



Ames Procedural Requirements

APR 8800.3

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COMPLIANCE IS MANDATORY

Ames Environmental Procedural Requirements

Chapter 11 - Closure Requirements

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11.1 [Applicability](#)

This instruction is applicable to civil servants and contractor employees, NASA Research Park Partners, Tenants, and Resident Agencies at NASA Ames Research Center (NASA Ames).

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11.2 [Purpose](#)

The purpose is to ensure that NASA Ames facilities are closed in a manner that is protective of human, health and the environment.

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11.3 [Policy](#)

It is the policy of NASA Ames to comply with pertinent environmental statutory and regulatory requirements and Executive Orders

related to closure of facilities. APR 8800.1 states that "any facility that has no specific and present, or near-term, program or institutional requirement shall be closed". A closed facility must be categorized in one of three ways:

1. Standby
2. Mothballed
3. Abandoned

Section 11.6 for definitions of active and inactive facilities, and the three inactive categories. Facilities classified as "Heritage," which are closed historic facilities once classified as "Active Heritage," are not permitted to be categorized as abandoned.

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11.4 Authority

1. Resource Conservation and Recovery Act (RCRA) of 1976, as amended (42 U.S. C. 6901 et seq.)
2. Public Law No 102-386: Federal Facilities Compliance Act (FFCA) of 1992
3. 40 Code of Federal Regulations (CFR) Parts 260-270, Solid and Hazardous Wastes
4. 40 CFR, Part 61, Subpart M (Asbestos-NESHAPs)
5. 40 CFR, Part 273, Standards for Universal Waste Management
6. 40 CFR 761- Polychlorinated biphenyls (PCB's) manufacturing, processing, distributing in commerce, and use prohibitions.
7. 36 CFR 800.14 - Regulations Implementing Section 106 of the National Historic Preservation Act (NHPA)
8. Executive Order 12088, amended by Executive Order 12580, Federal Compliance with Pollution Control Standards.
9. Executive Order 13423 - Strengthening Federal Environmental, Energy, and Transportation Management
10. California Health and Safety Code, Chapter 6.5, Articles 9 and 12
11. California Health and Safety Code, Chapter 6.95
12. California Code of Regulations, Title 22, Sections 66264.110 through 66264.120
13. Santa Clara County Hazardous Materials Storage Permit Ordinance, No. NS-517.31
14. Santa Clara County Toxic Gas Ordinance, NS-517.44
15. Bay Area Air Quality Management District (BAAQMD) Rules and Regulations
16. Sunnyvale Municipal Code, Chapter 12.12 Sewer Use Ordinance
17. Palo Alto Municipal Code, Chapter 16.09 Sewer Use Ordinance
18. Ames Policy Directive 8800.1, Real Property Management
19. Ames Environmental Programs (APD 8800.4)
20. Ames Environmental Management System (APD 8800.3)
21. Ames Procedural Requirements 8800.1, Closure, Caretaker, Maintenance, and Reactivation of Facilities

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11.5 Responsibilities

11.5.1 Facility Environmental Closure Notification Facility Service Manager (FSM)

[REDACTED]

[REDACTED]

11.5.2 Facility, Closure Notification

[REDACTED]

[REDACTED]

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

[REDACTED]

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11.5.3 Tenant/Partner

[REDACTED]

11.5.4 Environmental Services Division

1. Inform the Occupational Safety, Health & Medical Services Division of the planned activity and of the facility walkthroughs. Coordinate sampling.
2. Advise for the maximum feasible reuse, recycling, and reclamation of facility, equipment, and materials.
3. Prepare the required notification, closure plan and application, and post-closure report for submittal and approval by the appropriate regulatory agencies.
4. Enter the closure activity into the [REDACTED] database.
5. Inform the applicable regulatory agency 30 days prior to closure.
6. Coordinate closure inspection by the regulatory agency.
7. Conduct sampling, as required, to determine if operating the equipment or handling and storing of hazardous materials or waste may have negatively impacted the environment or property. Evaluate sampling data to identify decontamination and/or mitigation options. Prepare sampling report(s) documenting the sampling effort.
8. Inform the permittee of the investigation results in adequate time to allow for funding.
9. Interface with the regulatory agencies.
10. Maintain copies of records indicating disposition of all hazardous materials/waste and the recycling and reclamation opportunities taken.
11. Amend the Building Emergency Action Plan (BEAP), and environmental permits if necessary to reflect changes due to closure.
12. Prepare the Post Closure Report for approval by the regulatory agency, documenting results of any inspections, decontamination, sampling, mitigation and final disposition of any hazardous materials or hazardous waste and associated equipment, and of recycling and reclamation opportunities taken.

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11.6 Definitions

11.6.1 Abandoned

There are no plans for future reactivation. A condition in which a facility has been "walked away from" or for which all maintenance activities have been halted. Facility systems and collateral equipment should be considered for excess and/or identified for use at other NASA locations where feasible and cost-effective. See APR 8800.1 for additional requirements.

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11.6.2 Active Facility

Any facility that has a specific and present, or near-term, program or institutional requirement. Space utilization would normally be at least 50 percent and/or the usage level exceeds 50 percent of the available time for use.

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11.6.3 Building Emergency Action Plan (BEAP)

A plan required for facilities storing, handling, or dispensing hazardous materials at NASA Ames; the plan describes the chemicals stored and used, their locations, building hazards, building escape routes, and procedures for emergency response to hazardous materials spills.

11.6.4 Closure

Closure is when a facility no longer uses or stores hazardous materials in its operations at a specific location. Two possible scenarios follow:

1. When a facility holding hazardous materials storage permit(s) terminates its operations, a closure plan and application must be prepared and submitted to the local regulatory agency to show that steps have been taken to protect human health and the environment against the hazardous materials used at the facility. The facility will show that the hazardous materials have been removed and that there is no residual contamination remaining that may impact persons or the environment.
2. When a facility that has not been issued a hazardous materials permit but uses equipment containing hazardous materials terminates its operations, a closure plan is prepared and addresses all aspects of the facility operations that may impact human health and the environment. For example, the closure of a wind tunnel may leave lubricating oils in place to protect the equipment for potential future use. In this case, routine inspections of the facility will be performed to ensure that the lubricating oils are not leaking.

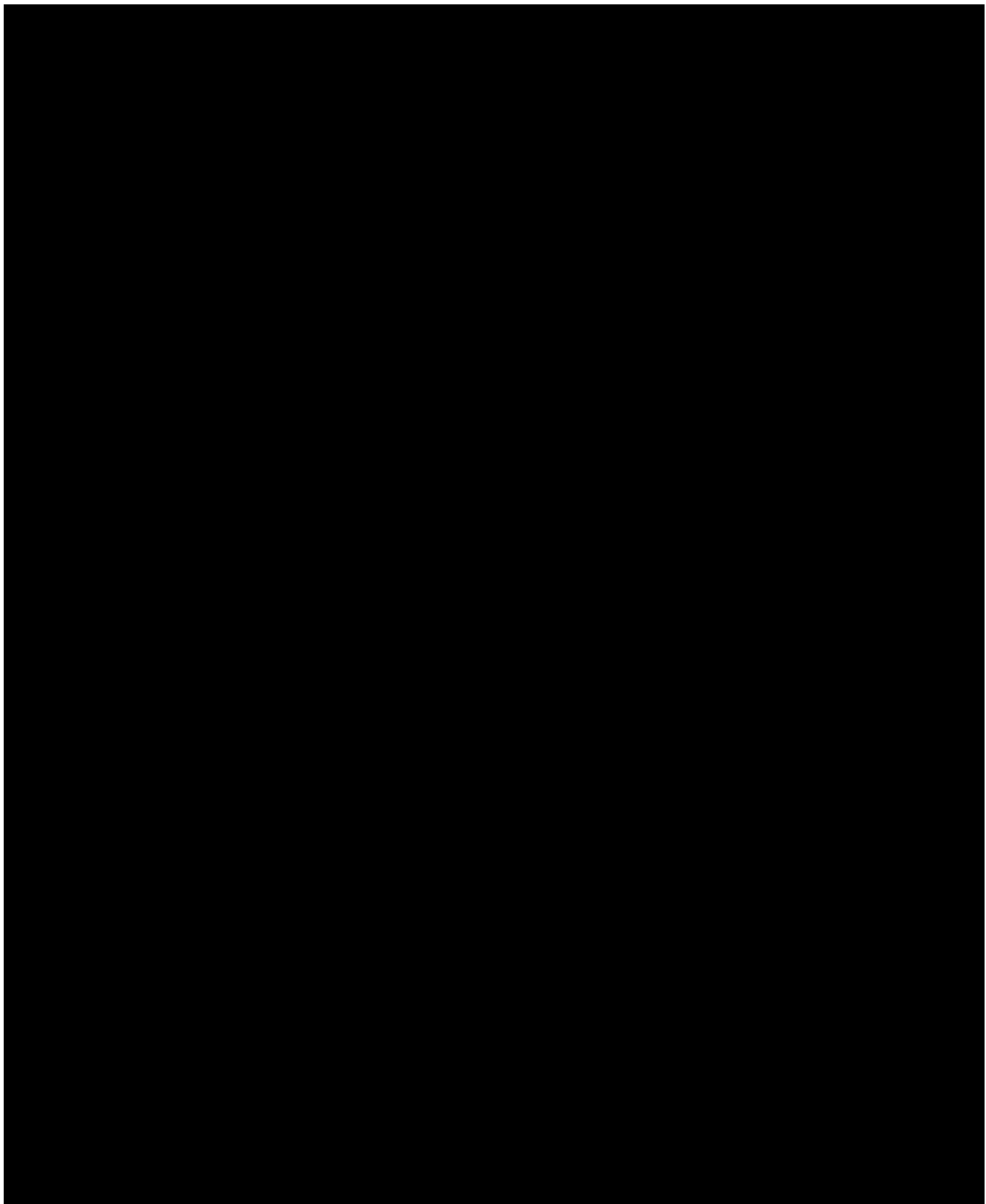
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11.6.5 Closure Plan

A written plan outlining procedures to be followed to minimize present and future health and environmental hazards; a closure plan is prepared when a hazardous materials storage facility or operational unit discharging to the environment or storing oil, PCBs, or other hazardous materials or tiered permitting unit is to be closed.

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11.6.6 Facility Closure Work Flow Plan



11.6.7 Facility Services Manager (FSM)



[Redacted]

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11.6.8 Inactive Facility

Any facility that has no specific and present, or near-term, program or institutional requirement. An inactive facility may be placed in a "Standby," "Mothballed," or "Abandoned" status. See APR 8800.1 for additional requirements.

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11.6.9 Mothballed

A condition where a facility has been deactivated and appropriate maintenance measures have been taken to prevent deterioration of its vital or essential systems. Higher first year costs would be expected because of preparations for mothballing, but future annual costs should be significantly lower due to reduced maintenance and repair requirements. Total time to deactivate and then to reactivate the facility, including the mothballed period, is expected to exceed 12 months. See APR 8800.1 for additional requirements.

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11.6.10 Permittee

Organization to whom the hazardous materials storage permit or hazardous waste treatment authorization air, industrial wastewater, or storm water permit is issued and any authorized representative, agent, or designee of such person, firm, or corporation.

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11.6.11 Post Closure Report

A written report that documents the closure procedures that were implemented, including any analytical results, hazardous waste manifests, bills of lading, or other supporting documentation.

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11.6.12 Standby

A facility that is temporarily not in use and for which appropriate maintenance measures have been taken to maintain its vital or essential operating systems in a state of readiness or availability for future use. Selective life cycle cost effective facilities maintenance and repair is required. Total time to deactivate and then to reactivate the facility, including the standby period, is expected to be less than 12 months. See APR 8800.1 for additional requirements.

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11.6.13 Taken Out of Service

Owners/operators of facilities permanently taken out of service, or which are not monitored in accordance with an approved written monitoring plan, must submit a closure plan application and obtain a closure permit at least 30 days prior to final closure of the facility or aboveground/underground storage tank. SCCO Section B11-288(a) B11-288(c).

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11.7 Affected Operations

Closure or demolition of buildings with residual hazardous materials, closure or replacement of the following features, and features "taken out of service" must be coordinated with the Environmental Services Division:

1. Permitted hazardous material storage areas
2. Permitted hazardous waste accumulation areas
3. Tiered permitted equipment used in the treatment of hazardous waste
4. Permitted air sources
5. Permitted sanitary sewer sources
6. Universal wastes such as computer components
7. Equipment containing oil or other hazardous materials
8. Electrical equipment containing PCBs

9. Equipment such as paint used in the application of hazardous materials booth
10. Above ground and underground storage tanks
11. Equipment used to abate air emissions
12. Equipment discharging to the sanitary sewer such as an oil water separator

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11.8 Metric

Percent of closure plans submitted to the County 30 days prior to closure of a permitted hazardous materials storage area or hazardous materials related equipment per Fiscal Year. Goal 100%.

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11.9 Sources of Additional Information or Assistance

1. Building Emergency Action Plans (BEAPs) (website home page at <http://beap.arc.nasa.gov/>)
2. Environmental Services Division [REDACTED]
3. Environmental Services Division (WWW home page at <http://q.arc.nasa.gov/>)

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