BRIAN SANDOVAL Governor

STATE OF NEVADA



JULIE KOTCHEVAR, Ph.D. Administrator, DPBH

IHSAN AZZAM Ph.D, M.D. Chief Medical Officer

RICHARD WHITLEY, MS Director, DHHS

DEPARTMENT OF HEALTH AND HUMAN SERVICES DIVISION OF PUBLIC AND BEHAVIORAL HEALTH

Bureau of Health Protection and Preparedness
Radiation Control Program
675 Fairview Drive, Suite 218
Carson City, Nevada 89701

Telephone: (775) 687-7550 · Fax: (775) 687-7552

August 20, 2018

MEMORANDUM

To:

Beatty File

From:

John Follette, Radiation Control Specialist

Subject:

Beatty Inspection Summary August 17, 2018

An inspection of the Beatty Low-Level Waste landfill (closed) was conducted on August 17, 2018 by Haley Brown and John Follette. The radiological survey was performed by driving the BNC Model RD-120 GN (SN 120009) backpack around the site boundary access road and in a grid pattern across the cap to detect radiological anomalies. None were detected. Dose rate readings on the cap remain about twice background*, as read on the access road.

Status of Previous Inspection Items:

The markers for the trenches are not in place on the cap. They are still stacked off to the side of the cap, inside of the fenced area.

Radiological Postings Adequate:

All of the postings along the fence are adequate. However, we may want to add additional radiological postings to the new gate.

Site Observations:

Radiological Postings Adequate:

All of the postings along the fence are adequate. However, we may want to add additional radiological postings to the new gate.

Site Boundary Fence Undamaged and Gate(s) Locked: Yes

Site Boundary, Access Road, and Buffer Areas Maintained: Yes

Rain Since Last Inspection:

May - 0.14", June - 0.0", July - 0.58", and August - 0.0.0" as of August 16, 2018.

Erosion, Fissures, Water Pooling, or Subsidence Concerns:

There are erosions areas along the South fence. Pictures of the erosion were taken starting about 5 feet from the southeast corner heading west to the gate. The erosion seems to be limited to the area that includes the rock that wraps the site and the berm to the road around the site. No erosion was identified above the rocks or on the cap. See attached pictures.

Radiation Survey Results:

Instrument: BNC Model RD-120 GN (SN 120009) 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: 16-20 urem/hr Value used for twice background: 40 urem/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.)

Contacts: Karen Beckley: 775-687-7540, kbeckley@health.nv.gov

Adrian Howe: 775-687-7531, ahowe@health.nv.gov
Glen Gimenez: 775-687-7542, glgimenez@health.nv.gov
John Follette: 702-486-3017, jfollette@health.nv.gov
Brandie Peretz: 702-486-5286, bperetz@health.nv.gov

Haley Brown: 702-486-3015, habrown@health.nv.gov

Beatty 11SSE US Ecology Nevada Monthly Summary for

May, 2018

Day I	Day	Total Wind			Air Temperature				Humidity			Wet	Total	
of	of	Solar Rad.	Ave	V. Dir.	Max ·	Mean I	Max 1	Min	Mea n	Ma x	Mi n	Point	Bulb	Precip
Mont `h	Yea r	ly.	mph	Deg	mph		eg. enhe	it	Pe	ercent	t	De: Fahrei		inches
1	121	319	8.4	135	27.6	56	67	47	52	90	17	36	46	0.06
2	122	539	6.9	150	22.4	57	69	48	61	93	34	42	49	0.05
<u>3</u>	123	701	6.6	223	28.7	66	81	46	33	69	12	31	48	0.00
4	124	692	5.5	239	20.6	72	87	52	20	39	10	26	49	0.00
<u>5</u>	125	602	5.2	231	25.2	76	91	56	15	30	7	23	50	0.00
<u>6</u>	126	525	10.0	178	32.5	79	95	62	11	20	4	18	50	0.00
7	127	722	5.8	260	17.1	80	95	61	8	17	2	10	49	0.00
8	128	707	5.7	240	22.7	82	99	59	7	11	4	10	49	0.00
9	129	703	8.6	229	32.5	85	101	67	9	14	5	20	52	0.00
<u>10</u>	130	671	11.0	288	32.6	83	94	73	12	19	8	24	53	0.00
11	131	671	16.4	36	53.5	73	89	61	18	28	11	26	49	0.00
12	132	695	11.9	316	33.7	66	79	53	21	36	9	23	46	0.00
<u>13</u>	133	681	10.6	290	39.9	70	82	57	27	43	14	33	50	0.00
<u>14</u>	134	592	12.2	331	38.8	70	82	62	32	45	19	38	52	0.00
<u>15</u>	135	694	6.3	168	28.3	73	87	56	26	53	9	33	52	0.00
<u>16</u>	136	735	12.9	195	35.4	74	88	53	12	31	5	16	47	0.00
<u>17</u>	137	729	12.8	290	30.0	71	83	59	18	32	9	23	48	0.00
18	138	696	11.0	304	28.1	77	90	63	22	33	15	34	53	0.00
<u>19</u>	139	615	8.5	208	43.8	77	90	64	24	41	10	36	54	0.00
<u>20</u>	140	635	7.9	171	37.3	76	90	58	26	52	12	35	53	0.00
21	141	478	12.9	97	34.1	72	82	64	29	53	15	36	52	0.03
22	142	538	4.3	162	16.3	73	85	62	30	52	16	37	53	0.00
23	143	659	9.8	170	26.5	76	91	58	24	43	13	34	53	0.00
24	144	727	12.7	142	33.1	78	89	59	19	36	11	31	53	0.00
25	145	737	16.7	154	45.5	73	84	62	18	31	11	26	49	0.00
<u>26</u>	146	675	13.2	128	37.9	68	83	56	33	70	17	36	50	0.00
<u>27</u>	147	605	14.7	322	32.5	72	83	58	31	70	15	38	53	0.00
28	148	706	5 15.1	337	33.9	79	90	66	24	38	13	38	55	0.00

<u>29</u> 149	736	5.1	172	19.5	83	97	65	18	30	9	34	55	0.00
<u>30</u> 150	709	14.8	181	35.8	84	97	65	17	29	8	32	55	0.00
<u>31</u> 151	702	14.8	154	31.1	77	89	67	19	40	6	27	52	0.00
MONTHLY	STATIS	ΓICS											
	Total		Wind		Tem	Air peratı	ıre	Hu	midit	у	Dew	Wet	Total
	Solar Rad.	Ave	V. Dir.	Max	Mean	Max	Min	Mea n	Ma x	Mi n	Point	Bulb	Precip .
	ly.	mph	Deg	mph		Deg. Fahrenheit			Percent			g. nheit	inches
Total	20196												0.14
Ave.	651	10.3	209	31.5	74.0	87.3	59.3	23	42	11	29	51	
Max.	737	16.7		53.5	85	101	73	61	93	34	42	55	0.06
Min.	319	4.3		16.3	56	67	46	7	11	2	10	46	0.00

^{° 1} ly = 1 cal/cm² = $4.1855 \text{ J/cm}^2 = 3.6855 \text{ BTU/ft}^2 = .01163 \text{ KW-hr/m}^2$

Beatty 11SSE US Ecology Nevada

Monthly Summary for

June, 2018

Day D	ay	Total Wind			Ten	Air Temperature			Humidity			Wet	Total	
of o	of	Solar Rad.	Ave	V. Dir.	Max	Mea n	Max 1	Min	Mea n	Ma x	Mi n	Point	Bulb	Precip ·
Mont Y	ea r	ly.	mph	Deg	mph		Deg. hrenhe	it	Pe	ercen	t	De _g Fahrei	_	inches
<u>1</u> 1	152	758	12.2	331	31.8	78	91	54	12	26	4	16	49	0.00
<u>2</u> 1	153	754	8.4	278	27.0	84	99	67	9	14	5	18	52	0.00
<u>3</u> 1	154	761	5.6	202	24.5	87	102	65	8	14	4	16	53	0.00
<u>4</u> 1	155				25.0		99	67		13	5			
<u>5</u> 1	156	744	10.7	162	28.8	87	100	75	13	22	6	29	55	0.00
<u>6</u> 1	157	753	15.3	152	35.6	84	96	74	13	24	4	24	53	0.00
<u>7</u> 1	158	732	9.2		22.2	82		70	14		7	26	53	0.00
<u>8</u> 1	159	748	7.0	180	21.7	84		63	10		6	20	52	0.00
9	160	744	13.8		35.7	84		64	12		5	25	53	0.00
<u>10</u>	161	750	13.5		35.8	79		68	9		4	13	49	
<u>11</u> :	162	755	6.6		22.9	86	100	68	9		5	19	52	
<u>12</u>	163	751	5.3	197	19.7	89	104	67	9		6	22	54	
<u>13</u>	164	742	9.0		27.4	90		69			4	23	55	
<u>14</u>	165		10.8	154	24.3	89		72			7	31	57	
<u>15</u>	166	713	13.2		29.1	86		77	13		5	28	55	
<u>16</u>	167		14.0	150	36.7	82		72			5	27	53	
<u>17</u>	168	753	13.8		30.2	75		64			1	30	51	0.00
<u>18</u>	169	748			23.4	78		63			6	29	52	
19	170	750	11.3		27.7	85		73	14		9	30	55	
<u>20</u>	171	758	6.0		22.3	91		72				27	56	
<u>21</u>	172	769	8.8		42.2	93		71	8			19	56	
22	173	776	12.7		27.9	94		76				12	55	
<u>23</u>	174	766	6.6		25.1	93		73				14	55	
24	175	751	9.3		28.8	94		82			5	22	56	
<u>25</u>	176	737			24.4	93		71				29	58	
<u>26</u>	177	751	8.6		24.2	93		73				28	57	
<u>27</u>	178	752	11.4	155	33.5	91	105	72	11	20	5	27	56	0.00

<u>28</u> 179	755 12	2.4	139	27.1	89	104	77	10	18	4	23	55	0.00
<u>29</u> 180	739	7.7	167	22.9	87	100	68	12	18	7	27	55	0.00
<u>30</u> 181	741 13	2.0	318	29.2	90	102	77	10	14	7	26	56	0.00
MONTHLY	CS												
	Total			Air Temperature				Hur	nidit	У	Dew	Wet	Total
	Solar A	Ave	V.	Max	Mea	Max 1	Min	Mea	Ma	Mi	Point	Bulb	Precip
	Rad.		Dir.		n	IVIUX	V1111	n	X	n	Tomic	Duito	•
	ly. m	nph	Deg	mph		Deg. Fahrenheit			Percent			g. nheit	inches
Total	21754												0.00
Ave.	750 1	0.0	187	27.9	86.9	101. 0	70. 1	11	19	5	23	54	
Max.	776 1	5.3		42.2	94	110	82	20	34	9	31	58	0.00
Min.	713	5.3		19.7	75	89	54	5	8	3	12	49	0.00

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

Beatty 11SSE US Ecology Nevada

Monthly Summary for

July, 2018

Day	Day	Total		Wind		Ten	Air peratu	ıre	Hui	midit	у	Dew	Wet	Total
of	of	Solar Rad.	Ave	V. Dir.	Max	Mea n	Max	Min	Mea n	Ma x	Mi n	Point	Bulb	Precip
Mont h	Yea r	ly.	mph	Deg	mph		Deg. nrenhe	it	Pe	rcent		De Fahrei		inches
<u>1</u>	182	744	5.6	166	20.8	93	106	74	10	16	6	26	57	0.00
2	183	738	9.8	168	27.0	92	106	71	10	19	5	26	57	0.00
3	184	726	14.6	156	27.9	91	103	80	16	27	7	37	59	0.00
4	185	736	14.6	154	45.2	88	100	77	14	29	5	29	56	0.00
<u>5</u>	186	727	7.2	218	24.0	88	104	67	8	17	3	15	53	0.00
6	187	739	5.6	245	22.0	92	109	69	6	10	3	13	54	0.00
<u>7</u>	188	587	9.2	172	26.0	94	109	76	14	24	9	38	61	0.00
8	189	636	8.2	184	22.6	97	111	80	19	30	10	45	64	0.00
9	190	620	10.8	141	36.0	96	107	83	19	34	12	46	64	0.00
10	191	648	12.0	143	38.0	89	101	75	35	65	19	56	66	0.00
11	192	529	7.2	159	29.4	89	101	79	35	47	23	57	67	0.00
12	193	444	10.6	136	55.7	82	101	64	53	100	24	62	68	0.45
13	194	673	6.3	165	21.0	86	100	70	47	82	23	61	68	0.00
14	195	625	7.2	96	28.0	92	105	77	34	60	18	58	68	0.00
15	196	682	7.3	150	20.2	94	108	80	30	53	15	56	68	0.00
16	197	693	6.9	176	28.7	96	108	81	24	44	13	52	67	0.00
17	198	697	8.4	147	25.0	98	111	81	19	36	11	48	65	0.00
18	199	611	11.5	146	29.0	96	108	86	26	37	16	55	68	0.00
19	200	683	13.3	129	31.4	95	109	84	30	46	12	56	68	0.13
20	201	618	8.1	190	30.2	91	104	75	33	62	17	56	67	0.00
21	202	525	12.1	152	39.1	91	102	78	27	42	16	51	65	0.00
22	203	677	8.4	242	33.7	91	105	74	26	43	13	50	64	0.00
23	204	695	8.3	290	26.0	95	108	79	21	38	11	46	64	0.00
24	205	628	8.0	190	26.6	98	111	84	16	26	9	44	64	0.00
25	206	689	9.1	221	40.8	99	112	83	17	31	8	45	65	0.00
26	207	648	8.4	311	39.2	98	112	83	15	27	8	41	63	0.00
27	208	687	7.2	276	26.2	98	112	80	13	26	6	37	62	0.00

<u>28</u> 209	685	8.0	202	23.2	97	110	79	12	22	5	34	60	0.00
<u>29</u> 210	676	10.5	147	26.4	97	110	86	15	28	7	40	62	0.00
<u>30</u> 211	616	7.7	185	21.8	96	108	79	22	38	12	49	65	0.00
<u>31</u> 212	578	11.6	137	32.1	95	108	86	25	39	16	53	67	0.00
MONTHLY	STATIST	ΓICS											
	Total		Wind			Air peratu	re	Hui	midit	y	Dew	Wet	Total
	Solar Rad.	Ave	V. Dir.	Max	Mea n	Max 1	Min	Mea n	Ma x	Mi n	Point	Bulb	Precip .
	ly.	mph	Deg	mph	Deg. Fahrenheit			Percent			De _z Fahrei		inches
Total	20259												0.58
Ave.	654	9.2	166	29.8	93.3	106. 7	78. 0	22	39	12	44	63	
Max.	744	14.6		55.7	99	112	86	53	100	24	62	68	0.45
Min.	444	5.6		20.2	82	100	64	6	10	3	13	53	0.00

^{° 1} ly = 1 cal/cm² = $4.1855 \text{ J/cm}^2 = 3.6855 \text{ BTU/ft}^2 = .01163 \text{ KW-hr/m}^2$

Beatty 11SSE US Ecology Nevada

Monthly Summary for

August, 2018

Day	Day	Total Wind			Air Temperature			Humidity			Dew	Wet	Total	
of	of	Solar Rad.	Ave	V. Dir.	Max	Mea n	Max 1	Min	Mea n	Ma x	Mi n	Point	Bulb	Precip
Mont h	Yea r	ly.	mph	Deg	mph		Deg. nrenhe	it	Pe	rcen	t	De Fahrei	_	inches
1	213	593	9.3	238	34.2	94	107	78	26	46	15	52	66	0.00
2	214	640	9.2	167	31.8	94	107	79	23	36	13	49	65	0.00
3	215	659	8.7	152	22.5	94	107	81	23	40	10	49	65	0.00
4	216	687	6.6	215	25.7	94	108	79	10	21	4	26	57	0.00
5	217	626	8.2	274	26.1	91	104	77	9	12	5	23	55	0.00
<u>e</u>	218	702	5.6	236	20.9	90	106	71	8	17	3	18	54	0.00
7	219	669	6.0	255	24.0	91	108	71	9	15	4	23	55	0.00
8	220	660	7.8	193	25.0	93	109	74	13	25	5	33	59	0.00
9	221	615	6.2	261	23.8	93	108	74	15	30	7	37	60	0.00
10	222	603	11.0	139	27.1	95	107	84	21	37	10	46	64	0.00
11	223	619	10.1	152	37.8	93	106	77	18	30	11	42	61	0.00
12	224	590	8.3	166	34.4	90	103	77	24	36	15	48	63	0.00
13	225	621	8.2	257	31.8	91	105	74	21	34	12	44	62	0.00
14	226	637	6.7	223	25.4	91	104	74	20	37	11	43	61	0.00
15	227	624	10.5	164	29.5	91	104	76	21	30	10	44	62	0.00
16	228				19.5		102	76		37	16			
17	229													
18	230													
19	231													
20	232													
21	233													
22	234													
23	235													
24	236													
25	237													
26	238													
27	239													

28 240

<u>29</u> 241

<u>30</u> 242

<u>31</u> 243

MONTHLY STATISTICS

	Total	Wind			Tem	Air iperatu	Hu	midi	ty	Dew	Wet	Total	
	Solar Rad.	Ave	V. Dir.	Max		1		Mea n	Ma x	Mi n	Point	Bulb	Precip
	ly.	mph	Deg	mph	Deg. Fahrenheit			Ре	ercen	t	Deg. Fahrenheit		inches
Total	9544												0.00
Ave.	636	8.2	200	27.5	92.2	106. 0	76. 3	18	30	10	38	61	
Max.	702	11.0		37.8	95	109	84	26	46	16	52	66	0.00
Min.	590	5.6		19.5	90	102	71	8	12	3	18	54	0.00

^{° 1} lý = 1 cal/cm² = 4.1855 J/cm² = 3.6855 BTU/ft² = .01163 KW-hr/m²



























