jbhorton@vcnainc.com

Celso Martini, SAC: cmartini@suwanneecement.com

Tom Messer, SAC: tomm@suwanneecement.com

Krishna Cole, SAC: krishnac@suwanneecement.com

James Wold, Gerdau Ameristeel : JWold@GerdauAmeriSteel.com

Enclosure: 4 copies-AC Permit Application RAI Response

SAC's response to the questions asked in the Department's Request for Additional Information (RAI) dated August 21, 2009 and revised on September 18, 2009 are supplied below. As noted in the Department letter dated September 18, 2009, the second set of questions have been answered. The questions are in bold italics followed by SAC's response.


- 1. Your previous response included a list of (QA/QC) procedures (Gerdau Ameristeel Wilton Environmental System Procedure) to address the regulatory requirements under the Toxic Substance Control Act (TSCA), procedures to remove mercury-containing devices and monitoring provisions to ensure exclusion of these materials and compliance with the regulations. Please submit a similar list of QA/QC procedures specific to the SAC plant that will be provided to autofluff suppliers (such as Gerdau Ameristeel Jacksonville) that will ensure compliance with the regulations and successful materials segregation. As we discussed during the August 14th teleconference, specifically address the gap in the Wilton QA/QC procedures since Florida does not have regulations similar to Iowa's "demanufacturing" rule.***

Suwannee American Cement (SAC) has included in Attachment 1 its plan that lays out the quality control requirements that an auto-shredder residue (ASR), a.k.a. auto fluff or fluff, supplier must agree to in order to qualify as an ASR supplier for SAC. SAC believes that these requirements, along with the management requirements of its independently ISO certified environmental and quality management systems (ISO 14001 and 9001), will ensure compliance with the regulations and more importantly will ensure that the introduction of chemicals of concern such as mercury will be reduced and minimized by the implementation of the attached plan.

SAC believes that this Source Control Program will address any gap in the Wilton QA/QC procedures. The proposed Source Control Plan will provide to the Department quantifiable evidence of minimized contamination through material analyses that is reinforced by auditing. The analyses provides valuable source sample analyses data that quantitatively evaluates the effectiveness of the Source Control Program that is far more accurate than statistical estimates of mercury switch removal and PCB content used to evaluate other programs including the Iowa "demanufacturing" rule. The analyses data should be viewed by the Department and other interested parties as an extremely valuable tool to evaluate this source material.

ATTACHMENT A

SAC Source Control Plan

	VCNA – Suwannee	Code	
	Plan	Revision	00
	Title: Auto Shredder Residue Supplier Qualification Requirements	Area	SU/QC/EN
		Pages	1 / 16

1. OBJECTIVE

The objective of this plan is to minimize and reduce any potential input of contaminants of concern into Suwannee American Cement's (SAC), Branford, Florida cement plant pyroprocessing system from use of auto shredder residue (ASR) as an alternative fuel. This objective will be achieved by working closely with SAC's suppliers to ensure that all reasonable efforts are taken to remove contaminants of concern from the supplier's shredder feedstock. The sequence of material processing involves three parties, shredder feedstock suppliers, ASR suppliers and SAC. ASR material originates from **shredder feedstock suppliers** which is transferred to **ASR suppliers** who process and shred the feedstock to produce ASR. The ASR is then transferred to **SAC**. These three entities are the key participants to producing quality ASR.

2. SCOPE

All ASR Suppliers

Votorantim Cimentos North America (VCNA) Procurement Division

SAC's Purchasing Department

SAC's Quality Control Department

SAC's Environmental Management Department

3. DEFINITIONS

ABS – Antilock Braking System

ASR – Auto Shredder Residue (a.k.a. auto fluff or fluff) – non metal byproduct from the shredding of end of life vehicles for metal recovery

ASR Supplier – supplier ASR to SAC for use as an alternative fuel

EPA – United States Environmental Protection Agency

Department – Florida Department of Environmental Protection

PCB – Polychlorinated Biphenyl – a class of organic compounds that were banned from manufacture by the United States Congress in 1976.

Source Control Program – a program developed to ensure that contaminants of concern regulated by TSCA are removed prior to shredding.

Shredder Feedstock – any material fed to an automobile shredder for purposes of metal recovery

TSCA – Toxic Substance Control Act

4. DIRECTIVES

- a) SAC shall only use suppliers with a written source control program.
- b) SAC shall adhere to all requirements of this plan and shall discontinue receipt of ASR from any supplier that can not meet all the requirements of this plan.
- c) SAC shall maintain records onsite for up to five years, and make available upon request to the Department, all sampling, testing, and analysis conducted as specified by this plan.

5. RESPONSIBILITIES

VCNA's Procurement Division and SAC's Purchasing Department shall be responsible for ensuring that any new ASR supplier fully understands, agrees, and with some reasonable assurance, that they are able to comply with this plan prior to acceptance and qualification of a new ASR supplier.

SAC's Quality Control Department shall conduct the required sampling, testing, and analysis specified in conditions of this plan, or as required by permit, or any additional sampling, testing, and analysis deemed necessary by SAC's Management Team.

SAC's Environmental Management Department shall ensure that all regulations, permit requirements, and conditions of this plan are being met; and shall monitor and report all results as required by regulation, permit requirement, or as required by this plan.

6. CONDITIONS

Pollution Prevention:

In order to minimize and reduce the input of chemicals of concern into SAC's pyroprocessing system from use of ASR as an alternative fuel the following conditions must be met by all ASR suppliers:

1. A supplier must create and store SAC's ASR separately from other ASR to be disposed in other manners.
2. ASR supplied to SAC must be created from shredder feedstock that contains only end of life vehicles. No household or industrial appliances.
3. To the extent possible, end of life vehicles selected for shredding to supply SAC with ASR, must be free of the following contaminants and their sources:
 - a. Mercury Sources
 - i. Mercury switches
 - ii. ABS G-Force Sensors
 - iii. Air Bag Crash Sensor Modules

NOTE: For information purposes, Appendix – 01 contains a list of vehicles and the location of mercury sources by year, make, and model.

- b. PCB Sources
 - i. Capacitors

- c. Lead Sources
 - i. Batteries
 - ii. Lead Battery Cables
 - iii. Lead Wheel Weights

- d. Refrigerants
- e. Oil & Oil Filters
- f. Gasoline & Gas Tanks.

QUALITY CONTROL:

Sampling & Analysis:

In order to ensure careful tracking of material to be delivered as fuel to SAC, an ASR supplier must create and store the ASR for supply to SAC separately from other ASR. Sampling and analysis of this ASR must be conducted for at least each 500 tons of produced ASR. The ASR supplier must conduct ASR sampling and analysis according to the plan provided in Appendix – 02.

SAC's Quality Control Department will gather sample and analyze ASR brought onsite according to the plan provided in Appendix – 03.

In the event SAC receives ASR from more than one qualified source, SAC shall not mix ASR from the different sources during storage and use. This is necessary because SAC must be able to trace the results of sampling and analysis to the source.

Record Keeping & Reporting:

The results of all sampling and analysis must be supplied from the Supplier to SAC's Environmental Management Department as it becomes available, and SAC shall maintain these records onsite for up to five years in a format suitable for recovery and review by the Department upon request.

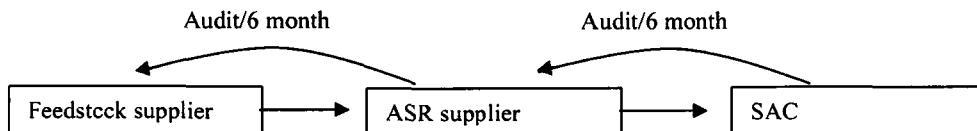
Audits:

In addition to ASR supplier inspections of shredder feedstock supplied to their facility, SAC's ASR suppliers must perform periodic (no less than semi-annual) audits of its suppliers¹ that supply feedstock used to generate ASR for use by SAC. These audits shall be conducted in accordance with the audit plan provided to SAC as part of the

¹ It is recommended that an ASR supplier should limit their sources of shredder feedstock, used to generate ASR to be used as a fuel, to a select group of shredder feedstock suppliers. This limitation will make it easier to control the supply and also comply with the inspection requirements of this plan.

source control program submitted to the EPA TSCA Division. SAC's ASR suppliers shall maintain record of these audits onsite in a format suitable for review by SAC personnel.

SAC shall conduct semi-annual audits of the ASR suppliers facility and records (related to ASR supplied to SAC), and must audit the suppliers facility prior to approval as an ASR Supplier. These audits shall be conducted in accordance with the audit plan provided in Appendix – 04. SAC shall maintain record of these audits onsite in a format suitable for recovery and review by the Department.



Nonconforming Materials:

SAC's Quality Control Department shall maintain a close working relationship with the supplier and shall notify a supplier if there is nonconformity of any substance of concern from an environmental, quality, or production perspective; as defined in the Sampling and Analysis Plan provided in Appendix – 03.

In the event that nonconforming materials are supplied, SAC shall take the following actions:

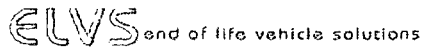
1. Notify the supplier, in writing, of the nature of the nonconformity.
2. SAC shall give the supplier the opportunity to correct the nonconformity².
3. The ASR supplier must deliver to SAC, in writing, within seven (7) days of being notified, the actions that will be taken to address the nonconformity.
4. SAC shall verify through inspection and testing that the nonconformity has been addressed and keep record of the results in a format suitable for recovery and review by the Department upon request.
5. If an ASR supplier does not take action to address the nonconformity, SAC reserves the right to cancel any and all relationships with the supplier and shall hold the supplier liable for any damages as a result of the nonconformity.

² Some nonconformity may require that the ASR supplier remove and dispose of the material supplied immediately and halt all further shipments until the nonconformity is resolved. Actions required are specified in the Sampling and Analysis Plan provided in Appendix – 03 and the Inspection Plan provided in Appendix – 05.

7. APPENDICES

7.1. APPENDIX 01 – The information provided in Appendix 01 was taken from (check the source for the most current data): <http://www.elvsolutions.org/educational.html>

Another good source for information on location of mercury containing devices in automobiles in a searchable format is: <http://www.newmoa.org/prevention/mercury/imerc.cfm>



CHECK THE FOLLOWING VEHICLES FOR MERCURY ABS G-FORCE SENSORS

(Participating members of the End-of-Life Vehicle Solutions Urly).

AUDI		<i>Audi</i>					
Audi 80 / 90	1987 - 1993	✓ Rear Seat					
Audi 100 / Avant	1987 - 1993	✓ Rear Seat					
Audi V8	1989 - 1995	✓ Rear Seat					
Audi 200	1987 - 1991	✓ Rear Seat					
Audi Coupe quattro	1987 - 1992	✓ Rear Seat					
CHRYSLER LLC		<i>Dodge, Jeep</i>					
4AVD Dodge Stealth	1992 - 1996			✓ Rear Center			
Jeep Cherokee	1992 - 2001	✓ Rear Seat					
Jeep Grand Cherokee	1993 - 2001	✓ Rear Seat					
Jeep Wrangler	1992 - 2003					✓ Driver Seat	
FORD MOTOR COMPANY		<i>Ford, Mazda, Mercury</i>					
Ford Bronco	1993 - 1997					✓ Driver Seat	
Ford Explorer	1993 - 2002					✓ Driver Seat	
Mazda Navajo	1993 - 2002					✓ Driver Seat	
4x4 Ford Ranger	1995 - 2001					✓ Driver Seat	
Mazda B-Series Pick-up	1995 - 2001					✓ Driver Seat	
AVD Mercury Mountaineer	1997 - 2002					✓ Driver Seat	
MITSUBISHI		<i>Mitsubishi</i>					
3000 GT 4AVD	1991 - 1994			✓ Rear Center			
Galant 4AVD	1990 - 1992			✓ Rear Center			
Expo 4AVD	1991 - 1993			✓ Rear Center			
Expo LVR 4WD	1991 - 1993			✓ Rear Center			
Eclipse 4AVD	1991 - 1993			✓ Rear Center			
NISSAN		<i>Nissan</i>					
Pathfinder 4x4	1996			✓ Rear Center			
SUBARU		<i>Subaru</i>					
Subaru Legacy w/ 5MT AVD	1990 - 1995						✓ Right Front
Subaru Impreza w 5MT AVD	1993 - 1995						✓ Right Front

VEHICLES CONTAINING AIR BAG CRASH SENSOR MODULES WITH MERCURY SWITCHES
 (Participating members of End-of-Life Vehicle Solutions only)

MAKE / MODEL	MODEL YEAR	SWITCH LOCATION		
TOYOTA		<i>Console</i>		
Celica	1990 - 1993	✓ Rear Center	Driver's Seat	
MR2	1991 - 1993	✓ Front Center	Driver's Seat	
Supra	1990 - 1993	✓ Rear Center	Driver's Seat	
LEXUS		<i>Console</i>		
ES 250	1990 - 1991	✓ Rear Center	Driver's Seat	
LS 400	1990 - 1992	✓ Front Center	Driver's Seat	
VOLVO				
All Models Except 240	1987	Console	✓ Driver's Seat	
All Models	1988 - 1992	Console	✓ Driver's Seat	
240	1993	Console	✓ Driver's Seat	
AUDI				
Audi 80/90	1989 - 1993	✓ Console	Driver's Seat	
Coupe	1990 - 1991	✓ Console	Driver's Seat	
Audi 100/200	1989 - 1993	✓ Console	Driver's Seat	
S4	1992	✓ Console	Driver's Seat	
Audi V8	1990 - 1991	✓ Console	Driver's Seat	
MERCEDES-BENZ				
Model 190	1986 - 1990	✓ Console		
E-Class	1986 - 1990	✓ Console		
S-Class	1984 - 1990	✓ Console		

NOTE: IN THE ABOVE APPLICATIONS ONLY THE AIR BAG CRASH SENSOR MODULES CONTAIN MERCURY SWITCHES. AIR BAG INFLATION UNITS (STEERING WHEEL, INSTRUMENT OR DASH PANEL, SEAT, SIDE CURTAIN, ETC.) DO NOT CONTAIN MERCURY SWITCHES AND SHOULD NOT BE REMOVED.

DRAFT

VEHICLES CONTAINING MERCURY CONVENIENCE SWITCHES

MAKE / MODEL	MODEL YEAR	SWITCH LOCATION				
AUDI <i>Audi</i>						
Audi 100	1977-1988	✓	Hood	Trunk	Vanity Mirror	
Audi 200	1980-1988	✓	Hood	Trunk	Vanity Mirror	
CHRYSLER GROUP <i>Dodge, Chrysler, Jeep, Plymouth, Eagle</i>						
All	1999 and prior	✓	Hood	✓	Trunk	Vanity Mirror
FORD <i>Ford, Lincoln, Mercury, Mazda, Merkur, Volvo</i>						
Ford Mustang	2000 and prior	✓	Hood	✓	Trunk	Vanity Mirror
Ford Crown Victoria	2000 and prior	✓	Hood	✓	Trunk	Vanity Mirror
Mercury Grand Marquis	2000 and prior	✓	Hood	✓	Trunk	Vanity Mirror
Lincoln Town Car	2000 and prior	✓	Hood	✓	Trunk	Vanity Mirror
Ford, Lincoln, Mercury, and Merkur Cars	1999 and prior	✓	Hood	✓	Trunk	Vanity Mirror
Ford, Lincoln, and Mercury Trucks, SUVs, and Vans	2001 and prior	✓	Hood	Trunk	Vanity Mirror	
<i>* Excludes: 1999 and newer model year Ford Econoline, Ford Windsor, Ford Ranger, and Mercury Village</i>						
Mazda Navajo	1993-1997	✓	Hood	Trunk	Vanity Mirror	
Mazda B Series Pick-Up	1995-1999	✓	Hood	Trunk	Vanity Mirror	
<i>* Ranger/B-Series phased out mercury switches with 1999 model year.</i>						
Volvo (hood & trunk switches)	1991 and prior	✓	Hood	✓	Trunk	
Volvo (vanity mirror switch) -- Excludes Volvo 240	1988-1991	✓	Hood	Trunk	✓	Vanity Mirror
<i>* Volvo convenience switches may contain glass mercury capsules. Use care when removing convenience switches from these vehicles.</i>						

GENERAL MOTORS <i>Chevrolet, GMC, Cadillac, Buick, Oldsmobile, Pontiac, Saturn, Saab</i>						
All Vehicles	1999 and prior	✓	Hood	✓	Trunk	Vanity Mirror
<i>* Excludes: 1999 model year Chevrolet Astro, Chevrolet Silverado, GMC Safari, GMC Sierra</i>						
Cadillac Escalade	2000	✓	Hood	Trunk	Vanity Mirror	
Chevrolet Blazer	2000, 2001, 2002	✓	Hood	Trunk	Vanity Mirror	
Chevrolet Cavalier	2000, 2001	✓	Hood	✓	Trunk	Vanity Mirror
Chevrolet Corvette	2000	✓	Hood	Trunk	Vanity Mirror	
Chevrolet Express	2000, 2001, 2002	✓	Hood	Trunk	Vanity Mirror	
Chevrolet S-10 Crew cab	2002	✓	Hood	Trunk	Vanity Mirror	
GMC Denali	2000	✓	Hood	Trunk	Vanity Mirror	
GMC Envoy	2000, 2001	✓	Hood	Trunk	Vanity Mirror	
GMC Jimmy	2000, 2001	✓	Hood	Trunk	Vanity Mirror	
GMC Savana	2000, 2001, 2002	✓	Hood	Trunk	Vanity Mirror	
GMC Sonoma Crew cab	2002	✓	Hood	Trunk	Vanity Mirror	
Luxury G-Van	2001, 2002	✓	Hood	Trunk	Vanity Mirror	
Oldsmobile Bravada	2000, 2001, 2002	✓	Hood	Trunk	Vanity Mirror	
Pontiac Sunfire	2000, 2001	✓	Hood	✓	Trunk	Vanity Mirror

PORSCHE <i>Porsche</i>					
924	1978 - 1986	✓	Hood	Trunk	Vanity Mirror
924 S	1986 - 1988	✓	Hood	Trunk	Vanity Mirror
944	1982 - 1988	✓	Hood	Trunk	Vanity Mirror
944 S	1987 - 1988	✓	Hood	Trunk	Vanity Mirror
944 S2	1989 - 1991	✓	Hood	Trunk	Vanity Mirror
944 Turbo	1988 - 1991	✓	Hood	Trunk	Vanity Mirror
928	1978 - 1983	✓	Hood	Trunk	Vanity Mirror
928 S	1980 - 1983	✓	Hood	Trunk	Vanity Mirror
928 S/94	1984 - 1990	✓	Hood	Trunk	Vanity Mirror

- BMW, HONDA, HINDELL, NISSAN, SUBARU, VOLKSWAGEN, and TOYOTA vehicles DO NOT contain mercury convenience switches.
- Vehicles manufactured 2003 Model Year and beyond DO NOT contain mercury convenience switches.
- Vehicles without trunks including SUVs, station wagons, and hatchbacks DO NOT contain a mercury convenience switch in the "Trunk" or rear of the vehicle.

7.2. APPENDIX 02 –

ASR SUPPLIER SAMPLING & ANALYSIS PLAN

The purpose of this sampling and analysis plan is to gather data on the materials supplied to SAC. This data will be used for comparison with SAC's sampling and analysis results, and to give SAC indication of the effectiveness of the ASR Supplier's source control program. The data generated by this sampling and analysis plan, can be used to help determine if the sources of shredder feedstock are complying with the requirements of this plan.

ASR Suppliers must gather a representative sample for testing³ of at least each 500 cubic yards of produced ASR. Sampling procedures should be consistent with EPA Samples and Sampling Procedures for Hazardous Waste Streams (600/2-80-018) or similar method. During sampling and analysis all preservation, temperature and holding time provisions of EPA SW 846 (latest edition) shall be observed. Each sample shall be marked and dated with the following information:

- Sample Location
- Identifying Sample Code and Description
- Date & Time
- Sampler's Name

In addition to any sampling and analysis conducted according to regulatory requirements for waste classification purposes, the weekly samples required by this plan shall be sent to an independent laboratory for analysis and the following analysis shall be conducted:

- Total RCRA⁴ Metals Concentration⁵ – Method SW846 6010B
- Total Mercury Concentration⁵ – Method SW846 7471A
- PCB⁶ Concentration⁷ – Method SW846 8082A

The results of all analysis shall be supplied to SAC as they become available.

³ It is recommended that sample size be large enough so that a backup sample can be retained for re-testing in the event of a suspect result. A backup sample should be retained for at least 30 days or until results from the lab are received, whichever is longer.

⁴ RCRA Metals List: Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium and Silver. Thallium is not listed as one of the eight (8) RCRA metals, but due to its volatility it shall be measured as well.

⁵ If the result is below method detection limit (MDL) then the reported concentration is MDL.

⁶ According to EPA SW846, the failure by an individual sample in a data set population does not determine the characteristics of the waste.

⁷ PCB's (total PCB in mg/kg), results to be reported as the total of all 7 TSCA regulated species of PCB's.

7.3. APPENDIX 03 –

SUWANNEE AMERICAN CEMENT'S ASR TEST TRIAL
SAMPLING & ANALYSIS PLAN

The purpose of this sampling and analysis plan is to gather data on the materials supplied to SAC. The data gathered is to be used to determine environmental, quality, and operational performance at SAC and will be used for comparison with ASR supplier data. Comparison with ASR supplier data will enable SAC to verify the effectiveness of the supplier's source control program. Furthermore, the data collected by SAC in this test trial will serve as baseline data and will assist SAC and the Department in determining hard targets for material specifications for ASR related to environmental, quality, safety, and production requirements for permanent use as an alternative fuel.

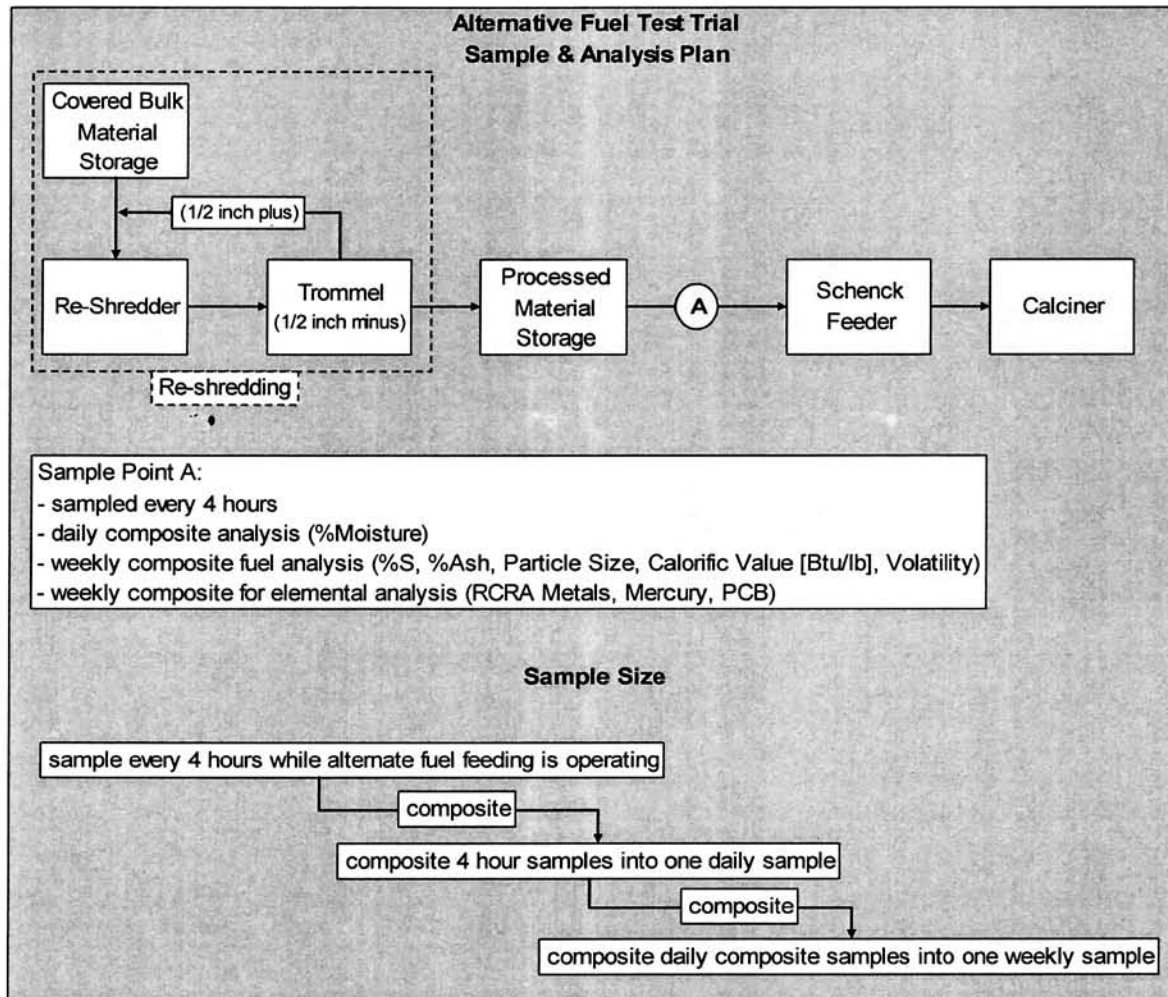


Fig.1 – Schematic of SAC's sampling and analysis plan during the test trial. The re-shredding proposed in this figure will likely take place at the ASR supplier's facility.

REVISIONS: Figure 1 shown above is a modified version of the previously submitted figure submitted to the Department with SAC's response to the Department's request for

additional information dated October 29, 2008 (see FDEP file 1210465-016-AC). The following modifications were made:

Dashed line around re-shredding process to denote that this activity may be conducted at the auto shredding facility if possible.

Moved analysis for percent sulfur, percent ash, and particle size distribution from daily to weekly because SAC's lab does not have the equipment to conduct this analysis at this time.

Removed the one gallon volume recommendation from sample size, and replaced it with language in this sample and analysis plan that states the sample taken must be representative. SAC shall use ASTM methods and protocols for sampling materials to ensure that a representative sample is gathered.

SAC shall gather from point A, shown in Fig. 1, a representative sample every four (4) hours while the alternative fuel feeding system is operating. Point A was selected because it is believed important that the 4 hour samples be collected from the process stream and not a stock pile. This will help to avoid any bias that may occur from selective sampling of a pile. Fluff is not homogenous, and therefore sampling of already shredded material (half (1/2) inch minus) will help ensure a better sample and preparation of sample for analysis. During sampling and analysis all preservation, temperature and holding time provisions of EPA SW 846 (latest edition) shall be observed. Each sample shall be marked and dated with the following information:

- Sample Location
- Identifying Sample Code and Description
- ASR Supplier's Name
- Date & Time
- Sampler's Name

From the four hour samples a daily composite sample shall be made. The daily composite sample will be analyzed for percent moisture daily. The daily composite samples are then stored and composited into one weekly sample. The weekly composite sample will be analyzed for the following:

Fuel Analysis:

- Calorific Value [Btu/lb]
- Volatility
- Percent Sulfur (%S)
- Percent Ash (%Ash)

Environmental Analysis:

- Percent Chlorine (% Cl) – ASTM Method D4208
- Total RCRA⁸ Metals Concentration⁹ – Method SW846 6010B
- Total Mercury Concentration⁹ – Method SW846 7471A
- PCB¹⁰ Concentration¹¹ – Method SW846 8082A

All daily and weekly composite analysis for moisture, sulfur, chlorine, ash, particle size, calorific value, and volatility will be conducted according to established American Society for Testing and Materials (ASTM) methods and will be conducted internally or externally as necessary. However, weekly composite samples sent to external laboratories for total elemental analysis will be analyzed using EPA approved methods of analysis. All of the testing results will be recorded and stored onsite available to the Department for review upon request.

This sampling and analysis plan is based on the best available information regarding both internal and external laboratory capabilities to analyze ASR. However, as the test trial progresses it may be necessary to modify this sampling and analysis plan to improve the quality of data gathered and/or to match the real world capabilities of available laboratories to properly analyze ASR. Regardless, weekly analysis will be conducted.

Nonconforming Materials – General Requirements:

Compliance with all solid waste regulations is paramount, and if any test on material to be supplied to SAC, conducted for compliance demonstration, fails then all deliveries to SAC shall cease until the ASR supplier can prove that changes made to their source control program will ensure compliance with regulations. The ASR supplier will be responsible for properly disposing of any ASR already delivered to SAC. Proving that an ASR supplier's source control program ensures compliance shall require completion of all steps laid out below and certification by a Florida certified professional engineer.

In addition to regulatory requirements, a result shall be considered nonconforming if it falls outside of plus or minus three (3) standard deviations of the average (the minimum number of samples for comparison to the average shall be five samples) and/or a result is deemed to have a negative impact on the production or quality of the product. Such an event shall require the following actions be taken by SAC and the supplier.

TABLE 1 - Corrective Actions to be completed for Nonconforming Materials

- | |
|---|
| <ul style="list-style-type: none">▪ Contact the ASR supplier and inform them of the outlying result.▪ Submit backup samples for retesting.▪ Compare SAC's result to ASR supplier results for metals, mercury, and PCB concentrations. |
|---|

⁸ RCRA Metals List: Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium and Silver. Thallium is not listed as one of the eight (8) RCRA metals, but due to its volatility it shall be measured as well.

⁹ If the result is below method detection limit (MDL) then the reported concentration is MDL.

¹⁰ According to EPA SW846, the failure by an individual sample in a data set population does not determine the characteristics of the waste.

¹¹ PCB's (total PCB in mg/kg), results to be reported as the total of all 7 TSCA regulated species of PCB's

- Obtain a written report from the ASR supplier regarding any possible changes to their process or source of shredder feedstock and any actions taken to correct problems found.
- Conduct an inspection of the ASR suppliers facility per requirements of the Inspection Plan provided in Appendix – 05.
- A written report detailing the events and the results of actions taken shall be submitted to the Department upon completion of the test trial.

Nonconforming Materials - PCB Concentrations:

The material supplied to SAC must comply with TSCA regulations. If a single PCB analysis result is greater than 35 ppm but less than 50 ppm, from either SAC's weekly testing or the ASR supplier's weekly testing, all deliveries from the ASR supplier shall cease until all actions listed in Table 1 above are complete and additional samples from the ASR supplier are sent for analysis and demonstrate that expected concentrations are below 35 ppm PCB.

If a single PCB analysis result is greater than 50 ppm, from either SAC's weekly testing or the ASR supplier's weekly testing, all deliveries from the ASR supplier shall cease until the ASR supplier can prove that changes made to their source control program will ensure compliance with all TSCA regulations, and the ASR supplier will be responsible for properly disposing of any ASR already delivered to SAC. Proving that an ASR supplier's source control program ensures compliance shall require certification by a Florida certified professional engineer and re-qualification by the EPA TSCA Division.

DRAFT

7.4. APPENDIX 04 –

SAC AUDIT OF ASR SUPPLIER FACILITIES

AUDIT SCOPE

The audit focus shall be on the auto-shredder residue (ASR) supplier's quality control program to remove items of concern from end of life vehicles so that those items do not remain in ASR delivered to Suwannee American Cement (SAC).

- Review records of internal inspections of received feedstock
- Review records of audits conducted at the shredder feedstock supplier facilities
- Visual inspection of incoming feedstock
- Visual verification that ASR supplied to SAC is created separately
- Visual verification that SAC's ASR supply is stored separately
- Review sampling and analysis records and procedures
- Review records of personnel training related to the source control program
- Review all documents of the source control program submitted to the EPA

CONDUCT OF AUDIT


The audit shall be conducted by SAC's Environmental Manager, or another qualified individual, on a semi-annual basis at the ASR supplier's facility. Results of the audit shall be communicated in writing to the Supplier at the close of the audit in the audit report. The audit report shall be recorded using SAC's Internal Audit Report Form (Appendix -05). The auditor shall list the full names of anybody interviewed and shall retain copies of all records reviewed. The auditor may take photos of a facility, but must first seek approval from the Supplier's representative. Copies of any photos taken must be supplied to the Supplier representative along with the audit report.

ADDRESSING NONCONFORMITIES

Any nonconformity found during the audit must be addressed by the ASR supplier. A written statement from the supplier with expected timeline to correct the nonconformity shall be delivered to SAC within seven (7) days the audit report was submitted to the supplier. If additional time is needed to determine the cause of nonconformity a written request for additional time shall be submitted. According to the timeline provided by the supplier, SAC shall conduct a follow up audit to determine if the nonconformity has been fully addressed.

If any nonconformity poses a significant risk to environmental, quality, or production concerns of SAC then delivery of ASR must cease until the nonconformity is addressed.

7.5. Appendix – 05

	<h2>AUDIT REPORT</h2>
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Supplier Audited:	
Date of Audit:	
Date of Audit Report:	
Auditor:	
Duration of Audit:	

AUDIT SCOPE

The audit focus shall be on the auto-shredder residue (ASR) supplier's quality control program as it relates to removal of chemicals of concern from end of life vehicles so that those substances do not end up in ASR delivered to Suwannee American Cement (SAC).

- Review records of internal inspections of received feedstock
- Review records of audits conducted at the shredder feedstock supplier facilities
- Visual inspection of incoming feedstock
- Visual verification that ASR supplied to SAC is created separately
- Visual verification that SAC's ASR supply is stored separately
- Review sampling and analysis records and procedures
- Review records of personnel training related to the Source Control Program
- Review all documents of the Source Control Program submitted to the EPA

Executive Summary:

Strengths:

-
-

Recommendations:

-
-

Number of nonconformities identified:

A written statement expected timeline to correct the nonconformity shall be delivered to SAC within seven (7) days from the date this report was received. If additional time is needed to determine the cause of nonconformity a written request for additional time shall be submitted.

Report Completed by:		Date Submitted:	
Statement Received by:		Date Received:	
Follow-Up Audit by:		Date of Follow-Up Audit:	

