



ENGINEERING INFORMATION RECORD

Document Identifier 51- 5001925-01 (NON-PROPRIETARY VERSION)Title Risk Assessment for Installation of Electrosleeves™ at BVPS and Callaway Plant

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Reviewer is Independent.

Remarks:

This document provides both a qualitative and quantitative assessment of the risk associated with the installation of Electrosleeves™⁽¹⁾ at Beaver Valley Power Station and Callaway Plant during the next scheduled outage. The assessment performed addresses a two-cycle period for any tubes that may have Electrosleeves™ installed over a defect. The results of this assessment will show that the risk of installing a sleeve over a tube defect is small for tube rupture during bounding accident conditions at the end of both operating cycles. Even with conservatively assuming that degradation of the sleeve material takes place, margins against burst are maintained during the two-cycle period. Although the evaluation is intended to cover those plants applying for the two-cycle amendment, the results can be applied to the intended design life of the plant.

The results of this evaluation determined that sufficient margins against postulated tube rupture exist for all types of degradation of the Electrosleeve™ material. The calculated probability of burst for a hypothetical population of 10,000 axial flaws in sleeved tubes is 4.4×10^{-11} for Callaway and 3.94×10^{-11} for BVPS at the end of the second operating cycle. The amount of margin to burst for other postulated defect mechanisms in the sleeve material is also maintained at the end of the second cycle of operation for both plants at BVPS and Callaway plant. The philosophy of defense-in-depth is maintained by application of Electrosleeves™ over tube defects.

Electrosleeve™ is a registered trademark of Ontario Hydro Technologies.

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Record of Revisions

00	Original Release	8/14/98
01	Incorporated minor Callaway and BVPS comments on various sections	8/28/98

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