Century ALUMINUM
Hawesville
Operations

February 22, 2012

US Environmental Protection Agency
Office of Federal Activities
International Compliance Assurance Division (2254A)
Ariel Rios Building
1200 Pennsylvania Avenue, NW
Washington, DC 20460

RE: Hazardous Waste Exporter Annual Report

Enclosed please find the Hazardous Waste Exporter Annual Report for 2011 for:

Century Aluminum of KY
P.O. Box 500
1627 State Route 271 North
Hawesville, KY 42348
EPA ID #: KYD 049 062 375

If you have any questions or concerns, please feel free to contact me at (270) 685-2493 ext 2567.

Sincerely,

Jason Pfeiffer, CHMM, REM
Environmental Engineer
Century Aluminum of Kentucky

Century Aluminum of Kentucky
Post Office Box 500
Hawesville, KY 42348

(270) 685-2493 Phone
(270) 852-2883 Fax

A Century Aluminum Company

received
SDM 3/2/12

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Century ALUMINUM
Hawesville Operations

Century Aluminum of Kentucky LLC.
P.O. Box 500, 1627 State Rt. 271 N.
Hawesville, Kentucky 42348

Attn: Jason Pfeiffer

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1200 Pennsylvania Avenue, NW
Washington, DC 20460

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Department: 2254A
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Scott

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Exporter of Hazardous Waste Annual Report 2011

Exporter EPA ID # : KYD 049 062 375
Exporter Name: Century Aluminum of Kentucky
Mailing Address: P.O. Box 500
Site Address: 1627 State Route 271 North
City: Hawesville, Kentucky 42348

Report Year: 2011

Consignee EPA ID # : MIR 000 035 204
Consignee: Clean Harbors Canada, Inc.
Site Address: 4090 Tefler Side Road
Corunna, Ontario N0N 1G0

AOC #	Waste Description	EPA Code	DOT Hazard Class	Transporter Name	Transporter EPA ID #	Total Waste Shipped (tons)	Number of Shipments
001132/8E/10	spent potlining from aluminum reduction cell demolition	K088	4.3	Clean Harbors Environmental Services	MAD 039 322 250	3,738.43	206
003006/7E/11	spent potlining from aluminum reduction cell demolition	K088	4.3	Clean Harbors Environmental Services	MAD 039 322 250	1,727.12	110
					Totals:	5,465.55	316

Reduction Efforts: Century Aluminum of Kentucky continually strives to reduce the volume and toxicity of the spent potlining that is generated. Spent potlining (K088) is generated when aluminum electrolysis cells (pots) fail and the cathode lining requires replacing. During aluminum production cyanide, which is the reason spent potlining was listed as a hazardous waste, forms in the cathode lining of the pot. Century Aluminum modifies the pot construction design to increase pot life, thus reducing the frequency of failure and therefore the quantity of spent potlining produced. Century Aluminum has also attempted to reduce the toxicity of the waste by reducing the cyanide formation in the cathode. Efforts to seal the cathode opening in the pot shell prevents air from reaching the cathode. The nitrogen in the air is necessary for the formation of the cyanide, therefore reducing the air entering the pot reduces the quantity of cyanide produced.

Reduction Results: Records are kept for each pot showing the date the pot was put in service and the date of removal from service. Average days of pot life are calculated for the pots removed from service.

Years	Avg. Days of Pot Life	% Increase over 1980 - 1983	% Increase over previous period
1980 - 1983	2004		
1984 - 1987	2140	6.79%	6.79%
1988 - 1991	2336	16.57%	9.16%
1992 - 1995	2632	31.34%	12.67%
1996 - 2000	2834	41.42%	7.67%

The above table shows a continuous increase in pot life and therefore a reduction in spent potlining produced. The increased pot life resulted in a 41.42% reduction in spent potlining production in 1996 through 2000 compared to what it would have been without improved pot design based on 1980 through 1983 data.

Due to changes in the production process, the average days of pot life decreased which in turn increased the amount of spent pot liner in 2011. The production process has been refined and a reduction in the spent liner generated for 2012 is expected.

Concerning toxicity, analysis of samples of spent cathode taken in 1986 indicate an average cyanide concentration of 1,300 mg/kg. After efforts to seal the pots better, a sample taken in 1998 revealed a reduced cyanide level of 654 mg/kg. A 49.69% reduction in toxicity.

Certification: I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Signature	Name	Title	Date
	Sean Lane	Safety and Environmental Manager	2/22/2012