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Governor

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Executive Director

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State of Utah

DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF RADIATION CONTROL

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MEMORANDUM

TO: Dianne R. Nielson, Ph.D.
Executive Director
Utah Department of Environmental Quality

FROM: Bill Sinclair, Director BS
Division of Radiation Control
Utah Department of Environmental Quality

SUBJECT: Review of Envirocare licensing actions

DATE: January 28, 1997

Staff members of the Division of Radiation Control have reviewed all licensing/permitting actions commencing with the submission of the application for NORM waste by Envirocare on October 12, 1987. Attached is a compilation of past licensing actions. This chronology commences with a status report of all Envirocare licenses. Items 7-10 of the review focus on disposal fees audits and the Northwest Interstate Compact Resolution and Order. The next area of focus is in regards to the original NORM license and all twenty-two subsequent amendments. Finally, other actions affecting the license are noted.

From our review of these various actions, we have not identified any major problems associated with past licensing actions accomplished by the Division. However, these licensing actions will be reviewed during the license renewal review process currently underway. This chronology outlines which licensing actions are currently undergoing review as a result of the license renewal process. We continue to encourage everyone with questions to contact us so their issue(s) may be resolved in a timely manner.

We will maintain this license chronology from this point forward. If you have any questions, do not hesitate to contact me.

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PDRs per H E Lafave

Envirocare Permits/Licenses Chronology									Will Issue be
Line	Permit Action		Submittal	Approval	Expiration	Reviewed	Approved	Public	Re-visited by
No.	No.	Description	Date	Date	Date	By	By	Participation Provided?	Re-license Action?
1	1	Naturally Occurring Radioactive Materials License	10/12/87	2/28/88	2/28/93	DRC	LFA	No	Yes
2		Combined with the Low-Level Radioactive Materials License on 3/21/91							
3									
4	2	Low-Level Radioactive Materials License	7/27/90	3/21/91	2/28/96	DRC	LFA	No	Yes
5									
6	3	Groundwater Discharge Permit	10/1/90	3/21/91	9/10/98	DWQ	DAO	Yes	Yes, re-
7		Permit expiration was extended during major permit modification #3 of							license will
8		9/10/93							require
9									permit modi-
10									fication
11									
12	4	Mixed Waste Permi	4/21/89	11/30/90	11/30/00	DS/HW	DRD	Yes	Yes - under-
13									going 5 year
14									review. Class
15									3 modification
16									submitted.
17									
18	5	Uranium and thorium mill tailings (11e.(2) License)	12/23/91	11/30/93	11/30/03	NRC	NRC	Yes	No
19									
20	6	Hazardous and Solid Waste Amendments (HSA) permit	8/95	10/3/96	10/3/01		EPA	Yes	No - just
21							Region		recently re-
22							VIII		issued
23									
24	7	Audit of radioactive waste disposal fees, to ensure State is being paid the							No
25		appropriate amount of fees.							
26		Financial audit to be conducted by the Office of Support Services, DEQ							
27		Estimated 2/97.							
28									
29	8	Northwest Interstate Compact - Resolution and Order - Superseded by		1991		LFA, KA,	LFA,	Yes -	No
30		5/2/94 R & O				FN	NWIC	Compact	
31		a) Original R & O in which Utah reserved the right to approve each disposal						meetings are	
32		arrangement involving compact-authorized material, all federal and						open to	
33		state laws must be complied with, no low-level waste from states that						public and	
34		have been denied access to sited states facilities could accepted						have	
35		without specific approval from NWIC. Compact reserves the right to						designated	
36		modify or rescind the authorization at any time.						public	
37								comment	
38								times during	
39								meeting.	
40								Meeting was	

Envirocare Permits/Licenses Chronology										Will Issue be
Line	Permit Action			Submittal	Approval	Expiration	Reviewed	Approved	Public	Re-visited by
No.	No.	Description	Date	Date	Date	By	By	Participation	Re-licence	
41										
42										
43										
44	9	Northwest Interstate Compact - Resolution and Order - Superseded by		5/2/94		BS, FN,	WJS,	Yes - same	No	
45		4/20/95 R & O				BCB	NWIC	as above.		
46		a) Amendments to the term "reactor".				DRN		Meeting was		
47		b) Clarification that resolution was intended for cleanup and not operational						in Seattle,		
48		wastes.						WA.		
49		c) Approval by compact or state of origin required (policed by NWIC)								
50										
51	10	Northwest interstate Compact - Resolution and Order		4/20/95		BS, FN,	WJS,	Yes - same	Yes - Look at	
52		a) Deferred receipt of material to Utah RML.				BCB,	NWIC	as above.	license	
53		b) Utah license condition added that requires State/Compact export approval.				DRN		Meeting was	definitions of	
54		c) Review of R & O on a three year basis by NWIC.						in Seattle,	soil, soil-like	
55		d) Contract notifications are reviewed by DRC staff for appropriate export						WA.	debris. Look	
56		approval Volumes, per R & O, changes are reported at each Compact							at mandating	
57		meeting by Envirocare.							Compact	
58									submission to	
59									DRC.	
60									Consider	
61									requiring	
62									copy of	
63									NWIC sub-	
64									mission to	
65									DRC.	
66										
67										

Envirocare Radioactive Materials License Chronology								Will Issue be
Line	Permit Action		Submittal	Approval	Reviewed	Approved	Public	Re-visited by
No.	No.	Description	Date	Date	By	By	Participation Provided?	Re-license Action?
1	1	Submission of NORM Application	10/12/87	2/2/88	DF, CJ,	LFA ¹	No	Yes
2					JF, GG,			
3					BS, MD			
4								
5	2	Amendment #1 - Adoption of Quality Assurance Program	2/17/88	2/25/88	DF, CJ,	LFA	No	Yes
6					JF, GG,			
7					BS, MD			
8								
9	3	Amendment #2 - Letter/Phone Call - Addition of Conditions	8/1/88	8/11/88	DF, CJ,	LFA	No	Yes
10		a) Cond 38 - Requirement for Annual Monitoring Report			JF, GG,			
11		b) Cond 39 - Requirement for Annual Waste Disposal Report			BS, MD			
12								
13	4	Amendment #3 - Instrument Calibration Requirements		10/13/88	CJ, DF,	LFA	No	Yes
14		a) Letter dated 9/21/88 - Quarterly to 6 months	9/21/88		RN, JH			
15		b) Letter dated 10/6/88 - Stagger Calibration Date	10/6/88					
16								
17	5	Amendment #4 - 300,000 cubic yards Possession Limit	1/6/89	1/12/89	CJ, DF,	LFA	No	Yes
18		(Revised from 17,000 cubic yards)	1/11/89		RN, JH			
19								
20	6	Amendment #5 - Administrative Amendment- Specified Changes Allowed	1/8/89	1/18/89	DF	LFA	No	Yes
21		Without Invoking Amendment Process						
22								
23	7	Amendment #6 - Administrative Amendment - Addition of Conditions		2/24/89	DF, JH,	LFA	No	Yes
24		a) Generator to Certify Waste Concentration			RN, CJ,			
25		b) Concentration Limits Defined			LM, DWQ			
26		c) Receipt of Waste for Storage						
27								
28	8	Amendment #7 - Change of Address Letter	1/26/90	1/26/90	DF	LFA	No	Yes
29								
30	9	Amendment #8 - Request to delete Air Monitoring Station A-3	6/28/90	7/28/90	DF, JH,	LFA	No	Yes
31					RN, CJ			
32								
33	10	Amendment #9 - NORM Mixed Waste Approval	12/3/90	12/3/90	DSHW,	LFA	Yes - DSHW	Yes
34					DRC,			
35					DWQ			
36								
37	11	Amendment #10 - Low Level Waste Disposal Amendment	7/27/90	3/21/91	DF, RN,	LFA	Yes - DSHW	Yes
38		a) LARW, Mixed/LARW			CJ, JH,			
39		b) Release Procedures			LM, DWQ			
40		c) RAE Performance Assessment Report			DSHW			

Envirocare Radioactive Materials License Chronology								Will Issue be																											
Line	Permit Action			Submittal	Approval	Reviewed	Approved	Public	Re-visited by																										
No.	No.	Description		Date	Date	By	By	Participation Provided?	Re-license Action?																										
41	12	Amendment #11 - New Conditions		9/20/90	3/16/92	DF, RN,	LFA	Yes - DWQ/ No	Yes																										
42						LM, JH,																													
43						DSHW																													
44						DWQ																													
45																																			
46		a) Exempt from Land Ownership				DF, RN,						No	Yes																						
47		LM, JH																																	
48		b) U-235 Poss Limit				DRC										No	Yes																		
49		c) Define Decontaminated Debris for Disposal				DRC																													
50		d) Notify DRC of Lift Completion in writing				DRC														No	Yes														
51		e) Paint Filter Liquid Test				DWQ,																													
52						CC, LM,																													
53						DF																													
54		f) Change As-Built Submission Date				DWQ,																						Yes - DWQ	Yes						
55						CC, LM,																													
56						RN, DF																													
57		g) QA-QC Program requirement				DWQ,																										Yes - DWQ	Yes		
58						CC, LM,																													
59						RN, DF																													
60		h) Compaction Test Adjacent to Debris				DWQ,																													
61			DSHW,																																
62			CC, LM,																																
63	i) Debris Limits for Lifts		DWQ,			Yes - DWQ	Yes																												
64			DSHW,																																
65			CC, LM,																																
66	j) Placement Volume Limits		DWQ,							Yes - DWQ	Yes																								
67			DSHW,																																
68			CC, LM,																																
69	k) ID Chelating Agents		DWQ,											Yes - DWQ	Yes																				
70			DSHW,																																
71			CC, LM,																																
72																																			
73	13	Amendment #12 - Release Criteria for Equipment														10/27/92	11/20/92	DF, RN,	LFA	No	Yes														
74																		JH																	
75																																			
76	14	Amendment #13 - Change of Address														5/14/93	5/24/93	DF	LFA	No	Yes														
77																																			
78	15	Amendment #14 - Entireity														5/15/93	9/10/93	RAE, DF,	WJS	Yes	Yes														
79																		LM																	
80																		a) Fourteen Radioactive Isotopes Approved for Disposal				RAE, DF,	Yes	Yes											

Envirocare Radioactive Materials License Chronology									Public	Will Issue be
Line	Permit Action				Submittal	Approval	Reviewed	Approved	Participation	Re-visited by
No.	No.	Description			Date	Date	By	By	Provided?	Re-license Action?
81							LM, DWQ	I		
82							DSHW			
83		b) Transuranic Addressed					RAE, DF,		Yes	Yes
84							LM			
85		c) Re-write Release Criteria					RAE, DF,		Yes	Yes
86							LM			
87		d) Mixed Waste Storage					RAE, DF,		Yes	Yes
88							LM, DWQ			
89							DSHW			
90		e) Additional Clay Liner Protection					RAE, DF,		Yes	Yes
91							LM, DWQ			
92							DSHW			
93										
94	16	Amendment #15 - Twenty-Three Radioactive Isotopes Approved for Disposal			9/30/93	2/22/94	DF, LM,	WJS	Yes	Yes
95							RAE			
96										
97	17	Amendment #16 - Approval by Compact for Out of State Waste to E.C.			5/17/94	8/10/94	DF	WJS	Yes	Yes
98										
99	18	Amendment #17 - Oversize Debris/CL SM Option			6/21/94	8/26/94	DF, LM,	WJS	No	Yes
100							SH			
101		a) Oversize Debris Acceptance								
102		b) Use of Flowable Flow (CLSM)								
103										
104	19	Amendment #18 - Eliminate Wildlife Sampling				9/30/94	DF, JH,	WJS	No	Yes
105							LM, RN			
106		a) Amend Environmental Monitor Plan			9/8/94					
107					8/31/93					
108										
109	20	Amendment #19 - (Executive Secretary Initiated) - Revised Conditions			8/19/94	11/9/94	DF	WJS	No	Yes
110		a) Require Waste Manifest (E-100)								
111		b) Require Comply w/ R313-15-1006, (New CFR) 20								
112		c) Re-write Conditions 6,7,8								
113										
114	21	Amendment #20 - Re-write Entirety				6/28/95	DF, LM,	WJS	Yes	Yes
115							RN, JH			
116		a) As-Built Requirements								
117		b) Comply with new R313-15 changes								
118		c) Reduce some Radionuclide Concentrations								
119										
120	22	Amendment #21 - Five New Nuclides Added			6/5/95	11/15/95	DF, LM,	WJS	Yes	Yes

Envirocare Radioactive Materials License Chronology								Will Issue be
Line	Permit Action		Submittal	Approval	Reviewed	Approved	Public	Re-visited by
No.	No.	Description	Date	Date	By	By	Participation Provided?	Re-license Action?
121					RAE	I		
122		a) Bismuth 207						
123		b) Smarium 151						
124		c) Tantalum 182						
125		d) YT 183						
126		e) TI 204						
127								
128	23	Amendment #22 - Wind Blown Litter		8/16/96	RN, DF,	WJS	No	Yes
129		(Executive Secretary Initiated)			JH, LM			
130								
131	24	Ion Exchange Resin		5/7/96	DF, RAE	WJS	Yes	Yes
132		a) Notice of New Contract, letter from Envirocare to DRC, Contains Resin Bead	9/11/95		DF, LM,			
133		Material			JR, RN,			
134					RAE			
135		b) DRC Request for Information, letter sent 9/11/95	9/21/95		RAE			
136		1) Actual Procedure						
137		2) Break down						
138		3) Mixing/Blending						
139		c) Submittal of letter from Envirocare to DRC, regarding Stability, Compaction,	10/26/95		RAE			
140		and Bio-degradability.						
141		d) Request for more information, Input from RAE, letter from DRC to Envirocare	12/20/95					
142		e) Stability Analysis, letter from AGRA to Envirocare to DRC	2/22/96		DF, RAE			
143		f) Final Stability, letter from AGRA to Envirocare to DRC	2/27/96		DF, RAE			
144		g) TCLP Analysis, letter from Bingham to Envirocare to DRC	3/15/96					
145		h) Response to Comments, letter from Envirocare to DRC	3/19/96					
146		1) Properties of Resin						
147		2) Specifications						
148		3) Kd Results, Settlement						
149		i) RAE Response to letter dated 3/19/96, letter from RAE to DRC	4/26/96		RAE, DF,			
150					LM			
151		j) Permission to Accept Waste Resin - Granted, letter from DRC to Envirocare	4/30/96	5/7/96	DF, RAE	WJS		
152		Amendment not needed.						
153		k) Sent to all on Envirocare Mail Information List		5/7/96	DF	WJS	Yes	Yes
154								
155	25	DAW - Dry Active Waste					Yes	Yes
156		a) Suggest Drum Counter for Packaged Waste, Request ALARA review,	12/8/95	11/5/96				
157		letter from DRC to Envirocare						
158		b) Submission for DAW Sampling Plan, letter from Envirocare to DRC	1/29/96		DF, RN,			
159		1) Protocols to be used by Envirocare			LM, JH,			
160		2) Procedure for Operation			JR, WC			

Envirocare Radioactive Materials License Chronology								Will Issue be
Line	Permit Action		Submittal	Approval	Reviewed	Approved	Public	Re-visited by
No.	No.	Description	Date	Date	By	By	Participation Provided?	Re-license Action?
161	c)	DRC Response to 1/29/96 Submission from Envirocare	2/9/96					
162	1)	Agree ALARA Review						
163	2)	Amend Operating Procedures						
164	d)	DRC request letter	10/17/96					
165	1)	DAW - Disposal Plan						
166	2)	DAW - Address Wind Dispersal						
167	3)	DAW - Uniform Distribution						
168	4)	DAW - Waste Char. Plan Modification						
169	e)	Submission of Info Requested by DRC on 10/17/96	11/1/96		DF, RN			
170					LM, JH,			
171					WC			
172	f)	Approval of DAW Procedure, letter from DRC to Envirocare	11/5/96	11/5/96		WJS	Yes	Yes
173								
174	26	Waste TCLP					Yes	Yes
175	a)	Request to Eliminate TCLP, letter from Envirocare to DRC	6/20/95					
176	b)	Envirocare agrees to Eliminate TCLP	6/27/95					
177	c)	Notice from DRC to the Public						
178	1)	Newspaper Agency	8/8/95					
179	2)	Tribune - Deseret News, 30 day notice for week of 8/14/95	8/14/95					
180	3)	Transcript Bulletin (Tooole), 30 day notice	8/14/95					
181	4)	Internet, 40 day notice	8/8/95					
182	d)	Draft Memo of Agreement to Fund DRC during TCLP	8/95					
183	e)	AG's Office Review of MOA, returned to DRC	8/11/95					
184	f)	MOA, signed by Dianne R. Nielson and Charles Judd	8/11/95					
185	g)	Agreement to implement TCLP, Testing by DRC, Agreement Valid to 6/30/97	8/95	8/11/95				
186								
187	27	Waste Blending					Yes	Yes
188	a)	DRC gets RAE opinion for review	4/21/95		RN, DF,			
189					LM, BS			
190	b)	Request to Increase Concentration Limit CS-137 & Co-60	7/5/95					
191	c)	Request to Avg Concentration over Disposal Cell, letter from Envirocare to DRC	8/1/95					
192	d)	Compact Supports Idea, letter from Compact to Charles Judd to DRC	8/7/95					
193	e)	Re-Define Shipment-Change to Average over "Shipment", letter from EC	8/9/95					
194	f)	Defines areas of concern, letter from RAE to DRC, Possible Conflict of Interest	8/10/95					
195	g)	DRC agrees to Ship Definition 72 hour, letter from DRC to Envirocare	8/15/95					
196	h)	Notify - Public Notice for Change is needed, letter from DRC to C. Judd						
197	i)	Requirements for Blending, Sampling, Pad, letter from DRC to Envirocare						
198	j)	Meeting with Envirocare and DRC concerning:	8/22/95					
199		Letter of Outlining Results of 8/22/95 meeting. Class A, SNM, GWTP, etc.	8/23/95					
200	k)	Letter spelling out Plan to Place, Average, Disposal, from Envirocare to DRC	8/31/95					

Envirocare Radioactive Materials License Chronology								Will Issue be
Line	Permit Action		Submittal	Approval	Reviewed	Approved	Public	Re-visited by
No.	No.	Description	Date	Date	By	By	Participation Provided?	Re-license Action?
201		l) Approval Letter		9/6/95		I		
202								
203	28	Request for Confidentiality					No	Yes
204		a) Letter Requesting Total Confidentially ("C"), letter from Envirocare to BRC	3/8/88					
205		b) Envirocare Directed to Provide Redacted Copy (BRC Maintains "C")	8/1/88		LFA	LFA		
206		c) Request for Un-Redacted Copy of Envirocare File, requested by UMETCO	9/1/88					
207		d) Letter Supporting Envirocare Claim for "C", letter from Poulenc to BRC	10/25/88					
208		e) DSHW Denies "C" for DSHW File Pertaining to Envirocare	7/17/90					
209		f) Envirocare Claims Perminant "C", letter from Envirocare to BRC	8/11/90					
210		g) BRC Requested More Justification to Implement "C", letter to Envirocare	8/14/90					
211		h) Claim Re-Stated, letter from Envirocare's Attorney to BRC	8/25/90					
212		i) Denies Claim by Envirocare dated 8/25/90 by Envirocare Attorney, from AG	8/27/90					
213		j) BRC and AG Agree to Not Divulge Name and Address for Private Generators	10/2/90					
214		Only. All others Public Record.						
215		k) Envirocare Agrees with BRC position of 10/2/90	10/25/90					
216								
217	29	Trust						
218		a) NORM License Approval - Trust: \$233,582	3/3/88		DF, CJ	LFA	No	N/A
219		b) Increase Storage Capacity - New Trust Value Increases by \$563,519,	12/3/88	1/11/89	DF	LFA	No	N/A
220		Trust: \$779,000						
221		c) Fund Storage of Rhone-Polenc Wastes. Approved for Storage Only.	11/13/91	11/13/91		LFA	No	N/A
222		Cost: \$704,000						
223		d) Envirocare Request \$710,000 of Excess Surety Funding because Rhone-	12/17/91	1/28/92		LFA	No	N/A
224		Polenc wastes are disposed. Final Trust Value: \$1,096,000						
225		e) Trust Update, Final Trust Value: \$1,231,000	7/8/92	7/21/92	RN, DF	LFA	No	N/A
226		f) Trust Update, Changes to Accomodate Final Closure Costs: \$153,000	6/25/92	10/19/94	RN, DF	WJS	No	N/A
227		Final Trust Value: \$1,394,404						
228		g) Trust Update, New Facilities Funding, Final Trust Value: \$4,041,000	N/A	11/10/95	RN, DF,	WJS	No	N/A
229					WJS			
230		h) Trust Update, Final Trust Value: \$4,173,000	N/A	4/17/95	RN, DF	WJS	No	N/A
231		i) License Renewal, Current Amount Proposed: \$4,988,000	1/24/96	Under	RN, DF	N/A	Yes	Yes
232				Review				
233								
234								

Envirocare Groundwater Discharge Permit: Permit Chronology					xx/xx/xx = unresolved before next permit cycle		Will Issue be	
					= currently unresolved		Public	Re-visited by
Line	Permit	Action	Submittal	Approval	Reviewed	Approved	Participation	Re-license
No.	No.	Description	Date	Date	By	By	Provided?	Action?
1	1	Conditional GW Permit (initial) [Safety Evaluation Report available]	Oct - Nov.	3/21/91	LBM	DAO	YES	no
2		<i>Conditions Pre-requisite to Construction - submittal & approval required</i>	1990					
3		a) Final Engineering Design and Specifications	?	2/14/92	CCP/LBM	DAO		YES
4		b) Construction QA/QC Plan	4/26/91	4/10/92	CCP/LBM	DAO		YES
5		c) Groundwater Monitoring Well Network Completion	5/12/93	9/10/93	LBM	DAO		no
6		d) Groundwater Monitoring QA/QC Plan	4/26/91	12/5/91	LBM	DAO		no
7		e) Contingency Plan	5/17/91	9/24/91	LBM	DAO		no
8		f) Site Hydrogeologic Report (geology, hydrology, GW quality)	10/9/91	3/20/92	LBM	DAO		YES
9		g) Background Groundwater Quality Sampling Report	7/15/93	9/10/93	LBM	DAO		no
10		h) Post-Closure Monitoring Plan	5/17/91	9/14/94	LBM	DAO		YES
11		i) Determination of Indicator Radionuclides Report	4/26/91	10/2/91	LBM	DAO		YES
12		k) Groundwater Flow Modeling Report (unsat. & sat. flow)	5/31/91	9/10/93	LBM	DAO		YES
13		l) Buffer Zone Determination	?	2/14/92	CCP/LBM	DAO		YES
14		m) Waste Liquid Content Testing and Control Plan	4/26/91	10/22/91	LBM	DAO		YES
15		n) Engineering Plans / Specifications for Various Related Facilities	?	10/23/91	LBM/CCP	DAO		no
16		o) Waste Characterization Plan (approval req'd prior to waste receipt)	4/26/91	10/22/91	LBM/DLF	DAO		YES
17								
18	2	Permit Modification No. 1 (major) [Statement of Basis available]	n/a	3/20/92	LBM/CCP	DAO	YES	no
19		a) Original Conditions Resolved: see 1.a, 1.d, 1.e, 1.i, 1.m, and 1.o, above						n/a
20		<i>New Permit Requirements or Changes</i>						
21		b) Determination of Groundwater Class	n/a	3/20/92	LBM	DAO		no
22		c) Determination of groundwater radiologic indicator parameters	4/26/91	10/2/91	LBM	DAO		YES
23		d) Addition of BAT performance standards	n/a	3/20/92	LBM	DAO		no
24		e) New waste restrictions (isotope inventory and TCLP limits)	n/a	3/20/92	LBM	DAO		YES
25		f) Discharge Minimization & Prevention Plan	3/13/91	12/16/91	LBM	DAO		YES
26		g) Suction lysimeter design, installation & monitoring requirements	3/20/92		LBM			no
27		h) Provisions for winter storage of waste in cell	?	3/20/92	LBM	DAO		YES
28		i) Statistical methodology for groundwater compliance	?	3/20/92	LBM	DAO		no
29		j) Historic Ground Water Quality Report	7/27/92	9/10/93	LBM	DAO		no
30		k) Accelerated Background Groundwater Quality Report (monthly sampling)	7/15/93	9/10/93	LBM	DAO		no
31		l) Additional Groundwater Compliance Wells	5/12/93	9/10/93	LBM	DAO		no
32		m) Modification of Groundwater Monitoring QA/QC Plan	3/20/92		LBM			no
33		n) 1 year deferral of waste characterization requirements (gov't generators)	n/a	3/20/92	LBM	DAO		no
34		o) On-site meteorological monitoring	n/a	3/20/92	LBM	DAO		YES
35		p) Collection lysimeter design / specification / O&M Plan	9/15/92	11/27/92	LBM/CCP	DAO		no
36		q) Identification / approval of filter borrow source	9/30/92	10/9/92	LBM	DAO		YES
37		r) Contaminant Transport Modeling Report: Arsenated NORM Wastes	8/17/92	9/10/93	LBM/DKS	DAO		YES
38		s) Relocation of wastes in unauthorized storage (Rhone-Polanc)	n/a	9/10/93	DLF	DAO		no
39								

Envirocare Groundwater Discharge Permit: Permit Chronology					xx/xx/xx	= unresolved before next permit cycle		Will Issue be
						= currently unresolved		Re-visited by
Line	Permit Action		Submittal	Approval	Reviewed	Approved	Public	Re-visit
No.	No.	Description	Date	Date	By	By	Participation Provided?	License Action?
40	3	Permit Modification No. 2 (minor)		4/10/92	LBM	DAO	no	
41		a) Approval of Construction QA/QC Plan (1.b, above)		4/10/92	CCP	DAO		YES
42		b) Correction of internal references & typographic errors						no
43								
44	4	Permit Modification No. 3 (major) [Statement of Basis available]		9/10/93	LBM	DAO	YES	
45		a) Previous Conditions Resolved (3/20/92 Permit): see 2.j, 2.k, 2.l, 2.q, 2.r, and 2.s, above			LBM/DKS	DAO		n/a
46		New Permit Requirements or Changes						
47		b) Well-by-well background groundwater concentrations determined	n/a	9/10/93	LBM	DAO		no
48		c) Change groundwater monitoring frequency (monthly to quarterly)	n/a	9/10/93	LBM	DAO		no
49		d) Well-by-well groundwater protection limits (mean + s)	n/a	9/10/93	LBM	DAO		no
50		e) Removal of Sum-of-Fractions rule for Groundwater protection limits	n/a	9/10/93	LBM/DLF	DAO		no
51		f) Suction lysimeter installation & "As-Built" Report	11/4/93		LBM			no
52		g) Waste Characterization Plan - transferred to DRC License	n/a	9/10/93	LBM/DLF	DAO		YES
53		h) Mobile Waste Area - approved location & engineering design	n/a	9/10/93	LBM	DAO		YES
54		i) New groundwater compliance parameters (organics & mobile rads)	n/a	9/10/93	LBM	DAO		no
55		j) Addition of Cu & Zn to TCLP limits (Waste Characterization Plan)	n/a	9/10/93	LBM	DAO		YES
56		k) Discharge Minimization & Prevention Plan, etc. transferred to DRC License	n/a	9/10/93	LBM/DLF	DAO		YES
57		l) Cover soil moisture monitoring requirements	n/a	9/10/93	LBM	DAO		no
58		n) Two year "Open Cell" time limit	n/a	9/10/93	LBM	DAO		YES
59		o) Additional statistical methods for groundwater compliance determinations	n/a	9/10/93	LBM	DAO		no
60		p) Re-designation of wells at "Future" LARW Cells to background wells	n/a	9/10/93	LBM	DAO		no
61		q) Groundwater monitoring at well GW-3 (in response to 3-party allegations)	n/a	9/10/93	LBM	DAO		no
62		r) Raise GW Probable Out-of-Compliance limit (1 to 2 consecutive samples)	< 7/30/93	9/10/93	LBM	DAO		no
63		s) Meteorological Monitoring QA/QC Plan	7/16/93	10/27/94	DLF/LBM	DAO		YES
64		t) Unsaturated Flow Post Model Audit Plan	12/14/93		LBM			no
65								
66	5	Permit Modification No. 4 (major) [Statement of Basis available]	< 4/29/94	4/29/94	LBM	DAO	YES	
67		New Permit Requirements or Changes						
68		a) Change Non-Mobile Waste Cover Design: higher permeability (radon barrier)	8/30/93	4/29/94	LBM/DKS	DAO		YES
69		b) "Future" LARW Cells redesignated for 11e.(2) waste disposal	< 4/29/94	4/29/94	LBM	DAO		no
70		c) TCLP waste limits for 11e.(2) waste disposal	n/a	4/28/94	LBM	DAO		no
71		d) General stormwater management requirements	n/a	4/29/94	LBM	DAO		YES
72		e) In-cell storage for 11e.(2) waste	< 4/29/94	4/29/94	LBM	DAO		no
73		f) Determination of GW background conditions prior to 11e.(2) disposal	n/a	9/7/94	LBM	DAO		no
74		g) New GW parameters for 11e.(2) Cell wells	< 4/29/94	4/29/94	LBM	DAO		no
75		h) Frost Damage Evaluation Report and Prevention Plan	6/9/94	8/26/94	LBM/SH	DAO/BS		no
76		i) Final 11e.(2) Cell Engineering Plans / Specifications	3/29/94	4/28/94	LBM/SH	DAO		no
77		j) Revision of Waste Characterization Plan for 11e.(2) waste	Mar-94	4/29/94	LBM/SH	DAO		no
78		k) 11e.(2) Waste Performance Assessment Report (submittal before disposal)	n/a		LBM			YES
79		l) LARW / 11e.(2) Bottom Liner Compatibility Report	3/9/94		LBM			YES

Envirocare Groundwater Discharge Permit: Permit Chronology				xx/xx/xx = unresolved before next permit cycle	Will Issue be			
				= currently unresolved	Public	Re-visited by		
Line No.	Permit No.	Action Description	Submittal Date	Approval Date	Reviewed By	Approved By	Participation Provided?	Re-license Action?
80		m) 11e.(2) Construction QA/QC Plan	2/16/94	3/24/94	LBM	DAO		no
81		n) Revised LARW Design & CQA/QC Plan (non-mobile area radon barrier)	3/28/94	4/20/94	LBM/SH	DAO/BS		YES
82		o) Revision of GW Monitoring QA/QC Plan for 11e.(2) parameters	5/17/94		LBM	DAO		no
83		p) LARW Cell Perched Leachate Potential Report	8/1/94	3/10/95	LBM	DAO		YES
84								
85	6	Permit Modification No. 5 (minor)	?	9/7/94	LBM	DAO	no	
86		a) Redesignation of 11e.(2) wells as compliance monitoring wells (5.f, above)						no
87								
88	7	Permit Modification No. 6 (major) [Statement of Basis available]		11/1/94	LBM	DAO	YES	
89		a) Resolution of Previous Conditions:						
90		1) Frost Damage Evaluation Report and Prevention Plan (5.h, above)	see dates above		LBM	DAO		no
91		2) DRC resolution of GW-3 allegations (4.q, above)	n/a	11/1/94	LBM	DAO		no
92		New Permit Requirements or Changes						
93		b) Raise GW protection levels (GWPL = mean + 2s)	< 11/1/94	11/1/94	LBM	DAO		no
94		c) Change GW probable out-of-compliance sampling frequency (monthly to qtrly)	< 11/1/94	11/1/94	LBM	DAO		no
95		d) Return to previous GW non-compliance thresholds (1 sample > GWPL)	n/a	11/1/94	LBM	DAO		no
96		e) Addition/update of GW quality standards (new parameters & concentrations)	n/a	11/1/94	LBM	DAO		no
97		f) Beryllium and molybdenum GW background report			LBM			no
98		g) Revision of collection lysimeter design (to allow video logging)		11/1/94	LBM			no
99		h) New BAT design, performance, and best management practice standards	n/a	11/1/94	LBM	DAO		no
100		i) Stormwater drainage performance requirements	n/a	11/1/94	LBM	DAO		YES
101		j) 11e.(2) temporary stormwater drainage ditch construction required			LBM	DAO		YES
102		k) BAT monitoring requirements	n/a	11/1/94	LBM	DAO		no
103								
104	8	Permit Modification No. 7 (major) [Statement of Basis available]	2/24/95	4/5/96	LBM	DAO	YES	
105		New Permit Requirements or Changes						
106		a) Change GW sampling frequency (quarterly to semi-annual)	6/8/95	4/5/96	LBM	DAO		no
107		b) Minimum filter permeability: 11e.(2) Cell	n/a	4/5/96	LBM	DAO		no
108		c) Bulk waste storage BAT changes: design/performance/monitoring/O&M	2/24/95	4/5/96	LBM	DAO		no
109		d) GW monitoring changes: qtrly head meas. & freshwater eq. calculations	n/a	4/5/96	LBM	DAO		no
110		e) Annual GW usage survey & report	n/a	4/5/96	LBM	DAO		YES
111		f) Plugging and Abandonment of GW-3	6/13/96		LBM			no
112								
113	9	Permit Modification No. 8 (major) [Statement of Basis available]		9/12/96	LBM	DAO	YES	
114		New Permit Requirements or Changes						
115		a) Modify Bulk waste storage BAT requirements (allow 2 year in-cell storage)	3/13/96	9/12/96	LBM	DAO		YES
116		b) New BAT design/performance/O&M/monitoring requirements: in-cell storage	3/13/96	9/12/96	LBM	DAO		YES
117		c) Re-instatement of contaminant containment/spill prevention BAT standards	n/a	9/12/96	LBM	DAO		no
							YES Count:	34
							no Count:	58

Envirocare Permits/Licenses Chronology										1/28/97
Line	Permit Action			Submittal	Approval	Expiration	Reviewed	Approved	Public	Will Issue be
No.	No.	Description	Date	Date	Date	By	By	Participation	Re-visited by	Re-visit
1	1	Naturally Occurring Radioactive Materials License	10/12/87	2/28/88	2/28/93	DRC	LFA	No	Yes	Re-visit
2		Combined with the Low-Level Radioactive Materials License on 3/21/91								
3										
4	2	Low-Level Radioactive Materials License	7/27/90	3/21/91	2/28/96	DRC	LFA	No	Yes	Re-visit
5										
6	3	Groundwater Discharge Permit	10/1/90	3/21/90	9/10/98	DWQ	DAO	Yes	Yes, re-	Re-visit
7		Permit expiration was extended during major permit modification #3 of							license will	Re-visit
8		9/10/93							require	Re-visit
9									permit modi-	Re-visit
10									fication	Re-visit
11										Re-visit
12	4	Mixed Waste Permit	4/21/89	11/30/90	11/30/00	DS/HW	DRD	Yes	Yes - under-	Re-visit
13									going 5 year	Re-visit
14									review. Class	Re-visit
15									3 modification	Re-visit
16									submitted.	Re-visit
17										Re-visit
18	5	Uranium and thorium mill tailings (11e.(2) License)	12/23/91	11/30/93	11/30/03	NRC	NRC	Yes	No	Re-visit
19										Re-visit
20	6	Hazardous and Solid Waste Amendments (HSWA) permit	8/95	10/3/96	10/3/01		EPA	Yes	No - just	Re-visit
21							Region		recently re-	Re-visit
22							VIII		issued	Re-visit
23										Re-visit
24	7	Audit of radioactive waste disposal fees, to ensure State is being paid the								Re-visit
25		appropriate amount of fees.								Re-visit
26		Financial audit to be conducted by the Office of Support Services, DEQ								Re-visit
27		Estimated 2/97.								Re-visit
28										Re-visit
29	8	Northwest Interstate Compact - Resolution and Order - Superseded by		1991		LFA, KA,	LFA,	Yes -	No	Re-visit
30		5/2/94 R & O				FN	NWIC	Compact		Re-visit
31		a) Original R & O in which Utah reserved the right to approve each disposal						meetings are		Re-visit
32		arrangement involving compact-authorized material, all federal and						open to		Re-visit
33		state laws must be complied with, no low-level waste from states that						public and		Re-visit
34		have been denied access to sited states facilities could accepted						have		Re-visit
35		without specific approval from NWIC. Compact reserves the right to						designated		Re-visit
36		modify or rescind the authorization at any time.						public		Re-visit
37								comment		Re-visit
38								times during		Re-visit
39								meeting.		Re-visit
40								Meeting was		Re-visit