ENTERED

Allen, Pam, NMENV

From: Maestas, Ricardo, NMENV
Sent: Thursday, June 26, 2014 1:56 PM
To: Allen, Pam, NMENV
Subject: FW: WIPP Information - For Call Today
Attachments: Station A and B Filter Readings for Public Release 3-23-14.xlsx; 41-b-857 WHT dp Daily Averages_3-23-14.pdf; 41-b-856 WHT dp Daily Averages_3-23-14.pdf; DNFSB ltr 21 Mar 2014.pdf

March

From: Kliphuis, Trais, NMENV
Sent: Monday, March 24, 2014 10:40 AM
To: Flynn, Ryan, NMENV; Kendall, Jeff, NMENV
Cc: Winchester, Jim, NMENV; Tongate, Butch, NMENV; Blaine, Tom, NMENV; Schwender, Erika, NMENV; Skibitski, Thomas, NMENV; LucasKamat, Susan, NMENV; Kieling, John, NMENV; Maestas, Ricardo, NMENV; Holmes, Steve, NMENV; Nelson, Morgan, NMENV; Smith, Coleman, NMENV; Ines Triay (triayin@fiu.edu)
Subject: FW: WIPP Information - For Call Today

From: Oba Vincent [mailto:oba.vincent@cbfo.doe.gov]
Sent: Monday, March 24, 2014 10:31 AM
To: Kliphuis, Trais, NMENV; 'peake.tom@epa.gov'; 'Edwards, Jonathan'; 'Walsh, Jonathan'; 'Perrin, Alan'; 'Bob.Kehrman@wipp.ws'; 'Rick.Chavez@wipp.ws'; 'Stone.Nick@epa.gov'; Smith, Coleman, NMENV; 'brozowski.george@epa.gov'; 'Fraass, Ron'; 'Russell Hardy'
Cc: George Basabilvazo - WIPPNet; 'Reynolds, Tammy - NWP (Tammy.Reynolds@wipp.ws)'; 'Pace, Berry (Berry.Pace@wipp.ws)'; 'Alton.Harris@em.doe.gov'; Susan McCauslin; 'Joe Harvill (jharvill@portageinc.com)'; 'Kennedy, Scott - NWP (Scott.Kennedy@wipp.ws)'; 'Jones, Stewart - RES'; 'Berta Oates'; 'schultheisz.daniel@epa.gov'; Philip Theisen - ORISE; 'Dale Bignell'; 'Veal.Lee@epamail.epa.gov'
Subject: WIPP Information - For Call Today

Attached are the tables for the station A and B data, DNFSB letter and graphs showing the performance of the filtration system.

Below is a summary of the discussion points for today: (Please note, activities and dates are subject to change. Please verify the most current dates of any information provided).

- Work has been paused on installation of the vacuum break in the duct; questions are being addressed dealing with design specifications.
- Station A and B Sampling: A CAM was installed at Station B and is operating. Connection to the Central Monitoring System is under review to ensure that it doesn't interfere with other "critical" systems. The CAM will be operated until 4/7 in a test mode prior to allowing repopulation of the site. Discussions are underway regarding the safety basis strategy for the CAM utilization. (No change.)
- SS and AIS Shaft/Rope Inspections: Additional nuclear safety controls are being implemented which require procedure changes. The inspections are now targeted for 3/25 (based on DOE approval of nuclear safety documentation).
- Initial Manned Re-entry of U/G: After SS and AIS inspections above are completed, personnel will enter the mine and survey the area between the SS and AIS. This entry is expected to occur on 3/27 (based on DOE approval of nuclear safety documentation).

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- After the area between the shafts is surveyed, a team will enter the mine, perform initial characterization and attempt to identify the contamination source and location. Entry is likely to occur next week.
- LANL commenced the aerosol test on the HEPA filters on Sunday. To complete the aerosol test, a higher capacity smoke generator will be required. LANL is locating the needed generator. Expect the test to re-commence on Tuesday. Spare HEPA filters have been ordered and may be delivered this week based on testing at the FTF.
- The unloading of the first TRUPACT 3 is delayed, pending decision on safety documentation requirements. Must start tomorrow or the CoC will be violated.
- Activities are continuing in preparation of waste storage at WCS. (No change)
- Based on the salt pile sample results showing no contamination, NWP is willing to resume salt sale activity with the impacted small business on 31 March. A decision needs to be made whether to allow this contract to resume. NWP will contact DOA to discuss issue this week.
- AIB radiological event report factual accuracy review is continuing today.
- DNFSB issued a letter to the Secretary transmitting a DNFSB response to Senators Udall and Heinrich.
- VOC data from panel 5 has been loaded on the ICLN portal.

As a reminder, the call-in number is (866) 723-6758, code 8040901#

Thanks

Oba

Station A, Before the Filtration System

Caution: Results may require intrepertation due to varying counting times and methods of analysis

Date	Date & Time Installed	Date & Time Removed	Filter ID	Alpha (dpm)	Beta (dpm)	Initial Count (date/time)	Alpha (dpm)	Beta (dpm)	Re-count (date/time)	Alpha (dpm)	Beta (dpm)	Final Count (date/time)
2/14/14	2/14/14 0742	2/15/14 0630	A230214140742	4.4M**	1.2M	021514/0649	Laboratory Analysis			8.2M*	<MDA	N/P
2/15/14	2/15/14 0630	2/15/14 0840	A230215140630	225K	46.8K	021514/0916	LaboratoryAnalysis			213K*	<MDA	N/P
2/15/14	2/15/14 0840	2/15/14 1510	A230215140840	285K	54K	021514/1541	Non-Rad Analysis in SRS Lab			N/A	N/A	N/P
2/15/14	2/15/14 1510	2/15/14 2330	A230215141510	124K	24481	021614/0012	Non-Rad Analysis in SRS Lab			N/A	N/A	N/P
2/15/14	2/15/14 2330	2/16/14 0850	A230215142330	47.3K	10558	021614/0917	Count Not Performed			46.3K	8749	030614/1555
2/16/14	2/16/14 0850	2/16/14 1648	A230216140850	12.3K	2842	021614/1927	Count Not Performed			12.2K	2306	030614/1555
2/16/14	2/16/14 1648	2/17/14 0015	A230216141650	4051	1256	021714/0046	Count Not Performed			3526	702	030614/1555
2/17/14	2/17/14 0015	2/17/14 0820	A230217140015	1802	638	021714/0942	1723	573	021714/1012	1660	325	030614/1555
2/17/14	2/17/14 0820	2/17/14 1620	A230217140820	1048	621	021714/1705	Count Not Performed			767	150	030614/1555
2/17/14	2/17/14 1620	2/18/14 0010	A230217141620	802	633	021814/0051	633	230	021814/1012	44	8	030614/1555
2/18/14	2/18/14 0010	2/18/14 0820	A230218140010	326	338	021814/0928	237	157	021814/1202	163	30	030614/1555
2/18/14	2/18/14 0820	2/18/14 1605	A230218140820	609	780	021814/1624	258	118	021914/0315	239	39	030614/1555
2/18/14	2/18/14 1605	2/19/14 0035	A230218141605	346	340	021914/0143	227	143	021914/0547	186	41	030614/1555
2/19/14	2/19/14 0035	2/19/14 0823	A230219140040	224	320	021914/0952	136	143	021914/1222	72	12	030914/1349
2/19/14	2/19/14 0823	2/19/14 1600	A230219140823	264	443	021914/1708	130	137	021914/2046	84	11	030914/1349

**Initial activity is inaccurate due to debris filter loading.

All counts performed on a Tennelec XLB for 10 minutes unless otherwise noted.

* Values represent the results of isotopic analysis.

MDA = Minimum Detectable Activity

dpm =Disintegrations Per Minute

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Station A, Before the Filtration System

Caution: Results may require intrepertation due to varying counting times and methods of analysis

Date	Date & Time Installed	Date & Time Removed	Filter ID	Alpha (dpm)	Beta (dpm)	Initial Count (date/time)	Alpha (dpm)	Beta (dpm)	Re-count (date/time)	Alpha (dpm)	Beta (dpm)	Final Count (date/time)
2/19/14	2/19/14 1600	2/20/14 0018	A230219141600	286	378	022014/0124	150	119	022014/0352	93	12	030914/1350
2/20/14	2/20/14 0018	2/20/14 0817	A230220140018	290	219	022014/1010	216	146	022014/1256	165	25	030914/1357
2/20/14	2/20/14 0817	2/20/14 1624	A230220140817	135	131	022014/1838	107	85	022014/2204	70	12	030914/1357
2/20/14	2/20/14 1624	2/21/14 0012	A230220141624	231	103	022114/0154	203	84	022114/0505	173	26	030914/1357
2/21/14	2/21/14 0012	2/21/14 0845	A230221140012	330	146	022114/1027	286	105	022114/1532	250	39	030914/1357
2/21/14	2/21/14 0845	2/21/14 1620	A230221140845	253	199	022114/1654	175	86	022114/2000	158	22	030914/1358
2/21/14	2/21/14 1620	2/22/14 0050	A230221141620	388	549	022214/0124	215	154	022214/0400	168	24	030914/1358
2/22/14	2/22/14 0050	2/22/14 0830	A230222140050	421	599	022214/0906	180	154	022214/1150	107	16	030914/1517
2/22/14	2/22/14 0830	2/22/14 1615	A230222140830	243	337	022214/1713	140	166	022214/2004	67	12	030914/1518
2/22/14	2/22/14 1615	2/23/14 0011	A230222141650	487	626	022314/0047	208	129	022314/0401	160	26	030914/1518
2/23/14	2/23/14 0011	2/23/14 0830	A230223140011	328	504	022314/0906	162	167	022314/1222	94	14	030914/1547
2/23/14	2/23/14 0830	2/23/14 1615	A230223140830	225	340	022314/1644	Count Not Performed			46	7	030914/1548
2/23/14	2/23/14 1615	2/24/14 0025	A230223141615	412	696	022414/0048	102	109	022414/0405	39	5	030914/1548
2/24/14	2/24/14 0025	2/24/14 0912	A230224140025	195	309	022414/1137	149	213	022414/1540	46	8	030914/1552
2/24/14	2/24/14 0912	2/24/14 1702	A230224140912	437	740	022414/1733	141	214	022414/2031	26	<MDA	030914/1552
2/24/14	2/24/14 1702	2/25/14 0005	A230224141702	429	796	022514/0029	91	138	022514/0355	26	7	030914/1553

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Station A, Before the Filtration System

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Date	Date & Time Installed	Date & Time Removed	Filter ID	Alpha (dpm)	Beta (dpm)	Initial Count (date/time)	Alpha (dpm)	Beta (dpm)	Re-count (date/time)	Alpha (dpm)	Beta (dpm)	Final Count (date/time)
2/25/14	2/25/14 0005	2/25/14 0830	A230225140005	381	618	022514/0951	138	194	022514/1349	30	8	030914/1636
2/25/14	2/25/14 0830	2/25/14 1628	A120225140830	544	962	022514/1730	165	277	022514/2000	17	<MDA	030914/1636
2/25/14	2/25/14 1628	2/26/14 0025	A230225141628	647	1140	022614/0100	161	263	022614/0407	28	<MDA	030914/1636
2/26/14	2/26/14 0025	2/26/14 0845	A230226140025	307	487	022614/0958	158	225	022614/1354	32	<MDA	030914/1636
2/26/14	2/26/14 0845	2/26/14 1640	A230226140845	377	579	022614/1729	Count Not Performed			35	6	030914/1637
2/26/14	2/26/14 1640	2/27/14 0015	A230226141640	458	826	022714/0052	114	172	022714/0408	25	14	030914/1637
2/27/14	2/27/14 0015	2/27/14 0903	A230227140015	685	1198	022714/0932	191	340	022714/1225	26	9	030914/2058
2/27/14	2/27/14 0903	2/27/14 1651	A230227140903	457	793	022714/1726	78	103	022814/0424	30	12	030914/2055
2/28/14	2/27/14 1651	2/28/14 0015	A230227141651	239	423	022812/0046	52	90	022814/0401	14	<MDA	030914/2053
2/28/14	2/28/14 0015	2/28/14 0835	A230228140015	81	136	022814/1032	49	81	022814/1417	11	<MDA	030914/2103
2/28/14	2/28/14 0835	02/28/14 1615	A230228140835	84	127	022814/1820	43	91	022814/2119	9	<MDA	030914/2107
3/1/14	2/28/14 1615	3/1/14 0104	A230228141615	133	208	030114/0235	60	89	030114/0527	16	7	030914/2213
3/1/14	3/1/14 0104	3/1/14 0855	A230301140104	224	440	030114/0956	73	116	030114/1257	9	8	030914/2210
3/1/14	3/1/14 0855	3/1/14 1656	A230301140855	186	354	030114/1756	69	94	030114/2109	18	<MDA	030914/2249
3/1/14	3/1/14 1656	3/2/14 0007	A230301141656	121	213	030214/0107	47	55	030214/0512	17	9	030914/2249
3/2/14	3/2/14 0007	3/2/14 0825	A230302140007	918	1638	030214/0836	122	218	030214/1155	15	<MDA	030914/2251

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3/2/14	3/2/14 0825	3/2/14 1650	A230302140825	563	973	030214/1732	155	311	030214/2124	13	7	030914/2251
3/2/14	3/2/14 1650	3/3/14 0106	A230302141650	359	621	030314/0158	150	258	030314/0537	25	7	030914/2254
3/3/14	3/3/14 0106	3/3/14 0817	A230303140106	264	468	030314/0915	118	201	030314/1217	19	7	030914/2255
3/3/14	3/3/14 0817	3/3/14 1630	A230303140817	380	699	030314/1704	97	172	030314/2103	19	8	030914/2256
3/3/14	3/3/14 1630	3/4/14 0034	A230303141630	191	340	030414/0207	93	147	030414/0543	25	7	030914/2258
3/4/14	3/4/14 0034	3/4/14 0817	A230304140034	479	757	030414/0900	135	199	030414/1130	18	<MDA	030914/2249
3/4/14	3/4/14 0817	3/4/14 1557	A230304140817	384	586	030414/1639	120	129	030414/1957	40	10	031014/0121
3/4/14	3/4/14 1557	3/5/14 0022	A230304141557	399	753	030514/0051	74	143	030514/0351	14	<MDA	031014/0117
3/5/14	3/5/14 0022	3/5/14 0835	A230305140022	674	1162	030514/0903	112	203	030514/1206	12	<MDA	031014/0118
3/5/14	3/5/14 0835	3/5/14 1605	A230305140835	203	344	030514/1622	130	184	030514/2007	51	7	031014/0119
3/5/14	3/5/14 1605	3/6/14 0040	A230305141605	341	599	030614/0109	118	168	030614/0403	45	13	031014/0120
3/6/14	3/6/14 0040	3/6/14 0820	A230306140040	117	174	030614/1238	70	116	030614/2011	40	10	031014/0121
3/6/14	3/6/14 0820	3/6/14 1554	A230306140820	151	244	030614/1725	55	85	030614/2349	19	5	031114/1135
3/6/14	3/6/14 1554	3/7/14 0015	A230306141554	467	894	030714/0039	97	171	030714/0401	12	<MDA	031114/1135
3/7/14	3/7/14 0015	3/7/14 1055	A230307140015	210	384	030714/1225	88	136	030714/2141	18	4	031114/1136
3/7/14	3/7/14 1055	3/7/14 1635	A230307141055	231	357	030714/1749	60	63	030814/0456	29	5	031114/1137

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Station A, Before the Filtration System

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Date	Date & Time Installed	Date & Time Removed	Filter ID	Alpha (dpm)	Beta (dpm)	Initial Count (date/time)	Alpha (dpm)	Beta (dpm)	Re-count (date/time)	Alpha (dpm)	Beta (dpm)	Final Count (date/time)
3/7/14	3/7/14 1635	3/8/14 0029	A230307141635	257	311	030814/0152	141	146	030814/0348	78	16	031114/0016
3/8/14	3/8/14 0029	3/8/14 0805	A230308140029	207	289	030814/0955	88	106	030814/2140	39	13	031114/1138
3/8/14	3/8/4 0805	3/9/14 0020	A230308140805	222	378	030914/0051	89	127	030914/1022	23	<MDA	031214/0003
3/9/14	3/9/14 0020	3/9/14 0830	A230309140020	173	300	030914/0951	102	174	030914/1254	12	<MDA	031214/0746
3/9/14	3/9/14 0830	3/9/14 1615	A230309140830	120	226	030914/1744	65	93	031014/0232	16	<MDA	031214/1549
3/9/14	3/9/14 1615	3/10/14 0010	A230309141615	64	99	031014/0115	32	42	031014/1018	12	<MDA	031314/0000
3/10/14	3/10/14 0010	3/10/14 0835	A230310140010	138	276	031014/0954	42	79	031014/1729	10	<MDA	031314/0750
3/10/14	3/10/14 0835	3/10/14 1620	A230310140835	210	407	031014/1658	46	75	031114/1032	15	<MDA	031314/1531
3/10/14	3/10/14 1620	3/11/14 0030	A230310141620	224	380	031114/0120	65	84	031114/0753	20	<MDA	031414/0030
3/11/14	3/11/14 0030	3/11/14 0815	A230311140030	310	496	031114/0918	89	120	031114/1510	17	4.3	031414/1100
3/11/14	3/11/14 0815	3/11/14 1600	A230311140815	304	558	031114/1640	64	93	031214/0003	13	7	031414/1542
3/11/14	3/11/14 1600	3/12/14 0010	A230311141600	233	388	031214/0101	233	388	031214/0743	16	<MDA	031514/0743
3/12/14	3/11/14 0010	3/12/14 0820	A230312140010	129	213	031214/0906	49	73	031214/1547	19	<MDA	031514/0745
3/12/14	3/12/14 0820	3/12/14 1610	A230312140820	85	253	031214/1653	53	72	031314/0020	14	<MDA	031514/1623
3/12/14	3/12/14 1610	3/13/14 0020	A230312141610	124	221	031314/0116	44	82	031314/0750	8	<MDA	031614/0025
3/13/14	3/13/14 0020	3/13/14 0830	A230313140020	206	362	031314/0927	66	86	031314/1530	20	9	031614/0818

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Date	Date & Time Installed	Date & Time Removed	Filter ID	Alpha (dpm)	Beta (dpm)	Initial Count (date/time)	Alpha (dpm)	Beta (dpm)	Re-count (date/time)	Alpha (dpm)	Beta (dpm)	Final Count (date/time)
3/13/14	3/13/14 0830	3/13/14 1610	A230313140830	570	436	031314/1655	369	127	031414/0120	368	57	031614/1728
3/13/14	3/13/14 1610	3/14/14 0018	A230313141610	119	206	031414/0139	43	58	031414/1056	16	<MDA	031714/0018
3/14/14	3/14/14 0018	3/14/14 0900	A230314140018	279	518	031414/0941	72	113	031414/1533	12	<MDA	031714/0804
3/14/14	3/14/14 0900	3/14/14 1610	A230314140900	209	369	031414/1720	58	96	031514/0011	7	5	031714/1606
3/14/14	3/14/14 1610	3/15/14 0005	A230314141610	208	353	031514/0100	47	68	031514/0747	8	<MDA	031814/0013
3/15/14	3/15/14 0005	3/1/14 0815	A230315140005	172	290	031514/0953	70	104	031514/1624	12	8	031814/0803
3/15/14	3/15/14 0815	3/15/14 1610	A230315140900	210	327	031514/1706	56	80	031614/0130	19	<MDA	031814/1548
3/15/14	3/15/14 1610	3/16/14 0001	A230315141610	85	139	031614/0139	36	69	031614/0821	12	<MDA	031914/0000
3/16/14	3/16/14 0001	3/16/14 0812	A230316140001	144	224	031614/0900	45	56	031614/1603	10	<MDA	031914/0810
3/16/14	3/16/14 0812	3/16/14 1607	A230316140812	102	194	031614/1704	40	62	031714/0018	9	<MDA	031914/1600
3/16/14	3/16/14 1607	3/17/14 0002	A230316141607	106	187	031714/0103	33	51	031714/0811	11	<MDA	032014/0003
3/17/14	3/17/14 0002	3/17/14 0835	A230317140002	148	244	031714/0957	57	96	031714/1620	11	5	032014/0822
3/17/14	3/17/14 0835	3/17/14 1610	230317140835	127	204	031714/1741	48	78	031817/0011	10	<MDA	032014/1531
3/17/14	3/17/14 1610	3/18/14 0001	A230317141610	206	346	031714/0040	39	57	031814/0802	10	<MDA	032114/0004
3/18/14	3/18/14 0001	3/18/14 0840	A230318140001	176	227	031814/1014	117	104	031814/1550	49	12	032114/0759
3/18/14	3/18/14 0840	3/18/14 1604	A230318140840	210	332	031814/1653	56	74	031914/0030	11	<MDA	032114/1607

All counts performed on a Tennelec XLB for 10 minutes unless otherwise noted.

* Values represent the results of isotopic analysis.

MDA = Minimum Detectable Activity

dpm =Disintegrations Per Minute

N/A = Not Analyzed N/P = Not Performed

Station A, Before the Filtration System

Caution: Results may require intrepertation due to varying counting times and methods of analysis

Date	Date & Time Installed	Date & Time Removed	Filter ID	Alpha (dpm)	Beta (dpm)	Initial Count (date/time)	Alpha (dpm)	Beta (dpm)	Re-count (date/time)	Alpha (dpm)	Beta (dpm)	Final Count (date/time)
3/18/14	3/18/14 1604	3/19/14 0015	A230318141604	147	241	031914/0044	40	51	031914/0804	15	<MDA	032214/0843
3/19/14	3/19/14 0015	3/19/14 0840	A2303191400015	83	121	031914/1016	52	62	031914/1600	20	5	032214/0810
3/19/14	3/19/14 0840	3/19/14 1628	A230319140840	71	119	031914/1628	34	49	032014/0007	8	<MDA	032214/1708
3/19/14	3/19/14 1628	3/19/2014 0005	A230319141628	187	325	032014/0042	38	68	032014/0822	9	<MDA	032314/2348
3/20/14	3/20/14 0005	3/20/14 0829	A230320140005	92	170	032014/1103	55	104	032014/1532	9	4	032314/0800
3/20/14	3/20/14 0829	3/20/14 1615	A230320140829	123	220	032014/1710	36	62	032114/0006			
3/20/14	3/20/14 1615	3/21/14 0005	A230320141615	206	358	032114/0044	41	69	032114/0758			
3/21/14	3/21/14 0005	3/21/14 0800	A230321140005	171	277	032114/0915	50	80	032114/1607			
3/21/14	3/21/14 0800	3/21/14 1600	A230321140800	423	779	032114/1600	78	151	032214/0010			
3/21/14	3/21/14 1600	3/22/14 0010	A230321141600	321	588	032214/0045	53	91	032214/0930			
3/22/14	3/22/14 0010	3/22/14 0840	A230322140010	200	355	032214/0942	72	114				
3/22/14	3/22/14 0840	3/22/2014 1620	A230322140840	351	601	032214/1651	71	120	032214/2348			
3/22/14	3/22/2014 1620	03/23/14 0015	A230322141620	374	715	032314/0015						
3/23/14	03/23/14 0015	03/23/14 0830	A230323140015	403	632	032314/0830						

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dpm =Disintegrations Per Minute

N/A = Not Analyzed N/P = Not Performed

Station A, Before the Filtration System

Caution: Results may require intrepertation due to varying counting times and methods of analysis

Date	Date & Time Installed	Date & Time Removed	Filter ID	Alpha (dpm)	Beta (dpm)	Initial Count (date/time)	Alpha (dpm)	Beta (dpm)	Re-count (date/time)	Alpha (dpm)	Beta (dpm)	Final Count (date/time)

All counts performed on a Tennelec XLB for 10 minutes unless otherwise noted.

* Values represent the results of isotopic analysis.

MDA = Minimum Detectable Activity
dpm =Disintegrations Per Minute
N/A = Not Analyzed N/P = Not Performed

Station B, After the Filtration System

Caution: results may require interpretation due to varying counting times and methods of analysis

Date	Date Time Installed	Date Time Removed	Filter ID	Alpha (dpm)	Beta (dpm)	First Count (date/time)	Alpha (dpm)	Beta (dpm)	Re-count (date/time)	Alpha (dpm)	Beta (dpm)	Final Count (date/time)
2/14/14	2/14/14 0754	2/15/14 0835	B130214140754	28.2K	5877	021514/0850	Not Performed (Lab Analysis)			57K	<MDA	N/P
2/15/14	2/15/14 0835	2/15/14 1445	B130215140835	36.2K	7340	021514/1134	Not Performed (Lab Analysis)			Filter sent to SRS for Non-Rad Analysis		
2/15/14	2/15/14 1445	2/15/14 2305	B130215141445	671	142	021714/1056	Not Performed (Lab Analysis)			875*	N/A	N/P
2/15/14	2/15/14 2305	2/16/14 0904	B130215142305	300	152	021614/0932	253	63	021614/1127	258*	N/A	N/P
2/16/14	2/16/14 0904	2/16/14 1705	B130216140904	144	67	021614/1755	111	22	021714/1201	128*	N/A	N/P
2/16/14	2/16/14 1705	2/17/14 0030	B130216141705	72	54	021714/0046	62	18	021714/1203	53*	N/A	N/P
2/17/14	2/17/14 0030	2/17/14 0805	B130217140030	43	26	021714/0930	30	23	021714/0955	31*	N/A	N/P
2/17/14	2/17/14 0805	2/17/14 1600	B130217140805	78	35	021714/1650	58	20	021714/1958	52*	N/A	N/P
2/17/14	2/17/14 1600	2/18/14 0030	B130217141600	65	55	021814/0051	45	18	021814/0423	706*	N/A	N/P
2/18/14	2/18/14 0030	2/18/14 0901	B130218140030	42	61	021814/0928	23	12	021814/1202	27*	N/A	N/P
2/18/14	2/18/14 0901	2/18/14 1655	B130218140901	41	29	021814/1754	28	7	021914/0315	34*	N/A	N/P
2/18/14	2/18/14 1655	2/19/14 0105	B130218141655	42	36	021914/0144	20	7	021914/0547	19*	N/A	N/P
2/19/14	2/19/14 0105	2/19/14 0900	B130219140105	33	44	021914/0952	20	15	021914/1222	11	<MDA	030614/1730
2/19/14	2/19/14 0900	2/19/14 1627	B130219140900	36	34	021914/1708	25	10	021914/2036	23	<MDA	030614/1730

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N/A = Not Analyzed N/P = Not performed

Station B, After the Filtration System

Caution: results may require interpretation due to varying counting times and methods of analysis

Date	Date Time Installed	Date Time Removed	Filter ID	Alpha (dpm)	Beta (dpm)	First Count (date/time)	Alpha (dpm)	Beta (dpm)	Re-count (date/time)	Alpha (dpm)	Beta (dpm)	Final Count (date/time)
2/19/14	2/19/14 1627	2/20/14 0035	B130219141627	45	46	022014/0107	25	9	022014/0359	17	<MDA	030614/1730
2/20/14	2/20/14 0035	2/20/14 0852	B130220140035	52	21	022014/1035	38	14	022014/1226	42	8	030614/1730
2/20/14	2/20/14 0852	2/20/14 1654	B130220140852	98	22	022014/1838	101	23	022014/2211	95	17	030614/1730
2/20/14	2/20/14 1654	2/21/14 0038	B130220141654	40	19	022114/0204	33	11	022114/0521	34	9	030614/1730
2/21/14	2/21/14 0038	2/21/14 0820	B130221140038	30	6	022114/1027	27	12	022114/1532	25	5	030614/1757
2/21/14	2/21/14 0820	2/21/14 1600	B130221140820	37	15	022114/1654	41	12	022114/2028	33	5	030614/1730
2/21/14	2/21/14 1600	2/22/14 0019	B130221141600	50	28	022214/0125	42	14	022214/0358	37	12	030614/1730
2/22/14	2/22/14 0019	2/22/14 0810	B130222140019	30	22	022214/0946	19	12	022214/1151	13	<MDA	030614/1730
2/22/14	2/22/14 0810	2/22/14 1615	B130222140810	28	17	022214/1713	22	10	022214/2004	15	<MDA	030614/1730
2/22/14	2/22/14 1615	2/22/14 2356	B130222141615	32	33	022314/0047	22	9	022314/0404	11	<MDA	030614/1757
2/22/14	2/22/14 2356	2/23/14 0810	B130222142356	21	29	022314/0938	19	17	022314/1227	9	<MDA	030614/1811
2/23/14	2/23/14 0810	2/23/14 1605	B130223140810	7	22	022314/1642	17	7	022314/2010	14	<MDA	030614/1757
2/23/14	2/23/14 1605	2/24/14 0015	B130223141605	40	54	022414/0054	19	13	022414/0401	12	<MDA	030614/1811
2/24/14	2/24/14 0015	2/24/14 0846	B130224140015	14	19	022414/1136	14	14	022414/1540	9	<MDA	030614/1811

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dpm =Disintegrations Per Minute

* Values represent the results of isotopic analysis.

N/A = Not Analyzed N/P = Not performed

Station B, After the Filtration System

Caution: results may require interpretation due to varying counting times and methods of analysis*

Date	Date Time Installed	Date Time Removed	Filter ID	Alpha (dpm)	Beta (dpm)	First Count (date/time)	Alpha (dpm)	Beta (dpm)	Re-count (date/time)	Alpha (dpm)	Beta (dpm)	Final Count (date/time)
2/24/14	2/24/14 0846	2/24/14 1635	B130224140846	22	28	022414/1733	8	8	022414/2031	6	<MDA	030614/1811
2/24/14	2/24/14 1635	2/25/14 0016	B130224141635	45	72	022514/0029	8	12	022514/0404	6	<MDA	030614/1811
2/25/14	2/25/14 0016	2/25/14 0902	B130225140016	41	53	022514/1012	14	21	022514/1403	9	<MDA	030614/1840
2/25/14	2/25/14 0902	2/25/14 1652	B130225140902	39	59	022514/1742	12	7	022514/2000	5	<MDA	030614/1840
2/25/14	2/25/14 1652	2/26/14 0010	B130225141652	27	41	022614/0101	12	10	022614/0450	7	<MDA	030614/1840
2/26/14	2/26/14 0010	2/26/14 0921	B130226140010	26	21	022614/1051	23	16	022614/1423	19	<MDA	030614/1905
2/26/14	2/26/14 0921	2/26/2014 1616	B130226140921	22	25	022614/1727	Count Not Performed			6	<MDA	030614/1905
2/26/14	2/26/14 1616	2/27/14 0030	B130226141616	33	59	022714/0129	11	14	022714/0408	4	<MDA	030614/1825
2/27/14	2/27/14 0030	2/27/14 0806	B130227140030	22	37	022714/0929	7	22	022714/1153	1	<MDA	030614/1825
2/27/14	2/27/14 0806	2/28/14 0012	B130227140806	27	41	022814/0046	16	10	022814/0401	9	<MDA	030614/1825
2/28/14	02/28/14 0012	2/28/14 0927	B130228140012	14	20	022814 /1024	8	5	022814/1408	4	<MDA	030614/1825
2/28/14	2/28/14 0927	2/28/14 1705	B130228140927	6	7	022814 /1825	5	<MDA	022814/1919	5	<MDA	030614/1825
2/28/14	2/28/14 1705	3/1/14 0144	B130228141705	16	28	030114 /0235	6	5	030114 /0528	3	<MDA	030614/1825
3/1/14	3/1/14 0144	3/1/14 0915	B130301140144	21	35	030114/0957	6	8	030114/1257	2	<MDA	030614/1825

All counts performed on a Tennelec XLB for 10 minutes unless otherwise noted.

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Station B, After the Filtration System

Caution: results may require interpretation due to varying counting times and methods of analysis

Date	Date Time Installed	Date Time Removed	Filter ID	Alpha (dpm)	Beta (dpm)	First Count (date/time)	Alpha (dpm)	Beta (dpm)	Re-count (date/time)	Alpha (dpm)	Beta (dpm)	Final Count (date/time)
3/1/14	3/1/14 0915	3/1/14 1620	B130301140915	10	10	030114/1735	4	<MDA	030114/2110	4	<MDA	030614/1825
3/1/14	3/1/14 1620	3/2/14 0045	B130301141620	17	16	030214/0108	9	5	030214/0512	10	9	030614/1825
3/2/14	3/2/14 0045	3/2/14 0850	B130302140045	51	81	030214/0925	19	20	030214/1156	5	<MDA	030914/2323
3/2/14	3/2/14 0850	3/2/14 1630	B130302140850	51	37	030214/1723	34	18	030214/2122	38	7	030914/2326
3/2/14	3/2/14 1630	3/3/14 0106	B130302141630	17	28	030314/0152	7	13	030314/0559	3.14	<MDA	030914/2327
3/3/14	3/3/14 0106	3/3/14 0820	B130303140106	26	39	030314/0855	9	14	030314/1217	1.05	<MDA	030914/2327
3/3/14	3/3/14 0820	3/3/14 1620	B130303140820	19	48	030314/1704	2	6	030314/2103	44	6	030914/2328
3/3/14	3/3/14 1620	3/4/14 0114	B130303141620	22	33	030414/0208	5	8	030414/0543	1.31	<MDA	030914/2330
3/4/14	3/4/14 0114	3/4/14 0815	B130304140114	31	49	030414/0846	8	11	030414/1130	3.66	<MDA	031014/0238
3/4/14	3/4/14 0815	3/4/14 1610	B130304140815	18	26	030414/1639	4	<MDA	030414/1957	6.8	<MDA	030914/2330
3/4/14	3/4/14 1610	3/5/14 0005	B130304141610	21	34	030514/0051	5	5	030514/0351	2.61	<MDA	030914/2331
3/5/14	3/5/14 0005	3/5/14 0810	B130305140005	26	36	030514/0920	7	14	030514/1206	2.04	<MDA	030814/1332
3/5/14	3/5/14 0810	3/5/14 1608	B130305140810	86	49	030514/1649	6	8	030514/2007	**60	10	030814/1332

**After counting each filter quadrant separately it was determined that the filter was cross contaminated.

All counts performed on a Tennelec XLB for 10 minutes unless otherwise noted.

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Station B, After the Filtration System

Caution: results may require interpretation due to varying counting times and methods of analysis

Date	Date Time Installed	Date Time Removed	Filter ID	Alpha (dpm)	Beta (dpm)	First Count (date/time)	Alpha (dpm)	Beta (dpm)	Re-count (date/time)	Alpha (dpm)	Beta (dpm)	Final Count (date/time)
3/5/14	3/5/14 1608	3/6/14 0015	B130305141608	16	29	030614/0109	7	9	030614/0403	3.07	<MDA	030814/2329
3/6/14	3/6/14 0015	3/6/14 0835	B130306140015	22	45	030614/0902	8	8	030614/1240	2.78	<MDA	030914/1016
3/6/14	3/6/14 0835	3/6/14 1620	B130306140835	18	27	030614/1725	1	<MDA	030614/2348	3.03	<MDA	031014/0223
3/6/14	3/6/14 1620	3/7/14 0001	B130306141620	18	35	030714/0039	2	5	030714/1255	<MDA	<MDA	031014/0104
3/7/14	3/7/14 0001	3/7/14 1140	B130307140001	24	41	030714/1226	7	6	030814/0141	4	<MDA	031014/0030
3/7/14	3/7/14 1140	3/7/14 1710	B130307141140	11	21	030714/1750	3	<MDA	030814/0157	4	<MDA	031014/1736
3/7/14	3/7/14 1710	3/8/14 0015	B130307141710	10	15	030814/0122	3	<MDA	030814/2331	4	<MDA	031114/0017
3/8/14	3/8/14 0015	3/8/14 0855	B130308140015	23	28	030814/0955	5	<MDA	030914/1017	4.34	<MDA	031114/1138
3/8/14	3/8/14 0855	3/8/14 1750	B130308140855	22	21	030814/1815	15	6	030814/2335	11	5.82	031114/1401
3/8/14	3/8/14 1750	3/9/14 0055	B130308141750	10	18	030914/0142	4	3	030914/1020	<MDA	<MDA	031214/0004
3/9/14	3/9/14 0055	3/9/14 0905	B130309140055	17	31	030914/0952	2	2	031014/0803	<MDA	<MDA	031214/0747
3/9/14	3/9/14 0905	3/9/14 1650	B130309140905	8	10	030914/1744	1	2	031014/0154	<MDA	<MDA	031214/1550
3/9/14	3/9/14 1650	3/10/14 0010	B130309141650	21	39	031014/0046	1	3	031014/0801	<MDA	<MDA	031314/0000
3/10/14	3/10/14 0010	3/10/14 0915	B130310140010	16	25	031014/1018	5	6	031014/1729	2.36	<MDA	031314/0751

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Station B, After the Filtration System

Caution: results may require interpretation due to varying counting times and methods of analysis

Date	Date Time Installed	Date Time Removed	Filter ID	Alpha (dpm)	Beta (dpm)	First Count (date/time)	Alpha (dpm)	Beta (dpm)	Re-count (date/time)	Alpha (dpm)	Beta (dpm)	Final Count (date/time)
3/10/14	3/10/14 0915	3/10/14 1640	B130310140915	10	19	031014/1658	3	2	031114/1032	<MDA	<MDA	031314/1558
3/10/14	3/10/14 1640	3/11/14 0050	B130310141640	26	45	031114/0132	4	5	031114/0753	3.07	<MDA	031314/2359
3/11/14	3/11/14 0050	3/11/14 0847	B130311140050	38	59	031114/0918	6	10	31114/1511	<MDA	<MDA	031414/1100
3/11/14	3/11/14 0847	3/11/14 1619	B130311140847	13	24	031114/1644	3.67	<MDA	031214/0003	<MDA	<MDA	031414/1559
3/11/14	3/11/14 1619	3/12/14 0030	B130311141619	75	26	031214/0102	70	10	031214/0743	61	12	031514/0739
3/12/14	3/12/14 0030	3/12/14 0845	B130312140030	26	20	031214/0925	18	8	031214/1545	14	<MDA	031514/0740
3/12/14	3/12/14 0845	3/12/14 1635	B130312140845	10	16	031214/1653	5	8	031314/0010	<MDA	<MDA	031514/1618
3/12/14	3/12/14 1635	3/13/14 0047	B130312141635	19	36	031314/0116	4.45	6	031314/0750	<MDA	<MDA	031514/2349
3/13/14	3/13/14 0047	3/13/14 0857	B130313140047	17	25	031314/0927	3	5	031314/1535	<MDA	<MDA	031614/0809
3/13/14	3/13/14 0857	3/13/14 1635	B130313140857	24	29	031314/1655	7	5	031414/0010	5	<MDA	031614/1659
3/13/14	3/13/14 1635	3/14/14 0050	B130313141635	20	30	031414/0139	3	2	031414/1103	<MDA	<MDA	031714/0022
3/14/14	3/14/14 0050	3/14/14 0820	B130314140050	15	20	031414/0940	5	7	031414/1533	<MDA	<MDA	031714/0803
3/14/14	3/14/14 0820	3/14/14 1655	B130314140820	11	23	031414/1809	4.5	5	031514/0011	2.8	<MDA	031714/1601
3/14/14	3/14/14 1655	3/15/14 0020	B130314141655	24	38	031514/0107	3.1	<MDA	031514/0742	2.7	<MDA	031814/0017

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Station B, After the Filtration System

Caution: results may require interpretation due to varying counting times and methods of analysis

Date	Date Time Installed	Date Time Removed	Filter ID	Alpha (dpm)	Beta (dpm)	First Count (date/time)	Alpha (dpm)	Beta (dpm)	Re-count (date/time)	Alpha (dpm)	Beta (dpm)	Final Count (date/time)
3/15/14	3/15/14 0020	3/15/14 0850	B130315140020	32	63	031514/0932	5	13	031514/1617	2.4	<MDA	031814/0756
3/15/14	3/15/14 0850	3/15/14 1635	B130315140850	18	34	031514/1705	<MDA	<MDA	031514/2350	3.1	<MDA	031814/1559
3/15/14	3/15/14 1635	3/16/14 0030	B130315141635	19	18	031614/0139	13	<MDA	031614/0813	14	<MDA	031814/2358
3/16/14	3/16/14 0030	3/16/14 0835	B130316140030	19	32	031614/0903	4.1	<MDA	031614/1601	4.2	<MDA	031914/0810
3/16/14	3/16/14 0835	3/16/14 1628	B130316140835	10	18	031614/1705	4	<MDA	031714/0022	2.4	<MDA	031914/1604
3/16/14	3/16/14 1628	3/17/14 0030	B130316141628	17	22	031714/0103	6	14	031714/0809	<MDA	<MDA	031914/2357
3/17/14	3/17/14 0030	3/17/14 0930	B130317140030	22	33	031714/0957	7	7	031714/1605	<MDA	<MDA	032014/0816
3/17/14	3/17/14 0930	3/17/14 1648	B130317140930	14	18	031714/1742	3	<MDA	031814/0016	<MDA	<MDA	032014/1524
3/17/14	3/17/14 1648	3/18/14 0001	B130317141648	19	36	031814/0040	4.5	5	031814/0800	<MDA	<MDA	032114/0004
3/18/14	3/18/14 0001	3/18/14 0940	B130318140001	23	53	031814/1014	4.3	10	031814/1626	<MDA	<MDA	032114/0845
3/18/14	3/18/14 0940	3/18/14 1635	B130318140940	17	30	031814/1653	3.2	3.8	031814/2358	<MDA	<MDA	032114/1708
3/18/14	3/18/14 1635	3/19/14 0030	B130318141635	19	24	031914/0043	6	<MDA	031914/0804	9	<MDA	032214/0843
3/19/14	3/19/14 0030	3/19/14 0928	B130319140030	15	16	031914/1016	9	6	031914/1603	10	8	032214/0832
3/19/14	3/19/14 0928	3/19/14 1703	B130319140928	8	11	031914/1800	3	3	032014/0003	4.4	4.1	032214/1800

All counts performed on a Tennelec XLB for 10 minutes unless otherwise noted.

* Values represent the results of isotopic analysis.

MDA = Minimum Detectable Activity

dpm =Disintegrations Per Minute

N/A = Not Analyzed N/P = Not performed

Station B, After the Filtration System

Caution: results may require interpretation due to varying counting times and methods of analysis

Date	Date Time Installed	Date Time Removed	Filter ID	Alpha (dpm)	Beta (dpm)	First Count (date/time)	Alpha (dpm)	Beta (dpm)	Re-count (date/time)	Alpha (dpm)	Beta (dpm)	Final Count (date/time)
3/19/14	3/19/14 1703	3/20/14 0015	B130319141703	29	60	032014/0039	5	8	032014/0816	<MDA	<MDA	032214/2346
3/20/14	3/20/14 0015	3/20/14 0910	B130320140015	8	16	032014/1102	5	7	032014/1525			
3/20/14	3/20/14 0910	3/20/14 1643	B130320140910	15	66	302014/1701	5	6	032114/0006			
3/20/14	3/20/14 1643	3/21/14 0020	B130320141643	33	56	032014/0041	4.7	7	032114/0831			
3/21/14	3/21/14 0020	3/21/14 0815	B130321140020	42	74	032114/0848	5	9	032114/1606			
3/21/14	3/21/14 0815	3/21/14 1608	B130321140815	26	43	032114/1630	5	9	032114/2341			
3/21/14	3/21/14 1608	3/22/2014 0001	B130321141608	32	61	032214/0039	6	8	032214/0805			
3/22/14	3/22/14 0001	3/22/14 0805	B130322140001	10	26	032214/0942	9	11	032214/1601			
3/22/14	3/22/14 0805	3/22/14 1600	B130322140805	19	5	032214/1647	4	9	032214/2344			
3/22/14	3/22/14 1600	3/23/14 0000	B130322141600	34	55	032314/0000						
3/23/14	3/23/14 0000	3/23/14 0805	B130323140000	23	30	032314/0805						

All counts performed on a Tennelec XLB for 10 minutes unless otherwise noted.

* Values represent the results of isotopic analysis.

MDA = Minimum Detectable Activity

dpm =Disintegrations Per Minute

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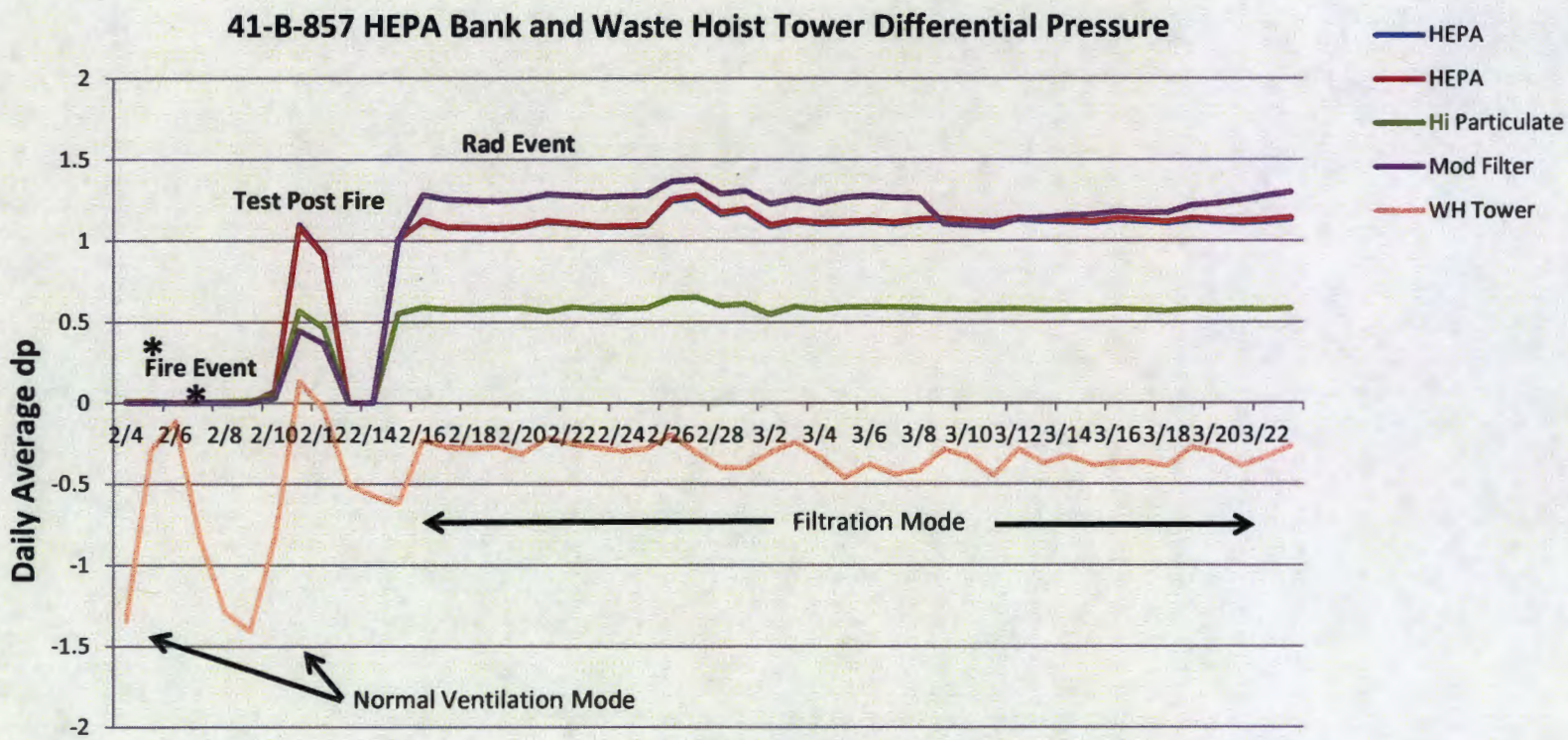


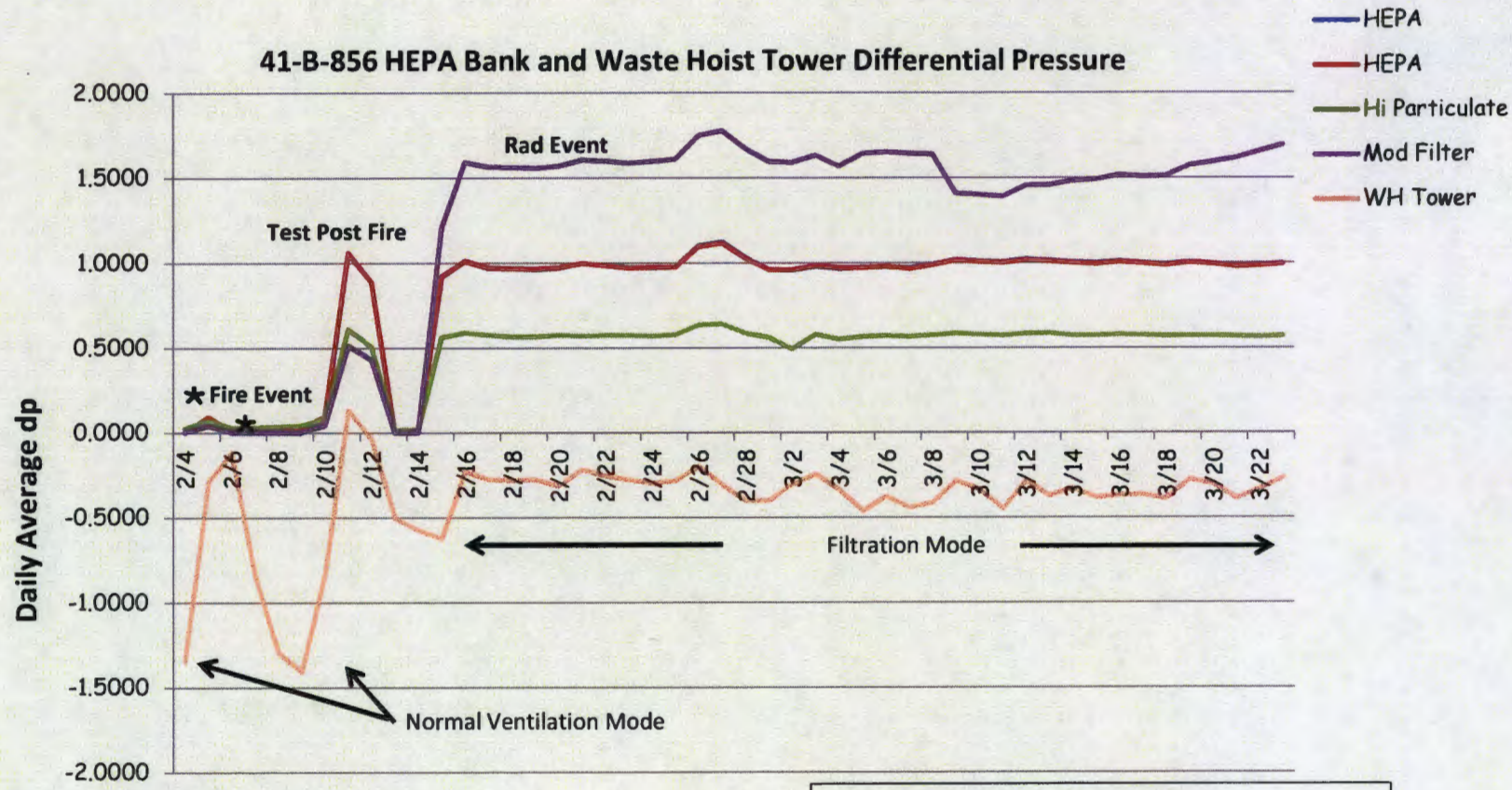
Prior to 2/5/2014 (2/3 @ 0200-0215)	
857	Mod 0.45
857	High 0.75
857	HEPA 1.52
857	HEPA 1.45

*** Fire Event Waste Tower dp Details**

During the Fire Event positive dp was seen on 2/5 and 2/6. Overall the dp was negative for the daily average.

2/5 Postive dp (Avg) + 0.308 (Duration 13 hrs)

2/6 Positive dp (AVg) + 0.200 (Duration 14 hrs)



Prior to 2/5/2014 (2/3 @ 0200-0215)

856 Mod	0.47
856 High	0.75
856 HEPA	1.54
856 HEPA	1.45

*** Fire Event Waste Tower dp Details**

During the Fire Event positive dp was seen on 2/5 and 2/6. Overall the dp was negative for the daily average.

2/5 Postive dp (Avg) + 0.308 (Duration 13 hrs)

2/6 Positive dp (AVg) + 0.200 (Duration 14 hrs)

Peter S. Winokur, Chairman
Jessie H. Roberson, Vice Chairman
Joseph F. Bader
Sean Sullivan

DEFENSE NUCLEAR FACILITIES
SAFETY BOARD
Washington, D.C. 20004-2901

March 21, 2014

The Honorable Ernest Moniz
Secretary of Energy
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585-1000

Dear Secretary Moniz:

In a letter dated March 4, 2014, Senator Udall and Senator Heinrich from New Mexico requested that the Defense Nuclear Facilities Safety Board (Board) provide our initial assessment of two recent events at the Department of Energy's Waste Isolation Pilot Plant in Carlsbad, New Mexico and the on-going response to them, as well as our perspectives on actions needed to prevent or minimize similar occurrences. The two events were a fire on February 5, 2014, and a release of radioactive material on February 14, 2014. The attached letter is the Board's response to the Senators' request and is provided for your information and use.

Sincerely,

Peter S. Winokur, Ph.D.
Chairman

Enclosure

c: Mrs. Mari-Jo Campagnone
Response Letter to Senator Tom Udall and Senator Martin Heinrich

Peter S. Winokur, Chairman
Jessie H. Roberson, Vice Chairman
Joseph F. Bader
Sean Sullivan

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

Washington, DC 20004-2901

March 21, 2014

The Honorable Tom Udall
United States Senate
730 Hart Senate Office Building
Washington, D.C. 20510

The Honorable Martin Heinrich
United States Senate
702 Hart Senate Office Building
Washington, D.C. 20510

Dear Senator Udall and Senator Heinrich:

As requested in your letter dated March 4, 2014, the Defense Nuclear Facilities Safety Board (Board) provides our initial assessment of two recent events at the Department of Energy's (DOE) Waste Isolation Pilot Plant (WIPP) in Carlsbad, New Mexico, and the on-going response to them, as well as our perspectives on actions needed to prevent or minimize similar occurrences. The two events were a fire on February 5, 2014, and a release of radioactive material on February 14, 2014. The Board and its staff are monitoring DOE activities to ensure the WIPP site is placed in a safe and stable configuration, and response and recovery actions proceed in a deliberate, safe manner.

The Board is reviewing available information to assess the causal factors, emergency response, recovery activities, and corrective actions for both events. Operations at the WIPP site were not performed with the rigor necessary for a hazard category 2 defense nuclear facility, especially for operations that were deemed to be nonnuclear in nature. Both the federal and contractor workforce proved unprepared for emergency response. No one was seriously hurt in either event, but these were both near misses.

It was fortunate that the salt truck fire in the WIPP underground did not result in serious injuries among the 86 workers who evacuated from the mine. Inadequate maintenance of this vehicle made it susceptible to fire. The actions taken by facility personnel in immediate response to the February 5, 2014, fire revealed further problems. Emergency notifications were not performed per procedure, mine ventilation was inappropriately switched to reduced flow filtered ventilation mode before all personnel were evacuated (causing smoke and other combustion gasses to fill evacuation routes), some workers had difficulty with or did not use self-rescue devices, and evacuation strobe lights were not activated in a timely fashion. Since 2010, the Board has sent four letters to DOE that revealed flaws in WIPP's fire protection program, maintenance practices, activity-level work planning and execution, and electrical safety program. Our staff has followed up and has observed incremental improvements; however, some issues, particularly those that identified fire hazards and unanalyzed risks for underground operations

were not adequately addressed in the facility Fire Hazard Analysis. Thus it is the Board's initial assessment that this accident was preventable.

The DOE investigation report released on March 13, 2014, identifies 35 "Judgments of Need" for near- and long-term corrective actions to prevent or minimize the probability or severity of a recurrence. The Judgments of Need cover a broad spectrum of concerns in the areas of maintenance, conduct of operations, fire protection, emergency preparedness and response, training and qualification, quality assurance, oversight by the DOE field office and headquarters, and nuclear safety culture. The Board will assess DOE's effectiveness in taking corrective actions in response to the Judgments of Need.

The cause of the radioactive material release on February 14, 2014, is still unknown, nor do we know how susceptible the underground may be to further releases. As result of its initial assessment, the Board wrote to the Secretary of Energy on March 12, 2014, pointing out that the ventilation system is not a designated safety system and has not been operated, maintained, and protected consistent with its current function to guard against further release of radioactive material from the mine. The Board advised DOE to thoroughly evaluate the safety controls and contingency plans necessary to maintain confinement to ensure adequate protection of the workers and public.

The Board also assesses the initial response to the release event as unsatisfactory. Shelter in place instructions were not given until ten hours after the first indication of a problem, and over four hours after a release had been confirmed by local readings. As a result, the internal contamination level of workers, although minor, was nevertheless greater than necessary. The local WIPP Emergency Operations Center was ineffective, and the DOE emergency center at headquarters in Washington, DC, was never notified, as would have been appropriate.

Understanding the root cause of the release event is essential to determine the needed scope of corrective actions to help reduce the chance of similar events, or reduce their potential consequences. Significant improvements in the safety strategy for WIPP are warranted to address design basis accidents that lead to radiation releases. For example, neither the filtered ventilation system nor the underground air monitor that triggered the ventilation system to switch to filtered mode is a credited safety system. In fact, for six days after the fire, no underground air monitors were operational. Had there been a failure on February 14 of the air monitor or filtered ventilation system, or if the release event had occurred three days earlier, the release of radioactive material from the aboveground mine exhaust would have been orders of magnitude larger. Until the cause of the radiation release is fully understood, these systems represent a real vulnerability to continued operations in the underground. DOE will need to upgrade the safety basis, engineered safety systems, and key safety management programs to support future waste disposal operations at WIPP. In accordance with DOE's safety directives, a formal Operational Readiness Review will also be required before waste disposal resumes.

To ensure that the ongoing recovery actions proceed safely, DOE and the WIPP contractor need to continue key, conservative actions that reduce the likelihood and mitigate the

potential consequences of another event. These actions include the ongoing efforts to improve the performance and reliability of the filtered ventilation system; execution of the Unreviewed Safety Question process in accordance with 10 CFR Part 830, *Nuclear Safety Management*, to understand the safety basis implications of the radiological event, including conservative identification of compensatory measures; interim improvements in WIPP's emergency management capabilities for a subsequent event; enhanced oversight by DOE headquarters personnel; and near-term action to address the Judgments of Need identified by DOE's Accident Investigation Board.

The Board has maintained a staff presence at WIPP since February 6 to gather information and provide oversight of investigation and recovery activities by DOE and the WIPP contractor. The Board and senior staff members are reviewing the recovery activities to ensure actions are safe and include appropriate work suspension guidelines, and the Board will communicate with DOE as appropriate. Please do not hesitate to contact us if you have any additional questions or concerns.

Sincerely,

Peter S. Winokur, Ph.D.
Chairman

c: Mrs. Mari-Jo Campagnone