

## Distribution

## Unit Managers' Meeting: 300 Areas Remedial Action Unit/Source Operable Units

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Robert McLeod..... DOE-RL, RP (H0-12)  
Mike Thompson..... DOE-RL, RP (H0-12)

Mike Goldstein..... DOE-RL (B5-01)

Brenda Jentzen..... WDOE (Kennewick) (B5-18)  
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Lynn Albin..... Washington Dept. of Health  
Gail Laws..... Washington Dept. of Health

John April..... BHI (L6-06)  
Rich Carlson..... BHI (H0-17)  
Ella Coenenberg..... CHI (H9-03)  
Frank Corpuz..... BHI (H0-17)  
Linda Deitz..... BHI (H0-20)  
Jon Fancher..... BHI (H9-02)  
Larry Hulstrom..... BHI (H9-03)  
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Fred Roeck..... BHI (H0-17)  
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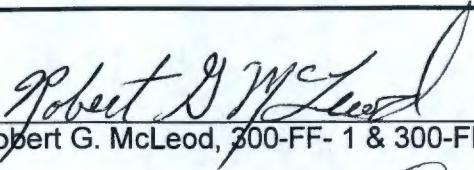
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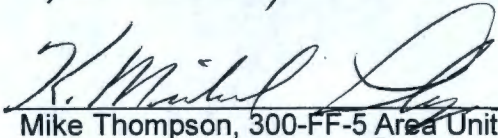
Please inform Michael Wetzler (372-9562) – BHI (H0-17)  
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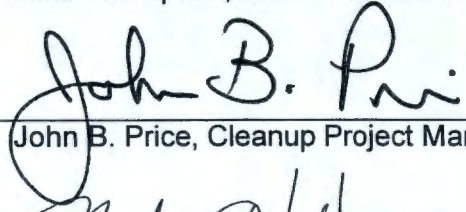
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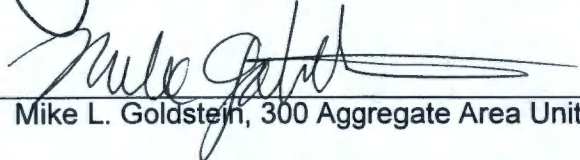
**Meeting Minutes Transmittal/Approval**  
**300 Area Unit Managers' Meeting**  
**Remedial Action and Waste Disposal Unit/Source Operable Unit**  
**3350 George Washington Way, Richland, Washington**  
**October 2001**

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APPROVAL:  Date 11-13-01  
Robert G. McLeod, 300-FF- 1 & 300-FF-2 Area Unit Managers, RL (H0-12)

APPROVAL:  Date 12/18/01  
Mike Thompson, 300-FF-5 Area Unit Manager, RL (A5-13)

APPROVAL:  Date 17-Nov-01  
John B. Price, Cleanup Project Manager, WDOE (B5-18)

APPROVAL:  Date 11/13/01  
Mike L. Goldstein, 300 Aggregate Area Unit Manager, EPA (B5-01)

Meeting minutes are attached. Minutes are comprised of the following:

Attachment 1	--	Agenda
Attachment 2	--	Attendance Record
Attachment 3	--	300 Area Meeting Minutes – October 22, 2001
Attachment 4	--	Previous Open Action Items List
Attachment 5	--	Current Action Items List
Attachment 6	--	Preliminary Data for Tritium Results
Attachment 7	--	O & M Plan Handout
Attachment 8	--	O & M Plan Handout
Attachment 9	--	Tentative Schedule for Regulator Review/Approval

Prepared by:

Jessica Kious

Jessica Kious / Michael Wetzler (H0-17)

Date November 20, 2001

Concurrence by:

Vern Dronen

Vern Dronen, Project Manager  
BHI Remedial Action and Waste Disposal Project (H0-17)

Date 1/14/02



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## UNIT MANAGERS MEETING AGENDA

3350 GWW – Room 1B45

October 22, 2001

### 1:30 – 3:30 p.m. 300 Area

#### **Administrative (1:30 – 2:00)**

- Action Item List
- Next UMM is November 13, 2001, 1:30 – 3:30, 3350 GWW (1B45)

#### ***Crossover Items (These items will be discussed at next 100UMM on August 23)***

- *Site Wide Institutional Controls Plan*
- *TPA Milestone Negotiations (M-16-00B)*
- 

#### **300-FF-1 Remedial Action (2:00 – 2:30)**

- Uranium Oxide Drum Disposal Status
- 100/300 Burial Grounds DQO - Close out of open item regarding waste designation for 300FF2 sites.

#### **300-FF-2 (2:30 – 3:00)**

- Kd/Leach Study Status
- 618-4 & 618-5 Design/RFP & RDR Status
- 618-10/11 Technology Needs (STCG and Benchmarking Status)
- 300 Area Industrial Complex Cleanup

#### **300-FF-5 (3:00 – 3:30)**

- 618-11 Tritium Investigation
- 300-FF-5 O&M Plan revision
- 300 Area Shoreline Study

### **Meeting Minutes Schedule**

- Draft – 1 week
- Distribute – 1 Day
- Review – 1 week
- Incorporate – 1 week
- Finalize – Next UMM

**Remedial Action and Waste Disposal Unit Managers' Meeting  
Official Attendance Record – 300 Area  
October 22, 2001**

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**MEETING MINUTES  
REMEDIAL ACTION AND WASTE DISPOSAL  
UNIT MANAGER'S - 300 AREA  
3350 GWW-- Room 1B45 -- 1:30-3:30 p.m.  
October 22, 2001**

**Review of Open Action Item List:**

- An updated schedule for regulator review of upcoming 300 Area related documents were distributed (**Attachment 6**). Two new action items were added and are on the updated Action Item List (**Attachment 5**). **Attachment 4** lists the past action items:
  - Action Item 13 remains open with an adjusted due date of November 13, 2001.
  - Action Item 19 was closed October 22, 2001 with a benchmarking status given by Richard Carlson (ERC). The discussion is documented below in 300-FF-2 Technology Needs and Benchmarking Status for 618-10/11.

**CROSSOVER ITEMS** (These are discussed at both 100 and 300 Area UMM)

- **Site Wide Institutional Controls Plan:** There was a meeting held the week of October 16, 2001 regarding the Institutional Controls Plan (ICP). EPA is coordinating with other regulators to provide input to Jim Dailey, the DOE point of contact, on the draft ICP. Mike Goldstein (EPA) requested Bob McLeod (DOE) to specifically review the 300 Area section. The ICP is expected to be out for public comment by mid-November 2001. Annual assessments will be conducted after the completion of the plan to identify how controls are being implemented.
- **TPA Milestone Negotiations (M-16-00B):** A draft Agreement-in-Principle is circulating among RL and regulator management. It is expected that the agreement in principle will be finalized in the upcoming weeks and the negotiations will then begin.

**300-FF-1**

- **Uranium Oxide Drum Disposal Status:** A total of 57 drums from the 618-4 Burial Ground containing depleted uranium oxide powder were loaded and shipped to the ERDF for disposal on September 19 and 20, 2001. At the ERDF, the drums were macroencapsulated to prevent the potential spread of uranium oxide powder.
- **100/300 Burial Grounds DQO:** 100/300 Burial Grounds DQO: Frank Corpuz (ERC) addressed this item regarding characterization for waste designation, in parallel with start of remediation. RL and EPA took no exception to either of the two options he presented, summarized in Attachment 7, to implement characterization in parallel with remediation.



- **Closeout Verification Packages (CVP's):** Formal comments are due from Mike Goldstein (EPA) on the Landfill 1A CVP. It was discussed that it makes sense to continue working on the 300-FF-1 CVP's even though uncertainty exists in the outcome of the 300 Area Uranium Kd study and its impacts on proving protection of groundwater. It was reiterated that approval of final draft CVP's won't occur until protection of groundwater is verified. EPA and ERC will continue to discuss RESRAD modeling at sites for groundwater protection (**Action Item 20**).

### 300-FF-2

- **Kd/Leach Study Status:** A presentation of the Kd/Leach Study status was given to EPA, Ecology and DOH just prior to the Unit Manager's Meeting. Preliminary data was distributed to attendees. Further discussions between ERC, DOE, and EPA will be held during the week of October 29 to define the path forward. The study is scheduled to be completed by August 2002. Other discussions are being initiated with the groundwater project team to ensure that results from the Kd/leach study are integrated with the groundwater program.
- **618-4 & 618-5 Design/RFP & RDR Status:** A bid package for remedial action of the 618-4 and 618-5 burial grounds was issued October 1, 2001 and proposals are due October 31, 2001. Six companies attended the pre-bid meeting. The project is on schedule per the detailed work plan (DWP) for the receipt of bids at the end of October.
- The 300-FF-2 remedial design report (RDR) and sampling and analysis plan (SAP) documents are being drafted. Both documents will be submitted to DOE for review in early November. Upcoming 300 Area work will be completed under the 300-FF-2 RDR and SAP. The RDR includes all 300-FF-2 burial grounds (except 618-10 and 618-11) and the 300-FF-2 outlying source sites. The 618-4 burial ground will also be completed under the new 300-FF-2 RDR. Remediation can be started on 618-4 using the existing 300-FF-1 RDR, however, closeout will be completed under the 300-FF-2 RDR. Issues from the recent revisions to the 100 Area SAP and RDR applicable to the 300 Area should be incorporated in the new RDR. John April (ERC) suggested that ERC work together to identify and collect documented 300-FF-1 RDR/SAP agreements accepted from past meeting minutes to capture in the new 300-FF-2 RDR.
- **618-10/11 Technology Needs (STGC and Benchmarking Status):** Rich Carlson (ERC) gave an update of the benchmarking status. Benchmarking is ongoing effort with other DOE sites around the country to identify common problems, solutions and technologies also dealing with transuranic (TRU) waste. The idea is to use the shared information to support design and remedial action of the 618-10 and 618-11 burial ground waste sites. One goal of these meetings is to obtain detailed cost estimates from other sites, particularly the Idaho site (Idaho National Engineering Laboratory, INEL). To date the information has not been shared. Bob McLeod (DOE) suggested

that upper management within DOE contact management at DOE Idaho in attempt to obtain the information. Bryan Foley (DOE) was asked to look into contacting management. The next benchmarking meeting is scheduled for December 12<sup>th</sup> at 8:00 a.m. in the 3350 GGW Bldg.

- **300 Area Industrial Complex Cleanup:** The draft River Corridor request for proposal (RFP) is out for public comment.

### **300-FF-5**

- **618-11 Tritium Investigation:** EPA requested a letter from ERC summarizing risk, technology, characterization and options for interim measures associated with the tritium investigation. A draft of the letter is due to Mike Goldstein (EPA) by Monday October 29, 2001. The letter is to be issued formally to EPA by October 31, 2001. EPA has also requested that supply wells associated with the investigation be addressed in the letter. It was stated that PNNL is currently working on the risk assessment connected with 618-11.
- **300-FF-5 O&M Plan Revision:** A meeting was held the week of October 19<sup>th</sup> regarding the operation and maintenance (O&M) plan revision. Currently issues revolve around sorting through BCP additional scope. O&M plan is due per revised agreement by December 31, 2001.
- **300 Area Shoreline Study:** Ted Poston of PNNL is expected to finish collecting ground water seeps, river water, aquatic and terrestrial plants and animal samples by the first week of November 2001.



### 300 Area Unit Manager Meeting Action Items Log

Action #	Action/Subject	Assigned To	Owed To	Assigned Date	Original Due Date	Adjusted Due Date	Date Complete	Status
13	Schedule with DOE & DOH re: Unrestricted Use Analysis and follow up with Bechtel regarding increase in clean up costs.	Mike Goldstein		5/15/01	5/31/01	10/22/01		This is to coincide with CVP kick off and be completed in Early August
19	Ecology and EPA requested a benchmarking status for the technology needs of 618-10/11 at the next UMM September 18, 2001	Rich Carlson	Mike Goldstein/EPA	8/21/01	8/21/01	10/31/01		

### 300 Area Unit Manager Meeting Action Items Log

Action #	Action/Subject	Assigned To	Owed To	Assigned Date	Original Due Date	Adjusted Due Date	Date Complete	Status
13	Schedule with DOE & DOH re: Unrestricted Use Analysis and follow up with Bechtel regarding increase in clean up costs.	Mike Goldstein		5/15/01	5/31/01	10/22/01		This is to coincide with CVP kick off and be completed in Early August
19	Ecology and EPA requested a benchmarking status for the technology needs of 618-10/11 at the next UMM September 18, 2001	Rich Carlson	Mike Goldstein/EPA	8/21/01	8/21/01	10/31/01	1 10/22/01	
20	Documentation of needs for RESRAD Model changes	Jeff Lerch	Mike Goldstein	10/22/01	11/13/01			
21	RL/EPA & BHI to meet on LFIA	Mike Goldstein						Schedule for week of November 5



Draft

### 300 Area Activities for Regulator Review/Approval

	Sep-01	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	
Kd/Leach Study								
Regulator Update		22-Oct						
Report Review								Jul-02
300 Area RDR/RAWP								
DOE Review		7-Nov	19-Nov					
Regulatory Review			18-Dec	31-Jan				
300-FF-2 SAP								
Regulator Review			18-Dec	31-Jan				
300-FF-5								
O&M Plan Regulatory Review		TBD						
Tritium Letter Report to RL								
Shoreline Study Regulatory Update						Report Available		
300-FF-1 CVPs								
Landfill 1A Regulatory Review			Tentative 1-11					
Landfill 1B, 1D and S Process Pond								
JA Jones and 600-23	2-Oct	26-Oct						
ERDF ROD Amendment					Tentative 21-Dec			
TPA Milestone Negotiations					TBD			

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10/15/2001



**Corpuz, Franklin M**

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**From:** Corpuz, Franklin M  
**Sent:** Tuesday, October 09, 2001 12:30 PM  
**To:** McLeod, Robert G (Bob); Goldstein, Michael L  
**Cc:** Carlson, Richard A; Corpuz, Franklin M; Bauer, Roy G; Ludowise, John D; Parnell, Scott E  
**Subject:** 100/300 Burial Grounds DQO - Waste Profile\_Designation 300 Area Burial Grounds Sites

**Bob, and Mike -**

We need to close out/finalize the 100/300 Burial Grounds DQ), so that we may move forward with associated SAPs, etc. Subject is a remaining open item from RL and EPA, following is response and proposed path forward, which has been discussed with Bob. ***Please concur, or provide further comment, which we will need to reconcile ASAP.***

**Background**

- Provided to Bob was a stack of documentation regarding recent regulatory actions and associated penalties/fines levied against Bechtel (BHI) for inappropriate waste designation, based upon the absence of appropriate process knowledge, and the follow up corrective actions committed to by DOE and BHI (including, committing to a higher pedigree for use of "process knowledge").

A primary difference between 100 Area Burial Grounds and 300 Area Burial Grounds is the pedigree of the process knowledge. The pedigree of the 100 Area Burial Grounds includes availability of individual burial ground trench logs identifying waste form and rad activity, and thoroughness of background reports and associated field screening and analytical data, to include Dorian and Richards, and Miller and Wahlen. No such information is readily available for 300 Area burial grounds. Even at the 100 Area, with starter waste profiles, in process sampling still has to be performed to verify waste streams are within designation and profile limits.

Even if we developed a starter waste profile based upon 618-4 blanket analogy, the waste from a given 300 area burial ground could not be shipped until it was reviewed and sampled, and verified to be within the profile. Doing otherwise would subject BHI to the possibility of penalties and fines. Because the individual 300 Area burial grounds are unique, related to a variety of different experimental type activities, a starter waste profile based upon one of the "known" 300 area burial grounds, is likely to not even be "close", and the initial waste profile would have to be completely revamped, therefore the resources expended to develop the waste profile would have to be redone.

Unlike the 300 Area, the bulk of the 100 Area burial grounds are related to a common element of reactor construction and operations, to include construction debris and irradiated reactor hardware. Starter waste profiles for the 100 Area may not be exact, once waste stream is verified, nonetheless, it is likely that for an individual 100 Area Burial Ground waste site, it would just have to be revised, not completely revamped.

**Pathforward/Options**

- Two options are available for the upcoming 8+/- 300 FF2 Burial Grounds, to develop initial waste profiles/designations, somewhat similar:

(1) As part of subcontracted remediation. Immediately after mobilization, and as part of scope of work, Subcontractor performs an approximate 1 to 2 week campaign of excavating test trenches in the ~ 8+ burial grounds, leaving stockpiles at the surface. In parallel, BHI/RAWD Contractor uses observational approach, and physical sampling and laboratory testing to develop initial waste profiles, one at a time. Until waste profile/designation is completed. For the waste profile/designation, the shortest schedule ~ 2 weeks, longest schedule ~ 6 weeks to complete. Subcontractor/Project in field can do anything with the stockpiles, short of shipping to ERDF, to include start segregating, sorting and size reducing waste.

(2) As part of subcontracted remediation. Immediately after mobilization, at a specific burial ground, Subcontractor commences with active remediation, stockpiling, sorting, staging, and size reduction, but does not ship waste until BHI/RAWD Contractor develops a waste profile based upon exposed materials and testing. This is done for each waste site, at the beginning of remediation. (shortest schedule ~ 2 week, longest schedule ~ 6 weeks).

The subcontractor would be allowed to use either method, an integrate it into their schedule commitments. This process is outlined in the attached flow chart.





Waste

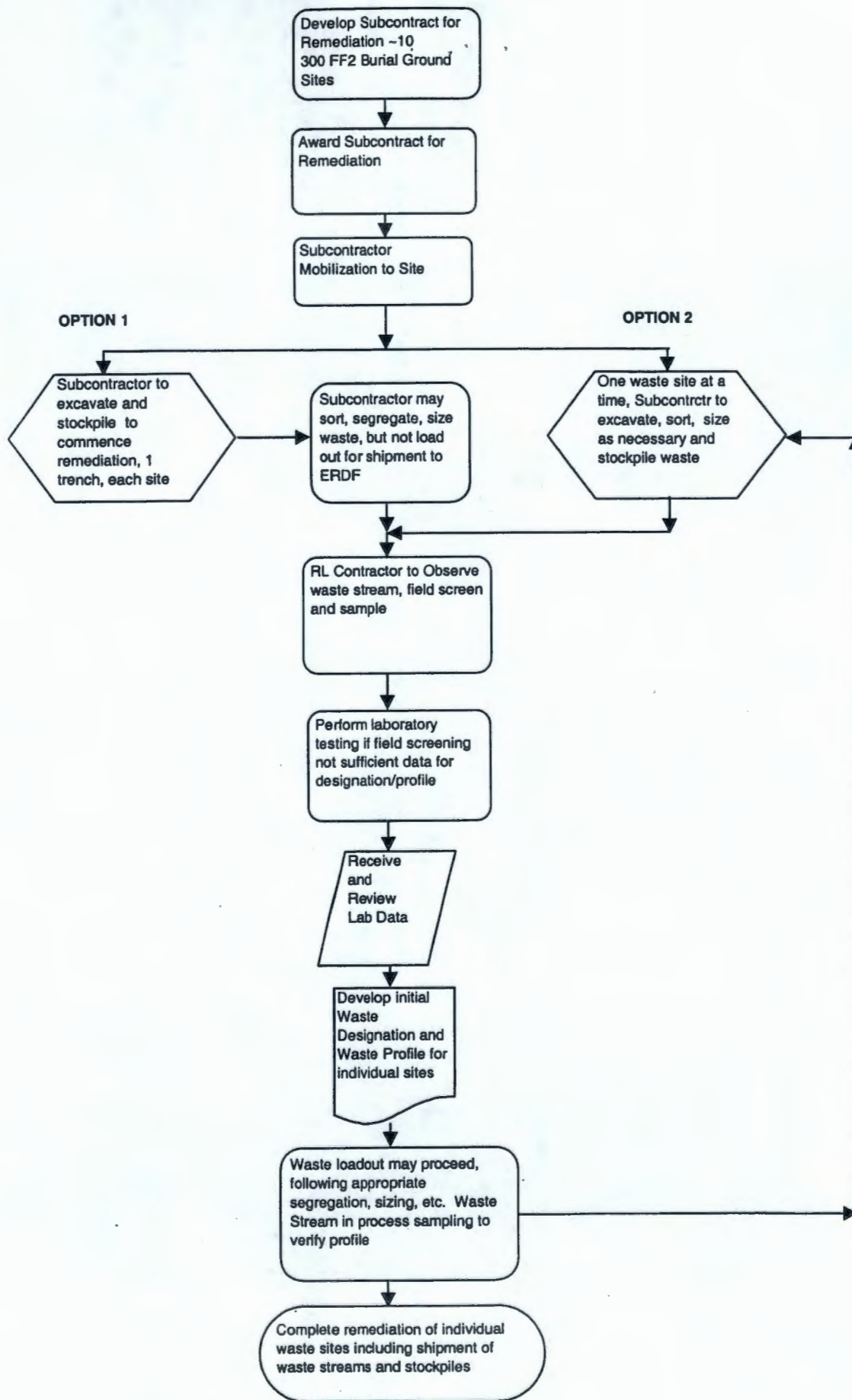
ofile\_Designation Flow.

**Write Up/Revision to DQO**

- Below, in red italics, is our currently proposed draft insert/replacement for Section 1.5, Project Issues, 1.5.2 Task-Specific Technical Issues and Resolutions, 3<sup>rd</sup> bullet (currently at Page 1-12), in full, consistent with the above:
  - *Waste designation for the 100 Area burial grounds will initially be based on analytical data obtained from the 118-B1 Burial Ground in the 118-B1 treatability study (DOE-RL 1995), inventory estimates in the 100 Area burial grounds (Miller and Wahlen 1987), and the Dorian Richards (1978) report. These initial waste designations will be applied to analagous 100 Area burial ground sites and their waste forms. This data will also be used to develop initial waste profiles.*

*Waste designation for limited 300-FF2 OU burial grounds in this DQO process will follow a similar approach in that certain of the existing waste designations for the 618-4 burial ground will be applied to the 300-8 and 618-13 Burial Grounds. However, for most of the 300-FF2 OU burial grounds, there is little to no documentation on radiological and non-radiological waste forms or concentrations for individual waste sites, as well as little to no information on process knowledge, or analogy to similar waste sites. For most of the 300 Area burial grounds the site "process", or "inventories", were not documented, hence there is no substantiation, or usefulness, in developing initial waste profiles and waste designations, that would still need to be verified prior to waste stream load out and disposal. Development of initial waste profiles and designations for these 300 FF2 sites will occur concurrent with commencement of remediation.*

**Thanks  
Frank Corpuz  
531-0625**



300 FF2 Proposed Waste Profile/Waste Designation Process



**Write Up/Revision to DQO**

- Below, in red italics, is our currently proposed draft insert/replacement for Section 1.5, Project Issues, 1.5.2 Task-Specific Technical Issues and Resolutions, 3<sup>rd</sup> bullet (currently at Page 1-12), in full, consistent with the above:
- Waste designation for the 100 Area burial grounds will initially be based on analytical data obtained from the 118-B1 Burial Ground in the 118-B1 treatability study (DOE-RL 1995), inventory estimates in the 100 Area burial grounds (Miller and Wahlen 1987), and the Dorian Richards (1978) report. These initial waste designations will be applied to analagous 100 Area burial ground sites and their waste forms. This data will also be used to develop initial waste profiles.

Waste designation for limited 300-FF2 OU burial grounds in this DQO process will follow a similar approach in that certain of the existing waste designations for the 618-4 burial ground will be applied to the 300-8 and 618-13 Burial Grounds. However, for most of the 300-FF2 OU burial grounds, there is little to no documentation on radiological and non-radiological waste forms or concentrations for individual waste sites, as well as little to no information on process knowledge, or analogy to similar waste sites. For most of the 300 Area burial grounds the site "process", or "inventories", were not documented. hence there is no substantiation, or usefulness, in developing initial waste profiles and waste designations, that would still need to be verified prior to waste stream load out and disposal. Development of initial waste profiles and designations for these 300 FF2 sites will occur concurrent with commencement of remediation.

Thanks  
Frank Corpuz  
531-0625

I don't understand the reasoning behind saying that 618-4 will be used for the 2 sites that are probably less similar than other burial sites. Also, won't 618-5 use its own data under BHI's plan and not follow the new proposed effort?

Bob

095557

**100/300 Burial Grounds DQO – Comment Resolutions  
300 Area Burial Grounds Waste Designation and Profiling**

In layman's terms:

- Waste Designation is relative ERDF Waste Acceptance.
- Waste Profile is relative to ERDF daily and cumulative inventories.

**300-8 and 618-13 Burial Grounds**

Documentation for the 300-8 burial ground indicates that the waste stream includes:

- Aluminum scrap
- Metal Shavings
- Uranium and Beryllium Chips

Documentation for the 618-13 burial ground indicates that the waste stream includes:

- Uranium contaminated soils

These waste streams are common to the 618-4 Burial Ground, and the 618-4 waste designations for these waste streams will be applied to the 300-8 and 618-13 burial ground. Waste profiles for the 618-13 and 300-8 burial grounds will be initially developed, similar to the waste designation for these identifies waste streams, but will have to be modified and expanded as other waste streams are encountered and exposed, and/or higher concentrations are encountered.

**618-5 Burial Ground**

The previous test pits performed at the 618-5 Burial Ground can and will be utilized to develop an initial waste designation and waste profile for the waste site. The test pits were in essentially soil material, therefore the only waste stream to be covered in the initial waste designation and waste profile will be soil matrix materials. Similar to the 618-13 and 300-8 Burial Ground sites, the starter waste profile and waste designation will have to be modified and expanded as other waste streams are encountered and exposed, and/or higher concentrations of contaminants are encountered.