

Title: SATIN AMERICAN CORPORATION:

ALLEGED SELLING OF SUBSTANDARD/COUNTERFEIT ELECTRICAL COMPONENTS TO THE NUCLEAR POWER INDUSTRY

Vendor:

Satin American Corporation
40 Oliver Terrace
Shelton, Connecticut

Case Number: 3-88-012

Report Date: December 3, 1990

Control Office: OI:RIII

Docket No.:

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SYNOPSIS

On November 30, 1988, the Nuclear Regulatory Commission's (NRC) Executive Director for Operations requested that an investigation be initiated concerning an alleged improperly refurbished circuit breaker supplied to the Commonwealth Edison Company (CECo) Quad Cities Nuclear Power Station (NPS), by Safin American Corporation (SAC), Shelton, Connecticut. The breaker in question bore an apparently altered circuit breaker nameplate, and was refurbished with poor quality, non-standard parts.

The NRC Office of Investigations in conjunction with the NRC Vendor Inspection Branch developed information indicating that the breaker in question was, according to both SAC personnel and SAC records, new when sold by SAC to Quad Cities NPS. When examined, however, this breaker was found to have been refurbished with non-standard parts and bore a serial number which was originally issued by the original equipment manufacturer to an entirely different type of circuit breaker.

The investigation also surfaced additional instances of sales of electrical components to Niagra Mohawk's Nine Mile Point Unit 1 NPS and CECo's Zion NPS, which also exhibited apparent non-standard parts and specification variances from those required.

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ACCOUNTABILITY

The following portions of this Report of Investigation (Case No. 3-88-012) will not be included in the material placed in the Public Document Room. They consist of pages 3 through 29.

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APPLICABLE REGULATIONS

Allegation: Alleged Selling of Substandard/Counterfeit Electrical Components to the Nuclear Power Industry

10 CFR 21.1: Purpose

The regulations in this part establish procedures and requirements for implementation of section 206 of the Energy Reorganization Act of 1974. That section requires any individual director or responsible officer of a firm constructing, owning, operating or supplying the components of any facility or activity which is licensed or otherwise regulated pursuant to the Atomic Energy Act of 1954, as amended, or the Energy Reorganization Act of 1974, who obtains information reasonably indicating: (a) That the facility activity or basic component supplied to such facility or activity fails to comply with the Atomic Energy Act of 1954, as amended, or any applicable rule, regulation, order, or license of the Commission relating to substantial safety hazards or (b) that the facility, activity, or basic component supplied to such facility or activity contains defects, which could create a substantial safety hazard, to immediately notify the Commission of such failure to comply or such defect, unless he has actual knowledge that the Commission has been adequately informed of such defect or failure to comply.

10 CFR 21.3(a)(1): Definitions

(a)(1) "Basic component," when applied to nuclear power reactors means a plant structure, system, component or part thereof necessary to assure (i) the integrity of the reactor coolant pressure boundary, (ii) the capability to shut down the reactor and maintain it in a safe shutdown condition, or (iii) the capability to prevent or mitigate the consequences of accidents which could result in potential offsite exposures comparable to those referred to in 100.11 of this chapter.

10 CFR 21.21(b)(1): Notification of Failure to Comply or Existence of a Defect

(b)(1) A director or responsible officer subject to the regulations of this part or a designated person shall notify the Commission when he obtains information reasonably indicating a failure to comply or a defect affecting

(i) a basic component that is within his organization's responsibility and is supplied for a facility or an activity within the United States that is subject to the licensing requirements under Parts 30, 40, 50, 60, 61, 70, 71, or 72 of this chapter.

18 U.S.C. 2320: Trafficking in Counterfeit Goods or Services

(a) Whoever intentionally traffics or attempts to traffic in goods or services and knowingly uses a counterfeit mark on or in connection with such goods or services shall, if an individual, be fined not more than \$250,000 or imprisoned not more than five years, or both, and, if a

person other than an individual, be fined not more than \$1,000,000. In the case of an offense by a person under this section that occurs after that person is convicted of another offense under this section, the person convicted, if an individual, shall be fined not more than \$1,000,000 or imprisoned not more than fifteen years, or both, and if other than an individual, shall be fined not more than \$5,000,000.

(d) For the purposes of this section-

(1) the term "counterfeit mark" means-

(A) a spurious mark-

(i) that is used in connection with trafficking in goods or services;

(ii) that is identical with, or substantially indistinguishable from, a mark registered for those goods or services on the principal register in the United States Patent and Trademark Office and in use, whether or not the defendant knew such mark was so registered; and

(iii) the use of which is likely to cause confusion, to cause mistake, or to deceive; or

(B) a spurious designation that is identical with, or substantially indistinguishable from, a designation as to which the remedies of the Lanham Act are made available by reason of Section 110 of the Olympic Charter Act;

SATIN AMERICAN CORPORATION (SAC)

ORGANIZATION CHART

Leonard SATIN, Founder SAC
Joseph SATIN, President (Son)
Aram NAHABEDIAN, Vice-President
Dan CASOTTI, Vice-President
Robert MARTIVICH, Nuclear QA Manager

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DETAILS OF INVESTIGATION

Purpose of Investigation

This investigation was initiated to identify and confirm the facts involving the apparent refurbishment of a Quad Cities Nuclear Power Station (NPS) circuit breaker supplied by Satin American Corporation (SAC), Shelton, Connecticut, and how that breaker was represented (new or used) to Quad Cities NPS. Additionally, OI was requested to determine whether material supplied to other nuclear utilities was misrepresented or substandard.

Background

On November 30, 1988, Victor STELLO, Jr., the Nuclear Regulatory Commission's (NRC) Executive Director for Operations, requested an investigation (Exhibit 1) following a determination by General Electric (GE) that a circuit breaker received from the Quad Cities NPS for overhaul purposes apparently exhibited non-standard/counterfeit GE parts (Exhibit 2; Exhibit 3; Exhibit 4; and Exhibit 5).

Coordination with the NRC Staff

On November 15, 1988, an inspection of SAC, Shelton, Connecticut, was conducted by NRC Vendor Inspection Branch (VIB) Inspector Steve ALEXANDER, and NRC Region III (RIII) Inspector John NEISLER. Harold G. Walker, Senior Investigator, NRC Office of Investigations (OI), Field Office, RIII, accompanied the inspectors on a portion of that inspection.

The inspectors concluded that the Quad Cities AKF Field Breaker was originally sold to Quad Cities NPS in January 1985 as a commercial grade circuit breaker and that both company records and statements by SAC personnel indicated that the breaker was new, from SAC stock, and that no work other than inspection and testing was done on that breaker. The inspectors also concluded that SAC had no traceable record of their purchase of the breaker. The inspectors observed about 30 breakers in stock which revealed irregularities in GE breaker nameplates and duplicate or multiple serial numbers. SAC contended that irregularities do occur in GE breaker nameplates, including missing information (e.g., factory inspectors' stamp) and duplicate or multiple serial numbers (Exhibit 6).

INVESTIGATOR'S NOTE: The serial numbers for AKF field breakers are unique identifiers found on summary sheets at the place of manufacture. Smaller breakers, molded case breakers, EC trip devices, etc., have lot numbers which are duplicated for each unit of a particular lot.

Allegation: Alleged Selling of Substandard/Counterfeit Electrical Components to the Nuclear Power Industry

Summary

The following individuals were interviewed by OI on the dates indicated regarding SAC's supplying of electrical components to the nuclear industry.

The pertinent testimony provided by these individuals is documented in the evidence section of this report.

<u>Name</u>	<u>Position</u>	<u>Date of Interview(s)</u>
George E. WETSELL	GE, Manager-QA	October 28, 1988
Henry A. OPPERMANN	GE Manager of Switchgear Services	April 19, 1989
Harry ZYBURT	GE Electrical Switchgear Tech.	April 19, 1989
Craig ELSASSER	Quad Cities Electrical Foreman	April 20, 1989
John BRADY	Quad Cities Engineering Assist.	April 20, 1989
Gary SPEDL	Quad Cities Tech. Serv. Employee	April 20, 1989
Joe MARCHINI	Quad Cities Elec. Maint. Foreman	April 20, 1989
Richard BAX	Quad Cities Plant Manager	April 20, 1989
Tom TAMLYN	Quad Cities Super. of Production	April 20, 1989
Stephen T. DOTY	9 Mile Pt. Elec. Maint. Super.	June 21, 1989
Kim DAHLBERG	9 Mile Pt. Station Superintendent	June 21, 1989
Suzanne YUNKER	Zion NPS General Engineer	April 12, 1990
Ken CICHON	Zion NPS Maint. Supervisor	April 12, 1990
Bill SCHMIDT	Zion NPS Receipt Inspector	April 12, 1990
Leonard TATE	CECo PWR Systems Engineer	April 19, 1990
Thomas P. SWINSICK	Former Employee, SAC	May 31, 1989
Lawrence H. WELLER	Former Employee, SAC	June 22, 1989
Michael MIKAILONIS	Former Employee, SAC	June 28, 1989
Michael S. WASILEWSKI	Former Employee, SAC	August 2 & 23, 1989
Richard KOTENSKI	Former Employee, SAC	August 23, 1989
Helen URBAN	Engineering Graphics	March 5, 1990

Review of Documentation, Commonwealth Edison Company (CECo) Quad Cities NPS:

A review of documents obtained at the Quad Cities NPS revealed the purchase of three (3), GE AKF Field Breakers from SAC on December 12, 1984, by Purchase Order No. 286456, and the subsequent receipt of the breakers in January 1985. Documentation attesting to the inspection of one of the circuit breakers, Serial No. 256A4024-218, on March 29, 1985, revealed no discrepancies. A purchase requisition (No. 52161) dated January 28, 1988, revealed two of the three breakers, Serial No. 256A4024-218 and No. 179A5094-398CE were sent to GE for maintenance purposes. A subsequent quality control (QC) surveillance/inspection report prepared by Curt SMITH, of CECo, dated September 26, 1988, revealed that GE found non-standard internal parts and nameplate discrepancies on the breaker bearing Serial No. 256A4024-218. A document depicting the "non-standard parts" in AKF Field Breaker, Serial No. 256A4024-218, was prepared by GE (Exhibit 4; Exhibit 8; Exhibit 9; Exhibit 10; Exhibit 11; Exhibit 12; Exhibit 13; Exhibit 14; Exhibit 15; and Exhibit 16).

A review of a GE document attesting to the manufacturer of the breaker bearing Serial No. 256A4024-218 revealed that this serial number originally was given to a circuit breaker that was manufactured as an AK-3A 3000 amp breaker, not a 600 amp AKF as purported by the nameplate on the breaker purchased from SAC by CECo (Exhibit 25).

Documentation obtained from GE revealed a purchase by GE of three (3) other new (non-nuclear) EC trip devices from SAC. Upon receipt of these devices it was determined by GE that the devices were reconditioned rather than new (Exhibit 23 and Exhibit 24).

Evidence Regarding GE AKF Field Breaker, Serial No. 256A4024-218

1. ELSASSER stated that he is the person who initiated the purchase of three (3), GE AKF Field Breakers from SAC on December 12, 1984 (Exhibit 7).
2. ELSASSER stated that he arranged the purchase from SAC through Joseph SATIN, of SAC (Exhibit 7).
3. ELSASSER stated that he assumed the breakers had been rebuilt because of the type of conversations he was having with J. SATIN and also because rework was apparently necessary before shipment could be accomplished (Exhibit 7).
4. TAMLYN stated that he expected the GE circuit breakers purchased from SAC to provide an equivalent function to the original ones supplied by GE (Exhibit 17).
5. BAX stated that he assumed the purchase from SAC was original equipment but did not expect the breakers to be new. BAX stated that he expected "like-for-like" breakers (Exhibit 18).
6. SPEDL stated that on August 19, 1986, GE AKF Field Breaker, Serial No. 256A4024-218, was reclassified as "safety-related" in order to comply with the quality assurance (QA) guidance mandated by NRC Generic Letter No. 85-06. According to SPEDL, it was his belief that . . . no physical rework was accomplished on the breaker in question in order to update the breaker to safety status (Exhibit 20).
7. BRADY stated that it was he who initiated a "single source recommendation" to purchase the three (3) circuit breakers from SAC at the request of ELSASSER (Exhibit 21).
8. BRADY stated that it was understood that the equipment ordered from SAC was original equipment which was in stock at a lower cost than could be obtained from the original equipment manufacturer (OEM) (Exhibit 21).
9. BRADY stated that he "thought" the circuit breakers being ordered were new (Exhibit 21).
10. The NRC:VIB inspection dated November 15-17, 1988, confirmed that the breakers shipped to Quad Cities NPS were represented new (Exhibit 6, p. 3).
11. ZYBURT first identified non-standard parts in GE AKF Field Breaker, Serial No. 256A4024-218 (Exhibit 26).
12. WETSELL stated that the breaker in question (Serial No. 256A4024-218) was the first counterfeit (non-standard) equipment he had identified from

a nuclear facility, but that it was common to receive counterfeit equipment for refurbishment from non-nuclear accounts (Exhibit 5).

13. OPPERMANN stated that GE had purchased as new, three (3) EC trip devices from SAC which were determined to contain non-standard parts (Exhibit 22; Exhibit 23; and Exhibit 24).
14. Notes by OPPERMANN reveal that J. SATIN asked him to return the three (3) EC trip devices and that he would forget the entire incident (Exhibit 23, p. 13).

Review of Documentation, Niagara Mohawk Nine Mile Point Unit 1 (NMP1)

VIB, through Inspection Report Nos. 50-220 and 410/89-201, revealed that through two purchase orders in 1984, a total of 151 EC trip devices were procured from SAC. It was further determined that 48 of the trip devices purchased under Purchase Order No. 14090 had been placed in service in safety-related applications at NMP1 (Exhibit 27, p. 3).

Twenty-two (22) selected SAC-supplied EC-1 and EC-2A trip devices from NMP1 were taken to the GE Apparatus Service Facility in Atlanta, Georgia, for testing and examination. The initial results of this testing, performed in Atlanta, Georgia, on July 19 and 20, 1989, on ten of the 22 trip devices, revealed out-of-specification operation on one or more of their functions in some portions of their design operating ranges (Exhibit 27, pp. 8 and 9).

Purchase Order No. 14090, dated April 4, 1984, revealed the purchase of EC trip devices from SAC (Exhibit 29).

Purchase Order No. 1221, dated March 22, 1984, revealed the purchase of three EC-2A trip devices from SAC (Exhibit 31).

Copies of Certificates of Certification dated March 22 through October 4, 1984, indicated that the 137 EC-1 and EC-2A overcurrent trip devices shipped to NMP1 under Purchase Order No. 14090, were "equivalent to or better than" the identical items previously supplied Niagara Mohawk and would "non-detract from Class IE" (safety) application. These certificates were either signed by: J. SATIN, President of SAC; Dan CASOTTI, Vice-President; or Robert MARTIVICH, Nuclear QA Manager (Exhibit 30).

An August 5, 1985, Niagara Mohawk memo, which referenced a qualification survey of SAC by Niagara Mohawk, concluded that SAC was not qualified as an Appendix B supplier of electrical services, materials, and equipment at the time of the inspection. The memo also cited discovering that NMP1 Purchase Order No. 14090 was issued by SAC for commercial grade items to be used at NMP1 in safety-related applications (Exhibit 32).

Evidence

15. DOTY, an electrical maintenance supervisor for the Niagara Mohawk Power Corporation, stated that he placed the order (Purchase Order No. 14090) for EC-1 and EC-2A overcurrent tripping devices from SAC (Exhibit 28).
16. DOTY stated that he dealt with J. SATIN and CASOTTI of SAC (Exhibit 28).

17. According to DOTY, the order (Purchase Order No. 14090) was an emergency verbal order placed via telephone to J. SATIN in March 1984 (Exhibit 28).
18. DOTY stated that upon receipt of the order, problems were identified with both part numbers and label discrepancies on the components (Exhibit 28).
19. DOTY stated that when he ordered the electrical components, he thought the merchandise was "new, (or) never before used" (Exhibit 28).
20. DOTY stated that he requested Certificates of Conformance from SAC, however, he received Certificates of Certification (Exhibit 28 and Exhibit 30).

Review of Documentation, CECO's Zion NPS

On August 18, 1989, an inspection (Nos. 50-295/89-201 and 50-304/89-201) of CECO's Zion NPS by the VIB revealed three (3), GE-Type, AK2A-50-3 Circuit Breakers and one (1), Westinghouse-Type, DS-416 Circuit Breaker supplied by SAC which were on QA hold in the Zion warehouse (Exhibit 33, p. 2).

The DS-416 circuit breaker, according to VIB, appeared to have been refurbished and exhibited differences from an original Westinghouse-supplied DS-416. The three GE breakers were fitted with EC-1 type overcurrent trip devices, the nameplates of which exhibited characteristics of being the same non-authentic GE nameplates found on other SAC supplied trip devices (Exhibit 33, p. 3).

By letter dated January 28, 1988, the CECO production services manager and the manager of QA indicated that SAC's QA department complied with all applicable criteria of 10 CFR Part 50, Appendix B (Exhibit 36).

Documentation Regarding the Three GE AK2-50-3 Circuit Breakers:

A single source recommendation dated February 4, 1988, and signed by CICHON on February 5, 1988, requested \$110,000 for payment to SAC for three (3), GE-type, AK2-50-3 Breakers. Handwritten notes by CICHON reflect the breakers were identified as "new" by SAC (Exhibit 37 and Exhibit 39).

A "Request for Purchase," Purchase Order No. 318912, Request No. ZN0093, dated February 4, 1988, reflects the \$110,000 purchase of three (3) AK2-50-3 Breakers (Exhibit 38).

A "Purchase Requisition" dated February 8, 1988, identifies the three GE breakers as safety-related and 10 CFR Part 21 as being applicable (Exhibit 40).

A Certificate of Conformance dated April 4, 1988, and signed by MARTIVICH, QA Supervisor of SAC, attests that the circuit breakers supplied by SAC against CECO Purchase Order No. 318912 conform to the requirements of Purchase Order No. 318912 (Exhibit 41).

A revised Certificate of Conformance dated April 13, 1988, and signed by MARTIVICH, restates the condition of the GE breakers by adding an additional

statement to the original. The additional phrase identifies the three breakers as being "remanufactured at Satin American" (Exhibit 42).

Documentation Regarding the Westinghouse-Type DS-416 Circuit Breaker

By letter dated May 25, 1988, NAHABEDIAN, Vice-President, SAC, offered one, "new" Westinghouse-Type, DS-416 Circuit Breaker to be used in a "safety-related" application (therefore, 10 CFR 21 and 10 CFR 50, Appendix B, will apply). The cost was quoted as \$34,000 each, with the dedication and qualification package being offered at a cost of \$18,000, resulting in a total price of \$52,000 (Exhibit 45, pp. 1-2).

By letter dated June 22, 1989, TATE, CECO systems engineer, affirmed that a SAC field representative would ensure that the "new" breaker would fit and function in the cabinet of the existing breaker (Exhibit 46).

Purchase Order No. 321995 dated August 15, 1988, reflects the purchase and contract payment authorization to pay \$59,200 to SAC for the Westinghouse DS-416 breaker and documentation package (Exhibit 47).

INVESTIGATOR'S NOTE: The \$59,200, as reflected in the August 15, 1988, Purchase Order No. 321995, is an increase of \$7,200 over the May 25, 1988, quote by NAHABEDIAN.

A Certificate of Conformance from SAC, signed by MARTIVICH and dated December 29, 1988, stated in part that "the above mentioned circuit breaker and parts conform to the requirements of your purchase order and based upon inspection and test at Satin American Corp., these parts are from the original manufacturer, equal to or better" (Exhibit 48).

A revised Certificate of Conformance from SAC, signed by MARTIVICH and dated August 11, 1989, emphasizes the new SAC QA program designing the implementation of 10 CFR 50, Appendix B regulations around ANSI/ASME NQA-1 (Exhibit 49).

Evidence

21. CICHON, electrical maintenance supervisor at Zion NPS, stated that it was he who pursued the task of purchasing three (3), AK2-50-3 GE Breakers from SAC (Exhibit 34).
22. CICHON stated that it was his understanding that the GE breakers were new (Exhibit 34).
23. CICHON stated that the purchase was for "safety-related" components (Exhibit 34).
24. YUNKER, a general engineer at Zion NPS, stated that during her search for GE replacement breakers, it was learned that SAC was a source of "new" breakers (Exhibit 35).
25. According to YUNKER, the order to SAC for the GE breakers was for safety-related components for which 10 CFR Part 21 was applicable (Exhibit 35).

26. TATE, a CECO PWR systems engineer for Zion NPS, stated that a Westinghouse DS-416 circuit breaker was needed in the Zion NPS fire protection system and that SAC offered a new breaker with a twelve week delivery upon purchase order receipt. An identical breaker from Westinghouse would have required six months to a year for delivery (Exhibit 44).
27. TATE stated that upon receipt of the Westinghouse breaker, the Certificate of Conformance did not match the purchase order (Exhibit 44).
28. TATE stated that upon pointing out discrepancies to MARTIVICH of SAC, MARTIVICH claimed that a fire at SAC had destroyed all their records (Exhibit 44).
29. SCHMIDT, a Level II QC receipt inspector at Zion NPS, stated that the three GE breakers and the one Westinghouse breaker all exhibited problems with the Certificates of Conformance (Exhibit 43).

Interviews of Former SAC Employees

44. SWINSICK was formerly employed by SAC to conduct final testing and inspection of low voltage circuit breakers from September 1981 through 1984. He stated that the manufacturing brands with which he was familiar consisted mainly of the following: Westinghouse; GE; ITE; Roller Smith; and Federal Pacific (Exhibit 51, pp. 4-5).
45. SWINSICK identified the low amperage circuit breakers as an AKF field discharge breaker, 600 amp up to 4,000 amp (Exhibit 51, p. 6).

INVESTIGATOR'S NOTE: The AKF field breakers identified by Exhibit 25, Exhibit 34, and Exhibit 39, and sold to CECO's Quad Cities and Zion NPS by SAC are the type breakers for which SWINSICK performed final testing and inspection.
46. SWINSICK stated that in his capacity of conducting final testing and inspection, one of his duties was to apply the nameplates, and many times he observed nameplates being taken from a file cabinet which were blank, and then having numbers stamped onto them. There were blank nameplates for any nameplate required (Exhibit 51, pp. 9-10).
47. SWINSICK indicated that he would be given a copy of a blank nameplate by CASOTTI with all the information written on it. SWINSICK would then use a stamping machine to apply the data provided by CASOTTI. SWINSICK further indicated this information included interrupting capacities, voltage ratings, type of breaker, serial number, and inspection stamp (Exhibit 51, pp. 9-12).
48. SWINSICK stated that the source of some of the serial numbers provided were "out of the sky, out of the blue sometimes." Data was also obtained from other breakers or from another circuit breaker in the junkyard (Exhibit 51, p. 12).
49. SWINSICK stated that he would ask his boss (CASOTTI) for a serial number to be applied to a breaker, at which time he (CASOTTI) would usually hand SWINSICK a blank plate. SWINSICK indicated he would make a copy of the plate, give the copy to CASOTTI who would write a number on the copy and give the sheet back to SWINSICK. At times, according to SWINSICK, when CASOTTI would use an original nameplate as a guide, he would read the numbers, changing a few here and there or adding a letter here or there (Exhibit 51, pp. 13-14).
50. SWINSICK stated that the practice he described was common practice at SAC (Exhibit 51, p. 15).

INVESTIGATOR'S NOTE: Attachments 4-7 to Exhibit 51 were offered by SWINSICK as examples of blank nameplates which were copied and the data filled in by CASOTTI.

51. SWINSICK stated that he was aware of circuit breakers being painted or touched up "...because we are selling it as new" (Exhibit 51, p. 18).
52. SWINSICK stated that he had to repair many circuit breakers for SAC that came to the test stand and would almost burn up because of the sandblast beads being caught up in the contacts. These same breakers would, according to SWINSICK, have false nameplate information applied to them and then be shipped to the customer (Exhibit 51, p. 20).
53. WELLER stated that he was employed by SAC from January 1983 through March 1984 as a mechanic rebuilding and fabricating circuit breakers (Exhibit 52).
54. WELLER stated that his duties were to dismantle, resurface, repaint, refurbish, and add new silver cyanide in an attempt to make the component appear new (Exhibit 52).
55. WELLER stated that blank nameplates bearing the logo and identifying information representative of GE, Westinghouse, Federal Pacific, Allis Chalmers, Toshiba Vacuum Breakers, etc., were maintained by SAC (Exhibit 52).
56. CASOTTI and MARTIVICH were identified by WELLER as the persons who most frequently provided the counterfeit nameplates to the employees conducting the fabricating (Exhibit 52).
57. WELLER provided photo copies of nameplates he allegedly took from SAC which bore bogus data (Exhibit 52).
58. WELLER stated that he witnessed the same serial number on as many as three (3) separate components with the explanation provided that as long as SAC had the original circuit breaker, the serial number could be changed (Exhibit 52).
59. WELLER described all manner of activities directly associated with SAC doing whatever was necessary to make old used breakers look new so that the merchandise could be sold as new (Exhibit 52).
60. WELLER identified EC2 and EC2A magnetic overcurrent tripping devices that were taken apart, drilled out, sand blasted, and repainted to match the original color and sold as new (Exhibit 52).
61. WELLER stated that circuit breakers purchased by SAC from the Seabrook NPS, provided serial numbers for many fabricated breakers. WELLER further stated that the activities he observed were an ongoing enterprise of counterfeiting circuit breakers and charging new prices (Exhibit 52).
62. MIKAILONIS, employed by SAC from February 1981 to September 1985 as a project engineer, described his job of testing medium voltage circuit breakers and switch gear (Exhibit 53, pp. 3-4).

63. MIKAILONIS stated he was aware of sales by SAC of electrical mechanical overloads (trip devices) to the nuclear power industry (Exhibit 53, pp. 7 and 31), and he was aware that SAC sold used components as new.
64. MIKAILONIS recalled the sale of Class 1E [safety-related] trip devices to Niagra Mohawk, which, in fact, were not 1E-qualified (Exhibit 53, pp. 10-11).
65. MIKAILONIS acknowledged that SAC maintained blank manufacturer's name (data) plates (Exhibit 53, p. 14).
66. Some of the data plates most commonly used, according to MIKAILONIS, were GE, Westinghouse, and ITE (Exhibit 53, p. 14).
67. The blank plates, according to MIKAILONIS, were maintained in a locked cabinet (Exhibit 53, p. 15).
68. According to MIKAILONIS, CASOTTI, the director of operations, was the person who maintained the key to the cabinet (Exhibit 53, p. 16).
69. The blank data plates, according to MIKAILONIS, were obtained from a company in Norwalk, Connecticut, called Urban Associates (Exhibit 53, p. 17).
70. MIKAILONIS witnessed deliveries of blank data plates by Urban Associates to SAC (Exhibit 53, pp. 17-18).
71. MIKAILONIS stated that the data plates bearing counterfeit/bogus numbers were placed on rebuilt equipment (Exhibit 53, pp. 20-21).
72. The data placed on the blank data plates originated from CASOTTI, according to MIKAILONIS (Exhibit 53, p. 21).
73. MIKAILONIS stated that he witnessed CASOTTI make up bogus data to be applied to data plates (Exhibit 53, pp. 21-22).
74. MIKAILONIS identified the following SAC employees as having participated in manufacturing the bogus data plates: Leo DISORBA; Robert MARTIVICH; J. KINGSTON; and Lee DeLVECCHIO. The data used by the previously identified employees was provided by CASOTTI (Exhibit 53, pp. 25-26).
75. MIKAILONIS said he witnessed SAC sell eight or ten Westinghouse DH breakers to Sikorsky Aircraft in Stamford, Connecticut, which were, in fact, used but sold as new (Exhibit 53, pp. 31-32).
76. MIKAILONIS stated that prior to his leaving SAC in September 1985, CASOTTI was still maintaining a key to the cabinet which held the counterfeit plates, and these plates were still being utilized (Exhibit 53, p. 37).
77. MIKAILONIS observed three pole AK breakers being converted to AKF breakers (Exhibit 53, p. 38).

INVESTIGATOR'S NOTE: The Quad Cities Field Breaker was an AKF breaker whose serial number traced back to a different breaker.

78. MIKAILONIS stated that SAC bought in a machinist specifically to stamp out parts (Exhibit 53, p. 38).
 79. MIKAILONIS indicated that MARTIVICH set up a phony QC program for nuclear sales to satisfy a customer who was coming in to inspect the plant. MIKAILONIS acknowledged that he was told the part he would be playing and that during the customer visit he (MIKAILONIS) was "scared silly" that he would be asked a question he couldn't answer (Exhibit 53, pp. 43-45).
 80. MIKAILONIS stated that the blank data plates were used in a variety of ways. A plate, upon being stamped and the numerals filled in with grease, would on occasion be taken out into the parking lot and rubbed into the sand to give it the "appearance of oldness" (Exhibit 53, p. 46).
 81. MIKAILONIS acknowledged that the serial numbers assigned by CASOTTI were not traceable but would give the appearance of being legitimate (Exhibit 53, p. 47).
 82. According to MIKAILONIS, there was a concerted effort by CASOTTI to avoid sending circuit breakers bearing the same serial number to the same customer (Exhibit 53, pp. 47-49).
 83. WASILEWSKI, employed by SAC from September 1970 until December 1985 (15 years), worked as a mechanic and described as a common practice, the fabrication of electrical components and the sale of the components as new or never before used items (Exhibit 54).
 84. WASILEWSKI described a system by which various methods were utilized to disguise used components and homemade components. Nameplates bearing various company logos and identifying data were maintained by CASOTTI until needed. Serial numbers from destroyed breakers were affixed to the blank counterfeit plates. According to WASILEWSKI, various letter combinations would be punched into the inspection stamp area of the nameplate to deceive the purchaser (Exhibit 54).
- INVESTIGATOR'S NOTE: Exhibit 56 is a copy of the EC trip device nameplates from the SAC EC trip devices sold to NMP1 in 1984. The plates exhibit no inspection stamp on one while another one with various letter configurations matches those described by WASILEWSKI (Exhibit 56).
85. WASILEWSKI identified the EC1 magnetic overcurrent tripping device as never having been calibrated and having various modifications done to it. He described being directed by SATIN and CASOTTI to do the things he indicated. He described times wherein he was directed to purchase routine items from a hardware store for a few dollars which were sold by SAC as originals for several thousands of dollars (Exhibit 54).
 86. KOTENSKI, a former SAC employee from January 1973 until January 1986 (13 years), stated that under the direction of Carmine LEO, the SAC plant manager, he (KOTENSKI) participated in fabricating electrical components and applying false data to counterfeit name and data plates. KOTENSKI

identified CASOTTI as having control of and providing the blank manufacturer name and data plates (Exhibit 55).

87. KOTENSKI stated that serial numbers were routinely falsified, testing of circuit breakers was haphazard at best, and that oils were blended to approximate original oils used by GE. AK-2-25s were built from scratch, according to KOTENSKI, and the wiring used in the circuit breakers was never up to the specifications required by the original equipment manufacturer (Exhibit 55).
88. On March 5, 1990, Helen URBAN of Engineering Graphics indicated in a conversation (which was intercepted via a Consensual Monitor approved by the NRC Executive Director for Operations) that she supplied SAC with nameplates bearing the logos of Westinghouse, GE, Square D, and ITE without all the stampings (Exhibit 57, p. 2).

Conclusions

Based on the evidence identified during the investigation, it is concluded that SAC, Shelton, Connecticut, intentionally and deliberately provided substandard/counterfeit electrical components to the Quad Cities NPS and the nuclear power industry in general.

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SUPPLEMENTAL INFORMATION

This investigation has developed information indicating possible violations of Federal criminal law by L. SATIN, J. SATIN, NAHABEDIAN, MARTIVICH, CASOTTI, and H. URBAN.

The United State's Attorney's Office, District of Connecticut, is aware of the findings of this investigation and has expressed an interest in pursuing apparent violations of 18 U.S.C 2320.

The Federal Bureau of Investigation's, Bridgeport, Connecticut, office is currently conducting an investigation of SAC.

Currently OI is awaiting original equipment manufacture's engineering determination to verify the NRC:VIB inspection reports related to CECO's Zion NPS and Niagra Mohawk's NMP1 NPS.

The attorney representing SAC refused to allow interviews of any corporate-level employees.


The SAC corporate offices and work area were destroyed by fire in July 1989, just prior to a scheduled VIB inspection.

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LIST OF EXHIBITS

<u>Exhibit No.</u>	<u>Description</u>
1	EDO Request for Investigation, dated November 30, 1988.
2	Ltr from DYKES to WETSELL, dated July 11, 1988.
3	Ltr from WETSELL to STRAMBACK, dated July 15, 1988.
4	Analysis of AKF-2-25 Power Circuit Breaker, Serial No. 256A4024-218.
5	Report of Interview with WETSELL, dated October 28, 1988.
6	NRC:VIB Inspection No. 99901094/88-01, dated November 15-17, 1988 and December 23, 1988.
7	Report of Interview with ELSASSER, dated April 20, 1989.
8	Request for Purchase (handwritten) P.O. No. 286456, dated December 12, 1984.
9	Single Source Recommendation, APO 286456, dated December 12, 1984.
10	Purchase Order No. 286456, approved and dated December 12, 1984.
11	Receipt Confirmation of Purchase Order No. 286456.
12	Air Freight Receipt No. 159888024, dated January 8, 1985.
13	Yellow Freight System Receipt No. 130-451537, dated January 14, 1985.
14	480V Field Breaker Inspection Log, Breaker Serial No. 256A4024-218, dated March 29, 1985.
15	Purchase Requisition to General Electric by ELSASSER, dated January 28, 1988.
16	QC Surveillance/Inspection Report No. 88-46, dated September 26, 1988.
17	Report of Interview with TAMLYN, dated April 20, 1989.
18	Report of Interview with BAX, dated April 20, 1989.
19	Report of Interview with MARCHINI, dated April 20, 1989.

<u>Exhibit No.</u>	<u>Description</u>
20	Report of Interview with SPEDL, dated April 20, 1989.
21	Report of Interview with BRADY, dated April 20, 1989.
22	Report of Interview with OPPERMANN, dated April 19, 1989.
23	Ltr from KLINGER to OPPERMANN, dated June 16, 1989, with attached documentation.
24	Ltr from OPPERMANN to Bill THORNTON/Bob DURSO, dated July 18, 1989.
25	General Electric Summary of Switchgear Equipment No. 0256A4024-218.
26	Report of Interview with ZYBURT, dated April 19, 1989.
27	NRC:VIB Inspection Reports No. 50-220, 410/89-201, dated June 14-15, and 27, July 17, 19, and 20, and August 30, 1989.
28	Report of Interview with DOTY, dated June 21, 1989.
29	Niagra Mohawk Power Corporation Purchase Order No. 14090, dated April 4, 1984, with attached Purchase Requisition No. 330228 dated March 21, 1984.
30	40 Satin American Corporation Certificates of Certification (Reference: Purchase Order No. 14090/137 Trip Devices).
31	Niagra Mohawk Power Corporation Purchase Order No. 12221, dated March 22, 1984.
32	Niagra Mohawk Power Corporation Contractor Qualification Summary, dated May 15 and 16, 1985.
33	NRC:VIB Inspection Report Nos. 50-295/89-201 and 50-304/89-201, inspection date August 18, 1989.
34	Report of Interview with CICHON, dated April 12, 1990.
35	Report of Interview with YUNKER, dated April 12, 1990.
36	Quality Approved Bidders List, Reference: Satin American Corporation, dated January 28, 1988.
37	Single Source Recommendation, dated February 4, 1988.
38	Request for Purchase, P.O. No. 318912, dated February 4, 1988.
39	Handwritten notes by CICHON.

<u>Exhibit No.</u>	<u>Description</u>
40	Purchase Requisition, Requisition ZN0093, dated February 8, 1988.
41	Certificate of Conformance, dated April 4, 1988.
42	Revised Certificate of Conformance, dated April 13, 1988.
43	Report of Interview with SCHMIDT, dated April 12, 1990.
44	Report of Interview with TATE, dated April 19, 1990.
45	Ltr to STEINER from NAHABEDIAN, dated May 25, 1988.
46	Ltr to JOYCE from TATE, dated June 22, 1989.
47	CECo Purchase Order No. 321995, dated August 15, 1988.
48	Certificate of Conformance, dated December 29, 1988.
49	Certificate of Conformance, dated August 11, 1989.
50	
51	Sworn Statement of SWINSICK with attachments, dated May 31, 1989.
52	Report of Interview with WELLER with attachments, dated June 22, 1989.
53	Sworn Statement of MIKAILONIS, dated June 28, 1989.
54	Report of Interview with WASILEWSKI, dated August 2, and 23, 1989.
55	Report of Interview with KOTENSKI, dated August 23, 1989.
56	Copies of (2) EC-2A Overcurrent Tripping Device Nameplates from NMP1.
57	Report of Telephone Conversation with H. URBAN, dated March 5, 1990.