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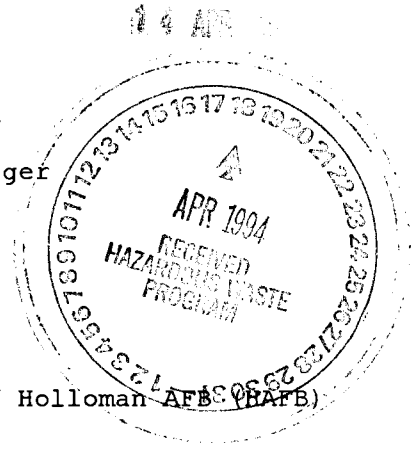
DEPARTMENT OF THE AIR FORCE

HEADQUARTERS 49TH FIGHTER WING (ACC)
HOLLOMAN AIR FORCE BASE, NEW MEXICO



MEMORANDUM FOR New Mexico Environment Department (NMED)
Hazardous and Radioactive Materials Bureau
RCRA Permits Program
Attn: Ms Barbara Hoditschek, Program Manager
525 Camino de Los Marquez
Santa Fe, NM 87502-6610

FROM: 49 CES/CD
550 Tabosa Ave
Holloman AFB, NM 88001-8458

SUBJECT: Regulatory Status and Investigation Schedule of Holloman AFB (HAFB) Lagoons (ref 22 Feb 94 conf call)

1. As discussed in the referenced conference call between NMED, Omaha Corps of Engineers, Radian Corp, and HAFB, it is necessary to determine if the sludge in the HAFB lagoons is considered a listed hazardous waste or if it is considered hazardous only if it possesses one or more hazardous characteristics (toxic, corrosive, reactive, and ignitable). HAFB believes the sludge is not a listed hazardous waste and would like your concurrence before researching remedial alternatives. Supporting documentation is found in the Project Assessment Report (Radian Corp, August 1990) and is summarized below.

2. A February 1987 Notice of Noncompliance alleged the following listed wastes may have entered the lagoons prior to August 1984: F001 (halogenated degreasing solvents), F003 (non-halogenated solvents), U228 (trichloroethene), U161 (methyl isobutyl ketone), U227 (1,1,2-trichloroethane), U188 (phenol), U154 (methanol), U002 (acetone), U122 (formaldehyde), U165 (naphthalene), U220 (toluene), U239 (xylene), U003 (acetonitrile), U233 (?), P095 (phosgene), P012 (arsenic trioxide), and P106 (sodium cyanide). The estimated quantities suspected to have been discharged (Atch 1) are very small compared to the volume of wastewater processed (1.2 million gallons per day), and are considerably less than *de minimis* losses of hazardous constituents allowed under 40 CFR 261.3(a)(2)(iv)(A), (B) and (D). Extensive investigation of surface water, sludge, and underlying soils in the lagoons has, in most cases, failed to detect the above listed wastes. Of those detected, the amounts found were well below levels of concern. These investigations did identify other contaminants of concern, including polychlorinated biphenyls (PCBs), organochlorine pesticides, and metals.

3. Several alternatives to closure are being evaluated, including both *in situ* and *ex situ* treatment. The regulatory status of the sludge will determine the treatment technologies required to meet land disposal treatment standards for sludge treated *ex situ* and returned to the lagoons or disposed of off site.

4. As requested during the referenced conference call, a list of submittals with estimated dates (Atch 2) and a revised project schedule (Atch 3) are provided. Note the final revision of the Post Closure Care Permit (PCCP) is not scheduled for submission until July 1996. This reflects our discussion that the PCCP be as detailed and accurate as possible. The July 1996 submittal date allows the PCCP to include final results of the treatability and

corrective measures studies. Also, note that some activities depend upon the status of the new wastewater treatment plant, which has experienced some delays.

5. Please direct questions to Dr Fred Fisher or Mr Tim O'Donnell of the Environmental Flight at 475-3931.

HOWARD E. MOFFITT
Deputy Base Civil Engineer

Attachments:
1. Estimated Discharge to Sewage Lagoons
2. Submittals with Estimated Dates
3. Revised Project Schedule

cc: w/Atchs

Mr Larry Isaacs
HQ ACC/CEVC

Ms Kathleen Alsup
Radian Corp
8501 Mo-Pac Blvd.
Austin, TX 78720-1008

Mr Barry Feldman
US Environmental Protection Agency, Region VI, 6H-CS
First Interstate Bank Tower
1445 Ross Avenue
Dallas, TX 75202-2733

Mr Ron Stirling
U.S. Army Corp of Engineers
Omaha District/CEMRO-ED-EA
215 N. 17th Street
Omaha, NE 68102-4978

TABLE 4-1. HAZARDOUS WASTES SUSPECTED TO BE DISCHARGED TO THE SEWAGE LAGOONS

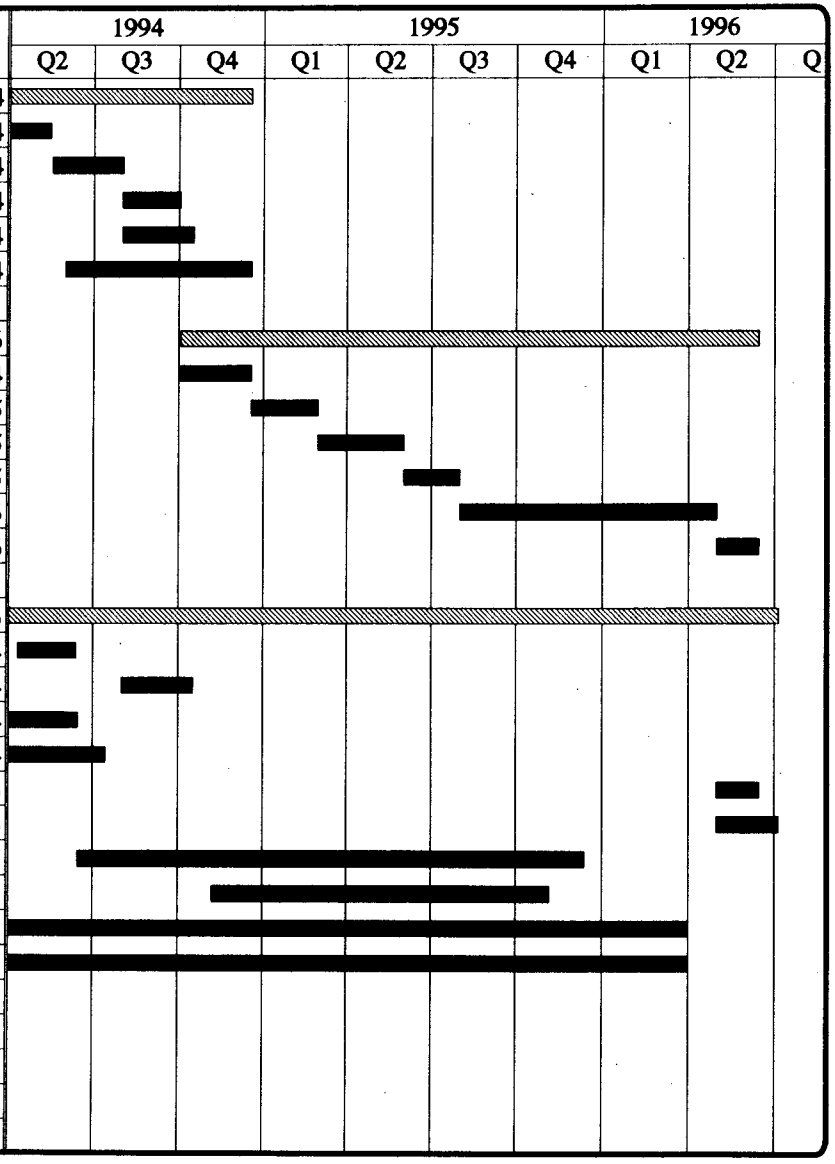
Substance	Quantity	Date of Discharge
Trichloroethylene	225 gal	One time, prior to 1980
Carbon tetrachloride	200 gal	One time, prior to 1980
Freon 113	6 oz/day	Unknown to May 1984
Methyl isobutyl ketone	2 oz/mo	1980 - 1983
Trichloroethane	15 gal	One time, 1983, plus additional unknown amounts through September 1984
Methylene chloride	unknown	1980 - 1984
Phenol	unknown	1984
Acetone	75 gal/yr	1960 - Aug. 1984
Napthalene	22 lbs	One time, 1981
Toluene	10 gal	One time, 1981
Xylene	1 gal	One time, 1981
Acetonitrile	35 gal/yr	1982 - Aug. 1984
Arsenic trioxide	1,000 lbs	One time, 1977 - 1978
Sodium cyanide	900 lbs	One time, 1980

Source: Delisting Proposal, Holloman Air Force Base Sewage Treatment Lagoons, Computrac, Inc., 28 August 1986.

Document	Estimated Submittal Date
Project Plans (CDAP and SSHP)	16 May 1994
Project Assessment Report	13 June 1994
Delay-of-Closure Plan	15 June 1994
Groundwater Monitoring Plan	15 July 1994
A-E SQCSR	03 October 1994
Biological Assessment Report	17 October 1994
Site Characterization Report	17 October 1994
Updated Risk Assessment	19 December 1994
CMS Work Plan	01 June 1995
Treatability Study Work Plan	01 August 1995
Corrective Measures Studies Reports	01 May 1996
Decision Documents	15 June 1996
Final Draft Closure Plan	15 June 1996
Post Closure Care Permit Application	05 July 1996

Holloman AFB Lagoons and Lakes Project

Task Name	Duration	Start	End
Investigation Activities	263 d	04/01/94	12/19/94
Project Plans	46 d	04/01/94	05/16/94
Field Investigation	78 d	05/17/94	08/02/94
A-E SQCSR	64 d	08/01/94	10/03/94
Site Characterization Report	78 d	08/01/94	10/17/94
IRPIMS (data management)	202 d	06/01/94	12/19/94
Engineering Activities	622 d	10/03/94	06/15/96
Update Risk Assessment	78 d	10/03/94	12/19/94
Establish Clean-up Criteria	73 d	12/19/94	03/01/95
CMS Work Plan	93 d	03/01/95	06/01/95
Treatability Study Work Plan	62 d	06/01/95	08/01/95
Corrective Measures Study	275 d	08/01/95	05/01/96
Decision Documents	46 d	05/01/96	06/15/96
Regulatory Activities	827 d	04/01/94	07/05/96
Project Assessment Report	64 d	04/11/94	06/13/94
Biological Assessment Report	78 d	08/01/94	10/17/94
Delay-of-Closure Plan	76 d	04/01/94	06/15/94
Groundwater Monitoring Plan	106 d	04/01/94	07/15/94
Closure Plan	46 d	05/01/96	06/15/96
Post Closure Care Permit Application	66 d	05/01/96	07/05/96
NMED Meetings	547 d	06/15/94	12/13/95
Project Meetings	365 d	11/07/94	11/06/95
Monthly Conference Calls	732 d	04/01/94	04/01/96
NMED/ACC Progress Reports	732 d	04/01/94	04/01/96



Printed: 03/24/94

Atch 3