

U.S. Department of Energy
Finding of No Significant Impact
for the Proposed
Strom Thurmond Biomedical Research Center
at the
Medical University of South Carolina
Charleston, South Carolina

AGENCY: U.S. Department of Energy

ACTION: Finding of No Significant Impact (FONSI)

SUMMARY: The Department of Energy (DOE) has prepared an Environmental Assessment (EA), DOI/EA-0893, evaluating the proposed construction and operation of the Strom Thurmond Biomedical Research Center (Center) at the Medical University of South Carolina (MUSC), Charleston, South Carolina. The DOE is evaluating a grant proposal to authorize the MUSC to construct, equip and operate the lower two floors of the proposed nine-story Center as an expansion of on-going clinical research and out-patient diagnostic activities of the Cardiology Division of the existing Gazes Cardiac Research Institute. Most of the remainder of the Center would be occupied by the Department of Veterans Affairs (VA). Construction and operation of the proposed Center and expansion of the Institute are connected actions, therefore, the potential environmental impacts of construction and operation of the Center are also assessed in this document.

Based on the analysis in the EA, the DOE has determined that the proposed action does not constitute a major federal action significantly affecting the quality of the human environment within

the meaning of the National Environmental Policy Act of 1969 (NEPA). Therefore, the preparation of an Environmental Impact Statement (EIS) is not required.

DESCRIPTION OF THE PROPOSED ACTION:

The report (S. Rep. No. 101-378) accompanying the Energy and Water Appropriations Act (Pub. L. No. 101-514) recommended that \$6,000,000 in the DOE fiscal year 1991 appropriation be provided to expand and consolidate basic and clinical research activities of the Cardiology Division of the existing Gazes Cardiac Institute. Construction of the proposed Center would enable laboratories to conduct clinical research and outpatient diagnostic studies, examination of patients (including VA patients), cardiac epidemiology studies, and education and training. The basic research laboratories would conduct heart failure studies utilizing twelve radioisotopes and radiopharmaceuticals. A grant was executed by the DOE with MUSC on August 2, 1991, for the limited purpose of performing preliminary studies, including analyses necessary to conduct this assessment. However, under the terms of the grant, the MUSC may not initiate construction or take any action which would affect the environment or limit alternatives until a determination has been made on the need for an EIS and the DOE has determined that the action should proceed.

ALTERNATIVES:

Four alternatives were considered: (1) expansion of the Institute in a dedicated facility, (2) expansion of the Institute in Hollings Oncology Center on the MUSC campus, (3) siting the Center at another MUSC location, and (4) no action. MUSC is committed to construction of the Center with or without federal funding. Therefore, the environmental impacts of the no action alternative, in which no federal funding would occur, would be largely the same as the impacts of the proposed action. However, the absence of federal funding may cause a delay in the project.

ENVIRONMENTAL IMPACTS:

The EA analyzes the impacts of operating the Center on health and safety concerns for both the public and workers, as well as examining potential impacts on the external environment. Both routine and off-normal or accident conditions were considered. Areas of potential impact evaluated in the EA were floodplain involvement, air quality, noise, water quality and quantity, aquatic and terrestrial ecology, threatened and endangered species, the visual environment, land use, historical and archaeological resources, socioeconomic environment, radiological conditions, and potential impacts of accidents, including evaluation of beyond design basis accidents.

No significant environmental impacts associated with construction and operation of the Center are anticipated. This finding of no significant impact for the proposed action is based on the following factors, which are supported by information and analyses in the EA.

Impacts of Construction/Installation:

The proposed project site is located within an area which would be affected by 100-year and 500-year floods, and the EA includes a Floodplain/Wetlands Assessment pursuant to 10 CFR 1022.12. This assessment found that the project would not have a significant impact on the floodplain. Air quality impacts would be associated with delivery trucks and on-site construction machinery, and would be low level and transient. Noise levels would not adversely impact cardiac patients, residents, workers, or staff. Traffic impact would not significantly affect local circulation or parking.

Impacts of Operations:

Waste Generation:

Domestic and sanitary wastes would meet local requirements and can be readily accommodated by existing municipal services. Hazardous wastes would include several classes of waste stream. These wastes would be managed in accordance with the University's existing hazardous waste management program under an existing Environmental Protection Agency (EPA) registration as a "large quantity generator" under the Resource Conservation and Recovery Act (RCRA) and under the University's current RCRA permit. Biological and medical waste would be properly disposed of by a licensed contractor at an off-site incinerator. Radioactive and mixed wastes would consist mainly of waste solvents solution and wiping materials. The liquid portion would have sufficiently low residual radiation to allow for licensed contractor disposal at a fuel blending facility. The solid portion would be shipped to a licensed disposal facility at Barnwell, South Carolina. Radioisotope residuals in aqueous solution from equipment cleaning would be discharged in conformance with EPA limits on low-level discharges to sanitary sewers.

Radiation Exposure:

Radiation exposures as may be associated with the presence of radionuclides and radiographic units would be regulated by the University's Radiation Safety Officer under appropriate federal and state regulatory programs to assure that exposures of personnel and the public are within safe limits as prescribed by Federal and state regulation. The project would come under the University's South Carolina Broad License for the use of radioactive materials. The University's monitoring program reports that actual annual exposures of personnel are typically 10% of allowable limits.

Air Quality:

Radioactive air emissions would be limited to a temporary release of an insignificant amount of I-125 from a process being phased out; 2-3 orders of magnitude less than allowable by EPA's National Emission Standards for Hazardous Air Pollutants. Toxic air emissions, mainly from volatile laboratory solvents would produce insignificant levels of public exposures in relation to Threshold Limit Values defined by the American Council of Government Industrial Hygienists. NOx would be emitted by a permitted natural gas boiler.

Other Effects:

Noise generated indoors or outdoors would be insignificant. Socioeconomic impacts would be small in the scale of overall university economic activity. Accident risk would be very low as evidenced by zero reportable accidents involving hazardous materials or radiation exposures at the University in the past five years. Risk to the floodplain of potential hazardous waste spill at time of flood would be negligible. Overall, the incremental impacts of the project are small in relation to the ongoing impact of the University, and do not constitute significant cumulative impacts.

DETERMINATION:

Based on the analysis in the EA, the DOE has determined that the proposed Gazes Cardiac Institute, and the connected action involving the Strom Thurmond Biomedical Research Center, does not constitute a major Federal Action significantly affecting the quality of the human environment within the meaning of the National Environmental Policy Act of 1969. Therefore, an Environmental Impact Statement on the Proposed Action is not required.

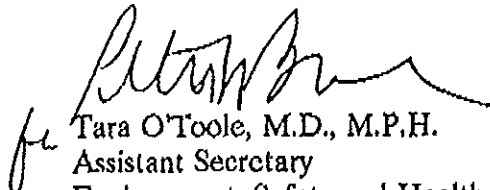
PUBLIC AVAILABILITY: Copies of this EA (DOE/EA-0893) are available from:

Richard Stenzel
Programs and Facility Management Division
U.S. Department of Energy
Chicago Field Office
9800 South Cass Avenue
Argonne, Illinois 60439
(708) 252-2286

For further information regarding the DOE NEPA process contact:

Carol M. Borgstrom, Director
Office of NEPA Oversight
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, D.C. 20585
(202) 586-4600 or (800) 472-2756

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Tara O'Toole, M.D., M.P.H.
Assistant Secretary
Environment, Safety and Health