INTEC Liquid Waste Management System Related Tank List

New Waste Calcine Facility, High-level Liquid Waste Evaporator, Process Equipment Waste Evaporator, Liquid Effluent Treatment and Disposal Waste Operations

Revision # 18; 9/29/14

ICPP Tanks/ILWMS.tank.18.LST **Unless Otherwise Noted, Listed Units are NOT in 4/14 RCRA Chapter 14 Permits**

Unit Identification Number	**Location at INTEC**	**Function**	**Process & Treatment Code & Waste Type**	**Tank Vol. Gal.**	**Year put into Use**	**Design Standards Tank Mat.**	**Secondary Containment**	**Reference**
Lab. Waste	CPP-602	Feed to PEWE	Unknown	Unkn.	-?-	Unknown	Unknown	Part B Vol.14 6/00
CPP0069	CPP-604 PEWE	Ion Exchange Column PEWE	Unknown	66	-?-	Unknown Unused for 20 years	Access restricted due to high radiation	EDF-2897
VES-WM-100 CPP-604-TFT In Part B 4/14	CPP-604 PEWE	Feed Tank from CPP-604 Tank Farm	S02 T01 2 B/D	18,400	1953	Unknown Note # 10 347 SS	3'6" foot SS pan pg.87	RCRA Workplan 9/12/02 Part B App.
VES-WM-101 In Part B 4/14	CPP-604 PEWE	Feed Tank CPP-604 Tank Farm	S02 T01 2 B/D	18,400	1953	Unknown Note # 10 347 SS	3 foot SS pan pg.87	RCRA Workplan 9/12/02 Part B App.
VES-WM-102 In Part B 4/14	CPP-604 PEWE	Surge Feed Tank CPP-604 Tank Farm VES-WL-133	S02 T01 2 B/D	18,400	1951	Unknown Note # 10 347 SS	3'6" SS pg.87	RCRA Workplan 9/12/02 Part B App.
VES-WM 103 **through** 106 **four tanks**	Tank Farm Facility	Storage Tanks	SO2 First-Cycle Raffinate	30,000	1953	Unknown	Pad No Vault	RCRA Workplan 9/12/02

VES-WL-100 In Part B 4/14	CPP-604 PEWE Tnk.Farm	Collection Tank Evap-WL-129+ 161	S02 ; 2 B/C/D	-?-	1953	347 SS	Unknown	
VES-WL-101 In Part B 4/14	CPP-604 PEWE Tank Farm	Evaporator Bottoms Collection Tank	S02;T01 2; B/C/D	18,400 or 16,000/ day	1951	Unknown Note # 10 347 SS	Hypalon pg.85-87	NOV-041 11/25/97 Work Plan 9/12/02.
WL-101 Sump	CPP-604 PEWE Tk. Farm	Sump for VES-WL-101	Unknown	20 gal	1953	Unknown	FL. Wall SS	NOV 8/2/99
VES-WL-102 In Part B 4/14	CPP-604 PEWE Tank Farm	Feed Settling & Surge Tank for VES-WL-133	S02;T01 2 B/C/D	19,000 or 18,400 per/day	1953	Unknown Note # 10 347 SS	Hypalon pg.87	RCRA Workplan 9/12/02 Note #11
WL-102 Sump	CPP-604 PEWE Tk. Farm	Sump for VES-WL-102	Unknown	20 gal	1953		Fl. + Wall SS Pg.87	NOV 8/2/99
VES-WL-106 In Part B 4/14	CPP-604 PEWE & LET&D	Process Condensate Collection Tank	A/D	5,000 gal/day	1953	Unknown Note # 10 347 SS	1’ SS Wall	NOV-041 11/25/97 RCRA Workplan 9/12/02
VES-WL-107 In Part B 4/14	CPP-604 PEWE	Condensate Collection Tank	A/D	5,000 gal/day	1953	Unknown Note # 10 347 SS	1’ Wall	NOV-041 11/25/97 RCRA Workplan 9/12/02
VES-WL-108 Part B 4/14	CPP-604 PEWE	Condensate Collection Tank & Feed to VOG Knockout Pot	S02 A/D	-?-	1951	347 SS	Unknown	

VES-WL-109 Part B 4/14	CPP-604 PEWE VOG	Head Feed Tank EVAP-WL-161	S02 B/D	270 gal	1953	Unknown Note # 10 347 SS	3' SS Wall	NOV-041 11/25/97
VES-WL-111 In Part B 4/14	CPP-604 PEWE	Evaporator Unit Bottoms Collection Tank	S02 T01 B/C/D	1,400 or 3,000 gal/day	1995	ASME Sec. VIII Div. 1 304 SS	3' Wall SS	NOV-041 11/25/97 RCRA Workplan 9/12/02
VES-WL-129 EVAP-WL-129 In Part B 4/14	CPP-604 PEWE	Evaporator Unit HE-WL-307 + 308	X99 4d A/B/D	1,000 or 500 gal/hr	1985	ASME Sec. VIII Div. 1 Nitronic-50	One foot SS pan	NOV-041 11/25/97 RCRA Workplan 9/12/02
VES-WL-130 Part B 4/14	CPP-604 PEWE	Demister EVAP-WC-129	A/D	-?-	-?-	Unknown	Unknown	
VES-WL-131 Part B 4/14	CPP-604 PEWE	Condensate Surge Tank EVAP-WL-129 + 161	S02 A/D	66	1975	Unknown Note # 10 304 SS	Unknown	NOV-041 11/25/97.
VES-WL-132 In Part B 4/14	CPP-604 PEWE CPP-666	Evap.Feed and Sediment tank TFF Sump	S02 T01 B,D	4,700 or 28,000 gal/day	1983	ASME Sec. VIII, Div. 1 Nitronic-50	2.5 foot SS pan pg.9	NOV-041 11/25/97 RCRA Workplan 9/12/02
VES-WL-133 In Part B 4/14	CPP-604 PEWE EVA-WL -129+161	Feed & Sediment Collection from HLW Tank Farm Vaults, Sumps & Valve boxes	S02 T01 B/D	19,000 or 28,000 gal/day	1983	ASME Sec. VIII Div. 1 Nitronic-50	5 foot SS Pan pg.85	NOV-041 11/25/97 RCRA Workplan 9/12/02 Note # 11

VES-WL-134 In Part B 4/14	CPP-604 PEWE & LET&D	Process Surge Tank EVAP-WL-129	Ancillary A/D	500	1984	ASME Sec. VIII Div. 1 304 SS	Unknown	NOV-041 11/25/97 Part B App.
VES-WL-135 Part B 4/14	CPP-604 PEWE	Sump Vessel SU-WL-135	Unknown	10	1991	ASME 304L SS	Concrete	Vol.14 pg. 85
SU-WL-135 Part B 4/14	CPP-604 PEWE			1,346	1991		Concrete	
VES-WL-136 Part B 4/14	CPP-604 PEWE	Sump Vessel SU-WL-136	Unknown	10	1991	Unknown	Concrete	Vol. 14
SU-WL-136 Part B 4/14	CPP-604 PEWE			50	1991		Concrete	
VES-WL-137 Part B 4/14	CPP-604 PEWE	Vessel in Sump SU-WL-137	Unknown	25	1991	Unknown	Concrete	Pg. 91
VES-WL-138 Part B 4/14	CPP-604 PEWE	In Sump SU-WL-138	Unknown	25	1991	Unknown	Concrete	91
VES-WL-139 Part B 4/14	CPP-604 PEWE	In Sump SU-WL-139	Unknown	10	1991	Unknown	Concrete	91
VES-WL-140	PEWE	Not Used	Unknown		-?-		Unknown	91
SU-WL-140 Part B 4/14	PEWE	Sump for VES-WL-140	Unknown		-?-		Unknown	NOV 055-063
VES-WL-142 Part B 4/14	CPP-604 PEWE	WL-142	Unknown	50	1991	ASME 304L SS	Concrete	92
SU-WL-142 Part B 4/14	CPP-604 PEWE	Sump for VES-WL-142	Unknown	20 gal	-?-		Unknown	NOV 8/2/99
VES-WL-143 SU-WL-143 Part B 4/14	PEWE	Sump for VES-WL-143	Unknown		-?-		Unknown	Not Used NV.055-063

VES-WL-144 SU-WL-144 Part B 4/14	CPP-604 PEWE	Sump for VES-WL-144	Unknown	23	1991	ASME 304L SS	Concrete	
VES-WL-145 SU-WL-145 Part B 4/14	PEWE		Unknown		-?-		Unknown	
VES-WL-146 SU-WL-146 Part B 4/14	PEWE		Unknown	5,000	-?-		Unknown	NOV\8/2/99
VES-WL-147 SU-WL-147 Part B 4/14	PEWE	Sump for VES-WL-147 EVAP-WL-161	Unknown		-?-		SS	NOV 055-063
VES-WL-148 SU-WL-148 Part B 4/14	PEWE	Sump for INTEC Main Stack VES-WL-148	Unknown		-?-		Unknown	NOV 055-063
VES-WL-150 Part B 4/14	CPP-604 PEWE	Process Waste Collection	Unknown	-?-	1996	ASME 304L SS	Concrete	Part B App.
VES-WL-153 SU-WL-153			Unknown		-?-		Unknown	NOV 055-063
VES-WL-161 In Part B 2000	CPP-604 PEWE	Evaporator EVAP-WL-161	X99 4d A/B/D	1,000 gal/hr 5,000 gal.cap.	1984	ASME Sec. VIII Div. 1 Nitronic-50	3 foot SS Pan pg. 89	NOV-041 RCRA Workplan 9/12/02
VES-WL-162 In Part B 2000	CPP-604 PEWE	Separator (Mist eliminator) EVAP-WL-161	A/D	-?-	-?-	Unknown	Unknown	
VES-WL-163 In Part B 4/14	CPP-604 PEWE	Condensate Collection Tank	A/D	5,000 gal/day	1984	ASME Sec. VIII Div. 1 304L SS	1’ SS Wall pg. 87	NOV-041 RCRA Workplan 9/12/02

HE-WL-300 In Part B 4/14	CPP-604 PEWE	Evaporator EPAP-WL-161 Heat Exchanger Re-boiler	T04 4d B/D	-?-	-?-	Unknown Note # 10	Unknown	Part B Workplan
HE-WL-307 In Part B 4/14	CPP-604 PEWE	EVAP-WL-129 Heat Exchanger Re-boiler	T04 4d B/D	-?-	-?-	Unknown Note # 10	Unknown	Part B Workplan
HE-WL-301 In Part B 4/14	CPP-604 PEWE	Overheads Condenser for EVAP-WL-161	T04 A/D	-?-	-?-	Unknown Note # 10	Unknown	Part B Workplan
HE-WL-308 In Part B 4/14	CPP-604 PEWE	Overheads Condenser for EVAP-WL-129	A/D	-?-	-?-	Unknown Note # 10	Unknown	Part B Workplan
VES-WG-100 In Part B 2000	CPP-601	PEWE Feed Tanks ADeep Tanks@ Note # 1	SO2; TO1 2,4c; B/ D	4,500	1953	Unknown Note # 10 347 SS	4 foot SS pan	RCRA Workplan 9/12/02
VES-WG-101 In Part B 2000	CPP-601	PEWE Feed Tanks ADeep Tanks@ Note # 1	SO2 T01 B/D	4,500	1953	Unknown Note # 10 347 SS	4 foot SS pan	RCRA Workplan 9/12/02
VES-WH-100 In Part B 2000	CPP-601	PEWE Feed ADeep Tanks@ Note # 1	S02 T01 2,4c B/D	4,500	1953	Unknown Note # 10 347 SS	4 foot SS pan	RCRA Workplan 9/12/02
VES-WH-101 In Part B 2000	CPP-601	PEWE Feed ADeep Tanks@ Note # 1	S02 T01 2,4c B/D	4,500	1953	Unknown Note # 10 347 SS	4 foot SS pan	RCRA Workplan 9/12/02

VES-WH-104	CPP-601	Feed Tank ADeep Tanks@ Note # 1	S02 T01 2,4c B/D	-?-	-?-	Unknown	Unknown	
CPP-604 TFT Part B 4/14	CPP-604	PEWE	Unknown	18,000	-?-	Unknown	SS liner	Pg. 90
VES-WL-103 In Part B 2000	CPP-641 WEST SIDE Holdup Storage Tanks	PEWE Feed Tank	S02 T01 2 A/D	5,000	1961	Unknown Note # 10 304 L SS	Epoxy Coating Note # 5	RCRA Workplan 9/12/02
VES-WL-104 In Part B 2000	CPP-641 PEWE	WEST SIDE Holdup Storage Tanks Feed Tank	S02 T01 2 A/D	5,000	1961	None Note # 10 304 L SS	Epoxy Coating Note # 5	RCRA Workplan 9/12/02
VES-WL-105 In Part B 2000	CPP-641 PEWE	WEST SIDE Holdup Storage Tanks Feed Tank	S02 T01 2 A/D	5,000	1961	None Note # 10 304L SS	Epoxy Coating Note # 5	RCRA Workplan 9/12/02
VES-WM-107	CPP-604		Unknown		-?-	Unknown	Unknown	RCRA Workplan 9/12/02
VES-WM-163	CPP-604		Unknown	Unkn	-?-	Unknown	Unknown	RCRA Workplan 9/12/02
VES-180 & VES-181 un-permitable	HLW TFF		B/C/D	318,000 each or 636,000	1953	Stainless steel	none except concrete vaults	Rev #19 4/99

VES-WM 182 through 190 (Nine tanks un-permitable	High-level Waste Tank Farm		B/C/D SO2	300,000 each or total 2.7 million	1953	stainless steel	none except concrete vaults	RCRA Workplan 9/12/02 Interim Status
VES-WM-103 Through 106 (4 tanks)	TFF	HLW	Unknown	30,000 each or 120,000	1953	SS	Unknown	Rev #19 4/99
VES-WM-191		Feed Tank	Unknown	-?-	-?-	Unknown	Unknown	
VES-WM-192		Mist Eliminator TFF VOG	Unknown	-?-	-?-	Unknown	Unknown	
VES-NCD-123 Part B 4/14	CPP-659 PEWE	TFF Feed Tank IWTU	S02, T01 2, 4c C/D	3,800	-?-	Unknown Note # 10	Unknown	RCRA Workplan Part B App.
VES-NCD-129 In Part B 4/14	CPP-659 PEWE	Feed Tank TFF IWTU	S02, T01 2, 4 C/D	530	-?-	Unknown Note # 10	Unknown	RCRA Workplan Part B App.
VES-NCD-141	CPP-659 PEWE	Collection Tank Feed to PEWE NWCF HEPA Leach System	T03 4c C/D	-?-	-?-	Unknown Note # 10	Unknown	RCRA Work Plan
VES-NCD-142	CPP-659 PEWE	Collection Tank Feed to PEWE NWCF HEPA Leach System	T03 4c C/D	-?-	-?-	Unknown Note # 10	Unknown	RCRA Work Plan
VES-NCC-101 Part B 4/14	CPP-659 HLLWE TFF	Feed Blend Tank w/heating coil	SO2, TO1	5,020	1982	Nitronic 50 Note # 10	Floor + 3’ SS Wall pg. 97	RCRA Workplan 9/12/02

VES-NCC-102 Part B 4/14	CPP-659 HLLWE TFF	Holds Tank w/heating coil	SO2, TO1	3,500	1982	Nitronic 50 Note # 10	SS Floor + 3' Wall	INEEL/EXT -2000-1148 RCRA Workplan 9/12/02
VES-NCC-103 Part B 4/14	CPP-659 HLLWE TFF IWTU	Holds Tank w/heating coil	SO2, TO1	3,500	1982	Nitronic 50 Note # 10	Unknown	INEEL/EXT -2000-1148 RCRA Workplan 9/12/02
VES-NCC-104	CPP659	Feed Tank	Unknown	10	-?-	Unknown	Unknown	
VES-NCC-107	CPP659	High Efficiency Cyclone	Unknown	-?-	-?-	Unknown	Unknown	
VES-NCC-108 Part B 4/14	CPP-659	Service Waste Holding Tank	Unknown	2,000	1982	Nitronic-50	SS 12,200 gal.	RCRA Workplan 9/12/02
VES-NCC-109	CPP659	Quench Tower	Unknown	-?-	-?-	Unknown	Unknown	
VES-NCC-110	CPP659	Mist Eliminator	Unknown	-?-	-?-	Unknown	Unknown	
VES-NCC-111	CPP659	Venturi Scrubber K.O. Drum	Unknown	-?-	-?-	Unknown	Unknown	
VES-NCC-112	CPP659	Ruthenium Absorber	Unknown	-?-	-?-	Unknown	Unknown	
VES-NCC-113	CPP659	Ruthenium Absorber	Unknown	-?-	-?-	Unknown	Unknown	
VES-NCC-114	CPP-659	Ruthenium Absorber	Unknown	-?-	-?-	Unknown	Unknown	
VES-NCC-116 Part B 4/14	CPP-659	Mist Collector	Unknown	500	1982	304L SS	3' SS Wall + Floor	RCRA 02 Workplan02

VES-NCC-119 Part B 4/14	CPP-659 HLLWE	Fluoride Hot Sump Tank	SO2, TO1 C/D	5,301	1982	Nitronic 50 Note # 10	3’ SS Wall + Floor pg. 96	RCRA Workplan 9/12/02
VES-NCC-122 Part B 4/14	CPP-659 HLLWE	Non-Flouride Hot Sump Tank	SO2, TO1 C/D	4,300	1982	Nitronic 50 Note # 10	17’ SS Wall + Floor	RCRA Workplan 9/12/02
VES-NCC-124	CPP-659	Waste Quench Pump	Unknown	-?-	-?-	Unknown	Unknown	
VES-NCC-136 Part B 4/14	CPP-659	HLLWE Vessel vent Condenser	Unknown	-?-	1982	304L SS No Stamp	3’ SS Wall pg. 96 + 98	RCRA Workplan 9/12/02
VES-NCC-143 -1	CPP-659	Intercooler Knockout drum	Unknown	-?-	-?-	Unknown	Unknown	
VES-NCC- 143 -2	CPP-659	Intercooler Knockout drum	Unknown	-?-	-?-	Unknown	Unknown	
VES-NCC-150 Part B 4/14	CPP-659 HLLWE	Evaporator Flash Column EVAP-NCC-150	TO4 X99 A/B/C/D	2,600	1996	ASME G-30 Hastelloy	3’ SS Wall + Floor 17,400 gal.	INEEL/EXT -2000-1148 RCRA Workplan 9/12/02
VES-NCC-152 Part B 4/14	CPP-659 HLLWE	Constant Head Feed Tank	N/A	170	1996	ASME Nitronic 50	3’ SS Wall	INEEL/EXT -2000-1148
HE-NCC-350 Part B 4/14	CPP-659 HLLWE	EVAP-NCC-150 Re-boiler	N/A	20.1	1996	G-30 Hastelloy & 304L SS	Unknown	INEEL/EXT -2000-1148
HE-NCC-351 Part B 4/14	CPP-659 HLLWE	Condenser EVAP-NCC-150	N/A	4.4	1996	G-30 Hastelloy & 304L SS	Unknown	INEEL/EXT -2000-1148
VES-NCC-511	CPP-659	Ventura Scrubber	Unknown	-?-	-?-	Unknown	Unknown	

NWCF Debris Treatment System	CPP-659	Collection in CPP-659 Feed to PEWE	T04 1,4c,4i,4j,4k,4l ,6 C/D	-?-	-?-	Unknown Note # 10	Unknown	RCRA Work Plan
VES-NCR-171 Part B 4/14	CPP-1618 LET&D	Nitric Acid Recycle Storage Concentrate	Unknown	22,500	1995	ASME 304L SS	4'8" SS Wall + Floor	RCRA Work plan 9/12/02 pg. 95
VES-NCR-173 Part B 4/14	CPP-659 LET&D	Head Tank Concentrated Nitric Acid LET&D	Unknown	90	1995	ASME 304L SS	4'8" SS Wall + Floor	
VES-FT-134	CPP-666	PEWE Feed Tank 666 SNF Storage Pool Filter Back-flush	Unknown	-?-	-?-	Unknown	Unknown	
VES-SFE-106	CPP-648	PEWE Feed Tank 603 SNF Storage Pool Filter Back-flush	S02 T01 2 A/D	25,000	-?-	1972 Note # 10 Note # 5 Type 304 SS	Chlorosulf-onated polyethylen e 4.5' installed 1996	RCRA Workplan Part B App. JRM-368-98 10/22/96
LIA-SFE-106-1	PEWE	Vault Sump for VES-SFE-106	Unknown	10 gal	-?-		Unknown	NOV 8/2/99
LIA-SFE-106-2	PEWE	Outer Sump for VES-SFE-106	Unknown	25 gal	-?-		Unknown	NOV 8/2/99
VES-SF-101	INTEC-0 77	Ion Exchange Vessel	Unknown	423	-?-		Unknown	
VES-SF-126	CPP-603		Unknown	-?-	-?-	Unknown	Unknown	Part B App.

VES-OGF-104 Not In Part B	CPP-649 APS VOG & DOG	High-level Tank Farm Off-gas collection system condenser	B/D	-?-	-?-	Unknown Note # 10	Unknown	Workplan
VES-OGF-106	CPP-649	Off-Gas Superheater	Unknown	-?-	-?-	Unknown	Unknown	
VES-OGF-132	CPP-649	Off-Gas Demister	Unknown	-?-	-?-	Unknown	Unknown	
CPP-0112	CPP-649 APS	APS Filter Cell Sump	Unknown	94	-?-	Unknown	Concrete w/SS liner	EDF-2897
Process Waste Liquid Collection System	CPP-605 + 627 + 684 +708 TFF Sump	Feed Tanks to PEWE via CPP-601	A/D	-?-	-?-	Unknown Note # 10	Unknown	Part B Workplan
Truck Unloading Station	CPP-1619	Feed Tank Off-site Liquid waste import shipments	A/D	-?-	-?-	Unknown Note # 10	Unknown	Part B Workplan
PWL Process Tanks	CPP-604, 605, 649, & 708	Feed Tanks to PEWE	Unknown	-?-	-?-	Unknown	Unknown	Part B App.
VES-WLL-195 Part B 4/14	CPP-1618 LET&D	Stores PEWE Overhead Condensates	T04 A/D	270	193	ASME 304L SS Note # 10	3’ SS Wall + Floor pg. 93	RCRA Work Plan
VES-WLK-197 Part B 4/14	CPP-1618 CPP-604 LET&D	Stores PEWE Overhead Condensates	A/D	270	-?-	Unknown Note # 10	Unknown	RCRA Workplan 9/12/02

VES-WL-195	CPP-1618 LET&D	Bottoms Tank	A/D	270	-?-	Unknown Note # 10	Unknown	RCRA Workplan 9/12/02
FRAC-WLL-170 & 171 Part B 4/14	CPP-1618 LET&D HE-WLK -392+ 397 + 399	LET&D fractionators	T04 X99 A/D	460	1993	ASME Holstelloy-G-30 Vol. 14	3' SS Wall + Floor 2,100 gal. pg.95	RCRA Workplan 9/12/02
VES-WLK-199 Part B 4/14	CPP-1618 LET&D	Separator #1	Unknown	-?-	-?-	Unknown	Unknown	
VES-WLL-198	CPP-1618 LET&D	Separator #2	Unknown	-?-	-?-	Unknown	Unknown	
WC-119	CPP-633	WCF Storage	Unknown	5,650	-?-		Unknown	Rev #19 4/99
WC-100 WC-101	CPP-633	WCF Storage	Unknown	2,090 each	-?-		Unknown	Rev #19 4/99
WC-108	CPP-633	WCF Storage	Unknown	2,035	-?-		Unknown	Rev #19 4/99
CYC-WCS-915	CPP-729	Cyclone separator, WSI	Unknown	-?-	-?-	Unknown	Unknown	
CYC-WCS-911	CPP-742	Cyclone separator, WS2	Unknown	-?-	-?-	Unknown	Unknown	
CYC-WCS-912	CPP-746	Cyclone separator, WS3	Unknown	-?-	-?-	Unknown	Unknown	
CYC-WS4-916	CPP-760	Cyclone Separator WS4	Unknown	-?-	-?-	Unknown	Unknown	
CYC-W55-917	CPP-765	Cyclone Separator WS5	Unknown	-?-	-?-	Unknown	Unknown	

VES-WS6-161	CPP-791	Solids Distributor	Unknown	-?-	-?-	Unknown	Unknown	
VES-WS6-918	CPP-791	Cyclone Separator	Unknown	-?-	-?-	Unknown	Unknown	
VES-SRC-131 + 140 Part B 4/14	IWTU	Feed DMR + IWTU	Unknown	2,100	2014	304L SS 3,400 gal.	Unknown	
VES-SRC-190 & 191 Part B 4/14	IWTU	Production Receiver Cooler	Unknown		2014	316H SS	Unknown	
VES-SRC-160 & 180 Part B 4/14	IWTU	Carbon Reduction Production Pump	Unknown	4,300	2014	ASME Carbon Steel	Unknown	
TR-SRE-141 & 196 Part B 4/14	IWTU	Fire Water Tank Condensate Tank	Unknown			Unknown	Unknown	
PP-100, PP-101 PP-102 (3 tank)	CPP-640	Headend Holdup Tanks	Unknown	500	-?-	Unknown	Unknown	Rev #19 4/99
Col-SRC-136 Part B 4/14		Off –gas Cooler		2,300				Vol. 14
Total ILWMS Tanks ~136				439,467 gallons				

Note # 1; Of the above ~155 ILWMS units (reported in previous ILWMS RCRA permits and Notice of Violation (NOV), only ~ 64 are reported in HWMA/RCRA Part B Permit Reapplication April 2014. DOE and IDEQ are obliged to explain why more than half the operating units are not in the permit. Wastes are received in the CPP-601 WG/WH tanks from floor and lab drains or transfers from processes in CPP-601, 602, 627, 640, 666, and 684; then transferred to PEWE feed sediment tank VES-WL-132; then to VES-WL-133; or the INTEC Tank Farm Facility. These waste streams are not fully characterized in the current Part B Permit Application

Note # 2; The ILWMS system tanks vent to the INTEC Vessel Off-Gas System (VOG) which provides vacuum and filtration for the off-gas from the tanks in the connected facilities. The VOG system flows to the process Atmospheric Protection System (APS) filters, which are located in CPP-649 and from the APS, the off-gas is exhausted to the INTEC Main Stack in CPP-708. The APS is not a RCRA permitted system. Tank ASparging@ which is a process of forcing large amounts of air through tanks to volatize VOC=s is a common practice at INTEC to reduce reporting of RCRA/CAA hazardous air pollutants. [DOE/ID letter to IDEQ 6/21/99] HWMA/RCRA Work Plan for INEEL Revised Date September 12, 2002 for EPA ID No. ID 4890008952 shows 29 tanks with the T01 ATank Treatment@ designation that would include sparging.

Note # 3; Tank Treatment includes use of chemicals such as aluminum nitrate, sodium hydroxide, nitric acid, calcium nitrate, fluoride, boric acid, and oxalic acid to limit the potential for corrosion, prevent precipitation of solids from the waste solution, and provide for criticality control measures. It is uncertain that these hazardous chemicals are included in the RCRA waste codes.

Note # 4; Tank and secondary containment material noted as Nitronic-50, and Stainless Steel (SS). It must be noted that the pans are not capable of containing the whole volume of the tank, and therefore not compliant with RCRA for full secondary containment. Additionally, there is inadequate information about the sumps [See NOV violations 8/2/99 and DOE response NOV 055 to 063 Attachment B] having full secondary stainless steel containment with connected welds to the containment pans that drain to the sumps. Nitronic 50 is an austenitic stainless steel, as is Type 304. However, Nitronic 50 has a higher Cr & Ni content and is more corrosion resistant and stronger than say Type 316 austenitic stainless steel. Good choice for a corrosion resistant tank - depending on the corrosive, however only about eighteen of the ninety-two ILWMS tanks are Nitronic-50 or Type 304 stainless steel.. Most stainless steels don't perform very well in hot (>60C) chlorides. The evaporators normal operating temperature is 110 degrees Celsius. The evaporators operating temperatures, highly corrosive waste, plus the age of the tanks make these significant compliance issues not addressed in the RCRA Part B Application. Defense Facility Nuclear Safety Board report October 2, 2001 notes corrosion problems and the DNFSB 5/23/14 IWTU start up testing deficiencies are discussed in EDI permit comments. AAn example is the LET&D evaporator, which has a failed bottom cooler in 1 of 2 trains, a possible leak in 1 or more re-boiler tubes in 1 of 2 trains, and deterioration of stainless steel off-gas components.@ Also see DNFSB 5/23/14 assessment of IWTU.

Note # 5; Epoxy secondary containment is a painted on surface coating that does not meet RCRA compliance, not to mention the fact that it is over forty-years old and beyond its design life even as a minimal sealant. Additionally, concrete does not meet RCRA criteria for secondary containment because of its porosity and lack of resistance to corrosives. Therefore, concrete tank vaults, sumps or building walls do not qualify as secondary containment despite DOE=s claims to the contrary. Compliant secondary containment by

RCRA definition must, in this case, have a stainless steel liner with capacity to hold the entire contents of the tank/vessel. For instance, CPP-603 VES SFE-106 prophylactic secondary containment of chlorosulfonated polyethylene 4.5' installed 1996 still does not rise to RCRA compliant secondary containment.

Note # 6; Design Standards; only the American Society of Mechanical Engineers (ASME) has any regulatory structural/seismic significance. Additionally, ASME has no relevance with respect to RCRA requirements (i.e. secondary containment or daily access/inspection). Also the ASME standards at the time (1950s) of instillation are not necessarily the same as those currently in place.

Note # 7; The notation that a unit is @In Part B@ refers to the INEEL RCRA Part B Permit Application July 2000 and or ILWMS RCRA Permit Application, April 2014. All other units ANot In Part B@ are not included in the Permit but remain fundamental parts of the PEWE system and illegally not fully characterized.

Note # 8; Approximately ~136 tanks and vessels are connected to the INTEC Liquid Waste Management System (ILWMS) that includes the Calciner, High-level Liquid Waste Evaporator (HLLWE), Process Equipment Waste Evaporator (PEWE), Liquid Effluent Treatment and Disposal (LET&D) and Integrated Waste Treatment Unit (IWTU), as primary feeder, treatment or effluent units.

$ There are ~61 tanks that are feeder/effluent units to the ILWMS that are identified but not fully characterized in the Part B Application or meet RCRA standards.

$ There are ~87 tanks that do not have full RCRA qualified secondary containment capable of containing the full tank volume, though ten tanks have inadequate Apans@ that do not have the capacity to hold the full volume of the tank as required.

$ There are ~90 tanks that have no known structural certification.

$ There is an unknown but significant number of tanks that have already exceeded their design life. This is significant given the extremely corrosive type of waste being processed

Note # 9; The service waste lines connecting all the ILWMS related tanks and vessels are not fully characterized in the RCRA Part B Permit Application even though the same secondary containment criteria that applies to tanks also applies to the waste service line piping. In some cases DOE attempts to take credit for stainless steel Atroughs@ in concrete beds for some pipes, this does not meet full containment for highly pressurized lines using steam as the propellant that a Atrough@ could not possibly contain. RCRA Permit:

"Drip troughs are located beneath process transfer lines within CPP-604, CPP-605, and CPP-1618. A drip trough also extends below the pipe bridge that spans from CPP-605 to the LET&D facility. The troughs are designed to collect liquid (e.g., recovered nitric acid) in the event of a leak from the process transfer lines. These drip troughs are sloped and drain to collection bottles located within each system.

"The drip troughs located within the LET&D facility are not equipped with leak detection devices. Therefore, LET&D collection bottles are inspected daily for the presence of liquid when the fractionators are operating. These inspections are noted on Form

INTEC-4055, which is included in Appendix F-1. Documentation of all inspections is maintained in the facility operating record.

"All drip troughs located in CPP-604, CPP-605, and the pipe bridge are equipped with leak detection cables that are continuously monitored by the DCS." 1

Note # 10; Tank Design Standards described in INEEL RCRA Part B Permit Application July 2000 (Table D-2 pg. 15) for twelve tanks as the following: ADue to the age of these tanks, no documentation exists to confirm standards. Conversation with the vendor indicates the tanks were built to API or ASME Standards.@ No documentation is offered to verify this vendor claim therefore the Atank design@ must be legitimately listed as Aunknown,@ which by itself is enough to disqualify the use of the tank in a RCRA permitted operation.

1 RCRA-Vol. 14 4/14,Attachment-D, PG. 101

Note # 11; The Idaho High-Level Waste Environmental Impact Statement shows (page 5-206) that CPP-604 Waste Treatment Building (Process Equipment Waste Evaporator) tanks as a hazard based on Acriticality event releasing significant radioactivity to the atmosphere.@ This would include VES-WL-102, and VES-WL-133, but also likely other sediment tanks related to the HLLWE and the LET&D.

Process Types	**Process Codes**
1. Container Storage 2. Tank Storage 3. Incinerator 4. Treatment a. Stabilization/solidification b. Volume reduction c. chemical treatment d. thermal treatment e. blending f. evaporation g. ion exchange h. surface impoundment i. macro-encapsulation j. physical treatment k. micro-encapsulation l. repackaging m. other	S01 Container Storage S02 Tank Storage T01 Tank Treatment T02 Surface Impoundment T03 Incineration T04 Other Treatment X99 Miscellaneous Treatment (physical/chemical extraction) **Waste Types** A. Low-level B. High-level C. Transuranic D. Hazardous E. Undetermined

Sources:

1. INEEL Interim Status RCRA Part B Workplan (GZ00-048G)
2. Hazardous Waste Management Act/Resource Conservation Recovery Act INEEL Work Plan For INEEL; EPA No. ID4890008952, 6/6/2000, and Revised Report dated September 12, 2002.
3. INEEL RCRA Interim Status Document for PEWE, Nov. 25, 1997
4. INEEL RCRA Part B Application Volume 14 Section D 7/2000
5. Facility Assessment of the New Waste Calcining Facility Evaporator Tank System (Rev. 1) November 2000 Department of Energy, INEEL/EXT-2000-1148
6. Voluntary Consent Order Information for Item # 2 for FOIA Request Dated 4/16/201 from D. McCoy, 2/15/02
7. DOE Voluntary Consent Order, Site-Tank-004: Active Hazardous Waste Tanks **to be** Placed on Part A/B Permit, 6/1/00
8. Idaho Department of Environmental Quality, Notice of Deficiency, April 12, 2002
9. RCRA Revision # 19 4/99, INTEC
10. Notice of Violation (NOV-055 to 063 Attachment A & B)
11. RCRA Permit Application for the Idaho National Laboratory, Volume 14, INTEC Liquid Waste Management System, Books 1 through 4 and Book 2, Attachment 2 Section C, Waste Characteristics