

NOV 13 1990

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Mr. D. Quamme, Director of Quality Control
Stone & Webster Engineering Corporation
P.O. Box 2325
Boston, Massachusetts 02107

Dear Mr. Quamme:

The Vendor Inspection Branch of the Nuclear Regulatory Commission (NRC) performed an inspection at Systems Control (SC) in Iron Mountain, Michigan, on August 7 through 9, 1990. The inspection evaluated SC's procurement practices for Heinemann Electric Company circuit breakers and reviewed several of your purchase orders to SC that procured spare circuit breakers for use in the Beaver Valley nuclear power station (Unit 2). The inspection determined that SC met the intent of these POs as modified by SC's generic proposals. However, the inspection also concluded that SC's Certificates of Conformance did not provide an adequate basis for these spare circuit breakers to be used in Class-1E applications without further evaluation and/or qualification testing by the end user.

In order to complete our review of this issue, we request that you identify to this office where these circuit breakers have been used. Additionally, if the circuit breakers have been used in safety-related applications, please describe the additional evaluations that were conducted to qualify the circuit breakers for this application. A copy of NRC Inspection Report 99900712/90-01 that lists the POs reviewed during the SC inspection is enclosed for your information.

If you have any questions concerning this information, please contact me or Randy Moist at (FTS) 492-0981.

Sincerely,

Uladis Potapovs signed

E. William Brach, Chief
Vendor Inspection Branch
Division of Reactor Inspection
and Safeguards
Office of Nuclear Reactor Regulation

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Enclosure: NRC Inspection Report No. 99900712/90-01

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

NOV 13 1990

Mr. D. Quamme, Director of Quality Control
Stone & Webster Engineering Corporation
P.O. Box 2325
Boston, Massachusetts 02107

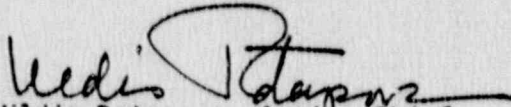
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Sincerely,


Uldis Potapovs, Acting Chief
Vendor Inspection Branch
Division of Reactor Inspection
and Safeguards
Office of Nuclear Reactor Regulation

Enclosure: NRC Inspection
Report No. 99900712/90-01

ORGANIZATION: SYSTEMS CONTROL
IRON MOUNTAIN, MICHIGAN

REPORT NO.: 99900712/90-01	INSPECTION DATE: August 7-9, 1990	INSPECTION ON-SITE HOURS: 17
CORRESPONDENCE ADDRESS: Systems Control A Division of M. J. Electric, Incorporated Post Office Box 788 Iron Mountain, Michigan 49801		
ORGANIZATIONAL CONTACT: S. Pontbriand, Operations Manager TELEPHONE NUMBER: (906) 774-0440		
NUCLEAR INDUSTRY ACTIVITY: Systems Control (SC) has had no commercial nuclear industry activity since 1988. Prior to 1988, SC provided control panels and spare components for the panels to the commercial nuclear industry.		
ASSIGNED INSPECTOR:	<u>Randolph N. Moist</u> Randolph N. Moist, Reactive Inspection Section (RIS-2), Vendor Inspection Branch (VIB)	<u>10/15/90</u> Date
OTHER INSPECTOR(S):		
APPROVED BY:	<u>Chris A. VanDerburgh</u> Chris A. VanDerburgh, Chief, RIS-2, VIB	<u>10/15/90</u> Date
INSPECTION BASES AND SCOPE:		
A.	<u>BASES:</u> 10 CFR Part 50, Appendix B and 10 CFR Part 21.	
B.	<u>SCOPE:</u> Review SC's procurement practices and determine which licensees have purchased Heinemann Electric Company (HECO) circuit breakers (CBs) as spares for Class-1E applications.	
PLANT SITE APPLICABILITY: Beaver Valley, Unit 2 (50-412) and Waterford, Unit 3 (50-382).		

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A. VIOLATIONS:

None

B. NONCONFORMANCES:

None

C. UNRESOLVED ITEMS:

None

D. STATUS OF PREVIOUS INSPECTION FINDINGS:

None

E. INSPECTION FINDINGS AND OTHER COMMENTS:

1. Procurement Background of Heinemann Electric Company (HECO)
Circuit Breakers

The NRC inspector reviewed System Control's (SC's) small order log book for 1978-1990. The log book showed completed transactions, quotes for unfilled orders, and ongoing transactions of current customers. The logbook contained the customer's name, the product ordered, the date received and the job order number. The NRC inspector's review determined that SC supplied HECO CB's as spares to the Louisiana Power & Light Company (LP&L) for use in the Waterford nuclear power station (Unit 3) and to the Stone & Webster Engineering Corporation (SWEC) for use in Duquesne Light Company's (DLC's) Beaver Valley nuclear power station (Unit 2). During this inspection the NRC inspector focused on purchase orders (POs) that SWEC issued to SC for HECO circuit breakers.

2. Review of National Technical Systems (NTS) Qualification Report

The NRC inspector reviewed NTS Test Report No. 15891, Revision 2, dated April 14, 1986, which qualified the emergency, vital, and pressurizer heater distributor panel boards for the Beaver Valley station. The test report described environmental and seismic qualification testing of Class-1E electrical equipment used for nuclear power generating stations per the guidelines of Institute of

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Electrical and Electronic Engineer (IEEE) Standard (STD) 323-1974 and IEEE STD 344-1975. The NTS test was performed under SC PO No. 79178-29. The NRC inspector determined that HECO circuit breakers which were tested were qualified for Class-1E application under the test program conducted by NTS.

3. Review of Stone & Webster Engineering Corporation Purchase Orders

The NRC inspector reviewed the following SC job orders during the inspection:

<u>SC Job Order Number</u>	<u>SWEC Purchase Order Number</u>
34699	2BV-59584
34728	2BV-59753
34731	2BV-60186
34775	2BV-61012
35634	2BV-61034
35726	2BV-62105
35798	2BV-62399
36601	2BV-62726
36681	2BV-63281
36704	2BV-63791
36714	2BV-63586
36732	2BV-64042

The NRC inspector reviewed SC's invoices, certificates of conformance, generic proposals, the bill of materials, SWEC purchase orders, and the vendor quotation packages. Some SWEC purchase orders listed SC's quotation number which included the modifications in SC's generic proposals. In other cases, SC sent a letter to SWEC's purchasing department indicating that SC accepted the purchase order if the modifications of the generic proposals were included.

The modifications described in the generic proposals indicated that the HECO circuit breakers would be furnished by SC as commercial-grade items and would be qualified as Class-1E components via similarity to the test specimen circuit breakers listed in NTS Qualification Procedure No. 15891. However, the modifications also indicated that SC would not furnish traceability documentation for components supplied for Class-1E applications and purchased as commercial-grade items. In addition, the SWEC purchase orders required submission of a Certificate of Conformance (CoC) certifying that the items complied with the specific requirements. The modifications described in the generic proposals required the CoC to certify that (1) the HECO circuit breakers were purchased as commercial-grade items, (2) the circuit breakers were assumed to be manufactured to the same or

ORGANIZATION: SYSTEMS CONTROLS
IRON MOUNTAIN, MICHIGAN

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equivalent standards, (3) the circuit breakers were assumed to have the same material as those tested in NTS Test Report No. 15891, and (4) that the HECO circuit breakers were reasonably similar to the test specimens in NTS Qualification Test Report No. 15891.

The inspector verified that the HECO circuit breakers supplied by SC were of the type specified in NTS Qualification Test Report No. 15891 as Class-1E components. The inspector also determined that SC met the intent of the SWEC purchase orders as modified by the generic proposals. In addition, the inspector concluded that the SC CoC did not provide an adequate basis for the circuit breakers to be used in Class-1E applications without further evaluation and/or qualification testing by the end user.

4. Review of System Control's (SC's) Purchase Order to Heinemann Electric Company (HECO)

The NRC inspector reviewed SC PO No. 36732 (dated August 21, 1986) to HECO for three CD2-type circuit breakers and SC PO No. 34699-1 (dated September 19, 1984) to HECO for six CD1-type, two CD2-type, and five CD3-type circuit breakers. The NRC inspector verified that the HECO circuit breakers ordered by SWEC were the same type that SC ordered from HECO. No anomalies were identified during this review.

E. PERSONNEL CONTACTED:

+*S. Pontbriand	Operations Manager, SC
+*R. Kercheval	QA/QC Manager, SC
D. Soderbaum	Purchasing Manager, SC
D. Loueridge	Traffic Material Coordinator

-
- + Attended the entrance interview on August 7, 1990.
 - * Attended the exit interview on August 9, 1990.