ORDER

U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL AVIATION ADMINISTRATION

1050.16

3/16/89

SUBJ: IMPLEMENTATION GUIDELINES FOR COMPLIANCE WITH UNDERGROUNDSTORAGE TANKS (UST) REGULATIONS (RIS: PS 1050-6)

1. PURPOSE. This order provides for management of underground petroleum fuel storage tanks (UST) at National Airspace System (NAS) ground facilities and at the FAA Technical Center. This project will eliminate (except for catastrophic tank failure) environmental contamination caused by leaking UST's. Order 1050.15, Underground Storage Tanks at FAA Facilities provides methods for conforming with Federal, state, county, and municipal UST regulations.

2. DISTRIBUTION. This order is distributed to branch level in the Program Engineering and Systems Maintenance Services, and in the Office of System Engineering and Program Management; to division level in the Acquisition and Materiel Service and the Office of Airport Standards in Washington headquarters; to branch level in the regional Airway Facilities divisions; and to the Airway Facilities sectors, sector field offices, sector field units, and sector field office units.

3. FORMS AND REPORT. FAA Form 1050-6, Underground Fuel Storage Tank Annual Accounting Report and FAA Form 1050-7, Underground Storage Tanks Program Goals for FY-, are provided in the order and local reproduction is authorized. The reports identification symbol assigned to this report is RIS: PS 1050-6.

4. PROJECT OVERVIEW.

a. The Hazardous and Solid Waste Amendments of 1984 to the Clean Waste and Solid Waste Disposal Act requires that owners (including the Federal Government) of the underground petroleum fuel storage tanks (UST) notify local (state, county, and municipal) governments of such tanks and clean up any environmental pollution; and install leak detectors to prevent future environmental pollution.

b. The Environmental Protection Agency 40 CFR Part 280 , Underground Storage Tanks; Technical Requirements , requires all tanks to have spill and overfill prevention devices, corrosion protection, and leak detection.

c. All tanks, new and existing, shall conform to Order 1050.15.

a. The public has become sensitive to issues associated with potential contamination of surface and ground water. That concern has led to the development of numerous environmental regulatory programs at the state and local levels. Management of UST's has seen substantial regulatory initiatives in

recent years. such regulations require that leaking UST's be eliminated and such environmental pollution be cleaned up. Compliance with this order will eliminate future occurrences, except for catastrophic failures.

5. PROJECT DESCRIPTION. The project involves replacing or upgrading all UST's in the FAA inventory at NAS ground facilities that do not meet current standards. All new tanks shall be installed in accordance with Specification FAA-C-2812, Underground Liquid Fuel Storage Tanks; FAA Drawing Nos. D-6261-0, D-6261-l, D-6261-2, D-6261-3, and local regulations. The point of contact for the specifications and drawings is to be APS-130.

6. PHYSICAL DESCRIPTION.

a. The following shall be accomplished:

(1) All UST's shall be brought into compliance with existing Federal, state, and local regulations.

(2) All tanks will be brought into conformance with the requirements of Order 1050.15.

(3) All UST's which lack a leak monitoring system, will be precision integrity tested for leaks. The tests may include, but are not limited to, precision test, soil samples, and groundwater samples. Thereafter all UST's not associated with an emergency backup engine generator shall be tested annually until they are upgraded with leak detection. Where a tank is to be removed, precision integrity testing may be used as an option.

(4) All UST's not associated with a backup engine generator shall have leak detection by the following dates:

Year UST was Installed	Date Leak Detection is Required
Before 1965	1989
1965-1969	1990
1970-1974	1991
1975-1979	1992
1980-1988	1993

(5) Used tanks, piping, etc. shall be removed from the site and all contaminated soil, etc. shall be cleaned up according to the

Environmental Protection Agency (EPA) , state, and local instructions and requirements.

(6) A tank may be upgraded with corrosion protection (if steel), spill and overfill prevention devices, and a leak monitoring system if approved by APS-130. Approval will depend upon the composition of the tank and piping, age of the UST, groundwater location, environmental sensitivity, future plans for the site, state and local requirements, etc.

(7) A new double-walled tank, piping incorporating secondary containment, spill and overfill prevention, corrosion protection (if steel), and leak detector system will be installed at the sites which are not upgraded. All leaking tanks and piping are be removed (tightening of fittings will be permitted).

(8) A survey is to be made to locate all out of service or abandoned tanks. These tanks will be removed where feasible.

b. All remaining UST's are to have spill and overfill prevention, corrosion protection (if steel), double-wall tanks (if new), piping employing secondary containment (if new), and leak detectors that can be monitored from a remote location.

c. Tanks located at VHF omnidirection range (VOR) , VHF omnidirection range tactical air navigation (VORTAC), radar microwave link (RML), radio control link (RCL) , remote communication air-to-ground (RCAG) , and remote transmitter receiver (RTR) facilities that are scheduled for conversion to battery-standby power and are not leaking shall not be removed at this time. Conversion to battery-standby power should be completed during the duration of this program. Therefore, funds will be provided to remove the tank and piping, clean up any contamination, and dispose of the tank, piping, and contaminated earth for all tanks at sites where battery-standby power rendered those tanks surplus. Refer to Order 6950.2C Electrical Power Policy Implementation at National Airspace System Facilities, for backup power criteria.

d. At those facilities where secondary power or a waste sump is required, conversion to an agency approved alternative fuel supply method (engine generator conversions, aboveground fuel tanks, or batteries) and the subsequent removal of UST's shall be implemented where feasible and cost beneficial.

e. Aboveground tanks shall have as a minimum a spill prevention counter measures control plan, and meet any federal, state, and local requirements.

7. PROJECT SEQUENCE.

a. Establish advisability of retaining UST or converting to an alternate technology (e.g., propane conversion) regarding compliance with local, state, and Federal regulations or agency considerations.

b. Initiate precision integrity tank testing program in the sequence listed below. For financial reasons, work should be grouped by location.

(1) Facilities located in moderate to densely populated areas or adjacent to a dwelling.

(2) Facilities located hydraulically upgradient from sources of potable water, or near ground or surface water that could be contaminated by leaking fuel.

(3) Facilities where leaks would create explosive situations in nearby occupied structures.

(4) Facilities on porous soil.

(5) Facilities located on non-porous, layered formations that could act as a conduit to ground water.

c. Perform prescribed remedial measure for leaking tanks.

d. Implement upgrades, removals, or replacements for all remaining UST's.

e. Dispose of tanks that will not be retained in accordance with agency regulations.

8. PROJECT SCHEDULE. Priority project schedule is as follows:

Event	Begin	End
Tank Testing	FY-88	FY-91
Replace Leakers, Clean up	FY-88	FY-93
Remove Abandoned Tanks	FY-89	FY-93
Install Leak Detectors	FY-90	FY-93
Replace Tanks	FY-91	FY-94
Remove Tanks, Clean up[1]	FY-92	FY-95
Replace Non-Conforming tanks	Continuing	FY-95

In the event of differing state or local requirements, a leak, or a spill; these sites will be handled on a case-by-case basis.

9. PROJECT MANAGEMENT.

a. The Facility Power Systems Program, APS-130, will be the program manager for the project and has the responsibility for developing the overall program scope, planning, budgeting program funds, assigning program responsibilities, and establishing program priorities in keeping with NAS Plan requirements. The program manager is also responsible for the proper overall coordination and technical execution of the program. In this capacity, the program manager directs, coordinates, and manages the effects involved to assure effective program accomplishment.

b. The associate program manager, ASM-120, will have the overall responsibility to establish requirements, assure that program implementation is in conformance with established agency operations and maintenance policies, and for monitoring operational impacts.

1 Tanks, piping, clean up, and disposal from those facilities that have converted to battery back-up.

c. The project manager-technical officer, APS-130, manages day-to-day activities for the program manager, provides all required technical standards, guidance, monitoring, reports program problems, and recommends suitable alternatives.

d. The Office of Environment and Energy (AEE) is responsible for developing agency environmental policy, overseeing the implementation of that policy, and reporting agency progress to other organizations.

e. The regional Airway Facilities division managers are responsible for providing support to the program manager as follows: To assign a UST coordinator and other key personnel with resources necessary to carry out the required program. The UST coordinator's responsibility will include annual progress reports to the APS-130 program manager. This report will be due prior to February 15 of each year.

10. PROGRAM COORDINATORS. UST program planning groups are to be formed as required to develop conclusions and recommendations for changes in program implementation.

a. Offices and services listed below shall designate member(s) to the planning group, depending upon the subject matter and their interest.

(1) Program Engineering service (APS-130) Chairman.

(2) Systems Maintenance Service, ASM.

(3) Regional Airway Facilities Divisions.

(4) Office of Environment and Energy, AEE-100.

(5) Acquisition and Materiel Service, ALG.

(6) Office of Personnel (APN-300).

(7) SEI contractor.

b. Responsibilities of designated members are as follows:

(1) Act as a focal point within their respective organizations for UST program planning.

(2) Provide liaison between the planning group and their respective organizations.

(3) Take necessary action within their respective organizations for review and implementation matters.

(4) Keep their respective organizations informed of program activities.

11. PROJECT MANAGERIAL COMMUNICATIONS. Project managerial communications is provided as required to APs-l and AAF-l through a Program Status Review Board (PSRB). This PSRB provides insight into cost, schedule, technical, logistic, and field implementation issues that may exist. Communications to the various concerned parties within APS, ASE, AEE, ASM, and regional Airway Facilities divisions occurs through formal Technical Interchange Meetings (TIM) as required and informal periodic information bulletins.

12. PROJECT PLAN.

a. Fiscal Management.

(1) Program implementation shall be in accordance with the project

schedule established in paragraph 6 and appendix 1 of this order.

(2) Washington headquarters will issue project authorizations (PA) to regional offices in FY 1989 to initiate the program.

(3) If testing reveals a leaking tank, this PA should cover cleanup cost; however, if further funding is required the regional

coordinator shall submit a request for funds to the program manager for remedial measures with detailed cost breakdown.

b. Accountability. Each region shall submit an annual report, using the forms referenced in paragraph 3. This report shall document the previous year's accomplishments and funding expenditures. Additionally, this report shall document the next year's scheduled UST program milestones for the purpose of fiscal allocation. The report will be due prior to February 15 of each year.

Robert E. Brown

Director, Program Engineering Service

APPENDIX 1 - PROPOSED PROGRAM IMPLEMENTATION

1. Plan to complete all testing by end of FY 1989.

a. Washington headquarters will issue PA's to the regional office in FY-89 to cover costs for immediate compliance action which may include testing, leak detection, removal, and cleanup.

b. Funds from each year will be retained by APS-130 to cover costs of clean up and replacement of those tanks discovered leaking.

(1) When testing reveals a leaking tank, the PA should cover cleanup costs; however, if further funding is required the regional of f ice will submit a PA to request funds to perform the prescribed remedial measure.

(2) APS-130 will issue funds accordingly on a priority basis.

c. Repeat process for the next FY funds.

d. When all UST's are in compliance with existing regulations and all locations with presently leaking tanks have been accounted for, remaining funds will be used to clean up sites which have been contaminated in the past by leaking tanks. The funds will be released in accordance with the regional offices' request on priority basis.

2. Priority for FY 1990 through FY 1994 funding.

a. Complete all tank testing and site clean ups on priority basis.

b. Replace all leaking tanks.

c. Starting FY 1991, work will begin on the upgrade or replacement of all nonconforming tanks at sites where the UST is to be retained.

3. Starting FY 1992, work will begin on removal of engine generators, removal of tanks, and site clean ups.

4. FY 1993 - FY 1994 continue.

APPENDIX 2

UNDERGROUND FUEL STORAGE TANK ANNUAL ACCOUNTING REPORT

Date:_____

Region:_____

Underground Storage Tank Coordinator:
_____

ITEM OF WORK NO OF SITES ANNUAL EXPENSES

1. Abandoned tanks removed _____ _____K

2. UST's replaced _____ _____K

3. UST's upgraded _____ _____K

4. engine generators converted _____ _____K

5. Aboveground tanks installed _____ _____K

6. Tanks tested, soils analyzed _____ _____K

7. Emergency cleanups, etc _____ _____K

8. Other _____ _____K

Describe:

_____

_____

Regional total: _____K

Program Goals for FY-

Date:_____

Region:_____

Underground Storage Tank Coordinator:
_____

ITEM OF WORK NO OF SITE EST COST TOTAL COST

1. Abandoned tanks removed _____ _____K _____K

2. UST's replaced _____ _____K _____K

3. UST's upgraded _____ _____K _____K

4. engine generators converted _____ _____K _____K

5. Aboveground tanks installed _____ _____K _____K

6. Tanks tested, soils analyzed _____ _____K _____K

7. Emergency cleanups, etc _____ _____K _____K

8. Other _____ _____K _____K

Describe:

_____
_____

_____
_____

UNDERGROUND FUEL STORAGE TANK

ANNUYAL ACCOUNTING REPORT		
Region:		Date:
Underground Storage Tank Coordinator:		
ITEM OF WORK	**NO. OF SITES**	**ANNUAL EXPENSES**
1. Abandoned tanks removed		K
2. UST’s replaced		K
3. UST’s upgraded		K
4. Engine generators converted		K
5. Aboveground tanks installed		K
6. Tanks tested, soils analyzed		K
7. Emergency cleanups, etc.		K
8. Other		K
	Regional Total:	**K**
Describe(8.) Other:		

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PROGRAM GOALS FOR FY _____ Region:	Date:
Underground Storage Tank Coordinator:	

ITEM OF WORK	NO. OF SITES	EST. COST	
1. Abandoned tanks removed		K	
2. UST’s replaced		K	
3. UST’s upgraded		K	
4. Engine generators converted		K	
5. Aboveground tanks installed		K	
6. Tanks tested, soils analyzed		K	
7. Emergency cleanups, etc.		K	
8. Other		K	

Describe (8.) Other:

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