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DEPARTMENT OF
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NEVADA DIVISION of PUBLIC
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March 8, 2024

MEMORANDUM

To: Beatty File

From: Hannah Hoffman, Radiation Specialist II HH

Subject: Beatty Inspection Summary February 28, 2024

An inspection of the Beatty Low-Level Radioactive Waste landfill (closed) was conducted on February 28, 2024, by Hannah Hoffman, Corey Creveling, and Joeseph Manring. The site is properly secured with an outside perimeter fence placed on the western and southern sides of the site. An interior boundary has been established around the entire area surrounding the cap. Caution Radioactive Materials signs are posted at the boundary to clearly mark the location of the low-level radioactive waste area. The radiological survey was performed using BNC Model SAMpack-120 with serial number BSN 120069. The survey was conducted by driving the backpack around the site boundary access roads and by walking in a grid pattern across the cap to detect radiological anomalies. None were detected. The northeast corners steep road was soft due to the heavy rainfall and was avoided. This prevented driving around the full perimeter but back tracking and driving to the other side of the perimeter allowed a full survey completion by vehicle. Dose rate readings on the cap remain about twice background, * as measured in the background location. The cap was in good condition; however, the sides of the cap showed erosion following the rain event occurring February 1 – 9, 2024. The recent repairs, including the modification to the corners formed by the cap intersection of the East-West running trenches and the North-South running trenches to form a gentler curve, reduced the depth of and flow of the cap materials during the rain event.

Status of Previous Inspection Items:

The markers for the trenches are not in place on the cap and will not be replaced until the completion of the next addition of material to the cap tentatively scheduled for 2027. They remain stacked off to the side of the cap, near the southwest corner.

Site Observations:

Radiological Postings Adequate: Yes

Site Boundary and Access Road Maintained: Yes

Erosion, Fissures, Water Pooling, or Subsidence Concerns: Following the February 1 – 9, 2024 rain event. The sides of the cap show the worst of the erosion damage was where the dirt had formed flow routes on the cap leading to the sides. Plants continue to grow mostly broad leaf weeds and sparse grasses but have not done damage to the cap and are unlikely to create a flow path for rainwater to sink into the cap more deeply.

Rain Since Last Inspection:

December – 0.13”, January – 0.78”, February – 2.41”

Radiation Survey Results:

Instruments:

BNC Model SAMpack-120 (BSN 120069) Calibration date: Daily by self-calibration

Background Location: Between US 95 and the site, at the south-east side of the site entrance gate.

Background measurement: 14 – 21 μ rem/hr

Value used for twice background: 42 μ rem/hr

Site Boundary Highest Measurement: Within twice background*

Cap Highest Measurement: Within twice background*

*If sustained radiation measurements are above twice background, record the measurement and identify the location. Otherwise, indicate all measurements were within twice background.

For any reading above 0.5 mrem/hr contact a supervisor or the State of Nevada Radiation Control Program Manager. (Site Stabilization and Closure Plan Closure Plan for Low-Level Radioactive Waste Management Facility US Ecology, Inc. Beatty, Nevada, submittal date December 1988.)

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Station Summary
Beatty 11SSE US Ecology Nevada
 Monthly Summary for
December, 2023

Day of Month	Day of Year	Total Solar Rad. ly.	Ave. Wind mph	V. Dir. Deg	Max. Wind mph	Mean Air Temperature Deg. Fahrenheit	Max Air Temperature Fahrenheit	Min Air Temperature Fahrenheit	Mean Humidity Percent	Max Humidity Percent	Min Humidity Percent	Dew Point Deg. Fahrenheit	Wet Bulb	Total Precip. inches
1	335	53	7.4	313	38.1	44	57	30	41	63	21	20	34	0.00
2	336	58	4.3	262	11.3	44	57	32	42	58	27	22	35	0.00
3	337	25	4.2	283	12.6	46	62	33	43	61	24	24	36	0.00
4	338	16	4.0	306	16.3	54	69	41	37	51	23	28	42	0.00
5	339	1	3.8	306	11.3	54	74	40	38	60	18	27	41	0.00
6	340	13	7.3	137	25.1	55	68	39	33	53	21	25	41	0.00
7	341	34	6.2	293	18.6	50	67	38	32	59	11	18	37	0.00
8	342	5	12.9	323	31.9	46	55	36	26	40	12	12	33	0.00
9	343	44	6.6	273	24.0	42	53	31	24	39	14	7	30	0.00
10	344	65	2.9	286	9.7	45	60	32	19	30	9	3	31	0.00
11	345	29	3.8	285	11.7	48	65	38	21	32	12	9	34	0.00
12	346	36	12.7	337	34.3	51	63	35	26	40	13	15	36	0.00
13	347	0	19.6	322	35.7	50	57	43	35	45	25	23	38	0.00
14	348	4	3.6	240	16.2	47	61	34	37	56	21	21	36	0.00
15	349	9	3.4	287	11.0	48	65	36	31	48	14	17	35	0.00
16	350	1	3.8	293	11.1	49	69	34	23	38	10	11	35	0.00
17	351	5	3.3	271	9.1	51	65	39	19	30	10	9	35	0.00
18	352	0	7.5	146	21.1	54	65	44	18	27	12	11	37	0.00
19	353	0	7.5	141	21.3	55	63	44	43	60	23	33	44	0.00
20	354	1	5.8	337	18.8	54	64	44	58	80	37	38	45	0.00
21	355	0	4.1	304	15.2	54	66	46	64	89	37	41	47	0.09
22	356	9	4.6	311	15.0	48	54	41	79	91	61	42	44	0.04
23	357	0	14.2	320	30.9	49	59	38	52	92	24	29	40	0.00
24	358	54	4.6	171	25.6	44	58	35	40	61	19	20	34	0.00
25	359	21	5.5	318	23.9	48	63	37	40	61	27	25	38	0.00
26	360	0	4.2	260	12.6	50	65	40	46	66	28	29	40	0.00
27	361	2	4.4	286	14.5	47	59	39	49	71	27	28	38	0.00
28	362	8	4.0	278	11.2	50	65	37	43	63	23	27	39	0.00
29	363	0	5.5	233	16.8	49	63	38	40	61	21	25	38	0.00
30	364	20	5.4	286	21.4	46	58	34	47	73	22	26	37	0.00
31	365	74	4.5	221	10.2	43	53	31	59	80	41	30	37	0.00

MONTHLY STATISTICS

	Total Solar Rad. ly.	Ave. Wind mph	V. Dir. Deg	Max. Wind mph	Mean Air Temperature Deg. Fahrenheit	Max Air Temperature Fahrenheit	Min Air Temperature Fahrenheit	Mean Humidity Percent	Max Humidity Percent	Min Humidity Percent	Dew Point Deg. Fahrenheit	Wet Bulb	Total Precip. inches
Total	586												0.13
Ave.	19	6.2	298	18.9	48.9	62.0	37.3	39	57	22	22	38	
Max.	74	19.6		38.1	55	74	46	79	92	61	42	47	0.09
Min.	0	2.9		9.1	42	53	30	18	27	9	3	30	0.00

Data are subject to further review and editing. Please refer any questions to the Western Regional Climate Center.

° 1 ly = 1 cal/cm² = 4.1855 J/cm² = 3.6855 BTU/ft² = .01163 KW-hr/m²

Station Summary
Beatty 11SSE US Ecology Nevada
 Monthly Summary for
January, 2024

Day of Month	Day of Year	Total Solar Rad. ly.	Ave. Wind mph	V. Dir. Deg	Max. Wind mph	Mean Air Temperature Deg. Fahrenheit	Max Air Temperature Fahrenheit	Min Air Temperature Fahrenheit	Mean Humidity Percent	Max Humidity Percent	Min Humidity Percent	Dew Point Deg. Fahrenheit	Wet Bulb Fahrenheit	Total Precip. inches
1	1	9	5.0	296	14.0	46	62	35	50	73	27	27	38	0.00
2	2	25	3.9	172	11.1	45	57	35	43	61	26	23	36	0.00
3	3	13	9.0	154	33.3	45	52	41	53	72	42	29	38	0.04
4	4	11	17.0	322	37.4	47	54	41	36	49	23	21	36	0.00
5	5	61	15.7	336	41.6	46	56	37	33	50	20	18	35	0.00
6	6	143	8.4	111	35.7	40	45	30	35	56	24	14	30	0.00
7	7	288	26.9	338	49.2	38	44	32	33	55	21	11	29	0.00
8	8	254	11.3	331	28.7	37	47	29	32	48	14	9	28	0.00
9	9	76	3.2	288	11.7	34	49	23	35	48	18	10	26	0.00
10	10	216	4.6	177	20.2	36	48	23	36	59	21	11	27	0.00
11	11	18	15.6	326	49.6	37	47	26	40	84	16	14	29	0.00
12	12	129	4.3	289	10.9	33	49	22	38	56	19	11	26	0.00
13	13	143	4.8	280	15.3	37	49	25	38	53	23	14	28	0.00
14	14	162	4.9	294	15.6	44	61	27	42	63	23	21	34	0.00
15	15	121	8.3	323	26.6	48	62	35	45	70	19	26	38	0.00
16	16				12.1		60	31		66	23			
17	17	18	5.3	288	12.0	45	59	36	46	64	28	25	36	0.00
18	18	25	4.1	308	11.0	49	63	34	42	73	19	25	38	0.00
19	19	7	4.8	230	14.2	51	62	40	35	50	22	24	39	0.00
20	20	2	8.6	154	27.7	52	61	46	48	76	38	33	43	0.00
21	21	17	6.3	124	17.6	48	52	45	80	93	68	42	45	0.03
22	22	1	10.0	123	20.9	47	49	45	87	94	78	44	45	0.68
23	23	9	10.4	328	26.3	51	60	45	64	94	38	38	44	0.03
24	24	9	4.8	237	20.0	46	55	39	69	88	46	36	41	0.00
25	25	28	12.4	317	34.2	48	59	37	55	92	20	30	40	0.00
26	26	3	6.5	270	24.9	48	61	37	45	68	25	27	38	0.00
27	27	0	4.1	281	9.9	52	69	38	51	71	25	33	42	0.00
28	28	0	3.9	252	11.3	57	76	45	51	74	25	38	47	0.00
29	29	9	3.8	262	10.1	58	76	45	48	70	21	36	46	0.00
30	30	3	4.7	262	12.7	56	71	43	48	72	25	35	45	0.00
31	31	5	9.0	176	28.6	54	65	40	48	75	30	34	44	0.00

MONTHLY STATISTICS

	Total Solar Rad. ly.	Ave. Wind mph	V. Dir. Deg	Max. Wind mph	Mean Air Temperature Deg. Fahrenheit	Max Air Temperature Fahrenheit	Min Air Temperature Fahrenheit	Mean Humidity Percent	Max Humidity Percent	Min Humidity Percent	Dew Point Deg. Fahrenheit	Wet Bulb Fahrenheit	Total Precip. inches
Total	1805												0.78
Ave.	60	8.0	307	22.4	45.9	57.4	35.7	47	68	28	25	37	
Max.	288	26.9		49.6	58	76	46	87	94	78	44	47	0.68
Min.	0	3.2		9.9	33	44	22	32	48	14	9	26	0.00

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° 1 ly = 1 cal/cm² = 4.1855 J/cm² = 3.6855 BTU/ft² = .01163 KW-hr/m²

Station Summary
Beatty 11SSE US Ecology Nevada
 Monthly Summary for
February, 2024

Day of Month	Day of Year	Total Solar Rad. ly.	Ave. Wind mph	V. Dir. Deg	Max. mph	Air Temperature Mean Deg.	Max Fahrenheit	Min Fahrenheit	Humidity Mean Percent	Max Percent	Min Percent	Dew Point Deg.	Wet Bulb Fahrenheit	Total Precip. inches
1	32	33	8.8	130	30.5	47	56	43	77	93	42	39	43	0.44
2	33	12	5.4	164	19.0	47	56	38	77	95	50	39	43	0.04
3	34	18	4.5	248	11.3	44	56	35	69	90	36	34	39	0.00
4	35	0	13.2	117	26.0	44	48	41	82	90	70	38	41	0.28
5	36	0	17.2	116	30.4	45	49	40	81	94	60	39	42	0.56
6	37	0	5.3	153	19.4	43	48	38	89	94	77	40	41	0.91
7	38	0	7.6	138	22.8	42	48	38	81	92	66	37	39	0.14
8	39	44	8.2	143	27.0	40	48	36	73	90	52	32	37	0.00
9	40	23	4.6	308	21.2	40	49	32	74	92	48	32	36	0.03
10	41	11	21.7	337	42.8	42	48	37	38	54	26	18	32	0.00
11	42	33	6.1	250	22.4	41	53	30	47	76	23	21	33	0.00
12	43	16	4.7	212	12.8	43	57	31	56	79	26	26	35	0.00
13	44	356	4.1	271	11.8	45	59	32	57	82	28	29	37	0.00
14	45	150	6.5	182	16.7	46	57	34	57	81	30	30	38	0.00
15	46	359	4.9	249	13.5	50	63	38	55	78	30	33	41	0.00
16	47		3.7	269	15.1	52	68	38	51	78	22	32	42	0.00
17	48	216	6.6	157	20.9	53	61	41	47	72	31	32	43	0.00
18	49	395	7.7	133	18.6	54	64	38	50	79	37	35	44	0.00
19	50	172	10.2	152	30.5	56	65	51	54	70	40	39	47	0.00
20	51	110	10.7	138	30.2	52	58	46	72	89	53	43	47	0.01
21	52	155	5.5	223	19.9	50	61	40	68	95	39	39	44	0.00
22	53	388	4.6	284	13.1	51	66	38	56	86	23	33	42	0.00
23	54		4.1	295	12.1	51	64	38	46	73	20	28	40	0.00
24	55	303	3.7	248	11.8	52	69	38	40	65	15	26	40	0.00
25	56	322	5.8	225	14.5	53	69	38	42	65	21	28	41	0.00
26	57	302	8.2	110	22.5	54	67	38	46	77	26	32	43	0.00
27	58	145	11.2	334	28.0	53	63	40	36	80	12	23	40	0.00
28	59	11	4.4	234	14.8	52	66	36	31	53	14	20	38	0.00
29	60	80	7.9	181	23.6	53	70	37	41	61	22	29	41	0.00

MONTHLY STATISTICS

	Total Solar Rad. ly.	Ave. Wind mph	V. Dir. Deg	Max. mph	Air Temperature Mean Deg.	Max Fahrenheit	Min Fahrenheit	Humidity Mean Percent	Max Percent	Min Percent	Dew Point Deg.	Wet Bulb Fahrenheit	Total Precip. inches
Total	3655												2.41
Ave.	135	7.5	166	20.8	48.0	58.8	38.0	58	80	36	32	40	
Max.	395	21.7		42.8	56	70	51	89	95	77	43	47	0.91
Min.	0	3.7		11.3	40	48	30	31	53	12	18	32	0.00

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$^{\circ} 1 \text{ ly} = 1 \text{ cal/cm}^2 = 4.1855 \text{ J/cm}^2 = 3.6855 \text{ BTU/ft}^2 = .01163 \text{ KW-hr/m}^2$