

September 27, 2006

MEMORANDUM TO: David Terao, Chief
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

FROM: Jack N. Donohew, Senior Project Manager **/RA/**
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

SUBJECT: WOLF CREEK GENERATING STATION - AMENDMENT TO REVISE
CONTAINMENT SUMP SURVEILLANCE REQUIREMENT TO VERIFY
STRAINER INTEGRITY (TAC NO. MD2317)

In its application dated June 2, 2006 (WO 06-0023, Agencywide Documents Access and Management System Accession No. ML061640353), Wolf Creek Nuclear Operating Corporation (the licensee) submitted a license amendment request (LAR) for Wolf Creek Generating Station (WCGS). The LAR would revise Surveillance Requirement (SR) 3.5.2.8 by replacing the phrase "trash racks and screens" in the SR with the word "strainers" in the Technical Specifications. The proposed amendment reflects the replacement of the containment sump suction inlet trash racks and screens with a new strainer design with significantly larger effective screen area in the upcoming Refueling Outage 15, scheduled for the fall of 2006. This installation by the licensee is in response to Generic Letter (GL) 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized-Water Reactors," dated September 13, 2004.

In its response dated August 31, 2005, to U.S. Nuclear Regulatory Commission (NRC) Requested Information 2(d)(vii) in the GL on verification that the strength of the strainers is adequate to protect the debris screens from missiles and other large debris (i.e., capable of withstanding the loads imposed by expanding jets, missiles, the accumulation of debris, and pressure differentials caused by post-loss-of-coolant accident (post-LOCA) blockage under predicted flow conditions), the licensee stated that the location of the containment sumps is outside the secondary shield walls and, therefore, outside the zone of influence of LOCA break locations.

Since the application referenced the GL, but not the August 31, 2005, letter, which was in response to the GL, the NRC staff held a telephone conversation with the licensee on July 11, 2006, for clarification of the application. In the call, the NRC staff questioned the licensee about (1) the current protection of the containment trash racks and screens against missiles, jet impingement, and high energy pipe whip with respect to the above statement in the August 31, 2005, letter about the location of the sumps, and (2) whether this protection is sufficient to protect the new strainers being installed. The licensee explained that, in addition to the above statement made in the August 31, 2005, letter, there is also the fact that (1) the containment

sumps are covered with concrete pads supporting the accumulator tanks so debris cannot fall directly onto the screening structure (as stated in Section 6.2.2.1 of the WCGS Updated Safety Analysis Report) and (2) the only change to the plant, which is stated in the application, is that the current trash racks and screen will be replaced by the new strainers with significantly larger effective screen area and, as such, there will be no change in any containment structures, piping, or system fluid flows and pressures.

Therefore, in the phone call, the licensee stated that, with the strength of the strainers, location of the sumps being outside the secondary shield walls and covered with concrete pads, and nothing else in containment being changed with the new strainers replacing the existing trash racks and screens, this shows the current protection of the existing trash racks and screens in the containment sump against missiles, jet impingement, and high-energy pipe whip is sufficient to protect the new strainers being installed against these same events.

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sumps are covered with concrete pads supporting the accumulator tanks so debris cannot fall directly onto the screening structure (as stated in Section 6.2.2.1 of the WCGS Updated Safety Analysis Report) and (2) the only change to the plant, which is stated in the application, is that the current trash racks and screen will be replaced by the new strainers with significantly larger effective screen area and, as such, there will be no change in any containment structures, piping, or system fluid flows and pressures.

Therefore, in the phone call, the licensee stated that, with the strength of the strainers, location of the sumps being outside the secondary shield walls and covered with concrete pads, and nothing else in containment being changed with the new strainers replacing the existing trash racks and screens, this shows the current protection of the existing trash racks and screens in the containment sump against missiles, jet impingement, and high-energy pipe whip is sufficient to protect the new strainers being installed against these same events.

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