



California Environmental Protection Agency
Department of Toxic Substances Control

DRAFT HAZARDOUS WASTE FACILITY PERMIT

Permit Number: 03-BRK-01

Owner Name:
United Technologies Corporation
United Technologies Building
Hartford, Connecticut 06101

Operator Name:
United Technologies Corporation
Pratt & Whitney Space Propulsion
600 Metcalf Road
San Jose, CA 95138

Facility Address:
600 Metcalf Road
San Jose, CA 95138

EPA ID Number: CAD 001705235
Effective Date: June 21, 1997
Expiration Date: June 20, 1997
Modification Date: XXX
Modification No.: MOD NC2-XXXX03-A

Pursuant to Section 66270.42, Title 22, Division 4.5, California Code of Regulations, this RCRA-equivalent Hazardous Waste Facility Permit issued to the United Technologies Corporation is hereby modified to address changes in hazardous waste storage and treatment operations. The details of the modifications are listed in Appendices 1 and 2. The modified permit consists of 28 pages.

Mohinder S. Sandhu, P.E., Chief
Permits and Corrective Action Branch
Department of Toxic Substances Control

Date:

**UNITED TECHNOLOGIES CORPORATION
PRATT AND WHITNEY SPACE PROPULSION DIVISION
600 METCALF ROAD, SAN JOSE, CA 95138**

**HAZARDOUS WASTE FACILITY PERMIT
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ATTACHMENT A

PART I. DEFINITIONS

All terms used in this Permit shall have the same meaning as those terms have in the California Health and Safety Code, Division 20, Chapter 6.5 and Title 22, California Code of Regulations Division 4.5, unless expressly provided otherwise by this Permit.

1. “**DTSC**” as used in this Permit means the California Department of Toxic Substances Control.
2. “**Permittee**” as used in this Permit means the Operator and Owner.
3. “**Health and Safety Code**” as used in this Permit means the California Health and Safety Code.
4. “**Cal. Code Regs.**” as used in this Permit means the California Code of Regulations.
5. “**Lab Pack**” as used in this Permit means a container filled with smaller containers containing hazardous waste and surrounded by absorbent material.
6. “**RCRA**” as used in this Permit means Resource Conservation and Recovery Act, 42 U.S.C. sec. 6901, et seq.
7. “**Energetic Waste**” as used in this Permit refers to explosive and/or propellant wastes which have the potential for creating explosions or highly rapid ignition.
8. “**Unit**” as used in this Permit refers to discreet operational hazardous waste storage or treatment areas at the facility. For example, Unit #1, Container Storage Unit #2233. Note that the Permittee uses the term “facility” in its submittals to refer to a particular unit.
9. “**Facility**” refers to all contiguous property owned by the Permittee at, and surrounding, the location of the permitted hazardous waste units.

PART II. DESCRIPTION OF FACILITY AND OWNERSHIP

I. OWNER

The owner of the facility and land upon which this facility is located is United Technologies Corporation (hereafter "Owner"), a Delaware corporation, headquartered in Hartford, Connecticut.

2. OPERATOR

The facility operator is the Pratt and Whitney Space Propulsion Division of the United Technologies Corporation (Owner).

3. LOCATION

The facility is located at 600 Metcalf Road, San Jose, 95138, within the City of San Jose, Santa Clara County, approximately fourteen miles southeast of downtown San Jose and five miles north of Morgan Hill. The facility is located at latitude N 37^N 13' 008", longitude W 121^N 41' 014". Assessor's parcel numbers are listed in the Operation Plan (see Part III.1 of this permit) on page 3-6.

4. DESCRIPTION

The Permittee has operated at the site since the late 1950's. Production and research facilities are spread over the approximately 5,200 acre site and housed in approximately 200 buildings.

The Pratt and Whitney Space Propulsion Division develops, manufactures, and tests solid rocket motors. Operations at the site include small research and development labs, plating and printing shops, tool cleaning and de-greasing operations, and rocket fuel production areas. Solid rocket fuel manufacturing generates energetic waste and miscellaneous wastes containing explosives and/or propellants.

5. PERMIT HISTORY

This modified Permit replaces the permit issued in June of 1997. The permit issued in 1997 both 1) replaced the permit issued in 1983, and 2) terminated the Interim Status Document issued in 1981 and modified in 1995 to allow construction and operation of the Hydrolysis Treatment Unit.

6. FACILITY SIZE AND TYPE FOR FEES

This facility is categorized as a "Small Storage and Treatment Facility", as defined in Health and Safety Code section 25205.1, for purposes of Health and Safety Code, section 25209.19.

PART III. GENERAL CONDITIONS

1. PERMIT APPLICATION DOCUMENTS

The Part "A" Application and the Part "B" Application consisting of volumes I and II (Operation Plan), both dated September 16, 2002, revised to reflect the modifications indicated in Appendices 1 and 2, are hereby approved and made a part of this Permit by reference.

2. EFFECT OF PERMIT

- (a) The Permittee shall comply with the provisions of the California Health and Safety Code, and Division 4.5 of Title 22, Cal Code of Regs. The issuance of this Permit by DTSC does not release the Permittee from any liability or duty imposed by federal or state statutes or regulations or local ordinances, except the obligation to obtain this Permit. The Permittee shall obtain the permits required by other governmental agencies, including but not limited to, the applicable land use planning, zoning, hazardous waste, air quality, water quality, and solid waste management laws for the construction and/or operation of the facility.
- (b) The Permittee is permitted to treat and store hazardous wastes in accordance with the conditions of this Permit. Any treatment or storage of hazardous wastes not specifically authorized in this Permit is strictly prohibited
- (c) Compliance with the terms of this Permit does not constitute a defense to any action brought under any other law governing protection of public health or the environment, including, but not limited to, one brought for any imminent and substantial endangerment to human health or the environment.
- (d) DTSC's issuance of this Permit does not prevent DTSC from adopting or amending regulations that impose additional or more stringent requirements than those in existence at the time this Permit is issued and does not prevent the enforcement of these requirements against the Permittee.
- (e) Failure to comply with any term or condition set forth in the Permit in the time or manner specified herein will subject the Permittee to possible enforcement action including but not limited to penalties pursuant to Health and Safety Code, section 25187.
- (f) In addition, failure to submit any information required in connection with the Permit, or falsification and/or misrepresentation of any submitted information, is grounds for revocation of this Permit (Cal. Code Regs., title 22, section 66270.43).
- (g) In case of conflicts between the Operation Plan and the Permit, the Permit conditions take precedence.

- (h) This Permit includes and incorporates by reference any conditions of waste discharge requirements issued by the State Water Resources Control Board or any of the California Regional Water Quality Control Boards and any conditions imposed pursuant to section 13227 of the Water Code.
- (i) Pursuant to Health and Safety Code section 25112.5(a)(2), a fingerprint card shall be submitted for each specified individual as part of the Permittee's permit application pursuant to Health and Safety Code, section 25200.4. DTSC will provide written notification to the Permittee of the deadline for submittal of required fingerprint card(s) (or electronic fingerprinting). Failure to submit required fingerprinting card(s) (or electronic fingerprinting) shall result in revocation of this Permit.

3. COMPLIANCE WITH CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

A Negative Declaration in accordance with the California Environmental Quality Act (CEQA), and the CEQA Guidelines, Cal. Code Regs., title 22, section 15070 et seq. was prepared for the permit modification.

4. WASTE MINIMIZATION CERTIFICATION

Pursuant to Health and Safety Code, section 25202.9, the Permittee shall certify annually, by March 1 for the previous year ending December 31, that:

- (a) The facility has a program in place to reduce the volume and toxicity of all hazardous wastes which are generated by the facility operations to the degree, determined by the Permittee, to be economically practicable.
- (b) The method of storage or treatment is the only practicable method or combination of methods currently available to the facility which minimizes the present and future threat to human health and the environment.

The Permittee shall make this certification, in accordance with Title 22, Cal. Code Regs., section 66270.11. The Permittee shall record and maintain onsite such certification in the facility Operating Record.

5. WASTE MINIMIZATION CONDITIONS

The Permittee shall comply with the Hazardous Waste Source Reduction and Management Review Act (SB 14) requirements that are specified in the Health and Safety Code, sections 25244.19, 25244.20 and 25244.21, and any subsequent applicable statutes or regulations promulgated thereunder. This shall include submittal of SB 14 documents to DTSC upon request.

DTSC may require the Permittee to submit a more detailed status report explaining any

deviation from, or changes to, the approved waste minimization plan.

PART IV: PERMITTED UNITS AND ACTIVITIES

UNIT #1

Container Storage Area (2233)

LOCATION

Located in the eastern portion of the facility. (See figure XV-1 of the Part A Application for a layout of the facility)

ACTIVITY TYPE

Storage in containers (liquids) and bins (solids). Liquid containers include DOT approved boxes and drums ranging in size from one to 85 gallons. Solids are stored in DOT roll-off bins ranging in size from 15 to 50 cubic yards. Bins must not contain free liquids and shall be stored within the fenced perimeter.

ACTIVITY DESCRIPTION

Storage takes place either on the main storage pad, within sheds which have built-in containment, or in DOT roll-off bins. All sublocations within this Unit are designated by letters from A to T as presented in Figure IV.1. Maximum capacities for each subarea are listed in Table IV.1. Waste streams permitted for storage are listed with sublocation designations (A to T) in Table IV.3.

The main storage pad has secondary containment consisting of sloping epoxy-coated concrete floor piped to spill collection tanks. The main storage pad has four separate bays (A,B,C,D). Each bay has its own spill containment capacity.

Storage sheds (E,F,G,H,I,J,K,L,M,N,O,Q,R,S,T) located around the perimeter of the Unit may be used for storage of specific waste streams.

DOT roll-off Bins may be stored in sublocation P. The maximum capacity for solid materials stored in all roll-off bins within this sublocation is 200 cubic yards.

The following limitations apply to containers in Container Storage Area 2233:

1. Steel drums are limited to a maximum size of 85 gallons.
2. Fiber drums are limited to a maximum size of 55 gallons.
3. Aerosols in cans are limited to a maximum size of 1/2 gallon.
4. Roll-off bins are limited to a maximum size of 50 cubic yards.

PHYSICAL DESCRIPTION

Unit #1 is fenced and contains an area of 29,150 square feet. The main storage pad is covered by a steel roof. Sheds surround the main storage pad. See Figure IV-1 for the dimensions and lay-out of this storage unit.

MAXIMUM PERMITTED STORAGE CAPACITY

Unit #1 has a maximum permitted storage capacity of 23,820 gallons for liquid hazardous waste at any given time. The four areas of the main pad (A,B,C,D) have containment capacities of 4,400 gallons each. Shed E consist of two cabinets with storage capacities of 30 gallons each. Sheds F, G, H, I, J, K, L, M, N, O, Q, R, S, and T have storage capacities of 440 gallons each.

DOT roll-off bins, which are stored in area P, may store up to a total of 200 cubic yards of solid hazardous waste at any one time.

Figure IV-1 presents the locations of the various storage areas. Table IV-1 lists the storage capacities for each area.

WASTE TYPES

The wastes streams allowed for storage in each sublocation, along with the federal and State waste codes, are listed in Table IV-3. No explosives wastes shall be stored in this unit. No radioactive wastes shall be stored in this unit.

RCRA HAZARDOUS WASTE CODES

Waste codes authorized for storage in Unit #1 are listed in Table IV-3.

UNIT #1 SPECIAL CONDITIONS

Stacking of containers is not allowed. Incompatible chemicals shall not be stored in any one sublocation. Aisle space of at least 36 inches shall be maintained between all rows of hazardous waste. Labels shall be maintained on all containers at all times. Labels shall clearly indicate the hazardous property of the waste, the physical state of the waste, the date the waste was placed into the container, and the designated sublocation letter code.

AIR EMISSION STANDARDS

The Permittee shall comply with the applicable requirements of Cal. Code Regs., title 22, division 4.5, chapter 14, article 28.5.

TABLE IV-1 - SUBAREA LIST: UNIT #1 STORAGE AREA (2233)

Map Location (see Figure IV-1)	Primary DOT Hazard Class	Storage Capacity (gallons/drums)	Secondary Containment Capacity (gallons)	Description (Typical)
A	3,9	4400/80	1032**	Flammable, combustible, general storage
B	3,9	4400/80	1032**	Flammable, combustible, general storage
C	3,9	4400/80	1032**	Flammable, combustible, general storage
D	3,9	4400/80	1032**	Flammable, combustible, general storage
E (2 cabinets)	3,9	30/Cabinet	30/Cabinet	Flammable, combustible, general storage
F	3,4	440/8	205	Flammable solids, reactive, spontaneously combustile storage
G	5	440/8	205	Oxidizer storage
H	6	440/8	205	Poison storage
I	8 (acid)	440/8	205	Corrosive storage (acids) and lead acid batteries
J	8 (base)	440/8	205	Corrosive storage (bases)
K	3,9	440/8	205	Flammable, combustible, general storage
L	3,9	440/8	205	Flammable, combustible, general storage
M	9	440/8	205	General storage and universal waste storage ***
N	9	440/8	205	General storage and universal waste storage ***
O	9	440/8	205	General storage and universal waste storage or PCB waste storage***
P	9	440/8	205	DOT Roll-off and Bins
Q	3,9	440/8	205	Flammable, combustible, general storage
R	3,9	440/8	205	Flammable, combustible, general storage
S	3,4	440/8	205	Flammable solids, reactive, spontaneously combustile storage

Map Location (see Figure IV-1)	Primary DOT Hazard Class	Storage Capacity (gallons/drums)	Secondary Containment Capacity (gallons)	Description (Typical)
T	3,4	440/8	205	Flammable solids, reactive, or spontaneously combustible storage

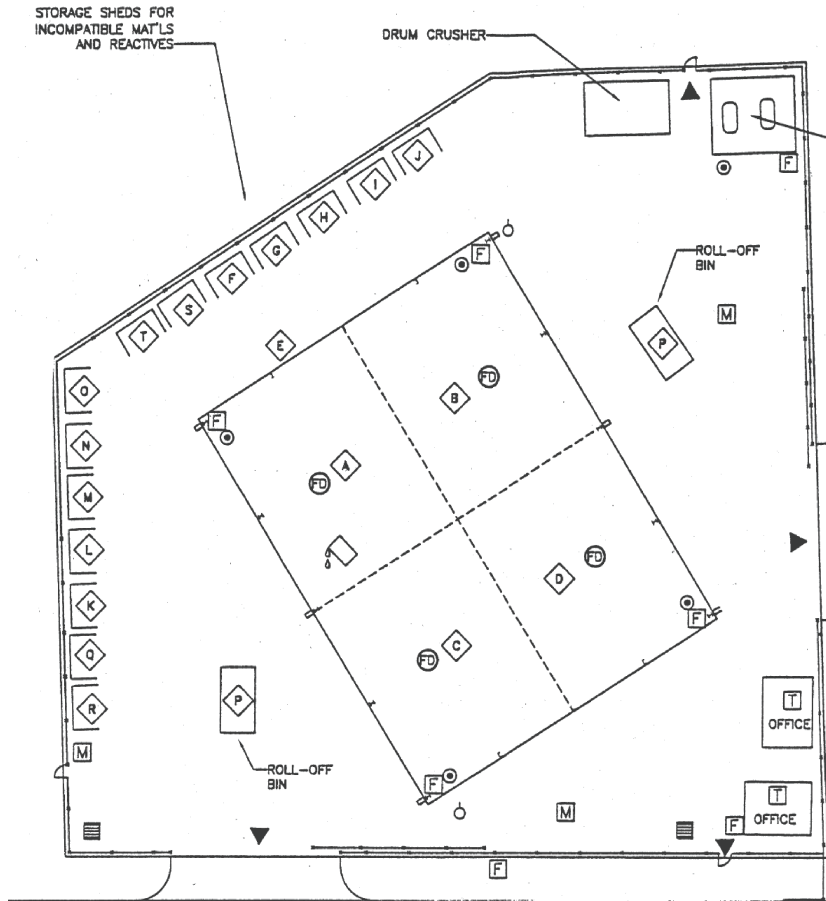
***Certain times during the year, the designation (hazard class) of specific a shed may have to be changed to insure that adequate storage is provided. For example, if additional acid storage is required, then Shed G or H may be designated for acid storage. Or, if additional flammable storage is needed, then one of the other sheds may be used on a temporary basis. At no time will incompatibles be stored together. All changes in area designation will be clearly posted.**

****Plus additional secondary containment storage capacity from a tank vault system of 17, 234 gallons.**

*****Fluorescent tubes/high intensity discharge lamps (HIDs)/mercury devices/batteries.**

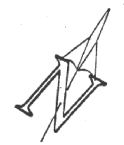
******If PCB wastes are stored, then all other materials are removed from the storage shed.**

FIGURE IV-1 - PLOT PLAN: UNIT #1 STORAGE AREA (2233)



LEGEND

⊙	FIRE PROTECTION SPRINKLER RISER	⊙	EVAC ASSEMBLY AREA	⬠	HAZMAT STORAGE NOTE: LETTER DESIGNATION IS REFERENCE TO ENVIRONMENTAL INVENTORY LIST
⊗	FIRE SPRINKLER	⬅	EVACUATION ROUTE		
F	FIRE EXTINGUISHER	⬅	EXITS		
⊙	EVACUATION ALARM MUSHROOM BUTTON	M	MONITORING WELL		
⬠	EVAC ALARM RESET	≡	STORM / SEWER DRAIN		
⊙	EYEWASH / SHOWER	T	TELEPHONE		
⬠	SPILL KIT	⊙	FLOOR DRAIN		



UNIT #2

Three Storage Magazines (0312)

LOCATION

The three storage magazines are located in a fenced and secure area in the eastern portion of the facility (See figure XV-1 of the Part A Application for the exact location of this unit within the facility).

ACTIVITY TYPE

Energetic wastes are stored in these magazines.

ACTIVITY DESCRIPTION

Energetic wastes are stored on pallets which have built-in containment. The magazines are specially designed and constructed to minimize the effects of accidental explosions.

PHYSICAL DESCRIPTION

Each storage magazine has internal measurements of 13 feet wide, 24 feet long, and 9 feet high. The units are built into the side of a hill and are covered with earth. The floors are concrete. The doors are thick gauge iron intended to contain an explosion.

MAXIMUM PERMITTED STORAGE CAPACITY

Maximum permitted storage capacity for liquid wastes for each storage magazine is 1,320 gallons. The total maximum storage capacity for the three magazines is 3,960 gallons.

WASTE TYPES

Waste streams #5, #31, and #41, as listed in Table IV-3, may be stored in this unit. These wastes are explosive and may or may not have been treated with liquids to make them less sensitive (See Unit #6, Desensitization).

RCRA HAZARDOUS WASTE CODES

D001, D002, D003, F002, F003, P081

UNIT #2 SPECIAL CONDITIONS

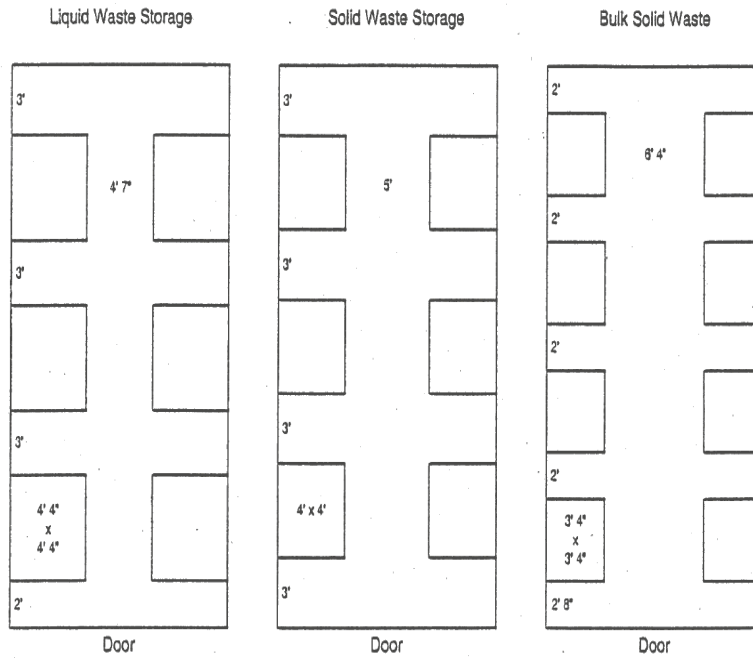
The volume of the largest container on a pallet shall not exceed the containment capacity of that pallet. Storage containers shall not exceed 55 gallons. Stacking shall not exceed six feet in height. Aisle space around pallets on at least three sides shall be a minimum of 36 inches. Aisle space around Carney boxes (individual boxes containing solid wastes) shall be a minimum of 24 inches on two sides, and a minimum of 60 inches on the side facing the center aisle. See Figure IV-2 for the floor plan and options for pallet arrangement.

AIR EMISSION STANDARDS

The Permittee shall comply with the applicable requirements of Cal. Code Regs., title 22, division 4.5, chapter 14, article 28.5.

FIGURE IV-2 - FLOOR PLAN: UNIT #2 STORAGE MAGAZINES (0503)

Approved Storage Arrangements Allowing Adequate Aisle Space



6 pallets x 4 drums
x 55 gallons =
1,320 gallons

6 pallets x 4 drums
x 250 pounds =
6,000 pounds

8 pallets x 1 Carney
box x 300 pounds =
2,400 pounds

UNIT #3

Hydrolysis Treatment Unit (0503)

LOCATION

The Hydrolysis Treatment Unit is located in the eastern portion of the plant. (See figure XV-1 of the Part A Application for a layout of the facility)

ACTIVITY TYPE

Hydrolysis of waste propellant, waste propellant ingredients, and propellant contaminated materials and other energetic materials using concentrated NaOH. Storage in a 15,000 gallon tank for treated effluent from the Hydrolysis Treatment Unit.

ACTIVITY DESCRIPTION

Wastes, which may be shredded first (see Unit #4), are fed into the reaction tumbler and treated with concentrated NaOH, initiating a chemical reaction which breaks down the energetic wastes¹ into less hazardous products including ammonia, water, and trace organics.

PHYSICAL DESCRIPTION

This unit is built on a bermed concrete measuring 35 x 70 feet and is covered by a steel weather cover. The pad is in two sections, an hydrolysis process section and a tank section. These sections are separated by a berm. The process section contains the reaction tumbler (148 gallon capacity). The tank section provides containment for a 15,000 gallon holding tank for treated effluent, a 5,000 gallon sodium hydroxide solution tank and a 2,000 gallon digestion tank.

MAXIMUM PERMITTED TREATMENT AND STORAGE CAPACITIES

Maximum throughput capacity for hazardous waste shall not exceed 40,000 pounds per year at a process rate not to exceed 200 pounds per day. This weight limit includes all contaminated materials such as clothing. A maximum of 400 pounds net explosive weight of energetic wastes may be present within the containment boundaries of this unit, including all wastes within the processing equipment, at any one time. This unit includes one storage tank (T003), 15,000 gallon capacity, for waste treatment effluent.

WASTE TYPES

Waste streams #31 (see Table IV-3) may be treated at this unit. Waste streams #32 and #41 may be stored for greater than 90 days within storage tank T003.

RCRA WASTE CODES

D001, D002, D003, F002, F003, P081

AIR EMISSION STANDARDS:

The Permittee shall comply with the applicable requirements of Cal. Code Regs., title 22, division 4.5, chapter 14, article 28.5.

¹see definitions, Part I of this permit

UNIT #3 SPECIAL CONDITIONS

The tanks permitted for hydrolysis treatment are listed in Table IV-2. Permittee shall maintain the indicated minimum shell thicknesses for the tanks.

TABLE IV-2
HYDROLYSIS TREATMENT UNIT TANKS

Tank	Permitted Maximum Storage Capacity (gallons)	Maximum Throughput Rate (lbs/day)	Construction Material	Minimum Shell Thickness
Reaction Tumbler (RT-001)	148	200 ¹	Stainless Steel	0.13"
NaOH Tank (T-001)	5,000	N/A	HDPE	N/A
Holding Tank (T-003)	15,000	N/A	HDPE	N/A
Digester Tank (T-002)	2,000	N/A	HDPE	N/A

notes: HDPE = high density polyethylene.

T-003 is permitted for storage greater than 90 days.

T-001 contains virgin NaOH, not hazardous waste. However, due to the fact that this tank is hard plumbed to the reaction tumbler, and is within the containment area for the other pipes, it is regulated by this Permit.

¹Throughput rate for hazardous waste component only.

UNIT #4

MECHANICAL PROCESSING (TREATMENT BY SHREDDING)

LOCATION

This unit is located within the containment area of Unit #3, Hydrolysis Treatment Unit (0503).

ACTIVITY TYPE

This unit, also known as the Shredder, shreds energetic waste, and energetic waste contaminated materials prior to being fed to the Hydrolysis Treatment Unit.

ACTIVITY DESCRIPTION

Material is fed into the shredder. The shredder is controlled remotely. A conveyor belt is loaded and the waste is transported by the conveyor belt into a compartment filled with water. Blades within the compartment shred the waste under water. Once shredded, the waste flows into the reaction tumbler of the Hydrolysis Treatment Unit #3 for further treatment. The shredder may also be used for wastes not to be treated by the Hydrolysis Treatment Unit, but to be shipped off-site.

PHYSICAL DESCRIPTION

The shredder consists of a container, or hopper, filled with water, with rotating blades located at the bottom which shred the waste. The unit is approximately five feet in height. A conveyor belt feeds waste up to the hopper.

MAXIMUM PERMITTED TREATMENT CAPACITY

The shredder has a maximum daily throughput limit of 200 pounds per day energetic waste and 1000 pounds per day of contaminated rags and debris.

WASTE TYPES

Waste streams #31 (see Table IV-2) may be treated at this unit.

RCRA WASTE CODES

D001, D003, F002, F003, P081

AIR EMISSION STANDARDS:

The Permittee shall comply with the applicable requirements of Cal. Code Regs., title 22, division 4.5, chapter 14, article 28.5.

UNIT #5

Size Reduction Treatment Unit #1986

LOCATION

Located in the eastern portion of the facility (See figure XV-1 of the Part A Application for a layout of the facility).

ACTIVITY TYPE

The Size Reduction Treatment Unit, also known as the Guillotine, is separate and distinct from the Shredder. This Unit is used to mechanically chop large pieces of energetic materials, mainly rocket motors, into smaller pieces.

ACTIVITY DESCRIPTION

Size Reduction Treatment consists of cutting waste into pieces weighing less than 40 pounds by a hydraulically powered chopping blade capable of chopping through metal waste. Pieces drop into a bin. This unit will be operated remotely from a Control Facility located in a nearby concrete structure. There will be no hazardous waste at the Control Facility.

PHYSICAL DESCRIPTION

This chopping device is located in the center of building 1986. Building 1986 is a pre-manufactured metal-sided Butler building, 40 feet square and 40 feet tall, with a concrete floor. The floor is coated with a waterproof and non-sparking epoxy. The bin and other containers used for the propellant, are made of inert, non-sparking material. All equipment is bonded and grounded to prevent spark discharge.

MAXIMUM PERMITTED TREATMENT CAPACITY

The throughput for this unit is limited to 10,000 pounds per day total for all materials.

WASTE TYPES

Waste streams #31 (see Table IV-2) may be treated at this unit. No liquid wastes will be treated at this unit.

RCRA WASTE CODES

D001, D003, F002, F003, P081

AIR EMISSION STANDARDS:

The Permittee shall comply with the applicable requirements of Cal. Code Regs., title 22, division 4.5, chapter 14, article 28.5.

Unit #6

Desensitization (Treatment) Unit

LOCATION

This treatment activity may take place at any generation or storage location at the facility where liquid energetic wastes are allowed. These locations include, but are not limited to, Unit #2, Unit #3, and Unit #4.

ACTIVITY TYPE

Addition of water, glyceryl triacetate, and/or other inert materials to energetic wastes to desensitize them.

ACTIVITY DESCRIPTION

Water, glyceryl acetate, and/or other inert material is added to energetic wastes to desensitize them and make these wastes safer for transportation..

PHYSICAL DESCRIPTION

There is no special equipment required for this treatment.

MAXIMUM PERMITTED TREATMENT CAPACITY

The throughput for this unit is limited to 1,600 pounds per day for energetic materials and 3,200 lbs per day for rags and debris contaminated with energetic materials.

WASTE TYPES

Waste streams #31 (see Table IV-2) may be treated at this unit.

RCRA WASTE CODES

D001, D003, F002, F003, P081

AIR EMISSION STANDARDS:

The Permittee shall comply with the applicable requirements of Cal. Code Regs., title 22, division 4.5, chapter 14, article 28.5.

TABLE IV-3. PERMITTED WASTE STREAMS

All waste streams listed below, with the exception of stream number 31, may be stored at Storage Unit #1(2233) in the storage locations designated by letters in the last column of this chart. These locations are indicated on Plot Plan for Storage Unit #3, Figure IV-1. Waste streams #32 and #41 may also be stored in Holding Tank T-003 located at the Hydrolysis Treatment Unit #3 or in the Storage Magazines Unit #2. Waste stream number 31 is to be treated at the Hydrolysis Treatment Unit #3 or the Size Reduction Unit #5. Waste stream #31, may be stored in the Storage Magazines Unit #2, and may not be held over 90 days on-site without being placed into the Storage Magazines Unit #2. Waste stream #31 shall not be held or be located, for any amount of time, at the Storage Unit (2233).

Table IV-3: HAZARDOUS WASTES STREAMS APPROVED FOR STORAGE OR TREATMENT						
Waste Stream Number	Name and description of waste	Hazardous constituents	EPA Waste No.	CA Waste No.	Max Annual Tonnage	Storage Locations
1	Aqueous waste with low solvent concentration.	Methylene chloride Carbon tetrachloride 111-TCA Acetone Methanol Xylenes Methyl ethyl ketone Petroleum & Hydrocarbon Solvents Terpene Hydrocarbons Glycol Ethers Esters Detergents Oil DS-108* Isopropanol Toluene Perchlorates Ammonium perchlorate Other organic solvents Trace metals	F001 F002 F003 F005 D019 D001 D022 D029 D035	122 131 134 135 221 331 341	200	A, B, C, D, L, Q, R
2	Water and Sludge	Methyl ethyl ketone Acetone Arsenic Barium Cadmium Chromium Lead Mercury Selenium Silver Trace solvents and metals	D004 D005 D006 D007 D008 D009 D010 D011 F002 F003 D035	135 491	100	A, B, C, D, K, L, Q, R
3	Acidic aqueous waste with metals	Mixed acids Cadmium Chromium Silver Trace metals	D002 D006 D007 D011	541 551 723	5	I
4	Caustic aqueous waste with metals	Mixed bases Cadmium Chromium Trace metals	D002 D006 D007 D011	122 541 551	5	J

Table IV-3: HAZARDOUS WASTES STREAMS APPROVED FOR STORAGE OR TREATMENT						
Waste Stream Number	Name and description of waste	Hazardous constituents	EPA Waste No.	CA Waste No.	Max Annual Tonnage	Storage Locations
5	Aqueous or organic waste with other reactives (e.g., explosives)	Methylene chloride 111-TCA Methanol HMX Nitroglycerin Ammonium Nitrate Ammonium Perchlorate DS-108* Isopropanol Acetone Xylenes Halogenated and non-halogenated solvents Perchlorates Ammonium perchlorate RDX Trace organic solvents	D001 DOO3 FOO2 F003	331	100	A, B, C, D, K, L, Q, R at Storage Unit (2233) if not explosive. Storage Magazine (0312) if explosive.
6	Aqueous Waste with high dissolved solids	Metals Trace organic compounds	D001	131 132 134 561	20	A, B, C, D, K, L, Q, R
7	Petroleum hydrocarbons(distillates, naphtha, paraffins, aromatic petroleum solids)	Oil Petroleum distillates	D001	213 214 221 331	5	A, B, C, D, K, L, M, N, O, Q, R
8	Halogenated solvent mixtures	DS-108* Methylene Chloride Methyl Ethyl Ketone 111-TCA CFC 113 CFC'S HCFC'S Arsenic Barium Cadmium Chromium Lead Mercury Silver Carbon Tetrachloride Chlorobenzene Chloroform Acetone Methanol Isopropanol Xylenes Trace metals Other organic solvents	F002 F003 F005 D004 D005 D006 D007 D008 D009 D011 D019 D021 D022 D035 U226	211 214 551 741	10	A, B, C, D, K, L, Q, R

Table IV-3: HAZARDOUS WASTES STREAMS APPROVED FOR STORAGE OR TREATMENT						
Waste Stream Number	Name and description of waste	Hazardous constituents	EPA Waste No.	CA Waste No.	Max Annual Tonnage	Storage Locations
9	Non-Halogenated solvent mixtures	DS-108* Methyl Ethyl Ketone Acetone Methanol Isopropanol Isobutyl alcohol Petroleum & Hydrocarbon Solvents Terpene Hydrocarbons Glycol ethers Esters Detergents Xylenes Toluene Arsenic Barium Cadmium Chromium Lead Mercury Silver Pyridine Trace Methy. Chloride Trace 111-TCA Trace CFC 113 Trace metals Other organic solvents Trace metals	FO02 F003 F005 D001 D004 D005 D006 D007 D008 D009 D010 D011 D035 D038	212 213 214 223 551 741	10	A, B, C, D, K, L, Q, R
10	Non-halogenated and halogenated solvent mixtures	Methyl Ethyl Ketone Acetone Methanol Isopropanol Isobutyl alcohol Xylenes Toluene Petroleum and Hydrocarbon Solvents Terpene Hydrocarbons Glycol ethers Esters Detergents Methyl Chloride Nitroglycerine 111-TCA CFC 113 Oil Other trace solvents Trace metals	F002 F003 F005 D022 D025 D035 P022	133 211 212 214 223 341 342 551 741	70	A, B, C, D, K, L, Q, R
11	Oil-water emulsion mixtures	Oil Antifreeze Coolant (CFC's) Acetone Methanol Isopropanol Isobutyl alcohol Xylenes Toluene Glycol ethers Methylene Chloride 111-TCA CFC-113 Other trace organics	F002 F003 F005	134 135 221 341 551	80	A, B, C, D, K, L, M, N, O, Q, R
12	Waste Oil	Oil Trace metals Other organic solvents	Non-RCRA	181 221 223 261 352 551 731	40	A, B, C, D, K, L, M, N, O, Q, R

Table IV-3: HAZARDOUS WASTES STREAMS APPROVED FOR STORAGE OR TREATMENT						
Waste Stream Number	Name and description of waste	Hazardous constituents	EPA Waste No.	CA Waste No.	Max Annual Tonnage	Storage Locations
13	Other organic mixtures	Resins Chromium Trace organics Trace metals Other organic solvents	D007 D001	132 134 214 272 331 343 551	20	A, B, C, D, K, L, Q, R
14	Organic paint, ink, lacquer, or varnish	Cadmium Chromium Xylene Methyl Ethyl Ketone Toluene 2-Ethoxyethanol Lead Trace metals Trace organics	D001 D006 D007 D008 D035 F005	331 352 551 461	50	A, B, C, D, K, L, Q, R
15	Adhesives, epoxies, and resins	Terpenes Hydrocarbons MEK Toluene 2-Ethoxyethanol Trace organics Trace metals	D001 D035 F005	272 33 1 551	50	A, B, C, D, K, L, Q, R
16	Paint thinner and/or petroleum distillates	Xylene Cadmium Chromium Lead Petroleum Distillates MEK Toluene 2-Ethoxyethanol Methyl Chlor. 111-TCA Stoddard solvents Terpenes Trace organics Trace metals	D001 D006 D007 D008 D035 F002 F003 F005	212 213 214 331 551	20	A, B, C, D, K, L, Q, R
17	Reactive or polymerizable organic materials	Isocyanate Diisocyanate compounds	D001 D003 P105	212 214 271 272 331 352 551	10	A, B, C, D, K, L, Q, R
18	Inorganic solids	Graphite Silica Aluminum oxide Silver Compounds of Arsenic Cadmium Chromium Trace metals Trace organics	D001 D004 D006 D007 D011	141 181 331 541 551	10	A, B, C, D, K, L, P, Q, R
19-A	Resin filters with silver	Silver Cadmium Trace metals	D006 D011	132 171 331 541 551	5	A, B, C, D, K, L, Q, R
19-B	Spent developer, fixer and water	Silver Cadmium Trace metals	D002 D006 D011	171 541 551	20	A, B, C, D, K, L, Q, R
19-C	Steel wool with silver	Silver Cadmium Trace Metals	D011	181 541 551 171	5	A, B, C, D, K, L, Q, R
19-D	Silver flake	Silver Cadmium Trace Metals	D011	171 541 551	5	A, B, C, D, K, L, Q, R

Table IV-3: HAZARDOUS WASTES STREAMS APPROVED FOR STORAGE OR TREATMENT						
Waste Stream Number	Name and description of waste	Hazardous constituents	EPA Waste No.	CA Waste No.	Max Annual Tonnage	Storage Locations
19-E	Photographic Film	Silver Trace metals	D011	171 541 551	5	A, B, C, D, K, L, Q, R
20	Solid resins or polymerized organics	Isocyanate compounds Trace organics Trace metals	D001 D003	271 551	5	A, B, C, D, K, L, Q, R
21	Halogenated organic solids	DS-108* Carbon Tetrachloride Chlorobenzene Chloroform Acetone Methanol Isopropanol Isobutyl alcohol Xylenes Toluene Methyl. Chlor. 111-TCA CFC 113 MEK p-Cresol Trace metals	D001 D003 D035 D025 F002 F003 F005	352 551	25	A, B, C, D, K, L, P, Q, R
22	Non-halogenated organic solids	Aluminum Toluene Polyglycol powder	D001 D005 D035 F002 F003 F005	331 352 513 551	25	A, B, C, D, K, L, P, Q, R
23	Empty or crushed metal drums or containers	Trace organic compounds Trace residues	Non-RCRA	141 181 512 513	25	A, B, C, D, K, L, P, Q, R
24	Aerosols in cans. Maximum can size = 0.5 gallon.	Paints, adhesives, mold release compounds.	DOO1 D002 D003	141 331 512 551	5	A, B, C, D, K, L, Q, R
25	Lab packs of off-spec. or out-of-date materials and debris	Barium Cadmium Chromium Lead Mercury Silver MEK Acetone Methanol Isopropanol Isobutyl alcohol Xylenes Toluene Methyl. Chlor. Nitroglycerin Nitrocellulose Ammonium Nitrate 111-TCA CFC 113 Acids Bases Water reactives Air reactives Trace organics Trace metals	D001 D011 D018 D019 D021 D022 D025 D028 D033 D034 D035 D036 D043 F001 to F009 F039 P015 P030 P087 U001 U004 U006 U022 U078 U116 U123 U128 U147 U162 U165 U190 U219 U225	132 134 171 271 214 514 551 561 571 611	45	A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, Q, R, S, T (segregation dependent upon hazard)

Table IV-3: HAZARDOUS WASTES STREAMS APPROVED FOR STORAGE OR TREATMENT						
Waste Stream Number	Name and description of waste	Hazardous constituents	EPA Waste No.	CA Waste No.	Max Annual Tonnage	Storage Locations
26	Spent carbon containing organics	Carbon tet Chlorobenzene Acetone Methanol Isopropanol Isobutyl alc. Xylenes Toluene Methyl. Chlor. 111-TCA CFC 113 Trace organics Trace metals	D001 D002 D019 D021 F002 F003 F005	351 352 751	30	A, B, C, D, k, L, P, Q, R
27	Remediation Soils (Soils contaminated with organics)	Asphalt Oil Perchlorates 111-TCA Methyl. Chlor. Acetone Methanol Toluene Benzene Xylenes PCB's Trace organics Trace metals	D001 F002 F003 F004 F005	131 181 352 611 261	5000	A, B, C, D, K, L, P, Q, R
28	PCB Wastes	Oil Metals PCB's	Non-RCRA (TOSCA)	261	1	O
29	Universal Wastes (Recyclables): Fluorescent tubes, High Intensity Discharge Lamps, Mercury devices and Batteries	Mercury Nickel Cadmium Chromium Silver Lithium Lead Trace metals	D002 D003 D009 D006 D008 D007	141 181 551 725 791	25	M, N, O
30	Asbestos solids and debris	Asbestos	F003	135 551 151	50	A, B, C, D, K, L, P, Q,R
31	Reactive waste before treatment	1.1-1.3 Propellant Ammonium Perchlorate Nitroglycerin HMX Ammonium Nitrate 111-TCA Methanol 1.4-1.6 Propellant DOT unclassified propellant and RDX High explosives Explosive contaminated trash and debris Trace organics Trace metals	D001 D003 P081 F002 F003	135 141 181 213 331 352 551	20	Treatment Only at Unit 0503. Storage only at Storage Magazines (312).
32	Residues from reactive waste treatment (stream #31)	Perchlorates Na Nitrate Na Nitrite Na Formate Glycerol Al hydroxide Methanol Trace organics Trace metals	D002	121 123 131 133 134 491	200	Shed J located at 2233, and Holding Tank T003 located at the Hydrolysis Treatment Unit.
33	Ash from thermal treatment of explosive waste	Trace organics Trace metals Lead Chloroform Carbon Tetrachloride	F002 F003 F005 D008 D019 D022	571	5	A, B, C, D, K, L, P, Q, R

Table IV-3: HAZARDOUS WASTES STREAMS APPROVED FOR STORAGE OR TREATMENT						
Waste Stream Number	Name and description of waste	Hazardous constituents	EPA Waste No.	CA Waste No.	Max Annual Tonnage	Storage Locations
34	Non-RCRA and Non-Hazardous Waste Solid	Solid organics and inorganics Resins Polymers Carbon black Pigments and fillers Film and tape Adhesives Binders Sodium Chloride Pre-preg fibers and materials Grease Iron oxide Debris Metals Trace metals Trace organics	Non-RCRA	134 141 151 181 272 331 351 352 512 513 551	200	A, B, C, D, K, L, P, Q, R
35	Treated medical and biological wastes	Treated medical and biological wastes Trace metals Trace organics	Non-RCRA	322	1	A, B, C, D, K, L, P, Q, R
36	Mercury waste	Mercury Metal Glass Plastic Debris Trace metals Trace organics	D009	181 551 725	0.5	H, M, N, O
38	RCRA solids for macroencapsulation	Resins Wood Trace organics Trace metals	D001 D002 D003 D004 D006 D007 D008	352 551	10	A, B, C, D, K, L, P, Q, R
39	High viscosity, non-pumpable oils fuels, and resins	Oil Fuel Premix Resins Trace organics Trace metals	D001	221 272 331 343 352 551	200	A, B, C, D, K, L, Q, R
40	Non-hazardous solid waste for Class I and Class II landfill	Non-hazardous waste solid debris sand blasting grit trace organics trace metals	None	None	5000 tons	A, B, C, D, K, L, P, Q, R,
41	HTF crumb and debris solids-reactive waste after treatment	PPE Metal Glass Plastic Ceramic Wood Cardboard Foil Debris Trace organics Trace metals	D001 D002	181 352 551	10	Shed F, G, S, T at Storage Unit 2233, Holding tank T003 at the Hydrolysis Treatment Unit, Storage Magazines 312.
55C	Wood (pressure treated)	Arsenic Zinc	Non-RCRA	181	10	P
58	Metal, Metal turnings, metal powder, metal fines or metals mixed fines mix	Tungsten powder Zinc powder Magnesium powder Magnesium turnings Aluminum powder Metal powder and turnings Oil Cutting fluids Trace organics	D001 D003 D006 D007 D008	141 172 181 551	20	F, S

Table IV-3: HAZARDOUS WASTES STREAMS APPROVED FOR STORAGE OR TREATMENT						
Waste Stream Number	Name and description of waste	Hazardous constituents	EPA Waste No.	CA Waste No.	Max Annual Tonnage	Storage Locations
59	Desiccant, PPE and other debris contaminated with trace ammonium perchlorate	Desiccant Sodium chlorate ammonium perchlorate PPE Metal Glass Plastic Ceramic Wood Cardboard Foil Debris Trace organics Trace metals	D001	141 181 551	20	G, T
60	Oxidizer, sodium nitrate	Sodium nitrate Ammonium perchlorate Other oxidizers	D001	141	1	G, T
61	Oxidizer, desiccant bags, with ammonium perchlorate	Ammonium perchlorate Other oxidizers	D001	181 551	1	G, T
62	Cathode ray tubes	Lead Phosphorus Trace metals	D008	181	15	A, B, C, D

* DS-108 is a mixture of non-halogenated petroleum solvents and other proprietary ingredients.

PART V - SPECIAL CONDITIONS

These conditions apply to all permitted units listed in Part IV of this Permit.

1. Wastes Prohibited

The following wastes shall not be stored or treated in any of the permitted units:

- a. Any hazardous waste not listed in this Permit or otherwise approved by DTSC;
- b. Any hazardous waste generated outside the premises of the facility, and;
- c. Radioactive Wastes.

2. Minimum Inspection Frequency

Table V-1
Hazardous Waste Management Units
Monitoring and Inspection Schedule Summary

UNIT	FREQUENCY	SPECIFICS	Cal. Code Regs., title 22
Containers and container containment areas	weekly	leaks, cracks, deterioration, liquid accumulation in the containment area.	66264.174
Tanks, tank containment area, and ancillary equipment	daily	level controls, leaks, cracks, liquid accumulation in the containment area.	66264.195
Tanks, tank containment area and ancillary equipment	every year	thickness of tank walls, internal corrosion, bulging, and erosion	66264.195(e)
Alarm systems, and emergency communication and first aid equipment	monthly, or more frequently if necessary to insure proper operation	N/A	66264.33

VI CORRECTIVE ACTION

The Permittee is required to conduct corrective action at the facility pursuant to H&SC section 25200.10. The Permittee is currently conducting corrective action under the oversight of the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB). As a condition of this Permit, the Permittee is required to comply with any and all requirements imposed by the RWQCB relating to, or with regard to, any investigation, remediation, and corrective action at the facility. DTSC reserves its right under Health & Safety Code sections 25200.10 and 25187 to require the Permittee to comply with additional corrective action requirements for the protection of the environment and public health.

Appendix 1 Permit Modification History

XXX, 2003: Class 3 Modification

This permit was modified xxx, 2003 to add treatment and storage units, revise waste stream codes, and to update the permit into the currently required format:

Appendix 2

xxx, 2003 Class 3 Permit Modification Details

1. Unit #1, Storage Facility (Station 2233) had its maximum permitted liquid storage capacity increased from 22,000 to 23,820 gallons.
2. Unit #2, Storage Magazines (Station 0312) was added and approved for storage.
3. Unit #4, Shredder was added to the Hydrolysis Treatment Unit #3 (Station 0503).
4. Unit #5, Size Reduction (Station 1986) was added and approved for treatment.
5. Unit #6, Desensitization (Treatment) was added and approved for treatment.
6. Permitted Waste Streams, Table IV-3, was adjusted to reflect changes in waste stream codes and in quantities and components of wastes generated.
7. The Permit was converted to the new DTSC approved format for permits to specify regulated unit details. The new formatting avoids, as much as possible, repetition of regulatory requirements found in the Cal. Code Regs. Although numerous references to regulations have been removed, the Permittee is required to comply with all applicable laws and regulations. The following sections were deleted:
 - II.B - Requirement to Submit Information and to Allow Inspection and Entry
 - II.C - Specific Conditions
 - II.D - Land Disposal Restrictions
 - II.E - Permit Actions
 - II.F - Need to Halt or Reduce Activity Not a Defense
 - II.G - Severability
 - II.H - Permit Expiration
 - II.I - Reporting of Releases
 - II.J - Notice of Planned Physical Changes and Certification of Construction
 - II.K - Operation at Night
 - II.M - General Responsibilities of Operator
 - II.N - Signatory Requirement
 - II.Q - Permit Modification
 - II.R - Recycling
 - II.S - Location Standard
 - II.T - Cost Estimate for Permitted Facility Closure
 - II.U - Financial Assurance for Permitted Facility Closure
 - II.V - Liability Requirements
 - II.W - Incapacity of Owners or Operators, Guarantors, or Financial Institutions
 - II.X - Contingency Plan
 - II.Y - Emergency Coordinator
 - II.Z - Personnel Training
 - II.AA - Special Provisions for Ignitable, Reactive or Incompatible Waste

- II.BB - Preparedness and Prevention
- II.CC - Required Aisle Space
- II.DD - Recordkeeping and Reporting
- II.EE - General Closure Requirements

8. The name of the division of United Technologies Corporation listed as the operator was changed from "Chemical Systems Division" to "Pratt & Whitney Space Propulsion".
9. Under the "Definitions" section, the following definitions were deleted as they are no longer necessary: Part, Branch Chief, Executive Officer, RWQCB, Tank, Container, and Permitted facility.
10. The wording of Part III.2, "Effect of Permit", was changed to comply with the new model permit format.
11. Part II.L - Application (Operation Plan) of the Hazardous Waste Facility Permit Application - was replaced with Part III.1 - Permit Application Documents.
12. Part II.O - Waste Minimization Certification - has been replaced by Part III.4 - Waste Minimization Certification.
13. Part II.P - Waste Minimization Conditions - has been replaced by Part III.5 - Waste Minimization Conditions.
14. Part III - Special Conditions - has been replaced by Part V - Special Conditions.
15. Table III.1 - Monitoring and Inspection Schedule Summary - has been replaced as Table V.1 - Monitoring and Inspection Schedule Summary. No changes were made to the content.
16. Part IV - Hazardous Waste Storage in Containers - and Part V - Hazardous Waste Treatment and Storage in Tanks - have been replaced by Part IV - Permitted Units and Activities.
17. Table 1 - Permitted Waste Streams - was replaced by Table IV.3 - Permitted Waste Streams.