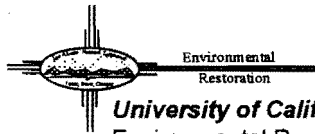


Los Alamos National Laboratory

ENVIRONMENTAL RESTORATION



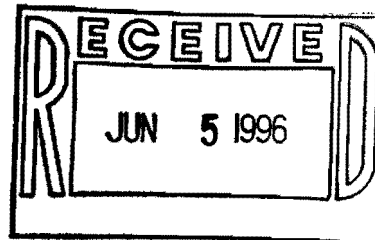
University of California
Environmental Restoration, MS M992
Los Alamos, New Mexico 87545
505-667-0808/FAX 505-665-4747



U. S. Department of Energy
Los Alamos Area Office, MS A316
Los Alamos, New Mexico 87544
505-665-7203
FAX 505-665-4504

Date: May 28, 1996
Refer to: EM/ER:96-289

Barbara Hoditschek
Permit Program Manager
Hazardous and Radioactive Materials Bureau
New Mexico Environment Department
P.O. Box 26110
Santa Fe, NM 87502



SUBJECT: REQUEST TO AMEND THE TECHNICAL AREA (TA) 35 TEN SITE LOCATION (TSL) 85, SURFACE IMPOUNDMENT CLOSURE PLAN AT LOS ALAMOS NATIONAL LABORATORY

Dear Ms. Hoditschek:

On January 19, 1996, the New Mexico Environment Department approved a closure plan for the TA-35, TSL-85 Surface Impoundment. This plan contained sample analytical requirements that could not be performed by the Laboratory's contract analytical laboratories who perform Environmental Protection Agency Contract Laboratory Program (CLP) analyses. Since then, the Laboratory's Environmental Restoration (ER) staff has been working with your technical staff to resolve this problem. Your staff has approved the analyses listed below with the addition of dioxin/furan analyses.

Process knowledge indicates that dioxins and furans are not reasonably expected to be present at the site. Dioxins are associated with the production of 2,4,5-trichlorophenol, an intermediate in the manufacture of several agricultural products, most notably herbicides. The best known dioxin contaminated herbicide being Agent Orange used as a defoliant in Vietnam. Furans are associated with the incineration of chlorophenols. Buildings 85 and 188 were used for laser development, high voltage testing, chemical analyses, and a machine shop. No chlorophenol was produced or incinerated at the site. In addition, analysis of dioxins and furans increase laboratory costs by 75-100%.

Upon discussions with your staff, the Laboratory requests that the TA-35, TSL-85 Surface Impoundment Closure Plan be amended to include the SW-846 method sample analyses contained in the enclosed list of chemical compounds. This list includes the chemical compounds to be analyzed for, the method used for each analyses, and if the




TC

chemical will be a tentatively identified compound. This list was compiled by the Laboratory's contract analytical laboratory who perform CLP analyses based upon discussions between your staff, Laboratory staff, and their laboratory staff. This laboratory will perform all the sample analyses. Sections 5.1, 5.2, 5.3, 5.4.4, 5.6, and Tables 2 through 7 of the Closure Plan should be amended to include the above analyses.

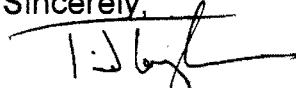
The Laboratory also requests that the closure schedule contained in Section 9.0 of the Closure Plan be amended to include verification sampling to be performed after the amended Closure Plan is approved.

Should you have any questions regarding these comments, please contact Roy Bohn at (505) 665-5138.

Sincerely,


for Jorg Jansen, Program Manager
Environmental Restoration

Sincerely,


Theodore J. Taylor, Program Manager
Los Alamos Area Office

JJ/TT/bp

Enclosure: List of Chemical Compounds

Cy (w/ enc.):

H. Decker, NMED-AIP, MS J993
R. Dinwiddie, NMED-HRMB
B. Driscoll, EPA, R.6
B. Garcia, NMED-HRMB
D. Griswold, DOE- AL, MS A906
J. Harry, EES-5, MS M992
B. Hoditschek, NMED-HRMB
M. Johansen, LAAO, MS A316
R. Kern, NMED-HRMB
N. Naraine, EM-453, DOE-HQ
D. McInroy, EM/ER MS M992
T. Taylor, LAAO, MS A316
N. Weber, NMED-AIP, MS J993
J. White, ESH-19, MS K490
S. Yanicak, NMED-AIP, MS J993
RPF, MS M707

Cy (w/o enc.):

T. Baca, EM, MS J591
R. Bohn, EM/ER, MS M992
T. Glatzmaier, DDEES/ER, MS M992
G. Rael, ERD, AL, MS A906
W. Spurgeon, EM-453, DOE-HQ
J. Vozella, LAAO, MS A316
EM/ER File, MS M992

Paragon Analytics List of Appendix IX Compounds & Asstd. Others

APPENDIX IX: VOLATILES			
	Acetone	8260	
	Acetonitrile (methyl cyanide)	8260	TIC
	Acrolein	8260	TIC
	Acrylonitrile	8260	TIC
	Allyl alcohol	8260	TIC
	Allyl chloride	8260	TIC
	Benzene	8260	
	Benzyl Chloride	8260	TIC
	Bromoacetone	8260	TIC
	Bromodichloromethane	8260	
	Bromoform	8260	
	Bromomethane (Methyl bromide)	8260	
	n-Butanol	8260	TIC
	2-Butanone (MEK)	8260	
	Carbon disulfide	8260	
	Carbon tetrachloride	8260	
	Chloral Hydrate	8260	TIC
	Chlorobenzene	8260	
	2-Chloro-1,3-butadiene	8260	TIC
	Chlorodibromomethane	8260	
	chloroethane	8260	
	2-Chloroethanol	8260	TIC
	bis-(2-chloroethyl) sulfide	8260	TIC
	2-Chloroethyl vinyl ether	8260	TIC
	chloroform	8260	
	chloromethane (methyl chloride)	8260	
	Chloroprene	8260	TIC
	3-Chloroprene	8260	TIC
	1,2-Dibromo-3-chloropropane	8260	
	1,2-Dibromoethane	8260	
	Dibromomethane (Methylene bromide)	8260	
	1,2-Dichlorobenzene	8260	
	1,3-Dichlorobenzene	8260	
	1,4-Dichlorobenzene	8260	
	cis-1,4-Dichloro-2-butene	8260	TIC
	trans-1,4-Dichloro-2-butene	8260	TIC
	Dichlorodifluoromethane	8260	
	1,1-Dichloroethane	8260	
	1,2-Dichloroethane	8260	
	1,1-Dichloroethene	8260	
	trans-1,2-Dichloroethene	8260	
	Dichloromethane (methylene chloride)	8260	
	1,2-Dichloropropane	8260	
	1,3-Dichloro-2-propanol	8260	TIC
	cis-1,3-Dichloropropene	8260	
	trans-1,3-Dichloropropene	8260	
	1,2,3,4-Diepoxybutane	8260	TIC
	Diethyl Ether	8260	TIC
	1,4-Dioxane	8270	TIC

Ethylbenzene	8260	
Ethylene Oxide	8260	TIC
Ethyl methacrylate	8260	TIC
Hexachlorobutadiene	8260	TIC
2-Hexanone	8260	
Iodomethane (methyl iodide)	8260	
Isobutyl alcohol	8260	
Isopropyl benzene	8260	TIC
Malononitrile	8260	TIC
Methacrylonitrile	8260	TIC
Methyl methacrylate	8260	TIC
4-Methyl-2-pentanone	8260	
Naphthalene	8270	
Nitrobenzene	8270	
2-Nitropropane	8260	TIC
Pentachloroethane	8260	TIC
2-Picoline	8270	
Propargyl Alcohol	8260	TIC
beta-Proloactone	8260	TIC
Propionitrile	8260	TIC
n-Propylamine	8260	TIC
Styrene	8260	
1,1,1,2-Tetrachloroethane	8260	
1,1,2,2-Tetrachloroethane	8260	
Tetrachloroethylene	8260	
Toluene	8260	
1,2,4-Trichlorobenzene	8260	TIC
1,1,1-Trichloroethane	8260	
1,1,2-Trichloroethane	8260	
Trichloroethene (TCE)	8260	
Trichlorofluoromethane	8260	
1,2,3-Trichloropropane	8260	
Vinyl acetate	8260	
Vinyl chloride	8260	
Xylenes (total)	8260	
Xylene (total meta & para)	8260	
Xylene (ortho)	8260	

APPENDIX IX: BNA EXTRACTABLES

Acenaphthene	8270	
Acenaphthylene	8270	
Acetophenone	8270	TIC
2-Acetylaminofluorene	8270	TIC
4-Aminobiphenyl	8270	TIC
Aniline	8270	
Anthracene	8270	
Aramite	8270	TIC
Benzo(a)anthracene	8270	
Benzo(b)fluoranthene	8270	
Benzo(k)fluoranthene	8270	
Benzo(g,h,i)perylene	8270	
Benzo(a)pyrene	8270	
Benzoic acid	8270	
Benzyl alcohol	8270	

Bis(2-chloroethoxy) methane	8270	TIC
Bis(2-chloro-1-methylethyl) ether	8270	TIC
Bis(2-chloroethyl) ether	8270	
Bis(2-ethylhexyl) phthalate	8270	
4-Bromophenyl phenyl ether	8270	
Butyl benzyl phthalate	8270	
2-sec-Butyl-4,6-dinitrophenol	8270	TIC
4-Chloroaniline	8270	
Chlorobenzilate	8270	TIC
4-Chloro-3-methylphenol (p-chloro-m-creso	8270	
2-Chloronaphthalene	8270	TIC
2-Chlorophenol	8270	
4-Chlorophenyl phenyl ether	8270	
Chrysene	8270	
m-cresol (3-methylphenol)	8270	
o-cresol (2-methylphenol)	8270	
p-cresol (4-methylphenol)	8270	
2-Cyclohexyl-4,6-dinitrophenol	8270	TIC
Diallate	8270	TIC
Dibenz(a,j)acridine	8270	TIC
Dibenzo(a,h)anthracene	8270	
Dibenzofuran	8270	
Di-n-butyl phthalate	8270	
1,2-Dichlorobenzene	8260	
1,3-Dichlorobenzene	8260	
1,4-Dichlorobenzene	8260	
3,3'-Dichlorobenzidine	8270	
2,4-Dichlorophenol	8270	
2,6-Dichlorophenol	8270	
Diethyl phthalate	8270	
Dimethoate	8270	TIC
3,3'-Dimethoxybenzidine	8270	TIC
p-Dimethylaminoazobenzene	8270	TIC
7,12-Dimethylbenz(a)anthracene	8270	TIC
3,3'-Dimethylbenzidine	8270	TIC
a,a-Dimethylphenethyl amine	8270	
2,4-Dimethyl phenol	8270	
Dimethyl phthalate	8270	
4,6-Dinitro-2-methylphenol	8270	TIC
1,3-Dinitrobenzene	8270	TIC
2,4-Dinitrophenol	8270	
2,4-Dinitrotoluene	8270	
2,6-Dinitrotoluene	8270	
Di-n-octyl phthalate	8270	
1,4-Dioxane	8270	
Diphenylamine	8270	TIC
1,2-Diphenyl hydrazine	8270	TIC
Disulfoton	8270	TIC
Ethyl methanesulfonate	8270	TIC
Famphur	8270	TIC
Fluoranthene	8270	
Fluorene	8270	
Hexachlorobenzene	8270	

Hexachlorobutadiene	8270	
Hexachlorocyclopentadiene	8270	
Hexachloroethane	8270	
Hexachlorophene	8270	TIC
Hexachloropropene	8270	TIC
Indeno(1,2,3-c,d)pyrene	8270	
Isodrin	8270	TIC
Isophorone	8270	TIC
Isosafrole	8270	TIC
Kepone	8270	TIC
Methapyrilene	8270	TIC
3-Methylcholanthrene	8270	TIC
2-Methyl-4,6-dinitrophenol	8270	
Methyl methanesulfonate	8270	TIC
2-Methylnaphthalene	8270	
2-Methyl-5-nitroaniline	8270	TIC
Methyl parathion	8141	TIC
2-Methylpyridine	8270	TIC
Naphthalene	8270	
1,4-Naphthoquinone	8270	TIC
1-Naphthylamine	8270	TIC
2-Naphthylamine	8270	TIC
2-Nitroaniline	8270	
3-Nitroaniline	8270	
4-Nitroaniline	8270	
Nitrobenzene	8270	
2-Nitrophenol	8270	
4-Nitrophenol	8270	
4-Nitroquinoline-1-oxide	8270	TIC
N-Nitrosodi-n-butylamine	8270	TIC
N-Nitrosodiethylamine	8270	TIC
N-Nitrosodimethylamine	8270	TIC
N-Nitrosodiphenylamine	8270	
n-Nitroso-n-propylamine	8270	TIC
N-Nitrosodipropylamine	8270	
N-Nitrosomethylethylamine	8270	TIC
N-Nitrosomorpholine	8270	TIC
N-Nitrosopiperdine	8270	TIC
N-Nitrosopyrrolidine	8270	TIC
5-Nitro-o-toluidine	8270	TIC
Parathion	8141	
Pentachlorobenzene	8270	TIC
Pentachloronitrobenzene	8270	TIC
Pentachlorophenol	8270	
Phenacetin	8270	TIC
Phenanthrene	8270	
Phenol	8270	
p-Phenylenediamine	8270	TIC
Phorate	8141	
2-Picoline	8270	TIC
Pronamide	8270	TIC
Pyrene	8270	
Pyridine	8270	

Safrole	8270	TIC
Sulfotepp	8141	TIC
1,2,4,5-Tetrachlorobenzene	8270	TIC
2,3,4,6-Tetrachlorophenol	8270	TIC
Tetraethyl dithiopyrophosphate	8270	TIC
Tetraethyl pyrophosphate	8270	TIC
Thionazin	8270	TIC
Thiophenol	8270	TIC
o-Toluidine	8270	TIC
1,2,4-Trichlorobenzene	8270	
2,4,5-Trichlorophenol	8270	
2,4,6-Trichlorophenol	8270	
Tris(2,3-dibromoo-propyl)phosphate	8270	TIC
O,O,O-Trifethyl phosphorothionate	8270	TIC
1,3,5-Trinitrobenzene	8270	TIC

APPENDIX IX: HERBICIDES/PESTICIDES

Aldrin	8081	
alpha-Benzene hexachloride	8081	
beta-Benzene hexachloride	8081	
delta-Benzene hexachloride	8081	
gamma-Benzene hexachloride (Lindane)	8081	
alpha-Chlordan (see Chlordane)	8081	
gamma-Chlordane (see Chlordane)	8081	
Chlordane (total)	8081	
p,p'-DDD	8081	
p,p'-DDE	8081	
p,p'-DDT	8081	
2,4-Dichlorophenoxyacetic acid (2,4-D)	8150/1658	
Dieldrin	8081	
Endosulfan I	8081	
Endosulfan II	8081	
Endosulfan sulfate	8081	
Endrin	8081	
Endrin aldehyde	8081	
Endrin ketone	8081	
Heptachlor	8081	
Heptachlor epoxide	8081	
Methoxychlor (Mariate)	8081	
Parathion	8270	TIC
Parathion methyl	8141	
Phorate	8141	
2,4,5-TP (Silvex)	8150/1658	
Toxaphene	8081	
2,4,5-Trichlorophenoxy acetic acid	8150/1658	
Dalapon	8150/1658	
Dicamba	8150/1658	
Dichlorprop	8150/1658	
Dinoseb	8270	TIC
MCPA	8150/1658	
MCPP	8150/1658	

APPENDIX IX: PCBs

Aroclor 1016	8081
Aroclor 1221	8081
Aroclor 1232	8081
Aroclor 1242	8081
Aroclor 1248	8081
Aroclor 1254	8081
Aroclor 1260	8081

APPENDIX IX: METALS/CYANIDE/SULFIDE

Aluminum	6010
Antimony	6010T
Arsenic	6010T
Barium	6010
Beryllium	6010
Cadmium	6010
Chromium	6010
Cobalt	6010
Copper	6010
Lead	6010T
Mercury	7470
Nickel	6010
Selenium	6010T
Silver	6010
Thallium	6010T
Tin	6010
Vanadium	6010
Zinc	6010
Cyanide	9012
Sulfide	376.2