National Aeronautics and Space Administration

Notice 93-LaRC-1

National Environmental Policy Act; Finding of No Significant Impact; Modifications to the 16-Foot Transonic Tunnel at Langley 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 modifications to the 16-Foot Transonic Tunnel at the Langley Research Center, located in the City of Hampton, Virginia. The existing 16-Foot Transonic Tunnel is used to study airframe propulsion interaction effects under transonic conditions.

DATE: Comments in response to this notice must be received in writing within 30 days of (first date of publication in local newspaper).

ADDRESS: Comments should be addressed to Tricia Romanowski, Environmental Engineer, NASA/Langley Research Center, Mail Stop 429, Hampton, Virginia 23681; Telephone (804) 864-7020.

The Environmental Assessment (EA) prepared for the Modifications to the 16-Foot Transonic Tunnel which supports this FONSI may be reviewed at:

Hampton Public Library, Main Branch, Reference Department
4207 Victoria Boulevard, Hampton, Virginia

NASA Headquarters Information Center, Room 1H23,
300 E. Street S.W., Washington, DC

A limited number of copies of the EA are available by contacting Tricia Romanowski, Environmental Engineer, at the address and telephone number indicated.

FOR FURTHER INFORMATION CONTACT:

Tricia Romanowski, Environmental Engineer, NASA/Langley Research Center, Mail Stop 429, Hampton, Virginia 23681; Telephone (804) 864-7020.

SUPPLEMENTARY INFORMATION: NASA has reviewed the EA prepared for the proposed modifications to the 16-Foot Transonic Tunnel 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.

NASA is proposing to construct modifications to the existing 16-Foot Transonic Tunnel at the Langley Research Center, which is located in the City of Hampton, Virginia. The 16-Foot Transonic Tunnel is the only large transonic wind tunnel facility within NASA dedicated to the study of airframe propulsion interaction effects. Present and projected future use of this facility indicate the need for (1) an expansion of work space and supporting facilities; (2) an expansion of the facility's air reduction system, and; (3) the repair of deteriorated components of the facility's air exchange system.

A shortage of work space, computing areas, and model storage areas exists at the 16-Foot Transonic Tunnel. The proposed modifications entail demolition of an existing single-story part of the administrative building and construction of a two-story replacement structure in the same location. A new prefabricated metal storage building and parking lot for 25 spaces will be constructed.

The existing air reduction system, which reduces the pressure of the air supplied to the tunnel, services both the 16-Foot Transonic Tunnel and the adjacent National Transonic Facility. The proposed modifications entail construction of a second independent air reduction system, which will be connected to both the 16-Foot Transonic Tunnel and the National Transonic Facility. This second system will serve as a back-up system for both tunnel facilities.

The existing air exchange tower, which is part of the system for cooling the tunnel air, has been operational for over 50 years without rehabilitation, and some of the components have deteriorated. The proposed modifications entail removing and replacing the deteriorated components.

The only alternative to the proposed modifications considered is the No-Action Alternative (i.e., no construction of the expanded work and storage space, parking lot, or air reduction system, and no repairs to the air exchange tower). Cancellation of the proposed modifications will not relieve the strain on the work and storage space and parking facilities; relieve the limitations imposed by the shared air reduction system; or prevent limitations on future facility operation imposed by a deteriorating air cooling system. Construction of new work space and parking space at an alternative location is not a viable alternative because of the cost and operational limitations. There are no practicable new-construction alternatives to the proposed repairs to the air exchange system or the new air reduction system.

The environmental impacts identified as a result of the environmental assessment are as follows. Construction will be performed under a sediment and erosion control plan which has been approved by the Contracting Officer prior to construction. No change will occur in the quantity or quality of domestic wastewater from the facility, which will continue to be discharged to the Hampton Roads Sanitation District under permit. There will be minor and temporary fugitive dust emissions and noise during construction. Fugitive emissions will be controlled by standard dust controls. Emissions from construction equipment and vehicles will be controlled by keeping the equipment and vehicles properly tuned. Construction noise will attenuate rapidly with

distance from the facility, and will be indistinguishable from background noise at a distance of approximately 180 meters (200 yards). There will be no change in the dust emissions or noise from operation of the 16-Foot Transonic Tunnel. Any hazardous wastes generated during construction will be disposed in accordance with a hazardous waste disposal plan which has been approved by the Contracting Officer prior to construction. Asbestos waste resulting from demolition will be managed under an approved asbestos operational plan in accordance with applicable Federal, state, and local regulations. Lead paint resulting from the demolition will be managed under an approved lead paint plan.

The 16-Foot Transonic Tunnel is located in a densely developed area of the Langley Research Center, and is not located in any wetlands or floodplains. No threatened or endangered species or critical habitats will be affected by the project. The proposed action is classified as a "Category B activity" under the Programmatic Agreement among the National Aeronautics and Space Administration, the National Conference of State Historic Preservation Officers, and the Advisory Council on Historic Preservation (signed 20 September 1989). In accordance with this Programmatic Agreement, NASA will generate the appropriate mitigation measures and will describe the project activities and mitigation in the established annual reporting process. The proposed action will not affect Virginia's coastal zone, and will be consistent with the Commonwealth of Virginia's Coastal Resources Management Program. No other matters of potential environmental concern have been identified. Under the planned construction of the modifications, and operation of the 16-Foot Transonic Tunnel, no significant effects to the environment are anticipated.

On the basis of the 16-Foot Transonic Tunnel EA 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, an Environmental Impact Statement (EIS) is not required. NASA will take no final action or authorize construction activities prior to the expiration of the 30-day comment period.

Original signed by H. Lee Beach, Acting Director, NASA/Langley Research Center.