

Mr. Courtnage:

Axiall/Westlake's use of asbestos is limited to production of diaphragms for use in our chlor-alkali facility in Plaquemine, LA. Our uses are consistent with the ACC comments filed recently with EPA. Currently, we have a several year supply on hand and do not plan any further imports. We expect to eventually switch to a non-asbestos technology.

The questions that were asked by EPA, and answers are listed below:

1. Do we have worker monitoring information for asbestos?
 - See Attachment 1 (Asbestos Personal Sampling Results – Cell Renewal)
 - See Attachment 2 (Asbestos Personal Sampling Results – Chlorine Cell Line)
2. Estimate of releases of asbestos to air, water, and land.
 - Air – 3.6 pounds calculated in 2016. Based on amount of asbestos used, number of cell renewals performed and 98.8% scrubber efficiency.
 - Water – None
 - Land – None
3. Do we have documentation of asbestos content in Sodium Hydroxide product?
 - The diaphragm is a modified combination of asbestos and a polymer baked together into a non-friable material. This binder material prevents fibers from being released from the diaphragm during operation. Additionally, all products pass through filter banks designed to remove particulates, including salt and any potential asbestos.
 - The Plaquemine facility has performed quantitative analysis for asbestos in product caustic. All samples analyzed to date have been determined to contain zero fibers.
4. Asbestos waste streams – where does asbestos waste go?
 - Waste is washed from the cells within the Cell Renewal Building. It is contained and travels through designated drain system to a filter press. The filter pressed material goes to a designated, secure, covered roll off box. Once full, the box is transported with Asbestos Disposal Verification Form to an approved landfill as a non-hazardous waste. The landfill designates a single “cell” for asbestos disposal.
5. Any variances known in our handling processes from other manufacturers?
 - None known
6. Plans to exit asbestos technology, if any?
 - We expect to eventually switch to a non-asbestos technology. Timing is unknown.
7. Confirm the amount of asbestos reported in the 2016 CDR report.
 - Our Product Stewardship Group confirmed that for 2015 the import quantity was 152,000 lbs.
8. How are diaphragms made?
 - See Attachment 3 (Cell Renewal Offline Circuit)

ATTACHMENT 1

Asbestos Personal Sampling Results - Cell Renewal

Contractor

Axiall, a Westlake Company

Plaquemine, LA

Sample ID	Date	Employee Task	Time (min)	PCM Results (f/cc)
				ACSI
CN347719	6/30/2016	Cell Renewal	460	0.009
CN347637	7/29/2016	Cleaning Anode	485	0.007
CN248295	11/10/2016	Buffing Copper	420	0.011
CN248276	11/10/2016	Handling Dry Asbestos	424	0.013
CN248339	11/11/2016	Cleaning Cell and Building a Cell	337	0.003
CN248825	11/11/2016	Cleaning Building	394	0.005
CN248451	11/12/2016	Baking Cell in Oven	475	0.003
CN248341	11/12/2016	Buffing Copper	505	0.003
CN248546	11/13/2016	Cell Renewal	492	0.003
CN248335	11/13/2016	Cell Renewal	489	0.003

f/cc : fibers per cubic centimeter of air

OSHA-PEL (Permissible Exposure Limit) for asbestos is 0.1 f/cc for an 8 hour Time Weighted Average (8-hr TWA).

OSHA-STEL (Short Term Excursion Limit) for asbestos is 1.0 f/cc for a 30-minute Time Weighted Average (30-min TWA).

Analytical Method: NIOSH 7400 - Asbestos and Other Fibers by Phase Contrast Microscopy

ATTACHMENT 2

Asbestos Personal Sampling Results - Chlorine Cell Line

Axiall, a Westlake Company
Plaquemine, LA

Sample ID	Date	Employee Task	Time (min)	PCM Results (f/cc)
				Analytics
PLQ-100316-003	10/03/2016	Cell Line Operator	484	<0.005
PLQ-100316-004	10/03/2016	Cell Line Operator	484	<0.005
PLQ-100416-001	10/04/2016	Cell Line Operator	470	<0.005
PLQ-100416-002	10/04/2016	Cell Line Operator	459	<0.005
PLQ-100516-003	10/05/2016	Cell Line Operator	473	<0.005
PLQ-100516-004	10/05/2016	Cell Line Operator	473	<0.005
PLQ-100616-001	10/06/2016	Cell Line Operator	477	<0.005
PLQ-100616-002	10/06/2016	Cell Line Operator	476	<0.005

f/cc : fibers per cubic centimeter of air

OSHA-PEL (Permissible Exposure Limit) for asbestos is 0.1 f/cc for an 8 hour Time Weighted Average (8-hr TWA).

OSHA-STEL (Short Term Excursion Limit) for asbestos is 1.0 f/cc for a 30-minute Time Weighted Average (30-min TWA).

Analytical Method: NIOSH 7400 - Asbestos and Other Fibers by Phase Contrast Microscopy

Cell Renewal – Offline Cell Circuit

