



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

December 6, 1985

Docket No. 99901027

MEMORANDUM FOR: Gary G. Zech, Chief
Vendor Program Branch
Division of Quality Assurance, Vendor
and Technical Training Center Programs
Office of Inspection and Enforcement

THRU: Ellis W. Merschoff, Chief
Reactive Inspection Section
Vendor Program Branch
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Office of Inspection and Enforcement

FROM: Joseph J. Petrosino
Reactive Inspection Section
Vendor Program Branch
Division of Quality Assurance, Vendor,
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Office of Inspection and Enforcement

SUBJECT: TRIP REPORT, GENERAL ELECTRIC (GE) SERVICE ADVICE LETTERS

ATTACHMENTS: APPENDIX A - APPLICABLE GE COMPANY PRODUCT DEPARTMENTS
APPENDIX B - LIST OF SERVICE ADVICE LETTERS OBTAINED
AT GE

On July 29, 1985 J. J. Petrosino of this office met with three members of the Nuclear Plant Services (NPS) department of the General Electric Company's Apparatus and Engineering Services Organization (A&ESO), at their Darien, Illinois offices.

The main subjects discussed were General Electric Company's Service Advice Letters(SAL), manufacturing facilities who utilize NPS for their SAL distribution, and the Quality Assurance organization/program adopted by NPS.

The information obtained will be used for reactor plant inspection followups concerning vendor-licensee communications, contacting GE technical representatives concerning specific service advice letters, and future inspections at any of the three GE Nuclear Plant Service offices.

During the inspection, it was noted that the distribution responsibilities of Service Advice letters has been taken back by the individual product departments, as of January 1985. Appendix A is a listing of the product departments, for which NPS transmitted service advice letters prior to that time.

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There are approximately 26 GE product departments which manufacture electrical products. NPS distributed SALs for approximately six of them. Appendix A, lists each of the product departments that the NPS division had agreements with, for distribution of SALs.

Copies of the specific product department SALs were available for review including cover letters from the applicable product departments which specified which customers received the equipment. In some cases, where the end users were not known, the cover letter required all nuclear plant licensees to be notified. Additionally, the Darien, Illinois office had copies of the actual service advice cover letters that were transmitted. They were kept individually by SAL number. These customer mailing lists indicated each specific nuclear plant where a individual SAL was transmitted.

It was determined that the other approximately 20 GE product departments transmitted their own service advice letters to their customers. They did not utilize the services of NPS for SAL distribution. Some of the major components handled by these 20 product departments are:

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|------------------------|---------------------------------|
| a) Wire & Cable | e) Metering devices |
| b) Capacitors | f) Robotics and visual products |
| c) Appliance motors | g) Speciality transformers |
| d) Lighting components | h) Speed variators |

The other two nuclear plant service offices are in King of Prussia, Pennsylvania, with a sub office in Waltham, Massachusetts, and the second is in Norcross, Georgia. Additionally, a fourth location in Oakland, California was utilized to transmit SALs to the nuclear power plant licensees. This is also part of the A&ESO services department. However, there was not a nuclear services department at the Oakland office.

A quality assurance program designed to meet the requirements of ANSI N45.2, Appendix B of 10 CFR 50, and ASME Section III, Division I appears to be in place. A brief review of the NPS 10 CFR Part 21 Reporting Procedure was also performed and the procedure appeared satisfactory.

Additional Information Highlights:

- ° Licensee audits have been performed at the Darien, Illinois NPS office.
- ° No NRC inspections have been performed at the Darien, Illinois office. Additionally, it could not be determined if any NRC inspections had been performed at the other NPS offices.

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- ° No engineering evaluations are performed at the Darien, Illinois location concerning problems/deficiencies. They are referred to the cognizant product department.
- ° All SALs are generated by the cognizant product departments. NPS does not and has not generated SALs. They are only a distribution point.
- ° There are no electronic record retrieval systems for SALs in place at the NPS office in Darien. Copies were maintained, but no input to any computer system was implemented.
- ° No SAL logging system was in place. Copies of SALs were placed in three ring binders in order of arrival. Assurance of complete SAL files would have to be verified at the applicable product department.
- ° Service Advice letters are generated only by the applicable Product Department. Service Information letter (SILs) are issued only by Nuclear Engineering Business Operations (NEBO), San Jose, CA. Turbine Information letters (TILs) are issued only by the Medium Turbine Department, Schenectady, New York.
- ° No formal SAL distribution programs were ever in place at NPS, only general policies were utilized for distribution.
- ° End user mailing lists for each specific SAL were provided to NPS by the product department. If all end user's were not known, complete nuclear plant licensee notifications were made.
- ° The address of the fourth plant services office which has transmitted SALs in the Western U.S. is: GE - Fossil Plant Services, 7777 Pardde Lane, Oakland, California.
- ° The three regional nuclear plant service office addresses are as follows:
 - 1) Eastern Service Department - Nuclear Plant Services Apparatus & Engineering Services
ATTN: Mr. J. Flynn - General Manager
Moore Road Industrial Plaza
King of Prussia, Pennsylvania
Sub-office: 29 Sawyer Road
Waltham, Massachusetts
 - 2) Southern Service Department - Nuclear Plant Services Apparatus & Engineering Services
ATTN: Mr. J. Brown - General Manager
22 Technology Park
Norcross, Georgia

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- 3) Central Service Department - Nuclear Plant Services Apparatus & Engineering Services
ATTN: Mr. B. Campbell - General Manager
8157 South Cass Avenue
Darien, Illinois

PERSONS CONTACTED

Mr. Harold K. Herzog, Technical Support District Manager
(312) 789-5923

Mr. Robert Frentrop, Technical Support Electrical Service Manager
(312) 789-5922

Mr. Thomas Mikulski, Quality Manager
(312) 789-5374

**Mr. J. M. Austin, Norcross, Georgia
(404) 447-7271

**Contacted by telephone

*original signed by
Joseph J. Petrosino*

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cc: B. Grimes, IE
R. Baer, IE
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K. Seyfrit, AEOD

Distribution:

VPB Reading

JPetrosino

EW Merschoff

RStover

DmB:IE/C9

*See previous concurrences.

VPB:DQAVT

JPetrosino*

12/27/85

VPB:DQAVT

EW Merschoff*

12/5/85

Appendix A

Listed below are the product departments which utilized the Nuclear Plant Service departments for their service advice letter distribution. The specific product departments below may have other component or manufacturing facility locations which are not listed.

- 1) Breaker Business Section
P.O. Box 408
Burlington, Iowa 52601
Mr. H. D. Champion - Manager
(319) 753-8424/6424/8400
Product: 5-15 K.V. class circuit breakers
- 2) Breaker Business Section
6901 Elmwood Avenue
Philadelphia, Pennsylvania 19142
Mr. R. Miller - Engineering and QC Manager
(215) 726-2626/2900
Product: 5-15 K.V. class circuit breakers
- 3) Power Systems Management
205 Great Valley Parkway
Malvern, Pennsylvania 19355-0715
Mr. W. S. Gaudioso - Field Service Manager
(215) 251-2001
Product: Relays
- 4) Contractor Equipment Business Operations
41 Woodford Avenue
Plainville, Connecticut 06062
Mr. P. M. Piqueria - Product Service Manager
(203) 747-7156
Product: 600 volt class circuit breakers, panelboards, and busways
- 5) General Purpose Control
P.O. Box 2913
Bloomington, Illinois 61701
Mr. D. Eberhard - Customer Service Manager
(309) 662-4311
Product: Contactors
- 6) General Purpose Control
P.O. Box 489
Melbane, North Carolina 27302
Mr. W. C. Zint - Product Service Manager
(913) 563-3048
Product: Motor Control Centers

Appendix B

Service advice letters obtained from General Electric Company Nuclear Plant Service Centers.

The NRC has been requested not to supply complete sets of the SALs to the licensees.

<u>SAL #/TAB</u>	<u>SUBJECT</u>	<u>DATE</u>
501.1/073B	Type NEC 30 & 60A Fuse holders	11/12/82
307.0/073B	4.16 KV & 350 MVA-78,000 A Hi-Momentary	11/12/82
302.0/073B	Vertical 5 & 15 KV BKR Switch Operator	11/12/82
342.2/ SBO	AM 13.8-1000 & 750 MVA Bkrs Arc Chutes	4/7/82
342.1/SBD	PM 13.8-500 & 750 MVA Breaker Arc Chutes	10/28/81
343.1/073B	5KV & 15KV Vert. Swgr. Positive Interlock	1/28/82
338.1/073	5KV & 15KV Vert. Swgr. Elevating mtr Switchguard	8/26/81
332.1/073B	5KV & 15KV Vert. Swgr. Filter Assembly (Outdoor)	11/12/82
330.1/073	SB-12 Aux Switches used with AM & Power VAC Circuit breakers in Nuclear Applications	7/2/79
328.1/073	Type AM Magne-Blast Ckt. Bkr. with ML-13 Mechanism Trip armature travel	11/18/73
327.1/073	Spring discharge Cam M36HH-13.8KV-1000 MVA Vertical Lift Metal Clad Swgr.	6/7/78
326.1/073	Vertical Lift 5 & 15KV Metalclad Swgr Breaker position switch operator	5/23/78
325.2/073	Magne Blast Breaker Striker Plate	3/8/78
325.1/073	Magne Blast Breaker Striker Plate	3/3/78
324.2/073	Maintenance/Magne Blast Ckt Breaker Power Factor Testing	3/8/78
324.1/073	Maintenace/Magne Blast Ckt Breaker Power Factor and High Potential Testing	
323.1/073	4.16KV Vert. Lift Metal Clad Swgr. Primary Disconnecting Device	2/1/78
318.1A/073	ML-13 Mechanism Sleeve Bearing Replacement	3/29/77
312.1/073	AM-13 13.8-1000-3H & 4H Breakers Tuf-Loc Bushing & Latching Pawl Stop Block	7/22/84
9.1/175	AKR-30 Low Voltage Power Ckt. Bkr. Closing Spring Assembly	6/28/78
9.2/175	ARK 30 & AKR 50 Low Voltage Power Circuit Breaker Ratchet and Roller Assembly	7/18/78

9.3/175	AK 15/25/50/75/100 Low Voltage Power Circuit Breaker with Undervoltage Trip Devices	4/2/79
9.6/175	AKR-30 and AKR 50 Electrically Operated Low Voltage Power Circuit Breakers-possible failure to close upon command	1/2/81
<u>SAL #/TAB</u>	<u>SUBJECT</u>	<u>DATE</u>
9.7/175	AKR 30/50 Ckt Bkrs - Flat head screw backs out	11/2/81
9.10/175	AKR and Powerbreak Ckt Bkrs supplied with micro versa trip programmers	3/25/82
9.11/175	AKR-30 and AKR-50 Electrically operated low voltage power circuit breakers - improperly hardened spring prop - defective switch	9/13/82
9.35/175	AK 15/25/50/75/100 Low voltage power circuit breaker with undervoltage trip device (IE Bulletin 79-09 followup)	4/15/83
9.15/175	AKR-30/50 Low voltage power Ckt Bkrs with undervoltage devices - maintenance procedures	8/22/83
9.16/175	AKR 30/50 Low voltage power Ckt Bkr - insulated link abrasion	
170.1/721	CT Gamble Industries - Adjustable Resistors	8/31/82
165.1/721	HEA Relays - Possible Failure due to malformed torsion springs	8/10/81
166.1/721	Uninsulated Flexible Leads	11/12/81
207.1/721	SBM - Stop tab breakage - potential for misoperation of SBM control switches	2/27/84
206.1/721	SBM - switch contact closing potential for contact closure failure	4/11/83
161.1/721	IAC Relays - loose wiring connections	5/5/78