

**BY ORDER OF THE COMMANDER  
EDWARDS AIR FORCE BASE**

**EDWARDS AIR FORCE BASE  
INSTRUCTION 32-7002**



**1 NOVEMBER 2021**

**Civil Engineering**

**WASTE WATER**

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This Edwards Air Force Base Instruction (EDWARDSAFBI) implements Air Force Policy Directive (AFPD) 32-70, Environmental Considerations in Air Force Programs and Activities, and Air Force Manual (AFMAN) 32-1067, Civil Engineering Water and Fuel Systems. This instruction establishes base policy and assigns responsibility for wastewater system oversight and operation and for accomplishing monitoring and reporting requirements of the Federal Water Pollution Control Act (the Act) and associated publications/directives. It applies to domestic and industrial (i.e., industrial) wastewater treatment and pretreatment systems, including but not limited to sanitary sewer systems, trucked wastewater, lift stations, septic tanks, storm water treatment, industrial wastewater treatment, Oil-Water Separators (OWS), grease traps and leachate and groundwater treatment facilities. It applies to all dischargers and emphasizes eliminating, reducing and controlling industrial process wastewater. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Instruction (AFI) 33-322, Records Management and Information Governance Program, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS). Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the Air Force Information Management Tool (AF IMT) 847, Recommendation for Change of Publication; route AF IMT 847s from the field through the appropriate function's chain of command. Air Force Personnel must ensure any information/records to be provided outside official Department of Defense (DoD) channels, including foreign nationals, must be released in accordance with the provisions of AFI 35-102, Security and Policy Review Process, and have the approval of the release authority. If a written request for DoD records has been made by any persons, organization, business, excluding a Federal Agency, that either explicitly or implicitly invokes the Freedom of

Information Act (FOIA), it must be processed by the local FOIA Requester Service Center (412 CS/SCOK) in accordance with DoD 5400.07-R\_AFMAN-33-302, DoD Freedom of Information Act Program.

Terms and definitions used in this instruction are intended to be consistent with those defined in 40 Code of Federal Regulations (CFR) 122 through 136, 40 CFR 401 through 471, 40 CFR 501, Board Orders issued by the California Regional Water Quality Control and applicable state and local directives.

### ***SUMMARY OF CHANGES***

This document has been substantially revised and must be completely reviewed. Major changes include standardized format and layout for readability; clarify organizational responsibilities and clarify the industrial process wastewater discharge permitting process.

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## Chapter 1

### OVERVIEW

**1.1. Overview.** This instruction implements AFPD 32-70, Environmental Considerations in Air Force Programs and Activities, and AFMAN 32-1067, Civil Engineering Water and Fuel Systems. The emphasis on environmental pollution prevention and abatement requires all base activities, including housing occupants, contractors, and tenants who generate industrial wastewater, to review their processes that generate waste and their disposal procedures. Refer to the definition of domestic wastewater and industrial wastewater in [attachment 1](#). Efforts must be taken to reduce or eliminate the pollutant at the point of generation, recycle or reuse the pollutant, treat the pollutant and control its discharge. An effective base program for eliminating, controlling and treating industrial wastewater requires the full support and cooperation of all dischargers. This instruction:

1.1.1. Outlines a scoping process for identifying and characterizing waste from point sources on base and implementing a waste minimization, control and treatment program to reduce and prevent pollution.

**1.2. Prescribes segregation, control, treatment or pretreatment and discharge procedures.** For domestic and industrial wastewater.

**1.3. Outlines procedures for.** Industrial discharge permitting, monitoring, testing and reporting to regulatory agencies.

**1.4. Designates OPRs for various tasks.**

## Chapter 2

### POLICY.

**2.1. Comply with Federal, State and Local government requirements pertaining to.** Permitting, management, treatment and discharge of wastewater. The above requirements take precedence if they conflict with this instruction. Assure timely review and submission of monitoring reports to regulatory agencies to avoid regulatory noncompliance.

**2.2. Ensure and implement.** The best management practices for collection of wastewater and operation of wastewater treatment systems. Eliminate unpermitted discharges and cross-connections between wastewater and storm water sewer systems.

**2.3. Conduct.** Wastewater characterization, toxicity reduction evaluations and other studies to determine the industrial pollutant characteristics and level of treatment needed.

**2.4. Develop.** Consistent base-wide approaches to industrial wastewater management that apply to all organizations at Edwards AFB.

**2.5. Enforce.** Wastewater discharge policies through the use of point source monitoring, shop surveys, and administrative action to prevent treatment system interruptions and discharge violations. Compliance problems with industrial dischargers will be addressed and resolved at Environmental Management System Cross-Functional Team and Environmental, Safety and Occupational Health Council meetings.

**2.6. Utilize waste minimization.** Source reduction techniques, and wastewater pretreatment at or near the waste generation point to the extent needed to protect collection, treatment facilities, and processes from damage, upset, excessive cost or discharge violations, per wastewater Compliance Program at Edwards AFB. Where feasible, source waste reduction through material substitution, process change, and/or administrative change will be preferred over pretreatment.

**2.7. All organizations must.** Obtain permission for industrial wastewater discharge from the Base Civil Engineer (BCE) and Environmental Management (412 CEG/CEV).

## Chapter 3

### ORGANIZATIONAL RESPONSIBILITIES

#### 3.1. The BCE or their Appointee will.

- 3.1.1. Oversee and support all installation wastewater programs.
- 3.1.2. Operate and maintain sewer lines, pretreatment and treatment facilities, pump stations, OWS and other associated facilities including taking timely and appropriate corrective actions when permit limits are exceeded.

#### 3.2. The 412 CEG/CEV or their Appointee will.

- 3.2.1. Serve as point of contact for all official communications with the regulatory community.
- 3.2.2. Establish and publish technical policy and guidance through this instruction to base organizations for collection, treatment, storage and disposal of domestic and industrial waste.
- 3.2.3. Coordinate with the 412th Civil Engineer Squadron, Water & Fuels Maintenance Flight (412 CES/CEOIU) to identify and establish restrictions on what can be discharged and at what volumes and concentrations will be permitted.
- 3.2.4. Identify and maintain a list of all industrial/industrial generators with discharge requirements by organization, discharge location and responsible point of contact/manager.
- 3.2.5. Administer, maintain and distributed as necessary Form 5852, Permit for Industrial Wastewater Discharge. Refer to [attachment 2](#) for a copy of the Form and associated instructions.
- 3.2.6. Share approval authority of Form 5852, Permit for Industrial Wastewater Discharge, with the 412 CES/CEOIU for requests from organizations that generate industrial wastewater; review the wastewater constituents to determine if the discharge should be prohibited; when necessary require pretreatment or apply other restrictions prior to discharge to the sanitary sewer, and route Form 5852 for comment and approval.
- 3.2.7. Assist all industrial wastewater generators to control or eliminate all industrial waste discharges to the sanitary sewer according to the discharge prohibitions and restrictions presented in attachments [3](#), [4](#) and [5](#).
- 3.2.8. Provide environmental awareness training for discharge point contacts/managers and refresher training as necessary. Training should address spill response, good housekeeping and material management practices.
- 3.2.9. Assure wastewater facilities comply with Federal, State and installations requirements and work with the 412 CES/CEOIU to develop and address corrective actions where needed.
- 3.2.10. Coordinate negotiations with regulators pertaining to discharge and pretreatment limits, monitoring locations, and reporting requirements.
- 3.2.11. Ensure compliance monitoring and reporting is conducted, reviewed and submitted in a timely manner.
- 3.2.12. Maintain a record of permit revisions and requirements, permit-required reporting, and documentation derived from the implementation of these instructions.

**3.3. The 412 CES/CEOIU will.**

3.3.1. Review Form 5852, Permit for Industrial Wastewater Discharge, including anticipated wastewater constituents, to determine if the proposed discharge will contribute to or cause upset, interference, or pass-through at the Wastewater Treatment Plant (WWTP).

3.3.2. Review Form 5852, Permit for Industrial Wastewater Discharge, to determine whether a proposed discharge should be prohibited, or have pretreatment or other restrictions applied prior to discharge to the sanitary sewer.

3.3.3. Share approval authority of Form 5852, Permit for Industrial Wastewater Discharge.

**3.4. The 412th Civil Engineer Squadron.** Service Contracts Flight (412 CES/CEOES) or their Appointee will:

3.4.1. Review Form 5852, Permit for Industrial Wastewater Discharge, including anticipated wastewater constituents, to determine if the proposed discharge will contribute to or cause upset, interference, or pass-through at the WWTP.

3.4.2. Notify the 412 CEG/CEV and the 412 CES/CEOIU of proposed discharges that should be prohibited or have pretreatment or other restrictions applied prior to discharge.

**3.5. The 412th Operational Medical Readiness Squadron.** Bio-Environmental Engineering Flight (412 OMRS/SGPB) may review Form 5852, Permit for Industrial Wastewater Discharge, submitted by organizations proposing to discharge industrial wastewater, and provide comment as necessary.**3.6. The wastewater generators will.**

3.6.1. Contact the 412 CEG/CEV for approval, guidance and industrial discharge restrictions prior to initiating any discharge.

3.6.2. Complete and submit Form 5852, Permit for Industrial Wastewater Discharge, to the 412 CEG/CEV (Water Quality Program Manager) for review and approval. Where pretreatment is required, arrangements must be made clearly stating who will inspect, operate, maintain and monitor the pretreatment facility.

3.6.3. Update Form 5852 when any previous information changes, especially discharge characteristics (i.e., anticipated constituents, average daily flow, peak flow, etc.)

3.6.4. Control all industrial wastewater discharges. Wastewater generators will prevent any industrial discharge not specifically approved by the 412 CEG/CEV and the 412 CES/CEOIU.

3.6.5. Take a proactive approach to reducing the volume and concentration of discharges by waste elimination, product substitution, recycling, process changes, and when necessary, pretreatment.

3.6.6. Immediately call Emergency Services at (661) 277-4540 and request the 412 CEG/CEV be contacted in the event of any accident, negligence, or other occurrence that causes discharge to the sewer of any material whose nature and quantity might be reasonably judged to constitute a hazard to the public health, environment, personnel, or wastewater treatment facilities.

3.6.7. Ensure that all personnel associated with the industrial process/activity contributing to industrial wastewater discharges are aware of the discharge restrictions.

MATTHEW W. HIGER  
Brigadier Colonel, USAF  
Commander

**Attachment 1****GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFPD 32-70, *Environmental Quality*, 29 July 2018

AFI 33-322, *Records Management and Information Governance Programs*, 27 July 2021

AFI 35-101, *Public Affairs Operations*, 20 November 2020

AFMAN 32-1067, *Water and Fuel Systems*, 4 August 2020

DODM5400.07\_AFMAN 33-302, *Freedom of Information Act Program*, 28 April 2018

*Hazardous Materials Management Playbook*

*Hazardous Waste Management Plan*

*Integrated Solid Waste Management Plan (ISWMP)*

*Spill Prevention Control and Countermeasure Plan*

***Prescribed Form***

EDWARDSAFB FORM 5852, *Permit for Industrial Wastewater Discharge*

***Adopted Form***

AF Form 847, *Recommendation for Change of Publication*

***Abbreviations and Acronyms***

**412CEG/CEV**—412th Civil Engineer Group, Environmental Management Division

**412CES**—412th Civil Engineer Squadron

**412CES/CEOES**—412th Civil Engineer Squadron, Service Contracts Flight

**412CES/CEOIU**—412th Civil Engineer Squadron, Water & Fuels Maintenance Flight

**412CS/SCOK**—412th Communications Squadron, FOIA Requester Service Center

**AFFF**—Aqueous Film Forming Foam

**AFRL**—Air Force Research Lab

**412OMRS/SGPB – 412th Operational Medical Readiness Squadron, Bio**—Environmental Engineering Flight

**AFMAN**—Air Force Manual

**AFPD**—Air Force Policy Directive

**CFR**—Code of Federal Regulations

**CPO**—Chief Plant Operator

**DOD**—Department of Defense

**FOIA**—Freedom of Information Act

**OPR**—Office of Primary Responsibility

**OWS**—Oil-Water Separator

**RDS**—Records Disposition Schedule

**SDS**—Safety Data Sheet

**SIC**—Standard Industrial Classification

**WWTP**—Wastewater Treatment Plant

### *Terms*

**Categorical Standards**—National categorical pretreatment standards established for specific industrial activities.

**Domestic wastewater**—Liquid wastes from the domestic laundry, food preparation, and sanitary facilities in housing, commercial, administrative buildings, industrial facilities and institutions.

**Holding tank waste**—Any waste from holding tanks such as vessels, chemical toilets, campers, trailers, septic tanks and vacuum pump tank trucks.

**Industrial user**—Any facility that discharges industrial wastes. They are classified according to the latest edition of the Standard Industrial Classification Manual, Office of Management and Budget of the Federal Government of the United States.

**Industrial waste**—Any wastes resulting from the process employed in industrial, manufacturing, trade or business establishments as distinct from domestic wastes.

**Industrial wastewater**—Any wastewater other than that covered under the definition for domestic wastewater such as that resulting from industrial production, paint stripping, metal plating, maintenance and repair, aircraft and vehicle cleaning, power or heat plant operations, photographic processing, boiler and cooling water discharges and oil and solvent recovery operations.

**Interference**—The inhibition or disruption of the WWTP treatment processes or operations that contributes to the violation of a permit. This includes the prevention of the sewage sludge use.

**National Pollutant Discharge Elimination System permits**—A permit issued pursuant to Section 402 of the Act (33 United States Code 1342).

**Ordinance or code**—A means of regulating discharges to the WWTP sanitary sewer by permit, discharge limits or pretreatment requirements.

**Pass Through**—The presence in the treatment plant effluent of any pollutant that is not permitted to be discharged. This occurs when pollutants are sent to a WWTP that is not designed to remove them.

**Pollutant**—Any substance, often regulated by environmental protection standards, that may have an adverse impact on the environment, such as the chemical and biological constituents of sewage, garbage, sewage sludge, chemical wastes, other biological materials, radioactive materials, heat, oil, grease, solvents, heavy metals, organic compounds, suspended solids, surfactants or any toxic or hazardous material discharged into water.

**Pretreatment**—The reduction of the amount of pollutants, the elimination of pollutants, the alteration of the nature of pollutants, or the alteration of the nature of pollutant properties in wastewater to a less harmful state prior to or in lieu of discharging or otherwise introducing such pollutants into the WWTP. The reduction or alteration can be obtained by physical, chemical or biological processes or process changes or other means, except as prohibited by dilution (40 CFR 403.6(d)).

**Pretreatment Standards**—Standards established by the on-base or off-base regulators to control pollutant loading or concentrations entering the WWTP that may pass through or have adverse effects on the treatment process or contaminates sludges.

**Sanitary sewer**—A sewer conduit intended to receive and carry primarily domestic wastewater and some industrial wastewater as permitted by this instruction.

**Storm Sewer or storm drain**—A sewer that carries storm or surface waters and drainage but excludes sewage and industrial wastes.

**Attachment 2**

**PERMIT FOR INDUSTRIAL WASTEWATER DISCHARGES**

**A2.1. Permit For Industrial Wastewater Discharges.**

**Attachment 3****GENERAL RESTRICTIONS FOR ALL ACTIVITIES.**

**A3.1. No person will discharge or cause the discharge of any contaminated water except.** Where prior approval for such discharge is given by the BCE as delegated to the 412 CEG/CEV and the 412 CES/CEOIU. Any such approval may be revoked at any time.

**A3.2. The 412 CEG/CEV will.** From time to time, establish quantitative or other limitations applicable to industrial waste discharges when it is necessary or to be in compliance with federal, state, or local law, regulations, policy, and instructions. Such limitations will apply to wastewater discharges prior to entering the sanitary sewer. Wastewater discharge in excess of the limits established by the 412 CEG/CEV or any state law or applicable Federal Pretreatment Standards will constitute excessive concentrations or quantities prohibited by this instruction.

**A3.3. No person will.** Discharge or cause to be discharged to the sanitary sewer, or to any sewer that directly or indirectly connects to the sanitary sewer any wastes which:

A3.3.1. May have an adverse or harmful effect on sewers, maintenance personnel, wastewater treatment plant personnel or equipment, treatment plant processes or the quality of treatment plant effluent or residue, public or private property, or wastes which may otherwise endanger the public, the environment, or create a public nuisance.

A3.3.2. Can adversely affect air quality, adversely affect water reclamation processes or the quality of reclaimed water, cause or contribute to a violation of any requirement of any facilities permit, any National Pollutant Discharge Elimination System Permit or Waste Discharge Requirements, or place the base in noncompliance with any of the statutory authorities listed in Title 40, Code of Federal Regulations (CFR), Part 403.4, or place the base in noncompliance with any local, state or federal law including any air quality standard or instruction such as the New Source Performance Standards (set forth in 40 CFR Part 60, Chapter I), the National Emissions Standards for Hazardous Air Pollutants (set forth in 40 CFR Part 61, Chapter I), or any standard or instruction promulgated by the California Air Resources Board or the Kern County Air Quality Control Board and the Lahontan Regional Water Quality Control Board Orders for both the Main Base and Air Force Research Lab (AFRL).

A3.3.3. Will adversely impact the treatment plant process or degrade the wastewater to the point that it could not be treated and reclaimed.

**A3.4. Prohibited or restricted wastes.** Described in this section will not be discharged, processed or stored in such a manner that such wastes could have access to the sanitary or storm sewer. Any prohibited or restricted wastes that cannot otherwise be accounted for will be conclusively presumed to have been discharged to the sanitary sewer.

**A3.5. Dischargers will.** Immediately notify the 412 CEG/CEV of the accidental discharge of any prohibited waste, or of the discharge of waste in excess of the limits established by the 412 CEG/CEV or any state law or applicable Federal Pretreatment Standards. Call Emergency Services at (661) 277-4540 and request the 412 CEG/CEV be contacted. Dischargers will also notify the 412 CEG/CEV of any circumstances which may potentially result in the discharge of a prohibited waste or the discharge of waste in excess of limits established by the 412 CEG/CEV or any state law or applicable Federal Pretreatment Standards, including but not limited to any malfunction, upset, or improper operation of the discharger's plant processes, pretreatment systems, or spill containment facilities, or any diversion or bypass of wastewater.

**A3.6. Swimming pool water discharges must.** Be coordinated with the 412 CES/CEOES and the 412 CEG/CEV to ensure discharge rates and times do not impact operations at the wastewater treatment plant.

**A3.7. No new OWS shall.** Be installed until all alternative methods have been evaluated. Refer to Army Environmental Center SFIM-AEC-EQ-CR-200010, Multiservice Oil/Water Separator Guidance Manual, to evaluate alternatives. Operate any OWS in accordance with applicable Federal, State and Local regulations.

**Attachment 4****PROHIBITED AND RESTRICTED WASTE DISCHARGES**

**A4.1. Unless approved by the 412 CEG/CEV.** Discharges to the sewage system of the following are not permitted:

A4.1.1. Gasoline, benzene, naphtha, solvent, fuel oil, or any liquid, solid, or gas that would cause or tend to cause flammable or explosive conditions to result in the sewage system or that would exceed lower explosive limit or that would create such conditions in the sewage system.

A4.1.2. Toxic or poisonous solids, liquids, or gases in such quantities that, alone or in combination with other waste substances, may create a hazard for humans, animals, or the environment, interfere detrimentally with wastewater treatment processes, cause a public nuisance, or cause any hazardous condition to occur in the sewage system.

A4.1.3. Waste having a pH lower than 6.0 or having any corrosive or detrimental characteristic that may cause injury to wastewater treatment or maintenance personnel or may cause damage to structures, equipment or other physical facilities of the sewage system.

A4.1.4. Solids or viscous liquids of such size or in such quantity, condition or nature that they may cause obstruction to flow in the sewer or be detrimental to proper wastewater treatment plant operations. These objectionable substances tend to solidify in the sewer and obstruct wastewater flow.

A4.1.5. Rainwater, storm water, groundwater, street drainage, subsurface drainage, roof drainage, yard drainage, water from yard fountains, ponds or lawn sprays into the sanitary sewer.

A4.1.6. Water added for the purpose of diluting wastes which would otherwise exceed applicable maximum concentration limitations.

A4.1.7. Petroleum or mineral-based cutting oils, commonly called soluble oil and which form persistent water emulsions.

A4.1.8. Non-biodegradable oil, petroleum oil or refined petroleum products.

A4.1.9. Dispersed biodegradable oils, fats and greases such as lard, tallow or vegetable oil.

A4.1.10. Cyanide.

A4.1.11. Any wastes containing quantities or concentrations of Biological Oxygen Demand, Chemical Oxygen Demand or other oxygen demanding substances that exceed limits established by the 412 CES/CEOIU, the 412 CEG/CEV or any state law or applicable Federal Pretreatment Standards.

A4.1.12. Mercaptans, phenols or any strongly odorous material or material tending to create odors.

A4.1.13. Dissolved sulfides above a concentration of 0.1 milligram/liter or wastes which contribute to excessive sulfide production.

A4.1.14. Dissolved silica, dissolved aluminum or other substances including high pH material which cause encrustations, scale or precipitates on the sanitary sewer walls or other similar adverse effects on the sanitary sewer.

A4.1.15. Waste having an excessively high temperature; any waste having a temperature of 140 oF or higher, or which may cause the wastewater influent to a treatment plant to exceed 104oF.

A4.1.16. Thiosulfate or any other waste constituent which requires treatment chemical dosage applications above levels normally used in the operation of the sewage systems.

A4.1.17. Toxic organic, chlorinated hydrocarbon or organic phosphorus-type compounds.

A4.1.18. Any waste containing substances that may precipitate, solidify, gel, polymerize or become viscous under conditions normally found in the sanitary sewer.

A4.1.19. Any waste producing or contributing to discoloration of wastewater or treatment plant effluent.

A4.1.20. Garbage or waste, other than domestic wastewater, that is not ground sufficiently to pass through a 3/8-inch screen.

A4.1.21. Iron, manganese, boron, chromium, phenols, plastic resins, copper, nickel, zinc, lead, mercury, cadmium, selenium, silver, arsenic or any other materials toxic to humans, animals, the environment or to biological or other wastewater treatment processes.

A4.1.22. Any blow-down or bleed water from cooling towers or other evaporative coolers exceeding one-third of the makeup water.

A4.1.23. Any single pass cooling or heating water.

A4.1.24. Radioactive material wastes.

A4.1.25. Detergents, surface active agents, or other substances, which may cause foaming to a degree that it impairs sewer flow performance or treatment.

A4.1.26. Chlorides, fluorides, sulfates, borates or any other materials that can pass through treatment facilities and degrade water quality or limit reuse of the wastewater.

A4.1.27. Ammonia from sources other than human wastes.

A4.1.28. Benzene or other volatile organic compounds or any other waste constituent that alone or in combination with other materials adversely affects air quality or reduce the reuse potential of the treated wastewater.

**A4.2. Other Restrictions.** The 412 CEG/CEV with the support of the 412 CES/CEOIU will establish quantitative limitations for dischargers, which because of their location, quantity or quality of discharge, can degrade the quality of WWTP effluent or residue, or air quality to a level that prevents or inhibits efforts to reuse or dispose of the treated effluent or residue or causes any unusual operation or maintenance problems in the sewage system. The 412 CES/CEOIU and the 412 CEG/CEV, in determining the unacceptability of specific wastes, will consider the nature of the waste and the adequacy and nature of the collection, treatment and disposal system available to accept the waste.

## Attachment 5

### SPECIFIC DISCHARGE RESTRICTIONS FOR LISTED ACTIVITIES

**A5.1. The following is a list of.** Industrial wastewater generators with appropriate restrictions and disposal methods:

A5.1.1. Aqueous Film Forming Foam (AFFF) and High Expansion Foam (HEF) Users. Minor quantities of these products can disrupt the operation of the sewage treatment process; therefore, it is not permitted to enter the sanitary sewer unless receiving approval from the 412 CEG/CEV, concentrations are highly diluted and are within acceptable levels established by Federal and State law, and is released slowly to prevent "shock loading" and foaming which can upset the WWTP operation.

A5.1.2. Polyfluoroalkyl Substance Users. Commercial products containing per- and polyfluoroalkyl substances (PFAS), like perfluorooctane sulfonic acid (PFOS), perfluorooctanoic acid (PFOA), perfluorononanoic acid (PFNA), perfluorohexane sulfonic acid (PFHxS), perfluoroheptanoic acid (PFHpA), or perfluorobutanesulfonic acid (PFBS) may not be discharge to the sanitary sewer.

A5.1.3. Battery Shops. Slurry from spent battery acid will not be discharged into either the sanitary sewer or storm sewer. The waste will be properly containerized, labeled and disposed of through Hazardous Waste Storage Facility, in accordance with the base's Hazardous Waste Management Plan and the Resource Conservation and Recovery Act. The following facility maintains batteries: Facility Number 1600, 412th Maintenance Group.

A5.1.4. Civil Engineer.

A5.1.4.1. Heating, ventilation and air conditioning systems do generate wastewater (e.g., blow down, bleed off, overflows, etc). Industrial wastewater generated by these systems is permissible so long as Form 5852, Permit for Industrial Wastewater Discharge, has been submitted to and approved by the 412 CEG/CEV. Waste oil generated will be collected and recycled. Spent ethylene glycol may not be discharged into the sanitary sewer. The types and quantities of chemicals used for treating these mechanical systems will be periodically reviewed. Discharging these chemicals will comply with the applicable SDS and the approved Form 5852, Permit for Industrial Wastewater Discharge.

A5.1.4.2. The quantity of the bleed off and overflows from cooling towers and evaporative coolers effect the sewage collection and treatment systems, as well as water resources. Efficient operation including electrical conductivity monitoring of cooling tower water will reduce the waste to a minimum. Evaporative cooler drains and bleed off flow rate will be periodically checked and adjusted to minimize the waste, while still preventing mineralization fouling of the evaporative media. These duties will be part of the routine operation and maintenance of the equipment item.

A5.1.5. Contaminated Storm Water/Groundwater from Fueling Facilities. Rainwater or groundwater contaminated with petroleum products cannot be discharged into sanitary or storm sewers. The contaminated waters will be pretreated prior to discharge. Discharging treated wastewater from oil/water separators and emergency holding basins to the sanitary sewer can only be permitted after testing of the effluent and use of Form 5852, Permit for Industrial Wastewater Discharge. The following facilities are included in this category:

- A5.1.5.1. Facility Number 130, Jet Fuel Storage
- A5.1.5.2. Facility Number 181, Wash Rack
- A5.1.5.3. Facility Number 182, Motor Vehicle Fuel Dispensing Area at Hangar 182
- A5.1.5.4. Facility Number 605, Munitions Storage
- A5.1.5.5. Facility Number 710, Bomb Lift Maintenance
- A5.1.5.6. Facility Number 1435, Aircraft Ground Equipment
- A5.1.5.7. Facility Number 1615, Aircraft Wash Rack
- A5.1.5.8. Facility Number 1619, TBD
- A5.1.5.9. Facility Number 1634 Aircraft Corrosion Control
- A5.1.5.10. Facility Number 1734, Truck Fill Stand
- A5.1.5.11. Facility Number 1840, Fuels Lab
- A5.1.5.12. Facility Number 1870, TBD
- A5.1.5.13. Facility Number 2114, Carwash
- A5.1.5.14. Facility Number 2440, Auto Hobby Shop
- A5.1.5.15. Facility Number 2560, Jet Fuel Storage
- A5.1.5.16. Facility Number 3500, Vehicle Wash Rack
- A5.1.5.17. Facility Number 3510, CE Building
- A5.1.5.18. Facility Number 3511, TBD
- A5.1.5.19. Facility Number 3513, Vehicle Maintenance
- A5.1.5.20. Facility Number 3810, Jet Engine Maintenance
- A5.1.5.21. Facility Number 4936, Jet Fuel Storage
- A5.1.5.22. Facility Number 5232, AAFES Gas Station

A5.1.6. Engine Maintenance. Wastewater from jet engine disassembly, inspection and reassembly will be collected and pretreated prior to discharge to the sanitary sewer. Hazardous solvents including Tetrachloroethylene, hexavalent chromium, and other metals are not permitted to enter the sanitary sewer, unless concentrations are within acceptable levels established by Federal and State law and as directed by the 412 CEG/CEV. Concentrated solvents will be collected and recycled, as much as possible. Non-hazardous cleaning solvent waste, which has passed through a properly designed and maintained pretreatment process, can be discharged to the sanitary sewer. None of this waste may be discharged to the storm water system. These limitations apply to the following facilities:

- A5.1.6.1. Facility Number 3800, Jet Engine Maintenance New Main Base Jet Engine Maintenance Facility and other facilities.

A5.1.7. Facility Number 1608, 412th Test Wing Nondestructive Inspection Facility. Discharges of dye penetrant will not exceed the recommended levels identified in the manufacturer's SDS. The SDS will be the basis for determining pretreatment requirements, including evaluating discharges for metals and other concerns.

A5.1.8. Maintenance Hangars: Hydraulic oil, jet fuel, and cleaning solvents will be collected and recycled. Spray paints will be disposed through Edwards AFB Hazardous Waste Disposal Facility, using properly regulated procedures. The existing floor drains provide emergency protection for fire water overflows and will not be used for the disposal of any hazardous waste. Floor drains, sumps and oil-water separators will be periodically inspected to determine if illicit discharges have occurred. If illicit discharges directly to the storm sewage system occur, an investigation to determine the types and quantities released will be done, in order to develop a cleanup plan. The following facilities are in this category:

- A5.1.8.1. Facility Number 151
- A5.1.8.2. Facility Number 156C (temporary hangar)
- A5.1.8.3. Facility Number 156A
- A5.1.8.4. Facility Number 160, Jet Engine Inspection and Maintenance Shop
- A5.1.8.5. Facility Number 607
- A5.1.8.6. Facility Number 710
- A5.1.8.7. Facility Number 720
- A5.1.8.8. Facility Number 730
- A5.1.8.9. Facility Number 1030
- A5.1.8.10. Hangar Number 1207
- A5.1.8.11. Hangar Number 1210
- A5.1.8.12. Hangar Number 1600
- A5.1.8.13. Facility Number 1622
- A5.1.8.14. Hangar Number 1623
- A5.1.8.15. Facility Number 1624
- A5.1.8.16. Facility Number 1630E
- A5.1.8.17. Facility Number 1634
- A5.1.8.18. Facility Number 1635
- A5.1.8.19. Facility Number 1735
- A5.1.8.20. Facility Number 1864
- A5.1.8.21. Facility Number 164A (temporary hangar)
- A5.1.8.22. Facility Number 164B (temporary hangar)
- A5.1.8.23. Facility Number 1810

A5.1.8.24. Facility Number 1820

A5.1.8.25. Facility Number 1830

A5.1.8.26. Facility Number 1870

A5.1.8.27. Facility Number 1874

A5.1.8.28. Facility Number 1881

A5.1.8.29. Facility Number 1888

A5.1.8.30. Facility Number 1899

A5.1.8.31. Facility Number 3800

A5.1.8.32. Facility Number 3804

A5.1.8.33. Facility Number 4305

A5.1.8.34. Facility Number 4505

A5.1.9. Medical and Infectious Waste. Infectious wastes will be rendered noninfectious prior to discharge if deemed to pose a threat to public health and safety. No person will discharge solid wastes from hospitals, clinics, medical laboratories or other medical facilities to the sewage system including, but not limited to, hypodermic needles, syringes, instruments, utensils or other paper and plastic items of a disposable nature, or recognizable portions of the human anatomy or laboratory animals, except where prior written approval for such discharges is given by the 412 CES/CEOIU and the 412 CEG/CEV.

A5.1.10. Pest Management Shop. Pesticides and related pesticide wastes will not be discharged into the sanitary sewers at any time. The Base Pest Control Contractors are responsible for the proper disposal of pesticides and pesticide containers at an approved off base facility per the 412th Test Wing Installation Pest Management Plan and 40 CFR Section 165 (40 CFR 165).

A5.1.11. Septage. Concentrated sewage from septic tanks and chemical toilets can be discharged to the WWTP pending submittal and approval of Form 5852, Permit for Industrial Wastewater Discharge, and coordination with the 412 CES/CEOIU regarding acceptable discharge rates. Since chemical toilet wastes contain biocides, including formaldehyde, the pertinent SDS and concentrations must be reported with the associated Form 5852. Any septic tank or chemical toilet connected to an industrial waste drain may not be discharged to the WWTP.

A5.1.12. Washing Activities. Rinse water from the following activities can discharge to the sanitary sewer system via a properly maintained and functional gravity OWS, provided the rinse water does not contain solvents, fuel, or emulsifying detergents.

A5.1.12.1. Aircraft wash activities

A5.1.12.2. Aircraft ground equipment washing activities

A5.1.12.3. POL vehicles and equipment washing activities including:

A5.1.12.3.1. Facility Number 1435, 412th Test Wing Vehicle Maintenance Shop

A5.1.12.3.2. Facility Number 1617, Fire Station Number One

A5.1.12.3.3. Facility Number 2110, Air Force Exchange Services Gas Station

A5.1.12.3.4. Facility Number 2440, Services Automotive Hobby Shop

A5.1.12.3.5. Facility Number 3510, Vehicle Maintenance Shop

A5.1.12.3.6. Facility Number 5560, Fire Station Number Two