Appendix F

Prefinal and Final Inspection Checklist

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PREFINAL AND FINAL INSPECTION CHECKLIST

Prefinal Inspection Checklist

On Tuesday, October 22, 1996, representatives from EPA, Region X, IDHW- Division of Environmental Quality (DEQ), DOE-ID, LMITCO, Parsons, and IT Corporation conducted the Prefinal Inspection. Additional items were placed on the prefinal checklist for the final inspection. Representatives present were:

EPA—Howard Orlean
IDHW-DEQ—Shawn Rosenberger, Scott Reno
DOE-ID—Alan Dudziak
LMITCO—Jim Bruce, Chris Hiaring, and Doug Greenwell
Parsons—Greg Cotten and Al Cram
IT Corporation—Ross Langseth.

Final Inspection Checklist

On April 23, 1997, representatives from IDHW-DEQ, DOE-ID, LMITCO, and Parsons conducted an inspection which resulted in the listing of items on page 3 and 4 of the final inspection checklist. The final inspection was complete on May 8, 1997, when the EPA performed its inspection. The status of items on the prefinal inspection are included on pages 1, 2, and part of page 3. By June 1997, all required vendor data had been submitted and all outstanding inspection items satisfactorily competed. Representatives present were:

IDHW-DEQ—Shawn Rosenberger and Clem Potelunas
DOE-ID—Alan Dudziak
LMITCO—Jim Bruce
Parsons—Al Cram.

SL-1/BORAX-I Engineering Barriers OU 5-05/6-01
Prefinal Inspection Checklist, 10/22/96

Inspection Item	Sat	Unsat	Notes
1. Are records available for all required submittals, and approvals where required, and if there were revisions is follow-up documentation OK?		X	Submittals are still forthcoming, will be completed by June, 1997.
2. Procedures or a separate submittal should have allowed for approval of equipment. Are records available?	X		Receipt inspection records - submittals 040, 067, 070,115, 164, 166
3. All specs include a final acceptance normally covering final repairs/replacement of damaged or otherwise unsatisfactory or unacceptable work. Has all work undergone this final acceptance? Are records available for acceptance and for repairs/replacement if required?		X	Not yet complete, need records submitted by ITC for repairs/replacement of unacceptable work. Will be completed by June, 1997.
4. Most specs require a QA/QC manual to control work and changes and assure satisfactory quality. Are/were appropriate records maintained?	X		
5 All borrow areas properly reclaimed?		X	Not yet complete, needs re-seeding. Will be completed by June, 1997
6 Has written notification been made to the facility land use master plan with a copy provided to BLM requesting that they make similar notification? Has EPA and IDHW/DEQ been provided with written notification/verification that this action has occurred?			LIMITCO action item
1. Clear and Grub - 02110			
Any damages? Are repairs/replacements satisfactory? Records OK? (3.1)	X		OK. Any damages, repair was done at time of work.
Any records of satisfactory removal of stumps, roots, debris, etc. (3.2.1)	X		OK, No stumps, roots & debris present except what was buried in consolidation mounds.
2. Temporary Diversion and Control of Water - 02140			
Have temporary control facilities been removed yet? Is follow-up disposal and restoration OK? (3.4)	X		OK, No temporary control facilities were installed, permanent berms were constructed first.
3. Earthwork - 02200			
Any damages and repairs or replacements? Records? (3.1.3)		X	Not yet complete, Final grading & toutch up of excavated areas to be completed and accepted prior to re-seeding. Berm @ west end of SL-1 needs buildup.
Were placement methods (to protect underlying layers) approved? (3.3.1 -6)	X		

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Inspection Item	Sat	Unsat	Notes
Any repaired or reworked subgrades? (3.3.1- 8)		X	Not yet complete, Need repair notes from Daily Const. Logs. to be Submitted as vendor data.
Any records/notes on fill lift thickness? (3.3.1- 2)	X		Submittals 100, 117
Does the gradation size of the gravel and cobble used in the biointrusion layer at SL-1 meet the requirements in the specifications (review QC tests)?	X		Submittal 077- pea gravel, Submittal 165- cobble. Ref CID -015
Does the thickness of the three different layers (i.e., 4" bottom gravel layer, 12" cobble layer, and 6" top gravel layer) that compose the biointrusion barrier at SL-1 meet the required thicknesses in the final RD/RA Work Plan?	X		
Does the gradation size of the riprap used for the barrier covers meet the gradation size requirements specified in the specifications (review results of QC tests)? Is less than 20% cumulative of the riprap material less than 4 inches in diameter? Is the riprap barrier at least two feet thick?	X		
l. Grades, Lines, and Levels - 02210			
Survey plats required as layers are built. Accomplished by survey of filled/regraded surface, survey following placement of each layer of biotic barrier material, and survey of final surface after Rip Rap placement. Were all surveys/plats satisfactory?		X	Have not received the Borax survey plats. Have not received the following for SL-1; 103 re-submittal, 2nd pea gravel lift asbuilt, final rip-rap asbuilt. These items are forthcoming from ITC.
Surveying field notes furnished by subcontractor or surveyor? (1.3.3)	X		
Recheck survey records are adequate for tops of layers required to be surveyed and required to be within the -0 to +2 in tolerance. See item b above. All records OK? (1.4.2)			Not complete
As-built records/drawings furnished and satisfactory? (3.1.3)			Not complete
Verification of provided control OK? Records of additional control points established ? (3.2.2)	X		
Records of any resurvey work or survey discrepancies properly documented? (3.3)	X		No survey discrepancies
). Excavation, Trenching, and Backfilling - 02222			

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Inspection Item	Sat	Unsat	Notes
Materials satisfactory and approved? (1.3.1)	X		
Contractor approvals for backfilling provided as necessary? Records OK? (3.2.3)	X		
Surveys/records of grade tolerances being met for ditches/swales? (3.5.3)	X		
Has all testing met specified method and frequency? (3.8)	X		
Have the rad contaminated surface soils been in the appropriate grids? Have they been excavated down to action levels? Are verification sample analytical results available that show action levels have been met?	X		
6. Pipe Culverts - 02700			
Required number of culverts and lengths installed as per drawings?	X		one culvert deleted per CID -011
Were resurveys of inverts made to assure correct grades? Records OK?	X		
7. Administrative Control Fences and Gates	X		
Was all fencing, gates, ect. Installed following drawing layout?	X		
Are the four permanent monument markers in place at SL-1, and two permanent monument markers plus two brass corner markers in place at BORAX-I shown in the final design drawing?	X		
8. Reclamation seeding and Mulching - 02930			Not complete
Records of removal of unsatisfactory material? (2.1)			Not complete
Inspection records/ repair records furnished? (3.2.2)			Not complete
Have the areas where contaminated surface soils were excavated outside the riprap barriers been revegetated? Was an approved seed mixture used? Was the appropriate starter fertilizer placed?			Not complete
9. Cast in Place Concrete - 03300			
Slump test records (one per truckload) available? (3.11.2)	X		
Cylinder test records (at required number) available (3.11.3)	X		

SL-1/BORAX-I Engineered Barriers OU 5-05/6-01
Final Inspection Checklist 4/23/97

Inspection Item	Sat	Unsat	Notes
1. Are records available for all required submittals, and approvals where required, and if there were revisions is follow-up documentation OK?	X		Complete May 15, 1997
2. Procedures or a separate submittal should have allowed for approval of equipment. Are records available?	X		Receipt inspection records - submittals 040, 067, 070,115, 164, 166
3. All specs include a final acceptance normally covering final repairs/replacement of damaged or otherwise unsatisfactory or unacceptable work. Has all work undergone this final acceptance? Are records available for acceptance and for repairs/replacement if required?	X		work accepted. See daily followup inspection forms, submittal 184.
4. Most specs require a QA/QC manual to control work and changes and assure satisfactory quality. Are/were appropriate records maintained?	X		QC manual - submittal 018. Records - VDS no's 3-01, 3-02, 3-04, 3-06, 3-09, 4-02, 4-04, 4-09 and 4-10.
5. All borrow areas properly reclaimed?	X		Completed 4/23/97
6. Has written notification been made to the facility land use master plan with a copy provided to BLM requesting that they make similar notification? Has EPA and IDHW/DEQ been provided with written notification/verification that this action has occurred?	X		LIMITCO action item
1. Clear and Grub - 02110			
Any damages? Are repairs/replacements satisfactory? Records OK? (3.1)	X		OK, Any damages, repair was done at time of work.
Any records of satisfactory removal of stumps, roots, debris, etc. (3.2.1)	X		OK, No stumps, roots & debris present except what was buried in consolidation mounds.
2. Temporary Diversion and Control of Water - 02140			
Have temporary control facilities been removed yet? Is follow-up disposal and restoration OK? (3.4)	X		OK, No temporary control facilities were installed, permanent berms were constructed first.
3. Earthwork - 02200			
Any damages and repairs or replacements? Records? (3.1.3)	X		Final grading & toutch up of excavated areas completed and accepted Berm buildup @ west end of SL-1 completed 4/17/97.
Were placement methods (to protect underlying layers) approved? (3.3.1 -6)	X		

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	Inspection Item	Sat	Unsat	Notes
	Any repaired or reworked subgrades? (3.3.1- 8)	X		Recorded on daily force reports. Repairs for pea gravel made on 9/17, 9/23. Repair on cobble layer made 9/24 and 9/25.
	Any records/notes on fill lift thickness? (3.3.1- 2)	X		Submittals 100, 117
	Does the gradation size of the gravel and cobble used in the biointrusion layer at SL-1 meet the requirements in the specifications (review QC tests)?	X		Submittal 077- pea gravel, Submittal 165- cobble. Ref CID -015
	Does the thickness of the three different layers (i.e., 4" bottom gravel layer, 12" cobble layer, and 6" top gravel layer) that compose the biointrusion barrier at SL-1 meet the required thicknesses in the final RD/RA Work Plan?	X		See field measurements, submittals 100, 101, 117.
	Does the gradation size of the riprap used for the barrier covers meet the gradation size requirements specified in the specifications (review results of QC tests)? Is less than 20% cumulative of the riprap material less than 4 inches in diameter? Is the riprap barrier at least two feet thick?	X		Visual inspection per const. Spec 02200. Reported in daily force reports. Rip rap is two feet thick comparing top of layer asbuilt drawings.
4	Grades, Lines, and Levels - 02210			
	Survey plats required as layers are built. Accomplished by survey of filled/regraded surface, survey following placement of each layer of biotic barrier material, and survey of final surface after Rip Rap placement. Were all surveys/plats satisfactory?	X		Survey plats approved in final report, submittal 184
	Surveying field notes furnished by subcontractor or surveyor? (1.3.3)	X		Submittal 183
	Recheck survey records are adequate for tops of layers required to be surveyed and required to be within the -0 to +2 in tolerance. See item b. above. All records OK? (1.4.2)	X		Asbuilt drawings in final report, submittal 184.
	As-built records/drawings furnished and satisfactory? (3.1.3)	X		See above.
	Verification of provided control OK? Records of additional control points established ? (3.2.2)	X		provided in surveyors logbook, submittal 183.
	Records of any resurvey work or survey discrepancies properly documented? (3.3)	X		No survey discrepancies
5	Excavation, Trenching, and Backfilling - 02222			
	Materials satisfactory and approved? (1.3.1)	X		Submittal 076 and 077.

Inspection Item	Sat	Unsat	Notes
Contractor approvals for backfilling provided as necessary? Records OK? (3.2.3)	X		Recorded in daily force reports.
Surveys/records of grade tolerances being met for ditches/swales? (3.5.3)	X		None req'd.
Has all testing met specified method and frequency? (3.8)	X		Compaction testing - submittal 076 and 190.
Have the rad contaminated surface soils been in the appropriate grids? Have they been excavated down to action levels? Are verification sample analytical results available that show action levels have been met?	X		Sampling done per FSP. Sample validation reports available in the project files.
6. Pipe Culverts - 02700			
Required number of culverts and lengths installed as per drawings?	X		one culvert deleted per CID -011
Were resurveys of inverts made to assure correct grades? Records OK?	X		None required.
7. Administrative Control Fences and Gates			
Was all fencing, gates, ect. Installed following drawing layout?	X		Submittal 188 and 189.
Are the four permanent monument markers in place at SL-1, and two permanent monument markers plus two brass corner markers in place at BORAX-I shown in the final design drawing?	X		Submittal 185 and 186.
8. Reclamation seeding and Mulching - 02930			
Records of removal of unsatisfactory material? (2.1)	X		No unsatisfactory material.
Inspection records/ repair records furnished? (3.2.2)	X		No unsatisfactory seed, fertilizer, mulch or equip.
Have the areas where contaminated surface soils were excavated outside the riprap barriers been revegetated? Was an approved seed mixture used? Was the appropriate starter fertilizer placed?	X		Submittals 211 and 212.
9. Cast in Place Concrete - 03300			
Slump test records (one per truckload) available? (3.11.2)	X		Submittals 154, 155, 156 and 200.
Cylinder test records (at required number) available (3.11.3)	X		Submittal 112.
Items 10 and 11 were added as a result of a final inspection conducted on 4/23/97			
10. SL-1 items:			
A. The radiation-rope boundary on the west side of the radiologically controlled area at SL-1 is currently located approximately 10 ft outside of the chain -link fence. This area between the radiation-rope and chain-link fence needs to be surveyed, sampled and released if no contamination is found. This would allow the chain-link fence to form the west boundary of the controlled area.	X		

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Inspection Item	Sat	Unsat	Notes
B. North of turnaround area - remove electrical ground rod.	X		corrected 4/29/97
11. BORAX-I items;			
A. South side, outside of chainlink fence but inside rad zone - pick up T posts and wire , blend rough edges of gravel.	X		Corrected 4/30/97
B. Inside of chainlink fence - pull/remove T posts and lath, whole area.	X		Corrected 4/30/97
C. SW corner of chainlink fence - remove barb wire.	X		Corrected 4/30/97
D. North side in rad zone, outside chainlink fence - remove T posts, lath and groom rough gravel.	X		Corrected 4/30/97