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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

NOTICE: 96-LeRC -03

National Environmental Policy Act: Finding of No Significant Impact: "Replacement of the Icing Research Tunnel (IRT) Heat Exchanger, in Building 11, at the Lewis Research Center."

AGENCY: National Aeronautics and Space Administration (NASA)

ACTION: Finding of No Significant Impact

SUMMARY: Pursuant to the National Environmental Policy Act of 1969, as amended (NEPA) (42 U.S.C. 4321 et seq.), the Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 CFR Parts 1500-1508), and NASA's Procedures for Implementing NEPA (14 CFR Subpart 1216.3), NASA has made a Finding of No Significant Impact (FONSI) with respect to the planned action to replace components in Building 11, the Icing Research Tunnel (IRT) at the Lewis Research Center (LeRC) located in Cleveland, Cuyahoga County, Ohio. Under the proposed action, NASA will replace the Icing Research Tunnel's heat exchanger, other conditioning devices as required, and insulation at discrete points around the tunnel loop. The expected results of this replacement project include increased reliability, improved safety and potential wind-tunnel airflow improvements.

DATE: Comments in response to this notice must be received in writing no later than November 25, 1996.

ADDRESSES: Comments should be addressed to:

Mr. Peter W. McCallum, Chief, Office of Environmental Programs
NASA Lewis Research Center, Mail Stop 6-4
21000 Brookpark Road
Cleveland, OH 44135

The Environmental Assessment (EA) prepared for the "Replacement of the Icing Research Tunnel (IRT) Heat Exchanger, in Building 11, at the Lewis Research Center," which supports this FONSI can be viewed at:

NASA Lewis Research Center
Office of Environmental Programs, Building 6
(Contact Peter W. McCallum, 216-433-8852)

Berea Public Library, 7 Berea Commons
(Contact Mary Ellen Nichols, 216-234-5475)

Fairview Park Public Library, 4449 West 213th Street
(Contact Ann Conway, 216-333-4700)

North Olmsted Public Library, 27425 Butternut Ridge Road
(Contact Donna Meyers, 216-777-6211)

Rockport Branch, Cleveland Public Library,
4421 W. 140th Street
(Contact Eunice Peters, 216-623-7053)

NASA Headquarters Library, Room 1J20
Two Independence Square, SW
Washington, DC 20546
(Contact Kenneth M. Kumor, 202-358-1112)

A limited number of copies of the EA are available by contacting Mr. Peter W. McCallum, Chief, Office of Environmental Programs, at the address and/or telephone number indicated herein.

FOR FURTHER INFORMATION CONTACT: Mr. Peter W. McCallum, telephone 216-433-8852.

SUPPLEMENTARY INFORMATION: NASA has independently reviewed the EA prepared for the "Replacement of the Icing Research Tunnel Heat Exchanger in Building 11," at the LeRC, and has determined that it represents an accurate and adequate analysis of the scope and level of associated environmental impacts. The EA is incorporated by reference in this FONSI.

The NASA Lewis Research Center is proposing action which includes:

- Replacement of the Icing Research Tunnel's heat exchanger;
- Replacement of other airflow conditioning devices;
- Insulation at discrete points around the tunnel loop.

NASA has few available alternatives to the proposed action. Leaks in the existing heat exchanger can release Refrigerant 134a into the tunnel. Refrigerant 134a (which is a non-ozone depleting substance) has a recommended Permissible Exposure Level of 1000 parts per million. If no action is taken, NASA can not eliminate the current health risk related to known problems associated with the IRT and its operations. Replacement of the IRT heat exchanger will result in a more reliable, safer and efficient system.

The reasonable alternatives considered were:

1) The proposed action and preferred alternative is to replace the heat exchanger and other airflow conditioning devices to ensure safe and reliable operation of

extraneous heating (heat added to the tunnel loop by sources other than fan compression) which will reduce the amount of heat the heat exchanger extracts.

2) A second alternative is no action at this time. This alternative would not eliminate the current health risk related to leaks in the existing heat exchanger.

3) Another alternative would be to duplicate icing research capabilities at an alternate site within LeRC. The Icing Research Tunnel is a unique facility. Duplication at LeRC (or elsewhere) is prohibitive due to the high replacement cost when compared to the cost of replacing the heat exchanger and related components. Further, duplication of this facility at any other site would likely have a greater environmental impact compared to the proposed action.

NASA has considered the environmental impacts associated with this project. While there may be some short term environmental impact during demolition and construction due to noise and fugitive dust, these impacts will be controlled in a manner similar to other construction activities at the LeRC. The ultimate goal of this project is to safely remove and replace the heat exchanger and related components thereby resulting in a safer, more efficient icing research facility.

The proposed project will occur in a developed area of LeRC. There will be no effect on threatened or endangered species or critical habitat, cultural resources, wetlands or floodplains. No other issues or environmental concerns have been identified.

On the basis of the EA developed in connection with the planned "Replacement of the Icing Research Tunnel (IRT) Heat Exchanger in Building 11 at the Lewis Research Center" and underlying reference documents, NASA has determined that the environmental impacts associated with this project will not individually or cumulatively have a significant effect on the quality of the environment.

Therefore, a determination has been made that an environmental impact statement is not required. NASA will take no final action or authorize construction activities prior to the expiration of the 30-day comment.

Donald J. Campbell, Director
Lewis Research Center

10/9/94
Date