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**For Signature of:**

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**Routing:**

**Description:**

NRC Notice of Consideration of Issuance of Amendment (Docket No. 50-327)

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September 23, 2003

R. William Borchardt  
Acting Director  
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U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Mr. Borchardt:

I am writing to comment on NRC Notice of Consideration of Issuance of Amendment (Docket No. 50-327) published in Federal Register, March 17, 2003 (Volume 68, Number 51), pages 12718-12720.

My apologies for the lateness of these comments, but I am not a subscriber to the Federal Register and the Docket has only recently come to my attention. Time has long passed to file a petition to intervene, but I will follow the intent and spirit of the NRC's provisions required by an intervenor.

I am a technical consultant to Erico International, developers and manufacturers of the Cadweld reinforcing bar splice. I have been directly involved with steel reinforcement matters in nuclear power plants for 41 years, aided the AEC in writing Safety Guide 10, Regulatory Guide 1.10 and was a member of ACI 359 for many years. I have contributed to work of Joint ASME-ACI 359 Committee: Concrete Components for Nuclear Reactors.

My reason for submitting these comments is to defend the integrity of the "Code of Concrete Reactor Vessels and Containments," ACI 359-98 which is Section III, Division 2 of the Boiler and Pressure Vessel Code of the American Society of Mechanical Engineers (ASME).

Presently, the only couplers permitted by ASME-ACI 359, Concrete Components for Nuclear Reactors (CC4331.2) are: 1.) Sleeve with ferrous filler metal splices, 2.) Taper threaded splices, 3.) Swaged splices, 4.) Threaded splices in thread deformed reinforcing bars, 5.) Sleeve with cementitious grout, 6.) Cold roll formed parallel threaded splices.

There is no provision or acceptance of the "set-screw" type which characterizes the Bar Lock coupler.

My concern is the language of the NRC Amendment discussion (Docket No. 50-327) in response to Topical Report No. 24370-TR-C-001 which proposes use of Bar Lock couplers in repair of the dome of the shield building at Sequoyah during replacement of steam generators.

The NRC's opening statement is specific and seems limited to use of Bar Lock to splicing of #6 and #8 rebars in the dome of the shield building at Sequoyah. However, later in the response it goes on to say, "Bar Lock coupler meets ASME strength requirements and is, therefore, acceptable for use in nuclear safety related structures." This broadly implies that the Bar Lock device is approved by the NRC for use in containment construction or repair (steam generator change out). To grant this approval based on Topical Report No. 24370-TR-C-001, which tested Bar Lock splices only on #6 and #8 bar sizes seems wrong. Typically, containment construction (or repair) involves use of #11, #14 and #18 reinforcing bars, and in rebar splicing, there is a size effect. What may fully develop #6 and #8 bars may not perform successfully on #18 bars.

I would further observe that the specimens tested in the Topical Report were no doubt made by Bar Lock company technicians under ideal (bench) conditions, not by iron workers under field conditions, perhaps 90' in the air. There is no provision for tests of production (made in situ) splices, only "sister" splices need be tested.

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We earnestly seek from you an explanation of the scope and intent of approval granted Bar Lock couplers by the language in Docket No 50-327 in response to Topical Report No. 24370-TR-C-001.

Respectfully,

*Robert H Smith*

Robert G. Smith