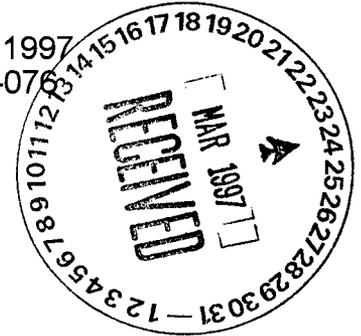


University of California
 Environmental Restoration Project, MS M992
 Los Alamos, New Mexico 87545
 505-667-0808/FAX 505-665-4747



U. S. Department of Energy
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 Environmental Restoration Program
 Los Alamos, New Mexico 87544
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Date: March 19, 1997
 Refer to: EM/ER:97-076



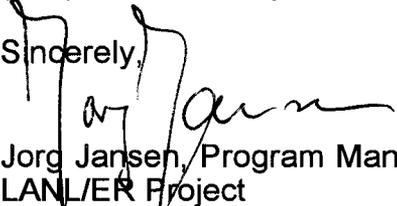
Mr. Stu Dinwiddie
 NMED-HRMB
 P.O. Box 26110
 Santa Fe, NM 87502

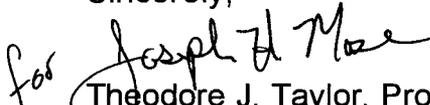
**SUBJECT: TRANSMITTAL OF BEST MANAGEMENT PRACTICES
 IMPLEMENTED AT PRSS AT LANL**

Dear Mr. Dinwiddie:

Enclosed please find a list of all Best Management Practices implemented at potential release sites at the Los Alamos National Laboratory . This information was requested by your Bureau staff during the February 26, 1997, New Mexico Environment Department Hazardous and Radioactive Materials Bureau/Laboratory Environmental Restoration (ER) Project monthly meeting. ER Project staff committed to providing this information to you by March 18, 1997. It is our understanding that you have requested this information to update the RCRIS database.

Please ask your office to contact Dave McInroy at (505) 667-0819 or Joe Mose at (505) 667-5805, if you have any questions.

Sincerely,

 Jorg Jansen, Program Manager
 LANL/ER Project

Sincerely,
 for 
 Theodore J. Taylor, Program Manager
 DOE/LAAO

JJ/TT/ss

Enclosure: ER Project Best Management Practices List



12986

TC

HSWAT LANL 4/11/97

Cy (w/ enc.):

G. Allen, CST-18, MS E525
M. Gilgosh, LAAO, MS A316
T. Glatzmaier, DDEES/ER, MS M992
G. Gould, EES-15, MS G787
D. Griswold, AL-ERD, MS A906
B. Koch, LAAO, MS A316
D. Krier, EES-1, MS D462
D. McInroy, EM/ER, MS M992
R. Michelotti, CST-18, MS E525
J. Mose, LAAO, MS A316
N. Naraine, DOE-HQ, EM-453
D. Neleigh, EPA, R.6, 6PD-N (2 copies)
A. Pratt, EES-13, MS J521
M. Salazar, EM/ER, MS M769
B. Simeone, LAAO, MS A316
T. Taylor, LAAO, MS A316
E. Trollinger, LAAO, MS A316
J. White, ESH-19, MS K490
RPF, MS M707
B. Garcia, NMED-HRMB
M. Kieling, NMED-AIP, MS J993
M. Leavitt, NMED-GWQB
J. Parker, NMED-OB
S. Yanicak, NMED-AIP, MS J993

Cy (w/o enc.):

T. Baca, EM, MS J591
J. Levings, AL-ERD, MS A906
W. Spurgeon, DOE-HQ, EM-453
M. Johansen, LAAO, MS A316
K. Zamora, LAAO, MS A316
EM/ER File, MS M992

Best Management Practices
Implemented at ER Projects

PRS	Field Inj.	Site Description	Final Action	EMRP Description	Date of Final Stabilization	Proactive Interim Action	SWPPP Final Action
0-030 (p)	1	Rim Road septic	VCA	Contoured, reseeded and matted	Aug-96	✓	
0-033 (a)	1	Underground tank	VCA	Straw bales were installed in drainage channels and on downslope side of excavation activities. Areas were reseeded and covered with jutemat for final stabilization.	July 95 thru August 96		25-Jul-95
0-033 (b)	1	Drainlines	VCA	Reseeded after excavation	Aug-96	✓	
0-039	1	Solvent spill	RFI	Concrete paving and planter	Jan-96	✓	
0-041	1	Tar Site	VCA	Several straw bale check dams were installed in channel. Straw mulch was applied to all excavated areas.	May 95 thru August 96		26-May-95
0-042	1	Waste oil tank excavation	VCA	Compaction and paved	Dec-95	✓	
1-001 (d)	1	Septic tank (hillside 138)	VCA	Straw bales were installed on downslope side of project during and after excavation. After reseeding, straw mulch was applied to the area. The access road was converted into an earthen berm to contain all future surface water discharges from the site.	May 96 thru October 96		16-May-96
1-001 (f)	1	Septic tank (hillside 140)	VCA	Silt fences and straw bales were installed up and downslope of the project. The excavation area was reseeded and covered with jutemat for final stabilization.	Sep. 94 thru August 95		01-Sep-94
1-001 (s)	1	Septic System	VCA	Sandbag berm was installed to divert run-on from the area. A silt fence was installed along the down slope portion of the project (approx. 200')	May 96 thru June 96		20-May-96
1-003 (d)	1	Can Dump Site	VCA	Reseeded and matted	Nov-95	✓	
1-007 (l)	1	Soil contamination area	VCA	Sandbag berm was installed to divert run-on from the area. A silt fence was installed along the down slope portion of the project (approx. 200')	May 96 thru June 96		20-May-96

Best Management Practices
Implemented at ER Projects

PNIS	ER #	Site Description	VCA	SWPPP	Implementation	SWPPP Final	
3-003 (p)	1	Storage Area	VCA	Asphalt covered	Sep-95	✓	
3-010 (a)	1	Mercury contamination	VCA	Straw bales and silt fence in drainage, slope reseeded and covered with jute mat	Nov-94	✓	
3-012 (b)	1	Power plant NPDES outfall	VCA	Straw bales in drainage	Jun-96	✓	
3-022	1	Sump for oil tanks	VCA	Reseeded after excavation	Sep-95	✓	
3-047 (d)	1	Drum storage area	VCA	Reseeded after excavation	Sep-95	✓	
3-051 (c)	1	Oil stains	VCA	Re-asphalted	Sep-95	✓	
3-056 (c)	1	Soil contamination	VCA	A diversion trench was dug up slope from the excavated area to prevent run-on. Straw bales were placed on toe of slope to dissipate flow and to filter sediments, plastic sheeting was placed over the entire excavated area to prevent rill erosion.	July 95 thru August 96		31-Jul-95
9-013	5	NPDES outfall	VCA	Revegetated, berm installed for diversion, straw bales placed for sediment transport controls.	Aug-96		01-Sep-95
10-002 (a-b)	1	Chamisa plants in Bayo Canyon	IA	Sand bags and straw bales placed upslope for diversion, silt fence installed on downslope side, entire area fenced and signs posted.	Mar-97	✓	
10-003 (a-o)	1	Chamisa plants in Bayo Canyon	IA	Sand bags and straw bales placed upslope for diversion, silt fence installed on downslope side, entire area fenced and signs posted.	Mar-97	✓	
10-004 (a-b)	1	Chamisa plants in Bayo Canyon	IA	Sand bags and straw bales placed upslope for diversion, silt fence installed on downslope side, entire area fenced and signs posted.	Mar-97	✓	

Best Management Practices
Implemented at ER Projects

PRS	Field	Site Description	Field	SWPPP Description	Date of Implementation	Provisional Interim	SWPPP Final
10-005	1	Chamisa plants in Bayo Canyon	IA	Sand bags and straw bales placed upslope for diversion, silt fence installed on downslope side, entire area fenced and signs posted.	Mar-97	✓	
10-007	1	Chamisa plants in Bayo Canyon	IA	Sand bags and straw bales placed upslope for diversion, silt fence installed on downslope side, entire area fenced and signs posted.	Mar-97	✓	
11-001 (b)	3	K-Site Firing site					
11-001 (c)	3	Firing site	VCA	Removed soil and installed silt fence	FY 96	✓	?
11-004 (a-f)	3	K-Site Firing site					
14-002 (a)	2						
14-003	2	Open burning ground	VCA	Straw bales were installed in a semi-circle around the downslope side of the area to be excavated.	Sep. 96		12-Jul-96
14-009	2	Old detonation pad	IA	Two straw bale check dams placed in drainage, sand bags placed above sight to divert run on	Nov-96	✓	amending SWPPP
14-010	2						
15-006 (c)	2	Firing site R-44					
15-008 (b)	2	Firing site R-44					
16-003 (m,o)	3						
16-010 (h,k,l,m,n)	3						

Best Management Practices
Implemented at ER Projects

PRS	Field	Site Description	Field		Date of	Project Interim	SWPPP Final
0-004	1	Drainage Channel	RFI	Reseeded with 0-030 (l, m)	Jul-95	✓	
0-016	1	Inactive Firing Site	VCA	Regrading and stabilization with straw mulch, straw bale sediment basin at downslope edge of sight, reseeding of approx. 2-acres of disturbed area, 50' x 300' settling pond installed and silt fence installed.	Sep. 93 thru Sep. 96		14-Aug-94
0-027	1	DP Road Storage	Phase I	Straw bales in drainage	Jun-96		18-Apr-96
0-030 (a)	1	DP Road Storage Septic	VCA	Reseeded after excavation	Aug-96	✓	
0-030 (b)	1	Septic System (Diversion boxes)	VCA	Straw bales were installed in drainage channels and on downslope side of excavation activities. Areas were reseeded and covered with jutemat for final stabilization.	July 95 thru August 96		25-Jul-95
0-030 (d)	1	Pine Street septic	VCA	Filled, repaved and matted	Nov-96	✓	
0-030 (h)	1	Catholic Church septic	VCA	Contoured, compacted, repaved. Straw bales and sand bags in place during excavation.	Sep-96	✓	
0-030 (i)	1	Trinity Drive septic	VCA	Contoured, mulched, straw bales for diversion during excavation.	Jun-96	✓	
0-030 (k)	1	Tewa Loop septic	VCA	Reseeded and matted	Oct-96	✓	
0-030 (l)	1	Septic Systems	VCA	Straw bales were installed in drainage channels and on downslope side of excavation activities. Areas were reseeded and covered with jutemat for final stabilization.	July 95 thru August 96		25-Jul-95
0-030 (m)	1	Septic Systems	VCA	Straw bales were installed in drainage channels and on downslope side of excavation activities. Areas were reseeded and covered with jutemat for final stabilization.	July 95 thru August 96		25-Jul-95
0-030 (n)	1	Canyon Road/15th St. septic	VCA	LA County installed runoff channel	Aug-96	✓	
0-030 (o)	1	Canyon Road septic	VCA	Contoured, reseeded and matted	Jul-96	✓	

Best Management Practices
Implemented at ER Projects

ERCS	Flow	SWPPP Description	ERCS	SWPPP Description	Start	SWPPP Interim	SWPPP Final
16-018	3	RCRA closure (MDA P)	Closure	Asphalt channels were constructed to divert run-on away from site. Straw bale check dams were placed below soil piles to keep sediment in place, plastic lined trenches will be installed below site to collect run-off, site will be revegetated.	FY 96		15-Feb-96
16-020	3						
16-021 (c)	3	HE outfall	VCA	Jute stabilization of contaminated pond, straw bale check dams in drainage.	FY 96	✓	pending
16-026 (b)	3	HE outfall	VCA	Jute stabilization of contaminated pond, straw bale check dams in drainage.	FY 96	✓	
16-030 (d, h)	3	HE outfall	VCA	Jute stabilization of contaminated pond, straw bale check dams in drainage.	FY 96	✓	
16-064	3						
21-003	1	PCB contamination	IA	Sandbags installed for run on control.	Nov-96	✓	
21-011 (k)	1	Outfall	IA	Sandbags were placed to divert run-on, straw bale check dams and silt fences were installed in four separate locations, and straw mulch was applied over the entire excavated area.	Oct-96		13-Sep-96
21-016 (a)	1	MDA T	Phase I &	Re-seeding as necessary			09-Sep-96
21-016 (b)	1	MDA T	Phase I &	Re-seeding as necessary			09-Sep-96
21-016 (c)	1	MDA T	Phase I &	Re-seeding as necessary			09-Sep-96
21-024 (b)	1	Septic system	VCA	Straw bale check dam installed downslope of excavation. Plastic sheeting used to cover project upon completion. Reseeding and jutemat used for final stabilization.	Jul-95		28-Jul-95
21-024 (d)	1	Septic system	VCA	Straw bale check dam installed downslope of excavation. Plastic sheeting used to cover project upon completion. Reseeding and jutemat used for final stabilization.	Jul-95		28-Jul-95

Best Management Practices
Implemented at ER Projects

PRS	Field	Site Description	Field	BMP Description	Date of Installation	Effective Interim Action	SWPPP Final Action
21-024 (e)	1	Septic system	VCA	Straw bale check dam installed downslope of excavation. Plastic sheeting used to cover project upon completion. Reseeding and jutemat used for final stabilization.	Aug-95		23-Aug-95
21-024 (h)	1	Septic system	VCA	Straw bale check dam installed downslope of excavation. Plastic sheeting used to cover project upon completion. Reseeding and jutemat used for final stabilization.	Jul-95		28-Jul-95
21-024 (i)	1	Septic system	VCA	Straw bale check dam installed downslope of excavation. Plastic sheeting used to cover project upon completion. Reseeding and jutemat used for final stabilization.	Nov. 96		11-Nov-96
21-029	1	Soil contamination area (DP Tank Farm)	VCA	Sandbag berms were installed upslope to divert run-on, straw bales were installed downslope to dissipate flows and filter sediment, and the excavated areas were reseeded.	April 96 thru Sep. 96		11-Apr-96
22-015 (c)	5	Outfall	EC	Silt fence constructed below excavated area to capture sediment. Clean gravel applied to minimize erosion, culverts installed to redirect flows, regrading and revegetation for final stabilization.	Sep. 95 thru Nov. 95		12-Sep-95
32-001	1	Incinerator	VCA	Straw bale check dam was installed for surface water diversion above excavation site and also placed below excavated areas. Area was reseeded and jute mate was placed on site.	April 96 thru October 96		13-Mar-96
32-002 (a)	1	Septic Tanks	VCA	Straw bale check dam was installed for surface water diversion above excavation site and also placed below excavated areas. Area was reseeded and jute mate was placed on site.	April 96 thru October 96		13-Mar-96
32-002 (b)	1	Septic Tanks	VCA	Straw bale check dam was installed for surface water diversion above excavation site and also placed below excavated areas. Area was reseeded and jute mate was placed on site.	April 96 thru October 96		13-Mar-96
32-003	1	Soil Cont. (transformer site)	VCA	Straw bale check dam was installed for surface water diversion above excavation site and also placed below excavated areas. Area was reseeded and jute mate was placed on site.	April 96 thru October 96		13-Mar-96

Best Management Practices
Implemented at ER Projects

PFS	ER	Activity	Phase	Description	Start/End	Verification	SWPPP Final
32-004	1	Soil Cont. (rad pipe)	VCA	Straw bale check dam was installed for surface water diversion above excavation site and also placed below excavated areas. Area was reseeded and jute mat was placed on site.	April 96 thru October 96		13-Mar-96
33-002 (a)	3	Septic tank at (MDA K)	Phase I	No BMPs implemented			01-Jan-96
33-002 (b)	3	Sump (MDA K)	Phase I	No BMPs implemented			01-Jan-96
33-002 (c)	3	Sump at (MDA K)	Phase I	No BMPs implemented			01-Jan-96
33-003 (b)	3	MDA D	Phase I	Visual surface debris removed.	Nov. 95		01-Jan-96
33-006 (a)	3	Firing site	IA	Sandbag berms and straw bales in place as interim measure.	Aug-96		01-Jan-96
33-007 (b)	3	Firing range	IA	Sandbag berms and straw bales in place as interim measure.	Aug-96		01-Jan-96
33-007 (c)	3	Firing range (heap leaching)	VCA	Sandbags were used to dam culvert west of 33-16. HDPE was placed over catcher boxes and sandbags were placed around boxes to secure the site.	Sep. 96		01-Jan-96
33-008 (a)	3	Landfill	Phase I	Visual surface debris removed.	Nov. 95		01-Jan-96
33-008 (b)	3	Landfill	Phase I	Visual surface debris removed.	Nov. 95		01-Jan-96
33-008 (c)	3						
33-009	3	Surface disposal	Phase I	No verification			01-Jan-96
33-010 (a)	3	Surface disposal	VCA	Visual surface debris removed.	Nov. 95		01-Jan-96
33-010 (b)	3	Surface disposal	VCA	Visual surface debris removed.	Nov. 95		01-Jan-96
33-010 (c)	3	Surface disposal	IA	Straw mulch and jute mat applied and straw bale check dams were installed in drainage to reduce contaminant migration.	Feb. 96		01-Jan-96
33-010 (d)	3	Surface disposal	VCA	Visual surface debris removed.	Nov. 95		01-Jan-96
33-010 (g)	3	Surface disposal	VCA	Visual surface debris removed.	Nov. 95		01-Jan-96

Best Management Practices
Implemented at ER Projects

PRS	Field	Site Description	Field	BMP Description	Date	Proactive Interim	SWPPP Final
33-011 (b)	3	Storage Area	VCA	Visual surface debris removed.	Nov. 95		01-Jan-96
33-011 (d)	3	Storage area	Phase I	No verification			01-Jan-96
33-013	3	Storage area	Phase I	No verification			01-Jan-96
33-017	3	Operational release	Phase I	No verification			01-Jan-96
35-003 (d)	4	WWTP	IA	Backfilling, compacting and revegetation, straw bales, and berm installation for run-on control.	Sep. 1996		27-Aug-96
35-003 (l)	4	WWTP	IA	Backfilling, compacting and revegetation, straw bales, and berm installation for run-on control.	Sep. 1996		27-Aug-96
35-003 (q)	4	WWTP	IA	Backfilling, compacting and revegetation, straw bales, and berm installation for run-on control.	Sep. 1996		27-Aug-96
35-009 (a)	4	Septic system	VCA	No verification			01-Apr-96
35-009 (b)	4	Septic system	VCA	No BMPs implemented			01-Apr-96
35-009 (c)	4	Septic system	VCA	No BMPs implemented			01-Apr-96
35-009 (d)	4	Septic system	VCA	No BMPs implemented			01-Apr-96
35-014 (f)	4		VCA	?	Aug-96		?
35-018 (a)	4		VCA	?	Jun-96		?
36-001	2	MDA AA	IA	Erosion control barriers placed to control sediment transport.	Jul-96	✓	
36-003	2	Photo outfall	VCA	Visible debris to be removed.	Spring 97	✓	
39-001 (a)	2	Landfill		No BMPs implemented			02-Sep-95
39-001 (b)	2	MDA Y		No BMPs implemented			02-Sep-95
40-006 (a)	5	Firing Site	Phase I	No verification			
40-009	5	Landfill	Phase I	No verification			
46-004 (g,q)	3						
48-002 (a)	4	Container storage area	EC	Areas covered with tarp during excavation, clean backfill provided and revegetation measures applied.	August 95 thru October 95		22-Aug-95
48-002 (b)	4	Container storage area	EC	Areas covered with tarp during excavation, clean backfill provided and revegetation measures applied.	August 95 thru October 95		22-Aug-95
49-003	5	Leach field (Area 11)	Phase I	No verification			18-Jul-95
49-004	5	Burn site/ landfill/Area 6	Phase I	No verification			18-Jul-95
49-005 (a)	5	Landfill (E. of Area 10)	Phase I	No verification			18-Jul-95

Best Management Practices
Implemented at ER Projects

PRS	Field Unit	Site Description	Field Activity	BMP Description	Date of Installation	Proactive Interim Action	SWPPP Final
50-006 (a)	5	Contaminated soil	IA	Removed contaminated soil, straw bales placed on downslope side during process.	Nov-96	✓	
51-001	5	Seepage pit	Phase I	No verification			25-Oct-95
53-013	2						
54-007 (c)	5	Septic system	Phase I	No verification			25-Oct-95
54-007 (d)	5	Seepage pit	Phase I	No verification			25-Oct-95
73-001 (c)	1	Bunker debris pits	VCA	Implementation pending			01-Apr-96
73-002	1	Incinerator surface dis.	Phase I & II	Diversion berm was installed to redirect surface water away from the site. Straw bale check dam placed above site to divert surface water.	April 96 thru October 96		01-Apr-96
73-004 (a)	1	Septic System	VCA	Straw bale berms were installed below site to keep sediment in place. Excavated areas were reseeded and jute mat was installed.	April 96 thru October 96		01-Apr-96
73-004 (b)	1	Septic System	VCA	Straw bale berms were installed below site to keep sediment in place. Excavated areas were reseeded and jute mat was installed.	April 96 thru October 96		01-Apr-96
73-004 (c)	1	Septic System	Phase I	Implementation pending			01-Apr-96
73-005 (a-f)	1	Backfilled and compacted	Phase I	Proposed NFA	Aug-96		01-Apr-96
73-006	1	Outfalls	VCA	Straw bale berms were installed below site to keep sediment in place. Excavated areas were reseeded and jute mat was installed.	April 96 thru October 96		01-Apr-96
73-007	1	Septic Tank	VCA	No BMPs needed			01-Apr-96

All of the above sites have implemented "baseline BMPs" as required measures. Baseline BMPs include the following:

Good Housekeeping - Storing materials in a orderly manner, sealing containers when not in use, using proper labeling, and using proper disposal and storage techniques on site.

Preventive Maintenance - Heavy equipment inspected for leaks and spills, BMPs inspected daily, weekly and/or monthly to identify deficiencies. Recordkeeping and documentation of all inspections and procedures.

Spill Prevention and Response - Secondary containment is provided for all fuel and lubricants used at each site, spill kits are available at each site for responding to spills, and employees are trained for use of the kits.

Other Controls - Off-site vehicle tracking and generation of dust is minimized by applying gravel at construction entrances and using spray water mist.