



# NRC NEWS

U.S. NUCLEAR REGULATORY COMMISSION

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## **NRC ISSUES CONFIRMATORY ACTION LETTERS ON WELDS TO GROUP OF PWR NUCLEAR POWER PLANTS**

The Nuclear Regulatory Commission is issuing Confirmatory Action Letters (CALs) to 40 nuclear power plant licensees with pressurized water reactors (PWR), confirming commitments from those licensees to resolve concerns regarding flaws in certain welds in the reactor coolant system (RCS) by the end of the year.

The CALs ensure the plants will put in place more timely inspection and flaw prevention measures, more aggressive monitoring of RCS leakage, and more conservative leak rate thresholds for a plant to shut down to investigate a possible leak. These actions are being taken to assure continued operational safety at these facilities. The remaining 29 PWR plants have either completed requisite actions or do not have welds susceptible to these flaws.

The CALs resulted from the discovery, last fall, of flaws in pressurizer welds at the Wolf Creek reactor near Burlington, Kan. The Wolf Creek flaws were repaired and did not affect the safe operation of the plant. The nature of the flaws identified at Wolf Creek raised further questions regarding those welds at other PWRs.

The CAL officially documents the plant operator's commitment to conduct volumetric (e.g., ultrasonic) inspections of some RCS welds containing materials known as Alloy 82 and Alloy 182 or to take action to mitigate the conditions that contribute to the flaws. These metal alloy materials have been susceptible in the past to cracking due to their chemical makeup, residual stresses from the welding process and PWR operating conditions.

The first incidence of these flaws occurred in a U.S. reactor in 1993. Since 2000, additional flaws have been documented and the NRC and the nuclear industry have progressively increased attention to detecting, evaluating and correcting the flaws. The size and nature of the Wolf Creek flaws, however, have led NRC staff to conclude the industry must accelerate its planned actions for the remainder of the affected plants in the PWR fleet.

The CALs confirm commitments by the affected plant operators to complete actions by the end of the year and implement enhanced leakage monitoring until actions are completed. Plants must be shut down to conduct the inspections. For plants having their next planned shutdown beyond 2007, operators have committed to shut down and resolve concerns with the welds in 2007 if additional

analyses being performed by industry do not provide the NRC with sufficient bases to support extended schedules. Plant operators have committed to report inspection results and any corrective actions taken within 60 days of a plant returning to operation.

Issuance of these CALs does not preclude the NRC from taking stronger actions, if warranted. The CALs are considered an interim measure while the American Society of Mechanical Engineers incorporates enhanced inspection requirements into the society's Boiler and Pressure Vessel Code. The NRC will review those enhanced requirements and incorporate them into agency requirements, as appropriate.

The list of plants that will receive a CAL is attached. The CALs will be posted on the NRC web site at:

<http://www.nrc.gov/reactors/operating/ops-experience/pressure-boundary-integrity/weld-issues/>.

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News releases are available through a free list serve subscription at the following Web address:

<http://www.nrc.gov/public-involve/listserver.html> . The NRC homepage at [www.nrc.gov](http://www.nrc.gov) also offers a SUBSCRIBE link. E-mail notifications are sent to subscribers when news releases are posted to NRC's Web site.

Plants Receiving a Confirmatory Action Letter from NRC

Arkansas Nuclear One, Unit 1  
Beaver Valley, Unit 1  
Braidwood, Unit 1  
Braidwood, Unit 2  
Byron, Unit 2  
Callaway  
Calvert Cliffs, Unit 2  
Catawba, Unit 2  
Comanche Peak, Unit 1  
Comanche Peak, Unit 2  
Crystal River, Unit 3  
Davis-Besse  
Diablo Canyon, Unit 2  
Farley, Unit 1 & Unit 2  
McGuire, Unit 1  
Millstone, Unit 3  
North Anna, Unit 1 & Unit 2  
Oconee, Unit 2 & Unit 3  
Palisades  
Palo Verde, Unit 1 & Unit 3  
Palo Verde, Unit 2  
Prairie Island, Unit 2  
San Onofre, Unit 2 & Unit 3  
Seabrook  
Sequoyah, Unit 1  
Shearon Harris  
South Texas Project, Unit 1  
South Texas Project, Unit 2  
St. Lucie, Unit 2  
Summer  
Three Mile Island, Unit 1  
Vogtle, Unit 1  
Vogtle, Unit 2  
Waterford, Unit 3  
Watts Bar, Unit 1