U.S. Department of Energy

Finding of No Significant Impact

for the Proposed

Center for Nuclear Medicine Research in Alzheimer's Disease

at the Health Sciences Center, West Virginia University

Morgantown, West Virginia

AGENCY: U.S. Department of Energy

ACTION: Finding of No Significant Impact (FONSI)

SUMMARY: The Department of Energy (DOE) has prepared an Environmental Assessment, DOE/EA-0896, evaluating the construction and operation of the Center for Nuclear Medicine Research in Alzheimer's Disease and Related Disorders (CNMR) which would be located within the existing Health Science Center (Center) on the campus of West Virginia University. The purpose of the proposed action is to acquire a positron emission tomography (PET) scanner and cyclotron. PET technology enhances physiologic information gathering and the identification of topographic localization of metabolic activities of the brain beyond computed tomography (CT) methodology or magnetic resonance imaging (MRI) technology. 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 $10,000,000 in the DOE fiscal year 1991 appropriation be

provided to assist the University in construction of the CNMR. The CNMR facility would occupy 26,040 square feet of the Center's basement, ground and first floors. Approximately 15,350 square feet would house operations and support facilities; the remaining 10,690 square feet would consist of administrative space. The facility would extend clinical services provided at the Center and expand research activities. Pharmaceutical chemicals and radionuclides would be used in both therapy and research. A grant was executed by the DOE with CNMR on August 5, 1991, for the limited purpose of performing preliminary studies. However, under the terms of the grant, the University 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: Two alternatives were considered: (1) siting the CNMR within the Center, and (2) no action. The University is committed to construction of the CNMR 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 would delay the project. The University considered other siting alternatives in planning for the project, but found none that were feasible.

ENVIRONMENTAL IMPACTS: The EA analyzes the impacts of construction and operation of the CNMR on health and safety concerns for both workers and the public, as well as examining potential impacts on the external environment. Construction impacts evaluated include the effects on sensitive resources, erosion, waste disposal, air quality, noise, traffic and parking. Operational

impacts evaluated include the effects of waste generation (domestic, sanitary, hazardous, medical/biological, radioactive and mixed wastes), radiation exposures, air emissions (radioactive, criteria, and air toxins), noise, socioeconomic impacts, and other direct, indirect and cumulative impacts.

No significant environmental impacts associated with proposed CNMR construction or operations are anticipated. This finding of no significant impact for the proposed action is based on information and analysis in the EA.

Impacts of Construction/Installation: None of the categories of sensitive resources cited above would be affected by the project as they do not occur on or near the site. The installation consists of interior renovation of a basement, parts of ground and first floors, consequently erosion would not occur. Waste generation would include removal of lead shielding and asbestos prior to the renovation and construction, as part of a University-wide program and independent of DOE funding or involvement. These materials would be disposed of following regulatory standards and procedures. Air quality impacts would be associated with delivery trucks and on-site construction machinery, and would be low level and transient. Noise levels would be those conventionally associated with daytime construction activities in a basement space, and are not likely to disturb patients, workers or outdoor recreation. Traffic impact would not significantly affect local circulation or parking.

Impacts of Operations:

Waste Generation: Domestic and sanitary waste would be a small increment on the existing building waste and managed in a conventional manner. Hazardous

waste would include solvents, alcohols and ethers typical of a hospital setting, and would be managed in accordance with the University's existing hazardous waste management program under an existing Environmental Protection Agency registration as a small quantity generator under the Resource Conservation and Recovery Act. Biological and medical wastes would represent a small increment to University-wide wastes currently routed to an existing on-site incinerator/autoclave operating under a permit issued by the West Virginia Air Pollution Control Commission. Radioactive wastes would consist of short half-life isotopes (Fluorine 18 and Carbon 11) which would decay to negligible radioactivity levels prior to disposal as conventional or hazardous waste. The proposed facility would not generate radioactive mixed waste.

Radiation Exposure: Radiation exposures as may be associated with a PET Scanner/cyclotron facility, and with medical radioisotopes 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.

Air Quality: Radioactive air emissions (Fluorine 18 and Carbon 11) would be controlled so as to ensure compliance with EPA's National Emission Standards for Hazardous Air Pollutants. The project would result in no net increase in building energy utilization so that existing emissions of criteria pollutants (from boilers) would not be affected. Very low level emissions of toxic fumes from laboratory solvents, alcohols, and ethers, while not subject to regulatory standards, are likely to be several orders of magnitude less than 8 hour Threshold Limit Values, as defined by the American Council of Government Industrial Hygienists.

DETERMINATION: Based on the analysis in the EA, the DOE has determined that the proposed Center for Nuclear Medicine Research in Alzheimer's Disease and Related Disorders 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-0896) are available from:

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