February 14, 2001

U.S. Department of Energy
Operations Plan No. 01-02

Marshall Islands Program

Location: Rongelap and Bikini Atolls

Statement of Work

The Department of Energy (DOE) in conjunction with the Lawrence Livermore National Laboratory (LLNL) will conduct a mini-mission at Rongelap and Bikini Atolls during 20 March – 11 April 2001.

Ob iectives

Rongelap Atoll (20 – 3 1 March)

- Reestablish grid in the soil-excavation area using GPS.
- Perform *in-situ* gamma spectrometty on each of the grid site locations.
- Take GPS coordinates of selected site locations/boundaries that could potentially be identified on an aerial photograph
- Collect a large volume sample of the input water to the Reverse Osmosis (RO) unit used to provide fresh water to island inhabitants.
- Deploy RM-60 radiometers around permanent buildings and other selected sites.
- Deploy a temporary weather station on Rongelap to track rainfall and other parameters during fertilization of the island (weather data will also be used in conjunction with our air monitoring station).
- Train PII workers in remediation techniques using potassium-provide oversight on the initial application of potassium fertilizer.

Bikini Atoll (3 1 March – 11 April)

- Perform pre concentration steps for the analysis Cs-137 in large volume lysimeter water collections taken during the Fall. Take appropriate sub-aliquots for analysis of Sr-90 and Pu isotopes.
- Perform analyses of stable bromine (used as a tracer to study lysimeter collection efficiency) on waters collected from lysimeter 10 and 11. Collect sub-aliquots for stable Cs analysis.
- Develop/maintain/refurbish lysimeter equipment as required.
- Take salinity measurements of slotted wells.
- Collect bulk and fractionated water samples from selected well site locations where we see a significant drop in salinity, i.e., where a recharge has occurred from last Fall.
- Install a new stainless steel lysimeter overlying a fresh water pocket of lens water (study is to have a lysimeter located in a region where there is a stable fresh water lens so radionuclide removal rates down to the lysimeter can be coupled to radionuclide recharge in ground water.

Resnonsihilities

Scientific – Dr. Terry Hamilton, LLNL, or his designee will have responsibility for all scientific aspects of the mission

The DOE Office of Health Studies' representative will have the overall authority for the mission. The senior Bechtel Nevada (BN) representative will be responsible for logistics and, in the absence of the DOE's representative, will exercise limited responsibilities over the total mission.

Operations Plan

Transwrtation

1: BN will coordinate all transportation, including the use and scheduling of the LCU-2021 (awaiting Army waiver), AMI charter, and the USAKA 1900D.

2. The operation and movement of the Great Bridge will be under the command and control of the vessel's captain who will be responsible for, and have the final word, on the safe and secure transportation of the mission team and its equipment

Tasking Letter or Instructions

- Lawrence Livermore National Laboratory (LLNL) to DOE/EH (letter of January 25, 2001).
- LLNL to BN (letter of January 25, 2001).
- DOE to BN (tasking letter of February 14, 2001).
- BN to Majuro Representative & Kwajalein Coordinator
- DOE to U.S. Kwajalein Atoll (USAKA) (letter of requirements dated February 14, 2001).

Attachments

- Mission Schedule
- Personnel Travel Matrix

Personnel Schedule

Department of Energy
Environmental/Radiological Mini-Mission
March 20 to April 11, 2001

March

		Date Line							Date Line
		HNL	MAJ	KWA	RONG	BIK	KWA	MAJ	HNL
		In - Out	In - Out	In - Out	In - Out	In - Out	In - Out	In - Out	In - Out
DOE	None								
LLNL	HAMILTON, Terry	18 - 19		20 - 20	20 - 31	31 -			
	GOUVEIA, Frank	18 - 19		20 - 20	20 - 31	31 -			
	KEHL, Steve	18 - 19		20 - 20	20 - 31		31 -		
BN	GILES, Richard	- 19		20 - 20	20 - 31	31 -			
	HONDA, Judith	- 16		17 - 20	20 - 31	31 -			
	RIKLON, Willma		- 20	20 - 20	20 - 31	31 -			
	AISEIA, Matt								
	JIBKE, Tommy								Rongelap
	JOHNSEN, Toka								Rongelap
	LAIBO, Leme								
	RIKLON, Jasper								
	LORENNIJ, Ringo								
	HELYES, Maijar								

Personnel Schedule

Department of Energy
Environmental/Radiological Mini-Mission
March 20 to April 11, 2001

April

		HNL	Date Line	MAJ	KWA	RONG	BIK	KWA	MAJ	Date Line	HNL
		In - Out		In - Out	In - Out	In-Out	In - Out	In-Out	In - Out		In - Out
DOE	None										
LLNL	HAMILTON, Terry						- 11	11 - 11			11
	GOUVEIA, Frank						- 11	11 - 11			11
	KEHL, Steve							- 2			2
BN	GILES, Richard						- 11	11 - 11			11
	HONDA, Judith						-11	11 - 11			11
	OLIVAL, Wayne										Bikini
	RIKLON, Willma						- 11		11		
	AISEIA, Matt						- 11				Bikini
	JIBKE, Tommy										Rongelap
	JOHNSEN, Toka										Rongelap
	LAIBO, Leme						- 11	11 - 11	11		
	RIKLON, Jasper						- 11	11			
	LORENNIJ, Ringo			- 10	10 - 11		- 11				Bikini
	HELYES, Maijar			- 10	10 - 11		- 11				Bikini

DOE/LLNLENVIRONMENTAL/RADIOLOGICAL MINI-MISSION

March 2001

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19 LLNL staff depart Hono	20 LLNL arrive/depart Kwaj LLNL at Rongelap	21	22	23	24
25	26	27	28	29	30	31 LLNL depart Rong to Bikini

February

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

April

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

Printed by Bechtel Nevada on 2/14/2001

DOE/LLNLENVIRONMENTAL/RADIOLOGICAL MINI-MISSION

April 2001

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	
I .LNL at Bikini	2	3	4	5	6	7
8	9	10	11 .LNL arrive/depart Kwajalein .LNL depart Bik to Kwaj	12	13	14
15	16	17	18	I9	20	21
22	23	24	2.5	26	27	28
29	30					

March

S	MT	WT	F	S
			12	3
4	5	6	7	8 9 1 0
II	12	13	14	IS 16 17
18	19	20	21	22 23 24
23	16	27	28	19 30 31

Mav

S	MT	WT	F	S
	J	2	.3 4	5 I
6	1	8	9	10 11 12
13	14	15	16	17 18 19
20	28	22	29	24 25 26 I