

**THE HOMER LAUGHLIN CHINA CO.**

ESTABLISHED 1871

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*SUB-0081
04001957 (RETIRED)*

August, 20 2007

Mr. John Nicholson
Division of Nuclear Materials Safety
US Nuclear Regulatory Commission – Region 1
475 Allendale Road
King of Prussia, Pennsylvania, 19406

Subject: Update on Waste Characterization Activities

Dear, Mr. Nicholson,

The Homer Laughlin China Company (Homer Laughlin) is pleased to provide this update to the Nuclear Regulatory Commission (NRC) on the status of characterization activities in preparation for disposal of legacy waste materials at its Newell, WV facility. Upon receipt of NRC's letter to Homer Laughlin dated June 22, 2007, Homer Laughlin agreed to complete the requested items on NRC's action list to facilitate disposal of remaining materials at Waste Control Specialists Resource Conservation and Recovery Act (RCRA) disposal facility in Andrews' TX. The following items have been undertaken:

- Homer Laughlin performed a 100% sampling each of the remaining waste containers that were not previously sampled for uranium. Homer Laughlin performed this sampling on June 11-12th, 2007. Samples were grouped according to type and compositely analyzed for total uranium. A total of 13 samples were analyzed and results during this effort and have been included in Attachment A. This brings total number of samples analyzed for total uranium during the January 2006 and June 2007 characterization efforts to 20 samples. All sample analytical results are presented in Attachment A.

Results indicate that most of the waste materials should be suitable for disposal at WCS as "unimportant quantities" of source material. Analytical results for two drums, HL-MX-23 and HL-MX-66, indicate high concentrations of total uranium. Therefore, Homer

NMSS/RGN1 MATERIALS-002

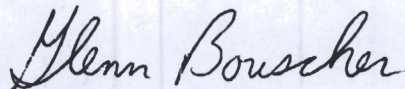
Laughlin will dispose of these drums as radioactive waste with previously sampled drums HLD-67 and RS-2.

Secondly, **analytical** results for two composite samples indicate activities slightly above the limit of 168 pCi/g U-238. Five drums, **HL-D-43**, HL-D-45, **HL-D-47** HLD-53 and **HL-D-54** exhibit an average activity of 291 pCi/g. Five B-25 type boxes, **HL-03**, **HL-07**, HL-10, HL-12 and HL-13 exhibit an average activity of 181 pCi/g. Although these values are above 168 pCi/g, Homer Laughlin and WCS believe that these containers can be averaged with other containers for which U-238 activity is **sufficiently** low to ensure that the average of the shipping container meets the definition of "unimportant quantities" of source material.

In parallel, Homer Laughlin has supplied the attached data to WCS for the purpose of **performing** a dose assessment per NRC request. Results of this dose assessment will be provided to NRC for review to support the request for disposal at WCS.

Please contact Mr. Glenn Boucher @ (304) - 387-1300 ext 447 or gboucher@hlchina.com if you require any additional information.

Sincerely,


Glenn Boucher

ATTACHMENT A

HOMER LAUGHLIN CHINA COMPANY CHARACTERIZATION DATA

Container ID	Weight lbs	Date	Container Type	Container Volume (ft^3)	Uranium Content (μCi) ⁽¹⁾	Uranium (pCi/g U-238) ⁽²⁾	TCLP Lead (μg/L)	PCB (μg/kg)	Top Contact Doserate (μR/hr)	Front Contact Doserate (μR/hr)	Front 1-ft Doserate (μR/hr)	% Full	Contents
HL-MX-15	3166	11/01/2006	B-25	96	90.30	1	108000	0	12	10	10	95%	Wood brick, paper, plastic
HL-MX-63	198	10/31/2006	Drum	7.5		1	31100		18	15	15	90%	Wood block
HL-MX-64	250	10/31/2006	Drum	7.5		1	46000	50	15	25	20	90%	Wood blocks
RS-5	234	10/31/2006	Drum	7.5		1	8580	120	14	15	15	75%	Wood block
RS-6	278	10/31/2006	Drum	7.5		1	163000	350	11	11	11	90%	Wood block
HL-MX-65	476	10/31/2006	Drum	7.5		7	14600	12	15	12	12	80%	Wood blocks, granular material (absorbent?)
HL-D-39	472	10/31/2006	Drum	7.5	4.34	18	1480	190	25	25	20	90%	Wood 2x8, metal beams, PPE
HL-D-46	150	10/31/2006	Drum	7.5	2.77	18	97	7	16	24	18	100%	80% Wooden blocks, scabbled concrete debris
HL-D-50	306	10/31/2006	Drum	7.5	7.10	18	1480	190	17	22	18	70%	Vacuum bags, debris
HL-D-52	442	10/31/2006	Drum	7.5	7.10	18	0	990	16	22	20	80%	Vacuum bags, debris
HL-D-55	608	10/31/2006	Drum	7.5	4.50	18	56	393	20	20	18	99%	Vacuum bags
HL-D-30	476	10/31/2006	Drum	7.5	3.14	22	408	7	14	19	16	95%	Concrete bricks
HL-D-31	486	10/31/2006	Drum	7.5	3.14	22	1480	190	17	20	17	90%	Concrete bricks
HL-D-32	586	10/31/2006	Drum	7.5	3.14	22	56	6	20	25	22	100%	Concrete blocks
HL-D-33	472	10/31/2006	Drum	7.5	3.14	22	0	7	18	25	20	85%	Concrete blocks, plastic, metal beams
HL-D-34	518	10/31/2006	Drum	7.5	3.14	22	0	154	22	30	20	100%	Concrete blocks
HL-MX-16	434	11/01/2006	B-12	45	45.00	32	10800	170	14	10	8	95%	HEPA filter, plastic, ACM bag, HEPA hose, misc remediation debris
HL-D-49	362	10/31/2006	Drum	7.5	3.14	32	14300	100	80	80	40	100%	Wood blocks, plastic, dust, saw dust
HL-D-49A	324	10/31/2006	Drum	7.5	4.75	32	132000	390	12	12	12	90%	Wood, wood chips, wood dust, metal sheeting
HL-D-51	188	10/31/2006	Drum	7.5	2.50	32	26200	6	16	20	20	90%	Wood
HL-D-56	224	10/31/2006	Drum	7.5	3.50	32	16700	120	10	10	10	95%	Plastic, vacuum bags
HL-D-60	78	10/31/2006	Drum	7.5	3.00	32	19000	71	12	10	10	95%	PPE, misc debris, HEPA hose, insulation
HL-D-61	90	10/31/2006	Drum	7.5	3.00	32	307000	42	12	10	10	80%	HEPA filter, plastic
HL-MX-17	724	11/01/2006	Wood Box	32		52	25300	98	10	9	9	95%	Wood bricks
HL-D-57A	524	10/31/2006	Drum	7.5	3.14	52	0	7	14	16	14	95%	Scabbled concrete chips
HL-D-62	588	10/31/2006	Drum	7.5		52	350	7	20	25	20	100%	Bricks, dust, scabbled concrete
HL-MX-26	626	10/31/2006	Drum	7.5	3.14	52	0	48	20	30	20	95%	Concrete
HL-MX-27	512	10/31/2006	Drum	7.5	3.14	52	290	5	22	22	20	95%	Concrete rubble
HL-MX-28	568	10/31/2006	Drum	7.5	3.14	52	0	5	22	30	20	98%	Concrete
HL-MX-29	552	10/31/2006	Drum	7.5	4.70	52	237	7	20	28	20	85%	Concrete rubble
HL-MX-18	400	10/31/2006	Drum	7.5	8.14	59	72	5	22	40	20	90%	Concrete
HL-MX-20	488	10/31/2006	Drum	7.5	8.14	59	0		20	30	22	95%	Concrete
HL-MX-22	608	10/31/2006	Drum	7.5	3.14	59	57	7	16	30	20	85%	Concrete rubble
HL-MX-24	508	10/31/2006	Drum	7.5	3.14	59	223		23	30	20	95%	Concrete
HL-MX-25	528	10/31/2006	Drum	7.5	3.14	59	0	6	20	20	15	90%	Concrete rubble
RS-1	166	10/31/2006	Drum	7.5		63	11300	86	11	11	11	60%	Wood block
HL-D-35	574	10/31/2006	Drum	7.5		68	14600	6	14	20	16	90%	Concrete rubble
HL-D-48	574	10/31/2006	Drum	7.5		68	9940	150	16	20	18	90%	Concrete scabble, dust, debris
HL-D-57	398	10/31/2006	Drum	7.5	3.50	68	46200	100	12	12	12	95%	Concrete dust, metal, plastic, china
HL-MX-19	644	10/31/2006	Drum	7.5	8.00	68	11400	7	20	20	20	95%	Concrete rubble
HL-MX-23	528	10/31/2006	Drum	7.5	8.00	68	6650		18	30	20	90%	Concrete
RS-3	188	10/31/2006	Drum	7.5		68	24600	204	14	12	12	75%	Concrete, brick rubble, china, cardboard
RS-4	288	10/31/2006	Drum	7.5		71	195000	180	15	18	15	90%	Wood block
HL-02	2262	11/01/2006	B-25	96	90.30	91	194000	24	12	10	10	95%	Metal sheeting, beams, PPE, plastic, rubber hose, insulation, cardboard
HL-04	2890	11/01/2006	B-25	96	90.30	91	690	61	7	7	7	100%	Metal beams, filter dust, plastic, metal wood
HL-05	2304	10/31/2006	B-25	96	90.30	91	5980	55	8	10	10	95%	Various metal, PPE, concrete dust
HL-06	1934	11/01/2006	B-25	96	90.30	91	213000	55	8	7	7	95%	Metal sheeting, dust, chains, misc components, grating
HL-08	2680	11/01/2006	B-25	96	90.30	91	63200	120	14	10	10	95%	Metal sheeting, beams, components, filter dust
HL-11	2464	11/01/2006	B-25	96	90.30	91	706	84	10	10	10	95%	Metal sheeting, beams, components, dust
HL-01	2638	11/01/2006	B-25	96	90.30	94	170000	61	11	10	10	95%	Filter dust, metal components, beams, sheeting, chains
HL-09	2850	11/01/2006	B-25	96	90.30	94	7210	80	8	8	8	95%	Metal pipes/sheeting/beams, plastic, demolition dust, filter dust
HL-14	1855	10/31/2006	B-25	96	90.30	94	60400	56	10	10	10	95%	Wood scrap, wood dust, PPE, metal
HL-B-58	764	11/01/2006	Wood Box	32		104	22700	240	9	9	9	95%	Metal components, misc
HL-B-59	934	11/01/2006	Wood Box	32		104	22700	240	12	9	9	95%	Molds, brick, HEPA filter, plastic, rope, particle board

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HL-D-36	586	10/31/2006	Drum	7.5	3.14	114	0	6	14	16	14	100%	Concrete brick, small amount concrete dust
HL-D-38	564	10/31/2006	Drum	7.5	3.14	114	0	6	25	25	25	95%	Concrete blocks
HL-D-40	490	10/31/2006	Drum	7.5	7.10	114	1490	7	18	20	16	95%	Scabble debris
HL-D-41	550	10/31/2006	Drum	7.5	3.14	114	1100	7	20	20	18	95%	Concrete & brick
HL-D-42	530	10/31/2006	Drum	7.5	3.14	114	1010	6	18	20	18	95%	Concrete block
HL-03	2170	11/01/2006	B-25	96	90.30	181	180000	120	10	8	8	95%	Metal beams, sheeting, gears, fan component, filter dust
HL-07	2170	11/01/2006	B-25	96	90.30	181	114000	45	9	7	7	95%	Metal sheeting, piping, PPE
HL-10	2768	11/01/2006	B-25	96	90.30	181	19500	53	10	10	8	95%	Metal sheeting, beams, components, dust
HL-12	3082	10/31/2006	B-25	96	90.30	181	27500	37	10	10	10	95%	Various metal, PPE, dust
HL-13	2654	10/31/2006	B-25	96	90.30	181	22200	89	10	10	10	95%	Various metal, PPE, concrete dust
HL-D-43	516	10/31/2006	Drum	7.5	3.14	291	0	7	25	25	20	100%	Concrete block
HL-D-45	336	10/31/2006	Drum	7.5	3.14	291	1120	1620	24	25	22	100%	Scabble concrete chips, concrete debris
HL-D-47	502	10/31/2006	Drum	7.5	8.37	291	139	7	18	20	15	95%	Concrete block
HL-D-53	518	10/31/2006	Drum	7.5	4.50	291	0	500	18	15	15	90%	Concrete scabble debris, wood
HL-D-54	588	10/31/2006	Drum	7.5	3.50	291	1480	190	18	20	18	90%	Concrete scabble
HL-MX-21	532	10/31/2006	Drum	7.5	3.14	4600	0		120	100	40	95%	Concrete
HL-MX-66	244	10/31/2006	Drum	7.5		116000	0	8	230	1200	600	75%	Concrete chips, dust, metal canister, PPE, metal
HL-D-67	290	10/31/2006	Drum	7.5		104000 ⁽³⁾	0	5	800	2400	800	100%	Concrete rubble (greenish hue), PPE, plastic
RS-2	74	10/31/2006	Drum	7.5		207000 ⁽³⁾	153	480	30	140	60	50%	Carboy, debris

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⁽¹⁾ - Sampled following D&D and waste packaging in mid 1990's⁽²⁾ - Sampled and analyzed between January 2008 and June 2007⁽³⁾ - Sample collected from glaze material of concrete block & metal carboy. Source term volume very small compared to total container volume.⁽⁴⁾ - Source term is glaze material on metal canister. Source term volume small compared to total container volume.