ATTACHMENT 5
HAZARDOUS WASTE STREAM INVENTORY

(FROM PERMIT APPLICATION PART 2)

ETU HAZARDOUS WASTE

WIWPS#	WASTE STREAM NAME	PROCESS DESCRIPTION	EPA WASTE CODE	ESTIMATED GALLONS PER YEAR
10-08-02	AMMONIUM HYDROXIDE	BLUE LINE COPY MACHINE USES AMMONIA TO COPY. THE AMMONIA IS USED UP AND COLLECTED IN ORIGINAL CONTAINER.	D002	10
10-09-05	PURGED GROUND WATER	WATER REMOVED FROM WELLS DURING SAMPLING, PUMP TESTING, OR DEVELOPMENT.	F001, F002	500000
10-09-10	BUILDING 637 DECON WATER	GROUNDWATER MONITORING PUMPS AND VARIOUS OTHER EQUIPMENT USED FOR THE GROUNDWATER PLUME INVESTIGATION ARE DECONTAMINATED AT THE BUILDING 637 STEAM-PAD. WATER IS CONTAINED IN A CATCH TANK AND WHEN FULL IS TRANSFERRED TO THE EVAPORATION TANKS.		2000
10-20-13	GW REMEDIATION AQUEOUS WASTE	AQUEOUS WASTE GENERATED DURING ROUTINE OPERATION OF THE PLUME-FRONT REMEDIATION FACILITY CONSISTING OF: GROUNDWATER, CONTAINING WSTF GROUNDWATER CONTAMINANTS; RINSE WATER.	F001, F002	5000
10-20-21	SPENT CITRIC ACID DESCALER	ROUTINE DESCALING OF THE PLUME-FRONT REMEDIATION FACILITY AIR STRIPPERS AND UV REACTOR PER WJI ENV-0065, "PLUME FRONT STABILIZATION TREATMENT SYSTEM OPERATION AND MAINTENANCE MANUAL" OR TASK MEMO. UP TO A 10 % CITRIC ACID SOLUTION WILL BE USED DURING THE DESCALING PROCESS: HOWEVER THE SPENT SOLUTION PERCENTAGE IS APPROXIMATELY 0.2%	TBD	5000
20-01-01	RINSEWATER	PARTS, SOFTGOODS AND GLASSWARE ARE RINSED W/WATER. RINSE WATER CONSISTS OF TAP WATER AND ULTRA PURE WATER. WATER IS CONTAMINATED BY DRAGOUT FROM OAKITE 126, OAKITE 31, BRULIN 815 AND SIMPLE GREEN VATS.		1000
20-01-11	SPENT OAKITE HD126 SOLUTION	OAKITE HD126 IS MIXED WITH WATER (4-8 OZ/GALLON OF WATER). IT IS USED FOR THE GROSS CLEANING OF PARTS CONTAMINATED WITH OILS, GREASES, AND HEAVY METALS. THE PARTS ARE IMMERSED IN A 80 GAL TANK CONTAINING THE MIXTURE. THE 126 IS KEPT AT 140 deg F WHEN USED.	D002	2080
20-01-13	SPENT OAKITE RUSTRIPPER SOLN.	OAKITE RUSTRIPPER IS USED TO CLEAN RUST, OILS, & GREASE FROM CARBON STEEL PARTS. IT IS ALSO USED AS AN ETCHANT. RUSTRIPPER IS USED AT 140degF.	D002	500
20-01-14	SPENT PICKLING SOLUTION	PICKLING SOLUTION. 3-5% HCL AND FeCl EACH	D002	50
20-01-18	SIMPLE GREEN WASHWATER	A 1% SIMPLE GREEN SOLUTION (99% WATER) IS USED IN A BATCH PROCESS TO CLEAN VARIOUS METAL AND ELASTOMERIC PARTS/COMPONENTS. BATCH SIZE VARIES FROM LESS THAN 1 LITER TO GREATER THAN 100 GALLON QUANTITIES, DEPENDING ON THE SIZE OF THE CLEANING OPERATION.		500
20-01-22	DERUSTIT SS-3	USED AS A METAL CLEANER. 2.6% HYDROFLUORIC ACID.	D002	5
20-01-23	WASHWATER	WASHWATER USED IN ROUTINE CLEAN UP OF THE LAB CON HIGHBAY.		2500
20-01-28	ACID RINSATE/SOFTGOODS	GLOVES, AND WIPES USED FOR GENERAL CLEAN UP OF ACIDIC CLEANING SOLUTIONS (PICKLING SOLUTION, OAKITE 31, SIMPLE GREEN).		50

ETU HAZARDOUS WASTE

WIWPS#	WASTE STREAM NAME	PROCESS DESCRIPTION	EPA WASTE CODE	ESTIMATED GALLONS PER YEAR
20-01-29	CAUSTIC RINSATE/SOFGOODS	GLOVES, AND WIPES USED FOR GENERAL CLEAN UP OF BASIC CLEANING SOLUTIONS (OAKITE HD 126, SIMPLE GREEN, OAKITE RUST STRIPPER).		
20-01-36	LAB CON AQUEOUS WASTE	AQUEOUS WASTE GENERATED FROM CLEANING LARGE TANKS AND EQUIPMENT INTHE LAB CON HIGHBAY. MAY CONTAIN SMALL QUANTITIES OF SOLVENTS. THIS PROFILE SHEET IS LIMITED TO THE FOLLOWING WATER SOLUABLE CLEANERS: OAKITE 31, OAKITE 126, PICKLING SOLUTION, OAKITE RUSTRIPPER, SIMPLE GREEN, CITRIC ACID 5%, BRULIN 815 GD.		3750
20-01-37	CLASS 100 AQUEOUS WASTE	AQUEOUS WASTE GENERATED FROM SHUTDOWN CLEANING OF THE CLEAN ROOM CLASS 100 EQUIP. (GRATES, TABLES, AND CONTAINERS) CLEANING IS PERFORMED IN PLACE OR AT THE LAB-CON HIGH BAY OR EVAP TANK UNLOADING PAD USING A HIGH PRESSURE WASHER, STEAM CLEANER, AND BRUSHES.		200
20-01-38	CITRIC ACID 5%	ACID CLEANING SOLUTION USED TO CLEAN AND REMOVE RUST/SCALE FROM METAL ASSEMBLY. (MIXED METAL)	D002	1000
20-01-44	ACID DEOXIDIZER	STAINLESS STEEL HARDWARE IS POLISHED IN THIS SOLUTION. IT REMOVES RUST, OXIDATION TRAPPED SALTS, AND PASSIVATES THE SURFACES.	D002	110
20-01-45	BRULIN 815 GD	PRELIMINARY CLEAN AND DEGREASE OPERATION USED IN FIRST STEP OF CLEANING PROCESS. THIS IS AN AQUEOUS, PHOSPHATE TYPE CLEANER.		550
20-01-50	WASTE OAKITE 31	SOLUTIONS OF OAKITE 31 AND WATER ARE USED FOR ROUTINE CLEANING IN THE CLEAN ROOM. PARTS ARE CLEANED BY IMMERSION AND/OR BRUSHING FOLLOWED BY STANDARD CLEAN ROOM RINSING AND DRYING PROCEDURES.	D002	2080
20-01-52	OAKITE 90	REMOVING CONTAMINATION FORM THRUSTER. CONTAMINATION: FINGERPRINTS, ADHESIVES FROM TAPE, OTHER MANUFACTURING RESIDUES.	D002	10
20-01-56	DECON WATER	VALVES AND FITTINGS THAT HAVE BEEN EXPOSED TO FUEL AND OXIDIZER ARE RINSED WITH WATER AT DECON SINK. PARTS HAVE BEEN FIELD DECONNED PRIOR.		1000
20-02-01	SPENT INORGANIC ETCHANTS	VARIOUS INORGANIC ACIDS SUCH AS; HCl, HNO3, H2SO4, AND HF ARE MIXED WITH WATER IN 10 - 100 ml INCREMENTS AND USED TO REMOVE STAINLESS STEEL, OTHER NONHAZARDOUS ALLOYS, AND COPPER.	D002	0.5
20-02-07	DEVELOPER/DETERGENT WASHWATER	SIMPLE GREEN (A MILD DETERGENT) IS USED TO CLEAN PHOTOGRAPHIC EQUIPMENT CONTAINING DEVELOPER, AND IS RINSED OFF WITH WATER TO PRODUCE <10% CONCENTRATION.		1
20-02-08	WATER SOLUBLE OILS	WATER SOLUBLE OILS FROM METALOGRAPHIC PREPARATION OR EQUIPMENT CLEANING ARE RINSED OFF WITH WATER.		50
20-02-10	WATER W/POLISHING COMPOUND	ALUMINA OR DIAMOND POLISH (WITH/H2O AS LUBRICANT) IS USED AT THE POLISHING TABLE TO POLISH PARTS. THE RINSE WATER WILL CONTAIN POLISHING COMPOUND, METAL FLAKES, AND PLASTICS.		5

ETU HAZARDOUS WASTE

WIWPS#	WASTE STREAM NAME	PROCESS DESCRIPTION	EPA WASTE CODE	ESTIMATED GALLONS PER YEAR
20-02-16	WATER W/PLASTIC & METAL CHIPS	WATER IS USED FOR LUBRICATION AND FLUSHING OF METALLOGRAPHIC HAND GRINDER. THE WATER PICKS UP PIECES GROUND OFF.		1000
20-04-01	AQUEOUS LAB WASTE	WASHWATER USING DETERGENTS, INORGANIC CLEANERS, INORGANIC ACIDS AND BASES, HYDROGEN PEROXIDE, METALS SOLUTIONS, AQUEOUS SAMPLES AND RINSE WATER GENERATED DURING ROUTINE OPERATION OF THE CHEM LAB.		10000
20-04-02	CYANIDE BEARING WASTE	CYANIDE GENERATED FROM CHEMICAL STANDARDS.	D003	3
20-04-27	AMMONIA RINSATE/SOFTGOODS	IMMERSION TESTING OF MATERIALS IN LIQUID AMMONIA. MATERIALS ARE RINSED WITH WATER, DRIED AND WEIGHED AFTER IMMERSION. PROFILE INCLUDES ASSOCIATED CLEAN UP/SPILL MATERIALS.		10
20-04-49	FUEL SCRUBBER WASTE WATER	INTEREL GK-140 USED TO SCRUB FUEL HOODS, CITRIC ACID (0.2%) IS ADDED WEEKLY PRIOR TO DUMPING.		10000
20-04-74	HYDROLYZED OXIDIZER	DINOTROGEN TETROXIDE FROM OXIDIZER TESTING IS HYDROLYZED BY AQUEOUS SODIUM HYDROXIDE, RATHER THAN EVAPORATED.		10
20-04-88	ACID/GLYCERINE ELECTROLYTE	SOLUTIONS OF SULFURIC ACID, PHOSPHORIC ACID, CHROMIC ACID, AND GLYCERINE ARE USED AS ELECTROLYTES IN ELECTROCHEMICAL EXPERIMENTS.		1
20-13-01	SILK SCREEN PREPARATION	SCREENS ARE PREPPED WITH THINNER, SCREEN WASH AND DEGREASER USING BRUSH AND RUNNING WATER		120
20-13-02	SILK SCREEN DEVELOPMENT	AFTER THE FILM IS EXPOSED, IT IS DEVELOPED WITH RUNING WATER. SOME COMPONENTS OF THE FILM ARE WASHED AWAY		400
20-13-03	SILK SCREEN OPENING	SCREEN IS SPRAYED WITH INSTANT SCREEN OPENER AND WASHED WITH RUNNING WATER. SOME INK GOES DOWN THE DRAIN ALONG WITH WATER AND SCREEN OPENER.		120
20-13-04	SILK SCREEN CLEAN UP	AFTER SCREENING IS OVER, ALL INK AND REMAINING FILM IS WASHED AWAY USING STENCIL REMOVER, RUNNING WATER AND THINNER.		400
20-20-06	EVAP TANK LIQUID WASTE	LIQUID WASTE, RINSATE, ACCUMULATED PRECIPITATION, TANKERIZED (FOR OFF-SITE SHIPMENT) GENERATED DURING ROUTINE OPERATIONS, LINER REPAIR, TANK CLEAN OUT AT THE 200 AREA EVAPORATION TANK SYSTEM. DISPOSAL OF RINSATE FORM SAMPLING EQUIPMENT GENERATED DURING SAMPLING/MAINTENANCE ACTIVITIES.		
20-20-07	EVAPORATION TANK BALLAST	SITE WATER IS ADDED TO THE EVAPORATION TANKS TO MAINTAIN A DEPTH IN THE TANKS OF AT LEAST 12" AS REQUIRED BY WJI ENV-0021.B.		10,000
20-20-08	RAINWATER	LEAKS DEVELOP IN SEALANT AROUND VAULT HATCHES, ALLOWING RAINWATER TO ENTER.		100
30-01-02	OXIDIZER CONT. DECON WATER	DECONTAMINATION OF EQUIPMENT, PIPES, AND FITTINGS RESULTS IN WATER CONTAMINATED WITH RESIDUAL OXIDIZER (N2O4). POINT OF ORIGIN 300 AREA OXIDIZER SYSTEM TANKS AND PIPING.	D002, P078	50

ETU HAZARDOUS WASTE

WIWPS#	WASTE STREAM NAME	PROCESS DESCRIPTION	EPA WASTE CODE	ESTIMATED GALLONS PER YEAR
30-01-04	OXIDIZER ASPIRATOR WATER	ASPIRATOR PULLS OXIDIZER (N2O4) VAPORS AND RESIDUAL LIQUID OUT OF PROCESS PIPES CAPTURING THE OXIDIZER IN WATER. POINT OF ORIGIN 300 AREA OX SYSTEM PIPING AND TANKS.	D002	50
30-01-37	OXIDIZER THRUSTER RESIDUALS	RCS TEST ARTICLE MANIFOLD PRIMING/LOADING (ESTIMATE FOR 3 PRIMING OPERATIONS AT EACH TS PER YEAR AND IN A WORST CASE 12 LBS. OF OXIDIZER WILL BE RELEASED DURING EACH OPERATION, THE TOTAL WOULD BE 72 POUNDS ANNUALLY). POINT OF ORIGIN DISCUSSED ABOVE.	D002, P078	10
35-01-07	FUEL FLOW TEST WATER	FILTERED DI WATER USED AS FLOW MEDIA IS PRESSURE FED THROUGH VALVES OF DECONNED PRCS THRUSTER ASSEMBLIES TO CHARACTERIZE VOLUME AND MIXTURE RATIOS		8000
35-01-19	SPENT PC TUBE FLUSH/SAMPLE H2O	DI WATER IS FLUSHED THROUGH THE PRCS/VRCS PC TRANSDUCER TUBES, THEN CAUGHT FOR FIELD SAMPLING PRIOR TO DISPOSAL.		10
35-01-21	OMS-E DECON FLOW WATER W/FUEL	DECONTAMINATION OF THE OMS-E INLET AND SERVICE LINES PRIOR TO DISASSEMBLY AND TESTING. THE PROCESS WILL UTILIZE WARM DEIONIZED WATER MIXED WITH BASIC-H, A WETTING AGENT, AT 1/3 OUNCE OF BASIC-H/75 GALLONS OF WATER.		600
40-01-02	OXIDIZER CONT. DECON WATER	DECONTAMINATION OF EQUIPMENT, PIPES, AND FITTINGS RESULTS IN WATER CONTAMINATED WITH RESIDUAL OXIDIZER (N2O4).	D002	100
40-01-04	OXIDIZER ASPIRATOR WATER	ASPIRATOR PULLS OXIDIZER (N2O4) VAPORS AND RESIDUAL LIQUID OUT OF PROCESS PIPES CAPTURING THE OXIDIZER IN WATER.	D002	100
50-20-02	RAINWATER (FTU)	PRECIPITATION ACCUMULATING IN FTU SECONDARY CONTAINMENTS		4000
80-02-03	OXIDIZER DECON WATER	WATER USED TO DECON COMPONENTS CONTAMINATED WITH OXIDZER DURING ROUTINE OPERATION OF THE 800 AREA.	D002, P078	150
80-02-21	AMMONIA GAS/LIQUID	AMMONIA IMMERSION TESTS IN THE HFTA TEST CELLS WILL UTILIZE APPROXIMATELYU ½ LITER OF LIQUID AMMONIA. A SLIGHTLY GREATER QUANTITY WILL BE USED TO FILL THE CHAMBER TO SUPPORT TESTING. WASTE AMMONIA VAPOR IS BUBBLED INTO A BARREL OF WATER AS PART OF THE PROCESS		40
80-02-42	OX PAD WASTE WATER	WASTE WATER FROM THE SPILL CONTAINMENT FOR THE OXIDIZER END OF THE HFTA DRAINS INTO A 1500-GALLON CATCH TANK. WASTEWATER IS GENERATED FROM PRECIPITATION, CELL WASHDOWN AND FIRE EX CHECKOUT		7200
80-02-43	FUEL PAD WASTEWATER	WASTEWATER FROM THE SPILL CONTAINMENT FOR THE FUEL END OF THE HFTA DRAINS INTO A 1500-GALLON CATCH TANK. WASTEWATER IS GENERATED FROM PRECIPITATION, CELL WASH DOWN, AND FIRE EX CHECKOUT.		7200
80-02-44	AMMONIA HX WATER	HEAT EXCHANGER, WHICH IS PART OF GAS GENERATOR TEST USES WATER AND AMMONIA. WATER COOLS AMMONIA. WATER WILL BE DRAINED AND COLLECTED IN A CATCH BARREL APPROXIMATELY THREE TIMES PER YEAR. IF HX LEAKS INTERNALLY, WATER COULD BE CONTAMINATED.		150

ETU HAZARDOUS WASTE

WIWPS#	WASTE STREAM NAME	PROCESS DESCRIPTION	EPA WASTE CODE	ESTIMATED GALLONS PER YEAR
80-02-46	835 CELL DECON WATER	FUEL DECON WATER FROM THE CLEAN UP OF TEST EQUIPMENT SPILLS AND LEAKS IN CELL 835 DURING TESTING WITH HYDRAZINES OR MMH. WASTE WILL UNDERGO ANALYSIS FOR FUELS PRIOR TO DISCHARGE TO ETU.		50
80-02-58*	OXYGEN GENERATOR RINSE WATER	ACTIVATION OF O2 GENERATOR WITH THE INTENT OF TRYING TO CAUSE THE HOUSING TO BURN. ONCE BURNING, WILL ATTEMPT TO EXTINGUISH WITH WATER. THE LIQUID WILL BE COLLECTED FOR DISPOSAL. UPDATED 2/22/99 TO INCLUDE SOAP USED IN THE PROCESS 3 GALLONS TOTAL (SEE MSDS ATTACHED TO ORIGINAL PROFILE IN ENVIRONMENTAL FILE).		100
80-02-63	OX CONTAMINATED WATER	VACUUM CHAMBER TESTS ON PORTIONS OF THE ORBITRER PROPELLANT TRANSFER SYSTEM WITH NTO OR OTHER MONs. TEST PROCEDURE WILL REQUIRE DECON OF SOME HARDWARE.	D002, P078	50
80-02-67	HYDROGEN PEROXIDE	90% HYDROGEN PEROXIDE WILL BE USED FOR RAPID COMPRESSION TESTING IN CELL 839 (20 CC PER TEST). HYDROGEN PEROXIDE VAPOR WILL BE RELEASED TO THE ATMOSPHERE. RESIDUAL LIQUIDS WILL BE COLLECTED FOR DISPOSAL. UNUSED HYDROGEN PEROXIDE WILL BE TAKEN TO EVAPORATION TANKS DILUTED TO APPROXIMATELY A 3% SOLUTION AND PUMPED TO TANKS.	D002	900
80-02-68	N2O4 & WATER	OXIDIZER IS VENTED TO INLINE OXIDZER DRAIN LINE CATCH TANK. MOISTURE AND GASEOUS OXIDIZER ACCUMULATE IN SMALL AMOUNTS IN THE TANK'S SIGHT GLASS AND AT THE BOTTOM OF THE TANK .		0.25
80-04-01	IGNITER WASTE	WASTE MATERIALS FROM THE PRODUCTION OF IGNITERS FOR FLAMMABILITY TESTING, RINSE WATER AND WASTE/OFF SPEC IGNITER MIXTURE (HEXAMETHYLENE TETRAMINE, SODIUM META-SILICATE, GUM ARABIC) DISSOLVED IN WATER.		25
80-04-10	AQUEOUS FLASH POINT SAMPLES	POST TEST AQUEOUS SAMPLES FROM FLASHPOINT TESTING IN THE PREP LAB. THIS PROFILE IS LIMITED TO FLASHPOINT ANALYSIS OF SAMPLES FROM THE 200 AREA		6
80-04-15	SPENT BRULIN 815	CLEANING SS PARTS USED FOR ASTM G86 AND ASTM 2512 TESTING.		50
80-04-17	SPENT OAKITE 31	CLEANING STRIKER PIN AND OTHER COMPONENTS USED FOR MECHANICAL IMPACT TESTING	D002	10
80-04-18	SPENT OAKITE 126	CLEANING STRIKER PIN AND OTHER COMPONENTS USED FOR MECHANICAL IMPACT TESTING	D002	10

*Waste stream has been deactivated.

CURRENT WIWPS NUMBER ASSOCIATED WITH EPA WASTE CODES MANAGED IN THE ETU

F001
10-09-05
10-20-13
20-20-06

F002
10-09-05
10-20-13
20-20-06

P078
30-01-02
30-01-37
80-02-03
80-02-63

D002
10-08-02
10-20-13
20-01-11
20-01-13
20-01-14
20-01-22
20-01-38
20-01-44
20-01-50
20-01-52
20-02-01
30-01-02
30-01-04
30-01-37
40-01-02
40-01-04
80-02-03
80-02-68
80-04-17
80-04-18

Note:
Waste streams are variable based on testing operations. The waste streams listed in the tables may become inactive at times and new waste streams may be added. However, only waste streams that are profiled at the point of generation and approved for permitted units (per Part A documentation) will be managed at the ETU.

FTU HAZARDOUS WASTE

WIWPS#	WASTE STREAM NAME	PROCESS DESCRIPTION	EPA WASTE CODE	ESTIMATED GALLONS PER YEAR
20-04-03	WASTE FUEL	MILLILITER SAMPLES OF NEAT FUEL ARE TESTED FOR PURITY OR OTHER CHEMICAL/PHYSICAL PROPERTIES. WASTE FUEL IS GENERATED DURING THIS TESTING.	P068, U098, U133	100
20-04-49	FUEL SCRUBBER WASTE WATER	INTEREL GK-140 USED TO SCRUB FUEL HOODS, CITRIC ACID (0.2%) IS ADDED WEEKLY PRIOR TO DUMPING..	P068, U098, U133	10000
20-04-61	WASTE FUEL (HOKE BOTTLES)	HOKE BOTTLES OF WASTE FUEL (HYDRAZINE, MMH, UDMH) FROM FUEL ANALYSES IN THE CHEM LAB.	P068, U098, U133	10
30-01-01	FUEL CONTAMINATED DECON WATER	MMH PRODUCT DISTRIBUTION SYSTEM IS PURGED AND VENTED. RESIDUAL FUEL ON THE CONTAINMENT HARDWARE/SOFTGOODS (PIPING, FITTINGS, GASKETS, SEALS, EQUIPMENT, ETC.) IS POG WASTE. SOME MANAGED WASTE IS FROM DIRECT MIXING OF A SOLID WASTE (WATER IN BUCKET) WITH A LISTED WASTE (RESIDUAL FUEL) WHEN THE PRODUCT CONTAINMENT IS BREECHED. THE REST OF THE MANAGED WASTE IS THE RINSATE FROM THE EQUIVALENT TRIPLE RINSE OF THE RESIDUAL PRODUCT FROM THE CONTAINMENT HARDWARE/SOFTGOODS. THE CONTAINMENT HARDWARE/SOFTGOODS LOSE(S) THE LISTING CODES UPON COMPLETION OF TRIPLE RINSING, AND THE AQUEOUS RINSATE IS MANAGED AS A P068 HAZARDOUS WASTE.	P068	50
30-01-03	FUEL ASPIRATOR WATER	ASPIRATOR PULLS THE POG RESIDUAL FUEL (MMH) VAPORS AND RESIDUAL LIQUID OUT OF PROCESS PIPES AND CAPTURES THE FUEL IN WATER. THIS PROCESS CONTROLS AIR EMISSIONS AND RENDERS THE TEST AREAS SAFE FOR NORMAL ACCESS AND WORK.	P068	50
30-01-33	VENT TANK WATER W/FUEL	TEST STANDS VENT PRODUCT FUEL VAPORS (<5 VOLUME % FUEL) AND PURGE GASES (>95 VOLUME % He OR GN2) TO THE EMISSIONS CONTROL UNIT TANK FOR SCRUBBING. THE PROCESS TANK CONTROLS AIR EMISSIONS AND THE SCRUBBING FLUID IS MANAGED AS HAZARDOUS WASTE WHEN REMOVED FROM THE UNIT.	P068, U133	1000
30-01-35	TES DECON RINSE WATER	PROPULSION PROCEDURES REQUIRE THAT A POST OPERATION DECONTAMINATION WITH SITE RINSE WATER BE DONE TO REMOVE RESIDUAL PROPELLANT (HYDRAZINE OR MMH), LIQUID/VAPORS FROM THE TOTALLY ENCAPSULATED SUIT (TES) TO PREVENT PERSONNEL EXPOSURE. AN EQUIVALENT OF A TRIPLE RINSE IS ACCOMPLISHED USING A SAFETY SHOWER OR FIRE HOSE OVER CATTLE TROUGH.	P068, U133	200
30-01-40	DECON SINK WATER W/FUEL	FUEL PRODUCT DISTRIBUTION SYSTEM IS PURGED AND VENTED. RESIDUAL FUEL ON THE CONTAINMENT HARDWARE/SOFTGOODS (PIPING, FITTINGS, GASKETS, SEALS, EQUIPMENT, ETC.) IS POG WASTE. THE MANAGED WASTE IS THE RINSATE (<10%) FROM THE EQUIVALENT TRIPLE RINSE OF THE RESIDUAL PRODUCT FROM THE CONTAINMENT HARDWARE/SOFTGOODS AT THE DECON SINK. THE CONTAINMENT HARDWARE/SOFTGOODS LOSE THE LISTING CODES UPON COMPLETION OF TRIPLE RINSING, AND THE AQUEOUS RINSATE IS MANAGED AS A HAZARDOUS WASTE.	P068, U133	55
30-02-01	HYDRAZINE CONTAMINATED DECON WATER	HYDRAZINE PRODUCT DISTRIBUTION SYSTEM IS PURGED AND VENTED. RESIDUAL FUEL ON THE CONTAINMENT HARDWARE/SOFTGOODS (PIPING, FITTINGS, GASKETS, SEALS, EQUIPMENT, ETC.) IS POG WASTE. SOME MANAGED WASTE IS FROM DIRECT MIXING OF A SOLID WASTE (WATER IN BUCKET) WITH A LISTED WASTE (RESIDUAL FUEL) WHEN THE PRODUCT CONTAINMENT IS BREECHED. THE REST OF THE MANAGED WASTE IS THE RINSATE FROM THE EQUIVALENT TRIPLE RINSE OF THE RESIDUAL PRODUCT FROM THE	U133	10

FTU HAZARDOUS WASTE

WIWPS#	WASTE STREAM NAME	PROCESS DESCRIPTION	EPA WASTE CODE	ESTIMATED GALLONS PER YEAR
		CONTAINMENT HARDWARE/SOFTGOODS. THE CONTAINMENT HARDWARE/SOFTGOODS LOSE THE LISTING CODES UPON COMPLETION OF TRIPLE RINSING, AND THE AQUEOUS RINSATE IS MANAGED AS A U133 HAZARDOUS WASTE.		
35-01-01	DECON WATER W/FUEL	THRUSTERS USED FOR SHUTTLE FLIGTHS AND/OR ACCEPTANCE TESTING ARE NITROGEN PURGED PRIOR TO RECIEPT AT CTF. THE WJI PROP-CTF-0006 "PRCS THRUSTER PREPARATION RECEIVING INSPECTION AND DECONTAMINATION." THE PROCESS UTILIZES DI WATER TO REMOVE RESIDUAL FUEL (POG) BY FLUSHING (TRIPLE RINSE EQUIVALENT) NEWLY RECEIVED THRUSTERS AND COMPONENTS FOR TESTS AND ANALYSIS. RINSATE IS "MANAGED" WASTE.	P068	5
35-01-07	FUEL FLOW TEST WATER	FILTERED DI WATER USED AS FLOW MEDIA IS PRESSURE FED THROUGH VALVES OF DECONNED PRCS THRUSTER ASSEMBLIES TO CHARACTERIZE VOLUME AND MIXTURE RATIOS	P068	8000
35-01-14	SCRUBBER WATER CONTAMINATED W/FUEL	FUEL IS VENTED FROM COMPONENTS UNDER THE FUEL EXHAUST HOOD, @ 1250 CUBIC FT. PER MIN. TO A WATER SCRUBBER. VAPORS ARE ABSORBED BY THE WATER IN THE SCRUBBER TO ENSURE THE SAFETY OF CTF PERSONNEL.	P068	50
35-01-21	OMS-E DECON FLOW WATER W/FUEL	DECONTAMINATION OF THE OMS-E INLET AND SERVICE LINES PRIOR TO DISASSEMBLY AND TESTING. THE PROCESS WILL UTILIZE WARM DEIONIZED WATER MIXED WITH BASIC-H, A WETTING AGENT, AT 1/3 OUNCE OF BASIC-H/75 GALLONS OF WATER.	P068	600
35-01-26	CRYO TRAP WASTE W/FUEL	POST FLIGHT/TEST FUEL VAPORS IN THE OMS-E BIPROP VALVE SHAFT SEAL CAVITY AND THE PRCS AND VRCS FUEL VALVE DECON WILL BE DRAWN INTO THE CRYO TRAP BY PULLING A VACUUM AT CP001.	P068	1
40-01-01	FUEL CONTAMINATED DECON WATER	DECONTAMINATION OF MMH, HYDRAZINE, OR UDMH INTO AND/OR WITH SITE WATER OF EQUIPMENT, PIPES, AND FITTINGS. THE WATER IS THEN CONTAMINATED WITH RESIDUAL FUEL. FROM TEST ARTICLES AND MMH PROPELLANT SYSTEMS/CONTAINERS ASSOCIATED WITH TEST STANDS 401, 402, 403, 405, AND 406. THIS PROCESS REMOVES THE . MAJORITY OF THE SAFETY HAZARD AND IS NECESSARY FOR FUTURE HANDLING OF THE EQUIPMENT.	P068,U098, U133	100
40-01-03	FUEL ASPIRATOR WATER	ASPIRATOR PULLS FUEL (MMH, HY, UDMH) VAPORS AND RESIDUAL LIQUID OUT OF PROCESS PIPES AND CAPTURING AND SCRUBBING THE FUEL IN WATER.	P068,U098, U133	100
40-01-46	TES DECON RINSE WATER	POST TOTAL ENCAPSULATING SUITS (TES) DECONTAMINATION RINSE WATER. WATER IS USED TO WASH SUIT AFTER COMPLETING A TES OPERATION. THIS REQUIRED PROCEDURE IS DONE TO REMOVE RESIDUAL PROPELLANT, (MMH, HY, UDMH) FROM THE SUIT TO PREVENT PERSONNEL EXPOSURE.	P068,U098, U133	500
40-01-47	VENT TANK WATER W/FUEL	TEST STANDS VENT PRODUCT FUEL VAPORS (<5 VOLUME % FUEL) AND PURGE GASES (>95 VOLUME % He OR GN2) TO THE EMISSIONS CONTROL UNIT TANK FOR SCRUBBING. THE PROCESS TANK CONTROLS AIR EMISSIONS AND THE SCRUBBING FLUID IS MANAGED AS HAZARDOUS WASTE WHEN REMOVED FROM THE UNIT.	P068,U098, U133	3000
40-01-54	DECON SINK WATER W/FUEL	EQUIPMENT AND HARDWARE USED IN FUEL (HYDRAZINE(S) SYSTEMS ARE RINSED/DECONED FOLLOWING GN2 PURGES. FIELD DECON IS PERFORMED (REQUIRED) AS PART OF THE TESTING PROCESS, PRIOR TO TRANSFER TO THE CONTAMINATION CONTROL FACILITY.	P068,U098, U133	55

FTU HAZARDOUS WASTE

WIWPS#	WASTE STREAM NAME	PROCESS DESCRIPTION	EPA WASTE CODE	ESTIMATED GALLONS PER YEAR
40-01-60	TEST STAND-CELL WASHDOWN WATER	WATER GENERATED BY CELL WASHES AND/OR RINSES FOLLOWING FIRING SEQUENCES. THE WASHDOWN REMOVES THE BYPRODUCTS GENERATED WHEN THE PROPELLANTS ARE BURNED TO TEST THRUSTERS.	P068,U098, U133	350
40-01-62	MINUTEMAN DECON WATER	CUSTOMER REQUIRED DECONTAMINATION REQUIRES NITROGEN PURGES THEN A TOTAL OF 8 FLUSHES OF 30 GALLONS EACH OF THE MINUTEMAN TEST ARTICLE USING DEIONIZED WATER FOLLOWING TEST FIRING. TEST PROCEDURE WJI-PROP-401-084 'MINUTEMAN DECONTAMINATION PROCEDURE" IS USED FOR THE PROCESS. THE DECON WATER WILL COLLECT IN THE BOTTOM OF THE TEST STAND PRIOR TO SAMPLING AND REMOVAL.	P068	300
50-01-04	TES DECON RINSE WATER	POST TES DECONTANINATION RINSE WATER. WATER IS USED TO WASH THE SUIT AFTER AN TES OPERATION. THIS IS DONE TO REMOVE RESIDUAL PROPELLANT (HYDRAZINE(S)) FROM THE SUIT TO PREVENT PERSONNEL EXPOSURE.	P068,U098, U133	10
80-02-04	WASTE FUEL	FUEL WASTE FROM TESTING IS VENTED OR DRAINED INTO A BARREL OF WATER. NEAT FUEL AT POG.	P068,U098, U133	100
80-02-19	FUEL DECON WATER	FUEL DECON WATER GENERATED FROM ROUTINE OPERATION OF THE 800 AREA. WATER IS USED TO TRIPLE RINSE PARTS/COMPONENTS CONTAMINATED WITH HYDRAZINE/MMH/UDMH. PARTS/COMPONENTS ARE PURGED WITH AN INERT GAS AND/OR WATER TO REMOVE RESIDUAL LIQUID FUEL PRIOR TO DECONTAMINATION AT THE DECON STATION.	P068,U098, U133	150
80-02-26	WASTE FUEL AND WATER	FUEL VENTED INTO BARREL OF WATER FROM APU TANKS BEING TESTED IN CELL 843	U133	50
80-02-28	N2H4 CONTAMINATED H20	A FUEL ASPIRATOR USED AS PART OF THE TEST SYSTEM IN TEST CELLS 844 AND 843 UTILIZES A 50 GALLON RESERVOIR OF WATER STORED IN A 100 GALLON TANK. WATER WILL BECOME CONTAMINATED WITH SMALL AMOUNTS OF N2H4 DURING EACH USE..	U133	250
80-02-32	N2H4CONTAMINATED WATER	GGVM HEAT EXCHANGER OPERATION IN CELL 844 WILL GENERATE ABOUT 225 GALLONS OF WASTE WATER PER TEST. WATER WILL BE DRAINED FROM HEAT EXCHANGER AND COLLECTED FOR PROPER DISPOSAL. IN THE EVENT OF EQUIPMENT FAILURE WATER MAY BECOME CONTAMINATED.	U133	900
80-02-60	FUEL DECON WATER	AFTER INITIAL FIELD DECON TEST ARTICLES ARE CLEANED AT HFTA DECON STATIONS.	P068,U098, U133	300
80-02-61	FUEL CONTAMINATED WATER	VACUUM CHAMBER TESTS ON PORTIONS OF THE ORBITER PROPELLANT TRANSFER SYSTEM WITH MMH. TEST PROCEDURE WILL REQUIRE DECON OF SOME HARDWARE.	P068	50

CURRENT WIWPS NUMBER ASSOCIATED WITH EPA WASTE CODES MANAGED IN THE FTU

P068

20-04-03	20-04-49	20-04-61
30-01-01	30-01-03	30-01-33
30-01-35	30-01-40	35-01-01
35-01-07	35-01-14	35-01-21
35-01-26	40-01-01	40-01-03
40-01-46	40-01-47	40-01-54
40-01-60	40-01-62	50-01-04
80-02-04	80-02-19	80-02-60
80-02-61		

U098

20-04-03	20-04-49	20-04-61
30-01-33	30-01-35	30-01-40
30-02-01	40-01-01	40-01-03
40-01-46	40-01-47	40-01-54
40-01-60	50-01-04	80-02-04
80-02-19	80-02-26	80-02-28
80-02-32	80-02-60	

U133

20-04-03	20-04-49	20-04-61
40-01-01	40-01-03	40-01-46
40-01-47	40-01-54	40-01-60
50-01-04	80-02-04	80-02-19
80-02-60		

Note:
Waste streams are variable based on testing operations. The waste streams listed in the tables may become inactive at times and new waste streams may be added. However, only waste streams that are profiled at the point of generation and approved for permitted units (per Part A documentation) will be managed at the FTU.