U.S.NRC
United States Nuclear Regulatory Commission
Protecting People and the Environment

RIC 2014

Office of Nuclear Regulatory Research

Overview and Current Activities of the Long-Term Research Program

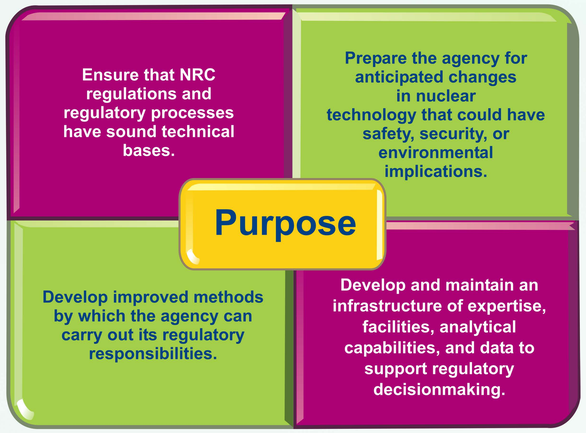
Background

Forward-Looking Research

The NRC currently identifies, as a matter of routine, forward-looking, research activities that support potential future regulatory needs (i.e., within the next few years). The agency identifies and pursues these forward-looking research activities during the normal course of planning and budgeting.

Long-Term Research

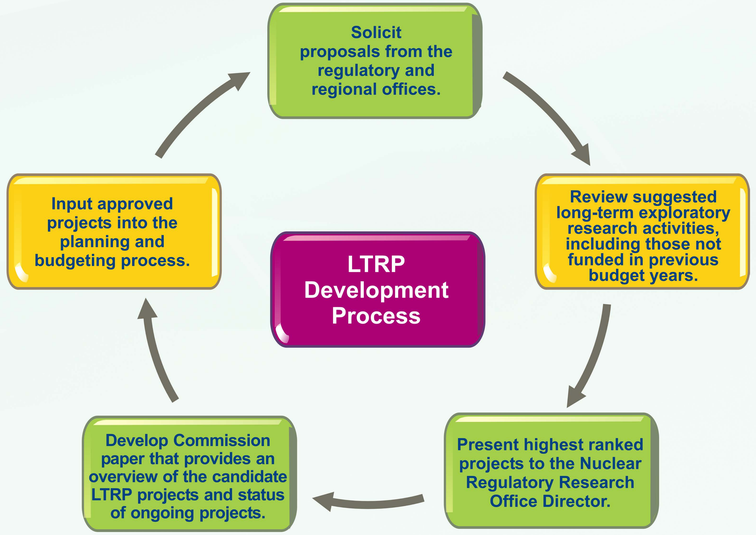
Each year since 2007, the staff has prepared Commission papers on long-term research activities. The papers propose candidate long-term research topics and estimate funding needs for budget preparation. Long-term research is defined as research that is not already funded or otherwise being worked on that will provide the fundamental insights and technical information needed to address potential technical issues or identified gaps to support anticipated NRC needs in the future (i.e., in more than 5 years).



Approach

The NRC performs regulatory research to support the goals identified in the agency's strategic plan. These goals are to ensure protection of public health and safety and the environment; the secure use and management of radioactive materials; openness in the NRC's regulatory processes; excellence in agency management; and that NRC actions are effective, efficient, realistic, and timely.

Each fiscal year, the process for determining the projects that should be funded under the long-term research program (LTRP) begins with soliciting input from the regulatory and regional offices on the exploratory long-term research activities that the agency should consider undertaking. Proposed activities are then reviewed and the most promising ones are recommend for funding.



The review committee is comprised of eight senior-level system staff members from the Office of Nuclear Regulatory Research (RES) and the regulatory offices. The committee reviews, evaluates, and rates activities resulting from new suggestions and those remaining from previous proposal processes. The committee's charter specifies five evaluation criteria and their weighting factors to provide a rating, or score, for each activity.

The RES Office Director, along with the directors of the agency's regulatory offices, agree on those long-term research projects recommended by the review committee that should be actively supported through the planning, budgeting, and performance management process (PBPM) under their control.

Current Activities

FY 2014

- Spectroscopy for early detection of concrete degradation
- Advanced knowledge engineering tools to support risk-informed decisionmaking

FY 2015

- Potential applications for, and assessment of, adaptive automation in nuclear plant processes

For More Information
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