

Activity title and RIRIP activity identifier, which relates the activity to the Agency's strategic arenas, performance goals, and strategies described in the NRC Strategic Plan (NUREG-1614). \*

Related Agency performance goals and associated strategies.

Activity description

Priority assigned by lead and supporting program offices through the Planning, Budgeting, and Performance Management (PBPM) process

Lead and support organization

Schedule date provided when the milestone first appeared in the RIRIP.

Project considerations may include relationships to other activities and organizational entities, critical path items, special training and communication requirements, and special resource requirements.

Major milestones and schedules.

Detailed schedule consistent with operating plans maintained by individual program offices.

RS-MS8-7 Reactor Safety Arena

**Implementation Activity:** Develop the technical basis to revise the PTS rule. (RES)

**Primary Performance Goal:** Maintain safety, protection of the environment, and the common defense and security

**Strategy 8:** We will continue to develop and incrementally use risk-informed and, where appropriate, less prescriptive performance-based regulatory approaches to maintain safety.

In 1986, the NRC established the Pressurized Thermal Shock Rule (10 CFR 50.61) in response to an issue concerning the integrity of embrittled reactor pressure vessels in pressurized water reactors. The NRC staff is now reevaluating the technical basis of the rule in light of the results of subsequent extensive research on key technical issues underlying the rule. Analyses performed as part of this research suggest that the agency may be able to reduce unnecessary conservatism in the rule, while still maintaining safety.

The staff's approach for reevaluating the screening criteria that 10 CFR 50.61 prescribes for reactor pressure vessel material characteristics is described in SECY-00-0140, "Reevaluation of the Pressurized Thermal Shock Rule (10 CFR 50.61) Screening Criterion," dated June 23, 2000, and subsequent periodic status reports in SECY-01-0045, SECY-01-0185, and SECY-02-0092, dated March 16, 2001, October 2001, and July 30, 2002, respectively.

**RES Priority: 5.8**

Reactor Safety Arena RS-MS8-7

**Project Considerations:** The timely completion of activities associated with this implementation activity requires close coordination, cooperation, and communication among numerous organizational units.

Selected Major Milestones and Schedules			
Major Milestones	Original Target Date	Revised Date	Completion Date
Identify accident sequences significant to PTS for three representative plants	October 2001	August 2002	
Integrate the results of thermal/hydraulic, fracture mechanics, and sequence frequency analyses, using a probabilistic fracture mechanics code (FAVOR), to calculate the frequency of vessel failure and the resultant core damage.	January 2002	October 2002	December 2002
Draft report on recommend changes associated with PTS screening criteria.	January 2002	November 2002	December 2002
Final report on recommend changes associated with PTS screening criteria.	September 2002		

**Implementation Activity Task Relationships, and Schedules by Calendar Year**

Staff's current best estimated completion date.

\*The first two letters of the activity identifier indicate the relevant strategic arena (RS for reactor safety, MS for materials safety, WS for waste safety). The remaining letters and the first number indicate the Agency performance goal (MS: maintain safety; PC: public confidence; EER: effectiveness, efficiency, and realism; RB: reduce unnecessary regulatory burden) and the particular strategy to which the activity is primarily related. The last number of the activity identifier is unique to the particular activity.

**Figure 2**  
**Layout and Format of Activity Descriptions**