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RCRA FACILITY ASSESSMENT EVALUATION

PRELIMINARY REVIEW, VISUAL SITE INSPECTION AND SAMPLING VISIT

Region 6, RCRA Closure Section

FACILITY'S NAME: Corpus Christi Naval Air Station

EPA ID NUMBER: TXD7170022787

ADDRESS: Naval Air Station, Corpus Christi, TX 78419

LOCATION: On State Highway 358, three miles SE of Corpus Christi, TX
Latitude: 27° 42' 00" N, Longitude: 97° 17' 00" W

DATE OF INSPECTION: May 24-27, 1988

SITE DESCRIPTION: Military facility with ordinance, LUST's, metal plating, engine cleaning.

PREPARED BY: Pratap N. Singh DATE PREPARED: September 8, 1988

REVIEWED BY: Lee Harris DATE REVIEWED: September 26, 1988

FACILITY STATUS: Active

ANTICIPATED PERMIT DATE: _____

ANY ON-GOING STATE/FED 264, 265, OR 270 CORRECTIVE ACTION OR CERCLA ACTION?
Yes: State/Nave consent decree addressing Hazardous Waste Management and Corrective Action Measures.

DOES FACILITY HAVE A CERCLA FILE? X YES ___ NO

WHEN WAS A CERCLA PA/SI PERFORMED AT THIS FACILITY? PA: 2-1-84, SI: 3-1-85

DOES FACILITY HAVE UIC WELL? ___ YES X NO

TYPE OF DRINKING WATER SUPPLY WITHIN A 3 MILE RADIUS: All drinking water comes from Lake Corpus Christi about 35 miles to the northwest.

TARGET POPULATION WITHIN A 3 MILE RADIUS: Several thousand people are within 3 miles to the south and west including N.A.S. personnel.

RECOMMENDATIONS: ___ SV ___ IM X RFI ___ NO RFI

(Indicate only one unless IM is marked)

Permit: X 3004(u) ___ 3004(v)

Possible Enforcement Action: ___ 3008(a) ___ 3008(h)

I. EVALUATION

A. NUMBER OF SWMU(s) + AOC(s) INVESTIGATED DURING THE PR/VSI: ____/____

1. NUMBER OF SWMU(s) INVESTIGATED DURING THE PR/VSI: _____

LIST OF SWMU*	REGULATED BY RCRA** (SUBTITLE C)	STATUS***
1. Defense Property Disposal Office (DPDP) Landfill	N	C
2. Corpus Christi Army Depot (CCADD) Liquid Waste Disposal Area	N	C
3. NAS Corpus Christi Landfill	N	C
4. Aircraft Fire Training Area	N	A
5. Runway 31 Landfill	N	C
6. Patrol Road East Landfill	N	C
7. Patrol Road West Landfill	N	I
8. Cayo del Oso Disposal Site	N	I
9. North Gate Disposal Area	N	C
10. Radioactive Waste Disposal Area	N	C
11. Aircraft Fire Fighting Training Area Waste Fuel Tank	N	A
12. Tank #216-1 ✓	N	I
13. Tank #216-2 ✓	N	I
14. Tank #216-3 ✓	N	I
15. Tank #216-4 ✓	N	I
16. Tank #216-5 ✓	N	I
17. Tank #216-6 ✓	N	I
18. Tank #216-7 ✓	N	I
19. Tank #216-8 ✓	N	I
20. Tank #216-9 ✓	N	I
21. Tank #216-10 ✓	N	I
22. Tank #216-11 ✓	N	I
23. Tank #216-12 ✓	N	I
24. Tank #216-13 ✓	N	I
25. Tank #216-14 ✓	N	I
26. Tank #216-15 ✓	N	I
27. Tank #216-16 ✓	N	I
28. Tank #216-17 ✓	N	I
29. Tank #216-18 ✓	N	I
30. Tank #216-19 ✓	N	I
31. Tank #216-20 ✓	N	I
32. Tank #216-21 ✓	N	I

* Number SWMU(s) sequentially under Section I.A. as 1,2,3...etc. and AOC( ) as AOC 1, AOC 2, etc., and carry assigned numbers through all sections as identification numbers. List SWMU(s) first followed by AOC(s) in each section where appropriate.

** Y-Yes, N-No

*** A-Active, I-Inactive, C-Closed

LIST OF SWMU*	REGULATED BY RCRA** (SUBTITLE C)	STATUS***
33. Tank #216-22 ✓	N	I
34. Tank #216-23 ✓	N	I
35. Tank #216-24 ✓	N	I
36. Tank #216-25 ✓	N	I
37. Tank #216-26 ✓	N	I
38. Tank #216-27 ✓	N	I
39. Tank #216-28 ✓	N	I
40. Tank #216-29 ✓	N	I
41. Tank #216-30 ✓	N	I
42. Tank #216-31 ✓	N	I
43. Tank #216-32 ✓	N	I
44. Tank #216-33 ✓	N	I
45. Tank #216-34 ✓	N	I
46. Tank #216-35 ✓	N	I
47. Tank #216-36 ✓	N	I
48. Tank #216-A-3 ✓	N	I
49. Tank #216-A-4	N	I
50. Tank #216-A-5 ✓	N	I
51. Tank #216-A-8	N	I
52. Tank #216-A-9	N	I
53. Tank #216-A-12	N	I
54. Tank #217-1 ✓	N	I
55. Tank #217-2 ✓	N	I
56. Tank #217-3 ✓	N	I
57. Tank #217-4 ✓	N	I
58. Tank #217-5 ✓	N	I
59. Tank #217-6 ✓	N	I
60. Tank #217-7 ✓	N	I
61. Tank #217-8 ✓	N	I
62. Tank #244-1	N	I
63. Tank #244-2	N	I
64. Tank #244-3	N	I
65. Tank #244-4	N	I
66. Tank #244-5	N	I
67. Tank #244-6	N	I
68. Tank #244-7	N	I
69. Tank #244-8	N	I
70. Tank #51 ✓	N	I
71. Tank #140 ✓	N	I
72. Tank #161-1 ✓	N	I
73. Tank #161-2 ✓	N	I
74. Tank #161-3 ✓	N	I
75. Tank #162-1 ✓	N	I
76. Tank #162-2 ✓	N	I
77. Tank #254-0 ✓	N	I
78. Tank #1225 ✓	N	I
79. Tank #1237	N	I
80. Tank #1255-1 ✓	N	I
81. Tank #1255-2 ✓	N	I
82. Tank #1263-1 ✓	N	I

	LIST OF SWMU*	REGULATED BY RCRA** (SUBTITLE C)	STATUS***
83	Tank #1263-2 ✓	N	I
84.	Tank #1263-3 ✓	N	I
85.	Tank #1828 ✓	N	I
86.	Tank #W-6 ✓	N	I
87.	CCAD Satellite Accumulation Area 1A-Plating Shop	N	A
88.	CCAD Satellite Accumulation Area 2A-Engine Paint Shop	N	A
89.	CCAD Satellite Accumulation Area 2B-Engine Paint Ship	N	A
90.	CCAD Satellite Accumulation Area 3A-Engine Clean Shop	N	A
91.	CCAD Satellite Accumulation Area 3B-Engine Clean Shop	N	A
92.	CCAD Satellite Accumulation Area 3C-Engine Clean Shop	N	A
93.	CCAD Satellite Accumulation Area 4A-Depres. & Cont. Repair	N	A
94.	CCAD Satellite Accumulation Area 4B-Depres. & Cont. Repair	N	A
95.	CCAD Satellite Accumulation Area 4C-Depres. & Cont. Repair	N	A
96.	CCAD Satellite Accumulation Area 5A-Eng. & Comp. NDT	N	A
97.	CCAD Satellite Accumulation Area 6A-Eng. Hot Section	N	A
98.	CCAD Satellite Accumulation Area 7A-Compress Unit	N	A
99.	CCAD Satellite Accumulation Area 7B-Compress Unit	N	A
100.	CCAD Satellite Accumulation Area 8A-Quick Changing	N	A
101.	CCAD Satellite Accumulation Area 9A-Air Frame Strip Shop	N	A
102.	CCAD Satellite Accumulation Area 9B-Air Frame Strip Shop	N	A
103.	CCAD Satellite Accumulation Area 10A-General Paint Unit	N	A
104.	CCAD Satellite Accumulation Area 13A-Air Frame Assembly Unit	N	A
105.	CCAD Satellite Accumulation Area 16A-Cargo Trans. Unit	N	A
106.	CCAD Satellite Accumulation Area 16B-Rotor Hub Shop	N	A
107.	CCAD Satellite Accumulation Area 16C-Gear Box Shop Unit	N	A
108.	CCAD Satellite Accumulation Area 17A-Turbine Engine Machine	N	A
109.	CCAD Satellite Accumulation Area 17B-Turbine Engine Machine	N	A

	LIST OF SWMU*	REGULATED BY RCRA** (SUBTITLE C)	STATUS***
110.	CCAD Satellite Accumulation Area 18A-Hydraulic Unit	N	A
111.	CCAD Satellite Accumulation Area 18B-Hydraulic Unit	N	A
112.	CCAD Satellite Accumulation Area 19A-Mechanical Unit	N	A
113.	CCAD Satellite Accumulation Area 19B-Mechanical Unit	N	A
114.	CCAD Satellite Accumulation Area 21A-Rotating Electrical	N	A
115.	CCAD Satellite Accumulation Area 21B-Rotating Electrical	N	A
116.	CCAD Satellite Accumulation Area 22A-Instrument Unit	N	A
117.	CCAD Satellite Accumulation Area 22B-Instrument Unit	N	A
118.	CCAD Satellite Accumulation Area 23A-Joiner Paint Shop	N	A
119.	CCAD Satellite Accumulation Area 24A-PM Section 2	N	A
120.	CCAD Satellite Accumulation Area 24B-PM Section 1	N	A
121.	CCAD Satellite Accumulation Area 25A-Equipment Management	N	A
122.	CCAD Satellite Accumulation Area 26A-Silk Screen	N	A
123.	CCAD Satellite Accumulation Area 27A-Oil Analysis	N	A
124.	CCAD Satellite Accumulation Area 28A-Comp. QC	N	A
125.	CCAD Satellite Accumulaiton Area 28B-Comp. QC	N	A
126.	CCAD Satellite Accumulation Area 29A - Eng. QC	N	A
127.	CCAD Satellite Accumulation Area 29B-Eng. QC	N	A
128.	CCAD Satellite Accumulation Area 30A-Chemical Br.	N	A
128A.	CCAD Satellite Accumulation Area 32A-Cowling Shop	N	A
129.	CCAD Satellite Accumulation Area 11A-Electrical & Ground Check	N	A
130.	CCAD Satellite Accumulation Area 12A-Air Frame Paint	N	A
131.	CCAD Satellite Accumulation Area 14A-Assembly Unit	N	A
132.	CCAD Satellite Accumulation Area 15A-Aircraft Disassembly	N	A
133.	CCAD Satellite Accumulation Area 20A-Bearing Unit	N	A

	LIST OF SWMU*	REGULATED BY RCRA** (SUBTITLE C)	STATUS***
134.	Satellite Accumulation Area Site 28	N	A
135.	Satellite Accumulation Area 55	N	A
136.	Satellite Accumulation Area 55	N	A
137.	Satellite Accumulation Area 57	N	A
138.	OMD Building 58 Satellite Accumulation Area #1	N	A
139.	OMD Building 58 Satellite Accumulation Area #2	N	A
140.	OMD Shop Wash Rack	N	A
141.	AIMD Former Storage Bowser	N	I
142.	AIMD Satellite Accumulation Area A	N	A
143.	AIMD Satellite Accumulation Area B	N	A
144.	AIMD Satellite Accumulation Area C	N	A
145.	AIMD Satellite Accumulation Area D	N	A
146.	AIMD Satellite Accumulation Area E	N	A
147.	AIMD Satellite Accumulation Area F	N	A
148.	AIMD Satellite Accumulation Area G	N	A
149.	AIMD Satellite Accumulation Area H	N	A
150.	AIMD Satellite Accumulation Area I	N	A
151.	AIMD Satellite Accumulation Area J	N	A
152.	AIMD Old Battery Storage Area	N	I
153.	U.S. Custom Office Satellite Area #1	N	A
154.	U.S. Custom Office Satellite Area #2	N	A
155.	U.S. Custom Office Satellite Area #3	N	A
156.	U.S. Custom Office Satellite Area #4	N	A
157.	PCB Storage Building #1104	N	A
158.	Asbestos Storage Building #1103	N	C
159.	Asbestos Storage Building #1102	N	C
160.	Sand Blast/Paint Satellite Area in Ground Services Yard of PWD	N	A
161.	Lawn Mower Shop - Satellite Accumulation Area	N	A

	LIST OF SWMU*	REGULATED BY RCRA** (SUBTITLE C)	STATUS***
162.	Hobby Shop Satellite Accumulation Area #28A	N	A
163.	Hobby Shop Satellite Accumulation Area #28B	N	A
164.	Hobby Shop Satellite Accumulation Area #28C	N	A
165.	Hobby Shop Satellite Accumulation Area #28D	N	A
166.	Electrical Branch High Voltage Shop	N	A
167.	Incinerator (Blacksmiths Furnace) PWD	N	I
168.	Metal Trade/Pipe Shop Waste Accumulation	N	A
169.	Metal Trade/Pipe Shop Waste Accumulation	N	A
170.	Air Conditioning Shop Satellite Accumulation Area	N	A
171.	Portable Waste Oil Storage Tank in PWD Garage	N	I
172.	PWD Garage Satellite Accumulation Area #1	N	A
173.	PWD Garage Satellite Accumulation Area #2	N	A
174.	PWD Garage Satellite Accumulation Area #3A	N	A
175.	PWD Garage Satellite Accumulation Area #3B	N	A
176.	PWD Garage Satellite Accumulation Area #3C	N	A
177.	PWD Garage Asbestos Wastes	N	A
178.	PWD Waste Battery Storage Area	N	I
179.	Transportation, Paint & Body Shop	N	A
180.	PWD Electrical Shop Non-PCB Satellite Area #1	N	A
181.	PWD Electrical Shop Non-PCB Satellite Area #2	N	A
182.	PWD Electrical Shop Non-PCB Satellite Area #3	N	A
183.	Defense Reutilization & Marketing Office (DRMO) Storage Area	N	A
184.	Silver Reclamation Unit	N	I
185.	CBU Satellite Accumulation Area #1	N	A
186.	CBU Satellite Accumulation Area #2	N	A
187.	CBU Satellite Accumulation Area #3	N	A

	LIST OF SWMU*	REGULATED BY RCRA** (SUBTITLE C)	STATUS***
188.	CBU Satellite Accumulation Area #4	N	A
189.	CBU Satellite Accumulation Area #5	N	A
190.	CBU Satellite Accumulation Area #6	N	A
191.	CBU Satellite Accumulation Area #7	N	I
192.	Area Maintenence Support Activities (AMSA) Satellite Accumulation Area #1	N	A
193.	Area Maintenence Support Activities (AMSA) Satellite Accumulation Area #2	N	A
194.	Area Maintenance Support Activities (AMSA) Satellite Accumulation Area #3	N	A
195.	Hospital-Precious Metal Recovery Unit	N	A
196.	Hospital Low-Level Radioactive Waste Storage Bends	N	A
197.	Dental Clinic Amalgram Storage Containers	N	A
198.	Dental Clinic Spent Fixer Storage Containers	N	A
199.	Dental Clinic Vacuum System	N	A
199A.	Biohazardous Waste Containers in the Hospital	N	A
200.	Dental Clinic Capsule Storage Area	N	A
201.	Old Pest Control Shop Area	N	I
202.	Inactive Satellite Accumulation Area	N	I
203.	Inactive Satellite Accumulation Area	N	I
204.	Inactive Satellite Accumulation Area	N	I
205.	Temporary Storage Area, Building 41 Apron	Y	A
206.	Temporary Storage Area, Building 51 AMID	Y	A
207.	Temporary Storage Area Building 52A	Y	I
208.	Temporary Storage Area, Building 55 Apron	Y	A
209.	Temporary Storage Area, Building 57	Y	A
210.	Temporary Storage Area, Building 58 OMD	Y	A

	LIST OF SWMU*	REGULATED BY RCRA** (SUBTITLE C)	STATUS***
211.	Temporary Storage Area, Building 62 OMD	Y	A
212.	Temporary Storage Area, Building 247 Dynacorp	Y	A
213.	Temporary Storage Area, Building 255	Y	I
214.	Temporary Storage Area, Building 257 Yard	Y	A
215.	Temporary Storage Area, Building 367	Y	A
216.	Temporary Storage Area, Building 1104 PWD Ground Yard	Y	A
217.	Temporary Storage Area, Building 1113	Y	A
218.	Temporary Storage Area, Building 1277	Y	A
219.	Temporary Storage Area, Building 1722 Army Reserve	Y	A
220.	Temporary Storage Area, Building 1737 Hobby Shop	Y	A
221.	Temporary Storage Area, Building 1806 Coast Guard	Y	A
222.	Temporary Storage Area, Hangers 55, 56, 57	Y	A
223.	Temporary Storage Area, IWPP	Y	I
224.	Temporary Storage Area, CBU H109	Y	A
225.	CCAD Plating Shop Chrome Rinse Waste Line	N	A
226.	CCAD Plating Shop Cyanide Rinse Waste Line	N	A
	CCAD Plating Shop Cyanide Tank Catch Basins for Tanks:	N	A
227.	E12	N	A
228.	F-4	N	A
229.	F-7	N	A
230.	F-8	N	A
231.	F-12	N	A
232.	F-13	N	A
233.	G-8	N	A
234.	G-15	N	A
235.	H-5	N	A
236.	H-6	N	A
237.	H-8	N	A
238.	H-11	N	A
239.	H-13	N	A
240.	CCAD Plating Shop Cyanide Rinse Sump Tank	N	A
241.	CCAD Plating Shop Concentrated Caustic Rinse Waste Line	N	A

	LIST OF SWMU*	REGULATED BY RCRA** (SUBTITLE C)	STATUS***
242.	CCAD Plating Shop Acid Rinse Waste Line	N	A
243.	CCAD Plating Shop Miscellaneous Rinse Waste Line	N	A
244.	CCAD Plating Shop Floor Drains	N	A
245.	CCAD Plating Shop Chrome Tunnel	N	A
246.	CCAD Plating Shop Chrome Tunnel Sump	N	A
247.	CCAD Plating Shop Miscellaneous Tunnel	N	A
248.	CCAD Plating Shop Vapor Degreaser Sump for Line A	N	A
249.	CCAD Plating Shop Vapor Degreaser Sump for Line C	N	I
250.	CCAD Plating Shop Vapor Degreaser Sump for Line F	N	A
251.	CCAD Plating Shop Vapor Degreaser Sump for LIne G-1	N	A
252.	CCAD Plating Shop Vapor Degreaser Sump for Line M-1	N	I
253.	CCAD Plating Shop Tunnel Air Scrubbers - Chrome	N	A
254.	CCAD Plating Shop Tunnel Air Scrubbers - Cyanide	N	A
255.	CCAD Plating Shop Tunnel Air Scrubbers - Miscellaneous A	N	A
256.	CCAD Plating Shop Tunnel Air Scrubbers - Miscellaneous B	N	A
257.	CCAD Container Repair Shop Drain	N	A
258.	CCAD Air Frame Cleaning Shop Painting/Stripping Shop Drain	N	A
259.	CCAD Air Frame Cleaning Shop Steam Cleaning Drain	N	A
260.	CCAD Air Frame Cleaning Shop Corrosion Removal Sump	N	A
261.	CCAD Air Frame Cleaning Shop Chromate Conversion Coating Area Chemical Waste Pit-5DB1B	N	A
262.	CCAD Air Frame Cleanign Shop Chromate Conversion Coating Area Sump - 5DB1C	N	A
263.	CCAD Engine Cleaning Shop Catchment Floors	N	A
264.	CCAD Engine Cleaning Shop Drain	N	A
265.	CCAD Helicopter Paint Shop Drain	N	A
266.	Solvent Recovery Unit - Trichloroethylene	N	A
267.	Solvent Recovery Unit - Varsol	N	A
268.	Conforming Storage Area	Y	A
269.	Triple Rinse Area	N	A

	LIST OF SWMU*	REGULATED BY RCRA** (SUBTITLE C)	STATUS***
270.	Film Processing Waste Collection Unit	N	A
	PBM Waste Collection Units:		
271.	A - Larger Than 10 Mesh Waste Container	N	A
272.	B - Smaller Than 80 Mesh Waste Container	N	A
273.	C - Dust Collection Unit	N	A
274.	CCAD Storm Sewer	N	A
275.	Paint Spray Booth Filter	N	A
276.	Paint Booth	N	A
	Bead Blasting Machine Waste Collection Pan for:		
277.	5DC3A	N	A
278.	Rotary Wing Shop 5DB1H	N	A
279.	Metal Spray Shop 5CB2D	N	A
280.	Tubing & Control Cables Shop 5EC2D	N	A
281.	Hydraulic Shop 5EC3A	N	A
282.	Hydraulic Shop 5DB1B, Unit A	N	A
283.	Hydraulic Shop 5DB1B, Unit B	N	A
284.	5EC2B	N	A
285.	Instrument Shop 5DC3B	N	A
286.	Plating Shop 5CB1A, Unit A	N	A
287.	Plating Shop 5CB1A, Unit B	N	A
288.	Plating Shop 5CB1A, Unit C	N	A
289.	Plating Shop 5CB1A, Unit D	N	A
290.	Cleaning Shop 5CB1C, Unit A	N	A
291.	Cleaning Shop 5CB1C, Unit B	N	A
292.	Cleaning Shop 5CB1C, Unit C	N	A
293.	Cleaning Shop 5CB1C, Unit D	N	A
294.	Cleaning Shop 5CB1C, Unit E	N	A
295.	Transmission Disassembly & Routing Shop 5EB1A, Unit A	N	A
296.	Transmission Disassembly & Routing Shop 5EB1A, Unit B	N	A
297.	Unit A	N	A
298.	Unit B	N	A
299.	Sanitary Sewer Treatment Plant (SSTP) Blower Degritter	N	A
300.	Sanitary Sewer Treatment Plant (SSTP) Primary Clarifier #1	N	A
301.	Sanitary Sewer Treatment Plant (SSTP) Primary Clarifier #2	N	A

	LIST OF SWMU*	REGULATED BY RCRA** (SUBTITLE C)	STATUS***
302.	Sanitary Sewer Treatment Plant (SSTP) Trickling Filter #1	N	A
303.	Sanitary Sewer Treatment Plant (SSTP) Trickling Filter #2	N	A
304.	Sanitary Sewer Treatment Plant (SSTP) Secondary Clarifier #1	N	A
305.	Sanitary Sewer Treatment Plant (SSTP) Secondary Clarifier #2	N	A
306.	Sanitary Sewer Treatment Plant (SSTP) Sludge Digester #1	N	A
307.	Sanitary Sewer Treatment Plant (SSTP) Sludge Digester #2	N	A
308.	Sanitary Sewer Treatment Plant (SSTP) Sludge Digester #3	N	A
309.	Sanitary Sewer Treatment Plant (SSTP) Wastewater Chlorination	N	A
310.	Sanitary Sewer Treatment Plant (SSTP) Sludge Drying Bed #1	N	A
311.	Sanitary Sewer Treatment Plant (SSTP) Sludge Drying Bed #2	N	A
312.	Sanitary Sewer Treatment Plant (SSTP) Sludge Drying Bed #3	N	A
313.	Sanitary Sewer Treatment Plant (SSTP) Sludge Drying Bed #4	N	A
314.	Sanitary Sewer Treatment Plant (SSTP) Sludge Drying Bed #5	N	A
315.	Sanitary Sewer Treatment Plant (SSTP) Sludge Drying Bed #6	N	A
316.	Industrial Waste Pretreatment Plant (IWPP) Acid Wet Well	N	I
317.	Industrial Waste Pretreatment Plant (IWPP) Caustic Wet Well	N	I
318.	Industrial Waste Pretreatment Plant (IWPP) Neutralization Tank	N	I
319.	Industrial Waste Pretreatment Plant (IWPP) Neutralization Tank Manhole	N	I
320.	Industrial Waste Pretreatment Plant (IWPP) Chrome Wet Well	N	A
321.	Industrial Waste Pretreatment Plant (IWPP) Chrome Storage Tank #1	N	A
322.	Industrial Waste Pretreatment Plant (IWPP) Chrome Storage Tank #2	N	A
323.	Industrial Waste Pretreatment Plant (IWPP) Chrome Treatment Reduction Tank	N	A

	LIST OF SWMU*	REGULATED BY RCRA** (SUBTITLE C)	STATUS***
324.	Industrial Waste Pretreatment Plant (IWPP) Chrome Treatment Precipitation Section	N	A
325.	Industrial Waste Pretreatment Plant (IWPP) Chrome Treatment Clarifier	N	A
326.	Industrial Waste Pretreatment Plant (IWPP) Sand Filter	N	A
327.	Industrial Waste Pretreatment Plant (IWPP) Wastewater Storage Tank	N	A
328.	Industrial Waste Pretreatment Plant (IWPP) Wastewater Storage Manhole #1	N	A
329.	Industrial Waste Pretreatment Plant (IWPP) Wastewater Storage Manhole #2	N	A
330.	Industrial Waste Pretreatment Plant (IWPP) Cyanide Wastewater Storage Tank	N	A
331.	Industrial Waste Pretreatment Plant (IWPP) Cyanide Treatment Tank	N	A
332.	Industrial Waste Pretreatment Plant (IWPP) Cyanide Clarifier	N	A
333.	Industrial Waste Pretreatment Plant (IWPP) Filter Press	N	A
333A.	Industrial Waste Pretreatment Plant (IWPP) Cyanide Water Storage Tank	N	A
333B.	Industrial Waste Pretreatment Plant Sludge Storage Area	N	A
334.	Industrial Waste Treatment Plant (IWTP) Lift Section #1	N	A
335.	Industrial Waste Treatment Plant (IWTP) Lift Section #2	N	A
336.	Industrial Waste Treatment Plant (IWTP) Wastewater Spill Containment Tank	N	A
337.	Industrial Waste Treatment Plant (IWTP) Batch Phenol Destruction Unit	N	I
338.	Industrial Waste Treatment Plant (IWTP) Batch Cyanide Destruction Unit	N	I
339.	Industrial Waste Treatment Plant (IWTP) Aerated Grit Chamber	N	A
340.	Industrial Waste Treatment Plant (IWTP) Grit Storage in Drums	N	I
341.	Industrial Waste Treatment Plant (IWTP) Equalization Tank	N	A
342.	Industrial Waste Treatment Plant (IWTP) Wastewater Storage Tank	N	A
343.	Industrial Waste Treatment Plant (IWTP) Contact Chamber	N	A
344.	Industrial Waste Treatment Plant (IWTP) Reaeration Chamber	N	A
345.	Industrial Waste Treatment Plant (IWTP) Clarifier	N	A

LIST OF SWMU*	REGULATED BY RCRA** (SUBTITLE C)	STATUS***
346. Chlorine Contact Chamber	N	A
347. Aerobic Digester	N	A
348. Oil Concentrator	N	I
348A. Oil Storage Area	N	A
349. Sludge Drying Bed #1	Y	A
350. Sludge Drying Bed #2	Y	A
351. Sludge Drying Bed #3	Y	A
352. Sludge Drying Bed #4	Y	A
353. Sludge Drying Bed #5	Y	A
354. Sludge Drying Bed #6	Y	A
355. Low-Level Radioactive Waste Storage Area	N	A
356. Waste Collection Area	N	A

2. AREA(s) OF CONCERN

LIST OF AOC

1. Tank #216-A-1
2. Tank #216-A-2
3. Tank #216-A-6
4. Tank #216-A-7
5. Tank #216-A-10
6. Tank #216-A-11
7. Tank #111
8. Tank #62
9. Tank #290
10. Tank #1244
11. Tank #1153-A-1
12. Tank #1153-A-2
13. Tank #1153-A-3
14. Tank #1234
15. Tank #1238
16. Tank #1263-4
17. Tank #1263-5
18. Tank #1263-6
19. Tank #1282
20. Tank #1804
21. Tank #1729
22. Tank #1828-1
23. Tank #1828-2
24. Tank #H-100-0
25. Tank #H-100-1
26. Tank #H-100-2
27. Tank #W-1
28. Tank #10-1
29. Abandoned Aboveground Tank Farm

B. NUMBER SWMU(s) TO BE INCLUDED IN THE RFI: 125
(Except RCRA units subject to Subpart F refer to Section E)

1. NUMBER OF SWMU(s) AT WHICH RELEASES HAVE BEEN IDENTIFIED: 48

LIST OF SWMU	RELEASE TO	NOTED DOCUMENTATION
1. DPDO Landfill	Soil/GW	Monitor wells have detected the presence of lead, chromium, and volatile organics in the groundwater. The unit is unlined in permeable sand. Between 2000 and 5000 gallons per week of bulk chemical wastes were dumped in this unit.
2. CCAD Liquid Waste Disposal Area	Soil/GW	Six to thirty inches of hydrocarbons were found floating above the water table when the monitor wells were sampled. Organics, chromium, and lead were found in soil samples. Bulk chemical wastes consisting of solvents, acids, paint thinner, and plating wastes were disposed of here at a rate of 2000-5000 gallons per week.
9. North Gate Disposal Area	Soil/GW	Tests of soil and groundwater samples have detected the presence of organics, lead, and chromium. An unknown number of unlined pits in this area were used to dispose of liquid wastes from engine repair and metal plating shops. The soil is very permeable and the water table is quite shallow.
12-47. Tank Farm 216	Soil/GW	In the early 1980's, a mound of fuel was found floating on top of the groundwater under Tank Farm 216. As much as 20 million gallons of fuel are unaccounted for over a 40-year period. The underground tanks have been abandoned in place. They were filled with sand and cement, but some fuel and bottom sludge remains in the tanks. Remedial action has begun in the form of several recovery wells. About 2720 gallons of fuel have been recovered to date.

54-61. Tank Farm Tank Farm 217	Soil/GW	From 1977 through 1980, a total of 7000 gallons of fuel is known to have been released. The tanks were installed in 1940, and abandoned between 1982 and 1987. They were filled with sand and cement, but some fuel and sludge remains in the tanks.
274. CCAD Storm Sewer	Soil/GW/ Surface Water	A release of waste oil through the storm sewer was documented in 1984. Prior to construction of the WWTP, the sewer was used to discharge industrial waste to Corpus Christi Bay. The sewer is buried from 4 to 8 feet below the ground surface and has been in operation since the 1940's. The structural integrity of the sewer needs verification. At the time of the VSI, a thick white foam was observed floating on the water at the point of discharge.

2. NUMBER OF SWMU(s) AT WHICH A RELEASE IS HIGHLY POSSIBLE: 43

LIST OF SWMU	RELEASE TO	NOTED DOCUMENTATION
4. Aircraft Fire Training Area	Soil/GW	Waste oil and fuel are poured upon the ground and burned to provide training for fire fighters. This activity started in the early 1960's on bare ground. In 1973, a clay liner with berms was installed. About 3000 gallons of fuel per month have been poured upon the ground. The underlying soil is very permeable, so releases to the soil/GW are probable, especially before 1973. This unit lies above part of SWMU #3 (NASCC Landfill), so the solid waste may be contaminated.
48-53. Tank Farm 216 A	Soil/GW	These units are underground storage tanks installed during the 1940's and used until they were abandoned between 1975 and 1986. The tanks held jet fuel and gasoline, some of which remains in the abandoned tanks. The surrounding soil is very permeable and groundwater is at a shallow depth. No groundwater monitoring is conducted.

62-69.	Tank Farm 244	Soil/GW Surface Water	These units are underground fuel storage tanks that were in service from the early 1940's to 1973 when they were abandoned by being filled with sand. The tanks held aviation fuel, some of which remains in the tanks. Because of permeable soil, proximity to surface water, and shallow groundwater, vulnerable media include: soil, surface water, and groundwater.
70-86.	Various UST's	Soil/GW Surface Water	Most of these underground tanks date from the 1940's, although a few are less than 10 years old. All are now abandoned by filling with sand and cement, or temporarily out-of-service. They held various fuels, some of which are still in the tanks. None of the tanks have modern release controls or secondary containment, so even the newer ones need testing for structural integrity. Releases to media are possible because of permeable soil, nearness to surface water, and shallow groundwater.
310-315.	SSTP Sludge Drying Beds	Soil/GW	These six surface impoundments have concrete walls, but are open to highly permeable sands on the bottom. The contaminants in the sludge include organics from the sanitary waste plant, and metallic wastes from the IWTP that are routed through the SSTP.
334-348.	Industrial Waste Treatment Plant	Soil/GW	This unit manages acids, caustics, and metallic wastes from the plating shop, engine repair, and airframe stripping areas. At times in the past, over-flooding occurred by stormwater from the sewers. Thus, hazardous releases may have occurred to the surface, soil, and groundwater.

3. NUMBER OF SWMU(s) WHERE A DETERMINATION OF RELEASE CANNOT BE MADE DUE TO LACK OF INFORMATION: 34

LIST OF SWMU	RATIONALE
10. Radioactive Waste Disposal Area	This is a small unit consisting of a 24" concrete pipe buried in the ground. Radioactive isotopes of krypton and Cesium were disposed of in this unit. Unknown wastes from the CCAD were also disposed of here. Thus, the material may be a mixed hazardous waste. The unit was operational during the 1950's, but its exact location is no longer known. Efforts to find it have so far failed.
183. DRMO Storage Area	This unit is used to temporarily store a large variety of waste material and used equipment derived from operations at the NAS. The material included waste oils, solvents, paints, PCB and non-PCB electrical equipment, scrap metal, and construction equipment. The material is placed on bare ground, asphalt, grass, and concrete. Some is covered and some is not. No groundwater monitoring is conducted. Because of the variety of material and management methods, more investigation is needed.
196. Hospital Low-Level Radioactive Waste Storage Bins	This unit consists of two storage bins that collect about one cubic foot per month of low-level radioactive wastes and some other material. The other material may include hazardous constituents according to the VSI. The unit is currently regulated by the Nuclear Regulatory Commission. The bins are inside a building on a concrete floor, so the potential for release may be low. However, the nature of the other waste material needs to be investigated.
244. CCAD Plating Shop Floor Drains	These drains exit the floor of the plating shop and extend underground to the Chrome Tunnel. The wastes carried include various acids, metallic solutions, cyanide compounds, and organics. Thus, if a leak exists in these underground drains, the potential for a hazardous release is very high. The integrity of these drains needs to be investigated.

245. CCAD Plating Shop Chrome Tunnel	This is an underground tunnel that extends beneath the plating shop for about 90 feet. The tunnel collects all waste from floor drains and also the air exhaust from chrome processes. The walls of the tunnel are reportedly one foot thick and covered with corrosion resistant material. Still, the unit is about 15 years old and has carried a lot of highly corrosive liquids. Its structural integrity needs to be investigated.
247. CCAD Plating Shop Miscellaneous Tunnel	This underground tunnel also lies beneath the plating shop and carries chrome process rinse water and air exhaust from associated acidic and caustic sources. The floor of the tunnel is one foot thick concrete and all surfaces are coated with corrosion resistant epoxy. Still, the structural integrity of the tunnel needs investigation.
257-259, 264, 265. Manhole Drains from Various CCAD Shops	These units are 12" diameter cement drains that carry various waste material underground to sewers. The wastes include organics, paint residue, and used oil. Some of these units or the associated sumps may have been examined by a TV camera. Because of their age and inaccessibility, the drains need investigation for structural integrity.
277-298. Bead Blasting Machine Waste Collection Pans	These pans collect glass or plastic blasting beads used to clean airframes and other equipment. Some of the waste is low-level radioactive, and is regulated by NRC. The remainder includes metallic wastes, grease and other organics. The VSI states that the method of disposal for the non-radioactive material is not known. An investigation to identify the various wastes and their disposal methods is needed.
355. Low-Level Radioactive Waste Storage Building	The unit temporarily stores radioactive waste until it is disposed of at an off-site facility. Included wastes resulting from cleaning equipment by bead blasting operations may be EP Toxic. Tests are currently being made to determine the presence of EP Toxic material. The status of this unit needs to be re-examined based on these tests.

C. NUMBER OF SWMU(s) FOR WHICH AN RFI IS NOT RECOMMENDED: 197

LIST OF SWMU	RATIONALE
3, 5-8. Solid Waste Landfills	These units were used to dispose of municipal garbage, construction debris, scrap metal, glass, and automobile tires. Part of SWMU #3 is overlain by SWMU #4. That part of SWMU #3 should be investigated with the RFI for SWMU #4. Some potential exists for subsurface gas formation because of the biodegradable nature of garbage, but time has reduced this concern.
11. Fire Fighting Training Waste Fuel Tank	This is an above ground steel tank used to store waste oil and fuel for fire fighting training. The tank is about 30 years old, but in good condition. There was no evidence of spills or leaks at the time of the VSI.
87-139, 142-156, 160-166, 168-176, 179-182, 184-195, 197-201, 270	These units are satellite accumulation areas located inside various buildings, used for temporary storage. Most units are 55-gallon steel drums, some are smaller plastic containers. All are sitting on metal or wooden pallets that are resting on concrete floors. The wastes include solvents, antifreeze, waste oil, paint, glass and plastic beads, and hydraulic fluid. The units are frequently monitored and good housekeeping is maintained.
140. OMD Shop Wash Rack	This unit is a 120-foot square concrete paved area with four-inch curbs. A drain leads to the Sanitary Sewer Treatment Plant. The waste water contains oil and grease washed from equipment brought to the rack. About 200 gallons of waste water is produced daily. Releases to media are prevented by the concrete floor and curbs, and by the drain that channels the water to the SSTP.
141. ALMO Former Storage Bowser Building 51	This unit was a 150-gallon steel tank that was operational from 1954 to 1968. The tank collected waste oil which was disposed of off-site about every six months when the tank became full. The tank sat outside on a concrete pad. No releases were reported and no evidence of a release could be seen during the VSI.
157. PCB Storage (Bldg. #1104)	This is a metal framed building with curbs around the edge of a concrete floor. At the time of the VSI, 5 capacitors, 6 drums of PCB-contaminated oil, and four transformers were

	in storage. The building is inspected monthly, a tracking log is kept on each item, an a spill pit of concrete is located in the concrete floor.
158-159. Asbestos Storage Bldgs 1102 and 1103	These are metal framed building with curbs around the edge of the concrete floors that were used from 1985 to 1986. Asbestos wastes such as clutch and brake linings were temporarily stored here. The asbestos was placed in containers inside the buildings on concrete floors.
167. Incinerator PWD	This was a blacksmith's furnace used until the 1970's to burn waste oil and electrical motor windings. The unit is 4 feet in diameter and 3 feet deep. It sits outside on a concrete pad. No evidence of a release was reported or observed during the VSI.
177. PWD Garage Asbestos Waste Storage Area	This unit is an enclosed container located on a concrete floor inside a building. About 10 bags of asbestos are accumulated each month and then disposed of off-site. No evidence of a release was reported or seen at the VSI.
178. PWD Former Waste Battery Storage Area	This area was located inside a building on a concrete floor and was discontinued in 1987. Waste batteries were stored here temporarily until disposal off-site. No evidence of a release was reported or observed at the VSI.
202-204. Inactive Satellite Accumulation Areas Near Bldgs 85, 1113, 1744	These were 55-gallon drums located outdoors on concrete pads near the cited buildings. They temporarily accumulated waste oil, grit, and sludge and have been unused since 1986. No evidence of a release was reported or seen at the VSI.
225-226. CCAD Plating Shop Chrome and Cyanide Waste Lines	These units collect rinse water from chrome and cyanide operations in the plating shop. The lines are in the basement of a building with a concrete floor beneath them.
227-239. CCAD Plating Shop Cyanide Tank Catch Basins	These are fiberglass basins measuring in feet: 3 x 3 x 2. They are placed beneath and between the cyanide process tanks to collect drips and spills. The basins are inside a building on a concrete floor with curbs around the cyanide process area. No evidence of a release was reported or observed during the VSI.

240. CCAD Plating Shop Cyanide Rinse Sump Tank	This is a 1200-gallon plastic tank located in the basement of the plating shop on a concrete floor. The tank collects cyanide rinsate from the Cyanide Waste Line. No releases from this unit have been reported.
241-243. CCAD Plating Shop Rinse Waste Lines for Caustic, Acidic, and Miscellaneous Wastewater	These are schedule 80 PVC pipelines that transfer wastewater from the plating shop to the IWPP (241 and 242) or to the IWTP (243). The lines are in the basement of a building over a concrete floor. No releases have been reported from this unit.
246. CCAD Plating Shop Chrome Tunnel Sump	This sump is located in the floor of the basement of the plating shop and collects spill in the plating shop. The contents are pumped out to the Chrome Waste Line outside of the shop. No releases have been reported. The unit is surrounded by concrete and is frequently inspected.
248-252. CCAD Plating Shop Vapor Degreaser Sumps	These are five concrete lined pits in the concrete floor of the basement of the plating shop. They collect spillage from the vapor degreasers. The waste is primarily 1, 1, Trichloroethane. Two of the pits are now inactive. The concrete construction makes a release improbable. They are open so they can be easily inspected. No releases have been reported.
253-256. CCAD Plating Shop Tunnel Air Scrubbers	These are four scrubbers attached to the venting system of the CCAD plating shop. They are constructed of fiberglass and designed to remove particulates from the air stream. The scrubbers are enclosed within tunnels so the possibility of a release is small. There have been no reports of a release.
260. CCAD Air Frame Cleaning Shop Corrosion Removal Sump	This is an open concrete lined pit in the concrete floor of the air frame cleaning shop. It collects spills of mostly phosphoric acid from the corrosion removal process. It is open and so can be easily inspected. The concrete construction makes releases improbable. There are no reports of any releases.
261, 262. CCAD Air Frame Cleaning Shop Chromate Process Sumps	These sumps are concrete lined pits in the concrete-floored basement of the air frame cleaning shop. They collect spills of chromic acid from the chromate process. The sump contents are regularly transferred to the Industrial Wastewater Pretreatment Plant. The pits are open and can be easily inspected.

263. CCAD Engine Cleaning Shop Catchment Floors	This is a concrete floor beneath the hot and cold process lines of the engine cleaning shop. The waste consists of washwater contaminated with oil and grease from the engines. Drains in the floor channel the washwater to the Industrial Waste Sewer. No releases have been reported and none were observed at the VSI.
266, 267. Solvent Recovery Unit	This is a distillation unit used to recover solvents from a sludge. It sits outside on a concrete platform with curbs to collect any spills. The solvent is contained in storage tanks within the curbed area. The remaining sludge is disposed of off-site. No past releases are reported and none were observed at the VSI.
269. Empty Drum Triple Rinse Area	This is a concrete sump about 3 feet in diameter and 2 feet deep. It is located outdoors, but does have a roof to keep out rainfall. The drum washwater contains solvents, oil, and grease. A concrete platform around the sump is curbed to prevent releases to environmental media.
271-273. Plastic Media Blasting Waste Collection Units	These are three 55-gallon drums used to collect the debris and plastic beads resulting from a plastic bead blasting cleaning process. The drums are inside a building on a concrete floor. The waste is discharged directly onto the drums. No past releases were reported and none were observed at the VSI.
275. Paint Spray Booth Filter	This filter collects airborne paint waste in the spray booth. About one barrel of paint waste per year is generated. The unit sits inside a building on a concrete floor. No releases have been reported and none were seen at the VSI.
276. Paint Booth Filter in Hanger 55	This unit filters the exhaust from the paint booth in Hanger 55. Particulates of toxic metals and paint residue are collected from the exhaust air. The unit is inside a building with a concrete floor beneath. No releases have been reported and none were observed at the VSI.
299-309. Sanitary Sewer Treatment Plant Units	This is the domestic sewage treatment plant for the Corpus Christi Naval Air Station. It consists of Clarifiers, Trickling Filters, Sludge Digesters, and a Chlorination Chamber.

	The plant has been in operation since the 1940's. Recently, effluent from the Industrial Wastewater Treatment Plant has been routed to the SSTP to provide one more level of treatment for that material. Thus, hazardous substances, if any, would be in low concentration in this unit. No releases have been reported and none were seen at the VSI.
316-333B. Industrial Waste Pretreatment Plant (IWPP)	This wastewater treatment plant handles only wastes from the CCAD Plating Shop. The wastes handled include strong acids and bases, chromates, and cyanides. Each waste treatment process is contained in a well-maintained tank. The transfer lines and pumps are in good repair. Each tank or component sits on a concrete pad that is curbed to prevent spills. The facility looks in good order. No releases have been reported and none were observed at the VSI.
356. Waste Collection Containers	About 400 of these 40-80 cubic foot metal containers are scattered about the air station. They rest upon concrete or asphalt and collect only non-hazardous waste. The waste includes construction debris, office paper trash, brush, and grass cuttings. The contents are taken by a private contractor to an off-site facility.

D. SUPPLEMENTAL INFORMATION ON RCRA REGULATED UNITS: 6
(Describe any problems identified or suspected from regulated units including identified releases to groundwater)

LIST OF SWMU	CONCERNS
349-354. IWTP Sludge Drying Beds	Sludges from the Industrial Waste Treatment Plant are dewatered in these units. The drying beds are underlain by permeable sandy soil and groundwater is very shallow. The sludge exhibits low concentrations of EP Toxic metals and is disposed of off-site after dewatering. Groundwater is monitored by wells in the vicinity. The RFA states that a closure plan was approved for these units by the Texas Water Commission in March 1988. In telephone conversations, however, Charles Mauk and Phillip Winsborough of TWC were not aware of that closure plan approval. They are investigating the situation. The concern is the possible accumulation of EP Toxic metals in the underlying soil and groundwater. It is not clear from the closure plan and monitoring program that this possible accumulation of metals has been considered. It is strongly suggested that this concern be addressed in closure procedures.

II. FINDINGS

A. RECOMMENDATIONS: (EPA, STATE and/or CONTRACTOR)

It is recommended that a RCRA Facility Investigation (RFI) be conducted to include all of the units in parts B-1, 2, and 3. The total number of units in this category is 125. Several units are included here that were not recommended by the contractor. The difference is primarily in the treatment of floor drains and underground tunnels that transmit wastewater from the plating and painting shops to the Industrial Wastewater Treatment Plant. The contractor felt that because of their concrete construction, and because a TV camera survey was conducted in the tunnels, there is no need for further action. The age of the units (as much as 40 years) and the toxicity of the wastewater, however, could have caused subtle damage not easily detected. A thorough analysis is therefore recommended in the form of an RFI.

B. ADDITIONAL COMMENTS:

The sludge drying beds associated with the Industrial Wastewater Treatment Plant are slated for closure. These are listed in the RFA as RCRA regulated units. There seems to be some confusion between the contractor and TWC about the terms and time frames of the closure plan. The contractor says a closure plan was approved in March 1988, but in telephone conversations, TWC was not aware of such an approval. There is also a question about proper testing of soil and groundwater beneath the units. TWC is now investigating to determine if additional action is needed to properly close the units.

CONCUR: Bill Lutton DATE: 2/16/89

27 DEC 19

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VI
1445 ROSS AVENUE, SUITE 1200
DALLAS, TEXAS 75202

183
1833*
*PBM
your thoughts on contents
GB 12/27

December 21, 1988

Mr. G.W. Brubeck
CDR, CEC, USN
Public Works Officer
Department of the Navy
Naval Air Station
Corpus Christi, Texas 78419-5000

Dear Mr. Brubeck:

This in response to your Freedom of Information Act request number (6)RIN 2253-88. We are enclosing requested copies.

Pursuant to 40 CFR, Part 2, Section 2.120, there will be no fee charged for providing the enclosed information.

If you have any questions, please contact Karen Smith, of my staff, at (214) 655-6750.

Sincerely yours,

Donna M. Ascenzi

Donna M. Ascenzi
Chief
Information Management Section

Enclosure

23 DEC 1988 12 37

RCRA FACILITY ASSESSMENT

PR/VSI REPORT

Naval Air Station
Corpus Christi, Texas

EPA I.D. No. TX7170022787

DRAFT FINAL REPORT

Prepared for:

U.S. Environmental Protection Agency
Region VI
1445 Ross Avenue
Dallas, Texas 75202

Prepared by:

A.T. Kearney, Inc.
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Chicago, Illinois 60606

EPA Contract No. 68-01-7374
Work Assignment No. R26-05-42

August 1988

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HAZARDOUS WASTE COMPLIA
TECHNICAL SECTION

DISCLAIMER

This report was prepared for the U.S. Environmental Protection Agency, Region VI (EPA) by A.T. Kearney, Inc. in fulfillment of Contract No. 68-01-7374, Work/Project Assignment No. R26-05-42. The opinions, findings, and conclusions expressed herein are those of the contractor and not necessarily those of the EPA or other cooperating agencies. Mention of company or product names is not to be considered an endorsement by the EPA.

This document is intended to assist EPA and State personnel in exercising the discretion conferred by regulation in developing requirements for an owner/operator to conduct the RCRA Facility Investigation (RFI) pursuant to 40 CFR 264. EPA will not necessarily limit RFI or other requirements to those that correspond with the recommendations set forth herein. EPA and State personnel must exercise their technical judgment in using the RCRA Facility Assessment report as well as other relevant information in determining what RFI or other requirements to include in a permit or an order.

NAVAL AIR STATION
CORPUS CHRISTI, TEXAS

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NAVAL AIR STATION
CORPUS CHRISTI, TEXAS

PR/VSI REPORT

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1.0 INTRODUCTION

This section of the PR/VSI report covers the purpose and scope of the RFA program. The contents of the other report sections are also described.

1.1 Purpose and Scope of the RFA Program

The 1984 Hazardous and Solid Waste Amendments (HSWA) to RCRA provides new authority to EPA to require comprehensive corrective actions on solid waste management units (SWMUs) and other areas of concern at interim status hazardous waste management facilities, particularly those applying for RCRA permits. These corrective actions are intended to address unregulated releases of hazardous constituents to air, surface water, soil and groundwater, as well as the generation of subsurface gas.

One of the major segments of EPA's corrective action program consists of RCRA Facility Assessments (RFAs) to identify releases or potential releases requiring further investigation. According to EPA's RCRA Facility Assessment Guidance Document, the four purposes of an RFA are to:

1. Identify and gather information on releases at RCRA-regulated facilities;
2. Evaluate solid waste management units and other areas of concern for releases to all media, and regulated units for releases other than to groundwater;
3. Make preliminary determinations regarding releases of concern and the need for further actions and interim measures at the facility; and
4. Screen from further investigation those SWMUs which do not pose a threat to human health and the environment.

The three basic steps of an RFA consist of a preliminary review (PR) of available information, a visual site inspection (VSI) to obtain additional information on releases, and a sampling visit when warranted to fill data gaps by obtaining field and analytical data.

1.2 Contents of this Report

This report presents the results of the PR and VSI of Naval Air Station (NAS) Facility, Corpus Christi, Texas. The principal sources of information used in conducting the PR included numerous studies commissioned by the facility, schematic plans of the facility's sump and tank locations, and treatment, storage and disposal locations, Hazardous Waste Generator forms submitted to the EPA, and other information. Some of these documents were obtained during a search of relevant files at the EPA Regional Office in Dallas and the Texas Water Commission; copies of a substantial number of studies commissioned by the facility were provided by NAS subsequent to the VSI.

The VSI was conducted on May 24-27, 1988. NAS representatives conducting the site inspection included Robert Stender, Environmental Coordinator, Irene Blackledge and Juan Montes, Environmental Staff, and Vic Verma, Corpus Christi Army Depot Environmental Coordinator. Additional facility representatives were present for an initial briefing and during the debriefing at the conclusion of the VSI. These included Commander Greg Brubeck (Civil Engineering Corps), Captain W. Hood (Commanding Officer of the NAS), Colonel Jerry Wade (Acting Commander CCAD), Lt. Colonel

Darrell Chancellor (Executive Officer CCAD), Leo Farias (Chief of Environmental Engineering Branch), and Mario Lopez (Chief Facilities Engineering Division).

Section 2.0 of this report contains a description of the NAS facility, including its historical and current operations. Individual SWMUs also are identified in Section 2.0, along with a summary description of the wastes managed by the facility. Section 3.0 provides an overview of the environmental setting at the facility, comprising meteorology and climate, floodplain and surface water, geology and soils, groundwater, and receptor information. In Section 4.0, a broad assessment of release pathways is made, covering the potential for releases to soil, groundwater, surface water and air. Section 5.0 contains detailed discussions of each SWMU, while Section 6.0 covers other areas of concern (i.e., releases from active underground storage tanks and production areas, spills, and evidence of contamination of unknown origin). Section 7.0 provides conclusions and recommendations, and Section 8.0 provides a list of references. The VSI photograph log and the field log are presented as appendices to the report.

2.0 FACILITY DESCRIPTION

2.1 Location

The Naval Air Station (NAS) Corpus Christi is located on State Route 358, Naval Station Drive, three miles south of the city of Corpus Christi, in Nueces County, Texas. The facility is situated on the Encinal Peninsula on the Gulf of Mexico, with Laguna Madre on the east, Corpus Christi Bay on the north, and Cayo del Oso Bay on the west (see Exhibit 2.1). The latitude and longitude are 27°42'00"N and 97°17'00"W, respectively. The facility occupies approximately 2,340 acres (References 2, 47 and 58).

2.2 Historical and Current Operations

NAS Corpus Christi was constructed between 1940 and 1941 as a training center for naval aviators. Since that time, the facility has grown and evolved through several phases with new construction and subsequent shutdown, reflecting the fluctuating demands of war and peace time. In the present day, the air station provides maintenance and logistical support of aviation activities. Maintenance of the aircraft includes metal plating, engine cleaning and frame cleaning. Fuel and ordnance are stored at the facility (Reference 2).

2.3 Identification of Solid Waste Management Units

Three hundred sixty solid waste management units (SWMUs) have been identified at the NAS facility as a result of the PR and VSI. Three hundred forty-five of these units are active; fifteen are inactive units.

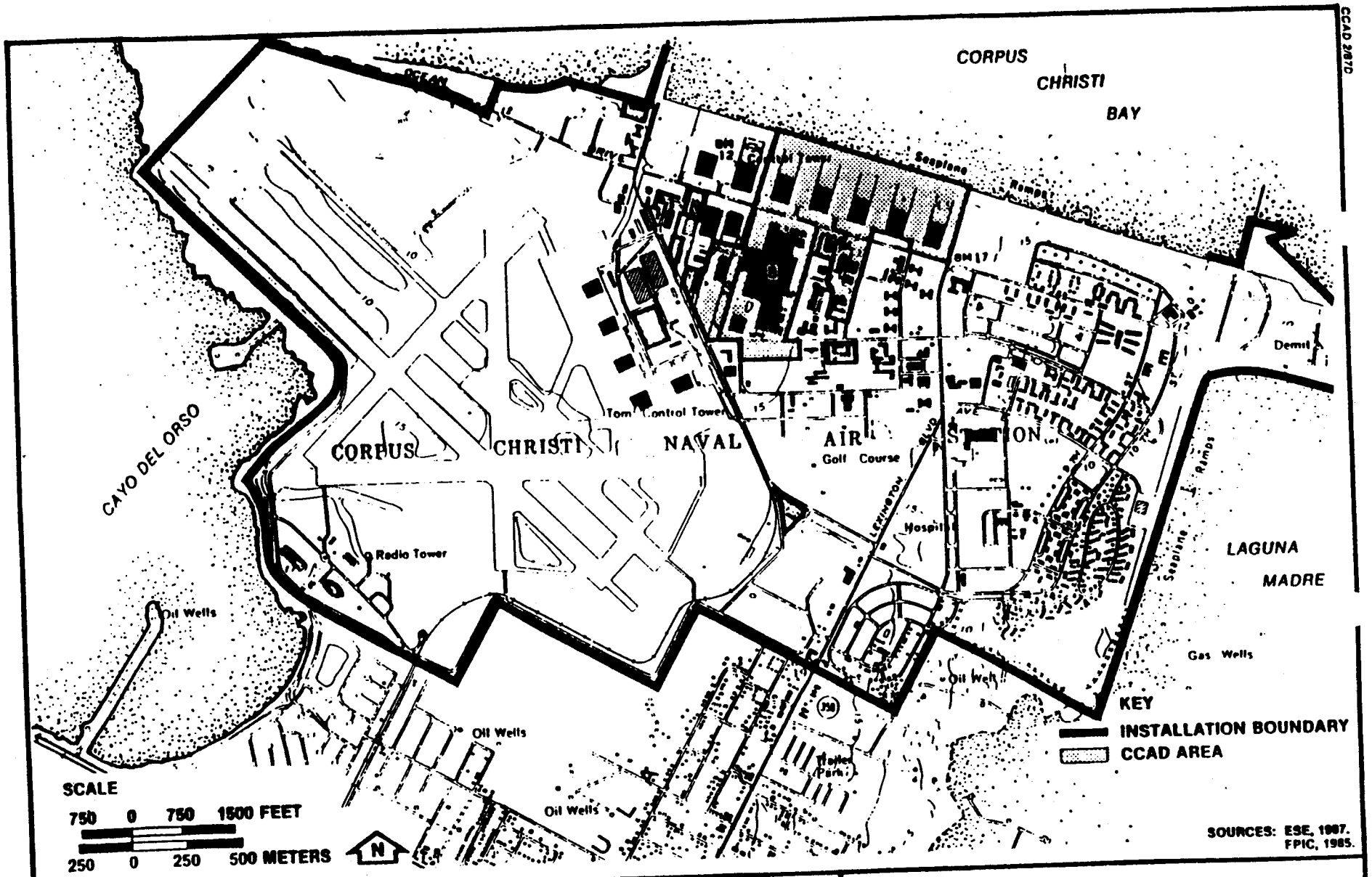


Exhibit 2.1
Site Location Map-NAS Corpus Christi
Source: Reference 90

Prepared for:
U.S. Army Toxic and Hazardous Materials Agency
Aberdeen Proving Ground, Maryland

CCAD 2/87D

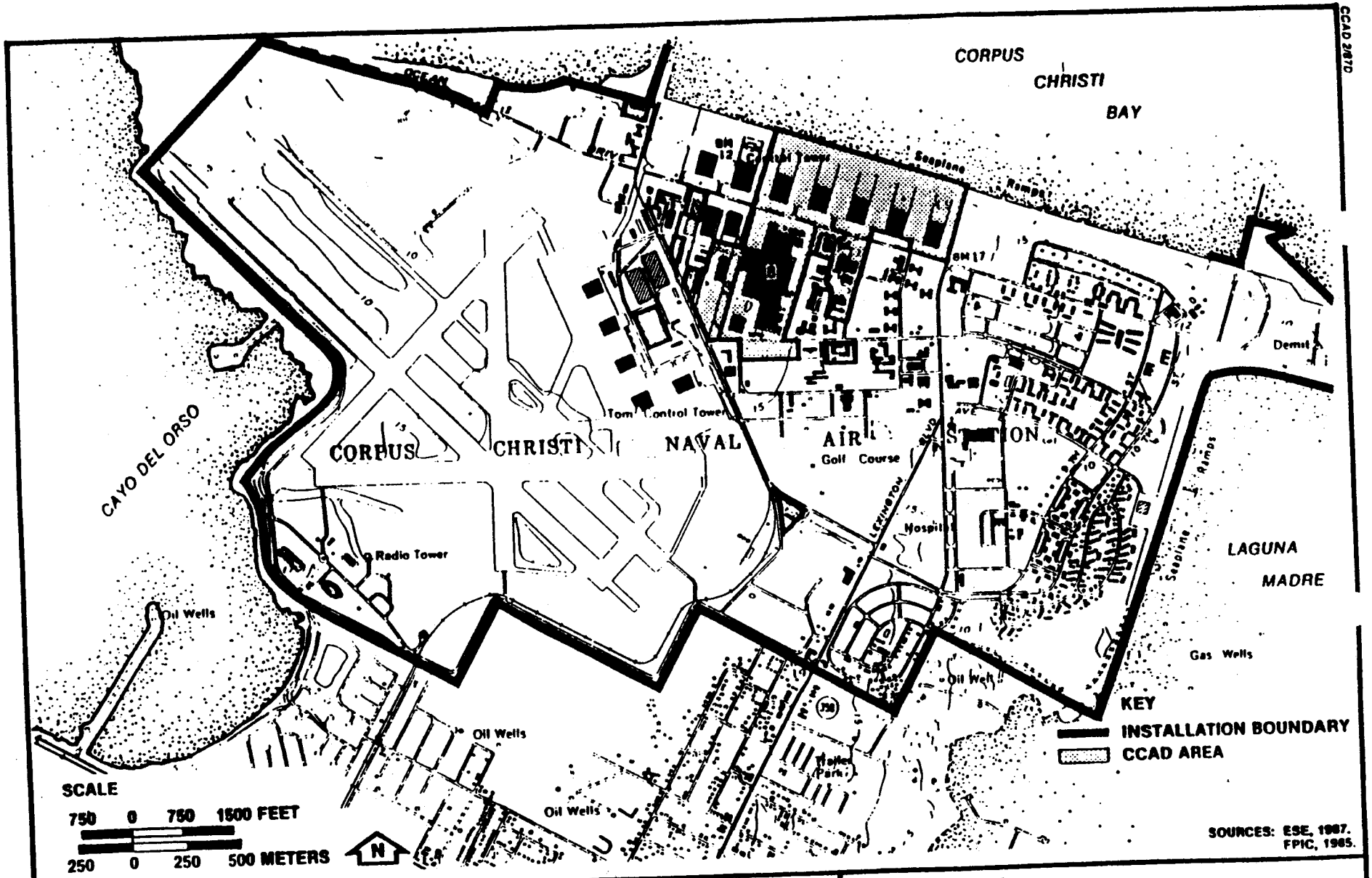


Exhibit 2.1
Site Location Map-NAS Corpus Christi
Reference 90

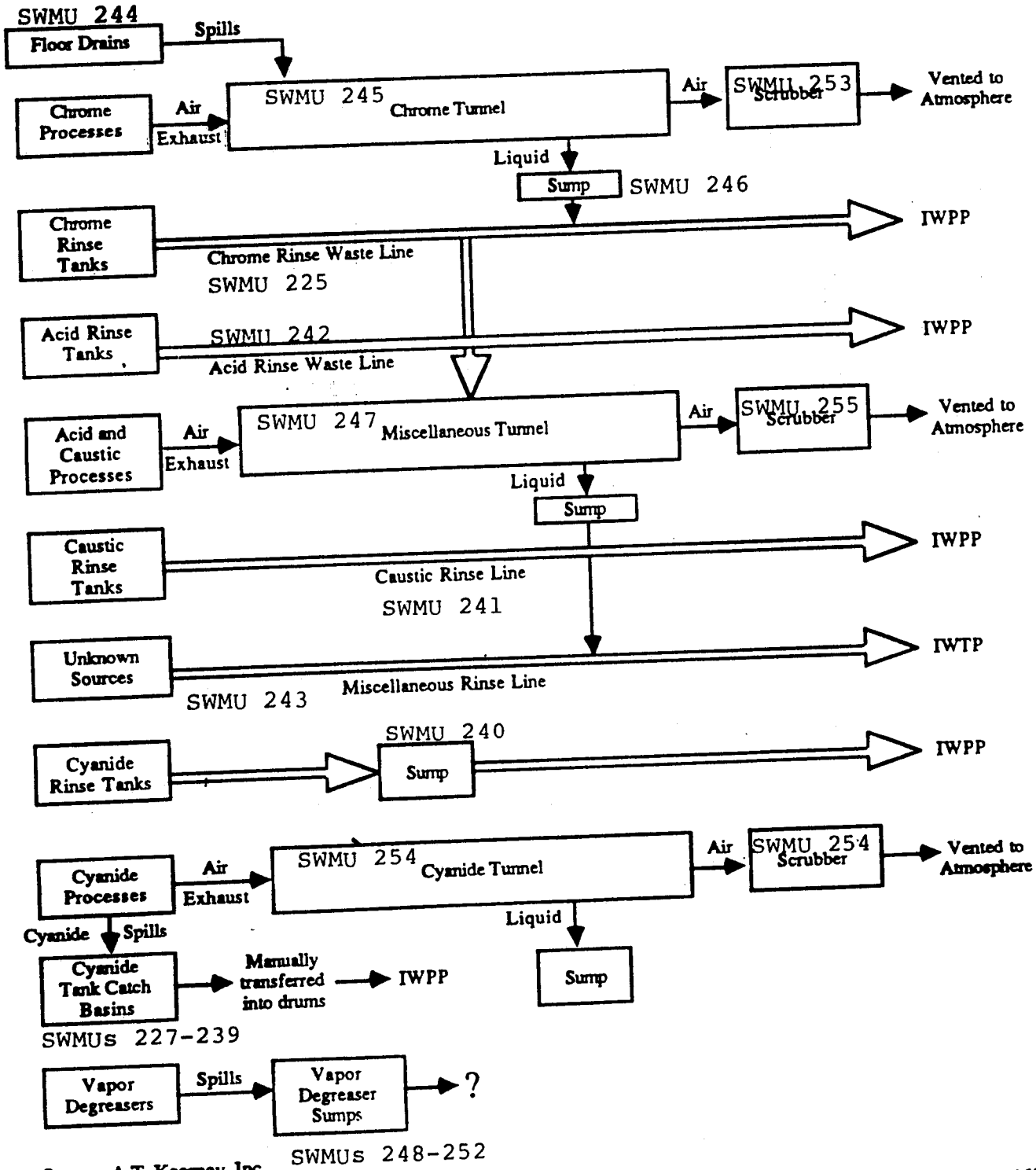
Prepared for:
U.S. Army Toxic and Hazardous Materials Agency
Aberdeen Proving Ground, Maryland

NAS has used various types of units to dispose of wastewater and other wastes generated during the Corpus Christi Army Depot (CCAD) and Navy operations over the years. Operations at NAS are divided into many small buildings. Each building has its own associated waste management units. All waste generated on the base is managed through the Defense Reutilization and Marketing Office (DRMO). Wastes are accumulated in 55-gallon drums at waste generation locations on the base. These waste accumulation areas are called Satellite Accumulation Areas. Waste from the Satellite Accumulation Area is transferred to Temporary Storage Areas which are less than 90 day storage facilities. The wastes from the Temporary Storage Areas are either disposed through DRMO or stored in the Conforming Storage Area prior to disposal. The Conforming Storage Area is a RCRA permitted unit where waste can be stored for more than 90 days.

Exhibit 2.2 identifies the location of all SWMU numbers. Exhibit 2.3 is a blow-up of CCAD Building 8 showing the location of all CCAD Satellite Accumulation Area (SWMU Nos. 87 to 133). Exhibit 2.4 depicts a schematic flow diagram for the Plating Shop waste process in the CCAD (SWMU Nos. 225 to 256). Exhibit 2.5 depicts a schematic flow diagram of Sanitary Sewage Treatment Plant (SWMU Nos. 299 to 315). Exhibit 2.6 depicts a schematic of Industrial Waste Pretreatment (IWPP) (SWMU Nos. 316 to 333B), and Exhibit 2.7 depicts a schematic diagram of the Industrial Waste Treatment Plant (SWMU Nos. 334 to 354). SWMUs identified at the facility and their general locations are listed in Exhibit 2.8.

Exhibit 2.4

CCAD Plating Shop Waste Processes Schematic



Source: A.T. Kearney, Inc.
Reference 109

1686/01 c

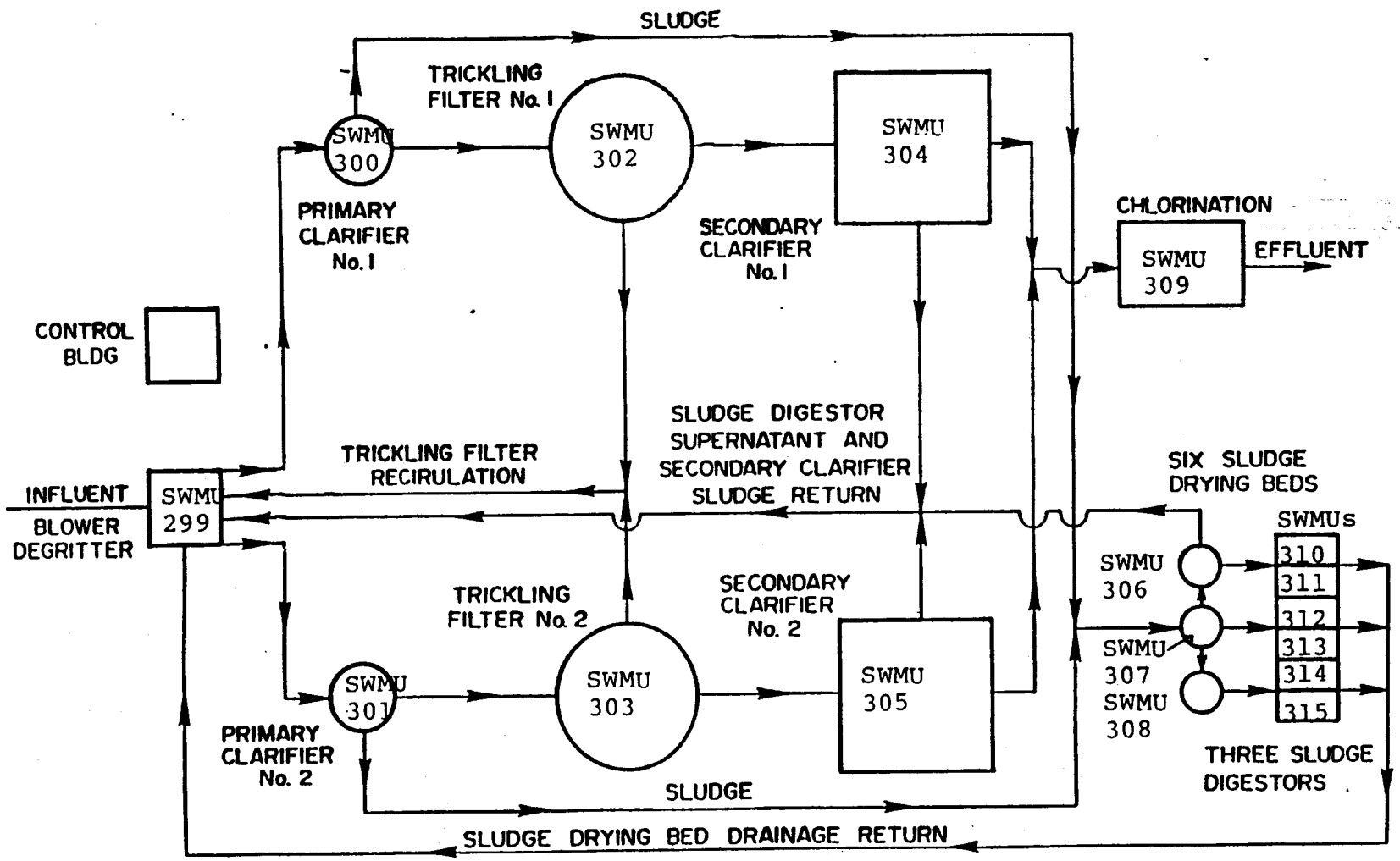


Exhibit 2.5
Schematic Flow-diagram of Sanitary Sewer Treatment Plant.(SWMU # 299 to 315)
Source: Reference 2

INITIAL ASSESSMENT STUDY
NAVAL AIR STATION
CORPUS CHRISTI

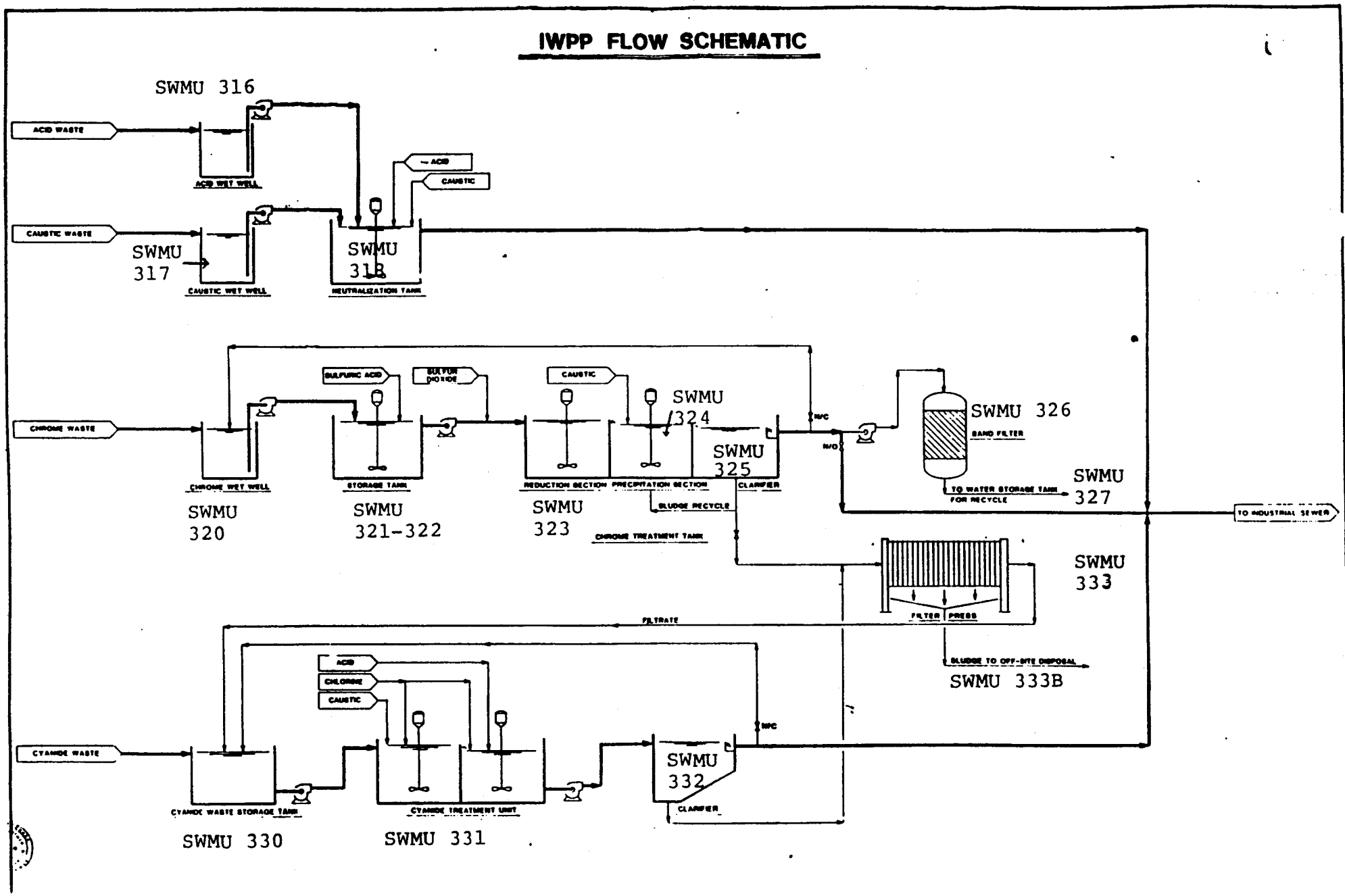


Exhibit 2.6
[illegible] Industrial Waste Pretreatment Plant.

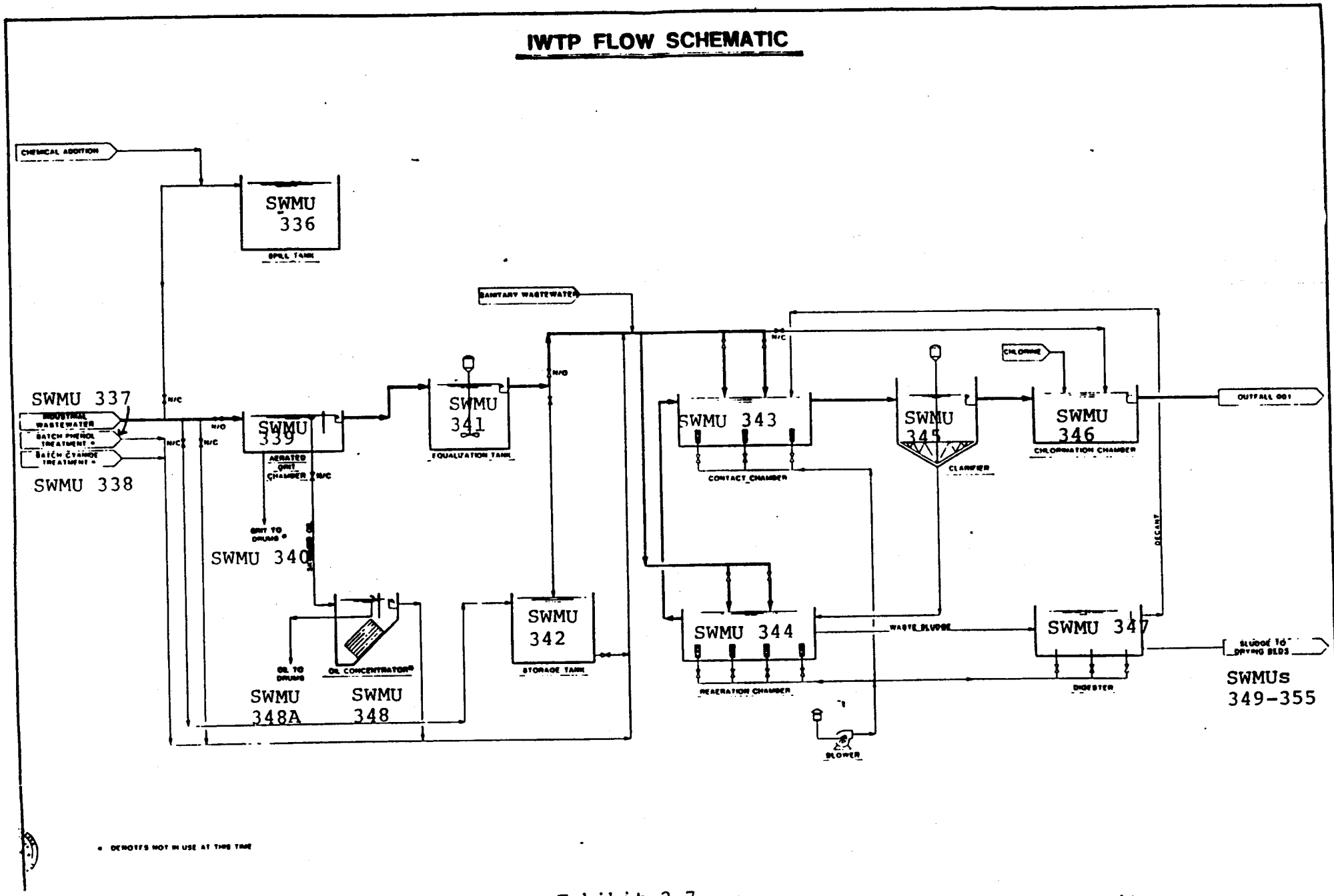


Exhibit 2.7
Flow diagram of Industrial Waste Treatment Units

EXHIBIT 2.8

SOLID WASTE MANAGEMENT UNITS AT
NAVAL AIR STATION, CORPUS CHRISTI

SWMU No.	Name of Unit	Building & Coordinate No.	Reference Sheet No.	RCRA-Regulated
1	Defense Property Disposal Office (DPDO) Landfill	31, W	Exhibit 2.2	No
2	Corpus Christi Army Depot (CCAD) Liquid Waste Disposal Area	34, V	Exhibit 2.2	No
3	NAS Corpus Christi Landfill	33, X	Exhibit 2.2	No
4	Aircraft Fire Training Area	33, X	Exhibit 2.2	No
5	Runway 31 Landfill	27, Z	Exhibit 2.2	No
6	Patrol Road East Landfill	27, AA	Exhibit 2.2	No
7	Patrol Road West Landfill	23, DD	Exhibit 2.2	No
8	Cayo del Oso Disposal Site	15, BB	Exhibit 2.2	No
9	North Gate Disposal Area	17, K	Exhibit 2.2	No
10	Radioactive Waste Disposal Area	20, L	Exhibit 2.2	No
11	Aircraft Fire Fighting Training Area Waste Fuel Tank	33, X	Exhibit 2.2	No

EXHIBIT 2.8

SOLID WASTE MANAGEMENT UNITS AT
NAVAL AIR STATION, CORPUS CHRISTI

SWMU No.	Name of Unit	Building & Coordinate No.	Reference Sheet No.	RCRA-Regulated

EXHIBIT 2.8

SOLID WASTE MANAGEMENT UNITS AT
NAVAL AIR STATION, CORPUS CHRISTI

SWMU No.	Name of Unit	Building & Coordinate No.	Reference Sheet No.	RCRA-Regulated
12	Tank #216-1	24, I	Exhibit 2.2	No
13	Tank #216-2	24, I	Exhibit 2.2	No
14	Tank #216-3	24, I	Exhibit 2.2	No
15	Tank #216-4	24, I	Exhibit 2.2	No
16	Tank #216-5	24, I	Exhibit 2.2	No

EXHIBIT 2.8

SOLID WASTE MANAGEMENT UNITS AT
NAVAL AIR STATION, CORPUS CHRISTI

SWMU No.	Name of Unit	Building & Coordinate No.	Reference Sheet No.	RCRA-Regulated
57	Tank #217-4	47, U	Exhibit 2.2	No
58	Tank #217-5	47, U	Exhibit 2.2	No
59	Tank #217-6	47, U	Exhibit 2.2	No
60	Tank #217-7	47, U	Exhibit 2.2	No
61	Tank #217-8	47, U	Exhibit 2.2	No
62	Tank #244-1	29, R	Exhibit 2.2	No
63	Tank #244-2	29, R	Exhibit 2.2	No
64	Tank #244-3	29, R	Exhibit 2.2	No
65	Tank #244-4	29, R	Exhibit 2.2	No
66	Tank #244-5	29, R	Exhibit 2.2	No
67	Tank #244-6	29, R	Exhibit 2.2	No

EXHIBIT 2.8

SOLID WASTE MANAGEMENT UNITS AT
NAVAL AIR STATION, CORPUS CHRISTI

SWMU No.	Name of Unit	Building & Coordinate No.	Reference Sheet No.	RCRA-Regulated
72	Tank #161-1	Bldg. 161 27, K	Exhibit 2.2	No
73	Tank #161-2	Bldg. 161 27, K	Exhibit 2.2	No
74	Tank #161-3	Bldg. 161 27, K	Exhibit 2.2	No
75	Tank #162-1	Bldg. 162	Exhibit 2.2	No
76	Tank #162-2	Bldg. 162	Exhibit 2.2	No
77	Tank #254-0	Bldg. 252 30, Q	Exhibit 2.2	No
78	Tank #1225	Bldg. 1255	Exhibit 2.2	No
79	Tank #1237	Bldg. 1237 18, BB	Exhibit 2.2	No
80	Tank #1255-1	DRMO	Exhibit 2.2	No
81	Tank #1255-2	DRMO	Exhibit 2.2	No
82	Tank #1263-1	Bldg. 1263 37, V	Exhibit 2.2	No
83	Tank #1263-2	Bldg. 1263 37, V	Exhibit 2.2	No
84	Tank #1263-3	Bldg. 1263 37, V	Exhibit 2.2	No
85	Tank #1828	Bldg. 1828 33, K	Exhibit 2.2	No
86	Tank #W-6	Bldg. 300	Exhibit 2.2	No

EXHIBIT 2.8

SOLID WASTE MANAGEMENT UNITS AT
NAVAL AIR STATION, CORPUS CHRISTI

SWMU No.	Name of Unit	Building & Coordinate No.	Reference Sheet No.	RCRA-Regulate
87	CCAD Satellite Accumulation Area 1A - Plating Shop	Bldg. #8 30, M	Exhibits 2.2 & 2.3	No
88	CCAD Satellite Accumulation Area 2A - Engine Paint Shop	Bldg. #8 30, M	Exhibits 2.2 & 2.3	No
89	CCAD Satellite Accumulation Area 2B - Engine Paint Shop	Bldg. #8 30, M	Exhibits 2.2 & 2.3	No
90	CCAD Satellite Accumulation Area 3A - Engine Clean Shop	Bldg. #8 30, M	Exhibits 2.2 & 2.3	No
91	CCAD Satellite Accumulation Area 3B - Engine Clean Shop	Bldg. #8 30, M	Exhibits 2.2 & 2.3	No
92	CCAD Satellite Accumulation Area 3C - Engine Clean Shop	Bldg. #8 30, M	Exhibits 2.2 & 2.3	No
93	CCAD Satellite Accumulation Area 4A - Depres. & Cont. Repair	Bldg. #8 30, M	Exhibits 2.2 & 2.3	No
94	CCAD Satellite Accumulation Area 4B - Depres. & Cont. Repair	Bldg. #8 30, M	Exhibits 2.2 & 2.3	No
95	CCAD Satellite Accumulation Area 4C - Depres. & Cont. Repair	Bldg. #8 30, M	Exhibits 2.2 & 2.3	No
96	CCAD Satellite Accumulation Area 5A - Eng. & Comp. NDT	Bldg. #8 30, M	Exhibits 2.2 & 2.3	No
97	CCAD Satellite Accumulation Area 6A - Eng. Hot Section	Bldg. #8 30, M	Exhibits 2.2 & 2.3	No
98	CCAD Satellite Accumulation Area 7A - Compress Unit	Bldg. #8 30, M	Exhibits 2.2 & 2.3	No
99	CCAD Satellite Accumulation Area 7B - Compress Unit	Bldg. #8 30, M	Exhibits 2.2 & 2.3	No
100	CCAD Satellite Accumulation Area 8A - Quick Changing	Bldg. #8 30, M	Exhibits 2.2 & 2.3	No

EXHIBIT 2.8

SOLID WASTE MANAGEMENT UNITS AT
NAVAL AIR STATION, CORPUS CHRISTI

SWMU Building & Coordinate Reference RCRA-

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EXHIBIT 2.8

SOLID WASTE MANAGEMENT UNITS AT
NAVAL AIR STATION, CORPUS CHRISTI

SWMU No.	Name of Unit	Building & Coordinate No.	Reference Sheet No.	RCRA-Regulat
101	CCAD Satellite Accumulation Area 9A - Air Frame Strip Shop	Bldg. #8 30, M	Exhibits 2.2 & 2.3	No
102	CCAD Satellite Accumulation Area 9B - Air Frame Strip Shop	Bldg. #8 30, M	Exhibits 2.2 & 2.3	No
103	CCAD Satellite Accumulation Area 10A - General Paint Unit	Bldg. #8 30, M	Exhibits 2.2 & 2.3	No
104	CCAD Satellite Accumulation Area 13A - Air Frame Assembly Unit	Bldg. #8 30, M	Exhibits 2.2 & 2.3	No
105	CCAD Satellite Accumulation Area 16A - Cargo Trans. Unit	Bldg. #8 30, M	Exhibits 2.2 & 2.3	No
106	CCAD Satellite Accumulation Area 16B - Rotor Hub Shop	Bldg. #8 30, M	Exhibits 2.2 & 2.3	No
107	CCAD Satellite Accumulation Area 16C - Gear Box Shop Unit	Bldg. #8 30, M	Exhibits 2.2 & 2.3	No
108	CCAD Satellite Accumulation Area 17A - Turbine Engine Machine	Bldg. #8 30, M	Exhibits 2.2 & 2.3	No
109	CCAD Satellite Accumulation Area 17B - Turbine Engine Machine	Bldg. #8 30, M	Exhibits 2.2 & 2.3	No
110	CCAD Satellite Accumulation Area 18A - Hydraulic Unit	Bldg. #8 30, M	Exhibits 2.2 & 2.3	No
111	CCAD Satellite Accumulation Area 18B - Hydraulic Unit	Bldg. #8 30, M	Exhibits 2.2 & 2.3	No
112	CCAD Satellite Accumulation Area	Bldg. #8	Exhibits	No

EXHIBIT 2.8

SOLID WASTE MANAGEMENT UNITS AT
NAVAL AIR STATION, CORPUS CHRISTI

SWMU No.	Name of Unit	Building & Coordinate No.	Reference Sheet No.	RCRA-Regulated
129	CCAD Satellite Accumulation Area 11A - Electrical & Ground Check	Bldg. #8 31, J	Exhibits 2.2 & 2.3	No
130	CCAD Satellite Accumulation Area 12A - Air Frame Paint	Bldg. 1808	Exhibits 2.2 & 2.3	No
131	CCAD Satellite Accumulation Area 14A - Assembly Unit	Bldg. 45 33, J	Exhibits 2.2 & 2.3	No
132	CCAD Satellite Accumulation Area 15A - Aircraft Disassembly	Bldg. 43 28, J	Exhibits 2.2 & 2.3	No
133	CCAD Satellite Accumulation Area 20A - Bearing Unit	Bldg. 1828 33, K	Exhibits 2.2 & 2.3	No

EXHIBIT 2.8

SOLID WASTE MANAGEMENT UNITS AT
NAVAL AIR STATION, CORPUS CHRISTI

SWMU No.	Name of Unit	Building & Coordinate No.	Reference Sheet No.	RCRA-Regulated
134	Satellite Accumulation Area Site 28	Bldg. 41 27, J	Exhibit 2.2	No
135	Satellite Accumulation Area 55	Bldg. 55 24, L	Exhibit 2.2	No
136	Satellite Accumulation Area 55	Bldg. 55 24, O	Exhibit 2.2	No
137	Satellite Accumulation Area 57	Bldg. 57 26, R	Exhibit 2.2	No

EXHIBIT 2.8

SOLID WASTE MANAGEMENT UNITS AT
NAVAL AIR STATION, CORPUS CHRISTI

SWMU No.	Name of Unit	Building & Coordinate No.	Reference Sheet No.	RCRA-Regulated
138	OMD Building 58 Satellite Accumulation Area #1	27, R	Exhibit 2.2	No
139	OMD Building 58 Satellite Accumulation Area #2	27, R	Exhibit 2.2	No
140	OMD Shop Wash Rack	27, R	Exhibit 2.2	No
141	AIMD Former Storage Bowser	Bldg. 51 29, Q	Exhibit 2.2	No
142	AIMD Satellite Accumulation Area A	Bldg. 51 29, Q	Exhibit 2.2	No
143	AIMD Satellite Accumulation Area B	Bldg. 51 29, Q	Exhibit 2.2	No
144	AIMD Satellite Accumulation Area C	Bldg. 51 29, Q	Exhibit 2.2	No
145	AIMD Satellite Accumulation Area D	Bldg. 51 29, Q	Exhibit 2.2	No
146	AIMD Satellite Accumulation Area E	Bldg. 51 29, Q	Exhibit 2.2	No
147	AIMD Satellite Accumulation Area F	Bldg. 51 29, Q	Exhibit 2.2	No
148	AIMD Satellite Accumulation Area G	Bldg. 51 29, Q	Exhibit 2.2	No
149	AIMD Satellite Accumulation Area H	Bldg. 51 29, Q	Exhibit 2.2	No
150	AIMD Satellite Accumulation Area I	Bldg. 51 29, Q	Exhibit 2.2	No
151	AIMD Satellite Accumulation Area J	Bldg. 51 29, Q	Exhibit 2.2	No
152	AIMD Old Battery Storage Area		Exhibit 2.2	No

EXHIBIT 2.8

SOLID WASTE MANAGEMENT UNITS AT
NAVAL AIR STATION, CORPUS CHRISTI

SWMU No.	Name of Unit	Building & Coordinate No.	Reference Sheet No.	RCRA-Regulated
153	U.S. Custom Office Satellite Area #1	Bldg. 1741 29, Q	Exhibit 2.2	No
154	U.S. Custom Office Satellite Area #2	29, Q	Exhibit 2.2	No
155	U.S. Custom Office Satellite Area #3	29, Q	Exhibit 2.2	No
156	U.S. Custom Office Satellite Area #4	29, Q	Exhibit 2.2	No
157	PCB Storage Building #1104	27, O	Exhibit 2.2	No
158	Asbestos Storage Building #1103	27, O	Exhibit 2.2	No
159	Asbestos Storage Building #1102	27, O	Exhibit 2.2	No
160	Sand Blast/Paint Satellite Area in Ground Services Yard of PWD	Bldg. 396 27, P	Exhibit 2.2	No
161	Lawn Mower Shop - Satellite Accumulation Area	31, O	Exhibit 2.2	No
162	Hobby Shop Satellite Accumulation Area #28A	Bldgs. 1277, 1737 33, P	Exhibit 2.2	No
163	Hobby Shop Satellite Accumulation Area #28B	Bldgs. 1277, 1737 33, P	Exhibit 2.2	No
164	Hobby Shop Satellite Accumulation Area #28C	Bldgs. 1277, 1737 33, P	Exhibit 2.2	No
165	Hobby Shop Satellite Accumulation Area #28D	Bldgs. 1277, 1737 33, P	Exhibit 2.2	No

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SOLID WASTE MANAGEMENT UNITS AT
NAVAL AIR STATION, CORPUS CHRISTI

SWMU No.	Name of Unit	Building & Coordinate No.	Reference Sheet No.	RCRA-Regulated
166	Electrical Branch High Voltage Shop	Bldg. 255	Exhibit 2.2	No
167	Incinerator (Blacksmiths Furnace) PWD	Bldg. 19	Exhibit 2.2	No
168	Metal Trade/Pipe Shop Waste Accumulation	Bldg. 19	Exhibit 2.2	No
169	Metal Trade/Pipe Shop Waste Accumulation	Bldg. 19	Exhibit 2.2	No
170	Air Conditioning Shop Satellite Accumulation Area	Bldg. 23	Exhibit 2.2	No
171	Portable Waste Oil Storage Tank in PWD Garage	Bldg. 23	Exhibit 2.2	No
172	PWD Garage Satellite Accumulation Area #1	Bldg. 20	Exhibit 2.2	No
173	PWD Garage Satellite Accumulation Area #2	Bldg. 20	Exhibit 2.2	No
174	PWD Garage Satellite Accumulation Area #3A	Bldg. 20	Exhibit 2.2	No
175	PWD Garage Satellite Accumulation Area #3B	Bldg. 20	Exhibit 2.2	No
176	PWD Garage Satellite Accumulation Area #3C	Bldg. 20	Exhibit 2.2	No
177	PWD Garage Asbestos Wastes	Bldg. 20	Exhibit 2.2	No
178	PWD Waste Battery Storage Area	Bldg. 20	Exhibit 2.2	No
179	Transportation, Paint & Body Shop	Bldg. 305	Exhibit 2.2	No
180	PWD Electrical Shop Non-PCB Satellite Area #1	Bldg. 19	Exhibit 2.2	No

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SOLID WASTE MANAGEMENT UNITS AT
NAVAL AIR STATION, CORPUS CHRISTI

SWMU No.	Name of Unit	Building & Coordinate No.	Reference Sheet No.	RCRA-Regulated
181	PWD Electrical Shop Non-PCB Satellite Area #2	Bldg. 168	Exhibit 2.2	No
182	PWD Electrical Shop Non-PCB Satellite Area #3	Bldg. 1821	Exhibit 2.2	No
183	Defense Reutilization & Marketing Office (DRMO) Storage Area	Bldg. 53 32, X	Exhibit 2.2	No
184	Silver Reclamation Unit	Bldg. H109 41, R	Exhibit 2.2	No
185	CBU Satellite Accumulation Area #1	Bldg. H109 41, R	Exhibit 2.2	No
186	CBU Satellite Accumulation Area #2	Bldg. H109 41, R	Exhibit 2.2	No
187	CBU Satellite Accumulation Area #3	Bldg. H109 41, R	Exhibit 2.2	No
188	CBU Satellite Accumulation Area #4	Bldg. H109 41, R	Exhibit 2.2	No
189	CBU Satellite Accumulation Area #5	Bldg. H109 41, R	Exhibit 2.2	No
190	CBU Satellite Accumulation Area #6	Bldg. H109 41, R	Exhibit 2.2	No
191	CBU Satellite Accumulation Area #7	Bldg. H109 41, R	Exhibit 2.2	No
192	Area Maintenance Support Activities (AMSA) Satellite Accumulation Area #1	Bldg. 1722 39, N	Exhibit 2.2	No
193	Area Maintenance Support Activities (AMSA) Satellite Accumulation Area #2	Bldg. 1722 39, N	Exhibit 2.2	No
194	Area Maintenance Support Activities (ASMA) Satellite Accumulation Area #3	Bldg. 1722 39, N	Exhibit 2.2	No

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SOLID WASTE MANAGEMENT UNITS AT
NAVAL AIR STATION, CORPUS CHRISTI

SWMU No.	Name of Unit	Building & Coordinate No.	Reference Sheet No.	RCRA-Regulated
195	Hospital-Precious Metal Recovery Unit	Bldg. 100 40, P	Exhibit 2.2	No
196	Hospital Low-Level Radioactive Waste Storage Bends	Bldg. 100 40, P	Exhibit 2.2	No
197	Dental Clinic Amalgram Storage Containers	Bldg. 100 40, P	Exhibit 2.2	No
198	Dental Clinic Spent Fixer Storage Container	Bldg. 100 40, P	Exhibit 2.2	No
199	Dental Clinic Vacuum System	Bldg. 100 40, P	Exhibit 2.2	No
199A	Biohazardous Waste Containers in the Hospital	Bldg. 100 40, P	Exhibit 2.2	No
200	Dental Clinic Capsule Storage Area	Bldg. 100 40, P	Exhibit 2.2	No
201	Old Pest Control Shop Area	Bldg. 1818 27, O	Exhibit 2.2	No
202	Inactive Satellite Accumulation Area	Bldg. 85	Exhibit 2.2	No
203	Inactive Satellite Accumulation Area	Bldg. 1113	Exhibit 2.2	No
204	Inactive Satellite Accumulation Area	Bldg. 1744	Exhibit 2.2	No
205	Temporary Storage Area, Building 41 Apron	Bldg. 41 27, J	Exhibit 2.2	Yes
206	Temporary Storage Area, Building 51 AIMD	Bldg. 51 37, K	Exhibit 2.2	Yes
207	Temporary Storage Area, Building 52A	Bldg. 52A	Exhibit 2.2	Yes
208	Temporary Storage Area, Building 55 Apron	Bldg. 55 24, O	Exhibit 2.2	Yes

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SOLID WASTE MANAGEMENT UNITS AT
NAVAL AIR STATION, CORPUS CHRISTI

SWMU No.	Name of Unit	Building & Coordinate No.	Reference Sheet No.	RCRA-Regulated
209	Temporary Storage Area, Building 57	Bldg. 57 26, R	Exhibit 2.2	Yes
210	Temporary Storage Area, Building 58 OMD	Bldg. 58 27, S	Exhibit 2.2	Yes
211	Temporary Storage Area, Building 62 OMD	Bldg. 62	Exhibit 2.2	Yes
212	Temporary Storage Area, Building 247 Dynacorp	Bldg. 247	Exhibit 2.2	Yes
213	Temporary Storage Area, Building 255	Bldg. 255 26, K	Exhibit 2.2	Yes
214	Temporary Storage Area, Building 257 Yard	Bldg. 257 29, O	Exhibit 2.2	Yes
215	Temporary Storage Area, Building 367	Bldg. 367 26, K	Exhibit 2.2	Yes
216	Temporary Storage Area, Building 1104 PWD Ground Yard	Bldg. 1104 27, P	Exhibit 2.2	Yes
217	Temporary Storage Area, Building 1113	Bldg. 1113 25, H	Exhibit 2.2	Yes
218	Temporary Storage Area, Building 1277	Bldg. 1277 33, P	Exhibit 2.2	Yes
219	Temporary Storage Area, Building 1722 Army Reserve	Bldg. 1722 39, W	Exhibit 2.2	Yes
220	Temporary Storage Area, Building 1737 Hobby Shop	Bldg. 1737 33, P	Exhibit 2.2	Yes
221	Temporary Storage Area, Building 1806 Coast Guard	Bldg. 1806 27, H	Exhibit 2.2	Yes
222	Temporary Storage Area, Hangars 55, 56, 57	26, P	Exhibit 2.2	Yes
223	Temporary Storage Area, IWPP	32, L	Exhibit 2.2	Yes

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SOLID WASTE MANAGEMENT UNITS AT
NAVAL AIR STATION, CORPUS CHRISTI

SWMU No.	Name of Unit	Building & Coordinate No.	Reference Sheet No.	RCRA-Regulated
224	Temporary Storage Area, CBU H109	41, Q	Exhibit 2.2	Yes
225	CCAD Plating Shop Chrome Rinse Waste Line	Building 8	Exhibit 2.2	No
226	CCAD Plating Shop Cyanide Rinse Waste Line	Building 8	Exhibit 2.2	No
	CCAD Plating Shop Cyanide Tank Catch Basins for Tanks:	Building 8	Exhibit 2.2	No
227	E-12			
228	F-4			
229	F-7			
230	F-8			
231	F-12			
232	F-13			
233	G-8			
234	G-15			
235	H-5			
236	H-6			
237	H-8			
238	H-11			
239	H-13			
240	CCAD Plating Shop Cyanide Rinse Sump Tank	Building 8	Exhibit 2.2	No
241	CCAD Plating Shop Concentrated Caustic Rinse Waste Line	Building 8	Exhibit 2.2	No
242	CCAD Plating Shop Acid Rinse Waste Line	Building 8	Exhibit 2.2	No
243	CCAD Plating Shop Miscellaneous Rinse Waste Line	Building 8	Exhibit 2.2	No
244	CCAD Plating Shop Floor Drains	Building 8	Exhibit 2.2	No
245	CCAD Plating Shop Chrome Tunnel	Building 8	Exhibit 2.2	No

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SOLID WASTE MANAGEMENT UNITS AT
NAVAL AIR STATION, CORPUS CHRISTI

SWMU No.	Name of Unit	Building & Coordinate No.	Reference Sheet No.	RCRA-Regulated
246	CCAD Plating Shop Chrome Tunnel Sump	Building 8	Exhibit 2.2	No
247	CCAD Plating Shop Miscellaneous Tunnel	Building 8	Exhibit 2.2	No
248	CCAD Plating Shop Vapor Degreaser Sump for Line A	Building 8	Exhibit 2.2	No
249	CCAD Plating Shop Vapor Degreaser Sump for Line C	Building 8	Exhibit 2.2	No
250	CCAD Plating Shop Vapor Degreaser Sump for Line F	Building 8	Exhibit 2.2	No
251	CCAD Plating Shop Vapor Degreaser Sump for Line G-1	Building 8	Exhibit 2.2	No
252	CCAD Plating Shop Vapor Degreaser Sump for Line M-1	Building 8	Exhibit 2.2	No
253	CCAD Plating Shop Tunnel Air Scrubbers - Chrome	Building 8	Exhibit 2.2	No
254	CCAD Plating Shop Tunnel Air Scrubbers - Cyanide	Building 8	Exhibit 2.2	No
255	CCAD Plating Shop Tunnel Air Scrubbers - Miscellaneous A	Building 8	Exhibit 2.2	No
256	CCAD Plating Shop Tunnel Air Scrubbers - Miscellaneous B	Building 8	Exhibit 2.2	No
257	CCAD Container Repair Shop Drain	Building 8	Exhibit 2.2	No
258	CCAD Air Frame Cleaning Shop Painting/Stripping Shop Drain	Building 8 31, K	Exhibit 2.2	No
259	CCAD Air Frame Cleaning Shop Steam Cleaning Drain	Building 8 31, K	Exhibit 2.2	No

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SOLID WASTE MANAGEMENT UNITS AT
NAVAL AIR STATION, CORPUS CHRISTI

SWMU No.	Name of Unit	Building & Coordinate No.	Reference Sheet No.	RCRA-Regulated
260	CCAD Air Frame Cleaning Shop Corrosion Removal Sump	Building 8 31, K	Exhibit 2.2	No
261	CCAD Air Frame Cleaning Shop Chromate Conversion Coating Area Chemical Waste Pit-5DB1B	Building 8 31, K	Exhibit 2.2	No
262	CCAD Air Frame Cleaning Shop Chromate Conversion Coating Area Sump - 5DB1C	Building 8 31, K	Exhibit 2.2	No
263	CCAD Engine Cleaning Shop Catchment Floors	Building 8 31, O	Exhibit 2.2	No
264	CCAD Engine Cleaning Shop Drain	Building 8 31, O	Exhibit 2.2	No
265	CCAD Helicopter Paint Shop Drain	Building 8	Exhibit 2.2	No
266	Solvent Recovery Unit - Trichloroethylene	Bldg. 1828 33, K	Exhibit 2.2	No
267	Solvent Recovery Unit - Varsol		Exhibit 2.2	No
268	Conforming Storage Area	Bldg. 257	Exhibit 2.2	Yes
269	Triple Rinse Area	Bldg. 257	Exhibit 2.2	No
270	Film Processing Waste Collection Unit	Bldg. 8 31, N	Exhibit 2.2	No
	PMB Waste Collection Units:			
271	A - Larger Than 10 Mesh Waste Container	Bldg. 43		No
272	B - Smaller Than 80 Mesh Waste Container	Bldg. 43		No
273	C - Dust Collection Unit	Bldg. 43		No
274	CCAD Storm Sewer	Bldg. 43		No

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SOLID WASTE MANAGEMENT UNITS AT
NAVAL AIR STATION, CORPUS CHRISTI

SWMU No.	Name of Unit	Building & Coordinate No.	Reference Sheet No.	RCRA-Regulated
275	Paint Spray Booth Filter	Bldg. 43		No
276	Paint Booth	Hangar 55		No
	Bead Blasting Machine Waste Collection Pan for:	Bldg. 8	Exhibit 2.2	No
277	5DC3A			
278	Rotary Wing Shop 5DB1H			
279	Metal Spray Shop 5CB2D			
280	Tubing & Control Cables Shop 5EC2D			
281	Hydraulic Shop 5EC3A			
282	Hydraulic Shop 5DB1B, Unit A			
283	Hydraulic Shop 5DB1B, Unit B			
284	5EC2B			
285	Instrument Shop 5EC3B			
286	Plating Shop 5CB1A, Unit A			
287	Plating Shop 5CB1A, Unit B			
288	Plating Shop 5CB1A, Unit C			
289	Plating Shop 5CB1A, Unit D			
290	Cleaning Shop 5CB1C, Unit A			
291	Cleaning Shop 5CB1C, Unit B			
292	Cleaning Shop 5CB1C, Unit C			
293	Cleaning Shop 5CB1C, Unit D			
294	Cleaning Shop 5CB1C, Unit E			
295	Transmission Disassembly & Routing Shop 5EB1A, Unit A			
296	Transmission Disassembly & Routing Shop 5EB1A, Unit B			
297	Unit A	Bldg. 51 29, Q	Exhibit 2.2	No
298	Unit B	Bldg. 51 29, Q	Exhibit 2.2	No

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SOLID WASTE MANAGEMENT UNITS AT
NAVAL AIR STATION, CORPUS CHRISTI

SWMU No.	Name of Unit	Building & Coordinate No.	Reference Sheet No.	RCRA-Regulated
299	Sanitary Sewer Treatment Plant (SSTP) Blower Degritter	22, H	Exhibit 2.2	No
300	Sanitary Sewer Treatment Plant (SSTP) Primary Clarifier #1	22, H	Exhibit 2.2	No
301	Sanitary Sewer Treatment Plant (SSTP) Primary Clarifier #2	22, H	Exhibit 2.2	No
302	Sanitary Sewer Treatment Plant (SSTP) Trickling Filler #1	22, H	Exhibit 2.2	No
303	Sanitary Sewer Treatment Plant (SSTP) Trickling Filler #2	22, H	Exhibit 2.2	No
304	Sanitary Sewer Treatment Plant (SSTP) Secondary Clarifier #1	22, H	Exhibit 2.2	No
305	Sanitary Sewer Treatment Plant (SSTP) Secondary Clarifier #2	22, H	Exhibit 2.2	No
306	Sanitary Sewer Treatment Plant (SSTP) Sludge Digester #1	22, H	Exhibit 2.2	No
307	Sanitary Sewer Treatment Plant (SSTP) Sludge Digester #2	22, H	Exhibit 2.2	No
308	Sanitary Sewer Treatment Plant (SSTP) Sludge Digester #3	22, H	Exhibit 2.2	No
309	Sanitary Sewer Treatment Plant (SSTP) Wastewater Chlorination	22, H	Exhibit 2.2	No
310	Sanitary Sewer Treatment Plant (SSTP) Sludge Drying Bed #1	22, H	Exhibit 2.2	No
311	Sanitary Sewer Treatment Plant (SSTP) Sludge Drying Bed #2	22, H	Exhibit 2.2	No
312	Sanitary Sewer Treatment Plant (SSTP) Sludge Drying Bed #3	22, H	Exhibit 2.2	No
313	Sanitary Sewer Treatment Plant (SSTP) Sludge Drying Bed #4	22, H	Exhibit 2.2	No

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SOLID WASTE MANAGEMENT UNITS AT
NAVAL AIR STATION, CORPUS CHRISTI

SWMU No.	Name of Unit	Building & Coordinate No.	Reference Sheet No.	RCRA-Regulated
314	Sanitary Sewer Treatment Plant (SSTP) Sludge Drying Bed #5	22, H	Exhibit 2.2	No
315	Sanitary Sewer Treatment Plant (SSTP) Sludge Drying Bed #6	22, H	Exhibit 2.2	No
316	Industrial Waste Pretreatment Plant (IWPP) Acid Wet Well	32, L	Exhibit 2.2	No
317	Industrial Waste Pretreatment Plant (IWPP) Caustic Wet Well	32, L	Exhibit 2.2	No
318	Industrial Waste Pretreatment Plant (IWPP) Neutralization Tank	32, L	Exhibit 2.2	No
319	Industrial Waste Pretreatment Plant (IWPP) Neutralization Tank Manhole	32, L	Exhibit 2.2	No
320	Industrial Waste Pretreatment Plant (IWPP) Chrome Wet Well	32, L	Exhibit 2.2	No
321	Industrial Waste Pretreatment Plant (IWPP) Chrome Storage Tank #1	32, L	Exhibit 2.2	No
322	Industrial Waste Pretreatment Plant (IWPP) Chrome Storage Tank #2	32, L	Exhibit 2.2	No
323	Industrial Waste Pretreatment Plant (IWPP) Chrome Treatment Reduction Tank	32, L	Exhibit 2.2	No
324	Industrial Waste Pretreatment Plant (IWPP) Chrome Treatment Precipitation Section	32, L	Exhibit 2.2	No
325	Industrial Waste Pretreatment Plant (IWPP) Chrome Treatment Clarifier	32, L	Exhibit 2.2	No
326	Industrial Waste Pretreatment Plant (IWPP) Sand Filter	32, L	Exhibit 2.2	No

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SOLID WASTE MANAGEMENT UNITS AT
NAVAL AIR STATION, CORPUS CHRISTI

SWMU No.	Name of Unit	Building & Coordinate No.	Reference Sheet No.	RCRA-Regulated
327	Industrial Waste Pretreatment Plant (IWPP) Wastewater Storage Tank	32, L	Exhibit 2.2	No
328	Industrial Waste Pretreatment Plant (IWPP) Wastewater Storage Manhole #1	32, L	Exhibit 2.2	No
329	Industrial Waste Pretreatment Plant (IWPP) Wastewater Storage Manhole #2	32, L	Exhibit 2.2	No
330	Industrial Waste Pretreatment Plant (IWPP) Cyanide Wastewater Storage Tank	32, L	Exhibit 2.2	No
331	Industrial Waste Pretreatment Plant (IWPP) Cyanide Treatment Tank	32, L	Exhibit 2.2	No
332	Industrial Waste Pretreatment Plant (IWPP) Cyanide Clarifier	32, L	Exhibit 2.2	No
333	Industrial Waste Pretreatment Plant (IWPP) Filter Press	32, L	Exhibit 2.2	No
333A	Industrial Waste Pretreatment Plant (IWPP) Cyanide Water Storage Tank	32, L	Exhibit 2.2	No
333B	Industrial Waste Pretreatment Plant Sludge Storage Area	32, L	Exhibit 2.2	No
334	Industrial Waste Treatment Plant (IWTP) Lift Section #1	27, J	Exhibit 2.2	No
335	Industrial Waste Treatment Plant (IWTP) Lift Section #2	32, L	Exhibit 2.2	No
336	Industrial Waste Treatment Plant (IWTP) Wastewater Spill Containment Tank	22, I	Exhibit 2.2	No

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SOLID WASTE MANAGEMENT UNITS AT
NAVAL AIR STATION, CORPUS CHRISTI

SWMU No.	Name of Unit	Building & Coordinate No.	Reference Sheet No.	RCRA-Regulated
337	Industrial Waste Treatment Plant (IWTP) Batch Phenol Destruction Unit	22, I	Exhibit 2.2	No
338	Industrial Waste Treatment Plant (IWTP) Batch Cyanide Destruction Unit	22, I	Exhibit 2.2	No
339	Industrial Waste Treatment Plant (IWTP) Aerated Grit Chamber	22, I	Exhibit 2.2	No
340	Industrial Waste Treatment Plant (IWTP) Grit Storage in Drums	22, I	Exhibit 2.2	No
341	Industrial Waste Treatment Plant (IWTP) Equalization Tank	22, I	Exhibit 2.2	No
342	Industrial Waste Treatment Plant (IWTP) Wastewater Storage Tank	22, I	Exhibit 2.2	No
343	Industrial Waste Treatment Plant (IWTP) Contact Chamber	22, I	Exhibit 2.2	No
344	Industrial Waste Treatment Plant (IWTP) Reaeration Chamber	22, I	Exhibit 2.2	No
345	Industrial Waste Treatment Plant (IWTP) Clarifier	22, I	Exhibit 2.2	No
346	Chlorine Contact Chamber	22, I	Exhibit 2.2	No
347	Aerobic Digester	22, I	Exhibit 2.2	No
348	Oil Concentrator	22, I	Exhibit 2.2	No
348A	Oil Storage Area	22, I	Exhibit 2.2	No

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SOLID WASTE MANAGEMENT UNITS AT
NAVAL AIR STATION, CORPUS CHRISTI

SWMU No.	Name of Unit	Building & Coordinate No.	Reference Sheet No.	RCRA-Regulated
349	Sludge Drying Bed #1	22, I	Exhibit 2.2	Yes
350	Sludge Drying Bed #2	22, I	Exhibit 2.2	Yes
351	Sludge Drying Bed #3	22, I	Exhibit 2.2	Yes
352	Sludge Drying Bed #4	22, I	Exhibit 2.2	Yes
353	Sludge Drying Bed #5	22, I	Exhibit 2.2	Yes
354	Sludge Drying Bed #6	22, I	Exhibit 2.2	Yes
355	Low-Level Radioactive Waste Storage Area	22, I	Exhibit 2.2	No
356	Waste Collection Container	22, I	Exhibit 2.2	No

2.4 Summary of Wastes Handled

The organizations responsible for waste generation at NAS Corpus Christi are: The Aircraft Intermediate Maintenance Department (AIMD), Operations Maintenance Department (OMD), Public Works Department (PWD), Naval Regional Medical Center (NAVREGMEDCEN), U.S. Coast Guard Air Station and Corpus Christi Army Depot (CCAD). CCAD generates 80 to 90 percent of the waste materials at NAS Corpus Christi (Reference 2).

AIMD generates waste oil, waste electrolyte, waste batteries and paint thinner resulting from maintenance of aircraft. These wastes have been drummed for treatment at the Industrial Waste Pretreatment Plant since 1968 (Reference 2).

OMD generates paint, oil and grease, Turco G850-05-045-7931, alodene and paint strippers.

PWD generates many waste types in the following facilities: Electrical Shop, Air Conditioning Shop, Maintenance Paint Shop, Metal Trade and Pipe Shop, Transportation Paint and Body Shop, and PWD Garage. These waste streams consist of transformer coolants containing PCBs, spent solvents, freon and waste oil, paint sludges, solvents and thinners, metal shavings and scrap metal, cutting oil, empty paint containers, and waste battery acid. These waste streams are handled through DRMO (Reference 2).

NAVREGMEDCEN generates solid wastes, garbage, pathological wastes, and low-level radioactive waste. Solid wastes such as paper, laboratory wastes, and empty chemical containers are collected from the hospital by a local contractor. Wet garbage is disposed into the sanitary sewer. Pathological wastes are

autoclaved for sterilization and deposited in trash for disposal. Spent photographic fixer from the X-Ray department, the dental clinic and hospital photolabs is collected and silver is recovered. Low level radioactive wastes are stored in barrels for 10-half lives and when radioactivity reaches background level, the wastes are added to the trash. The spent fixer from the dental clinic is disposed through Radiology Department (Reference 2).

The Coast Guard Air Station generates wastes resulting from sandblasting, painting and welding. All waste generated is removed under contract with Navy (Reference 2).

CCAD generates a large number of waste streams resulting from the overhaul, repair, modification and test of rotary wing aircraft operations. Hazardous wastes are generated from a number of industrial operations in Building 8. The Plating Shop contains 82 process tanks and 67 rinse tanks. Five liquid waste streams are produced from the plating and stripping processes: chrome waste, cyanide waste, caustic waste, acid waste, and "miscellaneous" waste, as shown in Exhibit 2.4. The miscellaneous waste stream is discharged to the IWTP (Reference 110). In addition, the air exhaust from three processes, chrome, cyanide, and miscellaneous, are vented from the Plating Shop. Thirty-two SWMUs (SWMU Nos. 225 to 256) have been identified in the Plating Shop. The plating shop accounts for approximately 30 percent of the liquid to the NAS Corpus Christi Industrial Treatment Plant.

The engine Cleaning Shop generates contaminated rinsewater resulting from alkaline cleaning, acid cleaning, emulsion cleaning, degreasing, and stripping of aircraft engines,

transmissions and rotor heads. This shop accounts for approximately 16 percent of the flow to the Industrial Waste Treatment Plant. The Air Frame Cleaning Shop generates rinsewater resulting from stream cleaning, paint stripping, corrosive removal and chromate conversion coating of air-frames, and accounts for 10 percent of the waste discharged to the Industrial Waste Treatment Plant. Miscellaneous testing of transmission testing cells, engine component testing, generate small amounts of rinsewater. (Reference 2).

Prior to 1975 when the Industrial Wastewater Treatment Plant became operational, liquid waste was discharged to the storm sewer system (SWMU No. 274). In addition, reportedly 3,000 to 5,000 gallons of liquid waste were disposed of weekly at the DPDO landfill (SWMU No. 1) and CCAD Liquid Waste Disposal Area (SWMU No. 2) prior to 1972. Approximately 7,800 cubic meters of uncompacted lumber, sludges, sawdust and cardboard are generated each month. These materials were disposed of at the on base landfills (SWMU Nos. 1 through 10) until approximately 1979 when the last landfill was closed (Reference 2).

The PWD operates three facilities for treatment of wastewater generated at NAS Corpus Christi. Two of these facilities, the Industrial Waste Treatment Plant (IWTP) and the Industrial Waste Pretreatment Plant (IWPP), treat only water generated by CCAD. The remaining plant, The Sanitary Sewer Treatment Plant (SSTP), treats domestic waste generated by both NAS Corpus Christi and CCAD including effluent from the IWTP.

The SSTP, located at the Northwest corner of NAS Corpus Christi, adjacent to Saipan Street, has a design capacity of 1.5 million gallons per day. The treatment of domestic sewage at the current location dates back to the 1940s. The treatment plant consists of two primary clarifiers, two trickling filters, two secondary clarifiers operated in parallel, three anaerobic digesters and six sludge drying beds. A schematic diagram of the SSTP is provided in Exhibit 2.5.

The IWPP is located adjacent to Building 8 which houses all the major overhaul operations of CCAD. The major processes performed at the IWPP are acid-caustic neutralization, chrome reduction, cyanide destruction, solids separation and sludge dewatering. A schematic diagram of the IWPP is provided in Exhibit 2.6. Additional information about the IWPP is included in Section 5.0 of this report.

The IWTP, which has been operation since 1975, consists of an aerated grit chamber, oil concentrator, spill containment tank, storage tank, and a biological waste treatment plant. A schematic flow diagram for the IWTP is provided in Exhibit 2.7. Although the plant has a design capacity of one million gallons per day, the average flow has been substantially less. Additional information about the IWTP is provided in Section 5.0.

2.5 Regulatory History

NAS was issued a permit (HW-50038) for Hazardous and Waste Storage and Processing on October 25, 1985 (Reference 42).

On November 5, 1985, NAS submitted a RCRA Part B Permit Application for conforming storage area. Part A of this application (References 4, 47) listed four existing or pending permits issued to the facility. Discussions with the NAS staff (Reference 118) also indicated a permit from NRC. A listing of permits are provided below:

Relevant Program	Permit No.	Agency	Source
RCRA Hazardous Waste Management Program	TX7170022787	EPA	Reference 4
RCRA Hazardous Waste Management Program	HW-50038	TWC	Reference 4
Solid Waste Disposal Act	30479	TWC	Reference 4
Wastewater Disposal Under the Texas Water Code	WA0002317 12125-01	TWC	Reference 4
NPDES Program Under the Clean Water Act	TX0007889	EPA	Reference 4
Low-Level Radioactive Waste Program	STB-1168	NRC	Reference 118
Texas Clean Air Act	Permit Application Submitted	TACB*	Reference 121

*TACB: Texas Air Control Board

The Interim Status Application for clean closure of sludge drying beds at the IWTP was approved in March 1988 (Reference 122). According to Robert Stender of NAS, the sludge drying beds will be closed by November 8, 1988.

Twenty-four NPDES discharge points were included in the permit. All the discharge points are reported to be active (Reference 122). Robert Stender of NAS indicated that a cadmium concentration in excess of permitted level was noted in the effluent from the IWTP (Reference 122).

On August 23, 1985, Texas Water Commission issued a Notice of Violations which included manifesting hazardous waste to an unauthorized facility; improper certification of hazardous waste manifest by generator; failure to file exception reports for unsigned, unreturned and improperly signed manifests; improper drum management in 90-day storage areas; failure to institute required groundwater monitoring; inadequate waste analysis plan; and inadequate personnel training program and records. Three old disposal sites (SWMU Nos. 1, 2 and 3) may have impacted groundwater at the facility.

On November 24, 1986, a Consent Decree was signed between the State of Texas and the U.S. Department of Navy (Reference 105) which addresses drum storage, manifesting practices, training, waste analysis plan, compliance with industrial waste regulations, implementation of hazardous waste management plan, operations of industrial sludge drying beds, corrective action measures taken at Fuel Farm 216, coordination with the state relative to remedial actions at Disposal Site 1, 3 and 9 (SWMU Nos. 1, 2 and 9), status of distilling unit, and dispute resolution mechanisms.

SECTION 3.0: ENVIRONMENTAL SETTING

This section of the PR/VSI report covers climate and meteorology, floodplain and surface water characteristics, geology and soils, groundwater, and receptor information.

3.1 Climate and Meteorology

The climate of Corpus Christi is similar to that found in the semitropical regions and the semiarid areas of the Southwest and West of the U.S. The mean annual temperature for the Corpus Christi area is 71°F. Cold fronts pass through the area in January, February, and March creating rapid temperature drops of 20 to 30 degrees. July, August, and early September are especially hot and humid (Reference 2).

Prevailing winds are from the southeast with considerable variation in direction at times (Reference 2). Rainfall for the Corpus Christi area averages 30 inches per year. Minimum rainfall occurs in September and October and the maximum occurs in December and February (Reference 2). Relative humidity ranges from 68% in July to 90% in February (Reference 96).

3.2 Floodplain and Surface Water

The Corpus Christi area lies within the western section of the Gulf of Mexico Coastal Plain Province. The region is characterized by a gently sloping coastal plain surface broken only by entrenched streams. Highest elevations are approximately 200 feet above mean sea level (MSL) in western San Patricio County. Maximum relief is

80 feet in the western part of the Corpus Christi area, with slopes toward the gulf averaging between five and six feet per mile (Reference 2).

Topography of NAS Corpus Christi is shown on the U.S. Geological Service (USGS) Oso Creek Northeast, 7-1/2 minute topographic quadrangle (Exhibit 3.1). Mean elevation at NAS Corpus Christi is approximately 15 feet above MSL (Reference 2).

NAS Corpus Christi is located on level areas of the Encinal Peninsula which is bounded on the northwest by Cayo del Oso, the northeast by Corpus Christi Bay, and the southeast by Laguna Madre. Cayo del Oso results from the influence of the southeasterly flowing Oso Creek with Corpus Christi Bay (Reference 2).

The surface runoff from NAS Corpus Christi is generally to the northeast into Corpus Christi Bay with lesser runoff into Cayo del Oso and Laguna Madre (Reference 27).

NAS Corpus Christi lies within the affected zone for 100-year frequency hurricane tides. Such tides are estimated to be between +10 and +13 feet MSL in the vicinity of the Encinal Peninsula. Such an event could inundate the north half of Runway 13R-31L of NAS Corpus Christi and much of the maintenance and taxiway area adjacent to Corpus Christi Bay (Exhibit 3.2). The last major hurricane to cause severe flooding at NAS Corpus Christi was Hurricane Celica on August 3, 1980 (Reference 2).

3.3 Geology and Soils

The Corpus Christi area lies within the western Gulf of Mexico Coastal Plain Province and is characterized by active subsidence

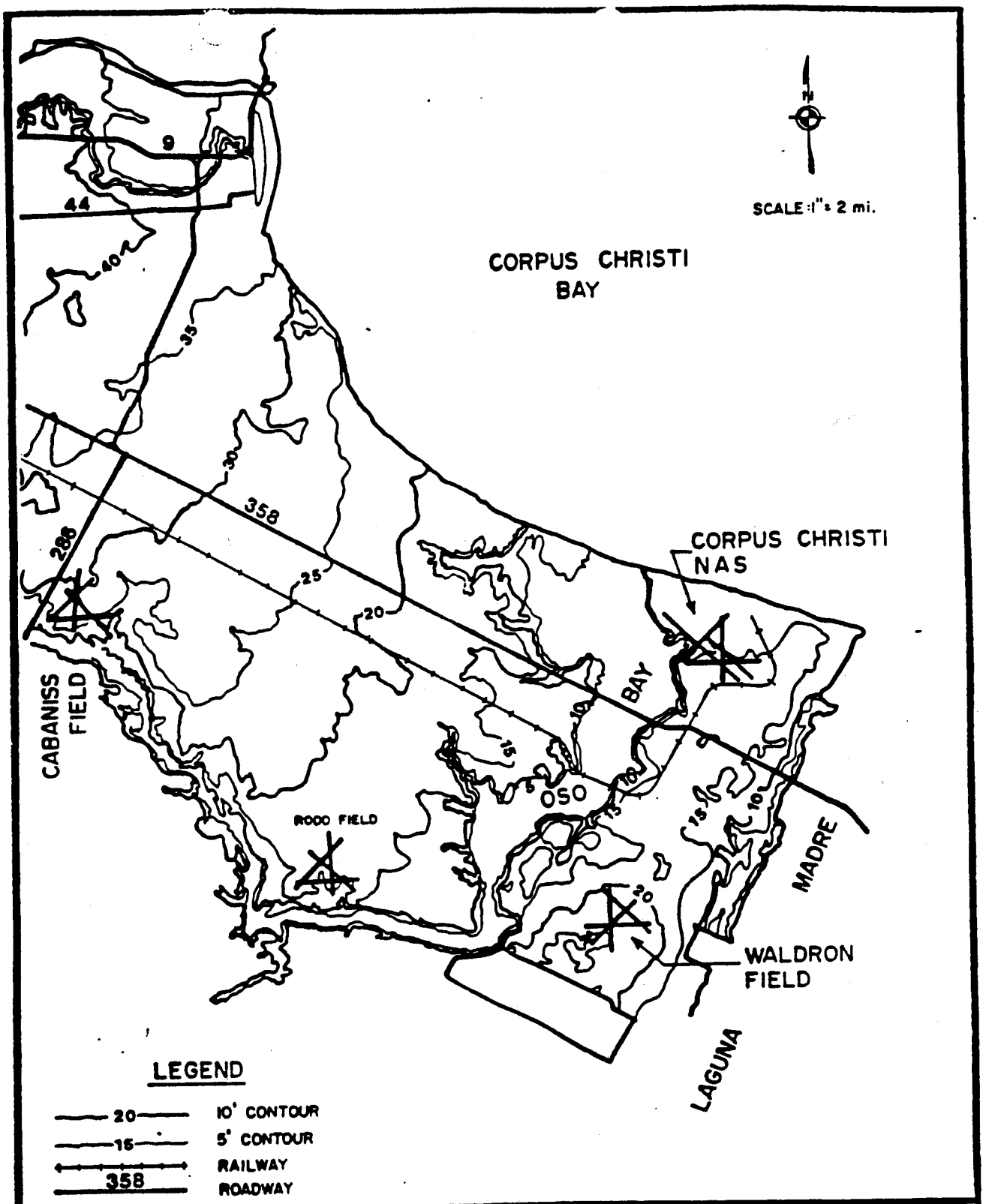

Exhibit 3.1
Topographic Map of the NAS
Corpus Christi Area
Source: Reference 2

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NAVAL AIR STATION
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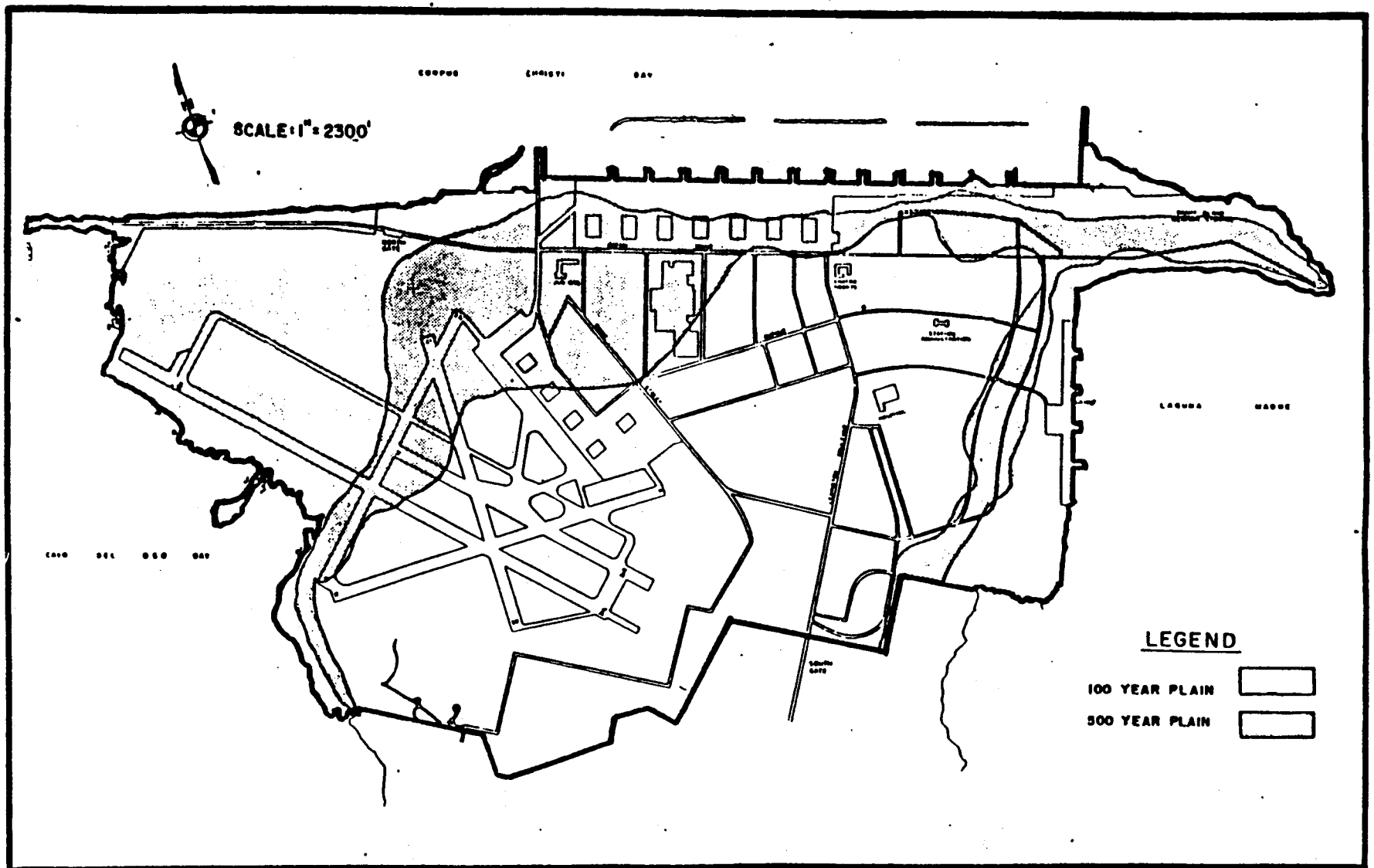

Exhibit 3.2
Flood Map For NAS Corpus Christi
Source: Reference 2

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and sedimentation that are similar to processes that formed the near-surface geologic framework (Reference 2).

The coastal plain of the Corpus Christi area is underlain by Pleistocene river, delta, and shoreline sediments deposited during interglacial periods. Approximately 30,000 years ago, deep erosion occurred in the valleys of Nueces, Oransis, and Mission Rivers in response to sea-level decline during continental glaciation. Approximately 18,000 years ago, sea level rose during its final transgression marking the initiation of the Holocene. During this interval, river valleys which formerly extended across the dry continental shelf slowly filled with estuarine and then marine sediments. Sea level reached its approximate present position about 3,000 years ago. Presently active geologic processes include fluvial-deltaic, barrier-strandplain-chenier, and bay-estuary-lagoon and eolian depositional systems (Reference 2).

Deeper sedimentary units beneath the Corpus Christi area generally strike parallel to the present Gulf of Mexico shoreline and dip gently to moderately gulfward. Distribution of these units is well known due to the extensive history of petroleum exploration in the area. Numerous wells, some extending to 7,600 feet below MSL, occur on and in the immediate vicinity of the NAS Corpus Christi. These include wells belonging to Sinclair, Exxon, and Louisiana Land and Exploration (Reference 2).

Stratigraphic units underlying the Corpus Christi area, in order of decreasing age, include the Goliad Sand, Willis Formation, Lissie Formation, Montgomery Formation, and Beaumont Formation

(Exhibit 3.3). The four youngest units correspond generally with coastal plain terraces formed by successive lowerings of sea level.

NAS Corpus Christi is underlain by a facies of the Beaumont Formation characterized by barrier island and beach deposits consisting of mostly fine-grained sand and shells. The land surface is slightly higher than that of surrounding areas and is characterized by numerous pimple mounds and poorly defined relic beach ridges, most of which have been destroyed by actions of man in the immediate vicinity of the facilities. Recent, locally active sand dunes are present in undisturbed areas. The barrier island and beach deposits of the Beaumont Formation are typically less than 60 feet thick and are probably part of the Ingleside barrier island system (References 2, 14, 30, 95).

Three surficial soil units named Galveston-Mustang Soil Series, Made Land and Fill are described by the Soil Conservation Service. The characteristics of these soil units are described below.

Galveston soil consists of a surface layer ranging from nearly white to grayish-brown. This layer is slightly salty on the Gulf of Mexico side of the Encinal Peninsula but is slightly acidic farther from the shore. The surface layer is normally less than 10 inches thick, contains minor humus and typically is light gray. It is underlain by a zone of light-gray, fine-grained sand that ranges from three to four feet thick. Parent material consisting of white fine sand occurs at depths of from four to ten feet. This material is usually saturated (Reference 2).

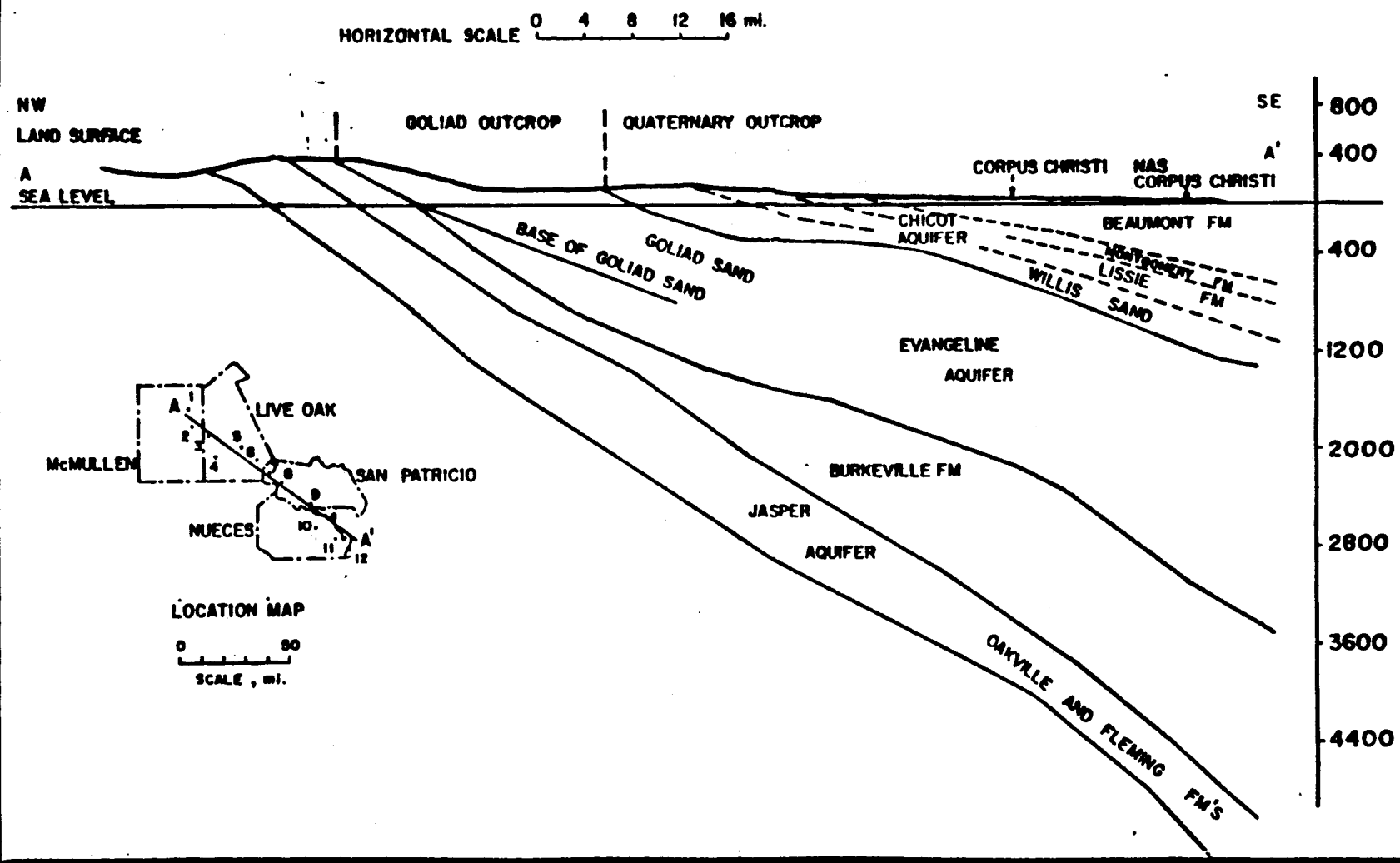

Exhibit 3.3
Stratigraphic Units and Generalized Cross Section
Source: Reference 2

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Runoff from Galveston soils is very slow due to high porosity and permeability. The soils remain moist in their lower layers throughout most of the year. Permeability for the upper foot of Galveston series soils is between five and eight inches per hour. At depths of between seven inches and five feet, the permeability decreases to between three and four inches per hour (Reference 2).

Mustang series soils consist of nearly level, deep, sandy soils that are wet and locally salty. These soils generally occupy low areas and are occasionally flooded at high tide. In general, they are found at elevations below +5 feet MSL, are young, and contain only very minor humus. The soil consists of an upper layer that is light gray and approximately 12 inches thick. The subsoil is typically white and is approximately two feet thick. It is moist throughout the year and has a few faint yellowish-brown mottles. Generally, in much of this soil, a water table stands at a depth of approximately three to four feet. The parent material is similar to the subsoil but is more salty and is normally saturated (Reference 2).

Mustang series soils from surface to a depth of 2.5 feet are typically characterized by a permeability ranging from two inches to three inches per hour. At depths between 2.5 and four feet the permeability ranges from 0.0 through 0.05 inches per hour (Reference 2).

Made Land consists of sand, mud and shells that have been excavated from the floor of lagoons and bays. Within NAS Corpus Christi these soils are typically deep, undulating, and of variable permeability. They are generally clayey, saline, and covered with

six to eight inches of topsoil that has been added locally for vegetative purposes. Made Land soils bound the west, north, and east sides of NAS Corpus Christi with Galveston-Mustang series soils found in the central portion of the facility. Fill consists of sandy soil which has been used to raise the original land surface to a uniform height for runway sites (Reference 2).

The subsurface soil conditions at the Tank Farm 216 have been determined by performing soil exploration and installation of monitoring wells in response to release of fuel to the subsurface environment. A site map of the Tank Farm 216 showing the location of monitoring wells and geologic sections is shown on Exhibit 3.4.

Section A-A (Exhibit 3.5) shows the various soils encountered when transsecting the tank farm from MW-5 to MW-2. As indicated, the clayey and silty sands found at +5 to -5 feet MSL at MW-5 became separated by three feet of clay at the MW-13 and MW-14 well locations. This separation may be important in that the greater percentage of the floating fuel should be found in the upper silty/ clayey sand at approximately +5 feet MSL (Reference 95).

Section B-B (Exhibit 3.6) illustrates the complex nature of lithology along the bulkhead isolating the land from Corpus Christi Bay. This cross section indicates that the upper 10 feet of strata are dredge fill material with naturally occurring strata found below. The sandy/silty clay stratum found -2 to +2 feet MSL at wells MW-2, MW-3, and MW-4 may be a localized aquiclude that is seen as a subgrade clay ridge or mound at the MW-3 location (Reference 95).

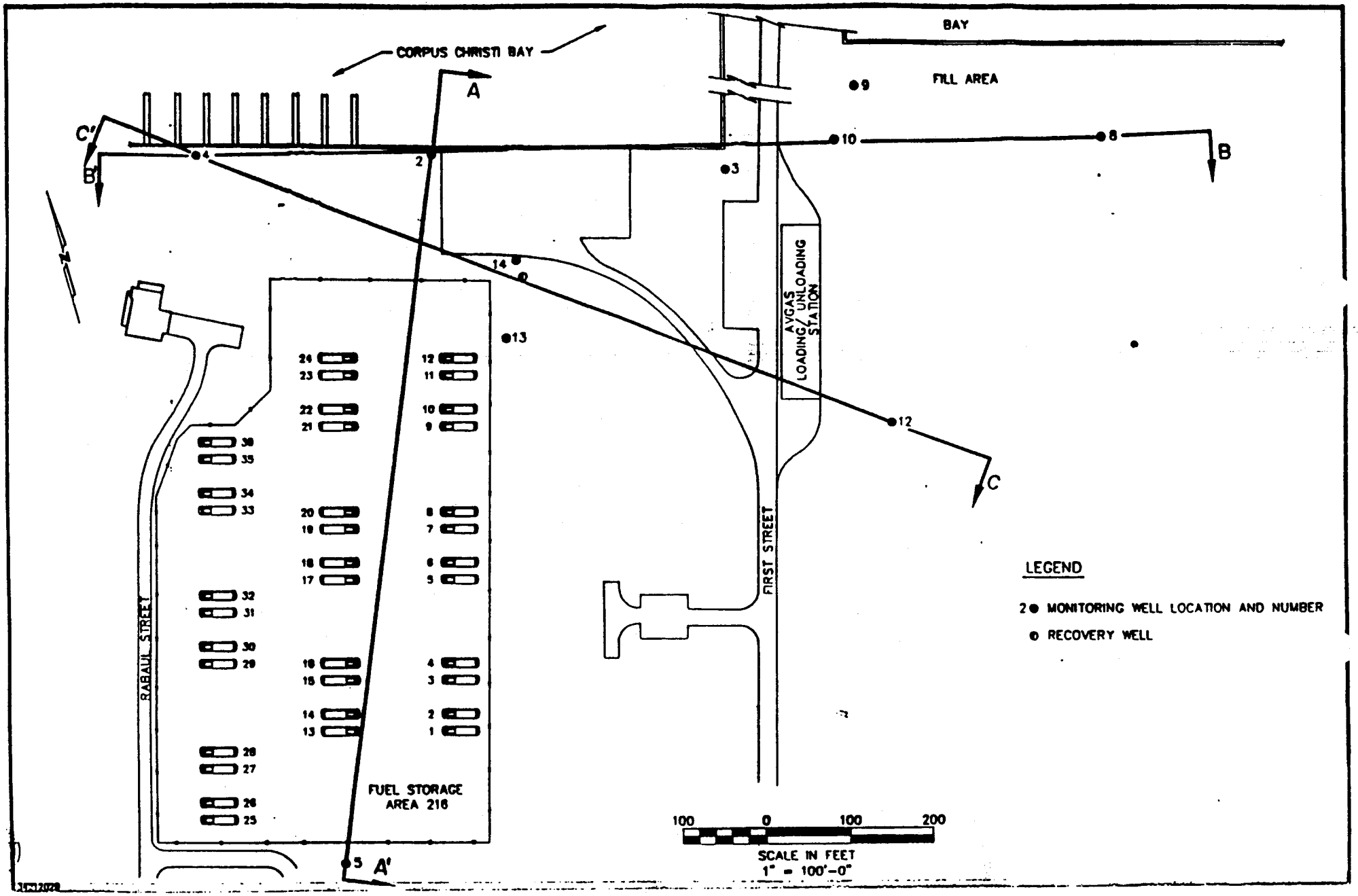
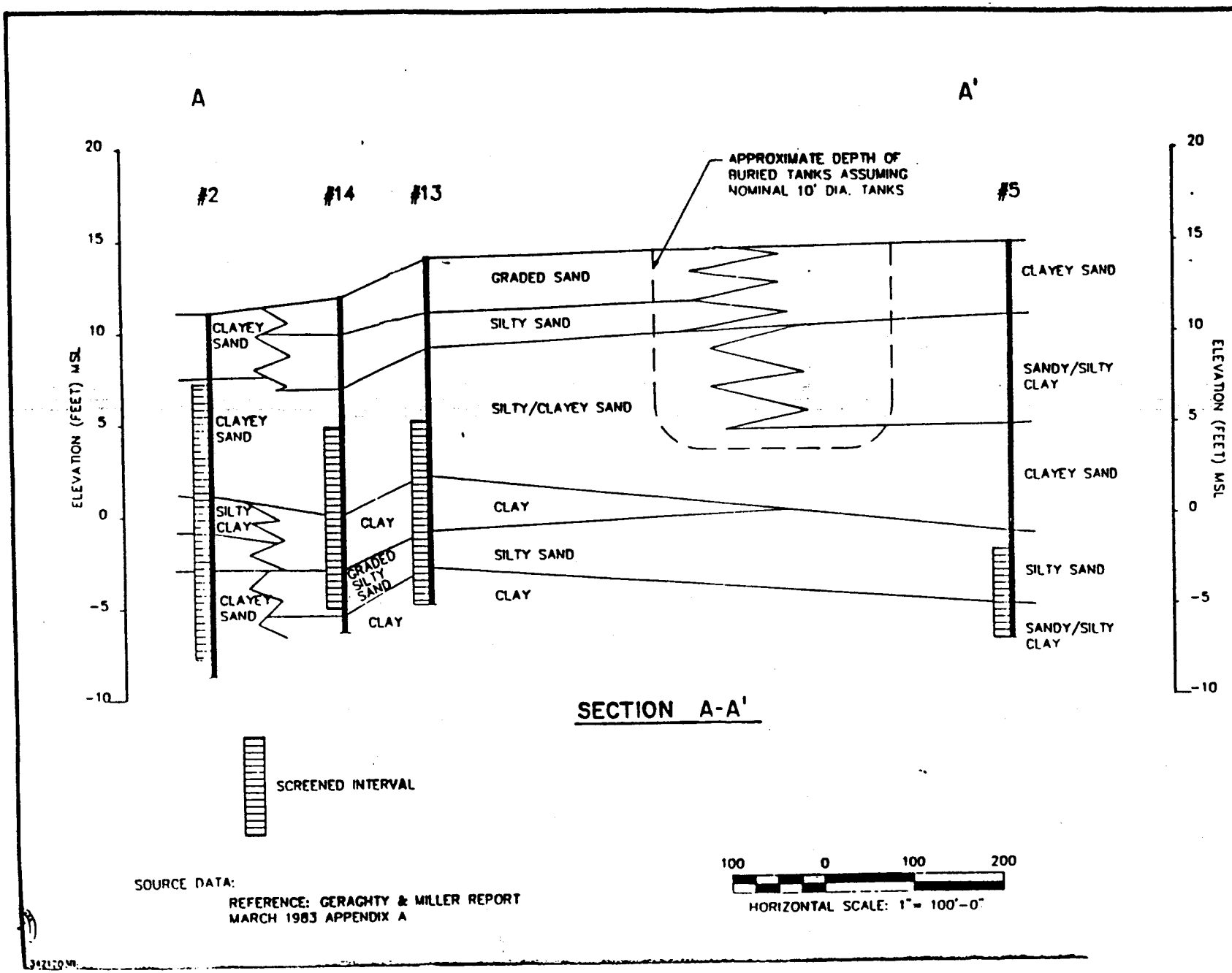


Exhibit 3.4
Tank Form 216 Plot Plan of Geologic Cross-Sections
Source: Reference 95



SOURCE DATA:
REFERENCE: GERAGHTY & MILLER REPORT
MARCH 1983 APPENDIX A

Exhibit 3.5
Tank Form 216 Geologic Cross Section A-A'
Source: Reference 95

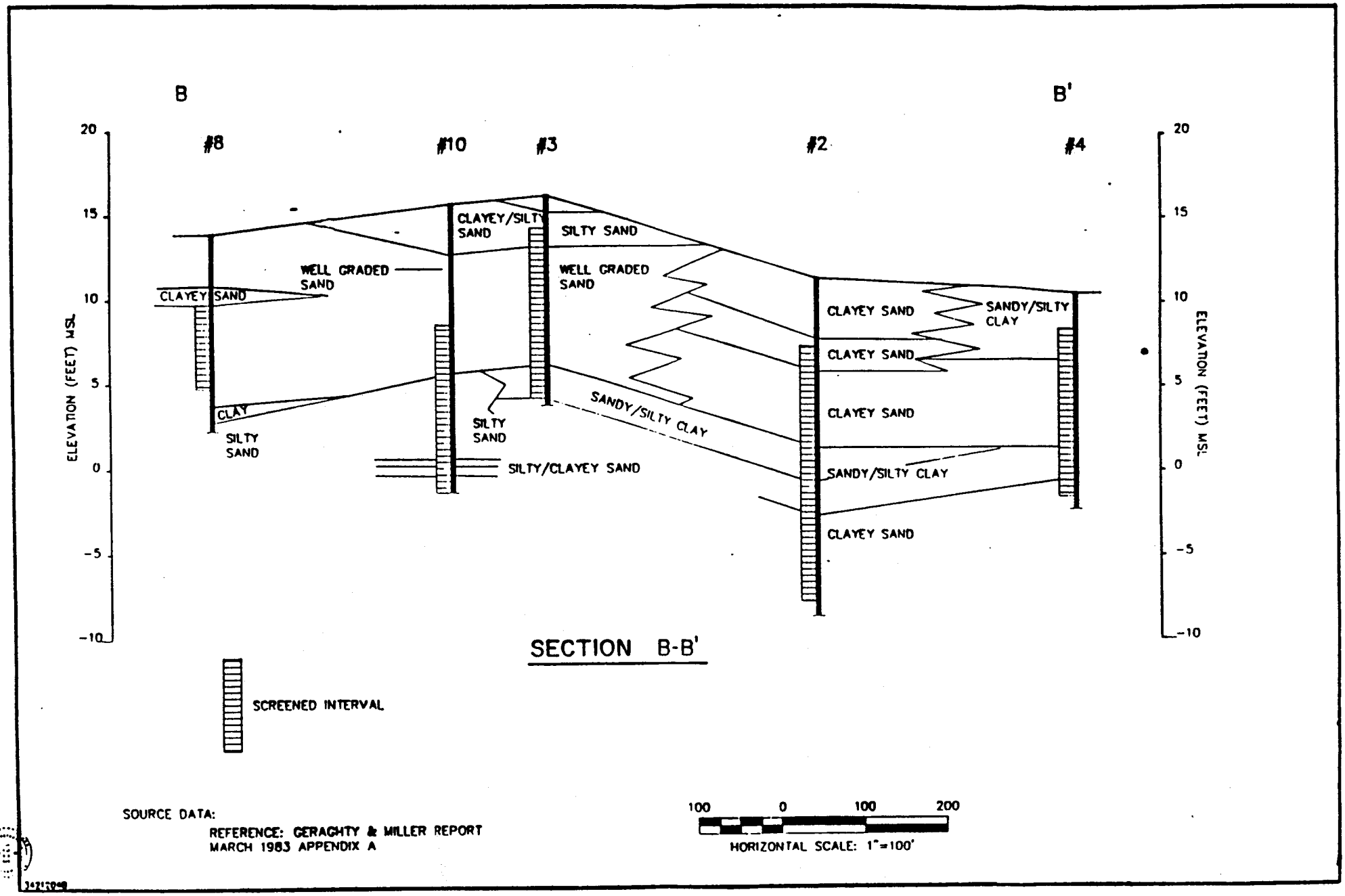


Exhibit 3.6
Tank Form 216 Geologic Cross Section B-B'
Source : Reference 95

Section C-C (Exhibit 3.7) indicates that a silty clayey sand is found across the entire section from MW-4 to MW-12. This would indicate the presence of a continuous permeable unit which may be helpful in the recovery of fuel from the ground.

The subsurface conditions at Landfill Sites 1 and 3 (SWMU Nos. 1 and 2) are evaluated by means of soils borings and monitoring well installation in response to initial assessment study (Reference 2) recommendations. Exhibit 3.8 shows the location of landfills including wells. A geologic cross section (Exhibit 3.9) indicates that the top 15 to 20 feet of soils are loose unconsolidated sand and silty sand which exhibit moderate to high permeability. A discontinuous layer of clayey sand to silty clay is noted at an approximately elevation +8 feet MSL. The subsurface soil conditions at the Landfill Site 9 (SWMU No. 9) are similar to those of Sites 1 and 3 as indicated by test boring GM-22. The subsurface soil conditions indicate that any releases of waste constituents into the permeable soil will spread both in the lateral and vertical directions.

3.4 Groundwater

The Chicot Aquifer is an unconfined aquifer that consists of unconsolidated alluvium and barrier island deposits of Holocene Age and of the Lissie and Beaumont formations of Pleistocene Age. The Chicot Aquifer varies in depth from surface to approximately 1,000 feet. Woodman and others (1978) (per IAS Study, Reference 2) suggest that although no exact distinction between water table and artesian aquifers can be determined, wells greater than 250

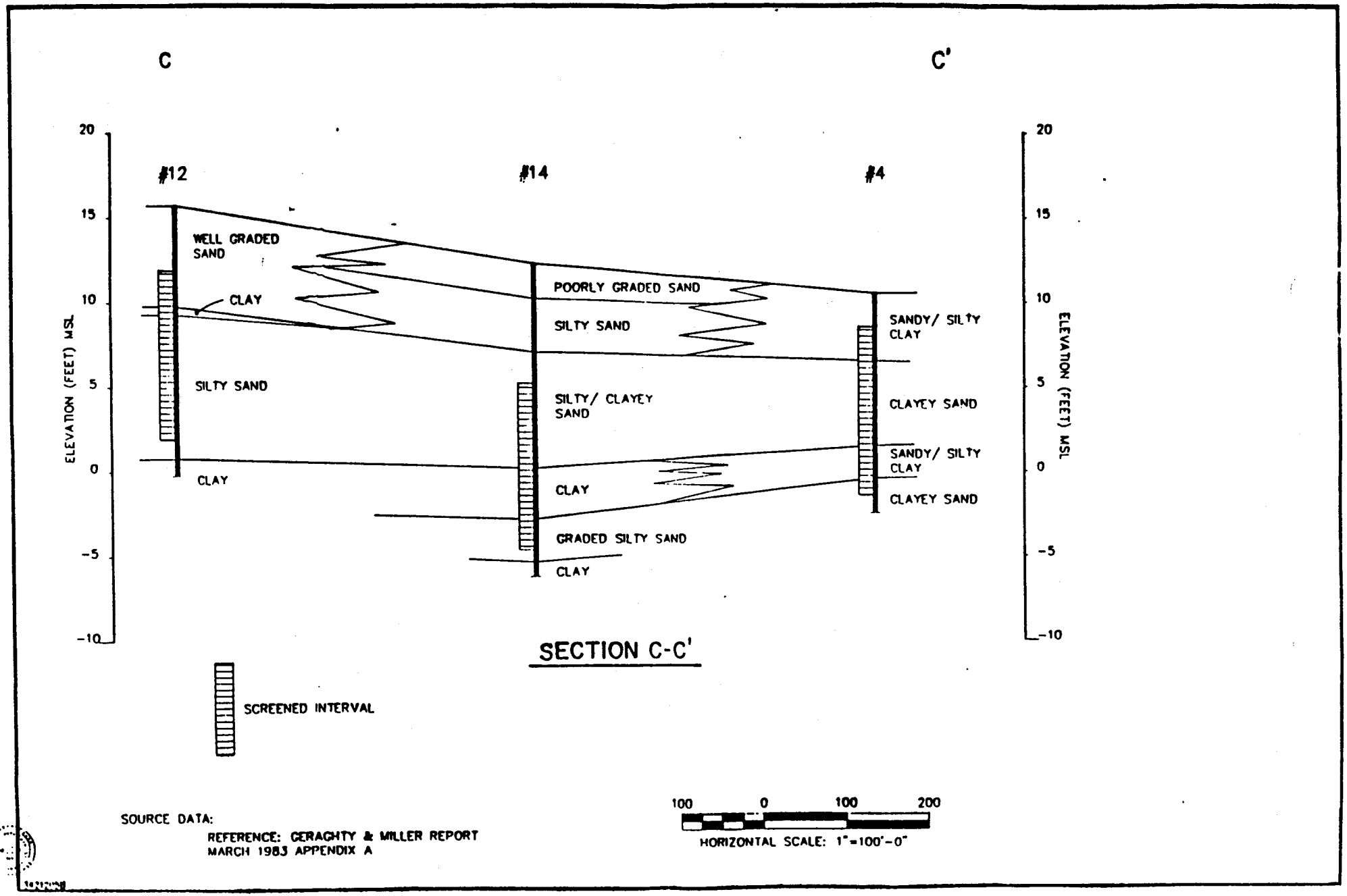


Exhibit 3.7
Tank Form 216 Geologic Cross Section C-C'
Source: Reference 95

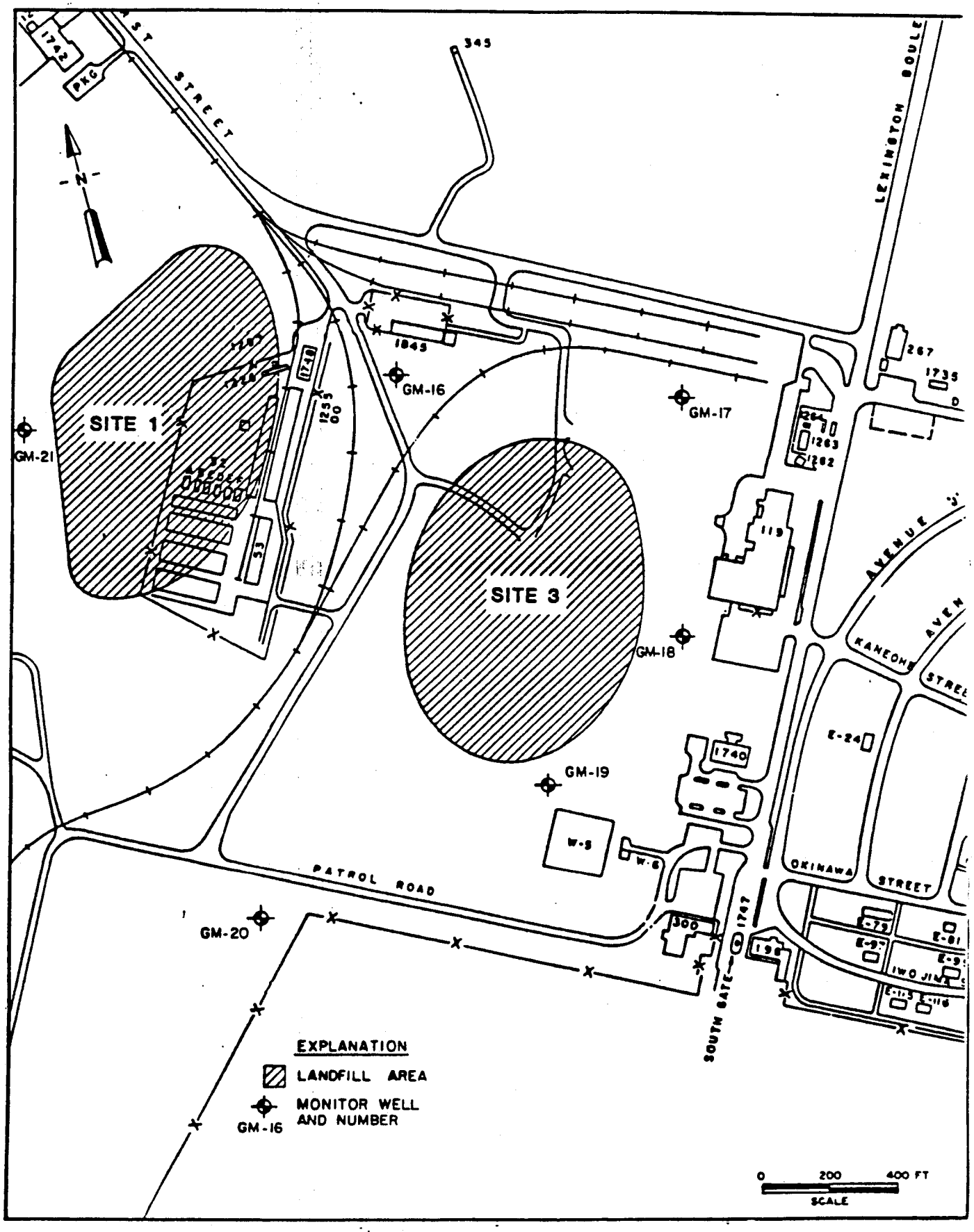


Exhibit 3.8
Location of Monitoring Wells for SWMUs # One and Two
Source: Reference 30

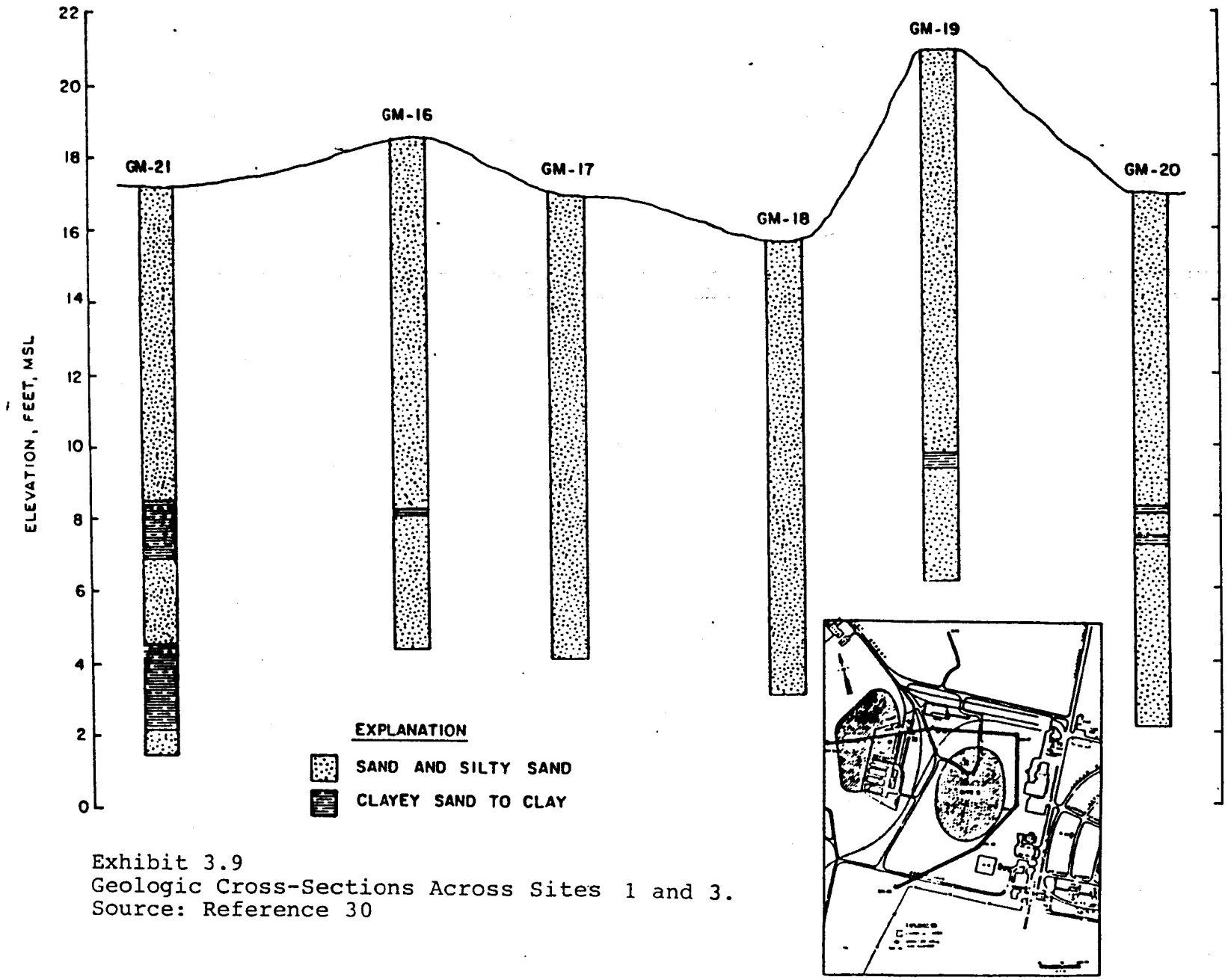


Exhibit 3.9
Geologic Cross-Sections Across Sites 1 and 3.
Source: Reference 30

feet deep generally encounter artesian conditions. Beneath the Chicot Aquifer and extending to a depth of approximately 2,800 feet is the artesian Evangeline Aquifer of the Pliocene Goliad Sand (Reference 2).

Shallow water table conditions exist within the immediate NAS Corpus Christi area in the upper, sand-dominated units of the Beaumont Formation and unconsolidated Holocene deposits. This sand-dominant material has the highest permeability of material encountered in the Corpus Christi area, with an estimated permeability of 10^{-1} through 10^{-2} centimeter per seconds (cps) (Woodman and others, 1978) (Reference 2).

The flow net of water table aquifers (Exhibit 3.10) presented by Woodman and others (1978) indicates a flow direction for the general area to the northeast directly toward Corpus Christi Bay. Equal potential lines indicate that the water table in this area at a depth of less than 10 feet (Reference 2).

As indicated by permeability data presented for surficial and shallow soils and shallow geologic units, migration of hazardous constituents within the NAS Corpus Christi vicinity is possible with flow within the saturated zone of the shallow water table aquifer toward Corpus Christi Bay, Laguna Madre, and Cayo del Oso (Reference 2).

Artesian aquifers in the vicinity of NAS Corpus Christi (Evangaline Aquifer and confined portion of Chicot Aquifer) become increasingly saline with depth. Only fresh to slightly saline (less than 3,000 milligrams per liter total dissolved solids) ground water has a significant potential for development and use.

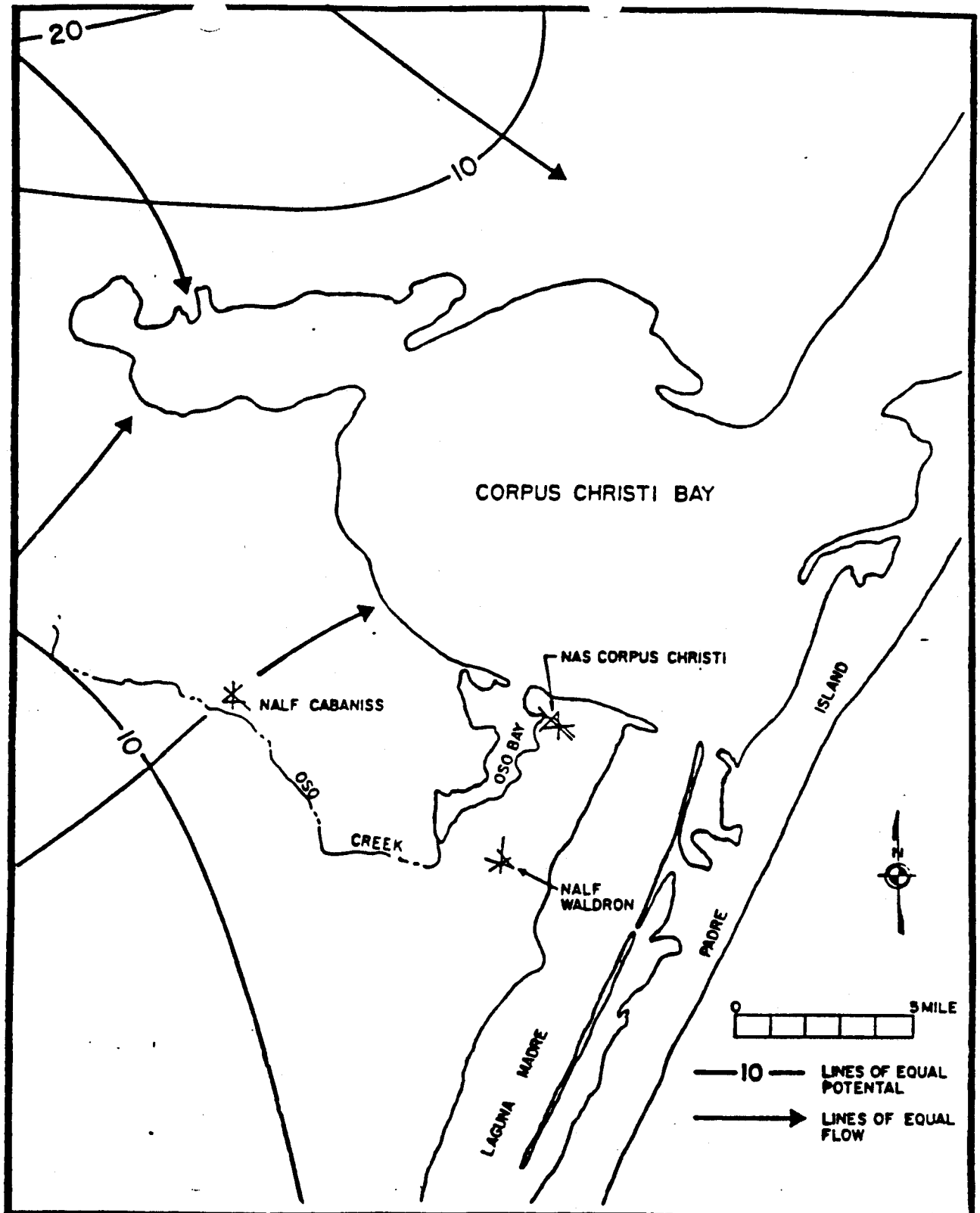


Exhibit 3.10
Flow Net Of Water Table Aquifer
Source: Reference 2

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Exhibit 3.11 shows the approximate elevation of the base of fresh to slightly saline artesian ground water; ground water below this elevation has little potential due to high salinity. At NAS Corpus Christi, the base of fresh to slightly saline water is at or above sea level (0 elevation). This represents a very limited potential for fresh artesian water at this site where surface elevations are low to moderate (NAS Corpus Christi, +15 feet MSL).

Flow direction in the artesian aquifer is similar to that for water table aquifer. This, coupled with unsuitability of water quality in artesian aquifers and the implied migration of potential pollutants to discharge into Corpus Christi Bay, Laguna Madre, Cayo del Oso, or Oso Creek, implies negligible potential for possible contamination of significant ground water supplies in the vicinity of the facilities (Reference 2).

Ground water contamination due to fuel releases has been investigated at NAS Corpus Christi. Results of the study are presented in a report entitled "Assessment of Fugitive Oil Contamination at the Naval Air Station, Corpus Christi, Texas" dated March 1983 by Geraghty and Miller, Inc. The study was conducted in response to a bookkeeping audit at NAS Corpus Christi which indicated an evident loss of approximately 20 million gallons of fuel over a 40-year period. The Public Works Department initially constructed a large-diameter well that indicated a thickness of 3.4 feet of fuel saturated sand at a depth of less than 15 feet below grade. Data in this consulting report were generated by the installation of 15 boring observation wells (Reference 14).

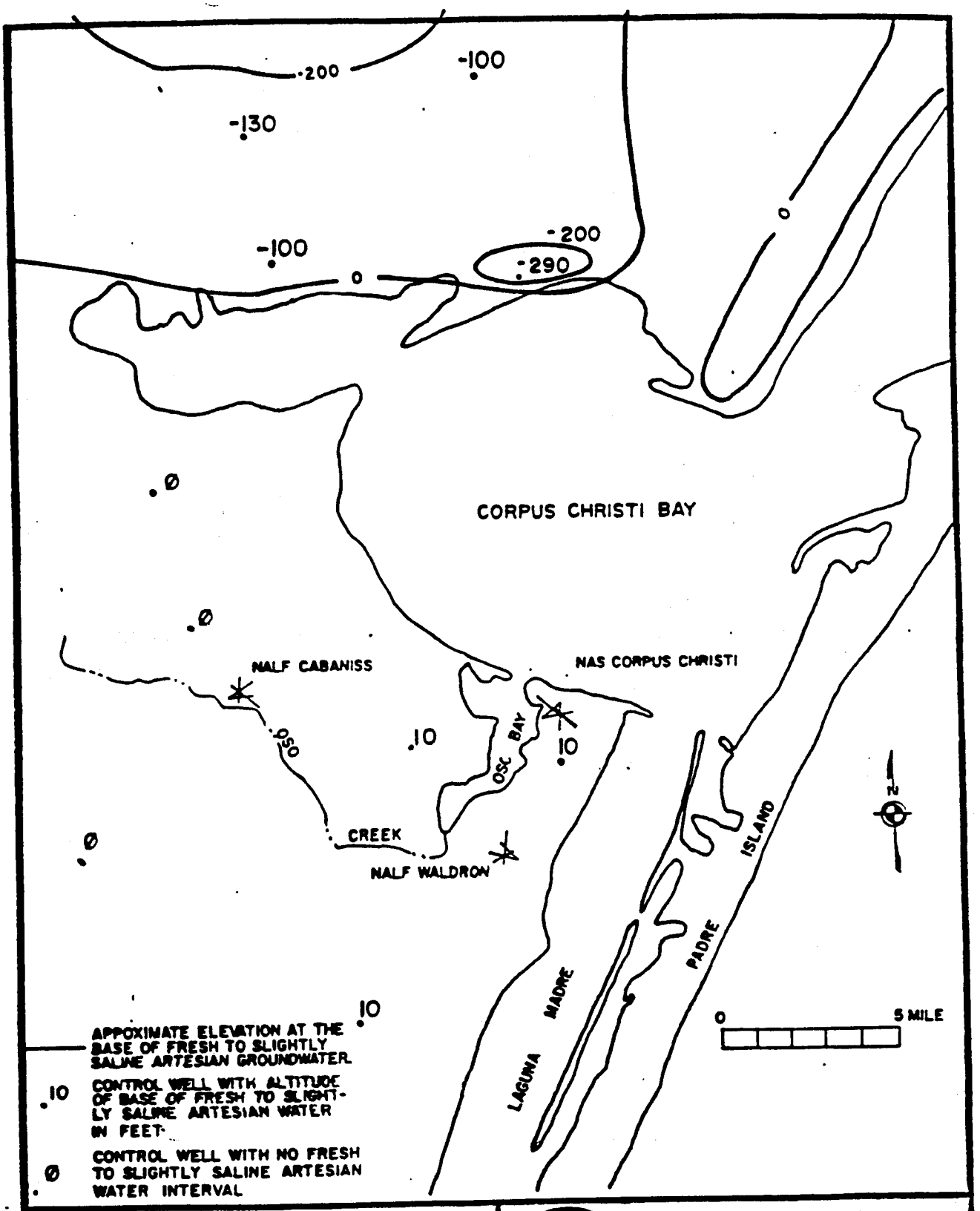

Exhibit 3.11
Fresh To Slightly Saline
Artesian Ground Water
Conditions
Soure: Reference 2

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Exhibit 3.12 illustrate the potentiometric surface of the unconfined water and fuel layer. These potentiometric surfaces indicate that the bulkhead acts as a hydraulic barrier which redirects groundwater flow parallel to the bulkhead. The groundwater contours are apparently influenced more by man-made features and subgrade topography than by groundwater withdrawal at the scavenger well. In general, groundwater appears to be flowing westerly. However, the flow direction appears to change between summer and winter months (Reference 95).

Laboratory analyses of select samples from borings 5 and 6 gave calculated porosities of 0.52 and 0.44, respectively. In situ, hydraulic conductivity tests for Wells 5 and 6 indicated conductivity of $2x10^{-4}$ cps to $2x10^{-2}$ cps, respectively (Reference 14).

Hydrogeologic investigation at Landfill Sites 1 and 3 (Exhibit 3.8 and 3.13) indicate that a groundwater mound exists at the location of Landfill Site 3 (SWMU No. 2) such that shallow groundwater flow in this area is radially outward away from the sites.

Laboratory analyses performed on Shelby Tube samples suggest that the vertical permeabilities of the clays associated with the upper Beaumont Formation are low with values ranging between $1.1x10^{-5}$ to $1.2x10^{-5}$ cm/sec. The horizontal permeability of the fine grained silty sand, however, is estimated to be $1x10^{-3}$ cm/sec.

Although similar geologic conditions exist at Landfill Site 9 (SWMU No. 9) in comparison to Sites 1 and 3, the hydrologic

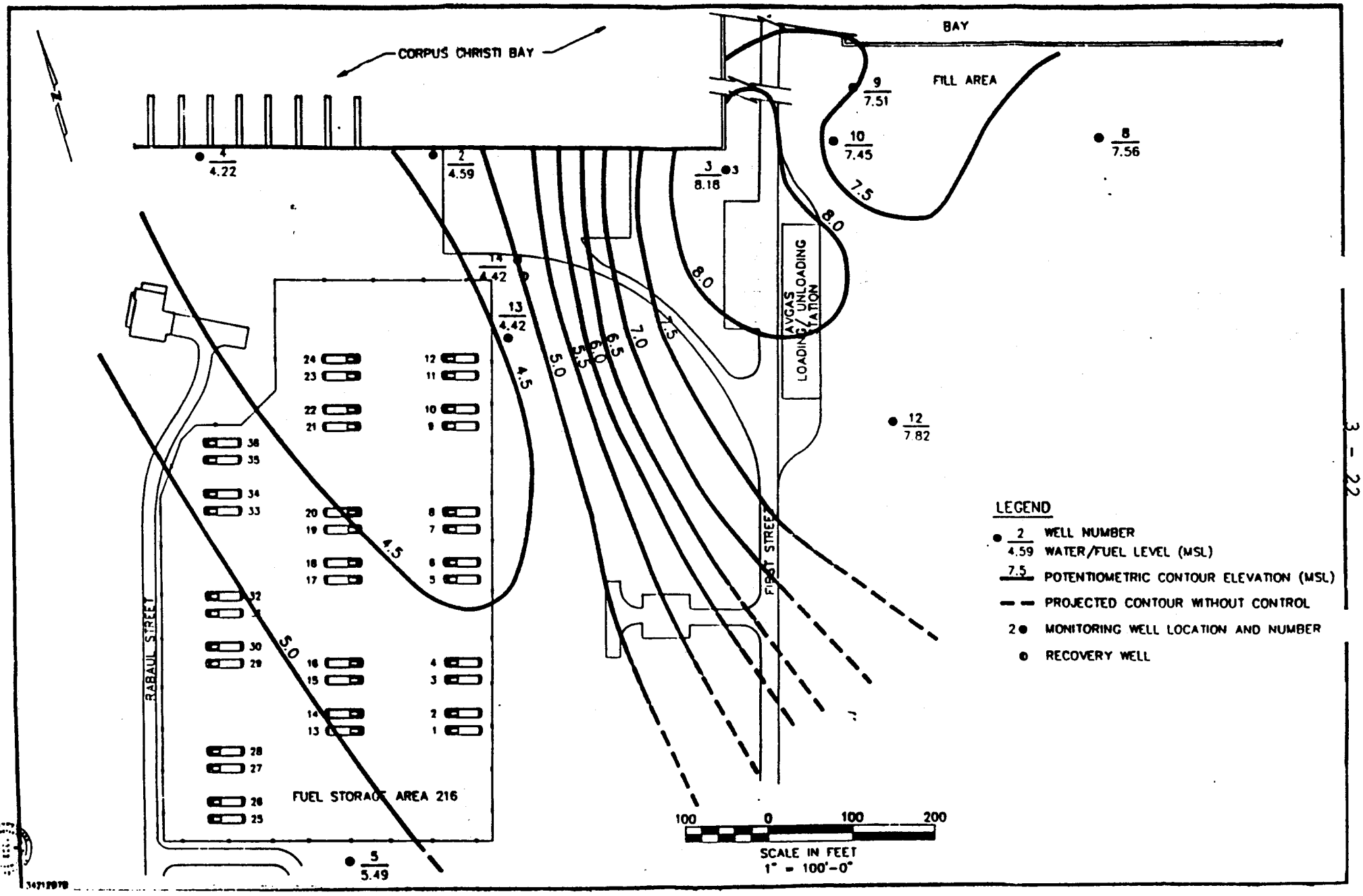

Exhibit 3.12
Tank Form 216 Area Potentiometric Map
Source: Reference 95

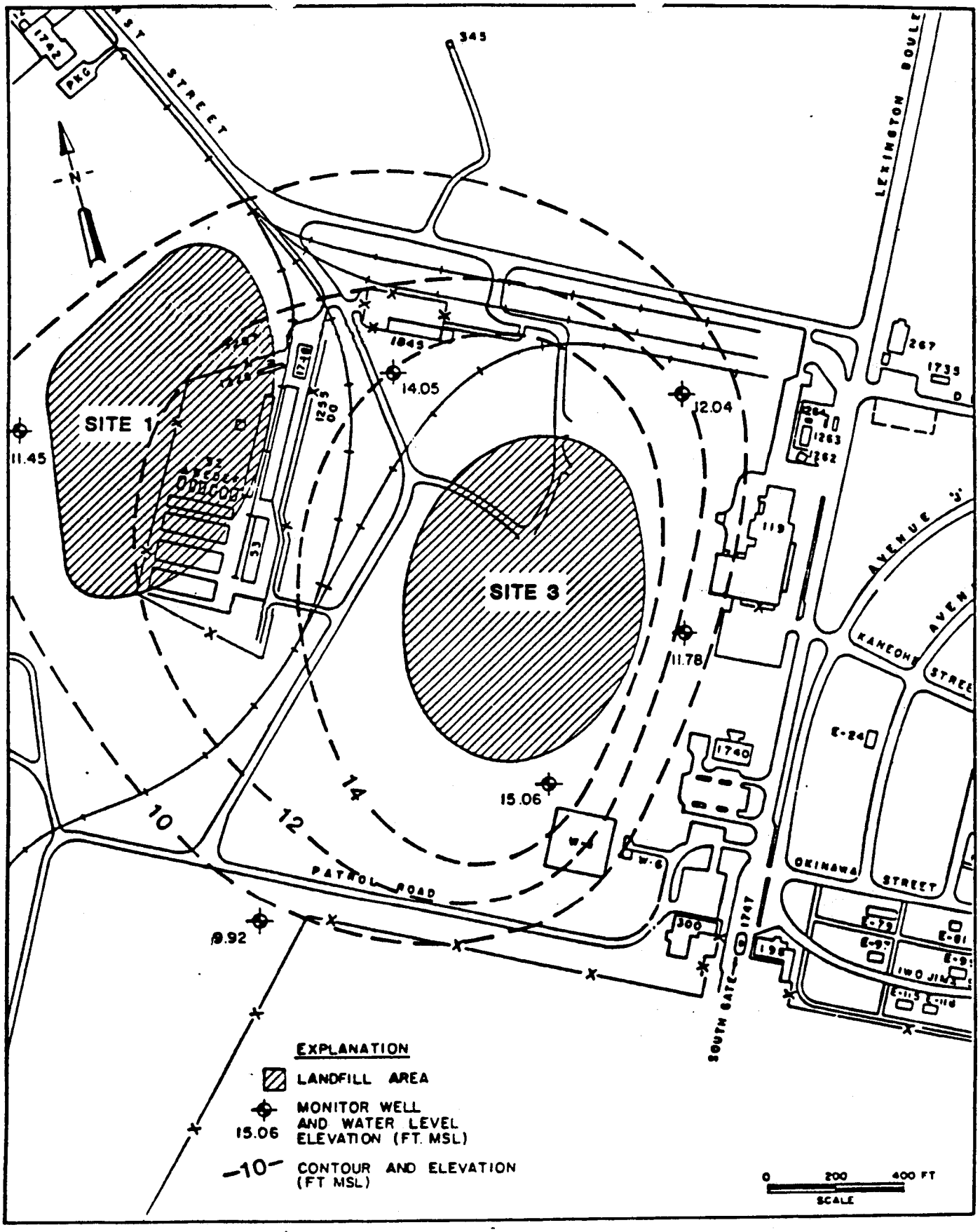

Exhibit 3.13
Water Table Contour Map in the Proximity of SWMUs # 1 & 2
Source: Reference 30

conditions vary slightly. Site 9 is located immediately adjacent to Corpus Christi Bay, and groundwater flow in this area is migrating slowly toward the bay.

Water quality testing samples from the monitoring wells at SWMU Nos. 1, 2 and 9 confirm the presence of volatile organic compounds, dissolved metals including chromium, selenium and silver on the shallow groundwater system (refer to Exhibits 3.14 and 3.15).

3.5 Receptors

Corpus Christi is one of the fastest growing cities in the nation. Its population has quadrupled from 57,301 in 1940 to 232,000 in 1980. The Corpus Christi metropolitan area is composed of Nueces and San Patricio Counties (Reference 96).

The layer of fresh water beneath Corpus Christi is subject to salt water intrusion. The Corpus Christi area consists mainly of deep, nearly level well-drained sandy soils with a water table predominantly below four feet in depth. Corpus Christi's potable water is distributed to and by the city from Lake Corpus Christi at Mathis, Texas, 35 miles to the northwest. The water supply there is fed by the Nueces River with water levels being dam-controlled (Reference 96).

Over 500 species of wildlife inhabit the coastal region. The majority of these species serve principally as a source of enjoyment and scientific study. Some wildlife species such as fin fish and shell fish, are of commercial value and are harvested. Types of fish found in the Corpus Christi area along the bays and

EXHIBIT 3.14

CONCENTRATIONS OF VOLATILE ORGANIC COMPOUNDS IN GROUND WATER SAMPLES OF MONITORING WELLS AT SWMU NOS. 1 AND 2

Compound	Concentration Range (Parts per billion)
Methylene chloride	0.4 - 1.3
Trans-1,2-dichloroethylene	0.1 - 0.8
Chloroform	1.1 - 7.8
1,2-dichloroethane	0.4 - 5.2
Bromodichloromethane	1.3 - 13
Trichloroethylene	0.1 - 2.2
Dibromochloromethane	2.9 - 22
Bromoform	4.8 - 39
Tetrachloroethylene	0.1 - 6.2
Chlorobenzene	4.5 - 63

EXHIBIT 3.15

CONCENTRATIONS OF METALS AND OTHER CONSTITUENTS IN THE MONITORING WELLS AT SWMU NOS. 1 AND 2

	Concentration Range (mg/l)
Arsenic	<0.005
Barium	0.12 - 0.74
Cadmium	<0.001
Chromium	<0.025 - 0.12
Copper	<0.050 + 0.065
Lead	<0.005 - 0.05
Mercury	<0.0002
Nickel	<0.05 - 0.11
Selenium	<0.005 - 0.017
Silver	<0.012 - 0.12
Cyanide	<0.01

shore waters of the Gulf are trout, redfish, and drum; types of fresh water fish found in Lake Corpus Christi are white and black bass, catfish and crappie (Reference 96).

The ecological system in the Corpus Christi area is influenced by its proximity to the largest migration route in the United States. There have been no reported sighting of rare or endangered species in the station. The NAS facilities and operations are not reported to have produced any known degradation of the ecological system to date (Reference 96).

Some of the wildlife species observed in the Texas coastal region are rare and endangered and are listed in the U.S. Department of the Interior publication entitled "United States List of Endangered Fauna". Those that inhabit or visit the Corpus Christi Bay area include the American alligator, eastern brown pelican, peregrine falcon, and southern bald eagle. An island chain formed by previous dredging operations in the vicinity of the intersection of the main channel with La Quinta Channel is one of the few known brown pelican nesting sites in Texas. The rare whooping crane can also be found within a 20-mile range northeast of the project area in the Arkansas National Wildlife Refuge which provides its winter habitat (Reference 96).

Except for the region's shore marine life, other forms of animal life are relatively scarce. Among the mammals are several kinds of rodents, the gopher, coyote and blacktailed jackrabbit. Reptiles include the marine loggerhead turtle, light-gray keeled earless lizard, bull snake, coachwhip, garter snake and western diamondback rattlesnake (Reference 96).

4.0 RELEASE PATHWAYS

This section provides an overview of the potential for the release of hazardous constituents to the various environmental media. This potential is based on the combination of waste characteristics, facility characteristics, and environmental setting.

4.1 Air Pathway

An analysis of meteorological characteristics of NAS Corpus Christi, and the facility's operations, indicates that releases to air have occurred, and a moderate potential exists for further releases.

Complete overhaul, repair, modification and test of rotary wing aircraft at CCAD results in generation of the majority of waste produced at NAS Corpus Christi, including emissions in air. Texas Air Control Board issued Notice of Violations to CCAD on October 23, 1987, for unpermitted increases in emissions from a number of shops at CCAD. Vapor degreasers in Shops 5CB1A, 5EB1A, 5DB1B (SWMU Nos. 248 to 252), paint spray booth in Shop 5DC3A , and an air exhaust bench in Shop 5DC3D were named for unpermitted increases in emissions (Reference 107).

In a meeting on January 8, 1988, CCAD provided additional information indicating that the emissions in Shops 5CB1A, 5EB1A and 5DB1B may meet the requirement of a standard exemption. Texas Air Control Board required submittal of Form PI-7 with supporting documentation for each violation to confirm applicability of a

standard exemption and thus resolve the violation issue (Reference 107).

A temporary exhaust system in Aircraft Stripping Shop 5DB1C was constructed in 1987. The emissions from this facility are reported (Reference 107) to be substantially higher than that allowed in the permit (Reference 107).

The facility utilizes a variety of solvents including stoddard solvent, methylene chloride, trichloroethane, Varsol, etc., on a regular basis. A moderate potential may exist for the release of vapors from these solvents.

The exhaust from the Plating Shop is diverted into cyanide, chrome and miscellaneous tunnels (SWMU Nos. 245, 247). The exhaust is passed through scrubbers (SWMU Nos. 253-256) before discharging the fumes into the air. A spill in the cyanide tunnel was reported in 1987 which led to the evacuation of Building 8 (Reference 115).

Approximately 3,000 gallons per month of waste fuel oil is burned in the Fire Fighting Training Area (SWMU No. 4) for 5 to 6 months a year to train crew for fire control. This operation has caused substantial emissions in the air (Reference 110).

Plastic and glass bead blasting machines generate small quantities of low-level radioactive waste which may exhibit a low to moderate potential of particulate emission in the air.

Tank Farm 216 (SWMU Nos. 12 to 47) has documented releases of fuel. Fuel vapor releases in the air are continuing, although remedial response taken by the facility is expected to have mitigated the continuing release of vapor into the air.

Liquid wastes have been disposed of on a weekly basis at the DPDO landfill (SWMU No. 1) prior to 1972. These waste streams contained numerous volatile organic compounds, which may be released in the air.

4.2 Surface Water Pathway

An analysis of the topography, surface waters, and operational characteristics of the NAS facility and studies undertaken on NAS indicate that non-permitted releases to surface waters have occurred, and a high potential exists for continuing releases.

Run-off water from the NAS is collected in storm drains and open drainage canals. These, in turn, drain into Corpus Christi Bay, Cayo Del Oso and Laguna Madre (Reference 2).

Facility representative Bob Stender indicated (Reference 121) that there are approximately 18 surface water discharge points from the facility to the Corpus Christi Bay, Cayo Del Oso and Laguna Madre. All of these discharges are active (Reference 121).

Prior to the construction of the IWTP, the wastewater generated at the CCAD was discharged to Corpus Christi Bay through two 3-foot diameter storm drains (SWMU No. 274). This discharge continued from 1960 to 1975. The release of waste water to Corpus Christi Bay included volatile organics, base/neutral extractables, toxic metals, and many other hazardous waste constituents. A detailed listing of waste constituents is provided in the facility's Hazardous Waste Management Plan (Reference 61). This discharge of wastewater has been eliminated since the construction of the IWTP (References 2, 90).

The outfall from the IWTP was discharged to the Corpus Christi Bay until 1985. The effluent contained toxic volatile organic compounds and metals. Facility representative Bob Stender indicated violation of cadmium in the effluent from the IWTP (Reference 121). The effluent is now routed through the SSTP for additional treatment prior to the discharge of any effluent to the bay (Reference 90).

In addition, it was determined (Reference 90) that both the SSTP and IWTP were subject to overflowing possibly due to infiltration of storm water into the industrial and sanitary sewer lines during times of storms and flooding. CCAD has performed a survey of all industrial and sanitary sewer lines on Army-controlled properties. The results of that study indicated the CCAD system was in good repair, no infiltration/exfiltration was occurring and no action was necessary (Reference 90).

A spill which reaches IWTP always presents a potential problem, especially if the spill cannot be adequately treated by the system. In order to prevent spills from upsetting the operation of IWTP, CCAD has installed a 250,000-gallon spill containment tank (SWMU No. 336). If a spill occurs, CCAD notifies the Navy operators at IWTP and the spill can be diverted into the tank. The tank contents can then be removed and disposed of as hazardous waste (Reference 90).

Liquid waste has been disposed of in the landfills on the NAS facility (SWMU Nos. 1 to 10). Similarly, discharges of fuel from Tank Farm 216 (SWMU Nos. 12 to 47) into the subsurface environment have been documented. Due to the exchange between groundwater and

surface waters especially during hurricanes, the potential exists for groundwater contamination to find a route to surface waters.

4.3 Soil Pathway

An analysis of the geology, topography and operational characteristics of NAS Corpus Christi, and studies undertaken on NAS property indicate that releases to soils have occurred and that a high potential exists for further releases.

Additional studies (References 30 and 80) have confirmed the presence of hazardous constituents in the subsoils. A hydrocarbon layer has been detected in Site 3 Landfill (SWMU No. 2). Base and neutral organics, cadmium, lead and chromium were noted in soils under Landfill Sites 1 and 9 (SWMU Nos. 1 and 9). The Initial Assessment Study (Reference 2) identified three landfill sites (SWMU Nos. 1, 2 and 9) for a confirmation study.

As discussed in the environmental setting (Section 3.0), the near surface soils on the base are predominantly silty sand to sand which exhibit moderate to high permeability. The top ten feet of the soil in the proximity of the Tank Farm 216 (SWMU Nos. 12 to 47) are dredged soils which are cohesionless. These soils are underlain by a discontinuous layer of clayey silt/silty clay layer which may impede the vertical movement of contaminants because of its low permeability. This clayey silt/silty clay layer, in turn, is underlain by a permeable layer. Thus, while vertical mobility of the waste constituents could be impeded by the presence of clay layer, any releases of the hazardous waste constituents is likely to spread both laterally and vertically in

the subsurface environment. Corrective measures have been undertaken by NAS in response to the releases in soils (References 14, 95).

Seven additional land disposal facilities (SWMU Nos. 3, 4, 5, 6, 7, 8 and 10) have been used to dispose of wastes generated at NAS Corpus Christi. Since these disposal facilities are not lined and not closed in accordance with an approved closure plan, releases potential of waste constituents to soil is high. Similarly, sludge drying beds (SWMU Nos. 310 to 315) are likely to release waste constituents in soil because these units are unlined and are located in permeable subsoils.

Tank Farm 216 (SWMU Nos. 12 through 47) has been studied in detail (Reference 95). A layer of fuel was discovered floating on top of the groundwater in the vicinity of Tank Farm 216. Audits of the fuel management records indicate that approximately 20 million gallons of fuel were unaccounted for over a 40-year period. Remedial measures have resulted in recovery of nearly 3,000 gallons of fuel since the corrective action program began (Reference 110).

Many tanks in Tank Farm 217 (SWMU Nos. 54 to 62), Tank Farm 244 (SWMU Nos. 63 to 70) and numerous other locations (SWMU Nos. 71 to 87) are over 40 years old and are likely to release constituents in the soil pathways. These tanks have been abandoned in place and filled with cement and sand. Removal of tank residues and decontamination of tanks prior to abandonment were not performed. No structural integrity tests were conducted. Thus, the potential of releases from the abandoned tanks to soil is considered to be high.

4.4 Groundwater Pathway

An analysis of the geology and groundwater characteristics of the NAS facility and several studies undertaken on NAS property indicate that releases to groundwater have occurred, and that a high potential exists for further releases.

Studies (References 30 and 95) commissioned by the facility have looked at the potential for migration of contamination from areas known to be heavily contaminated, specifically the area around Tank Farm 216 (SWMU Nos. 12 to 47) and land disposal units (SWMU Nos. 1, 2 and 9). However, due to the proximity of groundwater to surface water and presence of permeable soils, any of the SWMUs potentially contributing to those release pathways may be expected to contribute to releases to groundwater.

Hydrogeologic studies (References 14 and 95) conducted at Tank Farm 216 have confirmed the presence of a free floating fuel layer overlying shallow groundwater. The thickness of the floating layer has been reported to be six to seven feet (Reference 95). One study (Reference 4) estimated that 20,000 gallons of fuel oil is recoverable. Remedial measures are in effect which consist of pumping of fuel beneath the Tank Farm 216 (Reference 95).

A confirmation study (Reference 30) conducted at landfills (SWMU Nos. 1, 2 and 9) confirmed the presence of volatile organic compounds in the shallow groundwater which are reported to migrating radially away from the site at a rate of less than 50 feet per year. This study also confirmed the presence of chromium, selenium and silver in concentrations exceeding EPA's

standards for drinking water at the North Gate Disposal Area (SWMU No. 9) (Reference 30).

As indicated in the preceding section of soil pathway, numerous tanks (SWMU Nos. 12 and 87) are abandoned in place with sand and cement without decontamination of tanks. Many of these tanks are over 40 years in age and are likely to release waste constituents in groundwater.

A storm sewer (SWMU No. 275) was used to dispose of waste streams from the CCAD into the Corpus Christi Bay prior to 1975 (Reference 2). Since these waste streams were corrosive in nature, and flooding of storm sewer is reported, it is likely that the waste might have exfiltrated from the sewer into the shallow groundwater system.

Other evidence indicates a complex and dynamic situation characterized by the proximity of the shallow groundwater to surface water, which results in exchange between the two media. Recharge of groundwater by surface waters especially during hurricanes, and discharge of groundwater to surface waters reportedly may occur in areas on the base which are prone to tidal waves.

5.0 DESCRIPTIONS OF SOLID WASTE MANAGEMENT UNITS

This section presents a checklist description of each solid waste management unit. The units of similar release potential have been grouped as indicated in the exhibits. The descriptions encompass unit (SWMU) description, dates of operation, wastes managed, release controls, history of releases, and release potential to soil/groundwater, surface water, and air, and the potential to generate subsurface gas.

Exhibits 5.1 through 5.20 were prepared utilizing the data available in the files (2, 3, 4, 6, 8, 9, 12, 24, 27, 38, 41, 42, 44, and 48) and information provided by the facility during and after the visual site inspection. The information in the data base was in many instances incomplete; therefore, there are gaps in the exhibits. The SWMUs are arranged in increasing order by Land Disposal Facilities (SWMU Nos. 1 to 11), Tank Farms (SWMU Nos. 12 to 86), CCAD Satellite Accumulation Areas (SWMU Nos. 87 to 133), Navy Satellite Accumulation Areas and Miscellaneous Units in the PWD (SWMU Nos. 134 to 194, 201 to 204), Navy Hospital Units (SWMU Nos. 195 to 200), Temporary Storage Areas (SWMU Nos. 205 to 224), Miscellaneous CCAD Units (SWMU Nos. 225 to 276), Bead Blasting Machine Waste Collection Pans (SWMU Nos. 277 to 298), Sanitary Sewer Treatment Plant Units (SWMU Nos. 299 to 315), Industrial Waste Pretreatment Plant Units (SWMU Nos. 316 to 333B), Industrial Waste Treatment Plants (SWMU Nos. 334 to 354), Low-Level Radioactive Waste Storage Area (SWMU No. 355) and Waste Collection Containers (SWMU No. 356).

5.1 SWMU No. 1: Defense Property Disposal Office (DPDO) Landfill

(Photos: 1-5)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The unit is a solid/hazardous waste landfill located in the area currently referred to as the DPDO Yard. The site is bordered on the northeast, east and southeast by railroad tracks and First Street. The site was reportedly used for the disposal of one waste layer with a disturbed depth of not more than three or four feet (Reference 2).

Purpose of Unit: The unit was used for the disposal of solid waste generated by CCAD, NAS Corpus Christi, and NAS Corpus Christi Housing, as well as bulk chemical wastes generated by CCAD (Reference 2).

Regulatory Status: The unit is an unpermitted disposal area which was closed without an approved closure plan.

Period of Operation: The unit was in operation from 1949 through the early 1960s (Reference 2).

Dimensions/Volume: The unit consisted of a 20 acre area with four or five seepage pits. The maximum depth of the landfill is approximately four feet. The total volume of solid waste disposed was between 1,248,000 to 3,120,000 gallons (References 2, 110).

Material of Construction:

Underlain By:	____ Concrete	____ Asphalt	____ Gravel
	____ Grass	X Soil	
Environmental:	____ Indoors	____ Close to Surface Water	X In Ground
	X Outdoors	____ Close to Drinking Water	____ Above Ground
	X Covered	____ Residences	____ Below Ground

Details: Located approximately 1 mile from Laguna Madre and approximately 1-1/2 miles from Cayo Del Oso Bay. The unit was covered with natural (sand and silty sand) soils. The surface cover and slope were not designed (Reference 110).

CLOSURE INFORMATION

____ Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

_X_ Other (Closed without an approved closure plan)

WASTES MANAGED

_X_ Solids	_X_ Corrosive	_X_ Organics
_X_ Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The following debris materials were disposed of in the unit: wood, rubber, asphalt material, brick fragments, tile, broken shingles, glues and melted aluminum. Approximately 2,000 to 5,000 gallons of the following bulk chemical liquid wastes were also disposed of weekly in the unit: organic solvents, sulfuric acid, hydrochloric acid, paint remover and thinner, and plating wastes from CCAD overhaul operations.

Sources of Wastes: The unit received solid wastes generated by CCAD, NAS Corpus Christi Housing, and NAS Corpus Christi base activities as well as bulk chemical waste generated by CCAD (Reference 2).

Disposition of Waste: The unit is considered by NAS Corpus Christi to constitute final disposition.

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: The unit has no mechanism to control releases.

MONITORING

X	Monitoring Wells	X	Down-Gradient Wells
____	Up-Gradient Wells	____	Surface Water Monitoring

Monitoring Frequency: Three rounds of sampling conducted (Reference 58).

RELEASE HISTORY

____	Past Release to Air	____	VSI Noted Release to Air
X	Past Release to Soil/GW	____	VSI Noted Release to Soil/GW
____	Past Release to S.W.	____	VSI Noted Release to S.W.
____	Past Release to S.S.G.	____	VSI Noted Release to S.S.G.

VSI Noted Release Conditions: None noted.

Detail of Past Releases: Releases of trace organic constituents, chromium and lead are reported (Reference 58).

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	____ Low	____ Medium	X High
Surface Water	____ Low	____ Medium	X High
Subsurface Gas Generation	____ Low	____ Medium	X High

Detail of Release Potential: The release potential to surface water is high because drainage from the site reportedly flows into the northern, western and southwestern drainage ditches along the unit boundary. These ditches intersect a ditch which flows easterly to Laguna Madre.

Releases of volatile organics and lead and chromium were noted in the soil and groundwater (Reference 58).

5.2 SWMU No. 2: Corpus Christi Army Depot (CCAD) Liquid Waste Disposal Area

(Photos: 1-6)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The unit is a landfill located west of Lexington Boulevard and south of First Street. The area is currently characterized by a series of parallel mounds and low areas with elevation difference of two to three feet (Reference 2).

Purpose of Unit: The unit was used for the disposal of debris and as a seepage area for chemicals collected in CCAD bowsers.

Regulatory Status: The unit is an unpermitted disposal area which was closed without an approved closure plan.

Period of Operation: The unit was in operation from 1960 through 1972 (Reference 110).

Dimensions/Volume: The unit consisted of 50-foot diameter drainage pits. A total volume of between 1,248,000 to 3,120,000 gallons of waste were disposed of at this unit (Reference 2).

Material of Construction:

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass X Soil

Environmental: ____Indoors ____Close to Surface Water X In Ground

X Outdoors ____Close to Drinking Water ____Above Grou

X Covered ____Residences ____Below Grou

Details: Located approximately one-half mile from Laguna Madre.

CLOSURE INFORMATION

____ Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

X Other (Closed without an approved closure plan)

WASTES MANAGED

X Solids	X Corrosive	X Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Bulk chemical liquid wastes from CCAD bowsers were disposed at a rate of 2,000 to 5,000 gallons per week. The bulk chemical liquid wastes consisted of organic solvents, sulfuric acids, hydrochloric acid, paint remover and thinner, and plating chemicals. An unknown amount of solid waste was disposed of at this unit. Surface debris, including shingle fragments, tin cans, concrete pipe, reinforcing rod, bottle caps, sheet metal, and wood scraps have been reportedly noted at the site (Reference 2).

Sources of Wastes: The bulk chemical liquid wastes were generated during CCAD maintenance operations. The source of the solid waste is unknown.

Disposition of Waste: The unit is considered by NAS Corpus Christi to constitute final disposition.

RELEASE CONTROLS

____ Liner	____ Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	____ Other	

Details: The unit has no mechanism to control releases.

MONITORING

X Monitoring Wells	X Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: Three rounds of sampling are reported (Reference 58).

RELEASE HISTORY

____	Past Release to Air	____	VSI Noted Release to Air
X	Past Release to Soil/GW	____	VSI Noted Release to Soil/GW
____	Past Release to S.W.	____	VSI Noted Release to S.W.
____	Past Release to S.S.G.	____	VSI Noted Release to S.S.G.

VSI Noted Release Conditions: None noted.

Detail of Past Releases: Past releases into soil and groundwater are reported (Reference 58). Base neutral organics, chromium and lead were noted in the soil samples. Six to thirty inches of floating hydrocarbons were noted during sampling of monitoring wells.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	____ Low	____ Medium	X High
Surface Water	____ Low	____ Medium	X High
Subsurface Gas Generation	____ Low	____ Medium	X High

Detail of Release Potential: The release potential to surface water and subsurface gas generation is high because of the characteristics of waste placed in the landfill, permeable underlying soils without liner, and shallow depth to groundwater. Release of volatile organics and metals were reported (Reference 58).

5.3 SWMU No. 3: NAS Corpus Christi Landfill

(Photos: 1-7)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The unit is a landfill located at the intersection of First Street and Patrol Road. A portion of the unit (SWMU No. 4) has been used for burning waste fuel on bare ground to train firefighters.

Purpose of Unit: The unit was used for the disposal of solid wastes generated by Corpus Christi and tenant activities (Reference 2).

Regulatory Status: The unit is an unregulated disposal area which was closed without an approved closure plan.

Period of Operation: The unit was in operation from 1956 through 1962 (Reference 2).

Dimensions/Volume: The unit is characterized by a series of east-west ridges, each ridge is about 1.5 to two feet in elevation. The ridges reportedly represent the areas of excavation and refill of trenches for disposal.

Material of Construction:

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass _X_ Soil

Environmental: ____Indoors _X_ Close to Surface Water _X_ In Ground

_X_ Outdoors ____Close to Drinking Water ____Above Ground

_X_ Covered ____Residences ____Below Ground

Details: Located approximately 1/2 mile from Laguna Madre.

CLOSURE INFORMATION

____ Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

_X_ Other (Closed without an approved closure plan)

WASTES MANAGED

X Solids	____ Corrosive	____ Organics
____ Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Solid wastes consisted of household and office waste, and demolition debris.

Sources of Wastes: Solid wastes were generated by NAS Corpus Christi and tenant activities.

Disposition of Waste: The unit is considered by NAS Corpus Christi to constitute final disposition.

RELEASE CONTROLS

____ Liner	____ Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	____ Other	

Details: The unit has no mechanisms for controlling releases.

MONITORING

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: Monitoring has not been conducted (Reference 110).

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: None noted.

Detail of Past Releases: No past releases are known.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	____ Low	____ Medium	X High

Detail of Release Potential: The release potential to subsurface gas generation is high because of the nature of waste deposited, and presence of permeable soil beneath the landfill. The release

de

WASTES MANAGED

X Solids	____ Corrosive	____ Organics
____ Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Solid wastes consisted of household and office waste, and demolition debris.

Sources of Wastes: Solid wastes were generated by NAS Corpus Christi and tenant activities.

Disposition of Waste: The unit is considered by NAS Corpus Christi to constitute final disposition.

RELEASE CONTROLS

____ Liner	____ Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	____ Other	

Details: The unit has no mechanisms for controlling releases.

MONITORING

5.4 SWMU No. 4: Aircraft Fire Training Area

(Photos: No Photos)
(Exhibit 2.2)

DESCRIPTION: The unit is located in a portion of the old Corpus Christi Landfill (SWMU No. 3). Training is conducted at the site for 5-6 months each year. The training activities utilize approximately 3,000 gallons per month of waste fuel. The fuel is discharged to a clay-lined bermed area and ignited to allow practice in extinguishing the blaze. The clay liner and berm were added to the area in 1973, prior to which time the fuel was discharged directly to the surface.

Unit Type: The unit was formerly an unlined surface which was renovated with a clay liner and a berm.

Purpose of Unit: The unit is used for Aircraft Fire Training. Approximately 3,000 gallons per month of waste fuel is ignited in this area to allow practice in extinguishing the blaze.

Regulatory Status: The unit is unregulated.

Period of Operation: The unit has been in operation since 1960s.

Dimensions/Volume: 30 feet by 30 feet.

Material of Construction:

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass X Soil

Environmental: ____Indoors ____Close to Surface Water ____In Ground

X Outdoors ____Close to Drinking Water ____Above Ground

____Covered ____Residences ____Below Ground

Details: Located approximately one-half mile from Laguna, Madre, the fire training area is clay lined.

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
_X_ Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Waste fuel generated at the Base.

Sources of Wastes: Waste fuel generated at the Base.

Disposition of Waste: Waste oil is ignited.

RELEASE CONTROLS

_X_ Liner	_X_ Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	____ Other	

Details: Initially waste oil was discharged and ignited on an unlined surface.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No groundwater monitoring is conducted.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: Area was not visited.

Detail of Past Releases: Waste oil was disposed and burned on the site.

RELEASE POTENTIAL

Air	____ Low	X Medium	____ High
Soil/Groundwater	____ Low	____ Medium	X High
Surface Water	____ Low	X Medium	____ High
Subsurface Gas Generation	X Low	X Medium	____ High

Detail of Release Potential: The release potential to environmental media is low to high. The potential of release to air and surface water is medium because of the open burning and placement of waste fuel on bare ground. The release potential to soil/groundwater is high because of waste placement on bare ground, high permeability, and shallow depth to groundwater. Subsurface gas generation is anticipated to be low to medium because waste is burned.

5.5 SWMU No. 5: Runway 31 Landfill

(Photos: 1-9)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The unit is a landfill located at the southeast end of runways 31 and 35. The landfill is bordered on the East and South by an out-of-service train line and Patrol Road (Reference 2).

Purpose of Unit: The unit was used for disposal of municipal solid waste (References 2, 110) A large number of surplus aircraft was stored in this area in 1946.

Regulatory Status: The unit is an unpermitted disposal area which was closed without an approved closure plan.

Period of Operation: The unit was in operation from the early 1940s through the early 1950s (References 2, 110).

Dimensions/Volume: The maximum depth and size of unit is unknown as well as the total volume of waste deposited (Reference 110).

Material of Construction:

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass _X_ Soil

Environmental: ____Indoors ____Close to Surface Water _X_ In Ground

_X_ Outdoors ____Close to Drinking Water ____Above Ground

_X_ Covered ____Residences ____Below Ground

Details: Located approximately one mile from Cayo Del Oso Bay and Laguna Madre.

CLOSURE INFORMATION

____ Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

_X_ Other (Closed without an approved closure plan)

WASTES MANAGED

X Solids	____ Corrosive	____ Organics
____ Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Municipal solid waste was reportedly disposed in unit (References 2, 110).

Sources of Wastes: Waste was generated by NAS Corpus Christi and tenant commands (Reference 110).

Disposition of Waste: The unit is considered by NAS Corpus Christi to constitute final disposition.

RELEASE CONTROLS

____ Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: The unit has no mechanism to control releases.

MONITORING

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: Monitoring has not been conducted (Reference 110).

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: None noted

Detail of Past Releases: Unknown

RELEASE POTENTIAL

Air	X	Low		Medium		High
Soil/Groundwater	X	Low		Medium		High
Surface Water	X	Low		Medium		High
Subsurface Gas Generation		Low		Medium	X	High

Detail of Release Potential: The release potential to soil/groundwater, surface water and air is low because no hazardous waste is reportedly placed in the landfill. The release potential to subsurface gas generation is high because of biodegradable characteristics of waste and presence of permeable soils beneath the landfill.

5.6 SWMU No. 6: Patrol Road East Landfill

(Photos: 1-10, 1-12, 1-13)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The unit is a landfill located directly south of the Runway 31 landfill (SWMU No. 5) (Reference 2).

Purpose of Unit: The unit was used for the disposal of solid waste generated by NAS Corpus Christi and tenant activities (Reference 2).

Regulatory Status: The unit was an unregulated disposal area which was closed without an approved closure plan.

Period of Operation: The unit was in operation from the late 1960s through 1979 (Reference 2).

Dimensions/Volume: The elevation of the unit is approximately higher than the road level. This is reportedly the result of three layers of materials being disposed of at the unit.

Material of Construction:

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass _X_Soil

Environmental: ____Indoors ____Close to Surface Water _X_In Ground

_X_Outdoors ____Close to Drinking Water ____Above Groun

_X_Covered ____Residences ____Below Groun

Details: Located approximately 1 mile from both Cayo del Oso Bay and Laguna Madre.

CLOSURE INFORMATION

____ Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

_X_ Other (Closed without an approved closure plan)

WASTES MANAGED

X Solids	____ Corrosive	____ Organics
____ Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Debris noted at the surface reportedly includes wood, paper, concrete asphalt, scrap metal, cans, glass and automobile tires (Reference 2).

Sources of Wastes: Wastes were generated by NAS Corpus Christi and tenant activities (Reference 2).

Disposition of Waste: Unit is considered by NAS Corpus Christi to constitute final disposition.

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: Unit has no mechanism to control releases.

MONITORING

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: Monitoring wells have not been installed (Reference 110).

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: None reported.

Detail of Past Releases: Unknown.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	____ Low	____ Medium	X High

Detail of Release Potential: The release potential to soil/groundwater, surface water and air is low because no hazardous waste is reportedly placed in the landfill. The release potential to subsurface gas generation is high because of biodegradable characteristics of waste and presence of permeable soils beneath the landfill.

5.7 SWMU No. 7: Patrol Road West Landfill

(Photos: 1-8)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The unit is a landfill located directly west of Patrol Road and east of railroad tracks (Reference 2).

Purpose of Unit: The unit was used for the disposal of municipal waste (Reference 2).

Regulatory Status: The unit is an unpermitted disposal area.

Period of Operation: The unit was in operation from 1955 through 1958.

Dimensions/Volume: The dimensions of the unit and the volume of wastes disposed is unknown (Reference 110).

Material of Construction:

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass _X_ Soil

Environmental: ____Indoors _X_ Close to Surface Water _X_ In Ground

_X_ Outdoors ____Close to Drinking Water ____Above Ground

____Covered ____Residences ____Below Ground

Details: Located approximately 1/2 mile from Cayo del Oso Bay.

CLOSURE INFORMATION

____ Active

_X_ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

X Solids	____ Corrosive	____ Organics
____ Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Reportedly, municipal solid wastes were disposed in this unit (Reference 2).

Sources of Wastes: Wastes were generated by NAS Corpus Christi (Reference 2).

Disposition of Waste: The unit is considered by NAS Corpus Christi to be the final disposition.

RELEASE CONTROLS

____ Liner	____ Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	____ Other	

Details: The unit has no mechanism to control releases (Reference 2).

MONITORING

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: Monitoring wells have not been installed.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: Construction debris, including concrete slabs and sand were identified during VSI.

Detail of Past Releases: Unknown

RELEASE POTENTIAL

Air	X	Low		Medium		High
Soil/Groundwater	X	Low		Medium		High
Surface Water	X	Low		Medium		High
Subsurface Gas Generation		Low		Medium	X	High

Detail of Release Potential: The release potential to soil/groundwater, surface water and air is low because no hazardous waste is reportedly placed in the landfill. The release potential to subsurface gas generation is high because of biodegradable characteristics of waste and presence of permeable soils beneath the landfill.

5.8 SWMU No. 8: Cayo del Oso Disposal Site

(Photos: 1-11, 1-14)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The unit is a waste pile located along the shore of Corpus Christi Bay.

Purpose of Unit: Construction rubble was disposed of at this unit to control erosion.

Regulatory Status: The unit is an unpermitted disposal area.

Period of Operation: The unit was in operation during the 1970s.

Dimensions/Volume: The volume of waste disposed and the unit's dimensions are unknown.

Material of Construction:

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass _X_Soil

Environmental: ____Indoors _X_Close to Surface Water ____In Ground

_X_Outdoors ____Close to Drinking Water _X_Above Groun

____Covered ____Residences ____Below Groun

Details: Located adjacent to Cayo del Oso Bay.

CLOSURE INFORMATION

____ Active

_X_ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

X Solids	____ Corrosive	____ Organics
____ Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Reportedly, construction rubble was disposed of in unit (Reference 2).

Sources of Wastes: Source of waste is unknown (Reference 110).

Disposition of Waste: The unit is considered by NAS Corpus Christi to be the final disposition.

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: The unit has no mechanisms to control release.

MONITORING

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: Monitoring activities have not been performed.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: None noted.

Detail of Past Releases: Unknown.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because of reported non-hazardous waste present in the waste pile.

5.9 SWMU No. 9: North Gate Disposal Area

(Photos: 1-16)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The unit has an unknown number of pits located 1,600 feet west of the north gate and 600 feet south of the Patrol Road (Reference 2).

Purpose of Unit: The unit was used to dispose of liquid hazardous wastes from CCAD (Reference 2).

Regulatory Status: The unit is an unregulated disposal area which was closed without an approved closure plan.

Period of Operation: The unit was in operation from the late 1960s through the early 1970s (Reference 2).

Dimensions/Volume: The number of pits and the associated dimensions are unknown (Reference 110).

Material of Construction:

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass _X_Soil

Environmental: ____Indoors _X_Close to Surface Water ____In Ground

_X_Outdoors ____Close to Drinking Water ____Above Ground

____Covered ____Residences _X_Below Ground

Details: Located less than 1/2 mile from Corpus Christi Bay.

CLOSURE INFORMATION

____ Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

_X_ Other (Closed without an approved closure plan)

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Liquids were considered hazardous.

Sources of Wastes: The wastes were generated at CCAD.

Disposition of Waste: The unit is considered by NAS Corpus Christi to be the final disposition.

RELEASE CONTROLS

____ Liner	____ Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	____ Other	

Details: The unit has no mechanism to control releases.

MONITORING

X Monitoring Wells	X Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: Three rounds of sampling are reported (Reference 58).

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
X Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: None noted.

Detail of Past Releases: Base neutral organics, chromium, lead and TOC are reported in the soil and groundwater (Reference 58).

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	____ Low	____ Medium	X High
Surface Water	____ Low	____ Medium	X High
Subsurface Gas Generation	____ Low	____ Medium	X High

Detail of Release Potential: The release potential to surface water and subsurface gas generation are high because of the characteristics of wastes placed in the landfill, presence of permeable soil underneath the landfill, and proximity to surface water. Releases of volatile organics and EP toxic metal are reported.

5.10 SWMU No. 10: Radioactive Waste Disposal Area

(Photos: 1-18)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The unit is a landfill believed to be located 100 yards southwest of the north gate and immediately east of the road leading to the jet engine testing cells. Efforts have reportedly been made to locate the exact area but radiation could not be located above background levels (Reference 2).

Purpose of Unit: The unit was used for the disposal of radioactive waste (Reference 2) and small quantities of wastes from the CCAD (Reference 112).

Regulatory Status: The unit is an unregulated landfill.

Period of Operation: The unit was in operation during the 1950's. (References 2, 110).

Dimensions/Volume: The unit is reportedly a small cistern like 24-inch concrete pipe in ground with a manhole type cover (Reference 2).

Material of Construction:

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass X Soil

Environmental: ____Indoors X Close to Surface Water ____In Ground

X Outdoors ____Close to Drinking Water ____Above Grou

X Covered ____Residences X Below Grou

Details: Located less than 1/2 mile from Corpus Christi Bay.

CLOSURE INFORMATION

____ Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

X Other (Closed without an approved closure plan)

WASTES MANAGED

X Solids	____ Corrosive	____ Organics
____ Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Radioactive wastes including promethium and radioactive isotopes Krypton and Cesium were disposed in this unit. Small quantities of wastes from the CCAD is reportedly disposed in this unit (Reference 112).

Sources of Wastes: The waste was generated by the Navy and after 1962 by CCAD.

Disposition of Waste: The unit is considered by NAS Corpus Christi to be the final disposition.

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: The unit has no mechanisms to control releases other than one concrete wall.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No ground-water monitoring is conducted.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: None noted.

Detail of Past Releases: Unknown.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	____ Low	____ Medium	X High
Surface Water	____ Low	____ Medium	X High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to soil and groundwater and surface water is high because of the presence of permeable soil beneath the landfill, shallow depth to groundwater and proximity of surface water.

5.11 SWMU No. 11: Aircraft Fire Fighting Training Area Waste Fuel Tank

(Photos: No Photos)
(Exhibit 2.2)

DESCRIPTION: The tank was used to store waste fuel before its placement in the bermed area for ignition. Fuel is used twice a month in the firefighting area.

Unit Type: The unit is an aboveground steel tank. The tank is reported to be in fair condition (Reference 110).

Purpose of Unit: The unit was used to store waste fuel before placing it on the ground for ignition.

Regulatory Status: Unregulated.

Period of Operation: The unit has been in operation prior to the 1960s.

Dimensions/Volume: Unknown.

Material of Construction:

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass X Soil

Environmental: ____Indoors ____Close to Surface Water ____In Ground

X Outdoors ____Close to Drinking Water ____Above Grou

____Covered ____Residences ____Below Grou

Details:

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
_X_ Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Waste fuel oil consisting of aviation fuel and JP-4 fuel.

Sources of Wastes: Aircraft fuel.

Disposition of Waste: Waste burned on the ground in adjacent SWMU No. 4 (Reference 110).

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: No release controls are reported.

MONITORING

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No ground-water monitoring is conducted.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: Unknown.

Detail of Past Releases: Unknown.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because of waste fuel containment in steel tank.

5.12 SWMU Nos. 12-47: Tank Farm 216

(Photos: 1-1, 1-2)
(Exhibit 2.2)

DESCRIPTION

Unit Type: Thirty-six underground storage tanks in Tank Farm 216, which is located in the northern area of the station, are abandoned product tanks (Reference 87). The tank farm occupies 6.5 acres, about 150 feet from Corpus Christi Bay (Reference 95).

Purpose of Unit: The units were used for the storage of product JP-5 fuel and AVGAS (Reference 87).

Regulatory Status: Unregulated units.

Period of Operation: See Exhibit 5-1.

Dimensions/Volume: See Exhibit 5-1.

Material of Construction: See Exhibit 5-1.

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass ____Soil

Environmental: ____Indoors _X_ Close to Surface Water ____In Ground

_X_ Outdoors ____Close to Drinking Water ____Above Ground

____Covered ____Residences ____Below Ground

Details: The tank farm is located 150 feet from Corpus Christi Bay.

CLOSURE INFORMATION

____ Active

_X_ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The units managed product JP-5 fuel and AVGAS.

Sources of Wastes: The tanks were abandoned in place, leaving some residue of the fuel as abandoned waste (Reference 87).

Disposition of Waste: The waste fuel remains in the tanks which have been filled with sand and cement (Reference 87).

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: See Exhibit 5-1.

MONITORING:

X Monitoring Wells	X Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: Groundwater monitoring has been conducted on a quarterly basis in the past (References 14, 124). At present, water level and fuel levels are monitored monthly.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
X Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: The units were vegetated.

Detail of Past Releases: One of the tanks in Tank Farm 216 released 1,000 gallons of fuel in December 1981 (Reference 110). It is not known which tank released the fuel or if any cleanup or recovery attempt was made.

In the early 1980s, a layer of fuel was discovered floating on top of the groundwater in the vicinity of Tank Farm 216. Audits of the fuel management records indicate that approximately 20 million gallons of fuel are unaccounted for over a 40-year period. A subsequent hydrogeologic study in 1982 indicated that the maximum recoverable amount of fuel is about 77,000 gallons. According to facility representatives, about 2,720 gallons of the released fuel were recovered between 1986 and 1988 (Reference 110).

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	____ Low	____ Medium	X High
Surface Water	____ Low	____ Medium	X High
Subsurface Gas Generation	____ Low	____ Medium	X High

Detail of Release Potential: Evidence of releases to soil/groundwater are reported (Reference 110). The release potential to surface water is high because of the proximity of Corpus Christi Bay. The potential for subsurface fumes generation and transfer is high because of releases of waste constituents in soil/groundwater.

EXHIBIT 5-1: DESCRIPTION OF UNDERGROUND STORAGE TANKS IN TANK FARM 216
(Source: Reference 87)

SWMU No.	Building No.	Tank No.	Status of Tank	Dates of Operation	Capacity (Gallons)	Materials of Construction	Release Controls	Piping	Substance Currently or Last Stored in Use	Tank Permanently Taken Out of Service
12		216-1	Temporarily out of use	Early 1940s to 1987	25,000	Steel	Epoxy/asphaltic linings	Painted bare steel	JP-5	Filled in 1987
13		216-2	Abandoned	Early 1940s to 1987	25,000	Steel	Epoxy/cathodic protection	Painted bare steel	JP-5	Filled with sand and cement
14		216-3	Temporarily out of use	Early 1940s to 1987	25,000	Steel	Epoxy/asphaltic linings	Painted bare steel	JP-5	Filled in 1987
15		216-4	Abandoned	Early 1940s to 1987	25,000	Steel	Epoxy/cathodic protection	Painted bare steel	JP-5	Filled with sand and cement
16		216-5	Abandoned	Early 1940s to 1987	25,000	Steel	Epoxy/cathodic protection	Painted bare steel	JP-5	Filled with sand and cement
17		216-6	Temporarily out of use	Early 1940s to 1987	25,000	Steel	Epoxy/asphaltic linings	Painted bare steel	JP-5	Filled in 1987
18		216-7	Abandoned	Early 1940s to 1987	25,000	Steel	Epoxy/cathodic protection	Painted bare steel	JP-5	Filled with sand and cement
19		216-8	Abandoned	Early 1940s to 1987	25,000	Steel	Epoxy/cathodic protection	Painted bare steel	JP-5	Filled with sand and cement
20		216-9	Abandoned	Early 1940s to 1987	25,000	Steel	Epoxy/cathodic protection	Painted bare steel	JP-5	Filled with sand and cement
21		216-10	Temporarily out of use	Early 1940s to 1987	25,000	Steel	Epoxy/asphaltic linings	Painted bare steel	JP-5	Filled in 1987
22		216-11	Temporarily out of use	Early 1940s to 1987	25,000	Steel	Epoxy resin/ cathodic protection	Painted bare steel	JP-5	Filled in 1987
23		216-12	Abandoned	Early 1940s to 1987	25,000	Steel	Epoxy/cathodic protection protection	Painted bare steel	JP-5	Filled with sand and cement
24		216-13	Abandoned	Early 1940s to 1987	25,000	Steel	Epoxy/cathodic cathodic protection	Painted bare steel	JP-5	Filled with sand and cement
25		216-14	Abandoned	Early 1940s to 1987	25,000	Steel	Epoxy/cathodic cathodic protection	Painted bare steel	JP-5	Filled with sand and cement

EXHIBIT 5-1: DESCRIPTION OF UNDERGROUND STORAGE TANKS IN TANK FARM 216
(Source: Reference 87) (Cont'd.)

SWMU No.	Building No.	Tank No.	Status of Tank	Dates of Operation	Capacity (Gallons)	Materials of Construction	Release Controls	Piping	Substance Currently or Last Stored in Use	Tank Permanently Taken Out of Service
26		216-15	Temporarily out of use	Early 1940s to 1987	25,000	Steel	Epoxy resin/ cathodic protection	Painted bare steel	JP-5	Filled in 1987
27		216-16	Abandoned	Early 1940s to 1987	25,000	Steel	Epoxy/cathodic protection	Painted bare steel	JP-5	Filled with sand and cement
28		216-17	Temporarily out of use	Early 1940s to 1987	25,000	Steel	Epoxy resin/ protection	Painted bare steel	AVGAS	Filled in 1987
29		216-18	Temporarily out of use	Early 1940s to 1987	25,000	Steel	Epoxy resin/ cathodic protection	Painted bare steel	AVGAS	Filled in 1987
30		216-19	Temporarily out of use	Early 1940s to 1987	25,000	Steel	Epoxy resin/ cathodic protection	Painted bare steel	AVGAS	Filled in 1987
31		216-20	Temporarily out of use	Early 1940s to 1987	25,000	Steel	Epoxy resin/ cathodic protection	Painted bare steel	AVGAS	Filled in 1987
32		216-21	Abandoned	Early 1940s to 1987	25,000	Steel	Epoxy/cathodic protection	Painted bare steel	JP-5	Filled with sand and cement
33		216-22	Temporarily out of use	Early 1940s to 1987	25,000	Steel	Epoxy resin/ cathodic protection	Painted bare steel	AVGAS	Filled in 1987
34		216-23	Temporarily out of use	Early 1940s to 1987	25,000	Steel	Epoxy resin/ cathodic protection	Painted bare steel	AVGAS	Filled in 1987
35		216-24	Temporarily out of use	Early 1940s to 1987	25,000	Steel	Epoxy resin/ cathodic protection	Painted bare steel	AVGAS	Filled in 1987
36		216-25	Abandoned	Early 1940s to 1987	25,000	Steel	Unknown	Unknown	Unknown	Filled in 1987
37		216-26	Abandoned	Early 1940s to 1987	25,000	Steel	Unknown	Unknown	Unknown	Filled in 1987
38		216-27	Abandoned	Early 1940s to 1987	25,000	Steel	Unknown	Unknown	Unknown	Filled in 1987

EXHIBIT 5-1: DESCRIPTION OF UNDERGROUND STORAGE TANKS IN TANK FARM 216
(Source: Reference 87) (Cont'd.)

SWMU No.	Building No.	Tank No.	Status of Tank	Dates of Operation	Capacity Gallons	Materials of Construction	Release Controls	Piping	Substance Currently or Last Stored in Use	Tank Permanently Taken Out of Service
39		216-28	Abandoned	Early 1940s to 1987	25,000	Steel	Unknown	Unknown	Unknown	Filled in 1987
40		216-29	Abandoned	Early 1940s to 1987	25,000	Steel	Unknown	Unknown	Unknown	Filled in 1987
41		216-30	Abandoned	Early 1940s to 1987	25,000	Steel	Unknown	Unknown	Unknown	Filled in 1987
42		216-31	Abandoned	Early 1940s to 1987	25,000	Steel	Unknown	Unknown	Unknown	Filled in 1987
43		216-32	Abandoned	Early 1940s to 1987	25,000	Steel	Unknown	Unknown	Unknown	Filled in 1987
44		216-33	Abandoned	Early 1940s to 1987	25,000	Steel	Unknown	Unknown	Unknown	Filled in 1987
45		216-34	Abandoned	Early 1940s to 1987	25,000	Steel	Unknown	Unknown	Unknown	Filled in 1987
46		216-35	Abandoned	Early 1940s to 1987	25,000	Steel	Unknown	Unknown	Unknown	Filled in 1987
47		216-36	Abandoned	Early 1940s to 1987	25,000	Steel	Unknown	Unknown	Unknown	Filled in 1987

5.13 SWMU Nos. 48-53: Tank Farm 216A

(Photo: 2-25)
(Exhibit 2.2)

DESCRIPTION

Unit Type: Tank Farm 216A is located in a fenced yard near the IWPP south of Building 8 in the CCAD area. The tank farm includes active and inactive and aboveground and underground tanks. Tanks 216A-3, 216A-4, 216A-5, 216A-8, 216A-9 and 216A-12, are underground, inactive tanks; the remaining tanks are active product storage tanks and are not SWMUs (Reference 87).

Purpose of Unit: The tanks were used for the storage of product JP-4 fuel and gasoline (Reference 87).

Regulatory Status: Unregulated.

Period of Operation: See Exhibit 5-2.

Dimensions/Volume: See Exhibit 5-2.

Material of Construction: See Exhibit 5-2.

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass _X_Soil

Environmental: ____Indoors ____Close to Surface Water ____In Ground

_X_Outdoors ____Close to Drinking Water ____Above Grou

____Covered ____Residences _X_Below Grou

Details:

CLOSURE INFORMATION

____ Active

_X_ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The tanks held JP-4 fuel and gasoline (Reference 87). The amount of product abandoned in the tanks is unknown.

Sources of Wastes: Unknown.

Disposition of Waste: The abandoned product remains in the tanks (Reference 87).

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: Unknown.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring is conducted.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of releases was noted during the VSI.

Detail of Past Releases: No record of past releases was noted.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	____ Low	____ Medium	X High
Surface Water	____ Low	____ Medium	X High
Subsurface Gas Generation	____ Low	____ Medium	X High

Detail of Release Potential: The release potential to environmental media (surface water, soil/groundwater, and subsurface gas generation is high because of the proximity of surface water, presence of permeable soils, shallow depth to groundwater, and age of tanks.

EXHIBIT 5-2: DESCRIPTION OF UNDERGROUND STORAGE TANKS IN TANK FARM 216A

SWMU No.	Building No.	Tank No.	Status of Tank	Dates of Operation	Capacity Gallons	Materials of Construction	Release Controls	Piping	Substance Currently or Last Stored in Use	Tank Permanently Taken Out of Service
48	Near Bldg. 8	216-A-3	Abandoned	Early 1940s to 1975	13,000	Steel	Unknown	Wrapped steel	JP-4	April 1975
49	Near Bldg. 8	216-A-4	Temporarily out of use	Early 1940s to 1986	13,000	Steel	Unknown	Wrapped steel	JP-4	Temporarily out of use since 1986
50	Near Bldg. 8	216-A-5	Abandoned	Early 1940s to 1975	13,000	Steel	Unknown	Wrapped bare steel	Gasoline	April 1975
51	Near Bldg. 8	216-A-8	Temporarily out of use	Early 1940s to 1986	13,000	Steel	Unknown	Wrapped steel	JP-4	Temporarily out of use since 1986
52	Near Bldg. 8	216-A-9	Temporarily out of use	Early 1940s to 1986	13,000	Steel	Unknown	Wrapped steel	JP-4	Temporarily out of use since 1986
53	Near Bldg. 8	216-A-12	Temporarily out of use	Early 1940s to 1986	13,000	Steel	Unknown	Wrapped steel	JP-4	Temporarily out of use since 1986

5.14 SWMU Nos. 54-61: Tank Farm 217

(Photo: 1-19)
(Exhibit 2.2)

DESCRIPTION

Unit Type: This tank farm is located in the eastern area of the station near the shore of Laguna Madre. The tank farm consists of eight underground storage tanks. The tanks have been abandoned and the area appears as a grassy field (Reference 112).

Purpose of Unit: The tank farm was used for the storage of AVGAS and JP-5.

Regulatory Status: Unregulated.

Period of Operation: The tanks were active between 1945-1986. They were filled with sand and cement in 1987 (Reference 110).

Dimensions/Volume: See Exhibit 5-3.

Material of Construction: See Exhibit 5-3.

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass _X_ Soil

Environmental: ____Indoors _X_ Close to Surface Water ____In Ground

_X_ Outdoors ____Close to Drinking Water ____Above Ground

____Covered ____Residences _X_ Below Ground

Details: The tank farm is less than 100 feet from the Laguna Madre.

CLOSURE INFORMATION

____ Active

_X_ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The tanks held product AVGAS and JP-5 (Reference 87).

Sources of Wastes: Unknown.

Disposition of Waste: The tanks were filled with sand and cement. A abandoned product fuel remains in place in the tanks (Reference 110).

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: Unknown.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
X Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of releases were noted during the VSI.

Detail of Past Releases: In September 1977, approximately 1,500 gallons of fuel were released. In October 1979, approximately 3,800 gallons of fuel were released. In February 1980, approximately 1,700 gallons were released (Reference 110). It is not known whether these releases were associated with specific tanks. It is not known if any cleanup or recovery was attempted.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	____ Low	____ Medium	X High
Surface Water	____ Low	____ Medium	X High
Subsurface Gas Generation	____ Low	____ Medium	____ High

Detail of Release Potential: The release potential to air is low because units are all underground. The historic release potential to soil/groundwater is high because of documented releases to the soil. The release potential to surface water from these documented releases is high due to the proximity of the surface water.

EXHIBIT 5-3: DESCRIPTION OF UNDERGROUND STORAGE TANKS IN TANK FARM 217

SWMU No.	Building No.	Tank No.	Status of Tank	Dates of Operation	Capacity Gallons	Materials of Construction	Release Controls	Piping	Substance Currently or Last Stored in Use	Tank Permanently Taken Out of Service
54		217-1	Abandoned	1940-1982	25,000	Steel	Unknown/ cathodic protection	Painted bare steel	AV Gas	July 1982
55		217-2	Abandoned	1940-1982	25,000	Steel	Unknown/ cathodic protection	Painted bare steel	AV Gas	July 1982
56		217-3	Abandoned	1940-1982	25,000	Steel	Unknown/ cathodic protection	Painted bare steel	AV Gas	July 1982
57		217-4	Abandoned	1940-1982	25,000	Steel	Unknown/ cathodic protection	Painted bare steel	AV Gas	July 1982
58		217-5	Abandoned	1940-1982	25,000	Steel	Unknown/ cathodic protection	Painted bare steel	AV Gas	July 1982
59		217-6	Abandoned	1940-1982	25,000	Steel	Unknown/ cathodic protection	Painted bare steel	AV Gas	June 1983
60		217-7	Abandoned	1940-1982	25,000	Steel	Unknown/ cathodic protection	Painted bare steel	AV Gas	Abandoned 1987
61		217-8	Abandoned	1940-1982	25,000	Steel	Unknown/ cathodic protection	Painted bare steel	JP-5	Abandoned 1987

5.15 SWMU Nos. 62-69: Tank Farm 244

(Photo: 5-4)
(Exhibit 2.2)

DESCRIPTION

Unit Type: Tank Farm 244 is located near the center of the station near Building 252. The tank farm consists of eight abandoned underground storage tanks. The tanks have been abandoned and filled with sand and the area currently appears as a grassy field (Reference 112).

Purpose of Unit: The tanks were used for the storage of product aviation fuel (Reference 110).

Regulatory Status:

Period of Operation: The tanks were active from the early 1940s to 1973 when they were filled with sand (Reference 110).

Dimensions/Volume: See Exhibit 5-4.

Material of Construction: See Exhibit 5-4.

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass X Soil

Environmental: ____Indoors X Close to Surface Water ____In Ground

X Outdoors ____Close to Drinking Water ____Above Groun

____Covered ____Residences X Below Groun

Details:

CLOSURE INFORMATION

____ Active

X Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
_X_ Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The tanks held aviation fuel (Reference 110).

Sources of Wastes: Unknown.

Disposition of Waste: The abandoned product fuel remains in the tanks (Reference 110).

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: Facility representative indicated no knowledge of release control devices (Reference 110). Tank registration (Reference 87) indicated presence of no release control devices.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during the VSI.

Detail of Past Releases: No releases in the past have been documented.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	____ Low	____ Medium	X High
Surface Water	____ Low	____ Medium	X High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to soil/groundwater and surface water is high because of the proximity of the surface water presence of permeable soil beneath the tanks, shallow depth to groundwater, and age of tanks.

EXHIBIT 5-4: DESCRIPTION OF UNDERGROUND STORAGE TANKS IN TANK FARM 244
(Source: Reference 87)

SWMU No.	Building No.	Tank No.	Status of Tank	Dates of Operation	Capacity Gallons	Materials of Construction	Release Controls	Piping	Substance Currently or Last Stored in Use	Tank Permanently Taken Out of Service
62	252	244-1	Abandoned	Early 1940s to 1973	25,000	Steel	None	Steel	Aviation fuel	1973
63	252	244-2	Abandoned	Early 1940s to 1973	25,000	Steel	None	Steel	Aviation fuel	1973
64	252	244-3	Abandoned	Early 1940s to 1973	25,000	Steel	None	Steel	Aviation fuel	1973
65	252	244-4	Abandoned	Early 1940s to 1973	25,000	Steel	None	Steel	Aviation fuel	1973
66	252	244-5	Abandoned	Early 1940s to 1973	25,000	Steel	None	Steel	Aviation fuel	1973
67	252	244-6	Abandoned	Early 1940s to 1973	25,000	Steel	None	Steel	Aviation fuel	1973
68	252	244-7	Abandoned	Early 1940s to 1973	25,000	Steel	None	Steel	Aviation fuel	1973
69	252	244-8	Abandoned	Early 1940s to 1973	25,000	Steel	None	Steel	Aviation fuel	1973

5.16 SWMU Nos. 70-86: Underground Storage Tanks in Various Locations

(Photos: No Photos)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The underground storage tanks are located in various areas throughout the station. The tanks are abandoned and filled or "temporarily out-of-service" (Reference 87).

Purpose of Unit: The tanks held a variety of fuels (Reference 87).

Regulatory Status: Unregulated.

Period of Operation: See Exhibit 5-5.

Dimensions/Volume: See Exhibit 5-5.

Material of Construction: See Exhibit 5-5.

Underlain By: ____ Concrete ____ Asphalt ____ Gravel

____ Grass X Soil

Environmental: ____ Indoors ____ Close to Surface Water ____ In Ground

X Outdoors ____ Close to Drinking Water ____ Above Grou

____ Covered ____ Residences X Below Grou

Details:

CLOSURE INFORMATION

____ Active

X Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: (See Exhibit 5-5.) The tanks held a variety of fuels.

Sources of Wastes: Unknown.

Disposition of Waste: The tanks are filled with sand or cement or temporarily out of service.

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: See Exhibit 5-5.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: The tanks were not observed during the VSI.

Detail of Past Releases: No releases have been documented.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	____ Low	____ Medium	X High
Surface Water	____ Low	____ Medium	X High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to soil/groundwater and surface water is high because of the proximity of surface water, presence of permeable soils, shallow depth to groundwater and age of tanks.

EXHIBIT 5-5: DESCRIPTION OF UNDERGROUND STORAGE TANKS IN VARIOUS LOCATIONS
(Source: Reference 87)

SWMU No.	Building No.	Tank No.	Status of Tank	Dates of Operation	Capacity Gallons	Materials of Construction	Release Controls	Piping	Substance Currently or Last Stored in Use	Tank Permanently Taken Out of Service
70	#51	51	Abandoned	1973-1984	1,000	Unknown	Unknown/ painted	Bare steel wrapped	Solvent	January 1984
71	Adjacent to Bldg. #111	140	Not in use since 1987	1981-1987	2,000	Fiberglass	Unknown	Bare steel painted	Diesel	Out of service since 1987
72	#161	161-1	Temporarily out of use	1944-1987	10,000	Steel	Unknown/ asphaltic steel	Painted bare steel	AV Lube	Temporarily out of use
73	#161	161-2	Temporarily out of use	1982-1987	10,000	Steel	Unknown/ asphaltic steel	Painted bare steel	AV Lube	Temporarily out of use
74	#161	161-3	Not in use since January 1987	1981-1987	10,000	Steel	Unknown/ asphaltic paint	Painted bare steel	AV Lube	Out of service since January 1987
75	#162	162-1	Abandoned	1946-1986	10,000	Steel	None/painted	Painted bare steel	Diesel	January 1986
76	#162	162-2	Abandoned	1946-1986	13,000	Unknown	None/painted	Painted bare steel	Diesel	January 1986
77	#254	254-0	Abandoned	1945-1985	150	Steel	Unknown	Unknown	Diesel	October 1985
78	#1225	1225	Abandoned	1944-1977	500	Steel	Unknown/ cathodic protection	Unknown	Gasoline	April 1977
79	#1237	1237	Out of use	30 years	400	Steel	Unknown/ cathodic protection	Unknown	JP-5	Out of service
80	DRMO	1255-1	Abandoned	1981-1987	550	Fiberglass	Unknown	Painted bare steel	Used oil	June 1987
81	DRMO	1255-2	Abandoned	1981-1987	250	Concrete	Unknown	Cast iron	Used oil	June 1987

EXHIBIT 5-5: DESCRIPTION OF UNDERGROUND STORAGE TANKS IN VARIOUS LOCATIONS
(Source: Reference 87) (Cont'd.)

SWMU No.	Building No.	Tank No.	Status of Tank	Dates of Operation	Capacity Gallons	Materials of Construction	Release Controls	Piping	Substance Currently or Last Stored in Use	Tank Permanently Taken Out of Service
82	#1263	1263-1	Abandoned	1943-1986	10,000	Steel	Unknown/ painted asphaltic	Unknown	Gasoline	April 1986
83	#1263	1263-2	Abandoned	1943-1986	10,000	Steel	Unknown/ painted asphaltic	Unknown	Gasoline	April 1986
84	#1263	1263-3	Abandoned	1956-1986	9,500	Steel	Unknown/ painted asphaltic	Unknown	Gasoline	April 1986
85	#1828	1828-3	Abandoned	1967-1981	1,000	Steel	Unknown	Wrapped bare steel	Trichloro-ethane	October 1981
86	#300	W-6	Abandoned	1937-1979	550	Steel	Unknown/ painted asphaltic	Copper	Diesel	April 1979

5.17 SWMU Nos. 87-133: CCAD Satellite Accumulation Areas

(Photos: See Exhibit 5-6)
(Exhibit 2.3)

DESCRIPTION: Approximately 45 satellite waste accumulation areas are in the CCAD area, with 40 in Building 8, and the remaining 5 in nearby buildings.

Unit Type: The units are small container storage areas. The containers, covered 55-gallon drums, rest on wooden pallets or four wheel dollies in a clearly marked area. Some of the areas are curbed with a 2-inch curb. One to four drums may be contained in an area (Reference 112).

Purpose of Unit: These units collect wastes temporarily from various shops in the CCAD unit before being transported to Temporary Storage Areas.

Regulatory Status: Non-RCRA regulated.

Period of Operation Unknown.

Dimensions/Volume: See Exhibit 5-6.

Material of Construction: The steel 55-gallon drums are on wooden pallets or dollies on concrete floors.

Underlain By: X Concrete ____Asphalt ____ Gravel
_____ Grass ____Soil

Environmental: X Indoors ____Close to Surface Water ____In Ground
____Outdoors ____Close to Drinking Water X Above Ground
____Covered ____Residences ____Below Ground

Details:

CLOSURE INFORMATION

X Active
____ Inactive/Physically Present
____ Inactive/Removed or Dismantled
____ Closed Under State or EPA
____ Other

WASTES MANAGED

X Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: See Exhibit 5-6.

Sources of Wastes: See Exhibit 5-6.

Disposition of Waste: Waste is transported to the Temporary Storage Area in Building 257 (Reference 110).

RELEASE CONTROLS (See Exhibit 5-6).

____ Liner	X Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	____ Other	

Details: Some of the units have low 2-inch curbs.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: Housekeeping was generally very good. (See Exhibit 5-6).

Detail of Past Releases: No releases have been noted since the inception of the CCAD area (Reference 110).

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to all media is low because the units are located covered and indoors, and good housekeeping is practiced.

EXHIBIT 5-6: CCAD SATELLITE ACCUMULATION AREAS - BUILDING 8
(Source: Reference 110)

SWMU No.	Satellite Area Number	Work Center Number	Work Center Description	Waste Types	Removal Frequency/year	Volume, Gallons/year	VSI Observations	Release Controls	Photo
87	1A	5CB1A	Plating Shop	Glass Beads	72 times	3,774	Good housekeeping practice observed		No Photo
88	2A	5CB1B-1	Engine Paint U, 1 Flr.	Liquid Paint	26 times	1,352	Good housekeeping practice observed		No Photo
89	2B	5CB1B-2	Engine Paint U, 2 Flr.	Liquid Paint	26 times	1,352	Good housekeeping practice observed		No Photo
90	3A	5CB1C-1	Engine Clean Shop	Paint Sludge	2 times	1,042	1 drum in drip pan on wooden pallets in painted area; ID and no smoking sign posted	2-inch curb, drip pan	3-14
91	3B	5CB1C-2	Engine Clean Shop	Cadmium	60 times	3,120	1 drum on 4-wheel dolly in painted area; ID and no smoking sign posted	No curb	3-12
92	3C	5CB1C-3	Engine Clean Shop	Glass Beads	60 times	3,120	2 drums on 4-wheel dollies in painted area; ID and no smoking sign posted	No curb	3-13
93	4A	5CB1D-1	Depres. & Cont. Repair	Transmission & Engine Oil, Synthetic Oil	84 times	4,368	1 drum on wooden pallet		3-18
94	4B	5CB1D-2	Depres. & Cont. Repair	Trichloroethane	12 times	1,320	Not observed during VSI		No Photo
95	4C	5CB1D-3	Depres. & Cont. Repair	Liquid Paint	12 times	1,320	1 drum in drip pan on wooden pallet; ID and no smoking sign posted		3-17
96	5A	5CB1G	Eng. & Comp. NDT	Kerosene	4 times	208	Not observed during VSI		No Photo
97	6A	5CB2-A	Eng. Hot Sec. Repair	Trichloroethane	4 times	208	Not observed during VSI		No Photo

EXHIBIT 5-6: CCAD SATELLITE ACCUMULATION AREAS - BUILDING 8
(Source: Reference 110) (Cont'd.)

SWMU No.	Satellite Area Number	Work Center Number	Work Center Description	Waste Types	Removal Frequency/year	Volume, Gallons/year	VSI Observations	Release Controls	Photo
98	7A	5CB2F-1	Compress Unit	Methylene Chloride	4 times	208	Not observed during VSI		No Photo
99	7B	5CB2F-2	Compressor Unit	Varsol	12 times	768	Good housekeeping practice observed		No Photo
100	8A	5DB1A	Quick Changing Assembly	Petroleum Oil	84 times	4,368	Good housekeeping practice observed		No Photo
101	9A	5DB1B-1	Air Frame Strip Shop	Paint Sludge	48 times	2,496	Good housekeeping practice observed		No Photo
102	9B	5DB1B-2	Air Frame Strip Shop	Glass Beads	24 times	1,248	Good housekeeping practice observed		No Photo
103	10A	5DB1E	General Paint Unit	Liquid Paint	96 times	5,000	Good housekeeping practice observed		No Photo
104	13A	5DB3A	Air Frame Assembly Unit	Hydraulic Oil	4 times	208	Good housekeeping practice observed		No Photo
105	16A	5EB1A	Cargo Trans. Unit	Glass Beads	12 times	624	Good housekeeping practice observed		No Photo
106	16B	5EB1D	Rotor Hub Shop	Waste Oil	12 times	624	Good housekeeping practice observed		No Photo
107	16C	5EB1C	Gear Box Shop Unit	Synthetic Oil	4 times	208	Good housekeeping practice observed		No Photo
108	17A	5EB2D-1	Turbine Engine Machine #2	Petroleum Oil	2 times	104	Good housekeeping practice observed		No Photo
109	17B	5EB2D-2	Turbine Engine Machine #2	Coolant	6 times	312	Good housekeeping practice observed		No Photo
110	18A	5EC2A-1	Hydraulic Unit	Freon	12 times	624	Good housekeeping practice observed		No Photo
111	18B	5EC2A-2	Hydraulic Unit	Glass Beads	Unknown	Unknown	Good housekeeping practice observed		No Photo

EXHIBIT 5-6: CCAD SATELLITE ACCUMULATION AREAS - BUILDING 8
(Source: Reference 110) (Cont'd.)

SWMU No.	Satellite Area Number	Work Center Number	Work Center Description	Waste Types	Removal Frequency/year	Volume, Gallons/year	VSI Observations	Release Controls	Photo
112	19A	5EC2B-1	Mechanical Unit	Trichloroethane	4 times	208	Good housekeeping practice observed		No Photo
113	19B	5EC2B-2	Mechanical Unit	Glass Beads	4 times	208	Good housekeeping practice observed		No Photo
114	21A	5EC3A-1	Rotating Electrical Unit	Trichloroethane	5-6 times	276	Good housekeeping practice observed		No Photo
115	21B	5EC3A-2	Rotating Electrical Unit	Liquid Paint	16 times	832	Good housekeeping practice observed		No Photo
116	22A	5EC3B-1	Instrument Unit	Liquid Paint	1 time	52	Good housekeeping practice observed		No Photo
117	22B	5EC3B-2	Instrument Unit	Plastic Beads	2 times	110	Good housekeeping practice observed		No Photo
118	23A	4EB20	Joiner Paint Shop	Liquid Paint	16 times	832	Good housekeeping practice observed		No Photo
119	24A	3QE20	PM Sec. 2	Synthetic Oil	4 times	208	Good housekeeping practice observed		No Photo
120	24B	3QE10	PM Sec. 1	Waste Oil	4 times	208	Good housekeeping practice observed		No Photo
121	25A	3QA00	Equipment Mgmt. Br.	Varsol	12 times	624	Good housekeeping practice observed		No Photo
122	26A	3QB10A	Silk Screen	Wastewater	24 times	1,200	One drum was observed on a wooden pallet outside the building. A hose connected the drum to a pipe. Some water had puddled around the pallet		4-15

EXHIBIT 5-6: CCAD SATELLITE ACCUMULATION AREAS - BUILDING 8
(Source: Reference 110) (Cont'd.)

SWMU No.	Satellite Area Number	Work Center Number	Work Center Description	Waste Types	Removal Frequency/year	Volume, Gallons/year	VSI Observations	Release Controls	Photo
123	27A	F6A00	Oil Analysis Br.	Diester Synthetic	12 times	624	One drum was observed on the concrete floor in a partitioned area, indoors in the Analysis Div. A puddle of liquid had flowed into the partitioned area		4-10
124	28A	FGB00-1	Comp QC Br.	Hydraulic Fluid	8 times	416	Good housekeeping practice observed		No Photo
125	28B	F9B00-2	Comp QC Br.	Waste Oil	4 times	208	Good housekeeping practice observed		No Photo
126	29A	F9C00-1	Eng QC Br.	Waste Oil	6 times	312	Good housekeeping practice observed		No Photo
127	29B	F9C00-2	Eng QC Br.	Synthetic Oil	8 times	416	Good housekeeping practice observed		No Photo
128	30A	F6B00	Chemical Br.	Halogenated Waste	2 times	110	Good housekeeping practice observed		No Photo
128A	32A	5DG3A	Glass/Plastic Shop	Methyl Ethyl Ketone/Primer, Asbestos	2 times	104	Good housekeeping practice observed	None	3.30

EXHIBIT 5-6: CCAD SATELLITE ACCUMULATION AREAS - NEAR BUILDING 8
(Source: Reference 110)

SWMU No.	Satellite Area Number	Work Center Number	Work Center Description	Waste Types	Removal Frequency/year	Volume, Gallons/year	VSI Observations	Release Controls	Photo
129	11A	5DB2A Bldg. #44	Electrical and Ground Check Unit	Synthetic Oil	20 times	1,040	Good housekeeping practice observed		No Photo
130	12A	5DB2L Bldg. #1808	Air Frame Paint Unit	Liquid Paint	96 times	5,000	Good housekeeping practice observed		No Photo
131	14A	5DB4A Bldg. #45	Assembly Unit No. 1	Synthetic Oil	6 times	312	Good housekeeping practice observed		No Photo
132	15A	5DB4E Bldg. #43	Aircraft Diassembly Unit	Synthetic Oil	32 times	1,664	Good housekeeping practice observed		No Photo
133	20A	5EC2C Bldg. #1828	Bearing Unit	Varsol	112 times	5,824	Good housekeeping practice observed		No Photo

1803E-CH

5.18 SWMU No. 134: Satellite Accumulation Site #28

(Photos: 4-20)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The unit is a waste accumulation area located in Building 41 (Reference 112).

Purpose of Unit: The unit is used to accumulate waste oil from Building 41 (Reference 112).

Regulatory Status: The unit stores waste for less than 90 days (Reference 112).

Period of Operation: 1987 to present (Reference 112).

Dimensions/Volume: One 55-gallon drum.

Material of Construction:

Underlain By:	X Concrete	____Asphalt	____ Gravel
	_____ Grass	____Soil	
Environmental:	X Indoors	____Close to Surface Water	____In Ground
	____Outdoors	____Close to Drinking Water	____Above Groun
	____Covered	____Residences	____Below Groun

Details: One drum resting on a concrete floor was observed during the VSI (Reference 112).

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
_X_ Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: About 3 drums of petroleum oil (TWC #110450) is accumulated per year (Reference 112).

Sources of Wastes: The unit collects waste from Building 41 sources such as Electrical Generator and Scrubber (Reference 112).

Disposition of Waste: The waste is transferred to a Temporary Storage Area within a 90-day period (Reference 112).

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: The unit is located on a concrete floor (Reference 112).

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of releases were noted during the VSI.

Detail of Past Releases: Unknown

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because of waste containment in 55-gallon drums, placed inside a building on a concrete floor.

5.19 SWMU No. 135: Satellite Accumulation Area for Building 55

(Photos: 4-21)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The unit is a waste accumulation area located outside Building 28 (Reference 112).

Purpose of Unit: The unit is used to accumulate wastes from Building 28 (Reference 112).

Regulatory Status: Unregulated.

Period of Operation: Unknown.

Dimensions/Volume: The unit has six 55-gallon drums.

Material of Construction:

Underlain By: X Concrete ____Asphalt ____ Gravel

_____ Grass ____Soil

Environmental: ____Indoors ____Close to Surface Water ____In Ground

X Outdoors ____Close to Drinking Water ____Above Grou

____Covered ____Residences ____Below Grou

Details: Several drums were observed in drip pans on pallets. Some drums rested directly on the concrete (Reference 112).

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Waste fuel and paint sludge (TWC 111800) are accumulated; 4-5 drums of JP-5 are accumulated every 3-4 months; and 1-2 drums of waste gasoline is accumulated every 6-8 months (Reference 112).

Sources of Wastes: Building 28 (Reference 112).

Disposition of Waste: The waste fuel is burned in the Fire Training Area (Reference 112).

RELEASE CONTROLS

____ Liner	____ Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	____ Other	

Details: Some of the drums are in drip pans on pallets.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during the VSI.

Detail of Past Releases: Unknown.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because of waste containment in a 55-gallon drum placed on a concrete floor.

5.20 SWMU No. 136: Satellite Accumulation Area in Building 55

(Photos: 4-23)
(Exhibit 2.2)

DESCRIPTION

Unit Type: This unit is a waste accumulation area located in Building 55 (Reference 112).

Purpose of Unit: The unit is used to accumulate wastes in Building 55 (Reference 112).

Regulatory Status: The waste is stored for less than 90 days (Reference 112).

Period of Operation: Unknown.

Dimensions/Volume: Two 55-gallon drums.

Material of Construction:

Underlain By: X Concrete ____Asphalt ____ Gravel

____ Grass ____Soil

Environmental: X Indoors ____Close to Surface Water ____In Ground

____Outdoors ____Close to Drinking Water ____Above Ground

____Covered ____Residences ____Below Ground

Details: Two drums were observed on a wooden pallet on a concrete curb (Reference 112).

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The unit manages paint and paint stripper (Reference 112).

Sources of Wastes: The waste is generated in Building 55 (Reference 112).

Disposition of Waste: Unknown

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: No curbs were noted around the accumulation area (Reference 112).

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of releases were noted during the VSI.

Detail of Past Releases: Unknown

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because of waste containment in drums and placement of drums inside a building on a concrete floor.

5.21 SWMU No. 137: Satellite Accumulation Area in Building 57

(Photos: 4-27)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The unit is a waste accumulation area in Building 57 (Reference 112).

Purpose of Unit: The unit is used to accumulate waste generated in Building 57 (Reference 112).

Regulatory Status: The waste is stored for less than 90 days (Reference 112).

Period of Operation: Unknown.

Dimensions/Volume: Four 55-gallon drums noted during the VSI (Reference 112).

Material of Construction:

Underlain By: X Concrete ____ Asphalt ____ Gravel
____ Grass ____ Soil

Environmental: ____ Indoors ____ Close to Surface Water ____ In Ground
____ Outdoors ____ Close to Drinking Water ____ Above Ground
X Covered ____ Residences ____ Below Ground

Details: Three drums were observed in drip pans on wooden pallets. One drum was placed directly on the concrete floor (Reference 112).

CLOSURE INFORMATION

X Active
____ Inactive/Physically Present
____ Inactive/Removed or Dismantled
____ Closed Under State or EPA
____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The unit manages spent petroleum, naphtha, lubricating oil, and JP-5 fuel (Reference 112).

Sources of Wastes: The wastes are generated in Building 57 (Reference 112).

Disposition of Waste: Waste is disposed through DRMO.

RELEASE CONTROLS

____ Liner	____ Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	____ Other	

Details: Three of the four drums are placed in drip pans (Reference 112).

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of releases was noted during VSI.

Detail of Past Releases: Unknown.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because of waste containment in drums and placement of drums on a concrete floor.

5.22 SWMU Nos. 138-139: OMD Building 58 Satellite Accumulation Areas

(Photos: 4-29)
(Exhibit 2.2)

DESCRIPTION: OMD Building 58 has two satellite accumulation areas (Refer to Photo No. 4-29).

Unit Type: The unit consists of three 55-gallon drums which contain paint waste, hydraulic oil and turbine oil, respectively.

Purpose of Unit: These units collect paint waste, waste hydraulic oil and turbine oil in the OMD Building 58.

Regulatory Status: Unregulated.

Period of Operation: The units have been in operation since 1979 (Reference 110).

Dimensions/Volume: Three 55-gallon drums.

Material of Construction:

Underlain By: _X_ Concrete ____Asphalt ____ Gravel

_____ Grass ____Soil

Wooden blocks which rest on concrete floor.

Environmental: ____Indoors ____Close to Surface Water ____In Ground

_X_Outdoors ____Close to Drinking Water ____Above Grou

____Covered ____Residences ____Below Grou

Details:

CLOSURE INFORMATION

_X_ Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

X Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The units manage paint waste, waste hydraulic oil and turbine oil.

Sources of Wastes: OMD Building 58.

Disposition of Waste: Wastes are disposed of in DRMO for resale.

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: No release controls.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during VSI.

Detail of Past Releases: No past releases are reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: Wastes are contained in drums resting on concrete floors.

5.23 SWMU No. 140: OMD Shop Wash Rack

(Photos: No Photographs)
(Exhibit 2.2)

DESCRIPTION: The OMD Shop Wash Rack is a 120 foot by 120 foot paved area which began operations at its current location in 1979. The OMD Wash Rack has 4-inch curb and drains into sanitary drain (Reference 110). Approximately 200 gallons of wastewater is produced daily.

Unit Type: The unit is a 120 foot by 120 foot concrete floor area connected with sanitary drain.

Purpose of Unit: The unit was designed to collect the wash rack rinse and discharge it to sanitary sewer.

Regulatory Status: Unregulated.

Period of Operation: The OMD Shop Wash Rack began operation at its current location in 1979.

Dimensions/Volume: The unit's design dimensions are 120 feet by 120 feet by 4 inches deep.

Material of Construction:

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass X Soil

Environmental: ____Indoors ____Close to Surface Water ____In Ground

X Outdoors ____Close to Drinking Water ____Above Ground

____Covered ____Residences ____Below Ground

Details:

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Rinsate contains oil, grease.

Sources of Wastes: Waste is produced by washing of posts in the OMD Building 58 (Reference 110).

Disposition of Waste: Rinse from wash rack is discharged to the sanitary sewer (Reference 110).

RELEASE CONTROLS

____ Liner	X Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	____ Other	

Details: The wash rack is equipped with a 4-inch curb to contain run-off and direct it to a drain.

MONITORING: None

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No ground-water monitoring wells in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during VSI.

Detail of Past Releases: No past releases were reported (Reference 110).

RELEASE POTENTIAL

Air	X	Low	____	Medium	____	High
Soil/Groundwater	X	Low	____	Medium	____	High
Surface Water	X	Low	____	Medium	____	High
Subsurface Gas Generation	X	Low	____	Medium	____	High

Detail of Release Potential: The release potential to environmental media is low because rinsate is discharged to SSTP where waste is treated before discharging to Corpus Christi Bay.

5.24 SWMU No. 141: AIMD Former Storage Bowser Building 51

(Photos: No Photos)
(Exhibit 2.2)

DESCRIPTION: A 150-gallon steel tank was used to collect waste oil at the AIMD in Building 51. Approximately every six months, when the tank was full, the wastes were disposed of through DRMO.

Unit Type: The unit was a 150-gallon steel tank.

Purpose of Unit: The unit collected waste oil generated at the AIMD for disposal to DRMO (Reference 110).

Regulatory Status: Unregulated.

Period of Operation: The unit was operational from 1954 to 1968 (Reference 110). The unit was turned in to DRMO.

Dimensions/Volume: Portable oil tank of 150 gallon capacity.

Material of Construction: Steel

Underlain By: X Concrete ____ Asphalt ____ Gravel

____ Grass ____ Soil

Environmental: ____ Indoors ____ Close to Surface Water ____ In Ground

X Outdoors ____ Close to Drinking Water ____ Above Ground

____ Covered ____ Residences ____ Below Ground

Details:

CLOSURE INFORMATION

____ Active

____ Inactive/Physically Present

X Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The unit managed waste oil.

Sources of Wastes: Approximately 150 gallons of waste oil was produced every six months.

Disposition of Waste: Waste disposed to DRMO (Reference 110).

RELEASE CONTROLS

X Liner	____ Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	____ Other	

Details: The unit was reportedly placed on the concrete floor.

MONITORING: None

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: Not Applicable

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: Bowser was removed from the site before VSI.

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because waste was stored in a task which was reportedly placed on a concrete floor.

5.25 SWMU Nos. 142-151: AIMD Satellite Accumulation Areas

(Photos: 4-30, 4-33, 4-34, 4-35, 4-36, 5-1, 5-2)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The units are 55-gallon drums situated in the proximity of waste generation points in the AIMD Building 51. The waste types and their quantities are listed in Exhibit 5-7. In general, waste accumulation drums are placed on wooden blocks which, in turn, rest on a concrete floor (refer to photographs).

Purpose of Unit: The purpose of the units are to accumulate wastes in the drums before transferring either to DRMO or Temporary Container Storage Area in the AIMD.

Regulatory Status: Unregulated.

Period of Operation: Refer to Exhibit 5-7.

Dimensions/Volume: Refer to Exhibit 5-7.

Material of Construction: 55-gallon drums placed in metallic trays on wooden boards.

Underlain By: X Concrete ____Asphalt ____ Gravel

____ Grass ____Soil

Environmental: X Indoors ____Close to Surface Water ____In Ground

X Outdoors ____Close to Drinking Water ____Above Groun

____Covered ____Residences ____Below Groun

Details:

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

X Solids	X Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Waste accumulated in satellite areas.

Sources of Wastes: Aircraft maintenance department in Building 51 (Reference 89).

Disposition of Waste: Wastes are transferred to DRMO.

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: There are no containment curbs on concrete floor in the satellite accumulation area.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during VSI.

Detail of Past Releases: No releases have been reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because wastes are placed in 55-gallon drums which, in turn, rest on the concrete floor.

EXHIBIT 5-7: NAVY SATELLITE ACCUMULATION AREA IN BUILDING 51

SWMU No.	Satellite Accumulation Area Number	Work Center Number	VSI Photo	Waste Types & Waste Generation Rates	Start-up Dates and Action Status
142	A	Building 51	Site Photograph #4-33	Paint Waste 55 gallons/year	June 1987 Active
143	B	Building 51	Site Photograph #4-34	Hydraulic Fluid and Trichloroethlene 11 gallons/month	-
144	C	Building 51	Site Photograph #4-33	Glass Beads	1985, Active
145	D	Building 51	Site Photograph #4-33	Transmission Oil	-
146	E	Building 51	Site Photographs #5-1 & #5-2	Waste Sulfuric Acid 55 gallons/quarter	January 1987 Active
147	F	Building 51	Site Photographs #5-1 & #5-2	PD 680 110 gallons/year	January 1987 Active
148	G	Building 51	Site Photograph #4-35	Motor Oil 9 gallons/month	-
149	H	Building 51	Site Photograph #4-30	1,1,1-Trichloroethane 220 gallons/year	-
150	I	Building 51	Site Photograph #4-30	Ethylene Glycol 55 gallons/quarter	November 1987 Active
151	J	Building 51	Site Photograph #4-36	Asbestos 55 gallons/year	January 1987

5.26 SWMU No. 152: AIMD Old Battery Storage Area

(Photo: 4-32)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The unit is a container storage area located in a fenced yard on the northeast side of Building 51 (Reference 110).

Purpose of Unit: The unit was used for the storage of waste batteries, waste electrolyte, and waste paint and oil (Reference 110).

Regulatory Status: Unregulated.

Period of Operation: The unit operated between 1954 and 1988. The AIMD Temporary Storage Area (SWMU No. 206) in the same fenced area replaced this unit in 1988 (Reference 110).

Dimensions/Volume: 22 feet by 17 feet.

Material of Construction: The area is currently a portion of the paved fenced yard outside Building 51.

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass X Soil

Environmental: ____Indoors ____Close to Surface Water ____In Ground

X Outdoors ____Close to Drinking Water X Above Groun

____Covered ____Residences ____Below Groun

Details: Old Battery Storage Area was a fenced open space, with concrete floor.

CLOSURE INFORMATION

____ Active

____ Inactive/Physically Present

X Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

X Solids	X Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Waste electrolyte was accumulated at a rate of 15 gallons per month. About 20 waste batteries were also generated per month (Reference 2).

Sources of Wastes: About 100 lead acid batteries are serviced per month in Building 51 (Reference 2).

Disposition of Waste: Since 1968 the waste sulfuric acid was drummed and disposed at the IWPP (Reference 2).

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: The unit is reported to have a curb (Reference 110).

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during the VSI.

Detail of Past Releases: No releases have been reported (Reference 110).

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because waste was placed on a concrete floor with a curb.

5.27 SWMU Nos. 153-156: U.S. Custom Office - Satellite Area

(Photos: 5-5, 5-6)
(Exhibit 2.2)

DESCRIPTION: The units are located south (Photo No. 5-5) and west (Photo No. 5-6) of the Custom Office Building on wooden blocks which are placed on concrete floor. The wastes are temporarily stored in the AIMD Temporary Container Storage Area before transfer to DRMO.

Unit Type: The units are 55-gallon containers used to collect waste generated at the U.S. Customs.

Purpose of Unit: The units collect waste generated at the U.S. Customs Office.

Regulatory Status: Unregulated.

Period of Operation: Refer to Exhibit 5-8.

Dimensions/Volume: Refer to Exhibit 5-8.

Material of Construction:

Underlain By: X Concrete ____Asphalt ____ Gravel

_____ Grass ____Soil

Environmental: ____Indoors ____Close to Surface Water ____In Ground

X Outdoors ____Close to Drinking Water ____Above Groun

____Covered ____Residences ____Below Groun

Details:

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

X Solids	____ Corrosive	____ Organics
X Liquids	X Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Refer to Exhibit 5.8.

Sources of Wastes: Wastes generated at the U.S. Customs Office.

Disposition of Waste: Waste disposed to DRMO through AIMD.

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: The drums are placed on wooden pallets which rest on the concrete floor. In some cases, drums are placed in a metal tray to contain releases from these units.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during VSI.

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air	X	Low	____	Medium	____	High
Soil/Groundwater	X	Low	____	Medium	____	High
Surface Water	X	Low	____	Medium	____	High
Subsurface Gas Generation	X	Low	____	Medium	____	High

Detail of Release Potential: The release potential to environmental media is low because waste is placed above ground in 55-gallon drums on a concrete floor.

EXHIBIT 5-8: U.S. CUSTOMS OFFICE - SATELLITE ACCUMULATION AREA

SWMU No.	Satellite Area Number	Work Center Description	Waste Types & Waste Generation Rates	Start-up Dates and Action Status
153	Site 79A	Site Photograph #5-5	Paint Waste 110 gallons/year	January 1988 Active
154	Site 79B	Site Photograph #5-5	Hydraulic Oil/Trico 300 gallons/year; JP-5	January 1988 Active
155	Site 79C	Site Photographs #5-5 & #5-6	Turbine Oil 300 gallons/year	January 1988 Active
156	Site 79D	Site Photograph #5-6	PD-680	

5.28 SWMU No. 157: PCB Storage (Building No. 1104)

(Photo: 5-7)
(Exhibit 2.2)

DESCRIPTION: The PCB Storage Building (Photo No. 5-7) is located in the Public Works Department's Ground Yard (Photo No. 5-9). The building is inspected monthly. PCB items identified through data plate or analysis are labeled and dated. A tracking log is maintained on each item including description, actions and manifest number.

Unit Type: The unit is a metal framed building with curbing around perimeter of concrete floor.

Purpose of Unit: The unit accepts PCB waste from NASCORPC Electrical Department.

Regulatory Status: Registered with Texas Water Commission.

Period of Operation: The unit has been in operation since 1940s and is currently active.

Dimensions/Volume: PCB Transformers stored at any time range from one to thirty. At the time of VSI, five capacitors, six drums of PCB-contaminated oil, and four transformers were reported to be in storage.

Material of Construction:

Underlain By: X Concrete ____Asphalt ____ Gravel

____ Grass ____Soil

Environmental: X Indoors ____Close to Surface Water ____In Ground

____Outdoors ____Close to Drinking Water ____Above Ground

____Covered ____Residences ____Below Ground

Details:

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

X Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The unit contained five drums of capacitor, four transformers and six drums of oil.

Sources of Wastes: NASCORPC electrical equipment.

Disposition of Waste: Waste contracted through DRMO for incineration.

RELEASE CONTROLS

X Liner	X Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
X Leak Detection	____ Other	

Details: The building floor has curb around the perimeter, and drip pans are placed under leaking containers. A spill pit is placed in the building.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells in place.

RELEASE HISTORY

X Past Release to Air	____ VSI Noted Release to Air
X Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during VSI.

Detail of Past Releases: A spill of three gallons of PCB contaminated oil took place in January 1987 immediately south of the building near the door. The top 18 inches of soil was excavated and disposed. Concentration was brought to 1 ppm.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: Release potential into environmental pathways is low because of enclosed building, concrete floor with curb and waste management practices.

5.29 SWMU Nos. 158-159: Asbestos Storage Buildings #1102 and #1103

(Photo: 5-8)
(Exhibit 2.2)

DESCRIPTION: The units are located in the Public Works Department Ground Yard (Refer to Photo 5-9), west of the PCB Storage Building #1104. Asbestos waste is removed off site when full.

Unit Type: The units are a metal framed building with curbing around perimeter of concrete floor.

Purpose of Unit: The unit accepts asbestos waste from the base.

Regulatory Status: Unregulated (Reference 124).

Period of Operation: The units were operated between 1985 and 1986 (Reference 110).

Dimensions/Volume: A maximum of 20 cubic yards of friable asbestos.

Material of Construction:

Underlain By: X Concrete ____ Asphalt ____ Gravel
____ Grass ____ Soil

Environmental: X Indoors ____ Close to Surface Water ____ In Ground
____ Outdoors ____ Close to Drinking Water ____ Above Groun
____ Covered ____ Residences ____ Below Groun

Details: Buildings are enclosed on all sides and have concrete floors.

CLOSURE INFORMATION

____ Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

X Closed Under State or EPA

____ Other

WASTES MANAGED

X Solids	____ Corrosive	____ Organics
____ Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Friable asbestos, clutch linings.

Sources of Wastes: Asbestos waste.

Disposition of Waste: Waste is transferred to Defense Reutilization and Marketing Office for disposal.

RELEASE CONTROLS

X Liner	X Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	X Other: Double wrapped packaging	

Details: The units are metal-framed buildings with curbing around the concrete floor.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during VSI.

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: Release potential to environmental media is low because asbestos is containerized, placed in an enclosed building with curb and concrete floor.

5.30 SWMU No. 160: Sandblast/Paint Satellite Area in Ground Services Yard of PWD

(Photo: 5-10)
(Exhibit 2.2)

DESCRIPTION: The unit is located inside the building shed in the PWD Grounds Yard (Refer to Photo 5-10). RCRA "F" and "D" waste storage of a maximum of one drum is reported.

Unit Type: The unit is a 55-gallon drum placed inside a metal frame building (Refer to Photo 5-10).

Purpose of Unit: The unit collects listed wastes F003/F005 and D001.

Regulatory Status: The unit is noted to be unregulated during the VSI.

Period of Operation: The unit has been in operation from 1960s to present (Reference 110).

Dimensions/Volume: One drum.

Material of Construction:

Underlain By: X Concrete ____Asphalt ____ Gravel

_____ Grass ____Soil

Environmental: X Indoors ____Close to Surface Water ____In Ground

____Outdoors ____Close to Drinking Water ____Above Groun

____Covered ____Residences ____Below Groun

Details:

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

X Solids	____ Corrosive	____ Organics
____ Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The waste is reported to contain some heavy metals.

Sources of Wastes: Waste is produced by sandblasting of machine parts.

Disposition of Waste: Waste is disposed of through DRMO.

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: No release controls.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during VSI.

Detail of Past Releases: No releases are reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because waste is placed on site on a concrete floor.

5.31 SWMU No. 161: Lawn Mower Shop - Satellite Accumulation Area

(Photo: 5-13)
(Exhibit 2.2)

DESCRIPTION: The unit is located in a shed on the north of the open area of the Lawn Mower Shop.

Unit Type: The unit contains 55-gallon drums placed on wooden pallets, which in turn, rest on a concrete floor.

Purpose of Unit: The unit collects waste oil and Varsol generated at the Lawn Mower Shop.

Regulatory Status: Unregulated.

Period of Operation: The unit was noted to be active during the VSI.

Dimensions/Volume: Two 55-gallon drums.

Material of Construction:

Underlain By: X Concrete ____Asphalt ____ Gravel

_____ Grass ____Soil

Environmental: X Indoors ____Close to Surface Water ____In Ground

____Outdoors ____Close to Drinking Water ____Above Ground

____Covered ____Residences ____Below Ground

Details:

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
_X_ Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The unit collects waste oil and Varsol.

Sources of Wastes: Wastes from the Lawn Mower Shop.

Disposition of Waste: Disposed to DRMO.

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: The drums are on wooden pallets on a concrete floor inside a shed.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during VSI.

Detail of Past Releases: No releases are reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because drums are placed on a wooden pallet resting on a concrete floor inside the building.

5.32 SWMU Nos. 162-165: Hobby Shop Satellite Accumulation Areas

(Photos: 5-14, 5-15, 5-16 and 5-17)
(Exhibit 2.2)

DESCRIPTION: The units are located in the Hobby Shop (refer to Photos 5-14 through 5-17). Four units with containerized drums containing waste petroleum oil, synthetic oil, Varsol, and ethylene glycol are accumulated (refer to Exhibit 5-9).

Unit Type: The units are 55-gallon drums placed on wooden pallets, directly on concrete floors, and a mobile carrier (refer to photographs).

Purpose of Unit: The units collect wastes generated in the Hobby Shop for transfer to DRMO.

Regulatory Status: RCRA-regulated Satellite Accumulation Areas.

Period of Operation: Refer to Exhibit 5-9.

Dimensions/Volume: Refer to Exhibit 5-9.

Material of Construction:

Underlain By: X Concrete ____Asphalt ____ Gravel

____ Grass ____Soil

Environmental: X Indoors ____Close to Surface Water ____In Ground

X Outdoors ____Close to Drinking Water ____Above Ground

____Covered ____Residences ____Below Ground

Details: Units are 55-gallon drums placed on a concrete floor.

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	X Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
X Sludges		

Particulars: The units collect petroleum oil, synthetic oil, Varsol and ethylene glycol.

Sources of Wastes: The waste are derived from vehicle maintenance.

Disposition of Waste: Wastes are disposed through DRMO.

RELEASE CONTROLS

X Liner	____ Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	____ Other	

Details: Concrete floor.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of releases were noted during VSI.

Detail of Past Releases: No releases are reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because of waste containerization in drums and placement of waste inside the building.

EXHIBIT 5-9: HOBBY SHOP SATELLITE ACCUMULATION AREA DESCRIPTIONS
(Source: Reference 89)

SWMU No.	Satellite Area Number	Work Center Number	Work Center Description	Waste Types & Waste Generation Rates	Start-up Dates and Action Status
162	28A	Buildings 1737 & 1277	Site Photograph #5-14	Petroleum Oil 150 gallons/month	January 1987 Active
163	28B	Buildings 1737 & 1277	Site Photograph #5-15	Transmission Oil 53 gallons/month	January 1987 Active
164	28C	Buildings 1737 & 1277	Site Photograph #5-16	Paint Waste Sludge	Unknown
165	28D	Buildings 1737 & 1277	Site Photograph #5-17	Ethylene Glycol 55 gallons/6 months	January 1988 Active

5.33 SWMU No. 166: Electrical Branch High Voltage Shop

(Photo: 5-19)
(Exhibit 2.2)

DESCRIPTION: The unit is located outside the High Voltage Shop in Building 255. Compressor oil and non-PCB transformer oil are accumulated.

Unit Type: The unit consists of three 55-gallon drums placed on wooden pallets which in turn rest on a concrete floor.

Purpose of Unit: The unit collects waste generated at the High Voltage Shop.

Regulatory Status: Unregulated.

Period of Operation: The unit was observed to be operational during the VSI.

Dimensions/Volume: Three 55-gallon drums.

Material of Construction:

Underlain By: X Concrete ____Asphalt ____ Gravel

_____ Grass ____Soil

Environmental: ____Indoors ____Close to Surface Water ____In Ground

X Outdoors ____Close to Drinking Water ____Above Grour

____Covered ____Residences ____Below Grour

Details: Waste is containerized in 55-gallon drums.

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The unit collects compressor oil and non-PCB transformer oil.

Sources of Wastes: Compressor oil and non-PCB transformer oil generated in the High Voltage Shop.

Disposition of Waste: Waste is transported to DRMO for disposal.

RELEASE CONTROLS

X Liner	____ Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	____ Other	

Details:

MONITORING

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during VSI.

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because of waste containment in drums are laid on wooden pallets which rest on concrete floor.

5.34 SWMU No. 167: Incinerator (Blacksmiths Furnace) PWD

(Photo: 5-20)
(Exhibit 2.2)

DESCRIPTION: The furnace was used to burn electrical motor windings and waste oil generated in Building 19.

Unit Type: The unit is a four foot diameter metallic cylinder with an interior lining of brick. The inner diameter is about two feet.

Purpose of Unit: The unit was used to burn electrical motor windings.

Regulatory Status: Unregulated.

Period of Operation: The unit was in operation until 1970s. The unit has been inactive since then, based on the information provided by the NAS staff during VSI.

Dimensions/Volume: Four foot diameter cylinder; approximately three feet in length. Inner channels: 2 feet.

Material of Construction:

Underlain By: X Concrete ____Asphalt ____ Gravel

____ Grass ____Soil

Environmental: ____Indoors ____Close to Surface Water ____In Ground

X Outdoors ____Close to Drinking Water ____Above Ground

____Covered ____Residences ____Below Ground

Details:

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

X Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The unit managed electrical motor windings.

Sources of Wastes: Electrical motor windings.

Disposition of Waste: Burned in the furnace.

RELEASE CONTROLS

X Liner	____ Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	____ Other	

Details: The unit is located outside on a concrete floor.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during VSI.

Detail of Past Releases: No past releases were reported by the NAS staff during VSI.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The unit is no longer in use.

5.35 SWMU Nos. 168-169: Metal Trade/Pipe Shop Waste Accumulation Areas in PWD Building 19

(Photo: 5-21)
(Exhibit 2.2)

DESCRIPTION: Metal shavings, scrap metals and cutting oils generated in the Metal Trade/Pipe Shop are accumulated and disposed through DRMO.

Unit Type: The unit is a 20-gallon metal container placed on concrete floor.

Purpose of Unit: The unit was used to accumulate waste at the point of generation and dispose it through DRMO.

Regulatory Status: Unregulated.

Period of Operation: The unit began operations prior to 1950s and are active at present.

Dimensions/Volume: 20-gallon metal container.
12 cubic yards of scrap metal per year.
1 to 2 gallons of cutting oil per year.

Material of Construction:

Underlain By: X Concrete ____Asphalt ____ Gravel

____ Grass ____Soil

Environmental: X Indoors ____Close to Surface Water ____In Ground

____Outdoors ____Close to Drinking Water ____Above Ground

____Covered ____Residences ____Below Ground

Details: The unit is located indoors and rests on a concrete floor.

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

X Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The unit collected metal shavings, scrap metal and cutting oils.

Sources of Wastes: Metal Shop and Pipe Shop.

Disposition of Waste: Waste is disposed through DRMO.

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: The unit was located indoors on a concrete floor.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during the VSI.

Detail of Past Releases: No past releases were reported (Reference 110).

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The potential to release to environmental media is low because of waste containerization in drums inside the building.

5.36 SWMU No. 170: Air Conditioning Shop Satellite Accumulation Area

(Photos: No Photo)
(Exhibit 2.2)

DESCRIPTION: The unit collects waste from the Air Conditioning Shop.

Unit Type: The unit is a 55-gallon drum placed on concrete floor.

Purpose of Unit: The unit is an accumulation area for waste generated in the Air Conditioning Shop.

Regulatory Status: Unregulated.

Period of Operation: The unit has been in operation since the 1950s.

Dimensions/Volume: 55-gallon drums.

Material of Construction:

Underlain By: X Concrete ____ Asphalt ____ Gravel

____ Grass ____ Soil

Environmental: X Indoors ____ Close to Surface Water ____ In Ground

____ Outdoors ____ Close to Drinking Water ____ Above Grou

____ Covered ____ Residences ____ Below Grou

Details:

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

X Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Non-PCB transformer oil and waste generated resulting from maintenance activities.

Sources of Wastes: Waste generated in the Air Conditioning Shop.

Disposition of Waste: Waste is disposed of through DRMO (Reference 112).

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: The unit is located on a concrete floor in a building.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during the VSI.

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The potential to release to environmental media is low because of waste containerization in drums inside the building.

5.37 SWMU No. 171: Portable Waste Oil Storage Tank in PWD Garage

(Photos: 5-22)
(Exhibit 2.2)

DESCRIPTION: The unit is a 500-gallon waste oil storage tank used to accumulate waste oil generated in the PWD Building #19. The unit was moved from its original location to DRMO in 1985.

Unit Type: The unit is a 500-gallon steel tank.

Purpose of Unit: The unit was used to accumulate waste oil generated in the PWD Garage.

Regulatory Status: Unregulated.

Period of Operation: The unit has been in operation from 1940s to 1985.

Dimensions/Volume: 500 gallon capacity.

Material of Construction:

Underlain By: X Concrete ____Asphalt ____ Gravel

_____ Grass ____Soil

Environmental: ____Indoors ____Close to Surface Water ____In Ground

X Outdoors ____Close to Drinking Water ____Above Grou

____Covered ____Residences ____Below Grou

Details: The unit was located outside on a concrete floor in the PWD Garage.

CLOSURE INFORMATION

____ Active

____ Inactive/Physically Present

X Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
_X_ Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The unit holds waste oil.

Sources of Wastes: Waste oil from PWD Building #19 was accumulated.

Disposition of Waste: Miscellaneous oils were accumulated and transported to DRMO for resale.

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: The unit is a 500-gallon steel tank placed on a concrete floor outside the PWD Garage building.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during VSI.

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because of waste containerization in steel tank placed on a concrete floor.

5.38 SWMU Nos. 172-176: PWD Garage Satellite Accumulation Areas

(Photos: 5-23, 5-24)
(Exhibit 2.2)

DESCRIPTION: The PWD Garage has five waste management units. These units accumulate waste generated by servicing vehicles. A listing of wastes by solid waste management units is shown in Exhibit 5.10.

Unit Type: The units are 55-gallon drums generally placed either in metal trays which rest on wooden pallets or directly on wooden pallets which, in turn, rest on concrete floors.

Purpose of Unit: These units accumulate wastes generated during servicing of vehicles.

Regulatory Status: Unregulated.

Period of Operation: Refer to Exhibit 5-10.

Dimensions/Volume: Refer to Exhibit 5-10.

Material of Construction:

Underlain By: X Concrete ____Asphalt ____ Gravel

____ Grass ____Soil

Environmental: X Indoors ____Close to Surface Water ____In Ground

____Outdoors ____Close to Drinking Water ____Above Groun

____Covered ____Residences ____Below Grour

Details: None.

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

X Solids	____ Corrosive	____ Organics
X Liquids	X Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars:

Sources of Wastes: Wastes generated in the PWD Garage.

Disposition of Waste: Waste is transferred to DRMO.

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: The units are placed in drip trays on wooden pallets or directly on wooden pallets which are placed on a concrete floor in a building.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during the VSI.

Detail of Past Releases: No releases were reported (Reference 109).

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media are low because of containment of wastes in drums and placement of drums inside the building on concrete floor.

EXHIBIT 5.10: PWD GARAGE SATELLITE ACCUMULATION AREA

SWMU No.	Work Center Location	Work Center Description	Waste Types and Waste Generation Rates	Start-up Dates and Action Status
172	PWD Garage	Building 20	Waste solvents 46 gallons/year	Active since 1940s
173	PWD Garage	Building 20	Waste antifreeze 15 gallons/month	Active since 1940s
174	PWD Garage	Building 20	Waste petrol 30 gallons/month	Active since 1940s
175	PWD Garage	Building 20	Waste transmission oil 30 gallons/month	Active since 1940s
176	PWD Garage	Building 20	Waste petrol oil 30 gallons/month	Active since 1940s

5.38A SWMU NO. 177: PWD Garage Asbestos Waste Storage Area

(Photos: 5.25)
(Exhibit 2.2)

DESCRIPTION: The unit is located in the PWD Garage on the southwest corner of Building 20. The unit accumulates asbestos wastes generated in the PWD Garage consisting of asbestos clutch pads and brake linings.

Unit Type: The unit is an enclosed container storage area with a concrete floor.

Purpose of Unit: The unit accumulates asbestos waste produced in the PWD Garage before disposed through DRMO.

Regulatory Status: Unregulated.

Period of Operation: The unit has been in operation from 1957 to 1987.

Dimensions/Volume: Ten bags of asbestos waste is generated per month.

Material of Construction:

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass _X_ Soil

Environmental: _X_ Indoors ____Close to Surface Water ____In Ground

____Outdoors ____Close to Drinking Water ____Above Groun

____Covered ____Residences ____Below Groun

Details:

CLOSURE INFORMATION

_X_ Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

X Solids	____ Corrosive	____ Organics
____ Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The unit collects asbestos clutch pads and brake linings.

Sources of Wastes: Waste generated in the PWD Garage.

Disposition of Waste: Waste is disposed of at DRMO.

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: The unit is located indoors with a concrete floor.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No release was noted during the VSI.

Detail of Past Releases: No past releases were reported (Reference 110).

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because the unit is containerized and placed inside a building with concrete floors.

5.38B SWMU NO. 178: PWD FORMER WASTE BATTERY STORAGE AREA

(Photos: 5-25)
(Exhibit 2.2)

DESCRIPTION: The unit is located in the PWD Garage on the southeast corner of Building 20. The unit was used to accumulate waste batteries resulting from the operations in the PWD Garage.

Unit Type: The unit is in the southwest corner of a metal frame building with concrete floors.

Purpose of Unit: The unit was used to store waste batteries.

Regulatory Status: Unregulated.

Period of Operation: The waste battery storage operation was discontinued in 1987 for safety considerations.

Dimensions/Volume: Approximately 15 feet by 15 feet area with concrete floor.

Material of Construction:

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass _X_ Soil

Environmental: _X_ Indoors ____Close to Surface Water ____In Ground

____Outdoors ____Close to Drinking Water ____Above Grou

____Covered ____Residences ____Below Grou

Details:

CLOSURE INFORMATION

____ Active

_X_ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

X Solids	X Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Waste batteries were accumulated in this area.

Sources of Wastes: Battery wastes generated in the PWD Garage.

Disposition of Waste: Waste used to be disposed through DRMO (Reference 110).

RELEASE CONTROLS

____ Liner	____ Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	____ Other	

Details: The area was located indoors with a concrete floor.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during the VSI.

Detail of Past Releases: No past releases were reported (Reference 110).

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: Release potential to soil/groundwater, surface water, air and subsurface gas generation is low because of waste containment inside a building on concrete floor.

5.39 SWMU No. 179: Transportation Paint & Body Shop Satellite Accumulation Area

(Photo: 5-26)
(Exhibit 2.2)

DESCRIPTION: The units accumulate waste generated in Transportation Paint & Body Shop. RCRA "D" and "F" wastes are managed in these units.

Unit Type: The units are 55-gallon drums placed in a metal tray or directly on wooden pallets which, in turn, rest on a concrete floor.

Purpose of Unit: The units accumulate RCRA "D" and "F" waste in 55-gallon drums.

Regulatory Status: Unregulated.

Period of Operation: The units are in operation from the 1950s to present.

Dimensions/Volume: 55-gallon drums.

Material of Construction:

Underlain By: X Concrete ____ Asphalt ____ Gravel

____ Grass ____ Soil

Environmental: X Indoors ____ Close to Surface Water ____ In Ground

____ Outdoors ____ Close to Drinking Water ____ Above Groun

____ Covered ____ Residences ____ Below Groun

Details: Drums are placed on a concrete floor inside a building.

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The unit was used to accumulate paint waste, solvents and paint thinners.

Sources of Wastes: Waste generated from cleaning of guns, and excess paint in the Transportation & Body Shop.

Disposition of Waste: Waste transported to DRMO.

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: The drums were in drip trays on wooden pallets on a concrete floor.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during VSI.

Detail of Past Releases: No releases were reported (Reference 110).

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because of waste containment in drums which are placed in an enclosed building on a concrete floor.

5.40 SWMU Nos. 180-182: PWD Electrical Shop Satellite Accumulation Areas

(Photos: 5-27, 5-28)
(Exhibit 2.2)

DESCRIPTION: The Electric Shop has used three locations to accumulate shop's non-PCB wastes. Building names and operations durations are shown in Exhibit 5-11. Building 255 is presently used to store all non-PCB wastes.

Unit Type: The units are fenced areas in which non-PCB wastes are accumulated.

Purpose of Unit: The units are designed to accumulate wastes generated in the Electric Shop.

Regulatory Status: Unregulated.

Period of Operation: The units were in operation from 1950s to 1985.

Dimensions/Volume: Refer to Exhibit 5-11.

Material of Construction:

Underlain By: X Concrete ___ Asphalt X Gravel
___ Grass X Soil

Environmental: ___ Indoors ___ Close to Surface Water ___ In Ground
X Outdoors ___ Close to Drinking Water ___ Above Groun
___ Covered ___ Residences ___ Below Groun

Details: 55-gallon drums are stored on a concrete floor.

CLOSURE INFORMATION

X Active
___ Inactive/Physically Present
___ Inactive/Removed or Dismantled
___ Closed Under State or EPA
___ Other

WASTES MANAGED

X Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Non-PCB transformer.

Sources of Wastes: Wastes generated at the Electric Shop.

Disposition of Waste: Wastes were accumulated and transferred to General Services Compound.

RELEASE CONTROLS

____ Liner	____ Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	____ Other	

Details: None.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during VSI.

Detail of Past Releases: No releases were reported (Reference 110).

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because waste is stored on a concrete floor.

EXHIBIT 5.11: PWD ELECTRICAL SHOP SATELLITE ACCUMULATION AREA

No.	Location	Generation Rates	Start-up Dates
180	Building 19	- Non-PCB wastes - Aerosol paint cans - One 55-gallon drum removed when full - Frequency unknown	1950 to 1985
181	Building 168	- Non-PCB wastes - One 55-gallon drum removed when full - Frequency unknown	1950s to 1985
182	Building 1821	- Non-PCB wastes - One 55-gallon drum removed when full	1950 to 1985

5.41 SWMU No. 183: Defense Reutilization and Marketing Office Storage Area

(Photos: 5-29 to 5-36, 6-1 to 6-3)
(Exhibit 2.2)

DESCRIPTION All waste generated at NAS is managed by DRMO. The DRMO has a 90-day hazardous waste drum storage facility with a maximum capacity of 672 drums (Refer to Photos 5-29, 5-30, 5-33 and 5-39). It has several acres of fenced area which are used to store capacitors and non-PCB transformers (Photo 5-32), waste batteries (Photo 5-34), used construction equipment (Photo 5-31) [scrap yard (Photos 6-1, 6-2), circuit boards (Photo 6-3)], and numerous other wastes generated at the air station. Many hazardous wastes are used as a resource. The DRMO is responsible for disposing, use and reuse, and selling of used materials.

Unit Type: The unit is a 14-acre area which has a metal framed building. The building is open on two sides and has a concrete floor. The rest of the area is fenced open space and is used to accumulate waste before disposal.

Purpose of Unit: The DRMO stores, disposes and sells all wastes generated on the Base.

Regulatory Status: Regulated 90-day storage facility.

Period of Operation: The DRMO has been in operation from 1981 to present.

Dimensions/Volume: 672 55-gallon drum storage capacity. Several acres of fenced temporary storage area.

Material of Construction: Different portions of the 14-acre area have different floors.

Underlain By:	X Concrete	X Asphalt	X Gravel
	X Grass	X Soil	
Environmental:	X Indoors	___ Close to Surface Water	___ In Ground
	X Outdoors	___ Close to Drinking Water	___ Above Ground
	___ Covered	___ Residences	___ Below Ground

Details: The unit has a metal frame building. The portion of the unit outside the building is about 13 acres and fenced. The floor of the fenced area is gravel, bare ground surface and a small portion with concrete slab.

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

X Solids	X Corrosive	X Organics
X Liquids	X Flammable	X Inorganics
____ Gases	____ Reactive	X Metals
____ Sludges		

Particulars: Waste generated at the air station is managed through DRMO. Wastes include solvents, waste oil, PCB and non-PCB transformers, waste paint, circuit boards, scrap metal, used equipment, etc.

Sources of Wastes: Waste generated on the Base.

Disposition of Waste: Waste sold for beneficial uses or disposed to a licensed disposal facility.

RELEASE CONTROLS

____ Liner	____ Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	____ Other	

Details: No release controls were noted in the open fenced area. In some cases, waste was stored on a concrete slab placed outside the metal framed building.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells in place.

RELEASE HISTORY

X	Past Release to Air	____	VSI Noted Release to Air
X	Past Release to Soil/GW	____	VSI Noted Release to Soil/GW
____	Past Release to S.W.	____	VSI Noted Release to S.W.
____	Past Release to S.S.G.	____	VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during the VSI.

Detail of Past Releases: A PCB spill in 1987 was reported by the staff during the VSI. Photo 5-35 depicts the spill location.

RELEASE POTENTIAL

Air	____	Low	X	Medium	____	High
Soil/Groundwater	____	Low	X	Medium	____	High
Surface Water	____	Low	X	Medium	____	High
Subsurface Gas Generation	X	Low	____	Medium	____	High

Detail of Release Potential: The release potential to environmental media is medium because of waste placement outside the metal frame building on poorly maintained asphalt and concrete floors. Any releases of hazardous constituents to soil will lead to transport of hazardous constituents vertically downward to the uppermost aquifer because of permeable cohesionless underlying soils.

5.42 SWMU No. 184: Silver Reclamation Unit

(Photo: 6-5)
(Exhibit 2.2)

DESCRIPTION: The Silver Reclamation Unit is located north of the DRMO. The unit recovers silver from waste generated at the Photo Laboratory. Residue left after recovery of silver is transferred to the Industrial Waste Treatment Plant.

Unit Type: The unit reclaims silver from waste generated at the photoprocessing laboratory.

Purpose of Unit: The unit treated wastewater from photoprocessing operations which take place in the Photo Laboratory.

Regulatory Status: The unit is not active.

Period of Operation: The unit was installed in 1983. Reportedly, the unit has been inactive since 1987.

Dimensions/Volume: The capacity of the unit is estimated at about 10 gallons.

Material of Construction:

Underlain By: X Concrete ____Asphalt ____ Gravel

____ Grass ____Soil

Environmental: X Indoors ____Close to Surface Water ____In Ground

____Outdoors ____Close to Drinking Water ____Above Ground

____Covered ____Residences ____Below Ground

Details: The unit is located on a wooden desk resting on a concrete floor inside a building.

CLOSURE INFORMATION

____ Active

X Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	X Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The unit removes silver from photoprocessing wastewaters.

Sources of Wastes: Wastewater is received from the processing of photographs in the Photo Laboratory.

Disposition of Waste: Spent silver removal are stored and wastewater is discharged to IWTP.

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: The unit is located inside a building.

MONITORING

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No direct monitoring occurs for this unit.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during the VSI.

Detail of Past Releases: No releases were reported (Reference 110).

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: Overflows from the open, aboveground facility could be readily observed by facility personnel in the unit is in operation, and the unit is in a building with a concrete floor. Therefore, release potentials are expected to be low.

5.43 SWMU Nos. 185-191: Construction Battalion Unit (CBU) Satellite Accumulation Areas

(Photos: 6-6, 6-7, 6-8, 6-9)
(Exhibit 2.2)

DESCRIPTION: The CBU units are located southeast of NAS Hospital, and east of Road "Q". The CBU contains five SWMUs including a Temporary Container Storage Area (SWMU No. 224).

Unit Type: The units are drum storage areas where wastes are accumulated in 55-gallon drums and are placed on wooden pallets which in turn rest on concrete floors (Refer to Exhibit 5-12).

Purpose of Unit: The units accumulate waste generated at the CBU before disposal through DRMO.

Regulatory Status: Unregulated.

Period of Operation: Refer to Exhibit 5-12.

Dimensions/Volume: Refer to Exhibit 5-12.

Material of Construction:

Underlain By: X Concrete ____ Asphalt ____ Gravel
____ Grass ____ Soil

Environmental: X Indoors ____ Close to Surface Water ____ In Ground
X Outdoors ____ Close to Drinking Water ____ Above Ground
____ Covered ____ Residences ____ Below Ground

Details: The units inside the building are placed on a concrete floor.

CLOSURE INFORMATION

X Active
X Inactive/Physically Present
____ Inactive/Removed or Dismantled
____ Closed Under State or EPA
____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	X Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Refer to Exhibit 5-12.

Sources of Wastes: Waste generated from the maintenance of heavy construction equipment (Reference 110).

Disposition of Waste: Wastes are turned in to DRMO for recovery or disposal (Reference 110).

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: No release controls other than a concrete floor was noted during the VSI.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of releases were noted during the VSI.

Detail of Past Releases: No past releases were reported (Reference 110).

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The releases to environmental media are low because of waste containment in drums placed inside the building on a concrete floor.

EXHIBIT 5.12: DESCRIPTIONS OF CBU's SATELLITE ACCUMULATION AREA SWMUs

SWMU No.	Satellite Area Number	SWMU Description	Photographs	Waste Types & Waste Generation Rates	Start-up Dates and Action Status
185	1	Paint Waste Accumulation Area		Paint Waste	Active
186	2	Transmission Fluid Accumulation Area	6-6	Transmission Fluid 300 gallons/year	Active
187	3	Ethylene Glycol Accumulation Area	6-6	Ethylene Glycol	Active
188	4	PD-680 Accumulation Area		PD-680	Active
189	5	Petroleum Oil Accumulation Area	6-6	Petroleum Oil 100 gallons/year	Active
190	6	Jet Waste Fuel Accumulation Area	6-7	Jet Fuel	Active
191	7	Former CBU Satellite Accumulation Area	6-8	Former	Inactive since 1985

5.44 SWMU Nos. 192-194: Area Maintenance Support Activities (AMSA) Satellite Accumulate Areas

(Photos: 6-10, 6-11)
(Exhibit 2.2)

DESCRIPTION: The AMSA is located in Building 1722. The AMSA has three Satellite Accumulation Areas which accommodate waste generated in the shop before it is transported to DRMO.

Unit Type: The units are 55-gallon drums placed on metal trays which in turn are placed on wooden pallets laid on concrete floor.

Purpose of Unit: The units accumulate waste generated at the AMSA Shop resulting from maintenance of pumps, tractors, cranes, heavy construction equipment, and fork lifts.

Regulatory Status: Unregulated.

Period of Operation: The unit has been in operation since 1986.

Dimensions/Volume: Twelve 55-gallon drums for Satellite Accumulation Area #1; 6-8 55-gallon drums for Satellite Accumulation Area #2; 4-8 55-gallon drums for Satellite Accumulation Area #3.

Material of Construction:

Underlain By: X Concrete ____Asphalt ____ Gravel

_____ Grass ____Soil

Environmental: X Indoors ____Close to Surface Water ____In Ground

X Outdoors ____Close to Drinking Water ____Above Grou

____Covered ____Residences ____Below Grou

Details:

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The Satellite Accumulation Area #1 in AMSA received ethylene glycol, hydraulic fluid, waste gear oil, and waste engine oil. The Satellite Accumulation Area #2 in AMSA accumulates solvent in 55-gallon drums. The Satellite Accumulation Area #3 in AMSA accumulates waste engine oil.

Sources of Wastes: Wastes are generated from the maintenance of equipment in the AMSA Shop.

Disposition of Waste: Waste is transferred to DRMO for disposal.

RELEASE CONTROLS

____ Liner	X Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	____ Other	

Details: AMSA Satellite Accumulation Area #1 has a concrete floor with curb.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during the VSI.

Detail of Past Releases: No past releases were reported (Reference 110).

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because of waste containment in drums placed on metal trays which rest on wooden pallets on concrete floor with curbs.

5.45 SWMU No. 195: Hospital-Precious Metal Recovery Unit

(Photos: 6-15)
(Exhibit 2.2)

DESCRIPTION: The Hospital is bounded by Lexington Boulevard on the northwest, E Avenue on the north, and Road Q on the east. The unit has a silver recovery unit located on the first floor of the Hospital. The recovery unit is attached to the automatic film processes drain line, silver recovered from x-ray/photographic solutions by electrolytic process is collected by Medical Equipment Maintenance and Repair Division. Silver reclamation is done on a quarterly basis.

Unit Type: The unit is a cylinder placed on the first floor of the hospital.

Purpose of Unit: The unit receives silver from silver bearing residue such as x-ray film, photographic film, film processing solution, dental amalgam scrap, and EKG disposable electrodes.

Regulatory Status: Unregulated.

Period of Operation: The unit has been in operation since 1974.

Dimensions/Volume: Approximately 2300 grams of silver sludge is recovered every quarter (Reference 110).

Material of Construction:

Underlain By: X Concrete ____Asphalt ____ Gravel

____ Grass ____Soil

Environmental: X Indoors ____Close to Surface Water ____In Ground

____Outdoors ____Close to Drinking Water ____Above Ground

____Covered ____Residences ____Below Ground

Details: The unit is located inside the hospital on a concrete floor.

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

X Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The unit processes waste of X-ray film, photographic film, film processing solutions, dental amalgam scrap, and EKG disposable electrodes in the Hospital.

Sources of Wastes: The wastes are generated in various areas of the hospital.

Disposition of Waste: Precious metal is recovered and waste water is discharged to sanitary sewer (Reference 110).

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: The unit is located indoors on a concrete floor.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during the VSI.

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because of waste placement inside a cylinder resting on a concrete floor.

5.46 SWMU No. 196: Hospital Low-Level Radioactive Waste Storage Bends

(Photos: No Photos)
(Exhibit 2.2)

DESCRIPTION: All unused doses and radioactive waste accumulated during the administration of the isotope is collected by Syncor International. Some waste, however, decays in storage. The waste is labeled and kept in storage bend for 10 half-lives before it is surveyed for possible disposal.

Unit Type: The storage bends are stored in Room 1492.

Purpose of Unit: The units accumulate low-level radioactive waste before disposal, which may contain mixed wastes also.

Regulatory Status: Currently, regulated by NRC.

Period of Operation: The unit has been in operation since 1974.

Dimensions/Volume: Approximately one cubic foot per month.

Material of Construction:

Underlain By: X Concrete ____Asphalt ____ Gravel

_____ Grass ____Soil

Environmental: X Indoors ____Close to Surface Water ____In Ground

____Outdoors ____Close to Drinking Water ____Above Groun

____Covered ____Residences ____Below Groun

Details: The unit is located indoors on a concrete floor.

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

X Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Two storage bends, one for long half life and the other for short half life are used. In addition, waste streams contains a wide variety of wastes which may include hazardous constituents.

Sources of Wastes: Unused doses and radioactive waste accumulated during the administration of isotope.

Disposition of Waste: Waste disposed by Syncor International and decayed waste disposed in the sanitary sewer.

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: The unit is located indoors.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: Area was unaccessible during VSI.

Detail of Past Releases: No past records were maintained prior to 1977. This was noted as a violation by the NRC during an inspection on September 27, 1987. Deficiency is reported to be corrected.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because of placement of waste inside a building.

5.47 SWMU No. 197: Dental Clinic Amalgam Storage Containers

(Photos: No Photos)
(Exhibit 2.2)

DESCRIPTION: The units are located in each operatory in the Hospital. The units are covered plastic containers in which excess amalgam are stored.

Unit Type: The units are plastic containers placed in each operatory on concrete floor.

Purpose of Unit: The unit collects excess amalgam from each operatory in the Hospital.

Regulatory Status: Unregulated.

Period of Operation: Date of start-up unknown. The unit is currently in operation.

Dimensions/Volume: Maximum amalgam storage capacity 21 lbs.

Material of Construction:

Underlain By: X Concrete ____Asphalt ____ Gravel

_____ Grass ____Soil

Environmental: X Indoors ____Close to Surface Water ____In Ground

____Outdoors ____Close to Drinking Water ____Above Ground

____Covered ____Residences ____Below Ground

Details: The unit is located inside a building.

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

X Solids	____ Corrosive	____ Organics
____ Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Silver.

Sources of Wastes: Excess amalgam produced in the Hospital.

Disposition of Waste: Waste transferred to DRMO.

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: The units are plastic containers placed on concrete floors.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during the VSI.

Detail of Past Releases: No past releases were reported (Reference 110).

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because of waste containment inside a building.

5.48 SWMU No. 198: Dental Clinic Spent Fixer Storage Container

(Photos: 6-17)
(Exhibit 2.2)

DESCRIPTION: The unit is located in the Dental dark room in the Hospital.

Unit Type: The unit is a 5-gallon plastic container placed on a concrete floor.

Purpose of Unit: The unit accumulates spent fixers generated in the dark room.

Regulatory Status: Unregulated.

Period of Operation: The start-up date is unknown. The unit was active during the VSI.

Dimensions/Volume: 5-gallon plastic containers.

Material of Construction:

Underlain By: X Concrete ____Asphalt ____ Gravel

_____ Grass ____Soil

Environmental: X Indoors ____Close to Surface Water ____In Ground

____Outdoors ____Close to Drinking Water ____Above Ground

____Covered ____Residences ____Below Ground

Details: Unit is located indoors.

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
_X_ Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The unit accumulates photographic fixer.

Sources of Wastes: Dental dark room.

Disposition of Waste: Waste is turned in to Medical X-Ray Department.

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: The containers are located indoors on a concrete floor.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during the VSI.

Detail of Past Releases: No past releases are reported (Reference 110).

RELEASE POTENTIAL

Air	X	Low	____	Medium	____	High
Soil/Groundwater	X	Low	____	Medium	____	High
Surface Water	X	Low	____	Medium	____	High
Subsurface Gas Generation	X	Low	____	Medium	____	High

Detail of Release Potential: The release potential to environmental media is low because of waste containment inside the hospital.

5.49 SWMU No. 199: Dental Clinic Vacuum System

(Photos: 6-16)
(Exhibit 2.2)

DESCRIPTION: The unit is located under stairwall on first floor, 1 East. The unit is Upright Turbo Exhauster. Waste results from clean-up in dental clinic.

Unit Type: The unit is a cylindrical container hooked up with the dental clinic.

Purpose of Unit: The unit accumulates waste resulting from clean-up in the clinic.

Regulatory Status: Unregulated.

Period of Operation: The unit has been in operation since March 1987.

Dimensions/Volume: Approximately 100 gallons.

Material of Construction:

Underlain By:	X Concrete	____Asphalt	____ Gravel
	____ Grass	____Soil	
Environmental:	X Indoors	____Close to Surface Water	____In Ground
	____Outdoors	____Close to Drinking Water	____Above Ground
	____Covered	____Residences	____Below Ground

Details: None.

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
_X_ Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Unknown.

Sources of Wastes: Waste generated in the dental clinic.

Disposition of Waste: No waste has been disposed of yet.

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: The unit is placed indoors on a concrete floor.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during the VSI.

Detail of Past Releases: No evidence of past release were reported (Reference 110).

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental is low because of waste containment in a metal container inside the Hospital.

5.50 SWMU No. 199A: Biohazardous Waste Containers in the Hospital

(Photos: 6-18, 6-19)
(Exhibit 2.2)

DESCRIPTION: The unit is located in the Hospital. The units accumulate biohazardous waste including culture blades, laboratory wastes, blood tubes, and used needles.

Unit Type: The units are 5-gallon plastic container/plastic bags placed on concrete floor.

Purpose of Unit: The unit accumulates waste such as culture blades, laboratory waste, blood tubes and used needles.

Regulatory Status: Unregulated.

Period of Operation: The unit is in operation.

Dimensions/Volume: 5-gallon plastic containers.

Material of Construction:

Underlain By: X Concrete ____Asphalt ____ Gravel

____ Grass ____Soil

Environmental: X Indoors ____Close to Surface Water ____In Ground

____Outdoors ____Close to Drinking Water ____Above Grou

____Covered ____Residences ____Below Grou

Details: The container is located indoors on a concrete floor.

CLOSURE INFORMATION

____ Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

X Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The unit accumulates culture blades, blood tubes, used needles, etc.

Sources of Wastes: The waste is generated in the laboratories and other areas of the hospital.

Disposition of Waste: Wastes are sterilized and disposed in bags.

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: The containers are located indoors on a concrete floor.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during the VSI.

Detail of Past Releases: No past releases are reported (Reference 110).

RELEASE POTENTIAL

Air	X	Low	____	Medium	____	High
Soil/Groundwater	X	Low	____	Medium	____	High
Surface Water	X	Low	____	Medium	____	High
Subsurface Gas Generation	X	Low	____	Medium	____	High

Detail of Release Potential: The release potential to environmental media is low because of waste containerization inside the hospital and sterilization of waste before disposal.

5.51 SWMU No. 200: Dental Clinic Capsule Storage Area

(Photos: No Photos)
(Exhibit 2.2)

DESCRIPTION: The unit is located in the supply storeroom in the Hospital. The unit accumulates empty amalgam capsules in plastic bags.

Unit Type: The unit is plastic bag placed in supply storeroom on concrete floor.

Purpose of Unit: The unit accumulates empty amalgam capsules.

Regulatory Status: Unregulated.

Period of Operation: The unit is in operation. Start-up date unknown.

Dimensions/Volume: Unknown.

Material of Construction:

Underlain By: X Concrete ____Asphalt ____ Gravel

_____ Grass ____Soil

Environmental: X Indoors ____Close to Surface Water ____In Ground

____Outdoors ____Close to Drinking Water ____Above Groun

____Covered ____Residences ____Below Groun

Details: None.

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

X Solids	____ Corrosive	____ Organics
____ Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The waste accumulated includes empty amalgam capsules.

Sources of Wastes: Waste generated in dental clinic.

Disposition of Waste: Waste is disposed of in dumpsters placed outsi the hospital for disposal by a contractor.

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: The unit is indoors on a concrete floor.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during the VSI.

Detail of Past Releases: No past releases are reported (Reference 110).

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because of waste containment inside a building.

5.52 SWMU No. 201: Old Pest Control Shop Area

(Photos: 6-20, 6-21)
(Exhibit 2.2)

DESCRIPTION: The Pest Control Shop is located in the PWD Ground Service Yard. The new location (Photo 6-20) is about 300 feet away from the previous location (Photo 6-21).

Unit Type: The unit was a storage area for Pest Control liquids.

Purpose of Unit: The unit was built to store Pest Control chemicals.

Regulatory Status: Unregulated.

Period of Operation: The unit was closed in 1970.

Dimensions/Volume: Unknown.

Material of Construction:

Underlain By: X Concrete ____Asphalt ____ Gravel

____ Grass ____Soil

Environmental: ____Indoors ____Close to Surface Water ____In Ground

X Outdoors ____Close to Drinking Water ____Above Groun

____Covered ____Residences ____Below Groun

Details: The unit is located outside in the PWD Garage.

CLOSURE INFORMATION

____ Active

X Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

X Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Excess pest control waste.

Sources of Wastes: Excess pest control waste.

Disposition of Waste: Reportedly no waste is generated (Reference 124).

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: No release controls were noted during the VSI.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during the VSI.

Detail of Past Releases: No past releases were reported (Reference 110).

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because of closure of the shop 18 years ago and small uses of pest control chemicals.

5.53 SWMU Nos. 202-204: Inactive Satellite Accumulation Areas

(Photos: No Photos)
(Exhibit 2.2)

DESCRIPTION: Three inactive satellite accumulation areas are reported. The location of the former accumulation areas and waste managed are presented in Exhibit 5-13.

Unit Type: The units are 55-gallon drums placed on concrete floors.

Purpose of Unit: The units used to accumulate waste at waste generation locations shown in Exhibit 5-13.

Regulatory Status: Unregulated unit.

Period of Operation: The units were not operational during the VSI.

Dimensions/Volume: Unknown.

Material of Construction:

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass X Soil

Environmental: ____Indoors ____Close to Surface Water ____In Ground

X Outdoors ____Close to Drinking Water ____Above Grou

____Covered ____Residences ____Below Grou

Details: The units were located outside.

CLOSURE INFORMATION

____ Active

X Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

X Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Sludge, grit.

Sources of Wastes: Waste generated in Buildings 85, 1113 and 1744..

Disposition of Waste: Wastes from accumulation areas were transferred to DRMO.

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: The units were located on concrete floors.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during the VSI.

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because of waste containment in drums on concrete floor and the fact that drums are no longer stored.

EXHIBIT 5-13: INACTIVE SATELLITE ACCUMULATION AREAS

SWMU No.		Waste Types	Start-up Dates & Action Status
202	Satellite Accumulation Area by Building 85	Sludge	Inactive
203	Satellite Accumulation Area by Building 1113	Grit	Inactive
204	Satellite Accumulation Area by Building 1744	Waste Oil	Inactive since 1986

5.54 SWMU Nos. 205-224: Temporary Storage Areas

(Photos: See Exhibit 5-14)
(Exhibit 2.2)

DESCRIPTION

Unit Type: These units are waste accumulation areas located at various sites throughout the facility (References 2, 109, 110 and 112).

Purpose of Unit: The units are used to accumulate hazardous and non-hazardous wastes for less than 90 days before being transferred to DRMO (References 2, 109, 110 and 112).

Regulatory Status: Some of the units hold hazardous wastes; others hold non-hazardous solid wastes (Reference 110).

Period of Operation: See Exhibit 5-14.

Dimensions/Volume: See Exhibit 5-14.

Material of Construction: See Exhibit 5-14.

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass _X_Soil

Environmental: ____Indoors ____Close to Surface Water ____In Ground

_X_Outdoors ____Close to Drinking Water ____Above Grou

____Covered ____Residences ____Below Grou

Details: The units are located outside buildings and other work areas

CLOSURE INFORMATION: See Exhibit 5-14.

_X_ Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED: See Exhibit 5-14.

____ Solids	X Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Various wastes (see Exhibit 5-14).

Sources of Wastes: Various sources (see Exhibit 5-14).

Disposition of Waste: Wastes are transferred to DRMO within a 90-day period (Reference 110).

RELEASE CONTROLS: See Exhibit 5-14.

X Liner	X Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	____ Other	

Details: The newer temporary container storage areas have a sump, concrete floor and curb.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: See Exhibit 5-14.

Detail of Past Releases: See Exhibit 5-14.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because waste is placed in 55-gallon drums on a concrete floor.

EXHIBIT 5-14: DESCRIPTION OF TEMPORARY STORAGE AREAS

SWMU No.	Location (Building No.)	Dates of Operation	Waste Types	Dimensions/ Capacity	Release Controls	Release History	VSI Observations	Photo No.	References
205	Building 41 Apron, Coast Guard Air Station	1978-present	Paint (1 gal/mo) Synthetic Oil (20 gal/mo) Petroleum (20 gal/mo) From painting, sandblasting, and welding	Maximum capacity, 20 drums	Berms and sump	None	The storage area appears as an open ended shed, with 3 bays, which may have been built in 1986. It appears that the shed can hold more than 20 drums	4-16	2, 110, 112
206	Building 51 AIMD (Storage area replaces Old Battery Storage Area	1988	Paint wastes, waste oils	20'x30', with maximum capacity of 20 drums	Roof, sumps, concrete floor, drip trays, pallets	None	The storage area appears as a open-ended shed with two bays. No evidence of releases was noted during the VSI	4-31	110, 112
207	52A, near DRMO Area	Unknown, inactive since 1986	Unknown	50 feet by 3 feet	None	None known	Not observed during VSI	None	109
208	55 Apron	Old Area: 1986-present 2 New Areas: 1988-present	Paint sludge Paint waste, waste oil solvents, methalene chloride	Old storage area, 50'x20', new Hangar 56 area is 20'x60', new	Curbs	None	The container storage area was a portion of a fenced yard. Some drums were stacked two high and some drums were observed on wooden pallets. The area was curbed	4-22	110, 112
209	Hangar 57 area is 20'x30'	1988-present	Paint waste, waste oil solvents, methalene chloride	96 drums	Curbs, roof	Unknown	The unit is an open-end shed with three bays	4-25	112
210	58, OMD	1979-present or 1960-present	Waste paint thinner, waste oil	64 drums	Curbs, roof, drip pans	Unknown	The unit appeared as an open-ended shed with two bays. No drums were observed in the unit	4-28	2, 112, 110
211	62, OMD	1970-present	Aircraft paint, solvent	10 feet by 10 feet	None	None known	Not observed during VSI	None	109
212	247, Dynacorp	1988-present	Paint sludge, methalene chloride, solvents	128 drums	Bermed sump	None known	Not observed during VSI	None	109
213	255	Pre-1950s to 1985	D001, F003, F005, D007, D008	1-2 drums maximum capacity	Concrete base	None	The unit appears as an open ended shed, with curbs on 3 sides. Four drums on wooden pallets were observed	5-18	109, 110
214	257, outside conforming area	Active at present	Every waste generated by CCAD. Paint wastes, waste oil, asbestos, TCE, etc. Motor oil	50 feet by 50 feet	Concrete berms, 6' high fence	None known	The unit is outdoors. Drums were observed on pallets, stacked two high	4-3, 4-4, 4-6	112

EXHIBIT 5-14: DESCRIPTION OF TEMPORARY STORAGE AREAS
(Cont'd.)

SWMU No.	Location (Building No.)	Dates of Operation	Waste Types	Dimensions/ Capacity	Release Controls	Release History	VSI Observations	Photo No.	References
215	367, behind Building 19	6/1/88 to present	D001, D002, D006, D007, D008, F003, F005	Maximum capacity 20 drums	Curbs, sump, concrete floor	None	Not observed during VSI	None	110
216	1104, PWD Ground Services Yard	1941-present	Waste oils, lubricants, paints	Maximum capacity 30 drums	Roof, concrete base	None known	No drums were observed	5-11	110, 112
217	1113	1986-present	JP-5 fuel, AVGAS, ignitable wastes	55-gallon drum accumulation area	Drip trays, concrete base	None	Not observed during VSI	None	110
218	1277	1986-present	Ignitable wastes (paint wastes)	20'x14'	Unknown	None	Not observed during VSI	None	110
219	1722, Army Reserve		Unknown	Unknown	Unknown	Unknown	Unit not observed during the VSI	None	109
220	1737, Hobby Shop	1986-1988	Lead wastes, ignitable wastes, synthetic oil, petroleum, varsol	Old: 8'x20'	Concrete berm with sump	None	The unit appeared as an open ended shed with two bays. Tables and other equipment were observed in the shed. Two drums were observed	5-15	109, 110, 112
221	1737, Hobby Shop	1988-present	Lead wastes, ignitable wastes, synthetic oil, petroleum, varsol	New: 20'x30'	Concrete berm with sump		Unit not observed during the VSI	None	109
222	Hangars 55, 56, 57 Dyne area	1979-present	Waste paints, solvents, MEK, toluene, naphtha, varsol, hydraulic fluid, waste engine oil	Maximum capacity 25 drums	Drip pans	None known	Unit not observed during the VSI	None	110
223	IWPP	Active until 1987; inactive at present	Chrome bearing sludge (F006)	Large roll-off boxes	Bermed area asphalt floor	Unknown	Unit not observed during the VSI	None	109
224	CBU H109	1988	Waste oil	Unknown	Concrete berm and sumps	None	No drums were noted	None	124

5.55 SWMU No. 225: CCAD Plating Shop Chrome Rinse Waste Line

(Photos: No photo)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The unit is an underground conveyance of chrome rinsate (Reference 109).

Purpose of Unit: This unit collects rinsate from the 37 chrome rinse tanks in the Plating Shop and conveys it to the Chrome Wet Well in IWPP (Reference 109).

Regulatory Status: Non-RCRA regulated.

Period of Operation The Plating Shop started up in 1976 (Reference 112).

Dimensions/Volume: The line is 4-inch Schedule 80 PVC pipe (Reference 116).

Material of Construction: PVC (Reference 116).

Underlain By: _____ Concrete ____Asphalt ____ Gravel
_____ Grass _X_ Soil

Environmental: _X_ Indoors ____Close to Surface Water ____In Ground
____Outdoors ____Close to Drinking Water ____Above Ground
____Covered ____Residences _X_ Below Ground

Details: The unit is located indoors.

CLOSURE INFORMATION

_X_ Active
____ Inactive/Physically Present
____ Inactive/Removed or Dismantled
____ Closed Under State or EPA
____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
__X__ Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The Chrome Rinse Waste Line reportedly manages chromic acid, sulfuric acid, sodium hydroxide, Rochelle Salts, alodine, sodium dichromate, cyanide, ammonium nitrate, nitric acid, hydrofloric acid, magnesium floride, lead flouborate, flouboric acid, boric acid, stannoustia (Reference 91).

Sources of Wastes: Thirty-seven Chrome Rinse Tanks discharge into the Chrome Rinse Waste Line (Reference 109).

Disposition of Waste: The Chrome Rinse Waste Line leads to the Chrome Wet Well in the IWPP. In addition, however, the chrome rinse waste-stream may be diverted into the Miscellaneous Tunnel (SWMU No. 243) when a valve is closed and a plug removed in a manhole located at ground level just north of the Plating Shop (Reference 109).

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: The chrome rinse waste line is located in the basement of the CCAD Building 8 on a concrete floor.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY: Unknown.

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: The unit was not observed during the VSI.

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to air, surface water and subsurface gas is low because the unit is indoors and enclosed. The release potential to soil/groundwater is low because the waste conveyance takes place in a pipe in the basement of the building with concrete floor.

5.56 SWMU No. 226: CCAD Plating Shop Cyanide Rinse Waste Line

(Photos: No photo)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The unit is an underground pipe which carries cyanide rinsate (Reference 109).

Purpose of Unit: The unit conveys cyanide rinsate from the 11 cyanide rinse tanks in the Plating Shop to the Cyanide Rinse Sump Tank (SWMU No. 240) and then to the Cyanide Waste Storage Tank (SWMU No. 321) in IWPP (Reference 109).

Regulatory Status: Non-RCRA regulated.

Period of Operation: The Plating Shop started up in 1976 (Reference 112).

Dimensions/Volume: The pipe is 3 inches in diameter (Reference 116).

Material of Construction: The pipe leading to the Cyanide Rinse Sump Tank is 3-inch PVC, the pipe leading away from the sump is 4-inch steel (References 115 and 116).

Underlain By: X Concrete ____ Asphalt ____ Gravel

____ Grass ____ Soil

Environmental: X Indoors ____ Close to Surface Water ____ In Ground

____ Outdoors ____ Close to Drinking Water ____ Above Groun

____ Covered ____ Residences X Below Groun

Details: The unit is located in the basement of CCAD Building 8 on a concrete floor.

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The unit reportedly manages cyanide, chromate, ammonium nitrate, cadmium oxide, sodium hydroxide, copper cyanide, silver cyanide, potassium cyanide, trisodium phosphate, nickel sulfate, nickel chloride, boric acid, stannoustia, lead flouborate, flouboric acid (Reference 91).

Sources of Wastes: Cyanide rinsate from 11 cyanide rinse tanks discharge into the Cyanide Rinse Waste Line (Reference 109).

Disposition of Waste: Cyanide Rinse Waste Line flows to the Cyanide Rinse Sump Tank (SWMU No. 240) and then to the Cyanide Waste Storage Tank (SWMU No. 321) in IWPP (References 109 and 91).

RELEASE CONTROLS

____Liner	____ Diking
____Level Controls	____ Overflow Controls
____Leak Detection	____ Other

Details: The unit is located indoors on a concrete floor.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells in place.

RELEASE HISTORY:

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: The unit was not observed during the VSI.

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to air, surface water, soil/groundwater and subsurface gas is low because the unit is indoors and enclosed conveyance takes place in a pipe which drains to a sump.

5.57 SWMU Nos. 227-239: CCAD Plating Shop Cyanide Tank Catch Basins: for Tanks E-12, F-4, F-7, F-8, F-12, F-13, G-8, G-15, H-5, H-6, H-8, H-11, H-13

(Photos: No Photos)
(Exhibit 2.2)

DESCRIPTION:

Unit Type: Thirteen catch basins are placed in the basement under the area between each cyanide tank and the cyanide rinse tanks (References 115 and 119).

Purpose of Unit: The catch basins collect dripping wastes between the tanks (Reference 119).

Regulatory Status: Non-RCRA regulated.

Period of Operation: The Plating Shop started up in 1976 (Reference 112).

Dimensions/Volume: The catch basins measure 3 feet by 3 feet by 2 feet with a capacity of 125 gallons (Reference 119).

Material of Construction: The catch basins are made of fiberglass (Reference 119).

Underlain By: X Concrete ____Asphalt ____ Gravel

_____ Grass ____Soil

Environmental: X Indoors ____Close to Surface Water ____In Ground

____Outdoors ____Close to Drinking Water ____Above Grour

____Covered ____Residences ____Below Grour

Details: These units are spill containment devices located in the basement of Building 8.

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The catch basins collect cyanide wastes (Reference 119).

Sources of Wastes: The wastes drip from the cyanide process tanks and the cyanide rinse tanks (Reference 119).

Disposition of Waste: The waste is manually pumped from the catch basins and are drummed for transfer to IWPP (Reference 119).

RELEASE CONTROLS

____ Liner	____ Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	____ Other	

Details: The catch basins are curbed with concrete (Reference 116).

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of releases was noted during the VSI.

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because the units which are designed to collect spill from the cyanide plating tanks, are located inside a building on a concrete floor.

5.58 SWMU No. 240: CCAD Plating Shop Cyanide Rinse Sump Tank

(Photos: No Photo)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The unit is a sump tank located in the basement of the Plating Shop. (Reference 109).

Purpose of Unit: The unit collects Cyanide Rinsate from the Cyanide Rinse Waste Line (Reference 109).

Regulatory Status: Non-RCRA regulated.

Period of Operation The Plating Shop started up in 1976 (Reference 112).

Dimensions/Volume: The unit has a capacity of 1,200 gallons (Reference 109).

Material of Construction: The tank is made of polypropylene (Reference 115).

Underlain By: X Concrete ____Asphalt ____ Gravel

____ Grass ____Soil

Environmental: X Indoors ____Close to Surface Water ____In Ground

____Outdoors ____Close to Drinking Water ____Above Ground

____Covered ____Residences X Below Ground

Details: The unit is located indoors on a concrete floor.

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The unit reportedly manages cyanide, chromates, ammonium nitrate, cadmium oxide, sodium hydroxide, copper cyanide, silver cyanide, potassium cyanide, trisodium phosphate, nickel sulfate, nickle chloride, boric acid, stannoustia, lead flouborate, flouboric acid (Reference 91).

Sources of Wastes: The unit collects cyanide rinsate from the Cyanide Rinse Waste Line which conveys wastewater from the 11 Cyanide Rinse Tanks (Reference 109).

Disposition of Waste: The Cyanide Rinse Waste Line conveys the Cyanide rinsate from the Cyanide Rinse Sump Tank (SWMU No. 240) to the Cyanide Waste Storage Tank (SWMU No. 321) in IWPP (Reference 109).

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: Unknown.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring of groundwater is conducted.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: The unit was not observed during the VSI.

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air	X	Low	____	Medium	____	High
Soil/Groundwater	X	Low	____	Medium	____	High
Surface Water	X	Low	____	Medium	____	High
Subsurface Gas Generation	X	Low	____	Medium	____	High

Detail of Release Potential: The release potential to all media is low because the unit is located indoors, on a concrete floor.

5.59 SWMU No. 241: CCAD Plating Shop Concentrated Caustic Rinse Waste Line

(Photos: No photo)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The unit is an underground conveyance of waste water (Reference 109).

Purpose of Unit: The unit collects rinsate from 19 caustic rinse tanks in the Plating Shop and conveys the waste to the Caustic Wet Well in IWPP (Reference 109).

Regulatory Status: Non-RCRA regulated.

Period of Operation The Plating Shop started up in 1976 (Reference 112).

Dimensions/Volume: The pipe is 3-inch Schedule 80 PVC pipe (Reference 116).

Material of Construction: PVC (Reference 116).

Underlain By: X Concrete ____Asphalt ____ Gravel

_____ Grass ____Soil

Environmental: X Indoors ____Close to Surface Water ____In Ground

____Outdoors ____Close to Drinking Water ____Above Groun

____Covered ____Residences X Below Groun

Details: The unit is located indoors on a concrete floor.

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The unit reportedly manages sodium hydroxide, trisodium phosphate, sodium metasilicate, sodium starrate, nickel, sulfuric acid, copper sulfate, hydrochloric acid (Reference 91).

Sources of Wastes: Nineteen Caustic Rinse Tanks discharge into the Caustic Rinse Waste Line (Reference 109).

Disposition of Waste: The Caustic Rinse Waste Line discharges to the Caustic Wet Well (SWMU No. 317) in IWPP (Reference 109).

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: The unit is located in the basement of Building 8 on a concrete floor.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: The unit was not observed during the VSI.

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air		X	Low		Medium		High
Soil/Groundwater	Unknown	X	Low		Medium		High
Surface Water		X	Low		Medium		High
Subsurface Gas Generation		X	Low		Medium		High

Detail of Release Potential: The release potential to air, surface water, soil/groundwater, and subsurface gas is low because the unit is indoors, and enclosed and conveyance takes place in a pipe.

5.60 SWMU No. 242: CCAD Plating Shop Acid Rinse Waste Line

(Photos: No photo)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The unit is an underground conveyance of acid rinsate (Reference 109).

Purpose of Unit: The unit collects acid rinsate from the 19 Acid Rinse Tanks in the Plating Shop and conveys the wastewater to the Acid Wet Well (SWMU No. 316) in the IWPP (Reference 109).

Regulatory Status: Non-RCRA regulated.

Period of Operation The Plating Shop started up in 1976 (Reference 112).

Dimensions/Volume: The pipe in 3-inch Schedule 80 PVC pipe (Reference 116).

Material of Construction: PVC (Reference 116).

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass ____Soil

Environmental: _X_ Indoors ____Close to Surface Water ____In Ground

____Outdoors ____Close to Drinking Water ____Above Ground

____Covered ____Residences _X_ Below Ground

Details: The unit is located indoors on a concrete floor.

CLOSURE INFORMATION

_X_ Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The unit reportedly manages sodium hydroxide, sulfuric acid, hydrochloric acid, nitric acid, ammonium nitrate, chromate, manganese phosphate, manganese phosphelene, nickle chloride, glycerin, boric acid, nickel sulfomate, copper sulfate (Reference 91).

Sources of Wastes: Nineteen Acid Rinse Tanks discharge into the Acid Rinse Waste Line (Reference 109).

Disposition of Waste: The Acid Rinse Waste Line discharges to the Acid Wet Well (SWMU No. 316) in the IWPP (Reference 109).

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: The unit is a pipe located in the basement of Building 8 on a concrete floor.

MONITORING

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: The unit was not observed during the VSI.

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to air, surface water, soil/groundwater, and subsurface gas is low because the unit is indoors, enclosed and conveyance takes place in a pipe.

5.61 SWMU No. 243: CCAD Plating Shop Miscellaneous Rinse Waste Line

(Photos: No photo)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The unit is an underground conveyance of miscellaneous rinsate (Reference 109).

Purpose of Unit: The unit collects rinsate from 35 rinse tanks in the Plating Shop and conveys the wastewater to Industrial Wastewater Treatment Plant. This line bypasses IWPP (Reference 109).

Regulatory Status: Non-RCRA regulated.

Period of Operation The Plating Shop started up in 1976 (Reference 112).

Dimensions/Volume: The pipe is 6-inch Schedule 80 PVC pipe (Reference 116).

Material of Construction: PVC (Reference 116).

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass ____Soil

Environmental: _X_ Indoors ____Close to Surface Water ____In Ground

____Outdoors ____Close to Drinking Water ____Above Ground

____Covered ____Residences _X_ Below Ground

Details: The rinse waste line is a 6-inch pipe placed indoors in Building 8.

CLOSURE INFORMATION

_X_ Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
_X_ Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: It is not known what wastes are collected in the Miscellaneous Rinse Waste Line.

Sources of Wastes: Thirty-five rinse tanks discharge into the Miscellaneous Rinse Waste Line (Reference 109).

Disposition of Waste: The Miscellaneous Rinse Waste Line discharges to IWTP, bypassing WPTP (Reference 109).

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: Rinse waste line is placed on a concrete floor.

MONITORING

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: This unit was not observed during the VSI.

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to air, surface water, soil/groundwater, and subsurface gas is low because the unit is indoors, enclosed and conveyance takes place through a pipe.

5.62 SWMU No. 244: CCAD Plating Shop Floor Drains

(Photos: No photos)
(Exhibit 2.2)

DESCRIPTION

Unit Type: Floor drains throughout the Plating Shop collect old process tank spillage (Reference 109).

Purpose of Unit: Floor drains (approximately nine) in the Plating Shop basement receive spillage from all process and rinse tanks and drain to the Chrome Tunnel (Reference 109).

Regulatory Status: Non-RCRA regulated.

Period of Operation The Plating Shop started up in 1976. (Reference 112).

Dimensions/Volume: A 2-inch Schedule 40 steel pipe (Reference 115).

Material of Construction: The pipe that leads from the floor drains is 2-inch Schedule 40 steel pipe (Reference 115).

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass ____Soil

Environmental: X Indoors ____Close to Surface Water X In Ground

____Outdoors ____Close to Drinking Water ____Above Grou

____Covered ____Residences ____Below Grou

Details: The floor drains are 2-inch Schedule 40 steel pipe.

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
_X_ Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The unit collects spillage from all processes in the Plating Shop including the following: chromic acid, sulfuric acid, sodium hydroxide, trisodium phosphate, nitric acid, hydrochloric acid, alodine, sodium dichromate, alkaline permanganate, cadmium oxide, iridite, ammonium nitrate, nickel, nickel sulfate, nickel chloride, boric acid, sodium cyanide, trichloroethane, rochelle salts, ferric chloride, zinc oxide, copper cyanide, sodium carbonate, potassium cyanide, potassium hydroxide, silver cyanide, potassium carbonate, potassium nitrate, glycerin, ammonium bifluoride, magnesium fluoride, black oxide salts, methanol alcohol (Reference 93).

Sources of Wastes: The floor drains collect spillage from all process and rinse tanks in the Plating Shop (Reference 109).

Disposition of Waste: The floor drains discharge to the Chrome Tunnel (Reference 109).

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: Releases from the floor drains are likely to be contained in Chrome Tunnel.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____	Past Release to Air	____	VSI Noted Release to Air
____	Past Release to Soil/GW	____	VSI Noted Release to Soil/GW
____	Past Release to S.W.	____	VSI Noted Release to S.W.
____	Past Release to S.S.G.	____	VSI Noted Release to S.S.G.

VSI Noted Release Conditions: The unit was not observed during the VSI.

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The relase potential to all media is low because the unit is located indoors and wastes are channelled to the IWTP.

5.63 SWMU No. 245: CCAD Plating Shop Chrome Tunnel

(Photos: No photo)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The unit is an underground channel that runs below the Plating Shop (Reference 109).

Purpose of Unit: The Chrome Tunnel carries air exhaust from chrome processes and collects all wastes from basement floor drains in the Plating Shop (Reference 109).

Regulatory Status: Non-RCRA regulated.

Period of Operation: The Plating Shop started up in 1976 (Reference 112).

Dimensions/Volume: The tunnel runs half the length of the Plating Shop, about 90 feet, and is about 3 feet wide, and with a variable height that measures about 5-1/2 feet in some places (Reference 109).

Material of Construction: The tunnel is constructed of 1-foot thick concrete and 6-inch thick cinderblock (Reference 109). The floor is concrete with an acid resistant topping and the walls and roof are coated with epoxy (Reference 115).

Underlain By: _____ Concrete ____Asphalt ____ Gravel
_____ Grass X Soil

Environmental: X Indoors ____Close to Surface Water ____In Ground
____Outdoors ____Close to Drinking Water ____Above Ground
____Covered ____Residences X Below Ground

Details: Chrome Tunnel inner lining is constructed of corrosion resistant materials.

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
X Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The unit manages all process tank spillage that is collected by the Floor Drains. The unit also carries air exhaust from the chrome processes. The air exhaust is not a solid waste (Reference 109).

Sources of Wastes: The floor drains in the Plating Shop drain to Chrome Tunnel. The air exhaust is drawn from the chrome processes (Reference 109).

Disposition of Waste: Wastewater from Chrome Tunnel flows to Chrome Tunnel Sump and then to the Chrome Rinse Waste Line. It is not known where the Chrome Tunnel terminates to release the chrome air exhaust (Reference 109).

RELEASE CONTROLS

____ Liner	____ Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	____ Other	

Details: Unknown.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: The unit was not observed during the VSI.

Detail of Past Releases: A 1,000 gallon cyanide rinse spill to the Chrome Tunnel in approximately 1986 resulted in the evacuation of Building 8 (Reference 115). It is not known how the cyanide rinse entered the tunnel.

RELEASE POTENTIAL

Air	X	Low		Medium			High
Soil/Groundwater	X	Low		Medium			High
Surface Water	X	Low		Medium			High
Subsurface Gas Generation	X	Low		Medium			High

Detail of Release Potential: The release potential to soil/groundwater, surface water, and subsurface gas is low because the unit is indoors and enclosed. The release potential to air is low because the exhaust is passed through a scrubber (SWMU No. 253).

5.64 SWMU No. 246: CCAD Plating Shop Chrome Tunnel Sump

(Photos: No photo)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The unit is an underground sump attached to the Chrome Tunnel at the North end of the Plating Shop. The sump includes two pumps (Reference 109).

Purpose of Unit: The unit collects liquid waste from the Chrome Tunnel and pumps it into the main Chrome Rinse Waste Line (Reference 109).

Regulatory Status: Non-RCRA regulated.

Period of Operation The Plating Shop started up in 1976 (Reference 112).

Dimensions/Volume: Unknown.

Material of Construction: Unknown.

Underlain By: ____ Concrete ____ Asphalt ____ Gravel
____ Grass X Soil

Environmental: X Indoors ____ Close to Surface Water ____ In Ground
____ Outdoors ____ Close to Drinking Water ____ Above Ground
____ Covered ____ Residences X Below Ground

Details: Unknown.

CLOSURE INFORMATION

X Active
____ Inactive/Physically Present
____ Inactive/Removed or Dismantled
____ Closed Under State or EPA
____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The unit manages waste from all spillage in the Plating Shop (Reference 109).

Sources of Wastes: Waste from the Floor Drains flow into the Chrome Tunnel and are collected in the Chrome Tunnel (Reference 109).

Disposition of Waste: Waste in sump pit of Chrome Tunnel is pumped out and into main Chrome Waste Line outside of Plating Shop (Reference 109).

RELEASE CONTROLS

____ Liner	____ Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	____ Other	

Details: Unknown.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: The unit was not observed during the VSI.

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to all media is low because the unit is indoors and enclosed.

5.65 SWMU No. 247: CCAD Plating Shop Miscellaneous Tunnel

(Photos: No photo)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The unit is an underground channel of air exhaust and wastewater. Sump pumps convey wastewater into Main Miscellaneous Waste Line outside Plating Shop which bypasses IWPP (Reference 109).

Purpose of Unit: The unit carries an exhaust from various acid and caustic processes in the Plating Shop. Chrome rinse water may be diverted into the Miscellaneous Tunnel (Reference 109).

Regulatory Status: Non-RCRA regulated.

Period of Operation The Plating Shop started up in 1976 (Reference 112).

Dimensions/Volume: The unit is of unknown length, approximately 7 feet wide, and is of variable height measuring about 5-1/2 feet in some places. Termination of the tunnel is not known (Reference 109).

Material of Construction: The unit is presumed to be constructed of 1-foot thick concrete floors with an acid-resistant topping and ceiling and 6-inch thick cinderblock walls coated with epoxy (References 109 and 115).

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass _X_Soil

Environmental: _X_Indoors ____Close to Surface Water ____In Ground

____Outdoors ____Close to Drinking Water ____Above Groun

____Covered ____Residences _X_Below Groun

Details: The unit's interior is constructed of a corrosion resistant material.

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
X Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The unit manages chrome rinsate from chrome rinse tanks. The unit carries air exhaust from various acid and caustic sources (Reference 109).

Sources of Wastes: Chrome Rinsate may be diverted from the Chrome Rinse Waste Line into the Miscellaneous Tunnel (Reference 109).

Disposition of Waste: Wastewater from the Miscellaneous Tunnel is discharged in the Main Miscellaneous Waste Line outside Plating Shop, bypassing IWPP (Reference 109).

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: Unknown.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: The unit was not observed during the VSI.

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because waste is handled in a tunnel with concrete walls, inside the building.

5.66 SWMU Nos. 248-252: CCAD Plating Shop Vapor Degreaser Sumps, Line A, Line C, G-1, Line F, and M-1

(Photos: 3-1 and 3-2)
(Exhibit 2.2)

DESCRIPTION

Unit Type: These units are five sumps located in the basement below vapor degreaser tanks which are located in the Plating Shop (Reference 109).

Purpose of Unit: The sumps collect spillage from the Vapor Degreasers (Reference 109).

Regulatory Status: Non-RCRA regulated.

Period of Operation The Plating Shop started up in 1976 (Reference 112). The sump for Line C has not been used since 1983. Sump for M-1 was removed in 1986. All other sumps are active (Reference 116).

Dimensions/Volume: Each sump reportedly has a capacity of 110 gallons (Reference 115).

Material of Construction: The sumps are concrete pits (Reference 115).

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass ____Soil

Environmental: _X_ Indoors ____Close to Surface Water ____In Ground

____Outdoors ____Close to Drinking Water ____Above Groun

____Covered ____Residences _X_ Below Groun

Details: Sumps for Line A, G-1, and Line F are active; sumps for Line C is inactive; the sump for M-1 has been removed (Reference 116).

CLOSURE INFORMATION:

_X_ Active

_X_ Inactive/Physically Present

_X_ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: 1,1,-Trichloroethane (Reference 112).

Sources of Wastes: Spills from the vapor degreasers are collected in the sumps (Reference 109).

Disposition of Waste: Unknown.

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: Unknown.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: The unit was not observed during the VSI.

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to all media is low because the unit is located indoors on a concrete floor.

5.67 SWMU Nos. 253-256: CCAD Plating Shop Tunnel Air Scrubbers: Chrome, Cyanide, Miscellaneous A, and Miscellaneous B

(Photos: No Photos)
(Exhibit 2.2)

DESCRIPTION

Unit Type: Four scrubbers are attached to the venting system of the CCAD Plating Shop. Two are associated with the Miscellaneous Tunnel and the other two are associated with the Chrome Tunnel and the Cyanide Tunnel (Reference 115).

Purpose of Unit: The scrubbers are used to remove particulate matter from exhaust before release to atmosphere.

Regulatory Status: Non-RCRA regulated.

Period of Operation: The Plating Shop started operations in 1976 (Reference 112).

Dimensions/Volume: Unknown.

Material of Construction: The air scrubbers are constructed of fiberglass (Reference 115).

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass X Soil

Environmental: ____Indoors ____Close to Surface Water ____In Ground

____Outdoors ____Close to Drinking Water ____Above Ground

____Covered ____Residences ____Below Ground

Details: Unknown.

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
____ Liquids	____ Flammable	____ Inorganics
X Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Unknown.

Sources of Wastes: The scrubbers collect gaseous waste from the three plating shop exhaust tunnels in the Plating Shop (Miscellaneous, Chrome and Cyanide) (Reference 115).

Disposition of Waste: Unknown.

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: Unknown.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: These units were not observed during the VSI.

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because of waste containment in a tunnel before its entry into the scrubber. The scrubbers are enclosed units.

5.68 SWMU No. 257: CCAD Container Repair Shop Drain

(Photos: No Photo)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The unit is a manhole drain in CCAD Container Repair Shop (Reference 120).

Purpose of Unit: The unit collects waste from the Container Repair Shop (Reference 120).

Regulatory Status: Non-RCRA regulated.

Period of Operation: Unknown.

Dimensions/Volume: The drain is 12 inches in diameter (Reference 120).

Material of Construction: Cement (Reference 120).

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass _X_ Soil

Environmental: ____Indoors ____Close to Surface Water ____In Ground

____Outdoors ____Close to Drinking Water ____Above Grou

____Covered ____Residences ____Below Grou

Details: Unknown.

CLOSURE INFORMATION

_X_ Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The unit manages trichloroethane, paint and oil (Reference 120).

Sources of Wastes: The unit collects waste from the Container Repair process (Reference 120).

Disposition of Waste: The waste is discharged to the Industrial Waste Sewer (Reference 120).

RELEASE CONTROLS

____ Liner	____ Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	____ Other	

Details: Unknown.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during the VSI.

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because the unit is located indoors.

5.69 SWMU No. 258: CCAD Air Frame Cleaning Shop Paint Stripping Shop Drain

(Photos: No Photo)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The unit is a manhole drain in the Paint Stripping area of the Air Frame Cleaning Shop (Reference 110).

Purpose of Unit: The unit conveys waste to the Industrial Waste Drain (Reference 110).

Regulatory Status: Non-RCRA regulated.

Period of Operation: Unknown.

Dimensions/Volume: 12-inch diameter (Reference 120).

Material of Construction: Cement (Reference 120).

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass _X_ Soil

Environmental: _X_ Indoors ____Close to Surface Water ____In Ground

____Outdoors ____Close to Drinking Water ____Above Ground

____Covered ____Residences ____Below Ground

Details: Unknown.

CLOSURE INFORMATION

_X_ Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The unit manages methylene chloride and paint residue (Reference 110).

Sources of Wastes: The paint stripping units generate the waste (Reference 110).

Disposition of Waste: Both paint stripping areas discharge to the Industrial Waste Drain (Reference 110).

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: Unknown

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during the VSI.

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because waste is discharged to Industrial Waste Drain.

5.70 SWMU No. 259: CCAD Air Frame Cleaning Shop Steam Cleaning Drain

(Photos: 3-20)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The unit is a manhole drain on the north side of the cleaning shop (Reference 120).

Purpose of Unit: The unit conveys waste from two steam cleaning units in the cleaning shop to the Industrial Waste Drain (Reference 110).

Regulatory Status: Non-RCRA regulated.

Period of Operation: Unknown.

Dimensions/Volume: 12-inch diameter (Reference 120).

Material of Construction: Cement (Reference 120).

Underlain By: ____ Concrete ____ Asphalt ____ Gravel
____ Grass X Soil

Environmental: X Indoors ____ Close to Surface Water ____ In Ground
____ Outdoors ____ Close to Drinking Water ____ Above Ground
____ Covered ____ Residences ____ Below Ground

Details: Unknown.

CLOSURE INFORMATION

X Active
____ Inactive/Physically Present
____ Inactive/Removed or Dismantled
____ Closed Under State or EPA
____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The unit manages detergent, methylene chloride, and paint residue (Reference 110).

Sources of Wastes: The two steam cleaning units, 5DB1B and 5DB1C, generate the waste (Reference 110).

Disposition of Waste: The waste is discharged directly to the Industrial Waste Drain (Reference 110).

RELEASE CONTROLS

____ Liner	____ Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	____ Other	

Details: Unknown.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during the VSI.

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because the waste is channeled to Industrial Waste Treatment Plant through a pipe network.

5.71 SWMU No. 260: CCAD Air Frame Cleaning Shop Corrosion Removal Sump

(Photos: No Photo)
(Exhibit 2.2)

DESCRIPTION

Unit Type: This unit is a sump associated with the corrosion removal process tanks in the Air Frame Cleaning Shop (Reference 110).

Purpose of Unit: The unit collects spillage from the corrosion removal process (Reference 110).

Regulatory Status: Unregulated.

Period of Operation: Unknown.

Dimensions/Volume: Unknown.

Material of Construction: Unknown.

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass _X_ Soil

Environmental: _X_ Indoors ____Close to Surface Water ____In Ground

____Outdoors ____Close to Drinking Water ____Above Grou

____Covered ____Residences ____Below Grou

Details: Unknown.

CLOSURE INFORMATION

_X_ Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The unit collects phosphoric acid (Reference 110).

Sources of Wastes: The waste is released from the corrosion removal process tank and rinse tank (Reference 110).

Disposition of Waste: The waste is discharged to the Industrial Waste Drain (Reference 110).

RELEASE CONTROLS

____ Liner	____ Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	X Other	

Details: The unit by itself is a release control structure.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of releases was noted during the VSI.

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release to environmental media is low because the unit is located indoors.

5.72 SWMU No. 261: CCAD Air Frame Cleaning Shop Chromate Conversion Coating Area Chemical Waste Pit - 5DB1B

(Photos: No Photo)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The unit is a pit located in the basement below the chromate process tank and rinse tank (Reference 110).

Purpose of Unit: The unit is designed to collect spills from the chromate process and rinse tanks (Reference 110).

Regulatory Status: Unregulated.

Period of Operation: Unknown.

Dimensions/Volume: Unknown.

Material of Construction: Unknown.

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass X Soil

Environmental: X Indoors ____Close to Surface Water ____In Ground

____Outdoors ____Close to Drinking Water ____Above Grou

____Covered ____Residences ____Below Grou

Details: Unknown.

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
_X_ Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The unit manages alodine (chromic acid) spillage (Reference 110).

Sources of Wastes: The unit collects spillage from the chromate process and rinse tanks (Reference 110).

Disposition of Waste: The waste is drained into the Industrial Waste Sewer (Reference 110).

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: Unknown.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of releases were noted during the VSI.

Detail of Past Releases: A tank failure in January 1986 resulted in a release of chromic acid into the Industrial Waste Sewer (Reference 110).

RELEASE POTENTIAL

Air	X	Low	____	Medium	____	High
Soil/Groundwater	X	Low	____	Medium	____	High
Surface Water	X	Low	____	Medium	____	High
Subsurface Gas Generation	X	Low	____	Medium	____	High

Detail of Release Potential: The release potential to environmental media is low because the unit is located indoors on a concrete floor.

5.73 SWMU No. 262: CCAD Air Frame Cleaning Shop Chromate Conversion Coating Area Sump - 5DB1C

(Photos: No Photos)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The unit is a sump associated with the temporary chromate process area (Reference 110).

Purpose of Unit: The unit collects spillage from the chromate process (Reference 110).

Regulatory Status: Unregulated.

Period of Operation: 1987 to present.

Dimensions/Volume: Unknown.

Material of Construction: Unknown.

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass _X_ Soil

Environmental: _X_ Indoors ____Close to Surface Water ____In Ground

____Outdoors ____Close to Drinking Water ____Above Grou

____Covered ____Residences ____Below Grou

Details: Unknown.

CLOSURE INFORMATION

_X_ Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The unit manages chromic acid spillage.

Sources of Wastes: The unit collects spillage from the chromate process area (Reference 110).

Disposition of Waste: The waste is containerized and transported to IWPP (Reference 110).

RELEASE CONTROLS

____ Liner	____ Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	____ Other	

Details: Unknown.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during the VSI.

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because the unit is located indoors.

5.74 SWMU No. 263: CCAD Engine Cleaning Shop Catchment Floors

(Photos: No Photos)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The unit is a waste collection unit located below the hot and cold process lines of the Engine Cleaning Shop (Reference 110).

Purpose of Unit: The unit collects waste from the engine cleaning process (Reference 110).

Regulatory Status: Unregulated.

Period of Operation: Unknown.

Dimensions/Volume: Unknown.

Material of Construction: The unit is a concrete floor.

Underlain By: X Concrete ____ Asphalt ____ Gravel

____ Grass ____ Soil

Environmental: X Indoors ____ Close to Surface Water ____ In Ground

____ Outdoors ____ Close to Drinking Water ____ Above Grou

____ Covered ____ Residences ____ Below Grou

Details: Unknown.

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Unknown.

Sources of Wastes: Waste is collected from the engine cleaning process tanks (Reference 110).

Disposition of Waste: The wastewater flows to the Industrial Waste Sewer (Reference 110).

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: Unknown.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during the VSI.

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because the unit is located indoors on a concrete floor and is connected to the Industrial Waste Sewer.

5.75 SWMU No. 264: CCAD Engine Cleaning Shop Drain

(Photos: No Photo)
(Exhibit 2.2)

DESCRIPTION

Unit Type: This unit is a manhole drain in the Engine Cleaning Shop (Reference 120).

Purpose of Unit: The unit collects waste from the Engine cleaning process (Reference 120).

Regulatory Status: Unregulated.

Period of Operation: Unknown.

Dimensions/Volume: The drain is 12 inches in diameter (Reference 120).

Material of Construction: Concrete (Reference 120).

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass X Soil

Environmental: X Indoors ____Close to Surface Water ____In Ground

____Outdoors ____Close to Drinking Water ____Above Ground

____Covered ____Residences ____Below Ground

Details: Unknown.

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Unknown.

Sources of Wastes: The waste is generated from the hot and cold process lines in the Engine Cleaning Shop (Reference 120).

Disposition of Waste: The waste is discharged to the Industrial Waste Sewer (Reference 120).

RELEASE CONTROLS

____ Liner	____ Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	____ Other	

Details: Unknown.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during the VSI.

Detail of Past Releases: Unknown

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because the unit is located indoors.

5.76 SWMU No. 265: CCAD Helicopter Paint Shop Drain

(Photos: No Photo)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The unit is a manhole drain in the CCAD Helicopter Paint Shop in Building 1808 (Reference 120).

Purpose of Unit: The unit is used to convey waste from the Paint Shop (Reference 120).

Regulatory Status: Non-RCRA regulated.

Period of Operation: Unknown.

Dimensions/Volume: The drain is 12 inches in diameter (Reference 120).

Material of Construction: Cement (Reference 120).

Underlain By: ____ Concrete ____ Asphalt ____ Gravel

____ Grass X Soil

Environmental: X Indoors ____ Close to Surface Water ____ In Ground

____ Outdoors ____ Close to Drinking Water ____ Above Gro

____ Covered ____ Residences ____ Below Gro

Details: Unknown.

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Unknown.

Sources of Wastes: The waste is generated in the Helicopter Paint Shop (Reference 120).

Disposition of Waste: The waste is discharged to the Industrial Waste Sewer (Reference 120).

RELEASE CONTROLS

____ Liner	____ Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	____ Other	

Details: Unknown.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during the VSI.

Detail of Past Releases: Unknown.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because the unit is located indoors.

5.77 SWMU No. 266-267: Solvent Recovery Unit - Trichlorethylene & Varsol

(Photos: 3-34, 3-36)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The unit is a distillation unit located adjacent to Building 1808. Sludge is accumulated in drums (References 112, 120).

Purpose of Unit: The unit is used to recover 1,1,1-trichloroethane and Varsol through a distillation process (Reference 112).

Regulatory Status: Unregulated.

Period of Operation: 1987 to present (Reference 112).

Dimensions/Volume: Unknown.

Material of Construction: The unit is made of metallic parts placed on a concrete floor.

Underlain By: X Concrete ____Asphalt ____ Gravel
_____ Grass ____Soil

Environmental: ____Indoors ____Close to Surface Water ____In Ground
X Outdoors ____Close to Drinking Water ____Above Groun
____Covered ____Residences ____Below Groun

Details: A concrete platform with curb supports the recovery unit.

CLOSURE INFORMATION

X Active
____ Inactive/Physically Present
____ Inactive/Removed or Dismantled
____ Closed Under State or EPA
____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
____ Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
X Sludges		

Particulars: The unit manages sludge which precipitates from the distillation of 1,1,1-trichloroethane and Varsol (Reference 112).

Sources of Wastes: Contaminated solvents generated on the base.

Disposition of Waste: The sludge is containerized and disposed through DRMO (Reference 120).

RELEASE CONTROLS

____ Liner	X Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	X Other	

Details: The entire recovery unit is located on an elevated concrete platform which is diked and fenced (Reference 112).

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during the VSI.

Detail of Past Releases: No past releases are reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because the waste is contained in storage tanks placed on a concrete floor with curb.

5.78 SWMU No. 268: Conforming Storage Area

(Photos: 4-1, 4-2)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The unit is a waste container storage area in Building 257. The area is a large building with a storage area of approximately 1,500 square feet (Reference 112).

Purpose of Unit: The unit is used to store wastes from temporary storage areas for more than 90 days (Reference 112).

Regulatory Status: RCRA-regulated unit. Wastes are stored for more than 90 days (Reference 112).

Period of Operation: The unit has been in operation since 1981.

Dimensions/Volume: 30 feet by 50 feet.

Material of Construction:

Underlain By: X Concrete ____Asphalt ____ Gravel

____ Grass ____Soil

Environmental: X Indoors ____Close to Surface Water ____In Ground

____Outdoors ____Close to Drinking Water ____Above Grou

____Covered ____Residences ____Below Grou

Details: The unit is a metal framed building with concrete floor and ramps.

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
X Sludges		

Particulars: The unit manages paint waste, solvents, vapor degreasers halogenated solvents.

Sources of Wastes: Corpus Christi Army Depot.

Disposition of Waste: Waste is disposed of through DRMO.

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	X Other	

Details: The building is provided with two 3,000 gallon sumps (Reference 112).

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during the VSI.

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because of waste containment in drums inside a metal framed building on concrete floor with sump.

5.79 SWMU No. 269: Triple Rinse Area

(Photos: 4-7)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The unit is a roofed and curbed area outside Building 257 (Reference 112).

Purpose of Unit: Empty drums are triple rinsed (Reference 112).

Regulatory Status: Unregulated.

Period of Operation: 1984 to present (Reference 112).

Dimensions/Volume: The unit is a sump approximately 3 feet in diameter and 2-3 feet deep.

Material of Construction:

Underlain By: X Concrete ____ Asphalt ____ Gravel
____ Grass ____ Soil

Environmental: ____ Indoors ____ Close to Surface Water ____ In Ground
X Outdoors ____ Close to Drinking Water X Above Ground
X Covered ____ Residences ____ Below Ground

Details: The unit appears as an open roofed independent structure in a storage yard (Reference 112).

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Rinsate contains solvents, oil and grease.

Sources of Wastes: Emptied drums in the Conforming Storage Area are rinsed.

Disposition of Waste: First rinsings are containerized. Second and third rinsings are sent to IWTP (Reference 112).

RELEASE CONTROLS

____ Liner	X Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	X Other	

Details: The area is curbed on four sides. A ramp slopes into the area.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: Standing water was observed within the curbed area (Reference 112).

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because of waste containment in a container placed inside a concrete sump.

5.80 SWMU No. 270: Film Processing Waste Collection Unit

(Photos: 4-8, 4-9)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The unit is a small plastic container placed on a concrete floor in the Film Processing Building which is a part of Building 8.

Purpose of Unit: The unit is used to collect waste generated from the processing of film (Reference 112).

Regulatory Status: Unregulated.

Period of Operation: 1988 to present (Reference 112).

Dimensions/Volume: Five gallon plastic container.

Material of Construction: Unknown.

Underlain By: X Concrete ____Asphalt ____ Gravel

____ Grass ____Soil

Environmental: X Indoors ____Close to Surface Water ____In Ground

____Outdoors ____Close to Drinking Water ____Above Groun

____Covered ____Residences ____Below Groun

Details: Containers are placed inside a building on a concrete floor.

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Waste chemicals used in the processing of film (Reference 112).

Sources of Wastes: Film development process.

Disposition of Waste: 10 gallons are taken to the silver recovery unit at DRMO once a month (Reference 112).

RELEASE CONTROLS

____ Liner	____ Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	____ Other	

Details: Waste is placed in a plastic container which rests on a concrete floor.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during the VSI.

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because of waste containment in a drum placed on a concrete floor inside a building.

5.81 SWMU Nos. 271-273: Plastic Media Blasting (PMB) Waste Collection Units:
A--Larger Than 10 Mesh Waste Container
B--Smaller Than 80 Mesh Waste Container
C--Dust Collection Unit

(Photos: 4-11, 4-12, 4-13)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The three waste collection units are connected to PMB devices (Reference 112). The unit is a closed loop system except at three locations where 10 mesh, smaller than 80 mesh and dust exit from the unit. The units are 55-gallon drums that collect three different size particles.

Purpose of Unit: The drums are used to collect waste from Plastic Media Blasting (Reference 112).

Regulatory Status: Unregulated.

Period of Operation: The unit was in an experimental stage during the VSI.

Dimensions/Volume: Three 55-gallon drums.

Material of Construction: Concrete floor.

Underlain By: X Concrete ____Asphalt ____ Gravel
____ Grass ____Soil

Environmental: X Indoors ____Close to Surface Water ____In Ground
____Outdoors ____Close to Drinking Water ____Above Grou
____Covered ____Residences ____Below Grou

Details: The unit is located inside a building on a concrete floor.

CLOSURE INFORMATION

X Active
____ Inactive/Physically Present
____ Inactive/Removed or Dismantled
____ Closed Under State or EPA
____ Other

WASTES MANAGED

X Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Unknown.

Sources of Wastes: Machine parts requiring Plastic Media Blasting.

Disposition of Waste: Waste is disposed to Satellite Accumulation Area

RELEASE CONTROLS

____ Liner	X Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	____ Other	

Details: Waste is containerized in 55-gallon drums.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during the VSI.

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because of waste containment in drums placed on concrete floor inside a building.

5.82 SWMU No. 274: CCAD Storm Sewer

(Photos: 4-17)
(Exhibit 2.2)

DESCRIPTION

Unit Type: The unit transfers storm water from the CCAD area to Corpus Christi Bay and Cayo del Oso (Reference 110). The unit was used to discharge industrial waste to Corpus Christi Bay before the construction of IWTP. Currently, the unit discharges storm water from the CCAD area.

Purpose of Unit: The unit is used to collect rainfall (Reference 110).

Regulatory Status: Non-RCRA regulated.

Period of Operation: 1940s to present (Reference 110).

Dimensions/Volume: The unit consists of two 30-inch diameter storm drains.

Material of Construction:

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass X Soil

Environmental: ____Indoors ____Close to Surface Water ____In Ground

____Outdoors ____Close to Drinking Water ____Above Ground

____Covered ____Residences X Below Ground

Details: The unit runs at about 4-8 feet below grade in soil.

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Rain water (Reference 110). Industrial waste prior to construction of IWTP.

Sources of Wastes: CCAD area (Reference 112). In the past, prior to construction of IWTP, the unit discharged industrial waste from CCAD. Currently, the unit is used to discharge storm water from the CCAD area

Disposition of Waste: The storm sewer discharges to Corpus Christi Bay and Cayo del Oso (Reference 110).

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: The unit has no release control device.

MONITORING

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: A thick white foam was observed floating on the water at the point of discharge into Corpus Christi Bay during the VSI (Reference 112).

Detail of Past Releases: The unit is reported to have been used in discharge of wastewater from the CCAD in the past (Reference 2). Waste oil was reportedly detected in 1984 which may have been in the CCAD (Reference 125).

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	____ Low	____ Medium	X High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to air, soil/groundwater and subsurface gas is low because no waste from the CCAD is discharged into the storm sewer. In the past, however, industrial waste was reportedly discharged to the storm drain (Reference 2). Also, a documented release of waste oil into the storm sewer was noted in 1984 (Reference 125).

5.83 SWMU No. 275: Paint Spray Booth Filter

(Photos: 4-19)
(Exhibit 2.2)

DESCRIPTION

Unit Type: This unit is an air filter reportedly used to collect air-borne paint waste from the spray booth (Reference 112).

Purpose of Unit: This unit is an air purification device.

Regulatory Status: Unregulated.

Period of Operation: The unit is an experimental unit which began operation in 1988.

Dimensions/Volume: Unknown.

Material of Construction:

Underlain By: X Concrete ____ Asphalt ____ Gravel

____ Grass ____ Soil

Environmental: X Indoors ____ Close to Surface Water ____ In Ground

____ Outdoors ____ Close to Drinking Water ____ Above Groun

____ Covered ____ Residences ____ Below Groun

Details: Unknown.

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

X Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: One drum of paint waste is generated per year (Reference 112).

Sources of Wastes: Spray paint booth (Reference 112).

Disposition of Waste: No waste is removed from the unit (Reference 112).

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: Unknown.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of releases were noted during the VSI.

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release to environmental media is low because the unit is placed inside in an enclosed area.

5.84 SWMU No. 276: Paint Booth in Hangar 55

(Photos: 4-24)
(Exhibit 2.2)

DESCRIPTION:

Unit Type: The unit filters the exhaust from the Paint Booth in Hangar 55.

Purpose of Unit: The unit minimizes releases into the air.

Regulatory Status: Unregulated.

Period of Operation: The unit was operational during the VSI.

Dimensions/Volume: Unknown.

Material of Construction:

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass _X_ Soil

Environmental: _X_ Indoors ____Close to Surface Water ____In Ground

____Outdoors ____Close to Drinking Water ____Above Grou

____Covered ____Residences ____Below Grou

Details: The unit is located on a concrete floor inside a building.

CLOSURE INFORMATION

_X_ Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

X Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Waste consists of particulates having toxic metals, paint residue.

Sources of Wastes: Waste generated in Hangar 55.

Disposition of Waste: Waste is disposed of through DRMO.

RELEASE CONTROLS

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: The unit is located indoors.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during the VSI.

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because the unit is located inside a building on a concrete floor with a curb.

5.85 SWMU No. 277-298: Bead Blasting Machine Waste Collection Pans

(Photos: 4-14)
(Exhibit 2.2)

DESCRIPTION

Unit Type: These units are the collection pans under the bead blasting machines in the CCAD Building and the AIMD Building. Nineteen machines are in the CCAD area, Building 8, and two are in the AIMD area, Building 51 (References 112, 117).

Purpose of Unit: The collection pans receive glass or plastic blasting material which include waste particles (Reference 118).

Regulatory Status: Unregulated.

Period of Operation: The units have been in operation as a part of waste minimization program of CCAD. The units were active during the VSI.

Dimensions/Volume: Unknown.

Material of Construction: Unknown.

Underlain By: X Concrete ____ Asphalt ____ Gravel

____ Grass ____ Soil

Environmental: X Indoors ____ Close to Surface Water ____ In Ground

____ Outdoors ____ Close to Drinking Water ____ Above Grou

____ Covered ____ Residences ____ Below Grou

Details: The units are placed inside buildings on a concrete floor.

CLOSURE INFORMATION: Most of the blasting machines' collection pans are active. Reportedly, one of the AIMD units is not active (Referen 117).

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

X Solids	____ Corrosive	____ Organics
____ Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: The waste managed is plastic and glass blasting material which is coated with waste materials from the blasting operations. Th waste material includes grease, metals, magnesium, and reportedly, magnesium thorium which is a low-level radioactive substance. About 600 pounds of plastic beads and 780 pounds of glass beads are generate per month. About 75 drums of radioactive waste is generated per year (References 118 and 119).

Sources of Wastes: Various workshops in Building 8 (see Exhibit 5-15)

Disposition of Waste: The radioactive waste is transferred to the Radioactive Waste Storage Building. It is not known how the other, nonradioactive wastes are disposed (Reference 118).

RELEASE CONTROLS:

____Liner	____ Diking	____ Ind. Sewer
____Level Controls	____ Overflow Controls	
____Leak Detection	____ Other	

Details: The units are located on a concrete floor inside the buildings.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during the VSI.

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air	X Low	X Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential of particulates to air is low to medium during the transfer of waste from pan to 55-gallon drums. This is particularly important for glass/plastic beads containing radionuclides. The release to soil/groundwater, surface water and subsurface gas generation is low because of waste containment inside a building on a concrete flow in 55-gallon drums.

RELEASE HISTORY

____ Past Release to Air ____ VSI Noted Release to Air

____ Past Release to Soil/GW ____ VSI Noted Release to Soil/GW

____ Past Release to S.W. ____ VSI Noted Release to S.W.

____ Past Release to S.S.G. ____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during the VSI.

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air	X Low	X Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential of particulates to air is low to medium during the transfer of waste from pan to 55-gallon drums. This is particularly important for glass/plastic beads containing radionuclides. The release to soil/groundwater, surface water and subsurface gas generation is low because of waste containment inside a building on a concrete flow in 55-gallon drums.

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EXHIBIT 5-15: BEAD BLASTING MACHINE WASTE COLLECTION PANS

SWMU No.	Building	Workstation
277	8	5DC3A
278	8	Rotary Wing Shop 5DB1H
279	8	Metal Spray Shop 5CB2D
280	8	Tubing and Control Cables Shop 5EC2D
281	8	Hydraulic Shop 5EC3A
282	8	Hydraulic Shop 5DB1B, Unit A
283	8	Hydraulic Shop 5DB1B, Unit B
284	8	5EC2B
285	8	Instrument Shop 5EC3B
286	8	Plating Shop 5CB1A, Unit A
287	8	Plating Shop 5CB1A, Unit B
288	8	Plating Shop 5CB1A, Unit C
289	8	Plating Shop 5CB1A, Unit D
290	8	Cleaning Shop 5CB1C, Unit A
291	8	Cleaning Shop 5CB1C, Unit B
292	8	Cleaning Shop 5CB1C, Unit C
293	8	Cleaning Shop 5CB1C, Unit D
294	8	Cleaning Shop 5CB1C, Unit E
295	8	Transmission Disassembly and Routing Shop 5EB1A, Unit A
296	8	Transmission Disassembly and Routing Shop 5EB1A, Unit B
297	51	Unit A
298	51	Unit B

5.86 SWMU Nos. 299-309: Sanitary Sewer Treatment System Units

(Photos: Refer to Exhibit 5.16)
(Exhibit 2.2)

DESCRIPTION: The SSTP is located in the Northwest corner of NAS Corpus Christi, adjacent to Saipan Street and receives effluent from the Industrial Wastewater Treatment Plant (Reference 90). Domestic sewage has been treated at the current location since the 1940's. The SSTP has a design capacity of 1.5 mgd and consists of two primary clarifiers, two trickling filters, two secondary clarifiers operated in parallel, three anaerobic digesters and six sludge drying beds. Exhibit 2.5 depicts the flow of wastewater through the SSTP (Reference 2).

Building 170 serves as the control building for the plant. Domestic sewage entering the SSTP first enters the Blower Degritter (SWMU No. 299) which separates the grit from the waste water. The waste water from the Blower Degritter proceeds either to Primary Clarifier No. 1 or No. 2 (SWMU Nos. 300, 301) where the waste water is clarified. The wastewater from the Primary Clarifier then goes to Trickling Filters (SWMU Nos. 302, 303). The resulting wastewater, in turn, is discharged to secondary clarifiers (SWMU Nos. 304, 305). The sludge is clarified and filtered, and is directed to the Sludge Digesters (SWMU Nos. 306 to 308). The three Sludge Digesters use anaerobic bacteria to reduce sludge solids by converting them into methane (67%) and carbon dioxide (30%) gases. Digestion reportedly reduces unpleasant odors, volume of sludge and pathogenic bacteria and makes sludge easier to dewater. Sludge from the digesters is transferred to the Sludge Drying Beds (SWMU Nos. 310 to 315) for dewatering. The Sludge Drying Beds are addressed separately. Sludge from these units is returned to the Blower Degritter to be processed again while the resulting waste water is directed to the Chlorination Chamber (SWMU No. 309). The Chlorination Chamber chlorinates the waste water prior to discharge to Corpus Christi Bay (Reference 2).

Unit Type: Refer to Exhibit 5.16.

Purpose of Unit: Refer to preceeding description for purpose of unit.

Regulatory Status: Non-RCRA regulated.

Period of Operation: The plant has been in operation since the 1940's. Most units have operated since startup with a few exceptions which are noted in Exhibit 5.16.

Dimensions/Volume: Refer to Exhibit 5-16.

Material of Construction:

Underlain By: X Concrete ____Asphalt ____ Gravel

_____ Grass ____Soil

Environmental: ____Indoors X Close to Surface Water ____In Ground

X Outdoors ____Close to Drinking Water ____Above Grou

____Covered ____Residences ____Below Grou

Details: Located adjacent to Corpus Christi Bay.

CLOSURE INFORMATION: Refer to Exhibit 5-16 for closure information on specific units.

____ Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids ____ Corrosive ____ Organics

____ Liquids ____ Flammable ____ Inorganics

____ Gases ____ Reactive ____ Metals

____ Sludges

Particulars: Refer to Exhibit 5.16 for information on wastes managed at specific units.

Sources of Wastes: Refer to preceding description for information on the sources of wastes.

Disposition of Waste: Refer to preceding description for information on the deposition of wastes.

RELEASE CONTROLS

____ Liner ____ Diking ____ Ind. Sewer

____Level Controls ____ Overflow Controls

____Leak Detection ____ Other

Details: Refer to Exhibit 5.16 for release control information.

MONITORING: None.

____ Monitoring Wells ____ Down-Gradient Wells

____ Up-Gradient Wells ____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air ____ VSI Noted Release to Air

____ Past Release to Soil/GW ____ VSI Noted Release to Soil/GW

____ Past Release to S.W. ____ VSI Noted Release to S.W.

____ Past Release to S.S.G. ____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No signs of release were observed during VSI.

Detail of Past Releases: No past releases reported (Reference 110).

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	____ Low	____ Medium	X High
Surface Water	____ Low	____ Medium	X High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The SSTP was previously subject to overflooding due to infiltration of stormwaters into the industrial and sanitary sewer lines during storms and times of flooding (Reference 90).

EXHIBIT 5.16: SANITARY SEWER TREATMENT SYSTEM UNITS

SWMU No.	Unit Name	Unit Design Description	Waste Managed	Period of Operation	Release Controls	Photo
299	Blower Degritter		Domestic sewage and effluent from IWTP	1940s through present	Concrete base	1-34
300	Primary Clarifier #1	50' diameter x 19'; reinforced concrete; design capacity 3.75 MGD	Domestic sewage and effluent from IWTP	1940s through present	Concrete base	1-37
301	Primary Clarifier #2	50' diameter x 19'; reinforced concrete; design capacity 3.75 MGD	Domestic sewage and effluent from IWTP	1940s through present	Concrete base	-
302	Trickling Filter #1	Dimension 150' diameter x 9' steel; aluminum & concrete; 3.75 MGD design capacity	Domestic sewage and effluent from IWTP	1940s through present	Concrete base	1-36
303	Trickling Filter #2	Dimension 150' diam. x 9' steel; aluminum & concrete; 3.75 MGD design capacity	Domestic sewage and effluent from IWTP	1940s through present	Concrete base	-
304	Secondary Clarifier #1	Dimension 40' x 11'; reinforced concrete; design cap. 3.75 MGD	Domestic sewage and effluent from IWTP	1940s through present	Concrete base	2-1
305	Secondary Clarifier #2	Dimension 40' x 11'; reinforced concrete; design cap. 3.75 MGD	Domestic sewage and effluent from IWTP	1940s through present	Concrete base	2-1
306	Sludge Digester #1	Dimension 40' x 19'; steel reinforced concrete	Domestic sewage and effluent from IWTP	1940s through present	Concrete base	2-2
307	Sludge Digester #2	Dimension 40' x 19'; steel, reinforced concrete	Domestic sewage and effluent from IWTP	1940s through present	Concrete base	2-2
308	Sludge Digester #3	Dimension 40' x 19'; steel, reinforced concrete	Domestic sewage and effluent from IWTP	1940s through present	Concrete base	2-2
309	Wastewater Chlorination Chamber	Unknown	Effluent from SSTP	1940s through present	Concrete base	-

5.87 SWMU No. 310-315: SSTP Sludge Drying Beds (6)

(Photos: 2-3)
(Exhibit 2.2)

DESCRIPTION

Unit Type: These units consist of six surface impoundments located in the Northwest corner of NAS Corpus Christi.

Purpose of Unit: The Sludge Drying Beds dewater the sludge generated during sewage treatment.

Regulatory Status: The units are not RCRA regulated.

Period of Operation: The units have been in operation from the 1940s through the present (Reference 110).

Dimensions/Volume: The units each measure 90 feet by 30 feet by 4 feet deep (Reference 110).

Material of Construction:

Underlain By: _____ Concrete ____Asphalt X Gravel

_____ Grass X Soil

Environmental: ____Indoors ____Close to Surface Water X In Ground

X Outdoors ____Close to Drinking Water ____Above Grou

____Covered ____Residences ____Below Grou

Details: The beds are enclosed and divided by 6-inch thick reinforced concrete side walls with a top elevation of 10.5 feet MSL. The beds have been installed such that three beds are located on each side of the central roadway used for sludge removal. The concrete bed side walls are 3 feet high. Each bed contains a 6-inch underdrain pipeline with open joints enclosed with gravel. This piping which is located i sub-grade trenches beneath the beds is sloped to drain to a central underdrain return header beneath the central roadway. From the header the waste is directed to Lift Station No. 2 (Reference 100).

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	X Organics
____ Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
X Sludges		

Particulars:

Sources of Wastes: Digested sludge from the Sludge Digesters (SWMU Nos. 306-308) is airlifted to the headbox of the beds once every two to three weeks. Approximately 30,000 gallons of sludge are placed in the beds at that time (Reference 100).

Disposition of Waste: Dewatered sludge cake is removed from the beds by a front-end loader. The sludge cake is loaded directly onto trucks for off-site disposal or into wheeled containers for temporary storage.

RELEASE CONTROLS

____ Liner	____ Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	____ Other	

Details: The release controls consists of a concrete berm.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air ____ VSI Noted Release to Air

____ Past Release to Soil/GW ____ VSI Noted Release to Soil/GW

____ Past Release to S.W. ____ VSI Noted Release to S.W.

____ Past Release to S.S.G. ____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during the VSI.

Detail of Past Releases: No past releases were reported.

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	____ Low	____ Medium	X High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to air, surface water and subsurface gas generation is low because sludge is digested, and is contained on the sides by concrete walls. The release potential to soil and groundwater is high because of shallow depth to groundwater and moderate to high permeability of underlying soil.

5.88 SWMU Nos. 316-333: Industrial Waste Pretreatment Plant (IWPP)

(Photos: Refer to Exhibits 5.17-5.19)
(Exhibit 2.2)

DESCRIPTION: The IWPP is one of three wastewater treatment plants located at NAS Corpus Christi. The IWPP which is located adjacent to Building 8, treats only wastewaters generated by the CCAD Plating Shop. The major processes performed at the IWPP are acid-base neutralization, chrome reduction, cyanide destruction, solids separation and sludge dewatering (Reference 2). A schematic drawing of the IWPP is provided in Exhibit 2.6, whereas a summary of the associated SWMUs is contained in Exhibits 5.17-5.19.

The acid-base neutralization process is composed of the Acid Wet Well (SWMU No. 316), Caustic Wet Well (SWMU No. 317), Neutralization Tank (SWMU No. 318), acid feed tank, and caustic feed tank. Wastes from the Plating Shop are neutralized to within the range of 6.5 to 8.5 to prevent upsets of the biological process at the Industrial Waste Treatment Plant (IWTP). Acid waste and caustic wastes from the Plating Shop were stored in the Acid Wet Well and Caustic Wet Well respectively prior to neutralization in the Neutralization Tank with sodium hydroxide from the caustic feed tank and sulfuric acid from the acid feed tank. The Acid Wet Well, Caustic Wet Well, and Neutralization Tank are no longer used. The acid and caustic wastes are now directed to the Chrome Storage Tank (SWMU No. 321), Chrome Wet Well (SWMU No. 320), Chrome Storage Tank (SWMU No. 322), Chrome Treatment Reduction Tank (SWMU No. 323), Chrome Treatment Precipitation Tank (SWMU No. 324), Chrome Treatment Clarifier (SWMU No. 325), Sand Filter (SWMU No. 326), and Sludge Storage Area (SWMU No. 333B).

Chrome bearing wastes from the Plating Shop are treated through the chrome reduction process. Upon entering the system, Chrome Waste is first stored in the Chrome Wet Well. Hexavalent chromium is reduced to trivalent chromium in the Chrome Treatment Reduction Tank through the addition of sulfuric acid, a reducing agent. The trivalent chrome is then precipitated by adding sodium hydroxide to the Chrome Treatment Precipitation Tank. The chromic hydroxide sludge which results is settled in the Chrome Treatment Clarifier and removed to the Filter Press for dewatering. Effluent from the Chrome Treatment Clarifier is pumped via the sand filter feed pump through a Sand Filter (SWMU No. 316) and stored for reuse by the Plating Shop in a Waste Water Storage Tank (SWMU No. 327) or discharged to the IWTP (Reference 91).

The cyanide destruction process consists of a Cyanide Waste Water Storage Tank (SWMU No. 330), Cyanide Treatment Tank (SWMU No. 331), Cyanide Clarifier (Parallel Plate Settler) (SWMU No. 332), and Filter Press (SWMU No. 333). The Cyanide Waste is stored in the Cyanide Waste Storage Tank (SWMU No. 333A) upon entering the system. From the storage tank it is pumped to the Cyanide Treatment Tank where chlorine is added and the pH of the wastewater is raised by the addition of caustic soda to oxidize the cyanide to cyanate. Acid and chlorine are added to the second compartment of the Cyanide Treatment Tank to reduce the pH and to oxidize the cyanate to carbon dioxide and nitrogen gas. The resulting waste is then pumped to the Cyanide Clarifier (parallel plate settler) for solids separation. The Cyanide Clarifier is equipped with a flash mixer and flocculator compartment. Polymer is added to the flash mixer compartment to promote the formation of large floc in the flocculation compartment. The clarified water then flows to the IWTP for further treatment and the associated sludge is dewatered at the Filter Press (SWMU No. 333).

The Filter Press receives sludge from the Chrome Treatment Clarifier (SWMU No. 325) and the Cyanide Clarifier (SWMU No. 332). The Filter Press operates at pressures in excess of 3,000 pounds per square inch to dewater the sludge. The sludge which is generated is stored at the Sludge Storage Area prior to disposal off-base and the filtrate is discharged to the IWTP for additional treatment.

Unit Type: Refer to Exhibits 5.17-5.19.

Purpose of Unit: Refer to preceding description for purpose of unit.

Regulatory Status: Non-RCRA regulated units.

Period of Operation: The plant was placed into operation in 1975. Most units are currently active with the exception of the Acid Wet Well, Caustic Wet Well, Neutralization Tank and Neutralization Tank Manhole (Reference 110).

Dimensions/Volume: Refer to Exhibits 5.17-5.19.

Material of Construction:

Underlain By: X Concrete ____Asphalt ____ Gravel

_____ Grass ____Soil

Environmental: ____Indoors X Close to Surface Water* ____In Ground

X Outdoors ____Close to Drinking Water ____Above Grou

____Covered ____Residences ____Below Grou

*Located approximately 1/2 mile from Corpus Christi Bay.

Details: All units are located outdoors. Refer to Exhibits 5.17-5.19 for additional details.

CLOSURE INFORMATION: Refer to Exhibits 5.17-5.19 for closure information on specific units.

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

X Solids	____ Corrosive	____ Organics
X Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
X Sludges		

Particulars: Refer to Exhibit 5.17 for information on wastes managed at specific units.

Sources of Wastes: Refer to preceding description for information on the sources of wastes.

Disposition of Waste: Refer to preceding description for information on the disposition of wastes.

RELEASE CONTROLS

____ Liner	____ Diking	____ Ind. Sewer
X Level Controls	X Overflow Controls	
____ Leak Detection	____ Other	

Details: Refer to Exhibits 5.17-5.19 for release control information.

MONITORING: None.

____ Monitoring Wells ____ Down-Gradient Wells

____ Up-Gradient Wells ____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air ____ VSI Noted Release to Air

____ Past Release to Soil/GW ____ VSI Noted Release to Soil/GW

____ Past Release to S.W. ____ VSI Noted Release to S.W.

____ Past Release to S.S.G. ____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No signs of release were observed during the VSI.

Detail of Past Releases: No past releases reported (Reference 110).

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because of waste containment in chemically compatible containers, presence of concrete floor with curbs, and good housekeeping in accordance with the waste management plan of NAS.

EXHBIT 5.17: IWPP ACID BASE NEUTRALIZATION UNITS

SWMU No.	Unit Name	Unit Design Description	Waste Managed	Period of Operation	Release Controls	Photo
316	Acid Wet Well	In ground storage tank; 400 gallons capacity; 4' diameter & 11' long; epoxy coated cement	Waste acids from CCAD Plating Shop; pH of constituents at about one	Start-up date 1975; not active since 1987	Epoxy coated cement; concrete curbs around perimeter	2-6
317	Caustic Wet Well	In ground storage tank; 400 gallons capacity; 4' diameter & 11' long; epoxy coated cement	Waste caustics from CCAD Plating Shop; pH of constituents at 12+	Start-up date 1975; not active since 1987	Epoxy coated cement; concrete curbs around perimeter	2-7
318	Neutralization Tank	Above ground tank; 2,800 gallons capacity; 6' diameter & 9' long; feed pump capacity @ 15 gpm	Mixture of acid and alkaline wastes; pH range 6.5 to 9	Start-up date 1975; not active since 1987	Concrete curb around facility	2-8
319	Neutralization Tank Manhole	In ground storage tank; 2,750 gallons capacity; epoxy coated concrete	Waste from neutralization tank	Start-up date 1975; not active since 1987	Concrete curb around facility	

(References 2, 91, 108, Telecon)

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EXHIBIT 5.18: IWPP CHROMIUM REDUCTION UNITS

SWMU No.	Unit Name	Unit Design Description	Waste Managed	Period of Operation	Release Controls	Photo
320	Chrome Wet Well	Inground tank; 848 gallons capacity; 6' diameter x 11'; epoxy coated concrete	60,000 gallons per day of acid wastes from pH ranging from 1-2	1975 through present	Concrete berm around perimeter of facility	2-9
321, 322	Chrome Storage Tank	Above ground tank; 10,000 gallons capacity; epoxy coated fiberglass; concrete berm around facility	Waste from chrome wet wall	1975 through present	Concrete berm around perimeter of facility	2-10
323	Chrome Treatment Reduction Tank	Above ground tank; 17' x 14" x 8.5'; epoxy coated steel	Chromic sulfate	1975 through present	Epoxy coated steel	2-11
324	Chrome Treatment Precipitation Tank	Above ground tank; 17' x 14' x 8.5'; epoxy coated steel	Insoluble chromic hydroxide and water	1975 through present	Epoxy coated steel	
325	Chrome Treatment Clarifier	Plate area 231 sq.ft.; 17' x 14' x 8.5'	Insoluble chromic hydroxide and water	1975 through present	Epoxy coated steel	2-21
326	Sand Filter	6' diameter x 15'; design loading rate 3 gals/min/sq.ft.	Sand and metal hydroxides	1975 through present	Concrete berm around perimeter of facility	
327	Wastewater Storage Tank	Above ground tank; 10,000 gallons capacity; steel	Water containing chromium	1975 through present	Concrete berm around perimeter of facility	

EXHIBIT 5.19: IWPP CYANIDE DESTRUCTION UNITS

SWMU No.	Unit Name	Unit Design Description	Waste Managed	Period of Operation	Release Controls	Photo
328	Wastewater Storage Manhole #1	Approximately 70,000 gallon capacity; concrete construction; depth = 10'	Wastewater from miscellaneous tunnels and chrome reduction tanks, toxic metals, acids and caustics (deemed non-hazardous by facility)	1975 through present	Concrete base; 24-hour monitoring of flow; ORP controls signal lift station pump malfunction	2-14
329	Wastewater Storage Manhole #2	Approximately 70,000 gallon capacity; concrete construction; depth = 10'	Wastewater from miscellaneous tunnels and chrome reduction tanks, toxic metals, acids and caustics (deemed non-hazardous by facility) transferred to cyanide destruction tank	1975 through present	Concrete base; 24-hour monitoring of flow; ORP controls signal lift station pump malfunction	2-15
330	Cyanide Wastewater Storage Tank	Aboveground storage tank; 8' diameter x 15'; 10,000 gallons capacity; fiberglass	Treated wastewater after chrome reduction contains low low concentration of toxic metals water for recycling	Started in 1975, active	Concrete berm around facility	2-22
331	Cyanide Treatment Tank	Above ground tank; 10,000 gallons capacity; epoxy coated steel	Cyanide waste from Cyanide Storage Tank	1975 through present	Concrete base	2-17
332	Cyanide Clarifier (Parallel Plate Settler)	150 sq.ft. of plate area; typical flow rate = 10,000 gpd	Metal hydroxides	1975 through present	Concrete berm around facility	2-16
333	Filter Press	32 cu.ft./batch; steel frame with cloth filters	Metal hydroxide sludges	1975 through present	Concrete base	2-19, 2-20
333A	Cyanide Waste Storage Tank	Above ground tank; 10,000 gallons capacity; 14' diameter x 10'; fiberglass	Cyanide wastes from CCAD Plating Shop	1975 through present	Concrete berm around facility	2-18
333B	Sludge Storage Area	Sludge stored in roll-offs	Sludge generated from the IWPP Chrome Sludge	1975 through present	Concrete floor	2-23

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5.89 SWMU Nos. 334-348: Industrial Waste Treatment Plant (IWTP)

(Photos: Refer to Exhibit 5.20)
(Exhibit 2.2)

DESCRIPTION: The IWTP has been in operation since 1975 receiving wastes from the plating shop (77%), engine cleaning shop (15%), engine breakdown area (4%), and air frame stripping operations (4%). The average flow through the plant has been significantly less than the plants' design capacity of one million gallons per day. All waste water discharged to the plant is generated by the Army, except for the boiler blowdown which is generated by the Navy. The Navy began discharging boiler blowdown to the IWTP in 1980 (Reference 91).

In addition to the above mentioned waste waters, spills collected in the Waste Water Spill Containment Tank (SWMU No. 336) are also discharged to the IWTP. Spills detected upstream of the IWTP Lift Station (SWMU Nos. 334, 335) are manually diverted to the Waste Water Spill Containment Tank where they are treated with acid, caustic and/or sodium metabisulfite as they are being withdrawn from the tank and directed to the IWTP influent line. Exhibit 2.7 is a detailed schematic which outlines the flow of waste water through the IWTP (Reference 91).

Wastes discharged to the IWTP first flow through the Aerated Grit Chamber (SWMU No. 339) to separate the grit from the waste water. The removed grit is stored in drums at the Grit Storage Area (SWMU No. 340). The oil and foam skimmed from the Aerated Grit Chamber are routed to the Oil Concentrator (SWMU No. 348). Oil is skimmed off this unit and placed in drums for storage at the Oil Storage Area (SWMU No. 348A). A report dated February 14, 1984 indicates that at the time of the study, the Oil Concentrator appeared unused and a large amount of grit had accumulated in the Aerated Grit Chamber. The study recommended procedures be reinstated to remove grit and oil to prevent any upset conditions (Reference 91).

The waste water from the grit chamber flows into the Equalization Tank (SWMU No. 341). The Equalization Tank has a 250,000 gallon capacity and is equipped with a 5 horsepower mixer. Overflow from the Equalization Tank is directed to the Reaeration Chamber (SWMU No. 345) and occasionally to the Waste Water Storage Tank (SWMU No. 342). The 250,000 gallon Waste Water Storage Tank is used to store waste water for feeding the activated sludge units when influent flows are low (e.g., weekends, holidays and times when CCAD is down) (Reference 91).

A slip stream from the Sanitary Sewer Treatment Plant (SSTP) enters the system between the Equalization Tank and the Reaeration Chamber. Approximately 50,000 gallons of SSTP influent is added daily to provide nutrients which are missing from the IWTP. This accounts for ten percent of the 500,000 gpd which the activated Sludge Unit is designed to handle. Larger volumes of STS influent (20 to 30 percent of the total flow) have been reported during previous studies. The facility personnel indicate that this did not actually occur but was the result of clogged monitoring equipment (Reference 91).

The activated sludge unit is composed of a concentric circle unit where the inner circle is the Clarifier (SWMU No. 345), and the annular space is divided into the Contact Chamber (SWMU No. 343), Reaeration Chamber (SWMU No. 344), Aerobic Digester (SWMU No. 348), and Chlorination Chamber (SWMU No. 346) (Reference 91).

The activated sludge unit is supplied with air from three 60 h.p. blowers by a 14" diameter pipe to the center platform. Ten 4" diameter aerator headers are connected to the center platform. The air to each aerator header is regulated by a plug valve. Mixed liquor from the contact zone enters the Clarifier. Overflow from the Clarifier flows through the Chlorination Chamber. The Chlorination Chamber is required by permit conditions to provide 20 minute residence time at peak flow. Wastewater from the Chlorination Chamber was discharged through Outfall Number 001 to Corpus Christi Bay until 1985 or 1986. Wastewater is currently being discharged to the Sanitary Sewer Treatment Plant (Reference 90) and UST. Sludge wastage from the Rearation Chamber is pumped to the Aerobic Digester (SWMU No. 347) by a 50 gpm airlift pump which operates a one minute on to three minutes off cycle for a total of 18,000 gallons per day (or 300 pounds of sludge per day) at 2,000 mg/l concentration. The Aerobic Digester has a decant zone where supernatant is piped back to the Contact Chamber.

Sludge from the Aerobic Digester is applied to one of six Sludge Drying Beds (SWMU Nos. 349 to 354) every month or month and one half. A total of 14,400 square feet is available for dewatering the sludge (Reference 91).

Under current operational procedures, influent and effluent flows, pH and effluent chlorine is monitored daily. The Contact Chamber, Reaerator Chamber, and Aerobic Digester are analyzed for total suspended solids and settleable solids on a weekly basis (Reference 91).

A detailed summary of the SWMUs associated with the IWTP is provided in Exhibit 5.20. The Sludge Drying Beds are addressed separately under SWMU description numbers 5.91.

Unit Type: Refer to Exhibit 5.20.

Purpose of Unit: Refer to preceeding description for purpose of unit

Regulatory Status: The IWTP previously discharged effluent to Corpus Christi Bay via Outfall No. 001. This discharge was permitted under the National Pollutant Discharge Elimination System (NPDES). The effluent from the IWTP is now routed to the SSTP for additional treatment and no longer is discharged directly into the Bay (Reference 90).

Period of Operation: The IWTP was placed in operation in 1975. Most units have operated since start up, with a few exceptions which are noted in Exhibit 5.20.

Dimensions/Volume: Refer to Exhibit 5.20.

Material of Construction:

Underlain By: X Concrete ____ Asphalt ____ Gravel

____ Grass ____ Soil

Environmental: ____ Indoors X Close to Surface Water ____ In Ground

X Outdoors ____ Close to Drinking Water ____ Above Ground

____ Covered ____ Residences ____ Below Ground

Details: All units are located outdoors within 600 feet of Corpus Christi Bay. Refer to Exhibit 5-20 for additional details.

CLOSURE INFORMATION: Refer to Exhibit 5-20 for closure information on specific units.

____ Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids ____ Corrosive ____ Organics

____ Liquids ____ Flammable ____ Inorganics

____ Gases ____ Reactive ____ Metals

____ Sludges

Particulars: Refer to Exhibit 5.20 for information on wastes managed at specific units.

Sources of Wastes: Refer to preceding description for information on the sources of wastes.

Disposition of Waste: Refer to preceding description for information on the disposition of wastes.

RELEASE CONTROLS

____Liner ____ Diking ____ Ind. Sewer

____Level Controls ____ Overflow Controls

____Leak Detection ____ Other

Details: Refer to Exhibit 5.20 for release control information.

MONITORING

____ Monitoring Wells ____ Down-Gradient Wells

____ Up-Gradient Wells ____ Surface Water Monitoring

Monitoring Frequency: N/A

RELEASE HISTORY

____ Past Release to Air ____ VSI Noted Release to Air

____ Past Release to Soil/GW ____ VSI Noted Release to Soil/GW

____ Past Release to S.W. ____ VSI Noted Release to S.W.

____ Past Release to S.S.G. ____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No signs of release were observed during the VSI.

Detail of Past Releases: Treated wastes containing volatile organic compounds have been discharged to Corpus Christi Bay in the past. IWTP effluent is now routed to the SSTP for additional treatment (Reference 90).

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	____ Low	____ Medium	X High
Surface Water	____ Low	____ Medium	X High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The IWTP was previously subject to overflooding due to infiltration of storm waters into the industrial and sanitary sewer lines during storms and times of flooding (Reference 91).

EXHIBIT 5.20: INDUSTRIAL WASTE TREATMENT PROCESS UNITS

SWMU No.	Unit Name	Unit Design Description	Waste Managed	Period of Operation	Release Controls	Photo
334	IWTP Lift Station #1	Dimension 4' by 10'; pumping capacity 200 gpm	Industrial wastewater from CCAD after pretreatment	1975 through present	Spill containment tank	2-24
335	IWTP Lift Station #2	Dimension 4' by 10'; pumping capacity 200 gpm	Industrial wastewater from CCAD after pretreatment	1975 through present	Spill containment tank	2-24
336	Wastewater Spill Containment Tank	250,000 gallon capacity; 1/4" plate steel	Industrial wastewater from CCAD with or without pretreatment	Start-up date 1980 through present	Not applicable	1-24
337	Batch Phenol Destruction Unit	Approximately 500-gallon capacity	Phenolic waste from CCAD in the past	Start-up date 1975; not currently active	None	2-
338	Batch Cyanide Destruction Unit	800 gals. per batch with a chlorine feed capacity of 1000 lbs/day	Cyanide waste	Start-up date 1975; not currently active	None	
339	Aerated Grit Chamber	8'W x 12.5'L x 10'; constructed of steel with cathodic protection	Industrial Wastewater	1975 through present	Spill containment tank	1-20
340	Grit Storage Area	Not applicable	Grit from Aerated Grit Chamber	Start-up date 1975; not currently active	Not applicable	
341	Equalization Tank	Design capacity 250,000; steel with cathodic protection; 55' diameter x 14' deep; 5"	Industrial wastewater	1975 through present	Spill containment tank controls excess waste-water before entering into the IWTP	1-23
342	Wastewater Storage Tank	250,000 gallon capacity	Industrial wastewater	1975 through present	Spill containment tank controls excess waste-water before entering into the IWTP	1-22

EXHIBIT 5.20: INDUSTRIAL WASTE TREATMENT PROCESS UNITS
(Cont'd.)

SWMU No.	Unit Name	Unit Design Description	Waste Managed	Period of Operation	Release Controls	Photo
343	Contact Chamber	88,000 gallons capacity; air flow rate 585 cfm; concrete and steel	Sludge and wastewater	1975 through present	Spill containment tank controls excess wastewater before entering into the IWTP	
344	Reaeration Chamber	117,400 gals. capacity; air flow rate 875 cfm	Sludge and wastewater	1975 through present	Spill containment tank controls excess wastewater before entering into the IWTP	1-26
345	Clarifier	142,680 gallons; surface area 1590 sq.ft.; concrete cast	Mixed liquer from Contact Chamber	1975 through present	Spill containment tank controls excess wastewater before entering into the IWTP	1-27
346	Chlorination Chamber	4,035 cu.ft. capacity; 100 lbs/day of chlorine	Industrial wastewater	1975 through present	Spill containment tank controls excess wastewater before entering into the IWTP	1-28
347	Aerobic Digester	117,500 gals. capacity	Sludge from the Rearation Chamber	1975 through present	Spill containment tank controls excess wastewater before entering into the IWTP	
348	Oil Concentrator	Design capacity 1,000 gallons	Industrial wastewater	Start-up date 1975; not currently active	Manually operated	1-21
348A	Oil Storage Area	250,000 gallon capacity	Oil skimmed from the Oil Concentrator	1975 through present	Spill containment tank controls excess wastewater before entering into the IWTP	

5.90 SWMU Nos. 349-354: IWTP Sludge Drying Beds (6)

(Photos: 1-30, 1-31)
(Exhibit 2.2)

DESCRIPTION

Unit Type: These units consist of six open air sludge drying beds located adjacent to the IWTP.

Purpose of Unit: The units are used to dewater sludge.

Regulatory Status: The units are RCRA regulated. A closure plan was submitted to the TWC and subsequently approved in March 1988.

Period of Operation: The units have been in operation from 1975 through the present.

Dimensions/Volume: Each bed measures 20 feet by 47 feet by 4 feet deep.

Material of Construction:

Underlain By: _____ Concrete* ____Asphalt ____ Gravel

_____ Grass X Soil

Environmental: ____Indoors X Close to Surface Water X In Ground

X Outdoors ____Close to Drinking Water ____Above Groun

____Covered ____Residences ____Below Groun

*Side walls made of concrete

Details: The units have a concrete sidewall.

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

____ Solids	____ Corrosive	____ Organics
____ Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
X Sludges		

Particulars: Industrial waste treatment sludges are managed in these units. Sludge is reported to exhibit low concentrations of EP Toxic metals (Reference 121).

Sources of Wastes: Sludges from the IWTP are dewatered at these units

Disposition of Waste: Sludge is disposed to an off site hazardous waste disposal facility. Sludge effluent is discharged back to the IWPP by means of an underground piping network.

RELEASE CONTROLS

X Liner	____ Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	____ Other	

Details: Clay liner (Reference 110).

MONITORING

X Monitoring Wells	X Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: Monitoring wells were installed in 1985. Wells are sampled and analyzed on a quarterly basis.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: None noted.

Detail of Past Releases: No evidence of past releases reported (Reference 121).

RELEASE POTENTIAL

Air	____ Low	X Medium	____ High
Soil/Groundwater	____ Low	X Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	____ Low	X Medium	____ High

Detail of Release Potential: The release potential to air and subsurface gas generation is medium because of reported presence of volatile organic compounds in the effluent from the IWTP. The release potential to surface water is low because of containment of sludge by concrete side walls. The release potential to soil/groundwater is medium because of the presence of permeable soil beneath the sludge drying beds and relatively shallow depth to groundwater.

5.91 SWMU No. 355: Low-Level Radioactive Waste Storage Building

(Photos: No Photos)
(Exhibit 2.2)

DESCRIPTION: The unit is located south of Gatisburg Street near Whirl Tower. The unit accumulates mixed low-level radioactive waste before disposal to an off-site location. Background and radiation is measured on a monthly basis. Waste stream from the glass/plastic bead blasting is being analyzed for EP Toxic metals.

Unit Type: The unit is a 40 foot by 80 foot by 20 foot corrugated metal framed building with asphalt floor.

Purpose of Unit: The unit accumulates low-level radioactive waste before disposal to low-level radioactive waste disposal facility in Barnswell, South Carolina.

Regulatory Status: Regulated by NRC. Based on the probable presence of EP Toxic Wastes which may be stored for greater than 90 days, this unit may be subject to RCRA regulation.

Period of Operation: Mixed waste is stored for four years (Reference 118).

Dimensions/Volume: Seventy-five 50-gallon drums from Bead Plastic Operations; five 50-gallon drums of metal shavings from magnesium thorium machining; thirty 50-gallon drums of paper protective clothing with low level of radioactivity.

Material of Construction:

Underlain By: _____ Concrete ____Asphalt ____ Gravel

_____ Grass _X_ Soil

Environmental: _X_ Indoors ____Close to Surface Water ____In Ground

____Outdoors ____Close to Drinking Water ____Above Groun

____Covered ____Residences ____Below Groun

Details: The unit is contained on all sides and has an asphalt floor.

CLOSURE INFORMATION

X Active

___ Inactive/Physically Present

___ Inactive/Removed or Dismantled

___ Closed Under State or EPA

___ Other

WASTES MANAGED

X Solids	___ Corrosive	___ Organics
___ Liquids	___ Flammable	___ Inorganics
___ Gases	___ Reactive	___ Metals
___ Sludges		

Particulars: Glass and plastic beads may contain EP Toxic metals in addition to low-levels of radioactivity.

Sources of Wastes: Mixed low-level wastes from Bead blasting machines, magnesium thorium machinery, and other contaminated materials like paper, cardboard, etc.

Disposition of Waste: Waste is disposed to low-level radioactive waste site in Barnswell, South Carolina.

RELEASE CONTROLS

X Liner	___ Diking	___ Ind. Sewer
___ Level Controls	___ Overflow Controls	
___ Leak Detection	___ Other	

Details: Unknown.

MONITORING: None.

___ Monitoring Wells	___ Down-Gradient Wells
___ Up-Gradient Wells	___ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air ____ VSI Noted Release to Air

____ Past Release to Soil/GW ____ VSI Noted Release to Soil/GW

____ Past Release to S.W. ____ VSI Noted Release to S.W.

____ Past Release to S.S.G. ____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: Not visited during VSI.

Detail of Past Releases: No past releases are reported (Reference 118).

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because of waste containment inside a building with concrete floor.

5.92 SWMU No. 356: Waste Collection Containers

(Photos: No Photos)

DESCRIPTION: The unit facility reportedly has over 400 waste collection containers spread throughout the air station. These containers collect construction debris, trash office waste and yard waste which are periodically moved to an off-site disposal facility by a private contractor.

Unit Type: Each unit is a metal container with an approximate capacity of 40-80 cubic feet.

Purpose of Unit: The unit accumulates unregulated waste produced on the base.

Regulatory Status: Unregulated.

Period of Operation: The units are currently active.

Dimensions/Volume: Container volume is approximately 40-80 cubic feet.

Material of Construction:

Underlain By: X Concrete ____ Asphalt ____ Gravel

____ Grass X Soil

Environmental: ____ Indoors ____ Close to Surface Water ____ In Ground

X Outdoors ____ Close to Drinking Water ____ Above Groun

____ Covered ____ Residences ____ Below Groun

Details: The units are made of metal, placed on concrete/asphalt surface, and is covered.

CLOSURE INFORMATION

X Active

____ Inactive/Physically Present

____ Inactive/Removed or Dismantled

____ Closed Under State or EPA

____ Other

WASTES MANAGED

X Solids	____ Corrosive	____ Organics
____ Liquids	____ Flammable	____ Inorganics
____ Gases	____ Reactive	____ Metals
____ Sludges		

Particulars: Construction debris, office waste, yard waste, paper and trash.

Sources of Wastes: Naval Air Station.

Disposition of Waste: Waste is disposed of to an off-site land disposal facility by a private contractor.

RELEASE CONTROLS

____ Liner	____ Diking	____ Ind. Sewer
____ Level Controls	____ Overflow Controls	
____ Leak Detection	____ Other	

Details: The unit is enclosed and placed on a concrete/asphalt surface.

MONITORING: None.

____ Monitoring Wells	____ Down-Gradient Wells
____ Up-Gradient Wells	____ Surface Water Monitoring

Monitoring Frequency: No monitoring wells are in place.

RELEASE HISTORY

____ Past Release to Air	____ VSI Noted Release to Air
____ Past Release to Soil/GW	____ VSI Noted Release to Soil/GW
____ Past Release to S.W.	____ VSI Noted Release to S.W.
____ Past Release to S.S.G.	____ VSI Noted Release to S.S.G.

VSI Noted Release Conditions: No evidence of release was noted during the VSI.

Detail of Past Releases: No past releases were reported (Reference 112).

RELEASE POTENTIAL

Air	X Low	____ Medium	____ High
Soil/Groundwater	X Low	____ Medium	____ High
Surface Water	X Low	____ Medium	____ High
Subsurface Gas Generation	X Low	____ Medium	____ High

Detail of Release Potential: The release potential to environmental media is low because waste is placed in a container which is located on a concrete floor/asphalt surface.

6.0 AREAS OF CONCERN

This section of the PR/VSI report identifies major areas of concern that were observed during the VSI.

6.1 AOC No. A-BB: Underground Storage Tanks

Underground storage tanks of various ages in various locations throughout the station (Exhibit 6.1) are in use, containing a variety of products. A listing of underground storage tanks including material of construction, age, product stored, capacity and release controls is shown on Exhibit 6.2. Although these units are not solid waste management units, their ages and uncertain structural conditions cause concern for deterioration and possible releases.

6.2 AOC No. CC: Abandoned Aboveground Tank Farm

An unknown number of product storage tanks were abandoned and tanks were removed from a cement covered area. The tanks were located at the water's edge of Corpus Christi Bay, just east of Tank Farm 216. It is not known how long the tanks were active or when they were removed (Photo 1-3).

EXHIBIT 6.1

LISTING OF AREAS OF CONCERN AT
NAVAL AIR STATION, CORPUS CHRISTI

AOC No.	Name of Unit	Building & Coordinate No.	Reference Sheet No.	RCRA-Regulated
A	Tank #216-A-1	South of Bldg. 8, 31, M	Exhibit 2.2	No
B	Tank #216-A-2	South of Bldg. 8, 31, M	Exhibit 2.2	No
C	Tank #216-A-6	South of Bldg. 8, 31, M	Exhibit 2.2	No
D	Tank #216-A-7	South of Bldg. 8, 31, M	Exhibit 2.2	No
E	Tank #216-A-10	South of Bldg. 8, 31, M	Exhibit 2.2	No
F	Tank #216-A-11	South of Bldg. 8, 31, M	Exhibit 2.2	No
G	Tank #111	Bldg. 1, 37, K	Exhibit 2.2	No
H	Tank #62	Bldg. 58, 27, S	Exhibit 2.2	No
I	Tank #290	Bldg. 1, 37, K	Exhibit 2.2	No
J	Tank #1244	Bldg. 58, 27, S	Exhibit 2.2	No
K	Tank #1153-A-1	Bldg. 1153, 25, L	Exhibit 2.2	No
L	Tank #1153-A-2	Bldg. 1153, 25, L	Exhibit 2.2	No
M	Tank #1153-A-3	Bldg. 1153, 25, L	Exhibit 2.2	No

EXHIBIT 6.1

LISTING OF AREAS OF CONCERN AT
NAVAL AIR STATION, CORPUS CHRISTI
(Cont'd.)

AOC No.	Name of Unit	Building & Coordinate No.	Reference Sheet No.	RCRA-Regulated
N	Tank #1234	Bldg. 1234,	Exhibit 2.2	No
O	Tank #1238	Hangar 58, 27, S	Exhibit 2.2	No
P	Tank #1263-4	Bldg. 1263, 37, V	Exhibit 2.2	No
Q	Tank #1263-5	Bldg. 1263, 37, V	Exhibit 2.2	No
R	Tank #1263-6	Bldg. 1263, 37, V	Exhibit 2.2	No
S	Tank #1282	Bldg. 1282	Exhibit 2.2	No
T	Tank #1804	Bldg. 1804	Exhibit 2.2	No
U	Tank #1729	Bldg. 1742	Exhibit 2.2	No
V	Tank #1828-1	Bldg. 1828, 33, K	Exhibit 2.2	No
W	Tank #1828-2	Bldg. 1828, 33, K	Exhibit 2.2	No
X	Tank #H-100-0	Hospital, 40, P	Exhibit 2.2	No
Y	Tank #H-100-1	Hospital, 40, P	Exhibit 2.2	No
Z	Tank #H-100-2	Hospital, 40, P	Exhibit 2.2	No
AA	Tank #W-1	Bldg. 168, 24, L	Exhibit 2.2	No
BB	Tank #10-1	Bldg. 10, 28, L	Exhibit 2.2	No
CC	Abandoned Aboveground Tank Farm	Bldg. 8	Exhibit 2.2	No

EXHIBIT 6.2: DESCRIPTION OF UNDERGROUND STORAGE TANKS

AOC No.	Building No.	Tank No.	Status of Tank	Dates of Operation	Capacity Gallons	Materials of Construction	Release Controls	Piping	Substance Currently or Last Stored in Use
A	Behind Building No. 1	111	Active	1984-present	850	Fiberglass	Unknown	Galvanized steel	JP-5
B	58	62	Active	1984-present	1,000	Fiberglass	Unknown	Unknown	JP-5
C	1	290	Active	1982-present	6,000	Fiberglass	Unknown	Painted galvanized steel	Diesel
D	South of Building No. 8	216-A-1	Active	1943-present	13,000	Steel	Unknown	Wrapped bare steel	Varsol
E	South of Building No. 8	216-A-2	Active	1943-present	13,000	Steel	Unknown	Wrapped bare steel	JP-4
F	South of Building No. 8	216-A-6	Active	1965-present	13,000	Steel	Unknown	Unknown	JP-4
G	South of Building No. 8	216-A-7	Active	1965-present	13,000	Steel	Unknown	Unknown	JP-4
H	South of Building No. 8	216-A-10	Active	1965-present	1,000	Steel	Unknown	Wrapped bare steel	Preserve oil
I	South of Building No. 8	216-A-11	Active	1965-present	1,000	Steel	Unknown	Wrapped bare steel	Turbine oil
J	Behind Hangar 58	1244	Active	1966-present	1,500	Steel	Unknown/ cathode	Galvanized steel	JP-5
K	1153	1153-A-1	Active	1941-present	6,000	Steel	Unknown/ asphaltic	Painted bare steel	Gasoline
L	1153	1153-A-2	Active	1941-present	6,000	Steel	Unknown/ asphaltic	Painted galvanized steel	Gasoline

EXHIBIT 6.2: DESCRIPTION OF UNDERGROUND STORAGE TANKS
(Cont'd.)

AOC No.	Building No.	Tank No.	Status of Tank	Dates of Operation	Capacity Gallons	Materials of Construction	Release Controls	Piping	Substance Currently or Last Stored in Use
M	1153	1153-A-3	Active	1941-present	6,000	Steel	Unknown/ asphaltic	Painted galvanized steel	Gasoline
N	1234	1234	Active	1986-present	400	Steel	Unknown/ cathodic protection	Unknown	JP-5
O	Hangar 58	1238	In use	1956-present	1,000	Steel	Unknown/ cathodic protection	Unknown	JP-5
P	Navy Gas Station 1263	1263-4	Active	New	10,000	Fiberglass	None	Fiberglass	Gasoline
Q	Navy Gas Station 1263	1263-5	Active	New	10,000	Fiberglass	None	Fiberglass	Gasoline
R	Navy Gas Station 1263	1263-6	Active	New	10,000	Fiberglass	None	Fiberglass	Gasoline
S	1282	1282	Active	1980-present	15,000	Fiberglass	None	Coated galvanized steel	JP-5
T	1804	1804	Active	1967-present	1,000	Steel	Unknown/ asphaltic	Unknown	JP-5
U	1742	1729	Active	1972-present	110	Steel	Unknown/ cathodic	Wrapped bare steel	JP-5
V	1828	1828-1	Removed 1986	1972-present	1,000	Steel	Unknown	Unknown	Varsol
W	1828	1828-2	Removed 1986	1972-present	1,000	Steel	Unknown	Wrapped bare steel	Varsol
X	Hospital Building H-100	H-100-0	Active	1978-present	500	Steel	Unknown/ asphaltic	Wrapped bare steel	Diesel
Y	Hospital Building H-100	H-100-1	Active	1980-present	20,000	Fiberglass	Unknown	Wrapped galvanized steel	Diesel

1803E-CH

EXHIBIT 6.2: DESCRIPTION OF UNDERGROUND STORAGE TANKS
(Cont'd.)

AOC No.	Building No.	Tank No.	Status of Tank	Dates of Operation	Capacity Gallons	Materials of Construction	Release Controls	Piping	Substance Currently or Last Stored in Use
AA	Hospital Building H-100	H-100-2	Active	1980-present	20,000	Fiberglass	Unknown	Wrapped galvanized steel	Diesel
BB	168	W-1	Active	1944-present	500	Steel	Unknown/ asphaltic paint	Copper	Diesel
CC	10	10-1	Active	1988-present	4,000	Fiberglass	Secondary containment; leak detection monitoring	Fiberglass reinforced plastic	Diesel

7.0 CONCLUSIONS AND SUGGESTED ACTIONS

SWMU NO. 1: DEFENSE PROPERTY DISPOSAL OFFICE LANDFILL

Suggested Action: An RFI is suggested. 0

Reasons: The site is included in the proposed confirmation study (Reference 2). The site has been used for disposal of wood, rubber, asphalt, brick, liquid wastes consisting of organic solvents, sulfuric acid, hydrochloric acid, paint remover and thinner, and plating wastes from CCAD operations. Bulk liquid wastes, approximately 2,000 to 5,000 gallons per week were disposed in the unit (Reference 2). Releases to soil and groundwater have already been documented from this unit. As no release controls are present, releases are expected to continue. Subsurface gas generation release potential and its transport is high as a result of the lack of release controls and presence of permeable soils.

Supplemental Information: Any corrective action or further investigation may be coordinated with the efforts under ongoing Installation Restoration Program of the Department of Defense.

SWMU NO. 2: CORPUS CHRISTI ARMY DEPOT LIQUID WASTE DISPOSAL AREA

Suggested Action: An RFI is suggested. 2

Reasons: The site is included for confirmation study (Reference 2). A remedial response and conceptual design report has been prepared (Reference 80). The site has been used for disposal of bulk chemical liquid wastes at a rate of 2,000 to 5,000 gallons per week. The bulk liquid waste consisted of organic solvents, sulfuric acid, hydrochloric acid, paint remover and thinner, and plating chemicals. The bulk chemical liquid wastes were generated during CCAD maintenance operations. Releases to soil and groundwater including six to thirty inches of floating hydrocarbons in the monitoring wells are documented (References 58, 80) from this unit. As no release controls are present, releases are expected to continue. Potential for releases to surface water and subsurface gas generation is high because of the proximity of surface water and presence of volatile organic compounds in permeable soils.

Supplemental Information: Any corrective action or further investigation may be coordinated with the efforts under ongoing Installation Restoration Program of the Department of Defense.

SWMU NOS. 3 & 4: NAS CORPUS CHRISTI LANDFILL AND AIRCRAFT FIRE TRAINING AREA

Suggested Action: An RFI is suggested. 3

Reasons: The site has been used for disposal of municipal waste generated by NAS Corpus Christi and tenant activities. SWMU No. 4, located within SWMU No. 3, has been used for disposal of 3,000 gallons per month of waste fuel oil which is ignited to train fire fighters. The release potential to soil/groundwater and subsurface gas generation is high because of the nature of waste deposited, presence of permeable soil beneath the landfill, shallow depth to groundwater and proximity of surface water. As no release controls are present, potential releases are expected to continue.

Supplemental Information: Any corrective action or further investigation may be coordinated with any ongoing or proposed remedial investigation under the Installation Restoration Program of the Department of Defense.

SWMU NOS. 5, 6 & 7: RUNWAY 31 LANDFILL, PATROL ROAD EAST AND WEST LANDFILL

Suggested Action: An RFI does not appear warranted at this time (see Supplemental Information).

Reasons: The units have been used for disposal of municipal waste generated by NAS Corpus Christi and tenant activities. The release potential to soil/groundwater and surface water is high because of the proximity of surface water, presence of permeable soils beneath the landfill without a liner, and shallow depth to groundwater.

Supplemental Information: Confirmation of the source and nature of materials placed into the unit, either through examination of records or on-site investigation, may be warranted. Provide test results of soil gas survey, if any. If investigation reveals the presence of wastes containing hazardous constituents, then RFI activities may be warranted.

SWMU NO. 8: CAYO DEL OSO DISPOSAL SITE

Suggested Action: An RFI does not appear warranted at this time (see Supplemental Information).

Reasons: The waste, consisting of construction rubble, was deposited along the shore of the bay as erosion control. The release potential to soil/groundwater, and surface water is medium based on reported waste characteristics, presence of permeable soil and shallow depth to groundwater and proximity of surface water.

Supplemental Information: Confirmation of the source and nature of the materials placed into the unit, either through examination of records, or through on-site investigations may be warranted. If investigation reveals the presence of wastes containing hazardous constituents, then RFI activities may be warranted.

SWMU NO. 9: NORTH GATE DISPOSAL AREA

Suggested Action: An RFI is suggested. 4

Reasons: The unit has reportedly been used for disposal of hazardous liquid wastes in shallow pits in late 1960s. The site was recommended for confirmation study contingent upon confirmation study results at SWMU Nos. 1 and 2. Monitoring of soil and groundwater has evidenced the presence of base neutral organics, chromium, lead and TOC. As no release controls are present, releases are expected to continue. Subsurface gas release potential and its transport is high as a result of the lack of release controls and presence of permeable soils.

Supplemental Information: Any corrective action or further investigation may be coordinated with the efforts under ongoing Installation Restoration Program of the Department of Defense.

SWMU NO. 10: RADIOACTIVE WASTE DISPOSAL AREA

Suggested Action: An RFI is suggested.

Reasons: The unit has reportedly been used for disposal of radioactive waste consisting of promethium, radioactive nucluides Krypton and Cesium. The unit is unlined and its exact location is not well defined. The release potential to environmental media is high because of the placement of the unit in permeable soils, shallow depth to groundwater and its proximity to surface water.

Supplemental Information: Confirmation of the location of the unit and verification of low-level mixed radioactive wastes may be warranted.

SWMU NO. 11: AIRCRAFT FIRE TRAINING AREA WASTE FUEL TANK

Suggested Action: No further action is suggested.

Reasons: The unit is located aboveground. Any leakage from the tank would be visible.

SWMU NOS. 12 TO 47: TANKS IN TANK FARM 216

Suggested Action: An RFI is suggested.

Reasons: Thirty-six underground storage tanks ranging in age from 40 to 50 years are abandoned in place and filled with sand and cement. Removal of residues in the tanks are not documented. No decontamination of tanks are reported. One tank is abandoned in place with a substantial amount of remaining product. These tanks are located in permeable soils with shallow depth to groundwater. The initial Assessment Study conducted in 1984 indicated that 20 million gallons of jet fuel was unaccounted for at Tank Farm No. 216 between the 1940s and 1970s. Corrective action, consisting of installation of recovery wells, is underway. Nearly 3,000 gallons of fuel have been recovered already. As no release controls other than recovery wells are present, releases are expected to continue. Releases to soils and groundwater are documented.

Supplemental Information: Any corrective action or further investigation may be coordinated with the efforts under ongoing Fuel Recovery Program of the Navy.

SWMU NOS. 48 TO 53: TANKS 216-A-3, 216-A-4, 216-A-5, 216-A-8, 216-A-9, AND 216-A-12

Suggested Action: An RFI is suggested. 7

Reasons: The six tanks were used to store JP-4 except Tank 216-A-5 which was used for storing gasoline. These tanks were installed in the early 1940s and are either abandoned in place or temporarily out of use. None of these tanks are tested for structural integrity. Documentation of removal of the tank residues is not available. None of the tanks were decontaminated prior to in-place abandonment. Since these tanks are located in a permeable soil with a shallow depth to groundwater, any releases from the abandoned and inactive tanks is likely to spread rapidly in the subsurface environment. Subsurface gas release potential and its transport off site is high as a result of the lack of release controls and presence of permeable soils.

SWMU NOS. 54 TO 61: TANK FARM 217 - TANKS 217-1 TO 217-8

Suggested Action: An RFI is suggested. 4

Reasons: Eight underground steel storage tanks approximately 48 years in age were abandoned in place with sand and cement. Removal of tank residues and decontamination of tanks prior to abandonment were not performed. No structural integrity testing of these tanks are reported. Three releases--1,500 gallons of fuel in 1977, 3,800 gallons of fuel in October 1979, and 1,700 gallons of fuel in February 1980--are documented. Since these tanks are located in permeable soils with a shallow depth to groundwater, any releases from the abandoned tanks is likely to spread rapidly in the subsurface environment. Subsurface gas release potential and its transport is high as a result of the lack of release controls and presence of permeable soils.

SWMU NOS. 62 TO 69: TANK FARM 244 - TANKS 244-1 TO 244-8

Suggested Action: An RFI is suggested. 7

Reasons: Eight underground steel storage tanks, approximately 48 years in age, were abandoned in place with sand and cement in 1973. Removal of tank residues and decontamination of tanks prior to abandonment were not performed. No structural integrity testing of the tanks was reported. Because these tanks are located in permeable soils with a shallow depth to groundwater, any releases from the abandoned tanks is likely to spread rapidly in the subsurface environment. Subsurface gas release potential and its transport is high as a result of the lack of release controls and presence of permeable soils.

SWMU NO. 70: UNDERGROUND STORAGE TANK NO. 51

Suggested Action: An RFI is suggested. (10)

Reasons: Tank No. 51 is abandoned in place with sand and cement. Removal of tank residues and decontamination of tanks prior to abandonment were not performed. No structural integrity test data are available. Because the tank is located in permeable soils with a shallow depth to ground water, any releases from the abandoned tank is likely to spread rapidly in the subsurface environment. Subsurface gas release potential and its transport is high as a result of the lack of release controls and presence of permeable soils.

SWMU NO. 71: UNDERGROUND STORAGE TANK NO. 140

Suggested Action: No further action is warranted at this time (see Supplemental Information).

Reasons: Tank No. 140 is made of non-corrosive material and is less than 10 years old. The tank reportedly was not in use since 1987. Because of the tank's age and its material of construction, the release potential to environmental media may be low.

Supplemental Information: Provide test results for structural integrity of the tank including piping. Should leakage be indicated, further RFI activities may be warranted.

SWMU NO. 72: UNDERGROUND STORAGE TANK NO. 161-1

Suggested Action: An RFI is suggested. (11)

Reasons: Tank No. 161-1 is made of corrosive material and is about 40 years in age. No structural integrity test data are available. The release potential to environmental media is high because of the tank's age and materials of construction. Permeable soils and a shallow depth to ground water will help spread the tank's constituents if releases from the tank occur.

SWMU NOS. 73, 74: UNDERGROUND STORAGE TANKS NOS. 161-2, 161-3

Suggested Action: No further action is warranted at this time.

Reasons: Tanks 161-2 and 161-3 are made of steel and are reported to be less than 10 years in age. No tank integrity test results are available. Because of the age and material of construction, release potential to the environmental media is low. However, the permeable soils and shallow depth to ground water may allow rapid transport of tank constituents in the soil and ground water.

Supplemental Information: Provide tank integrity test results. Should leakage be indicated, further RFI activities may be warranted.

SWMU NOS. 75 TO 78: UNDERGROUND TANKS NOS. 162-1, 162-2, 254-0, 1225

Suggested Action: An RFI is suggested. (12)

Reasons: Four underground steel storage tanks up to 42 years of age are abandoned in place and filled with sand and cement. Removal of tank residues and decontamination of tanks prior to abandonment were not performed. No structural integrity test data are available. Because these tanks are located in permeable soils with a shallow depth to ground water, any releases from the abandoned tanks is likely to spread rapidly in the subsurface environment. Subsurface gas release potential and its transport is high as a result of the lack of release controls and presence of permeable soils.

SWMU NO. 79: UNDERGROUND STORAGE TANK NO. 1237

Suggested Action: An RFI is suggested. (13)

Reasons: The tank is 30 years of age, is made of steel and was used to store JP-5 fuel when active. No structural integrity test data are available. The release potential from the tank is high because of possible corrosion of the tank. Presence of permeable soil and shallow depth to groundwater is likely to spread the tank constituents rapidly in the subsoil environment if release occurs from the tank.

SWMU NOS. 80 TO 86: UNDERGROUND STORAGE TANKS IN VARIOUS LOCATIONS: TANKS 1255-1, 1255-2, 1263-1, 1263-2, 1263-3, 1828, AND W-6

Suggested Action: An RFI is suggested. (14)

Reasons: Seven underground steel storage tanks up to 50 years in age are abandoned in place with sand and cement. Removal of tank residues and decontamination of tanks prior to abandonment were not performed. No structural integrity test data are available. Because these tanks are located in permeable soils with a shallow depth to groundwater, any releases from the abandoned tanks is likely to spread rapidly in the subsurface environment. Subsurface gas release potential and its transport is high as a result of the lack of release controls and presence of permeable soils.

SWMU NOS. 87 TO 133: CORPUS CHRISTI ARMY DEPOT (CCAD) SATELLITE ACCUMULATION AREAS

Suggested Action: No further action is suggested at this time.

Reasons: CCAD has 47 Satellite Accumulation Areas at numerous locations with most of them located in Building 8. These accumulation areas generally consist of 55-gallon drums placed on wooden pallets or four wheel dollies or directly on concrete floors. In many cases, drums are placed in a metal tray which in turn are placed on wooden pallets to contain release from the 55-gallon drums. The release potential to all environmental media is low because of waste containment in drums on concrete floors and good housekeeping practices.

SWMU NOS. 134 TO 201: SATELLITE ACCUMULATION AREAS AND MISCELLANEOUS UNITS IN BUILDING 32, 28, 55, 57, 58, 51, CUSTOMS OFFICE, BUILDING 1103, 1102, GROUND SERVICES YARD, LAWN MOWER SHOP, HOBBY SHOP, BUILDING 255, 19, METAL TRADE/ PIPE SHOP, AIR CONDITIONING SHOP, PWD GARAGE, TRANSPORTATION PAINT & BODY SHOP, PWD ELECTRICAL SHOP, DRMO, SILVER RECLAMATION UNIT, CBU, HOSPITAL, AND PEST CONTROL SHOP

Suggested Action: No further action is suggested at this time.

SWMU NOS. 134 TO 201 (Cont'd.)

Reasons: Sixty-seven satellite and miscellaneous accumulation areas are sited at various locations on the base outside CCAD. The satellite accumulation areas generally consist of 55-gallon drums placed on wooden pallets or four wheel dollies or directly on concrete floors. In many cases, drums are placed in metal trays to contain releases from the drums. The release potential to environmental media is low because of waste containment in drums on concrete floors, and good housekeeping practices. The release potential from miscellaneous units is also low because of containment of waste and its placement indoors on concrete floors.

SWMU NOS. 202 TO 204: INACTIVE SATELLITE ACCUMULATION AREAS - BY BUILDING 85, BUILDING 1113 AND BUILDING 1744

Suggested Action: No further action is suggested at this time.

Reasons: These units are inactive now. Because of containment of waste in drums placed outdoors, the release potential to environmental media is low.

SWMU NOS. 205 TO 224: TEMPORARY STORAGE AREAS AT VARIOUS LOCATIONS ON THE BASE (BUILDING 41, 51, 52A, 55, 57, 58, 62, 247, 255, 257, 367, 1104, 1113, 1277, 1722, 1737, 1806, HANGARS 55, 56 AND 57, AND CBU H109)

Suggested Action: No further action is suggested at this time.

Reasons: Nineteen 90-day or less temporary container storage areas are located on the base. These units accumulate waste from the satellite areas located throughout on the base. Because the waste is contained in 55-gallon drums inside a metal frame building with concrete floor, curb and sump for all units except SWMU No. 214, the release potential to environmental media is low. The release potential from SWMU No. 214 is also low because waste is contained in drums with concrete floor and curb.

SWMU NOS. 225, 226: CCAD PLATING SHOP CHROME AND CYANIDE RINSE WASTE LINES

Suggested Action: No further action is suggested at this time.

Reasons: The units collect rinsate from 37 chrome rinse tanks and 11 cyanide rinse tanks in the Plating Shop of CCAD. The Chrome Rinse Waste Line discharges to Chrome Wet Well and Cyanide Rinse to Cyanide Waste Storage Tank. The release potential to environmental media is low because of waste containment in a pipe in the basement of Building 8 on concrete floor.

SWMU NOS. 227 TO 239: CCAD PLATING SHOP CYANIDE TANKS CATCH BASINS FOR E-12, F-4, F-8, F-12, F-13, G-8, G-15, H-5, H-6, H-8, H-11 AND H-13

Suggested Action: No further action is suggested at this time.

Reasons: These 13 catch basin tanks collect spill from the cyanide plating process tanks in the Plating Shop. The catch basins are secondary containment structures which prevent mixing of cyanide wastes with other waste streams. The release potential to environmental media is low because waste is diluted and placed in concrete tanks inside Building 8.

SWMU NO. 240: CCAD PLATING SHOP CYANIDE RINSE SUMP TANK

Suggested Action: No further action is suggested at this time.

Reasons: The unit is a 1,200-gallon sump tank in the basement of the Plating Shop. The unit collects cyanide rinsate from the cyanide rinse waste line which conveys wastewater from the eleven cyanide rinse tanks. The release potential to all environmental media is low because the unit is located indoors on a concrete floor.

SWMU NOS. 241 TO 243: CCAD PLATING SHOP CAUSTIC, ACID AND MISCELLANEOUS RINSE WASTE LINES

Suggested Action: No further action is suggested at this time.

Reasons: The caustic and acid rinse waste lines convey rinsate from caustic and acid rinse tanks. Similarly, miscellaneous rinse waste line conveys miscellaneous wastes from 35 rinse tanks in the Plating Shop to IWTP. The release potential from these units is low because the units are indoors and enclosed, and conveyance takes place in a pipe.

SWMU NO. 244: CCAD PLATING SHOP FLOOR DRAINS

Suggested Action: No further action is suggested at this time.

Reasons: Floor drains throughout the Plating Shop receive spillage from all process and rinse tanks and drain to chrome tunnel. The release potential to all environmental media is low because the unit is located indoors and wastes are channeled to the IWTP.

SWMU NO. 245: CCAD PLATING SHOP CHROME TUNNEL

Suggested Action: No further action is suggested at this time.

Reasons: The chrome tunnel carries air exhaust from chrome plating processes and collects all wastes from basement floor drains in the Plating Shop. The release potential to all environmental media is low because the unit is indoors and enclosed, and the air is passed through a scrubber.

SWMU NO. 246: CCAD PLATING SHOP CHROME TUNNEL SUMP

Suggested Action: No further action is suggested at this time.

Reasons: The Chrome Tunnel Sump collects liquid waste from the chrome tunnel at the north end of the Plating Shop and pumps it into the main chrome rinse waste level. The release potential to all environmental media is low because the unit is indoors and enclosed.

SWMU NO. 247: CCAD PLATING SHOP MISCELLANEOUS TUNNEL

Suggested Action: No further action is suggested at this time.

Reasons: The unit is an underground channel of air exhaust and wastewater. The unit carries an exhaust from various acid and caustic processes in the Plating Shop. The release potential from the unit to environmental media is low because the unit is made of concrete and coated with acid and caustic resistance materials.

SWMU NOS. 248 TO 252: CCAD PLATING SHOP VAPOR DEGREASER SUMPS FOR LINES A, C, AND F, AND G-1 AND M-1

Suggested Action: No further action is suggested at this time.

Reasons: These units are five concrete sumps located in the basement below vapor degreaser tanks which are located in the Plating Shop. The release potential to environmental media is low because the units are made of concrete, and are located indoors.

SWMU NOS. 253 TO 256: CCAD PLATING SHOP TUNNEL AIR SCRUBBERS: CHROME, CYANIDE, MISCELLANEOUS A, AND MISCELLANEOUS B

Suggested Action: No further action is suggested at this time.

Reasons: Four scrubbers are attached to the venting system of the CCAD Plating Shop and are constructed of fiberglass. The release potential to environmental media is low because the unit is designed to remove hazardous constituents from the air stream. There is no history of release from these units.

SWMU NO. 257: CCAD CONTAINER REPAIR SHOP DRAIN

Suggested Action: No further action is suggested at this time.

Reasons: The unit is a 12-inch diameter concrete pipe that drains to IWTP. Since the waste is conveyed from the shop to IWTP through the drain and IWTP sewer lines are reported to be structurally sound, the release potential to the environmental media from this unit is low.

SWMU NOS. 258 TO 265: CCAD AIR FRAME SHOP - DRAINS AND SUMPS

Suggested Action: No further action is suggested at this time.

Reasons: The units are part of concrete conveyance structures which carry wastes from the shops to IWTP. The release potential to environmental media is low because waste is conveyed through sumps and pipes which are reported to be structurally intact based on TV inspection.

SWMU NOS. 266, 267: SOLVENT RECOVERY UNITS - TRICHLOROETHANE AND VARSOL

Suggested Action: No further action is suggested at this time.

Reasons: The unit are used to recover 1,1,1-trichloroethane and Varsol through a distillation process. The units are in the experimental stage. The release potential to environmental media is low because the unit operations are confined in an area with concrete floor and curb.

SWMU NO. 268: CONFORMING STORAGE AREA

Suggested Action: No further action is suggested at this time.

Reasons: Conforming Storage Area is a RCRA-permitted unit. The release potential to environmental media from this unit is low because of waste containment in drums inside a metal frame building on a concrete floor with sumps.

SWMU NO. 269: TRIPLE RINSE AREA

Suggested Action: No further action is suggested at this time.

Reasons: Empty drums are decontaminated in this unit. The release potential to environmental media is low because of waste containment in a container inside a concrete structure.

SWMU NO. 270: FILM PROCESSING WASTE COLLECTION UNITS

Suggested Action: No further action is suggested at this time.

Reasons: The units are plastic containers which accumulate waste generated during photo processing. The release potential to environmental media is low because waste placement in containers, inside a building on a concrete floor.

SWMU NOS. 271 TO 273: PMB WASTE COLLECTION UNITS - LARGER THAN 10 MESH, SMALLER THAN 80 MESH, AND DUST COLLECTION CONTAINERS

Suggested Action: No further action is suggested at this time.

Reasons: The units are part of an enclosed system in which three waste streams are discarded in containers placed on a concrete floor inside a building. Because of placement of waste in containers, inside a building on a concrete floor, the release potential to environmental media is low.

SWMU NO. 274: CCAD STORM SEWER

Suggested Action: An RFI is suggested. 15

Reasons: The unit has been used to dispose of storm water in the CCAD area to Corpus Christi Bay. In the past, some of the industrial wastes have been discharged to the storm sewer. In 1987, waste oil was detected in the storm sewer which may have been from the CCAD area. Although industrial waste is no longer discharged into the storm sewer, the release potential to the environmental media is high. Soil samples along the storm sewer, at several locations, may be tested for solvents, EP Toxic metals including any other waste constituents documented to be discharged in the sewer. A through inspection of the storm sewer appears to be warranted.

SWMU NO. 275: PAINT SPRAY BOOTH FILTER

Suggested Action: No further action is suggested at this time.

Reasons: The release potential to environmental media is low because the unit is placed inside in an enclosed area on a concrete floor.

SWMU NO. 276: PAINT BOOTH IN HANGAR 55

Suggested Action: No further action is suggested at this time.

Reasons: The unit is located inside a building on a concrete floor with a curb.

SWMU NOS. 277 TO 298: BEAD BLASTING MACHINE WASTE COLLECTION PANS

Suggested Action: No further action is suggested at this time.

Reasons: The units are collection pans under the bead blasting machines. These units were put in place to minimize liquid waste generation in CCAD. The release potential to environmental media is low because of waste containment in drums inside a building on a concrete floor. However, the release potential of particulates to air is moderate particularly because of low level radioactivity of some of the waste streams. The waste is a mixed waste and is regulated only by NRC at this time.

SWMU NOS. 299 TO 309: SSTP UNITS - BLOWER DEGRITTER, PRIMARY CLARIFIERS, TRICKLING FILTERS, SECONDARY CLARIFIERS, SLUDGE DIGESTERS, AND WASTEWATER CHLORINATION

Suggested Action: No further action is suggested at this time.

Reasons: The units have been primarily used for treatment of domestic sewage. Only recently, the effluent from the IWTP is routed through SSTP which offers one more level of treatment for the volatile toxic compounds present in the effluent from IWTP. Thus, releases to environmental media is low.

SWMU NOS. 310 TO 315: SSTP SLUDGE DRYING BEDS #1 THROUGH #6

Suggested Action: An RFI is suggested. 16

Reasons: The release potential to air, surface water and subsurface gas generation is low because the sludge in the units is digested and is contained on the sides by concrete walls. The release potential to soil/groundwater is high because of shallow depth to groundwater and moderate to high permeability of underlying soils. Diversion of the effluent from the IWTP through SSTP may enhance the presence of toxic volatile organic substances in the sludge. Thus, a RFI is suggested.

SWMU NOS. 316 TO 333B: INDUSTRIAL WASTE PRETREATMENT PLANT UNITS

Suggested Action: No further action is suggested at this time.

Reasons: The units in the IWPP appear to be functioning satisfactorily. No further action is suggested because waste is handled in chemically compatible units, waste streams are separated and treated separately, and good housekeeping practices are implemented.

SWMU NOS. 334 TO 348A: IWTP UNITS (LIFT STATIONS, SPILL CONTAINMENT TANK, BATCH PHENOL AND CYANIDE DESTRUCTION, GRIT CHAMBER AND STORAGE DRUMS, EQUALIZATION TANKS, WASTEWATER STORAGE TANK, ACTIVATED SLUDGE UNIT, CONTACT CHAMBER, REAERATION CHAMBER, CLARIFIER, CHLORINE CONTACT CHAMBER, AEROBIC DIGESTER, OIL CONCENTRATOR AND OIL STORAGE AREA)

Suggested Action: No further action is suggested at this time.

Reasons: The units in the IWTP appear to be functioning satisfactorily. No further action is suggested because overflooding is minimized by the construction of spill containment tanks, and routing of IWTP effluents through the SSTP.

SWMU NOS. 349 TO 354: IWTP SLUDGE DRYING BEDS #1 THROUGH #6

Suggested Action: No further action is suggested at this time.

Reasons: A closure plan for the sludge drying beds is approved. The unit is scheduled to be closed by November 8, 1988. A new sludge dewatering unit is under construction.

Supplemental Information: Closure of the existing units should be conducted in accordance with the approved closure plan.

SWMU NO. 355: LOW-LEVEL RADIOACTIVE WASTE STORAGE AREA

Suggested Action: No further action is suggested at this time.

Reasons: The low-level radioactive waste is stored in a building with asphalt floor. All sides of the building are enclosed. Background radioactivity is measured on a monthly basis. The waste is disposed of to a low-level radioactive waste disposal facility. Some of the waste is derived from plastic/glass blasting operations in the CCAD area. These operations cause inclusion of EP Toxic metals in the waste. No test results are available. However, facility representatives indicated that the waste stream is in the process of being tested for EP Toxic metals.

Supplemental Information: Review of RCRA regulatory status appears warranted.

SWMU NO. 356: WASTE COLLECTION CONTAINERS

Suggested Action: No further action is suggested at this time.

Reasons: The facility reportedly has over 400 waste collection containers scattered all over the base. These containers accumulate construction debris from the facility. The containers are unloaded by a private contractor for off-site disposal. The release potential from these units is low because waste is containerized and reportedly does not contain hazardous waste.

AOC NOS. A TO F: TANKS NO. 216-A-1, 216-A-2, 216-A-6, 216-A-7, 216-A-10 AND 216-A-11

Suggested Action: Structural integrity testing of tanks and piping is suggested.

Reasons: The tanks are 23 to 45 years old and have no release controls. Structural integrity testing of underground tanks is suggested because tanks are old, have no release controls, and are located in permeable soil with shallow depth to groundwater.

AOC NOS. G TO I: TANKS NO. 111, 62 AND 290

Suggested Action: Structural integrity testing of tanks and piping for leakage determination is suggested.

Reasons: The tanks are relatively new installations (4 to 6 years old). Generally, leakage is detected in the first few years of installation. Because the tanks are located in permeable soils with shallow depth to groundwater, and any releases from the tanks are likely to spread in the subsurface environment, structural integrity testing of tanks is suggested.

AOC NOS. J TO O: TANKS NO. 1244, 1153-A-1, 1153-A-2, 1153-A-3, 1234, AND 1238

Suggested Action: Structural integrity testing of tanks and fittings is suggested.

Reasons: The tanks are 2 to 47 years in age. Structural integrity testing of tanks are suggested because of the location of tanks in permeable soils and shallow depth to groundwater. Any releases from the tanks is likely to spread in the subsurface environment because of the fact that no release controls are in effect.

AOC NOS. P TO R: TANKS NO. 1263-4, 1263-5 AND 1263-6

Suggested Action: No further action is suggested at this time.

Reasons: The tanks were put in operation only recently. Thus, releases from these tanks to subsurface environment is low.

AOC NOS. S TO U: TANKS NO. 1282, 1804 AND 1729

Suggested Action: Structural integrity testing of tanks is suggested.

Reasons: The tanks are 8 to 21 years in age. Structural integrity testing of tanks is suggested because the tanks are located in permeable soils with shallow depth to groundwater and no release controls are in effect.

AOC NOS. V AND W: TANKS NO. 1828-1 AND 1828-2

Suggested Action: No further action is suggested at this time.

Reasons: Tanks were removed from the site and no indication of contamination of subsurface environment was reported.

AOC NOS. X TO AA: TANKS NO. H-100-0, H-100-1, H-100-2, AND W-1

Suggested Action: Structural integrity testing of tanks is suggested.

Reasons: Structural integrity testing of tanks is suggested because the tanks are up to 44 years in age, and the tanks are placed in permeable soil with shallow depth to groundwater without release control devices.

AOC NO. BB: TANK NO. 10-1

Suggested Action: No further action is suggested at this time.

Reasons: The unit is a 4,000-gallon storage capacity diesel tank. The tank is built of fiberglass. The tank was brought into operation in 1988. Because of the tank's age and material of construction, release potential to environmental media is low.

AOC NO. CC: ABANDONED ABOVEGROUND TANK FARM

Suggested Action: RFI is suggested.

Reasons: The Tank Farm was abandoned. The associated piping is visible with evidence of corrosion. RFI is suggested because abandonment procedures and decontamination of underground piping were not documented. The piping is located in a permeable soil with a shallow depth to groundwater without release controls, and proximity of Corpus Christi Bay.

ATTACHMENT A

VSI TRIP REPORT

NAVAL AIR STATION
CORPUS CHRISTI, TEXAS

INTRODUCTION

This VSI Trip Report summarizes the activities and observations of representatives of A.T. Kearney and U.S. EPA Region VI during the May 24 to 27 site visit to the NAS Corpus Christi Facility in Corpus Christi, Texas. Observations and findings from the VSI have been incorporated into the main body of this report.

VSI SUMMARY

The following individuals were present for the VSI:

Pratap Singh	A.T. Kearney, Inc.
Paul Letki	A.T. Kearney, Inc.
Robert Stender	NAS Representative
Vic Verma	NAS, CCAD Representative

An opening meeting was held at 8:00 a.m. on the morning of Tuesday, May 24, 1988, to discuss the purpose of the site visit, the SWMUs and the planned itinerary. Robert Stender summarized the process operations that take place at the facility and supplied additional information regarding the facility identified in the information provided by U.S. EPA. Following this meeting, the reviewers were taken on a tour of the facility, focusing on observing the SWMUs identified in the information needs letter, and identifying additional SWMUs throughout the property.

During the visual site inspection, photographs were taken by Paul Letki of A.T. Kearney using a standard 35 mm SLR Camera. No special filters or lenses were used. Fuju ASA 100 color print film was used.

Following the walk-through inspection of the facility, a meeting was held with the facility representatives to discuss information gaps and to identify further information needs. The visit ended at approximately 3:20 p.m. on May 27, 1988.

The weather for the VSI was warm and sunny. The temperature was around 80°F.

PHOTO LOG

The photographs on the following pages document the observations made during the VSI.

8.0 REFERENCES

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5. Solid Waste Disposal Compliance Survey (TDWR), 6/11/80.

6. Potential Hazardous Waste Site Identification Form from NAS - Corpus Christi Public Works Deptartment to EPA, 9/25/80.

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8. Hazardous Waste Permit Application Forms 3510-1 and 3510-3, 11/13/80, modified on 11/19/80.

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16. Correspondence from D. Cochran (Texas Dept of Health) to C. Nemir (TDWR); RE: Industrial Solid Waste - Nueces County, Naval Air Station - Corpus Christi - Permit Application No. 20355, 4/28/83.

17. Correspondence from C. Eanes RE: Naval Air Station - Corpus Christi Site, Proposed Hazardous Waste Permit No. 500038-00, Application for Industrial Solid Waste Permit In Accordance With the Texas Solid Waste Disposal Act, 3/24/83.

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26. Miscellaneous correspondence RE: Permit Application, HW-50038, September 1984.

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31. Record of Communication from D. Spell (USN) to J. Highland (Regional Fed. Facility Compliance Coordinator); RE: Apparent RCRA violations.

32. Miscellaneous information RE: Solid Waste Inspection at Naval Air Station - Corpus Christi, 6/14/85.

33. Solid Waste Compliance Inspection report, 6/14/85.

34. Draft Hazardous Waste Permit, 6/15/84.

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112. VSI Logbook.

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114. Layout diagrams received July 19, 1988 showing temporary storage areas.

115. Telephone conversations between Pratap Singh, Vic Verma and Jim Holiday, July 20, 1988, 1:00-4:00 p.m.

116. Telephone conversation between Pratap Singh and Jim Holiday, July 25, 1988, 11:30 a.m.

117. Telephone conversation between Pratap Singh and Bob Slender, July 25, 1988, 2:00 p.m.

118. Telephone conversation between Pratap Singh and Vic Verma, July 26, 1988, 11:00 a.m.

[illegible]. Telephone conversation between Pratap Singh and Jim Holiday, July 26, 1988, 2:00 p.m.

120. Telephone conversation between Pratap Singh and Jim Holiday and Vic Verma, July 29, 1988, 11:00 a.m.

121. Telephone conversation between Pratap Singh and Robert Stender, August 11, 1988, 9:00 a.m.

122. Telephone conversation between Pratap Singh and Robert Stender, July 29, 1988.

123. Information on NPDES Permit submitted by Robert Stender, August 26, 1988.

124. Telephone conversation between Pratap Singh and Robert Stender, August 30, 1988.

125. Telephone conversation between Pratap Singh and Robert Stender, September 1, 1988.