

**CALIFORNIA ENVIRONMENTAL QUALITY ACT****INITIAL STUDY**

*The Department of Toxic Substances Control (DTSC) has completed the following Initial Study for this project in accordance with the California Environmental Quality Act (§ 21000 et seq., California Public Resources Code) and implementing Guidelines (§15000 et seq., Title 14, California Code of Regulations).*

**I. PROJECT INFORMATION**

Project Name: United Technologies Corporation, Pratt and Whitney Space Propulsion, Hazardous Waste Facility Permit Class 3 Modification

Site Address: 600 Metcalf Road

City: San Jose State: CA Zip Code: 95138-0015

Contact Person: Meera Rama-Nathan  
Environmental Facilities Engineering

Address: 600 Metcalf Road

City: San Jose State: CA Zip Code: 95138-0015 Phone Number: (408) 776-4305

**Project Description:**

United Technologies Corporation (UTC), Pratt and Whitney Space Propulsion Division is seeking approval from the California Department of Toxic Substances Control (DTSC) of a Class 3 Modification to its current Hazardous Waste Facility Permit. This discretionary action was undertaken by DTSC pursuant to its authority under Chapter 6.5 and California Code of Regulations, Section 66270.42. If approved, the permit would allow UTC to conduct the following modifications at its existing hazardous waste storage and treatment facility located at 600 Metcalf Road, San Jose:

1. Construction of two (2) sheds to increase the maximum permitted capacity of the Storage Facility (Station 2233) from 22,000 gallons to 23,820 gallons of liquid hazardous waste (+1,820 gallons). The permitted capacity for solid waste in bins will remain the same (200 cubic yards).
2. Installation and operation of a Shredder within the existing Hydrolysis Treatment Facility (Station 0503) to reduce the size of waste propellant, rags and debris generated at the facility. The maximum treatment rates for the Shredder are 200 lbs/day for propellant, and 1000 lbs/day for rags and debris. These treated wastes will be either treated in the Hydrolysis Treatment Facility or shipped off-site for disposal.
3. Installation and operation of a Guillotine/Chopper within the existing Size Reduction Treatment Facility (Station 1986) to reduce the size of propellant wastes to facilitate off-site disposal or treatment in the Hydrolysis Treatment Facility (Station 0503). The maximum treatment rate for the Guillotine/Chopper is 10,000 lbs/ day.
4. Authorization to add water, glyceryl acetate, and/or other inert materials to explosive and propellant wastes before placement in storage containers. This treatment will make the wastes less shock-sensitive and safer for transport on-site and off-site.
5. Authorization to utilize three existing bunkers located at the Storage Magazines (Station 0312) Unit for storing liquid and solid explosive and propellant wastes from propellant manufacturing processes. The Magazines are also used to store 1-cubic yard boxes containing contaminated leftovers from manufacturing processes such as rags and contaminated polypropylene gloves and overalls. The wastes are stored prior to off-site transport and disposal, or onsite transport to the Hydrolysis Treatment Facility. The maximum permitted storage capacity for each magazine is 1,320 gallons. Maximum storage for solids would be approximately 6,000 pounds per magazine.

6. Authorization to store ignitable and reactive wastes at the Storage Magazines (Station 0312) Unit periods longer than 90 days. Currently, wastes are stored for less than 90 days without a permit.
7. Adjust waste stream constituents and annual tonnages in the permit to reflect the current operations and correct past inaccuracies.

**Background:**

UTC has operated at this site since the late 1950's. The UTC develops, manufactures and tests solid rocket motors. . Production and research facilities are spread over the approximately 5,200 acre site and are housed in approximately 200 buildings. 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 (propellant) manufacturing generates wastes containing explosives and/or propellants that are classified hazardous waste under Federal and State statues and regulations.

The existing Hazardous Waste facility Permit approved by DTSC in 1997 gives UTC authorization to operate the following units and activities:

- Storage Facility (Station 2233):

A centralized hazardous waste staging and storage facility, the Storage Facility is located at the intersection of Manufacturing Road and Las Animas Road. The facility serves as the temporary holding area for all hazardous wastes that are shipped off site. The facility consists of an 80-foot by 100-foot reinforced concrete slab covered by a pre-fabricated steel weather cover ("Butler Building"). Self-contained storage sheds are also used for the storage of smaller quantities of hazardous waste and are located adjacent to the main building. The Storage Facility receives wastes generated on site from manufacturing operations, research and development, testing activities, and site remediation. The majority of wastes are generated during rocket propellant and propulsion systems production. Wastes are also generated during routine cleaning and maintenance as well as from surplus and off-specification materials that cannot be used. Site remediation wastes are generated from various cleanup projects and may include contaminated soils and purge waters. The Storage Facility may store hazardous waste for periods exceeding 90 days. Rainfall is directed away from the concrete slab by building downspouts and asphalt that is sloped away from the pad. The pad itself is divided into four quadrants which drain separately into two secondary containment holding tanks. The tanks are additionally covered and contained within a concrete sump. Any spills that occur on the pad, and precipitation that enters the pad despite the cover, are collected in the containment tanks.

- Hydrolysis Treatment Facility (Station 0503):

This unit was constructed in 1997 for the purpose of treating excess propellant and propellant-related wastes. The Hydrolysis Treatment Facility consists of a 35-foot by 70-foot reinforced concrete slab covered by a steel weather cover. The facility is divided into process and tank sections. The process section contains the reaction tumbler. The tank section provides containment for a 15,000 gallon holding tank, a 5000 gallon sodium hydroxide tank, and a 2,000 gallon digestion tank. The effluent from the process may be processed by conventional permitted wastewater treatment facilities or can be incinerated at an off-site facility. This facility receives and treats wastes sent from various generating stations (primarily research and manufacturing processes within the UTC). The key components for the Hydrolysis Treatment Facility include a reaction tumbler, caustic storage tank, digester tank, and brine holding tank.

**II. DISCRETIONARY APPROVAL ACTION BEING CONSIDERED BY DTSC**

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> Initial Permit Issuance        | <input type="checkbox"/> Closure Plan        | <input type="checkbox"/> Removal Action Workplan |
| <input type="checkbox"/> Permit Renewal                 |  | <input type="checkbox"/> Interim Removal         |
| <input checked="" type="checkbox"/> Permit Modification | <input type="checkbox"/> Removal Action Plan | <input type="checkbox"/> Other (Specify)         |

Program/ Region Approving Project: Department of Toxic Substances Control, Standardized Permits and Corrective Action

Contact Person: Andrew Berna-Hicks  
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Address: Berkeley CA 94710 (510) 540-3956  
City: State: Zip Code: Phone Number:

**III. ENVIRONMENTAL RESOURCES POTENTIALLY AFFECTED**

The boxes checked below identify environmental resources which were found in the following ENVIRONMENTAL SETTING/IMPACT ANALYSIS section to be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact."

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology And Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Utilities and Service Systems
- Cumulative Effects

**IV. ENVIRONMENTAL IMPACT ANALYSIS**

The following pages provide a brief description of the physical environmental resources that exist within the area affected by the proposed project and an analysis of whether or not those resources will be potentially impacted by the proposed project. Preparation of this section follows guidance provided in DTSC's California Environmental Quality Act Initial Study Workbook [Workbook]. A list of references used to support the following discussion and analysis are contained in Attachment A and are referenced within each section below.

Mitigation measures which are made a part of the project (e.g.: permit condition) or which are required under a separate Mitigation Measure Monitoring or Reporting Plan which either avoid or reduce impacts to a level of insignificance are identified in the analysis within each section.

**1. Aesthetics**

*Project activities likely to create an impact:* None.

Hazardous waste storage and treatment activities proposed by the permit modification will be conducted within existing buildings, or involve only changes in facility operation. Consequently, further analysis is not deemed necessary.

*Description of Environmental Setting:*

Analysis of Potential Impacts.

Describe to what extent project activities would:

- a. Have a substantial adverse effect on a scenic vista.

- b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and historic buildings within a state scenic highway.
- c. Substantially degrade the existing visual character or quality of the site and its surroundings.
- d. Create a new source of substantial light of glare that would adversely affect day or nighttime views in the area.

## References:

RCRA Part A and Part B Permit Application, United Technologies Corporation, Pratt and Whitney Space Propulsion, September 16, 2002.

*Findings of Significance:*

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

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**2. Agricultural Resources**


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*Project activities likely to create an impact:* None.

Hazardous waste storage and treatment activities proposed by the permit modification will be conducted within existing buildings, or involve only changes in facility operation. Consequently, further analysis is not deemed necessary.

*Description of Environmental Setting:*

Analysis of Potential Impacts.

Describe to what extent project activities would:

- a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.
- b. Conflict with existing zoning or agriculture use, or Williamson Act contract.
- c. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural uses.

## References:

1) RCRA Part A and Part B Permit Application, United Technologies Corporation, Pratt and Whitney Space Propulsion, September 16, 2002.

2) Santa Clara County Planning Office, Land Use Permits (Interview with Kim Brosseau, November 2002).

*Findings of Significance:*

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

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**3. Air Quality**


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*Project activities likely to create an impact.*

- Installation and operation of a shredder within the existing Hydrolysis Treatment Facility (Station 0503)
- Installation and operation of a guillotine/chopper within the existing Size Reduction Treatment Facility (Station 1986)

*Description of Environmental Setting:*

## Analysis of Potential Impacts.

Describe to what extent project activities would:

- a. Conflict with or obstruct implementation of the applicable air quality plan.
- b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation.
- c. Result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).
- d. Expose sensitive receptors to substantial pollutant concentrations.
- e. Create objectionable odors affecting a substantial number of people.

## References:

- 1) RCRA Part A and Part B Permit Application, United Technologies Corporation, Pratt and Whitney Space Propulsion, September 16, 2002.
- 2) Bay Area Air Quality Management District (Interview with Janet P. Stromberg, Supervising Air Quality Engineer, November 2002 and December 2002).

*Findings of Significance:*

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

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**4. Biological Resources**


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*Project activities likely to create an impact.* None.

Hazardous waste storage and treatment activities proposed by the permit modification will be conducted within existing buildings, or involve only changes in facility operation. Consequently, further analysis is not deemed necessary.

*Description of Environmental Setting:*

## Analysis of Potential Impacts.

Describe to what extent project activities would:

- a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
- b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

- c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- e. Conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

## References:

RCRA Part A and Part B Permit Application, United Technologies Corporation, Pratt and Whitney Space Propulsion, September 16, 2002.

*Findings of Significance:*

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

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**5. Cultural Resources**


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*Project activities likely to create an impact:* None.

Hazardous waste storage and treatment activities proposed by the permit modification will be conducted within existing buildings, or involve only changes in facility operation. Consequently, further analysis is not deemed necessary.

*Description of Environmental Setting:*

Analysis of Potential Impacts.

Describe to what extent project activities would:

- a. Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5.
- b. Cause a substantial adverse change in the significance of an archeological resource pursuant to 15064.5.
- c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
- d. Disturb any human remains, including those interred outside of formal cemeteries.

## References:

RCRA Part A and Part B Permit Application, United Technologies Corporation, Pratt and Whitney Space Propulsion, September 16, 2002.

*Findings of Significance:*

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

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**6. Geology and Soils**


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*Project activities likely to create an impact:* None.

Hazardous waste storage and treatment activities proposed by the permit modification will be conducted within existing buildings, or involve only changes in facility operation. Consequently, further analysis is not deemed necessary.

*Description of Environmental Setting:*

Analysis of Potential Impacts.

Describe to what extent project activities would:

- a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving.
  - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. (Refer to Division of Mines and Geology Special Publication 42):
  - Strong seismic ground shaking:
  - Seismic-related ground failure, including liquefaction:
  - Landslides:
- b. Result in substantial soil erosion or the loss of topsoil.
- c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.
- d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.

- e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of water.

References:

- 1) RCRA Part A and Part B Permit Application, United Technologies Corporation, Pratt and Whitney Space Propulsion, September 16, 2002.
- 2) Fault Hazard Investigation of the Storage Facility (2233) and Hydrolysis Treatment Facility (0503), ICF Kaiser Engineers, September 1996

*Findings of Significance:*

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

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**7. Hazards and Hazardous Materials**

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*Project activities likely to create an impact:*

- Construction of two (2) sheds to increase the maximum permitted capacity of the Storage Facility (Station 2233).
- Installation and operation of a shredder within the existing Hydrolysis Treatment Facility (Station 0503).
- Installation and operation of a guillotine/chopper within the existing Size Reduction Treatment Facility (Station 1986).
- Ability to add water, glyceryl acetate, and/or other inert materials to explosive and propellant wastes before placement in storage containers.
- Ability to utilize three existing, non-permitted bunkers located at the Storage Magazines (Station 0312) Unit for storing liquid and solid explosive and propellant wastes from propellant manufacturing processes.
- Ability to store ignitable and reactive wastes at the Storage Magazines (Station 0312) Unit periods longer than 90 days.

*Description of Environmental Setting:*

- Storage Facility (Station 2233):

The Storage Facility is located at the intersection of Manufacturing Road and Las Animas Road. The facility serves as the temporary holding area for all hazardous wastes that are shipped off site. The facility consists of an 80-foot by 100-foot reinforced concrete slab covered by a pre-fabricated steel weather cover ("Butler Building"). Self-contained storage sheds are also used for the storage of smaller quantities of hazardous waste and are located adjacent to the main building. The Storage Facility receives wastes generated on site from manufacturing operations, research and development, testing activities, and site remediation. The majority of wastes are generated during rocket propellant and propulsion systems production. Wastes are also generated during routine cleaning and maintenance as well as from surplus and off-specification materials that cannot be used. Site remediation wastes are generated from various cleanup projects and may include contaminated soils and purge waters. The Storage Facility may store hazardous waste for periods exceeding 90 days. Rainfall is directed away from the concrete slab by building downspouts and asphalt that is sloped away from the pad. The pad itself is divided into four quadrants which drain separately into two secondary containment holding tanks. The tanks are additionally covered and contained within a concrete sump. Any spills that occur on the pad, and precipitation that enters the pad despite the cover, are collected in the containment tanks.

- Hydrolysis Treatment Facility (Station 0503):

This unit was constructed in 1997 for the purpose of treating excess propellant and propellant-related wastes.

The Hydrolysis Treatment Facility consists of a 35-foot by 70-foot reinforced concrete slab covered by a steel weather cover. The facility is divided into process and tank sections. The process section contains the reaction tumbler. The tank section provides containment for a 15,000 gallon holding tank, a 5000 gallon sodium hydroxide tank, and a 2,000 gallon digestion tank. The effluent from the process may be processed by conventional permitted wastewater treatment facilities or can be incinerated at an off-site facility. This facility receives and treats wastes sent from various generating stations (primarily research and manufacturing processes within the UTC). The key components for the Hydrolysis Treatment Facility include a reaction tumbler, caustic storage tank, digester tank, and brine holding tank.

- Storage Magazines (Station 0312) are used for storing liquid and solid explosive and propellant wastes from propellant manufacturing processes. The Magazines are also used to store 1-cubic yard boxes containing contaminated leftovers from manufacturing processes such as rags and contaminated polypropylene gloves and overalls. The wastes are stored prior to off-site transport and disposal, or onsite transport to the Hydrolysis Treatment Facility. The maximum permitted storage capacity for each magazine is 1,320 gallons. Maximum storage for solids would be approximately 6,000 pounds per magazine. Currently, wastes are stored for less than 90 days without a permit.

#### Analysis of Potential Impacts.

Describe to what extent project activities would:

- a. Create a significant hazard to the public or the environment throughout the routine transport, use or disposal of hazardous materials.

Facilities which store and handle explosive wastes are built to comply with the Department of Defense Contractor's Safety Manual for Ammunition and Explosives (DOD 4145.26-M) which prescribes building requirements and distances to adjoining buildings and operations. This manual requires buildings to have a sufficient buffer such that, in the event of an accidental explosion, damage to other buildings, and therefore, people in those buildings, will be minimal. The distance of impact as a result of an accidental explosion from the Storage Magazines would be 685 feet. No operations or buildings are allowed within 685 feet of the Storage Magazines. The Storage Magazines are 1873 feet from the facility property boundary.

Selected personnel who work in areas where hazardous materials are handled receive initial, refresher, and on-the-job training in spill prevention and response procedures. Spill kits are present in locations where hazardous substances are handled. UTC work instructions exist and are readily available on the UTC intranet to document appropriate material and waste handling procedures. Loading and unloading of hazardous wastes are done on flat surfaces in front of the individual storage magazines. Materials are moved with forklifts and hand-operated pallet jacks. Station stockmen are forklift certified, respirator trained and high-energy propellant trained. Through training of staff and strict adherence to handling procedures, it is not anticipated that materials will contact soil or storm water at storage and treatment locations because the explosives are in solid form and are contained at all times. The liquid wastes generated at the site are stored in the Storage Magazines which include storage pallets with built-in secondary containment to prevent liquid from leaking during standard storage conditions. Explosives are packaged in drums per Department of Transportation shipping requirements that minimize contact with storm water and therefore the potential release of these materials to the environment is remote.

- b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Current storage, handling and treatment practices, equipment design, and employee training at UTC are designed to ensure that the potential for accidents and releases of pollutants are minimized to the greatest extent possible. Incompatible materials are segregated and materials are only stored in containers that are compatible with the material itself. Secondary containment is provided for liquid materials. Materials are managed in a manner to preclude contact with soil or storm water. All outdoor storage of hazardous materials or wastes is restricted to covered areas and specialized chemical storage sheds. The sheds are covered, enclosed on three sides and have built-in secondary containment capacity.

Due to the remoteness of the site, and Department of Defense standards for handling of energetic materials (DOD 4145.26-M), no impact is expected.

- c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school.

The nearest school to the property line is over two miles from the UTC facility property boundary.

- d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to public or the environment.

The UTC Facility is not listed as a hazardous materials site pursuant to this Government Code.

- e. Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.

Emergency plans and related employee training noted above will not be adversely affected by this project.

#### References:

1. RCRA Part A and Part B Permit Application, United Technologies Corporation, Pratt and Whitney Space Propulsion, September 16, 2002.
2. Department of Defense Contractors' Safety Manual for Ammunition and Explosives, DOD 4145.26-M, September 1997

#### *Findings of Significance:*

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

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## **8. Hydrology and Water Quality**

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*Project activities likely to create an impact:* None.

Hazardous waste storage and treatment activities proposed by the permit modification will be conducted within existing buildings, or involve only changes in facility operation. Consequently, further analysis is not deemed necessary.

#### *Description of Environmental Setting:*

#### Analysis of Potential Impacts.

Describe to what extent project activities would:

- Violate any water quality standards or waste discharge requirements.
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficient in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off-site.
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off-site.

- e. Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.
- f. Otherwise substantially degrade water quality.
- g. Place within a 100-flood hazard area structures which would impede or redirect flood flows.
- h. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.
- i. Inundation by seiche, tsunami or mudflow.

## References:

RCRA Part A and Part B Permit Application, United Technologies Corporation, Pratt and Whitney Space Propulsion, September 16, 2002.

*Findings of Significance:*

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

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**9. Land Use and Planning**


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*Project activities likely to create an impact:* None.

Hazardous waste storage and treatment activities proposed by the permit modification will be conducted within existing buildings, or involve only changes in facility operation. No revisions to the existing use permit are required by the County of Santa Clara. Consequently, further analysis is not deemed necessary.

*Description of Environmental Setting:*

Analysis of Potential Impacts.

Describe to what extent project activities would:

- a. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.
- b. Conflict with any applicable habitat conservation plan or natural community conservation plan.

## References:

RCRA Part A and Part B Permit Application, United Technologies Corporation, Pratt and Whitney Space Propulsion, September 16, 2002.

*Findings of Significance:*

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

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## 10. Mineral Resources

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*Project activities likely to create an impact:* None

*Description of Environmental Setting:* None.

Hazardous waste storage and treatment activities proposed by the permit modification will be conducted within existing buildings, or involve only changes in facility operation. Consequently, further analysis is not deemed necessary.

Analysis of Potential Impacts.

Describe to what extent project activities would:

- a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.
- b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

References:

RCRA Part A and Part B Permit Application, United Technologies Corporation, Pratt and Whitney Space Propulsion, September 16, 2002.

*Findings of Significance:*

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

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## 11. Noise

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Project activities likely to create an impact:

- Installation and operation of a shredder within the existing Hydrolysis Treatment Facility (Station 0503).
- Installation and operation of a guillotine/chopper within the existing Size Reduction Treatment Facility (Station 1986).

Description of Environmental Setting:

Ranch lands are located to the north, east and southeast of the UTC, some areas within the UTC are used for cattle grazing. The Santa Clara County Planning Commission has restricted the development of the areas surrounding the UTC. To the west and northwest of the site are two regional parks and some open public land. No commercial establishments are located on adjacent properties. Encinal Elementary School, Morgan Hill, is located within one-half mile of the southwestern UTC facility property boundary which is a large section of undeveloped land where there is no industrial activity. The nearest residences are a few ranch houses or other dwellings located within 3000 feet to the north, northeast and southeast of the UTC property boundaries.

Analysis of Potential Impacts.

Describe to what extent project activities would:

- a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

The County of Santa Clara does not have established noise standards which specifically apply to hazardous waste facilities, however, the County typically requires that such facilities conform to established construction-related noise standards which range from 65 to 85 decible levels. The chopper will be housed in an existing enclosed building and

will be operated remotely from a nearby location, the enclosed structure will greatly reduce the level of audible noise from outside the structure. The shredder will be located on an existing cement slab, is designed to further reduce the propellant waste from initial cutting by the chopper and is therefore not anticipated to increase the overall noise at the facility. The operation of the shredder consists of the use of a single unit in which debris is fed and shredded. This unit is in the same area as the hydrolysis equipment which operates on an as needed basis. The noise level of the shredder unit which will be run during day time business hours (8:00-5:00), and on an as needed basis, will create noise, however it will be consistent with the ambient noise of the general operation of the facility and will not exceed the standards established by the County of Santa Clara. Therefore, no adverse noise impact.

- b. Exposure of persons to or generation of excessive groundbourne vibration or groundbourne noise levels. The enclosed structure in which the chopper will be housed and operated is located approximately 330 feet away from the nearest building, and given the construction of the building i.e. cement floor and metal housing material, it is unlikely that any vibration will occur during the operation of the chopper. The shredder unit will be place on an existing cement slab and will be bolted to the floor to prevent movement due to earth tremors and/or operation of the unit itself. Therefore, no excessive groundbourne vibration or groundbourne noise levels. The shredder and chopper are operated remotely in a nearby bunkers and no workers or anyone else, is allowed in the containment area of the units while the units are in operation. Therefore, exposure of personnel to noise is minimal due to both distance and shielding from buildings required for the operators.
- c. A substantial permanent increase in ambient noise levels in the vicinity above levels existing without the project. As noted, the chopper will be housed in an existing structure which is located away from other operations at the project site. Although both the chopper and the shredder are “permanent” additions to the overall operations at this site, given the above analysis, the noise levels are not anticipated to exceed existing noise standards as set forth by the County of Santa Clara.
- c. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. As noted, the functions of both the chopper and the shredder are permanent additions to the overall operation of the facility and the noise produced by each unit will not exceed established noise standards.

#### References:

RCRA Part A and Part B Permit Application, United Technologies Corporation, Pratt and Whitney Space Propulsion, September 16, 2002.

#### Findings of Significance:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

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## 12. Population and Housing

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Project activities likely to create an impact: None.

Hazardous waste storage and treatment activities proposed by the permit modification will be conducted within existing buildings, or involve only changes in facility operation. Consequently, further analysis is not deemed necessary

#### Description of Environmental Setting:

#### Analysis of Potential Impacts.

Describe to what extent project activities would:

- a. Induce substantial population growth in area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

- b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.
- c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

## References:

RCRA Part A and Part B Permit Application, United Technologies Corporation, Pratt and Whitney Space Propulsion, September 16, 2002.

## Findings of Significance:

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

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 13. Public Services
 

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Project activities likely to create an impact: None.

Hazardous waste storage and treatment activities proposed by the permit modification will be conducted within existing buildings, or involve only changes in facility operation. Consequently, further analysis is not deemed necessary.

## Description of Environmental Setting:

## Analysis of Potential Impacts.

Describe to what extent project activities would:

- a. Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:
- Fire protection
  - Police protection
  - Schools
  - Parks
  - Other public facilities

## References:

RCRA Part A and Part B Permit Application, United Technologies Corporation, Pratt and Whitney Space Propulsion, September 16, 2002.

## Findings of Significance:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

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14. Recreation

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Project activities likely to create an impact: None.

Hazardous waste storage and treatment activities proposed by the permit modification will be conducted within existing buildings, or involve only changes in facility operation. Consequently, further analysis is not deemed necessary

## Description of Environmental Setting:

## Analysis of Potential Impacts.

Describe to what extent project activities would:

- a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
- b. Include recreational facilities or require construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

## References:

RCRA Part A and Part B Permit Application, United Technologies Corporation, Pratt and Whitney Space Propulsion, September 16, 2002.

## Findings of Significance:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

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15. Transportation and Traffic

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Project activities likely to create an impact: None.

Hazardous waste storage and treatment activities proposed by the permit modification will be conducted within existing buildings, or involve only changes in facility operation. Consequently, further analysis is not deemed necessary.

## Description of Environmental Setting:

## Analysis of Potential Impacts.

Describe to what extent project activities would:

- a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections).
- b. Exceed, either individually or cumulatively, a level of service standard established by the country congestion management agency for designated roads or highway.
- c. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- d. Result in inadequate emergency access.
- e. Result in inadequate parking capacity.
- f. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

## References:

RCRA Part A and Part B Permit Application, United Technologies Corporation, Pratt and Whitney Space Propulsion, September 16, 2002.

## Findings of Significance:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

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 16. Utilities and Service Systems
 

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## Project activities likely to create an impact:

- Construction of two (2) sheds to increase the maximum permitted capacity of the Storage Facility (Station 2233)
- Installation and operation of a Shredder within the existing Hydrolysis Treatment Facility (Station 0503).
- Installation and operation of a Guillotine/Chopper within the existing Size Reduction Treatment Facility (Station 1986).

## Description of Environmental Setting:

Electricity is distributed to the RCRA facilities over UTC-owned power lines. UTC's potable water supply comes from groundwater pumped from wells adjacent to Highway 101 in the west side of UTC and in the Panhandle in the east end of UTC. The groundwater is treated onsite, distributed and used for drinking, industrial use, and fire protection.

## Analysis of Potential Impacts.

## Describe to what extent project activities would:

- a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board. The California Regional Water Quality Control Board (RWQCB) issued a Waste Discharge Requirements Order (Order no. 95-190) for the Chemical Systems Division of the UTC, which was adopted on September 14, 1995. The Order sets forth requirements for the treatment and discharge of waste water such as sewage, maintenance of leachfields, the maintenance of a water treatment pond, extracted contaminated groundwater and the cleaning of the open burn facility. Other Orders adopted by the RWQCB applicable to waste discharge at the UTC are as follows:

- (1) Waste Discharge Requirements, Order No. 89-008, updated 1-18-1989
- (2) Water Reclamation Requirements, Order No. 91-006, adopted 1-16-1991

## (3) Site Cleanup Requirements, Order No. 94-064, adopted 5-18-1994, amended 5-17-1995

Inclusive in the Waste Discharge Requirements is the imposition of a “Self-Monitoring Program” wherein the UTC must submit technical reports pursuant to Water Code Sections 13263 and 13267. Additionally, sample collection, storage and analyses must be performed pursuant to standards established by the RWQCB. The UTC’s compliance with this regulatory process will ensure their operations won’t exceed the applicable wastewater treatment requirements of the RWQCB.

- b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.  
The UTC proposes the addition of four sheds to increase the maximum permitted capacity of the Storage Facility (Station 2233) from 22,000 gallons to 23,820 gallons of liquid hazardous waste. The difference in capacity is minimal (1,820 gallons), the addition of the four sheds will be accomplished without increasing impacts as they relate to construction and transportation, and the increased capacity will allow the UTC to facilitate storage requirements pursuant to the California Code of Regulations, title 22. Therefore the addition of the storage sheds is not anticipated to cause significant adverse environmental effects in and around the UTC property site.
- c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.  
The addition of the four storage sheds will not require additional drainage facilities nor an expansion of existing drainage facilities, the difference in liquid waste capacity is minimal, the existing drainage system will accommodate the additional capacity, therefore no adverse impact associated with this proposed modification.
- d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.  
The majority of the [potable] water supply for the facility is from two water wells located on UTC’s property in Santa Clara Valley proper, near Highway 101. This water is pumped approximately six miles to the site where it is treated and transferred to any of the five on-site water storage tanks. The water supplied by these wells as well as water from two wells located in the “Panhandle Area,” is sufficient to meet the water needs of the operations of the proposed project.
- e. Result in determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the projects projected demand in addition to the providers existing commitments.  
N/A
- f. Be served by a landfill with sufficient permitted capacity to accommodate the projects solid waste disposal needs.  
The increase in volume for storage of hazardous waste is insignificant. Operations at the facility will not be generating increased volumes of hazardous waste as a result of this project.
- g. Comply with federal, state, and local statutes and regulations related to solid waste.  
The project shall comply with all federal, state, and local statutes and regulations as required by the hazardous waste permit which is the subject of this initial study.

## References:

RCRA Part A and Part B Permit Application, United Technologies Corporation, Pratt and Whitney Space Propulsion, September 16, 2002.

## Findings of Significance:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

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 17. Cumulative Effects
 

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Project activities likely to create an impact: None.

The UTC site is currently zoned for agriculture, but allows for industrial use through the issuance of a Use Permit issued by the County of Santa Clara Planning Commission December 18, 1963. There are no other industrial facilities nearby the UTC site. Hazardous waste storage and treatment activities proposed by the permit modification will be conducted within existing buildings, or involve only changes in facility operation. Consequently, there is no cumulative effect caused by the proposed project and, therefore, no further analysis is deemed necessary.

Description of Environmental Setting:

Analysis of Potential Impacts.

Describe to what extent project activities would:

- a. Increase the need for developing new technologies, especially for managing any hazardous or non-hazardous wastes that the project generates.
- b. Increase the need for developing new technologies for any other aspects of the projects.
- c. Leads to a larger project or leads to a series of projects, or is a step to additional projects.
- d. Alters the location, distribution, density or growth rate of the human population of an area.
- e. Affect existing housing, public services, public infrastructure, or creates demands for additional housing.
- f. Be cumulatively considerable on the environments with cumulative adverse effects on air, water, habitats, natural resources, etc.

References:

RCRA Part A and Part B Permit Application, United Technologies Corporation, Pratt and Whitney Space Propulsion, September 16, 2002.

Findings of Significance:

- Potentially Significant Impact  
 Potentially Significant Unless Mitigated  
 Less Than Significant Impact  
 No Impact

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18. Mandatory Findings of Significance

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Project activities likely to create an impact: None.

Hazardous waste storage and treatment activities proposed by the permit modification will be conducted within existing buildings, or involve only changes in facility operation. Consequently, further analysis is not deemed necessary.

Description of Environmental Setting:

Analysis of Potential Impacts.

Describe to what extent the project would:

- a. Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.
- b. Have impacts that are individually limited but cumulatively considerable. As used in the subsection, "cumulatively considerable".

["Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects]

- c. Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly.

References:

RCRA Part A and Part B Permit Application, United Technologies Corporation, Pratt and Whitney Space Propulsion, September 16, 2002.

*Findings of Significance:*

- Potentially Significant Impact
- Potentially Significant Unless Mitigated
- Less Than Significant Impact
- No Impact

V. DETERMINATION OF APPROPRIATE ENVIRONMENTAL DOCUMENT

On the basis of this Initial Study:

X - I find that the proposed project COULD NOT have a significant effect on the environment. A NEGATIVE DECLARATION will be prepared.

I find that although the proposed project COULD HAVE a significant effect on the environment, mitigation measures have been added to the project which would reduce these effects to less than significant levels. A NEGATIVE DECLARATION will be prepared.

I find that the proposed project COULD HAVE a significant effect on the environment. An ENVIRONMENTAL IMPACT REPORT will be prepared.

<b>Andrew Berna-Hicks</b>	<b>Hazardous Substances Engineer</b>	
<b>DTSC Project Manager Name</b>	<b>Title</b>	
	<b>(510) 540-3956</b>	
<b>DTSC Project Manager Signature</b>	<b>Phone Number</b>	<b>Date</b>
<b>Sal Ciriello</b>	<b>Supervising Hazardous Substances Eng</b>	
<b>DTSC Standard Permits and Corrective Branch / Unit Chief Name</b>	<b>Title</b>	
	<b>(510) 540-3972</b>	
<b>Unit Chief Signature</b>	<b>Phone Number</b>	<b>Date</b>

**ATTACHMENT A**  
**INITIAL STUDY REFERENCE LIST**

For

United Technologies Corporation, Pratt and Whitney Space Propulsion,  
Hazardous Waste Facility Permit Class 3 Modification

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1. RCRA Part A and Part B Permit Application, United Technologies Corporation, Pratt and Whitney Space Propulsion, September 16, 2002.
2. Department of Defense Contractors' Safety Manual for Ammunition and Explosives, DOD 4145.26-M, September 1997
3. Fault Hazard Investigation of the Storage Facility (2233) and Hydrolysis Treatment Facility (0503), ICF Kaiser Engineers, September 1996