

Date: March 31, 1998  
To: D. R. Allen, DOE-ORO  
From: W. M. Belvin, DOE-ORO

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Subject: **Contract DE-AC05-96OR22464, National Environmental Policy Act (NEPA) Categorical Exclusion (CX) for Small-Scale Research and Development Projects and Pilot Studies Conducted by ORNL Environmental Sciences Division (265TX)**

The DOE Oak Ridge Operations Office (ORO) proposes to conduct small-scale research and development activities that would include but not be limited to (1) outdoor ecological and other environmental research studies and (2) inventory and information collection activities, as well as small-scale pilot projects conducted to verify a concept before demonstration actions. These activities would take place inside existing laboratories in the Environmental Sciences Division at ORNL, at existing structures and facilities on the DOE Oak Ridge Reservation, and at selected geological and ecological sites.

Research and development activities would include but be not limited to (1) studying the distribution and cycling of natural chemicals and environmental contaminants in various ecosystems; (2) exploring and developing methods to expand the monitoring range for contaminants; (3) exploring the use of sapathogenic bacteria in the removal of contaminants from various media (water, soil, waste, etc.); (4) studying the use of natural autotrophic biofilms in the removal of contaminants from soil, water, waste materials, etc.; (5) developing systems for measuring toxic metal in various media; (6) fabricating and using components for various ecosystems and facilities; (7) studying the effects of man-made objects and contaminants on the aquatic biosphere; (8) collecting field data and conducting analyses of the factors relating plant and animal ecosystems; (9) conducting research to verify a known technology; (10) conducting cycling studies of nutrient-cycling pathways in various ecosystems; (11) conducting research that would lead to development of hardware and software; (12) studying the effects of altered atmospheric conditions on ecosystems; (13) developing new capabilities for fabricating instrumentation relevant to environmental monitoring; and (14) using theoretical and computational capabilities to model environmental problems of industrial and scientific interest.

Waste generated during research and development activities would be appropriately characterized and disposed of at existing permitted/approved waste storage, treatment, or disposal facilities. The proposed actions would be evaluated by Pollution Prevention or other responsible personnel for action options to reduce or eliminate generation of waste materials.

Proposed actions that would take place on the ORR have been reviewed in accordance with the *Programmatic Agreement Among the Department of Energy Oak Ridge Operations Office, the Tennessee State Historic Preservation Officer, and the Advisory Council on Historic Preservation Concerning Management of Historical and Cultural Properties at the Oak Ridge Reservation* (PA) and found to be addressed in Section III.A.1 of the PA. Should the proposed ORR actions have an adverse effect on properties constructed before 1960 or properties included or eligible for inclusion in the National Register of Historic Places, DOE-ORO would consult with the State Historic Preservation Officer and initiate actions specified in procedures set forth in the Council's regulations beginning at 36 CFR 800.5(e)-800.6.

To ensure that sensitive resources are protected, existing maps and surveys/studies on threatened and/or endangered species, wetlands and floodplains, and historically sensitive areas would be used to locate these

areas. In addition, personnel responsible for identifying these resources would be consulted; if warranted, additional surveys and walkovers would be conducted to confirm or update available information.

No known extraordinary circumstances would be associated with these actions, and they would not be connected to other actions with potentially significant impacts or be related to other proposed actions with cumulatively significant impacts. These actions would meet the conditions that are integral elements of the classes of actions which may be categorically excluded from further National Environmental Policy Act (NEPA) documentation. Should a specific action not meet the conditions for CX consideration, a separate NEPA document would be prepared and submitted to DOE-ORO for review and approval.

Although these actions may fall under the category of "small-scale indoor and outdoor research, development, and pilot activities," a separate NEPA review would be performed and documented should an action or related/cumulative effect of an action have the potential to result in an unusual or significant impact to the environment.

These actions would pose no threat of significant individual or cumulative environmental effects. The described actions would not be part of an ongoing Environmental Assessment or Environmental Impact Statement. No extraordinary circumstances would be related to these actions, and the proposals would not be connected to other actions with potentially significant impacts.

B3.4 and B3.6 are the applicable CXs that covers the proposed actions in DOE NEPA Implementing Procedures, 10 CFR 1021, Subpart D, Appendix B.

The above description accurately describes the proposed actions, which reflects the requirements of the CXs cited above. Therefore, I recommend that the proposed actions be categorically excluded from further NEPA review and documentation.

W. Mark Belvin  
W. Mark Belvin  
DOE-ORO Program Manager

4/3/98  
Date

Based on my review and the recommendation of the DOE-ORO Program Manager, I have determined that the proposed actions are categorically excluded from further NEPA review and documentation.

David R. Allen  
David R. Allen  
DOE-ORO Office NEPA Compliance Officer

4/9/98  
Date

Notification:  
W. M. Belvin, ER-11  
J. A. Hall, 1061, MS-6429