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CRANE NUCLEAR, INC.

860 REMINGTON BOULEVARD

BOLINGBROOK, IL. 60440

March 6, 2018

Attn: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-001Subject: 10 CFR Part 21 Notification of Defect on Crane Nuclear Figure Number 83 ½
SPL 10"x8"x10" and 6"x4"x6" Bolted Bonnet Gate ValveThis letter provides notification of a defect on Crane Nuclear Figure Number 83 ½ SPL
10"x8"x10" and 6"x4"x6" valve components.*(i) Name and address of the individual or individuals informing the Commission.*Joyce Hamman
Director, Safety and QualityBurt Anderson
Site LeaderSamson Kay
Engineering ManagerCrane Nuclear
860 Remington Blvd
Bolingbrook, IL 60440*(ii) Identification of the basic component supplied for such facility or such activity within the
United States which may fail to comply or contains a potential defect.*

Crane Nuclear Figure Number 83 ½ SPL 10"x8"x10" and 6"x4"x6" Bolted Bonnet Gate Valve

*(iii) Identification of the firm supplying the basic component which fails to comply or contains a
defect.*Crane Nuclear, Inc.
860 Remington Blvd
Bolingbrook, IL 60440*(iv) Nature of the defect or failure to comply and the safety hazard which is created or could be
created by such defect or failure to comply*

A Crane Nuclear Figure Number 83 ½ SPL 10"x8"x10" Bolted Bonnet Gate Valve supplied to Duke Energy experienced a packing blowout on 12/17/17. Preliminary review of the packing design suggested that the packing clearances within the stuffing box were larger than standards specified by MSS-SP-120. Dimensions for parts such as the gland and stuffing box were based on drawings Crane Nuclear Figure Number 83 ½, which consolidates and tabulates dimensions needed to fabricate the parts based on stem dimensions. Review of the component drawings made for the Crane Nuclear Figure Number 83 ½ SPL 10"x8"x10" and 6"x4"x6" Bolted Bonnet Gate Valve determined that the outside diameter of the gland for the 10"x8"x10" and 6"x4"x6"



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valves was incorrectly transcribed, resulting in an undersized condition for the packaging gland and excess diametric clearance between the gland and stuffing box.

(v) *The date on which the information of such defect or failure to comply was obtained.*

Duke Energy's Brunswick facility notified Crane on 12/20/2017. Crane began research under Corrective Action Report 17-36 (Later Changed to 18-01) on 12/22/18.

(vi) *In the case of a basic component which contains a defect or fails to comply, the number and location of these components in use at, supplied for, being supplied for, or may be supplied for, manufactured, or being manufactured for one or more facilities or activities subject to the regulations in this part.*

<u>CNI Sales Order</u>	<u>Valve Size</u>	<u>Licensee</u>
33663	10x8x10	NPPD - Cooper Station (sold to Browns Ferry)
41030	10x8x10	TVA - Browns Ferry
41115	10x8x10	TVA - Browns Ferry
41619	10x8x10	NPPD - Cooper Station
43725	10x8x10	Duke Energy - Brunswick
45441	10x8x10	Duke Energy - Brunswick
4378	6x4x6	Entergy - Pilgrim

(vii) *The corrective action which has been, is being, or will be taken; the name of the individual or organization responsible for the action; and the length of time that has been or will be taken to complete the action.*

Drawings for Crane Nuclear Figure Number 83-1/2 SPL 10"x8"x10" and 6"x4"x6" valve components have been corrected. Additionally, notification is being made to each customer noted above.

(viii) *Any advice related to the defect or failure to comply about the facility, activity, or basic component that has been, is being, or will be given to purchasers or licensees.*


CNI Recommends that the gland be replaced to tighten clearances to meet MSS-SP-120 requirements.

(ix) *In the case of an early site permit, the entities to whom an early site permit was transferred.*

Not applicable.

Should you have any questions regarding this matter, please contact me, Joyce Hamman, Director, Safety & Quality at (678) 451-2280, Burt Anderson, Site Leader, at (630) 226-4990, or Samson Kay, Engineering Manager at (630) 226-4983.

Regards,


 Joyce Hamman
 Director, Safety & Quality
 Crane Nuclear, Inc.