



**NASA Ames Research Center
Ames Environmental Procedural Requirements**

Chapter 19 - Environmental Justice

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19.1 Applicability

This instruction is applicable to all civil servant and contractor employees and tenant personnel at Ames Research Center (Ames), Moffett Federal Airfield (MFA), and Crows Landing Flight Facility.

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19.2 Purpose

This chapter focuses attention on disproportionately harmful environmental and human health conditions in low-income communities or minority communities by identifying, addressing, and communicating any disproportionately high and adverse human or environmental impacts from Ames' operations.

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19.3 Policy

It is the policy of the Ames Research Center to comply with all pertinent statutory and regulatory requirements and Executive Orders relating to environmental justice (EJ). Ames recognizes and will comply with applicable Federal, state, and local environmental regulations.

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19.4 Authority

In July 1992, EPA published a report, entitled Reducing Risk for All Communities, which noted that minorities and low-income communities experience higher than average exposures to selected air pollutants, hazardous waste facilities, and other forms of environmental pollution. The EPA's Administrator Browner reaffirmed the EPA's commitment to environmental justice in 1993. President Clinton sign Executive Order (EO) 12898 on February 11, 1994 to establish environmental justice as a national priority. The EO directs federal agencies to address human health and environmental issues in low-income and/or minority communities with the goal of achieving environmental protection for all communities. The order directs Federal agencies to develop environmental justice strategies to promote non-discrimination in federal programs substantially affecting human health and environment, and to provide minority and low income communities access to public information on, and an opportunity for public participation in, matters relating to human health or the environment.

The EO, as amended, directed Federal agencies to develop by March 24, 1995, an Environmental Justice strategy that identifies and address disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations.

All Federal Agencies, including National Aeronautics and Space Administration (NASA) were inquired to develop environmental justice plan identifying and addressing, as appropriate, the disproportionately high and adverse human health and environmental effects on minority communities. In 1995, NASA published an agency wide strategy, pursuant to Section 2-2, EO 12898. The purpose of the strategy is to ensure the integration of environmental justice into NASA's programs, policies, and activities. The strategy provides a broad framework of the items to be accomplished by each center to achieve EJ.

Ames is committed to achieving environmental justice. We will identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of our actions on low-income communities and minority communities impacted by our operations. We will ensure that low-income communities and minority communities do not suffer disproportionately high and adverse human health or environmental effects as a result of Ames' activities. Ames will provide access to information which enables the public to participate in activities.

Ames' EJ Implementation Plan contains a framework of the ten (10) requirements stated in the NASA Environmental Justice Strategy.

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19.5 Responsibilities

19.5.1 Federal Agencies (NASA Ames)

[REDACTED]

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19.5.2 Line Management

[REDACTED]

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19.5.3 Environmental Services Office, Code QE (Environmental Office)

1. Prepare the Environmental Justice Implementation Plan.
2. Oversee and ensure implementation of the EJ program.
3. Monitor and evaluate the program then incorporate the necessary changes.
4. Ensure that EJ evaluation occurs during NEPA review of all organizations' projects at the center as needed.

See Appendix A for a listing of Environmental Office and contractor employee contacts.

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19.5.4 Development and Communications Office, Code DX

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19.6 Definitions

19.6.1 Community Right-to-Know Regulations

Laws requiring hazardous materials inventory reporting from businesses with the intent of informing residents about storage of hazardous materials in their community.

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19.6.2 Environmental Justice (EJ)

Refers to environmental protection that is equally afforded to all people, regardless of race or socioeconomic status; also known as "environmental equity."

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19.6.3 National Environmental Policy Act (NEPA)

Originally enacted as the National Environmental Policy Act of 1969, NEPA is the United States' basic national charter for protection of the environment. It

establishes policy, sets goals, and details procedures intended to protect and enhance the environment.

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19.6.4 Stakeholder

Defined by the Federal Facilities Environmental Restoration Dialogue Committee (FFERDC) as someone affected by or otherwise having an interest in or the ability to influence the outcome of Federal facility cleanup decisions. The Committee broadly includes all applicable decision makers, Federal regulators, tribal governments, local governments, health officials, and public stakeholders.

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19.7 Environmental Justice Implementation Plan Overview

The Environmental Justice Implementation Plan details the steps to be followed, sources of information, and specifics about implementation of the Ames' EJ program. This section provides an overview of the plan. Some steps in the EJIP development and implementation process are as follows:

1. Identifying (potential) offsite impacts from Ames operations.
2. Researching the demographic makeup of the cities adjacent to the facility to determine whether any low-income or minority communities occur within the radius of Ames' impacts.
3. Determining the magnitude and how disproportionately NASA Ames activities impact low-income or minority communities.
4. Implementation via:
 - Integration with ongoing programs.
 - Communication with the (potentially) affected EJ communities.
 - Program monitoring and improvement.
5. Development of mitigation measures, as appropriate.

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19.7.1 Potential Impacts

In accordance with Section 3-302 EO 12898 subpart (a), Ames will collect, maintain, and analyze information assessing and comparing human health risks borne by communities identified by race, national origin, or income. Ames will determine whether our programs, policies, and activities have disproportionately high and adverse human health or environmental effects on these communities.

The first requirement of EO 12898 is to identify and define potential EJ concerns. All existing operations and their associated environmental and human impacts, as well as locations of interest that may be impacted by future proposed activities have been evaluated. Most of the

possible Ames off-site health and environmental impacts have been identified in documents recently completed by Ames including the Comprehensive Use Plan, the Draft Environmental Impact Statement for the Ames Aerodynamics Testing Program, Environmental Checklist, Environmental Assessments, and Construction reviews.

Ames evaluated their major activities, products, and services and determine that Life Sciences, Wind Tunnel Testing, Facility Modifications and Site Maintenance, and Space Sciences have the greatest potential to impact the environment.

Ames manages the environmental programs in a manner to avoid disproportionately high or adverse human health and environmental effects on minority and low-income communities. As a result of this management approach, several potential off-site health and environmental hazards, when reviewed were found not to present a problem to the surrounding minority and/or low-income communities.

Federal and California hazardous materials accidental release programs require facilities to determine if threshold quantities of regulated hazardous materials are present at their facility and to prepare a risk management plan if regulatory threshold quantities are present. Ames has reviewed the quantity of hazardous materials at the Center and has evaluated the risk of an accidental release of hazardous materials. It was determined from reviewing location-specific hazardous materials inventories that the Center is not storing any hazardous material equal to or greater than threshold quantities stored, an accidental release of hazardous materials has no potential for impacting off-site communities.

To evaluate to potential for a release of toxic gas from Ames to affect neighboring communities a study was conducted in 1997 by Uribe & Associates and Morrison Knudsen Corporation on behalf of the Center. The primary focus of the study was to determine if the quantities and locations of the toxic gases at the Center would impact low-income or minority neighborhoods in the event of a gas release. The study concluded that the amount of toxic gases stored at Ames was below levels that would significantly impact off-site residents in the event of the accident release of a single cylinder.

A policy was implemented at the Center in the Spring of 1997 that limits the quantity of toxic gas that can normally be used or stored at Ames due to Federal Environmental Justice requirements. Toxic gas users that may require a larger quantity of toxic gas are required to prepare an off-site consequence analysis, in accordance with EPA and other applicable protocol, to determine the potential for impacting low income communities during a worst case release. Ames monitors the amount of toxic gas at the Center by completing quarterly inventories which document the type, location, and amount of toxic gas on-site. The September 1998 inventory was reviewed for purposes of the report. The quantities of toxic gas at the Center were found to be within the limits

specified in the 1997 policy.

As NASA has implemented internal policies and procedures to prevent accidental releases of toxic gas and considering that the quantities of toxic stored on-site are limited, there continues to be no potential for an off-site impact from a release of toxic gas at the Center. Operations identified with potential for off-site impact is noise. Noise emanating from both wind tunnel tests and from aircraft flight operations. Noise is, therefore, expected to be the only major impact on the off-site community as a whole.

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19.7.2 Community Profiles

An overview of the adjacent communities of Mountain View and Sunnyvale appears in Chapter 18, Community Relations and Public Participation. However, the EJIP further describes the adjacent communities' demographic profiles. Appendix B provides a list of Bay Area environmental and social justice community organizations.

Using race and income data supplied by the cities of Mountain View and Sunnyvale, the Federal Housing and Urban Development Department, and the U.S. Bureau of the Census, areas of the cities that have "low-income concentrations" or "minority concentrations" were identified. These determinations were made using the cities' own formulas for such areas.

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19.7.3 Evaluation Process

Using the impact and community demographic data of the previous steps, an evaluation was made to determine whether and to what extent Ames activities disproportionately impact low-income or minority communities in the surrounding areas. Several census tracts and two sub-communities were identified as disproportionately impacted by Center operations. These identified sensitive communities will be the focus of Ames community involvement efforts.

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19.7.4 Program Implementation

Internal implementation of the program will involve integrating the EJIP with ongoing processes (e.g., NEPA evaluation) and coordinating with related community involvement programs. In addition, achieving EJ will require that emergency response and pollution prevention procedures consider the identified sensitive communities and address their unique

needs (e.g., language). Refer to Ames Environmental Management Handbook AHB 8800.3, Chapter 18, Community Relations and Public Participation, sections 18.10, 18.11 and 18.12.

Analysis of communication mechanisms given language, culture, educational issues, access issues, and a host of others is key to an effective dialogue. Ames is committed to accessing community resources that have not traditionally been tapped to aid in the formulation and strengthening of community ties and advancement of EJ.

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19.7.5 Monitoring and Evaluation

The program will be monitored for effectiveness; participation will be measured and community responsiveness assessed. Ames is committed to having an active dialogue with the community on issues related to EJ, and will strive to continually improve its program.

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19.8 Appendices

19.8.1 Appendix A: Points of Contact

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19.8.2 Appendix B: Principles of Environmental Justice

PREAMBLE

WE THE PEOPLE OF COLOR, gathered together at this multi-national People of Color Environmental Leadership Summit, to begin to build a national and international movement of all peoples of color to fight the destruction and taking of our lands and communities, do hereby re-establish our spiritual interdependence to the sacredness of our Mother Earth; to respect and celebrate each of our cultures, languages and beliefs about the natural world and our roles in healing ourselves; to ensure environmental justice; to promote economic alternatives which would contribute to the development of environmentally safe livelihoods; and, to secure our political, economic and cultural liberation that has been denied for over 500 years of colonization and oppression, resulting in the poisoning of our communities and land and the genocide of our peoples, do affirm and adopt these Principles of Environmental Justice:

1. **Environmental justice** affirms the sacredness of Mother Earth, ecological unity and the interdependence of all species, and the right to be free from ecological destruction.
2. Environmental justice demands that public policy be based on mutual respect and justice for all peoples, free from any form of discrimination or bias.
3. **Environmental justice** mandates the right to ethical, balanced, and responsible use of land and renewable resources in the interest of a sustainable planet for humans and other living things.
4. **Environmental justice** calls for universal protection from nuclear testing, extraction, production, and disposal of toxic/hazardous wastes and poisons and nuclear testing that threaten the fundamental right to clean air, land, water, and food.
5. **Environmental justice** affirms the fundamental right to political, economic, cultural, and environmental self-determination of all peoples.
6. **Environmental justice** demands the cessation of the production of all toxins, hazardous wastes, and radioactive materials, and that all past and current producers be held strictly accountable to the people for detoxification and the containment at the point of production.
7. **Environmental justice** demands the right to participate as equal partners at every level of decision-making, including needs assessment, planning, implementation, enforcement, and evaluation.
8. **Environmental justice** affirms the right of all workers to a safe and healthy work environment, without being forced to choose between an unsafe livelihood and unemployment. It also affirms the right of those who work at home to be free from environmental hazards.
9. **Environmental justice** protects the right of victims of environmental injustice

to receive full compensation and reparations for damages as well as quality health care.

10. **Environmental justice** considers governmental acts of environmental injustice a violation of international law, the Universal Declaration on Human Rights, and the United Nations Convention of Genocide.
11. **Environmental justice** must recognize a special legal and natural relationship of Native Peoples to the U.S. government through treaties, agreements, compacts, and covenants affirming sovereignty and self-determination.
12. **Environmental justice** affirms the need for urban and rural ecological policies to clean up and rebuild our cities and rural areas in balance with nature, honoring the cultural integrity of all our communities, and providing fair access for all to the full range of resources.
13. **Environmental justice** calls for the strict enforcement of principles of informed consent, and a halt to the testing of experimental reproductive and medical procedures and vaccinations on people of color.
14. **Environmental justice** opposes the destructive operations of multinational corporations.
15. **Environmental justice** opposes military occupation, repression, and exploitation of lands, peoples and cultures, and other life forms.
16. **Environmental justice** calls for the education of present and future generations that emphasizes social and environmental issues, based on our experience and an appreciation of our diverse cultural perspectives.
17. **Environmental justice** requires that we, as individuals, make personal and consumer choices to consume as little of Mother Earth's resources and to produce as little waste as possible; and make the conscious decision to challenge and reprioritize our lifestyles to ensure the health of the natural world for present and future generations.

Adopted today, October 27, 1991, in Washington, D. C.

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19.8.3 Appendix C: Environmental Justice Mailing List

[REDACTED]
Assoc. of Community Organizations for Reform Now (ACORN)

[REDACTED]
Cal/EPA-DTSC

[REDACTED]
Coastal Commission

[REDACTED]

East Palo Alto Historical and Agricultural Society

[REDACTED]

[REDACTED]

Latino Issues Forum

785 Market Street, 3rd Floor

[REDACTED]

[REDACTED]

[REDACTED]

SAFER!

[REDACTED]

[REDACTED]

Save the Bay Association

[REDACTED]

[REDACTED]

Stanford Community Environmental Project

[REDACTED]

[REDACTED]

Urban Habitat Program

[REDACTED]

[REDACTED]

U.S. EPA-Region IX

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