

Hematit
Decommissioning
Project

Procedure: HDP-PR-HP-311, Radiological Surveys

Revi 0

FORM HDP-PR-HP-311-1 RADIOLOGICAL SURVEY REPORT

Purpose of Survey:	Survey of exposed surfaces of concrete footer located in LSA 05-02							Log Number:	3063 C 130814		
Technician(s):	S. Jenkins / N. Jordan			Reviewed by:	Michelle Bnesnahan						
Print/Sign/Date	8/23/13			Print/Sign/Date	8/23/13						
Instrument & Probe	Serial Number	Calibration Due	Probe Area (cm²)	Alpha Bkg (cpm)	Alpha Efficiency	Alpha MDA (dpm)	Beta Bkg (cpm)	Beta Efficiency	Beta MDA (dpm)	Date:	8/14/2013
Tennelec LB 1 GFPC	68819	9/25/13	N/A	0.9	26.3%	23.4	3.0	31.0%	28	Time:	10:00
Lud 2360 43-89 D	276928	7/27/14	125	6.0	13.2%	87.3	192.0	8.6%	628	Smear Area:	~ 100 cm ²
Lud 2360 43-89 B	248161	6/25/14	125	9.0	14.8%	91.8	219.0	8.5%	677	Batch #:	32816
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	RWP:	RP-13-G009
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Misc:	N/A

Areas 1 -15 were surveyed with meter D and 16-30 was surveyed with meter B. Average GA BKG for meter D was 4 alpha / 249 beta, meter B was 4 alpha / 246 beta. IAL for meter D based on FSS instructions was 31 alpha / 466 beta and for meter B was 19 alpha / 464 beta. No areas noted above IAL. See attached map

Remarks: for survey locations.

#	Description	Removable Alpha		Removable Beta		Total Alpha		Total Beta		By Dose Rate		Limit Exceeded
		Net CPM	DPM / 100cm ²	Net CPM	DPM / 100cm ²	Gross CPM	DPM / 100cm ²	Gross CPM	DPM / 100cm ²	Contact uR/hr	Gen. Area uR/hr	
1	1 meter section of concrete footer	0.1	<MDA	3.0	<MDA	6	<MDA	332	1303	N/A	N/A	N/A
2	1 meter section of concrete footer	-0.9	<MDA	3.3	<MDA	6	<MDA	322	1210	N/A	N/A	N/A
3	1 meter section of concrete footer	1.1	<MDA	1.6	<MDA	8	<MDA	310	1098	N/A	N/A	N/A
4	1 meter section of concrete footer	0.1	<MDA	0.0	<MDA	7	<MDA	373	1684	N/A	N/A	N/A
5	1 meter section of concrete footer	0.1	<MDA	0.0	<MDA	9	<MDA	323	1219	N/A	N/A	N/A
6	1 meter section of concrete footer	2.1	<MDA	2.3	<MDA	11	<MDA	347	1442	N/A	N/A	N/A
7	1 meter section of concrete footer	0.0	<MDA	7.0	<MDA	9	<MDA	320	1191	N/A	N/A	N/A
8	1 meter section of concrete footer	-0.9	<MDA	3.3	<MDA	6	<MDA	375	1703	N/A	N/A	N/A
9	1 meter section of concrete footer	-0.9	<MDA	1.3	<MDA	5	<MDA	345	1424	N/A	N/A	N/A
10	1 meter section of concrete footer	1.0	<MDA	5.7	<MDA	8	<MDA	356	1526	N/A	N/A	N/A
11	1 meter section of concrete footer	6.0	<MDA	10.0	32.3	7	<MDA	348	1452	N/A	N/A	N/A
12	1 meter section of concrete footer	-0.9	<MDA	1.3	<MDA	11	<MDA	341	1387	N/A	N/A	N/A
13	1 meter section of concrete footer	0.1	<MDA	4.0	<MDA	5	<MDA	342	1396	N/A	N/A	N/A
14	1 meter section of concrete footer	0.1	<MDA	2.0	<MDA	7	<MDA	348	1452	N/A	N/A	N/A
15	1 meter section of concrete footer	0.1	<MDA	4.0	<MDA	15	<MDA	357	1535	N/A	N/A	N/A
16	1 meter section of concrete footer	-0.9	<MDA	3.3	<MDA	10	<MDA	231	<MDA	N/A	N/A	N/A
17	1 meter section of concrete footer	-0.9	<MDA	2.3	<MDA	11	<MDA	219	<MDA	N/A	N/A	N/A
18	1 meter section of concrete footer	-0.9	<MDA	2.3	<MDA	6	<MDA	250	<MDA	N/A	N/A	N/A
19	1 meter section of concrete footer	0.1	<MDA	-1.0	<MDA	9	<MDA	257	<MDA	N/A	N/A	N/A
20	1 meter section of concrete footer	0.1	<MDA	1.0	<MDA	7	<MDA	252	<MDA	N/A	N/A	N/A
21	1 meter section of concrete footer	0.1	<MDA	3.0	<MDA	6	<MDA	258	<MDA	N/A	N/A	N/A

α - removable alpha
β - removable beta
φ - direct reading

Hematit
Decommissioning
Project

Procedure: HDP-PR-HP-311, Radiological Surveys

Revi 0

FORM HDP-PR-HP-311-1 RADIOLOGICAL SURVEY REPORT

Purpose of Survey:	Survey of exposed surfaces of concrete footer located in LSA 05-02						Log Number:	3063 C 130814			
Technician(s):	M. Jenkins / N. Jordan 8/23/13			Reviewed by:		Michelle Bresnahan 8/23/13					
Print/Sign/Date	S. Jenkins / N. Jordan 8-23-13			Print/Sign/Date		Michelle Bresnahan 8/23/13					
Instrument & Probe	Serial Number	Calibration Due	Probe Area (cm ²)	Alpha Bkg (cpm)	Alpha Efficiency	Alpha MDA (dpm)	Beta Bkg (cpm)	Beta Efficiency	Beta MDA (dpm)	Date: 8/14/2013	
Tennelec LB 1 GFPC	68819	9/25/13	N/A	0.9	26.3%	23.4	3.0	31.0%	28	Time: 10:00	
Lud 2360 43-89 D	276928	7/27/14	125	6.0	13.2%	87.3	192.0	8.6%	628	Smear Area: ~ 100 cm ²	
Lud 2360 43-89 B	248161	6/25/14	125	9.0	14.8%	91.8	219.0	8.5%	677	Batch #: 32816	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	RWP: RP-13-G009	
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Misc: N/A	

Areas 1 -15 were surveyed with meter D and 16-30 was surveyed with meter B. Average GA BKG for meter D was 4 alpha / 249 beta, meter B was 4 alpha / 246 beta. IAL for meter D based on FSS instructions was 31 alpha / 466 beta and for meter B was 19 alpha / 464 beta. No areas noted above IAL. See attached map

Remarks: for survey locations.

#	Description	Removable Alpha		Removable Beta		Total Alpha		Total Beta		By Dose Rate		Limit Exceeded
		Net CPM	DPM / 100cm ²	Net CPM	DPM / 100cm ²	Gross CPM	DPM / 100cm ²	Gross CPM	DPM / 100cm ²	Contact uR/hr	Gen. Area uR/hr	
1	1 meter section of concrete footer	0.1	<MDA	3.0	<MDA	6	<MDA	332	1303	N/A	N/A	N/A
22	1 meter section of concrete footer	1.1	<MDA	3.7	<MDA	6	<MDA	265	679	N/A	N/A	N/A
23	1 meter section of concrete footer	1.0	<MDA	6.7	<MDA	6	<MDA	262	651	N/A	N/A	N/A
24	1 meter section of concrete footer	-1.0	<MDA	5.3	<MDA	9	<MDA	284	856	N/A	N/A	N/A
25	1 meter section of concrete footer	0.1	<MDA	1.0	<MDA	10	<MDA	223	<MDA	N/A	N/A	N/A
26	1 meter section of concrete footer	-1.0	<MDA	4.3	<MDA	11	<MDA	241	<MDA	N/A	N/A	N/A
27	1 meter section of concrete footer	-0.9	<MDA	3.3	<MDA	9	<MDA	224	<MDA	N/A	N/A	N/A
28	1 meter section of concrete footer	0.1	<MDA	2.0	<MDA	7	<MDA	274	763	N/A	N/A	N/A
29	1 meter section of concrete footer	-0.9	<MDA	3.3	<MDA	15	<MDA	256	<MDA	N/A	N/A	N/A
30	1 meter section of concrete footer	0.1	<MDA	1.0	<MDA	6	<MDA	266	689	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

α - removable alpha
β - removable beta
φ - direct reading

Hemati Decommissioning Project	Procedure: HDP-PR-HP-311, Radiological Surveys	Revision: 0
	FORM HDP-PR-HP-311-1 RADIOLOGICAL SURVEY REPORT	

Purpose of Survey:	Survey of exposed surfaces of concrete footer located in LSA 05-02							Log Number:	3063 C 130814	
Technician(s):	S. Jenkins / N. Jordan 8/23/13				Reviewed by:	Michelle Bresnahan 8/23/13				
Print/Sign/Date					Print/Sign/Date					
Instrument	Serial Number	Calibration Due	Probe Area (cm²)	Alpha Bkg (cpm)	Alpha Efficiency	Alpha MDA (dpm)	Beta Bkg (cpm)	Beta Efficiency	Beta MDA (dpm)	Date: 08/14/13
Tennelec LB 1 GFPC	68819	9/25/13	N/A	0.9	26.3%	23.4	3.0	31.0%	28	Time: 10:00
Lud 2360 43-89 D	276928	7/27/14	125	6.0	13.2%	87.3	192.0	8.6%	628	Smear Area: ~ 100 cm2
Lud 2360 43-89 B	248161	6/25/14	125	9.0	14.8%	91.8	219.0	8.5%	677	Batch #: 32816
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	RWP: RP-13-G009
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Misc: N/A

Areas 1 -15 were surveyed with meter D and 16-30 was surveyed with meter B. Average GA BKG for meter D was 4 alpha / 249 beta, meter B was 4 alpha / 246 beta. IAL for meter D based on FSS instructions was 31 alpha / 466 beta and for meter B was 19 alpha / 464 beta. No areas noted above IAL. See Remarks: attached map for survey locations.

1 2 3 4																				30
																				29
																				28
																				27
																				26
5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25

LSA 05-02 Concrete Footer - 08/14/13

Ludlum 2360 "D"															Ludlum 2360 "B"										30				
1 2 3 4	GA BKG			AVG BKG											GA BKG			AVG BKG											29
	1	α	β													1	α	β										28	
	2	7	217													2	8	252										27	
	3	5	228													3	2	250										26	
	3	1	303														2	237											
				IAL														IAL											
				α	β												α	β											
				31	466												19	464											
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25								

Static 1-minute counts - Meter D		
	α	β
1	6	332
2	6	322
3	8	310
4	7	373
5	9	323
6	11	347
7	9	320
8	6	375
9	5	345
10	8	356
11	7	348
12	11	341
13	5	342
14	7	348
15	15	357

Static 1-minute counts - Meter B		
	α	β
16	10	231
17	11	219
18	6	250
19	9	257
20	7	252
21	6	258
22	6	265
23	6	262
24	9	284
25	10	223
26	11	241
27	9	224
28	7	274
29	15	256
30	6	266