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Closeout of IE Bulletin 83-07: Apparently Fraudulent Products Sold by Ray Miller, Inc.

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Prepared by W. J. Foley, R. S. Dean, A. Hennick

PARAMETER, Inc.

Prepared for
U.S. Nuclear Regulatory Commission

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Closeout of IE Bulletin 83-07: Apparently Fraudulent Products Sold by Ray Miller, Inc.

Manuscript Completed: February 1990
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Prepared by
W. J. Foley, R. S. Dean, A. Hennick

PARAMETER, Inc.
13380 Watertown Plank Road
Elm Grove, WI 53122

Prepared for
Division of Operational Events Assessment
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555
NRC FIN B8729

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ABSTRACT

Documentation is provided in this report for the closeout of IE Bulletin 83-07 regarding apparently fraudulent products sold by Ray Miller, Inc., to nuclear power and fuel facilities. The bulletin and two supplements were issued to all holders of nuclear power reactor or fuel facility operating licenses or construction permits. Four actions were required of all affected facilities to provide assurance that fraudulent items are not used in safety-related applications, unless qualified by tests. Review of utility responses and NRC/Region inspection reports shows that the bulletin is closed for all of the 118 power facilities and for the two fuel facilities to which it was issued for action. Facilities which were shut down or had construction halted indefinitely or permanently at the time of issuance of this report are not included. It is concluded that all bulletin concerns have been resolved. Background information is supplied in the Introduction and Appendix A.

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CLOSEOUT OF IE BULLETIN 83-07:
APPARENTLY FRAUDULENT PRODUCTS
SOLD BY RAY MILLER, INC.

INTRODUCTION

This report provides documentation for the closeout of IE Bulletin 83-07 in accordance with the Statement of Work in Task Order 37 under NRC Contract 05-85-157-02. Documentation is based on records obtained from the NRC Document Control System.

On January 26, 1983, Information Notice (IN) 83-01 was issued by the NRC to inform all owners of nuclear power reactor or fuel facilities that fraudulent products may have been sold to them by Ray Miller, Inc., of Charleston, West Virginia. These fraudulent products included substitute nonconforming or substandard pipe, tubing, fittings, and flanges. The sale of fraudulent material may have occurred directly to nuclear industry companies, or indirectly, e.g. supplied through several tiers of subcontractors. The NRC issued a supplement to IN 83-01 on April 15, 1983, to provide a more comprehensive list of customers that received Ray Miller fraudulent materials during the period 1975 through 1979.

IE Bulletin 83-07 was issued by the NRC on July 22, 1983. This bulletin requested in part that licensees and permit holders: a) determine whether suspect materials had been installed, b) evaluate their safety significance, and c) tag or dispose of suspect materials not yet installed. Supplements 1 and 2 of the bulletin were issued on October 26 and December 9 of 1983, to include additional lists of suppliers of Ray Miller, Inc., materials. Additionally, on June 18, 1984, Region I of the NRC issued a letter to all licensees within that region pertaining to Bulletin 83-07. The letter requested that licensees address more specifically one of the actions in the bulletin that sought a broad review of fraudulent materials from all sources. Apparently, Region I is the only one to issue such a request. The responses to the June 18, 1984 letter, where available, have been included herein.

Bulletin 83-07 and Information Notice 83-01 (both presented with their supplements but without their lengthy attachments) are included in Appendix A for presentation of background information and required actions. Evaluation of utility responses and NRC/Region inspection reports is documented in Appendix B as the basis for bulletin closeout. Utility manhours expended on the bulletin are tabulated in Appendix C. Abbreviations used in this report and associated documents are listed in Appendix D.

SUMMARY

1. The bulletin is closed for the following 23 power facilities which have implemented corrective actions for suspect products from Ray Miller, Inc., meant for use in safety-related systems (per Criterion 1, page B-10):

Bellefonte 1,2	*Oyster Creek 1	Summer 1
*Calvert Cliffs 1,2	Perry 1	Surry 1,2
Crystal River 3	Point Beach 1,2	*Susquehanna 1,2
*Indian Point 2	Quad Cities 1,2	*TMI 1
McGuire 1,2	Sequoah 1,2	Wolf Creek 1

*The utility responded to the NRC letter of 06-18-84 which requested replies to Bulletin Action Item 4.

2. For the following two facilities, the bulletin is closed solely on the basis of a favorable utility response indicating (without future commitment) that all required actions have been completed (per Criterion 2, page B-10). An NRC/Region inspection report verifying completion of corrective action is not required.

*Maine Yankee	*Millstone 2
---------------	--------------

*The utility responded to the NRC letter of 06-18-84 which requested replies to Bulletin Action Item 4.

3. The bulletin is closed for the following 93 power facilities because there are no suspect products from Ray Miller, Inc., in safety-related systems (per Criterion 3, page B-10):

Arkansas 1,2	Fort Calhoun 1	Prairie Island 1,2
*Beaver Valley 1	Ginna	Rancho Seco 1
**Beaver Valley 2	Grand Gulf 1	River Bend 1
Big Rock Point 1	Haddam Neck	Robinson 2
Braidwood 1,2	Harris 1	Salem 1,2
Browns Ferry 1,2,3	Hatch 1,2	San Onofre 1,2,3
Brunswick 1,2	*Hope Creek 1	*Seabrook 1
Byron 1,2	*Indian Point 3	*Shoreham
Callaway 1	Kewaunee	South Texas 1,2
Catawba 1,2	LaSalle 1,2	St. Lucie 1,2
Clinton 1	*Limerick 1,2	Trojan
Comanche Peak 1,2	*Millstone 1,3	Turkey Point 3,4
Cook 1,2	Monticello	Vermont Yankee 1
Cooper Station	Nine Mile Point 1	Vogtle 1,2
Davis-Besse 1	*Nine Mile Point 2	Waterford 3
Diablo Canyon 1,2	North Anna 1,2	Watts Bar 1,2
Dresden 2,3	Oconee 1,2,3	WNP 2
Duane Arnold	Palisades	Yankee-Rowe 1
Farley 1,2	Palo Verde 1,2,3	Zion 1,2
Fermi 2	*Peach Bottom 2,3	
**FitzPatrick	*Pilgrim 1	

*The utility responded to the NRC letter of 06-18-84 which requested replies to Bulletin Action Item 4.

**No responses have been found to the NRC letter of 06-18-84 which requested replies to Bulletin Action 4.

4. The bulletin is closed for both of the affected fuel facilities (per Criterion 3, page B-10), as shown in Table B.2 on page B-9.
5. Because they are shut down indefinitely or permanently (SDI) or have had construction halted indefinitely (CHI), the following facilities are excluded from this evaluation of bulletin closeout:

Dresden 1-----	SDI	Perry 2-----	CHI
Fort St. Vrain-----	SDI	Seabrook 2-----	CHI
Humboldt Bay 3-----	SDI	TMI 2-----	SDI
Indian Point 1-----	SDI	WNP 1,3-----	CHI
LaCrosse-----	SDI		

CONCLUSION

Review of licensee responses and NRC Region inspection reports and other supporting documentation indicates that all bulletin concerns have been resolved. Questionable components were discarded, tagged for used in non-safety-related systems, or qualified by testing, as required by the bulletin.

APPENDIX A
Background Information and Required Actions

Notes:

1. The lengthy attachments identified in the bulletin and the information notice and their supplements are not included in this report (see pages A-7, A-9, A-14 and A-16).
2. For required actions of the utilities, see pages A-3 through A-6, A-8, A-9, and A-10.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
WASHINGTON, D. C. 20555

July 22, 1983

IE BULLETIN NO. 83-07: APPARENTLY FRAUDULENT PRODUCTS SOLD BY RAY MILLER, INC.

Addressees:

For Action:

All nuclear power reactor facilities and fuel facilities holding an operating license (OL) or construction permit (CP).

For Information:

Other fuel cycle licensees and Category B, Priority I (processors and distributors) material licensees.

Purpose:

Power reactor facilities were informed in January 1983 by Information Notice 83-01 that fraudulent products may have been sold to nuclear industry companies by Ray Miller, Inc. An updated and comprehensive list of Ray Miller, Inc. customers for the years 1975-1979 was provided to power reactor licensees and to selected fuel cycle and Category B, Priority I material licensees in Supplement 1 to IN 83-01 that was issued on April 15, 1983. Since information is now available regarding specific purchase orders for which materials were apparently substituted, licensees are requested to determine where suspect material has been installed in plants, evaluate its safety significance, and tag or dispose of the suspect material not yet installed.

The specific information on apparently fraudulent material covers a five year period and pertains to orders filled by the Charleston office only. Although the Charleston office was apparently the major offender, the other Ray Miller, Inc. branch offices may have also supplied fraudulent materials, in some cases. However, the NRC has been unable to locate any records for review from these other branch offices. In an effort to aid in determining the scope of the fraudulent materials problem, licensees are requested to examine and test materials from other Ray Miller, Inc. branch offices that they have been able to identify, are in stock, but which are not included in the NRC-identified list of apparently fraudulent materials.

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Discussion:

During February 1983, the NRC completed a detailed review of 29 file boxes of Ray Miller, Inc. records that were in the custody of the U.S. Attorney's Office in Charleston, West Virginia. These records related to orders filled by the Charleston, West Virginia branch office of Ray Miller, Inc., and covered the period 1975 through 1979. No other Ray Miller, Inc. records have been identified thus far.

The data obtained from the records review are presented in Attachment 1, "Fraud Data Base Alpha Sequence Condense." These data are for apparently fraudulent items only, and were selected on the basis of notations made on the Ray Miller, Inc. work sheets which indicated that unauthorized substitutions or modifications were made. The data are arranged alphabetically by buyer, and include delivery point, order number, order date, line number, material size, material type, fraud code, and comments.

The order number column provides the buyer's purchase order number when this was available. When it was not available, the Ray Miller, Inc. order number is provided.

The order date column lists the date of the buyer's purchase order when this was available. When it was not available, the Ray Miller, Inc. order date is listed.

The line number column provides the line number of the buyer's order for which substitution or modification of material was apparently made.

The material size column provides a code entry for the size of the material involved. For tubing, the size indicates the outside diameter. For pipe, the size indicates the nominal size. For fittings and flanges, the size indicates the nominal pipe diameter for the material, however, there may be some inconsistency in recording values in these cases. The codes are as follows:

Material size codes: 0 = 1" or less
 1 = greater than 1" and less than or equal to 2"
 2 = greater than 2" and less than or equal to 4"
 3 = greater than 4"

The material type column lists a code entry for the type of material involved. All items that are not piping or tubing are included in fittings and flanges. The codes are as follows:

Material type codes: PIPE = Piping
 TUBE = Tubing
 FTFL = Fittings and Flanges

The fraud code column provides a code entry for the type of substitution or modification that was apparently made. Dual or multiple entries for fraud code indicate either substitutions of more than one type or that a determination of which substitution was made could not be established from the information available.

Fraud codes: W = Welded for Seamless
C = Carbon Content (Std. grades of stainless steel for low carbon or in some cases low carbon for Std.)
F = Foreign-made for Domestic-made
X = Forming or Machining performed
P = Pressure Ratings substituted
T = All others, e.g., 304 SS for 316 SS

The and/or column indicates whether multiple entries for the fraud code were multiple substitutions (AND column) or determination of which substitution was made could not be established (OR column).

The comments column presents various notations that were found on the Ray Miller, Inc. work sheets.

Attachment 2 "Fraud Data Base Condense Buyer/Delivery Point Differ" is a different sorting of selected data contained in Attachment 1. In this case, the data are arranged alphabetically by delivery point and only include data when the receiver (delivery point) differs from the buyer. This presentation is useful to identify materials that were delivered directly to a company that did not originate the purchase order.

The fraud data base file is not complete in all cases. Some of the information was not available from the Ray Miller, Inc. records. Items from the NRC work sheets have been compared with the computer file only for NRC licensees and DOE contractors. For these items, 100 percent accuracy was verified.

At approximately the same time this Bulletin is issued, the NRC will be sending a letter to each non-licensee company that received apparently fraudulent material from Ray Miller, Inc. Appropriate portions of the fraud data file will be included. These companies will be asked to identify any nuclear facility that may have been supplied the fraudulent materials. They will be asked to notify licensees, as appropriate, and the NRC by August 31, 1983.

The actions listed below deal primarily with material included in the fraud data base file, however, the actions also include a request to examine and test a sample of other materials supplied by Ray Miller, Inc. that are still in stock, regardless of which Ray Miller branch office supplied the material. The basis for this request is the need to compile and evaluate data on the quality of shipments that were presumed "legitimate." The results of this evaluation will be provided to the nuclear industry on a timely basis.

Action Requested of Nuclear Fuel Cycle Licensees (Except As Noted Below) and Category B, Priority I Material Licensees:

This Bulletin is provided for information only. No specific action or response is required.

Action Requested of All Nuclear Power Reactor Facilities and Fuel Facilities Holding an OL or CP:

Within eight months of the date of this bulletin complete the actions identified in items 1 through 4:

1. Based on a review of the attached lists of Ray Miller, Inc. customers who received apparently fraudulent materials (Attachments 1 and 2), and pertinent information obtained from any of these companies, either directly or indirectly: *
 - (a) Identify those companies on the lists that supplied materials or services to your facility (include subcontractors as well as major contractors); and
 - (b) Determine whether any of the apparently fraudulent Ray Miller, Inc. materials were provided to or used at your facility.
 - (c) Determine whether any of the apparently fraudulent material supplied to you was installed in safety-related systems** at your facility, or is still in stock.
 - (d) If other Ray Miller, Inc. materials not listed in Attachments 1 and 2 have been identified by your own initiative, determine whether any was installed in safety-related systems** at your facility, or is still in stock.
2. For Ray Miller, Inc. materials, both the NRC-identified apparently fraudulent materials listed in Attachments 1 and 2, and other materials identified by your own initiative, that are installed in safety-related systems** of your facility:
 - (a) Evaluate the safety significance of the presence of these materials assuming the fraud is as identified in the attachments or assuming material failure.
 - (b) Determine the disposition of the installed material; e.g., use as is, remove and replace, etc.
3. For all material from Ray Miller, Inc. still in stock, whether identified by item 1 or previously identified by your own initiative:

* To aid in this identification, a supplement to this Bulletin will be issued within 75 days from the date of this Bulletin to provide the results obtained from the survey of non-licensee companies that received apparently fraudulent material. However, this does not relieve the licensees of the responsibility of contacting their suppliers to ascertain whether any of the material listed in Attachment 1 has been supplied to their facility.

** For the purpose of the applicable actions of this bulletin "safety-related" constitutes those systems covered by the definition given in 10 CFR Part 100, Appendix A Sections III.(c)(1), III.(c)(2), and III.(c)(3). In assessing the impact of Ray Miller, Inc. supplied materials in other systems at their facilities, licensees should consider the provisions of GDC 1 to 10 CFR Part 50 Appendix A.

- (a) Segregate into two groups: (1) material included in the purchase orders listed in the fraudulent data file, and (2) all other material supplied by Ray Miller, Inc., regardless of the branch office that supplied the material.
- (b) For the material included in the fraudulent data file:
 - (1) Discard the material, or
 - (2) Tag or otherwise mark the materials for use only in systems not important to safety.
- (c) For material supplied by Ray Miller that is not included in the fraudulent data file, do one of the following:
 - (1) Discard the material.
 - (2) Tag or otherwise mark the materials for use only in systems not important to safety, or
 - (3) Subdivide material into groups of identical items and examine and test material in each group in accordance with either item (i) or (ii), below:***
 - (i) Perform sufficient comprehensive examinations and tests to qualify each group of material for use in systems important to safety. If there are less than 10 identical items in the group, each item should be examined. If there are 10 or more identical items, a statistical sampling plan may be used to demonstrate with 90% confidence that 90% of the material conforms to the purchase specifications. Groups of material found acceptable may be used as desired.
 - (ii) Perform comprehensive examinations and tests of a limited sample of each group of identical items. The minimum sample size is to be two items, or 10% of the items in the group, whichever is greater. Examination and test of this limited sample does not provide a high degree of assurance that the entire group satisfies the procurement specifications. The NRC will compile the results of all the data received, determine the statistical significance of the results, and advise industry of the overall results and conclusions. Therefore, a utility should not use this material in systems important to safety until the NRC's evaluation is complete.

*** Licensees are encouraged to perform examinations and tests rather than to discard the material, even though the economic incentives probably favor discarding the material. Data obtained in response to this Bulletin will be compiled by the NRC and disseminated to the industry. The extent to which this material deviates from its procurement specifications may be an important consideration in evaluating the safety significance of Ray Miller, Inc. material not included in the fraudulent data file.

4. Provide a written report describing the results of the actions in items 1 through 3. Table 1 (Attachment 3) provides a suggested format for reporting the results of the examination and testing of materials.

The written report requested by item 4 above should be submitted to the appropriate Regional Administrator under oath or affirmation under provisions of Section 182a, Atomic Energy Act of 1954, as amended. In addition, the original copy of the cover letters and a copy of the reports should be transmitted to the U.S. Nuclear Regulatory Commission, Document Control Desk, Washington, D.C. 20555 for reproduction and distribution.

Because it appears that some equipment suppliers may be substituting substandard or nonconforming materials when filling orders, licensees are cautioned to be particularly sensitive to this issue. For example, in addition to the Ray Miller, Inc. problem, the NRC has substantiated that some nuclear power plants were supplied with nonconforming pipe fittings and flanges by the Tube-Line Corporation (see IE Bulletin 83-06). Therefore, although the specific details involving apparently fraudulent materials received from Ray Miller, Inc. may not directly apply for your facility, you are requested to review the general concerns expressed in the Bulletin for applicability at your facility. Your response should describe the results of the review, and if the general concerns apply, you should describe the short-term and long-term corrective actions to be taken and the schedules thereof.

This request for information was approved by the Office of Management and Budget under clearance number 3150-0011. Comments on burden and duplication should be directed to the Office of Management and Budget, Reports Management, Room 3208, New Executive Office Building, Washington, D.C. 20503.

Although no specific request or requirement is intended, the following information would be helpful to the NRC in evaluating the cost of this Bulletin:

1. Staff time to perform requested review and testing.
2. Staff time spent to prepare requested documentation.

If you have any questions regarding this matter, please contact the Regional Administrator of the appropriate NRC Regional Office, or one of the technical contacts listed below.



Richard C. DeYoung, Director
Office of Inspection and Enforcement

Technical Contacts: Mary S. Wegner, IE
(301) 492-4511

Ronald M. Young, IE
(301) 492-9672

Attachments: see page 7

Attachments:

1. Fraud File, Alphabetical by Buyer
2. Fraud File, Buyer and Delivery Point Differ,
Alphabetical by Delivery Point
3. Table 1 - Material Examination and
Test Results
4. List of Recently Issued IE Bulletins

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
WASHINGTON, D.C. 20555

October 26, 1983

IE BULLETIN NO. 83-07, SUPPLEMENT 1: APPARENTLY FRAUDULENT PRODUCTS SOLD
BY RAY MILLER, INC.

Addressees:

For Action:

All nuclear power reactor facilities and fuel facilities holding an operating license (OL) or construction permit (CP).

For Information:

Other fuel cycle facilities and Category B, Priority I (processors and distributors) material licensees.

Purpose:

On July 29, 1983, the NRC sent a letter to each non-licensee company that received apparently fraudulent material from Ray Miller, Inc., asking the company to identify nuclear facilities that may have been supplied fraudulent material. They were also asked to identify the customer to whom they sold the material if they themselves were not the end-user. A second letter was sent on September 21 to those companies that had not yet responded. As of the date of this Supplement, about 65% of the companies have responded. This bulletin supplement is being issued to provide a composite list of the respondents and their customers as identified in the responses to the NRC.

Action Requested of Addressees:

No additional actions beyond those specified in IEB 83-07 are requested by this supplement. The information contained in this supplement is provided to assist addressees in responding to the actions specified in IEB 83-07.

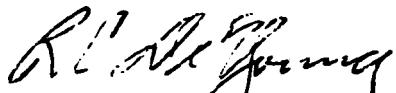
Attachment 1 provides a list of respondents who identified themselves as end-users of the Ray Miller, Inc. materials. No further contact with these companies is required.

Attachment 2 provides a list of respondents who provided Ray Miller, Inc. materials to others. The list identifies the original purchaser and the secondary recipient. Although the NRC immediately forwarded information to

licensees when they were identified as recipients of Ray Miller, Inc. materials, the identification of non-licensee secondary recipients who, in turn, may have provided materials to licensees is new information not previously available to licensees.

Attachment 3 provides a list of NRC licensees who were identified as secondary recipients.

If you have any questions regarding this matter, please contact the Regional Administrator of the appropriate NRC Regional Office, or one of the technical contacts listed below.



Richard C. DeYoung, Director
Office of Inspection and Enforcement

Technical Contacts: Mary S. Wegner, IE
301-492-4511

Ronald M. Young, IE
301-492-7275

Attachments:

1. Respondents Identified as End-Users
2. Respondents and Secondary Recipients
3. NRC Licensees Identified as Secondary Recipients
4. List of Recently Issued IE Bulletins

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
WASHINGTON, D.C. 20555

December 9, 1983

IE BULLETIN 83-07, SUPPLEMENT 2: APPARENTLY FRAUDULENT PRODUCTS SOLD BY
RAY MILLER, INC.

Addressees:

For Action:

All nuclear power reactor facilities and fuel facilities holding an operating license (OL) or construction permit (CP).

For Information:

Other fuel cycle facilities and Category B, Priority I (processors and distributors) material licensees.

Purpose:

On July 29, 1983, the NRC sent a letter to each non-licensee company that received apparently fraudulent material from Ray Miller, Inc., asking the company to identify nuclear facilities that may have been supplied fraudulent material. They were also asked to identify the customer to whom they sold the material if they themselves were not the end-user. A second letter was sent on September 21 to those companies that had not yet responded. As of the date of the first supplement to IEB 83-07, 65 percent of the companies had responded. As of the date of this supplement, an additional 12 percent have responded. We believe the responses to these letters to be essentially complete. Attachments 1 through 3 identify additional respondents identified as end-users, secondary recipients, and NRC licensees identified as secondary recipients.

Action Requested of Addressees:

No additional actions beyond those specified in IEB 83-07 are requested by this supplement. The information contained in this supplement is provided to assist addressees in responding to the actions specified in IEB 83-07.

8311010071

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
WASHINGTON, D. C. 20555

January 26, 1983

IE INFORMATION NOTICE NO. 83-01: RAY MILLER, INC.

Addressees:

All holders of a nuclear power reactor or fuel facility operating license (OL) or construction permit (CP).

Purpose:

This information notice is provided as an early notification of a potentially significant problem pertaining to fraudulent products that may have been sold to nuclear industry companies by Ray Miller, Inc. This problem may affect both PWR and BWR facilities. The Nuclear Regulatory Commission staff is reviewing the problem and its effects. If the evaluation so indicates, the NRC may request explicit licensee or CP holder action. In the interim, we expect the addressees of this information notice to review the information herein for applicability to their facilities. No specific action or response is required at this time.

Description of Circumstances:

A. Background

During November 1982, the Nuclear Regulatory Commission became aware that Ray Miller, Inc., Charleston, West Virginia had been systematically defrauding its customers, including some nuclear industry companies, by marketing products under false pretense, i.e., the markings on cheaper, lower quality products were altered to make them appear to be of higher quality. Former company officers pleaded guilty in the US District Court in Charleston, West Virginia to 10 felonies: six counts of mail fraud and four counts of wire fraud.

Ray Miller, Inc. was a New Jersey corporation with its main office located in West Caldwell, New Jersey and with branch offices in Charleston, West Virginia; Decatur, Georgia; Buffalo, New York; and Skokie, Illinois. The Ray Miller office in Charleston, West Virginia was stated to be the only office with equipment capable of making alterations of markings on materials. The firm had been under investigation by special FBI agents for three years before prosecution by the Office of U.S. Attorney, Charleston, West Virginia.

The precise number of nuclear-related businesses that may have been defrauded by Ray Miller, Inc. remains an unknown. Records are incomplete and the situation is further complicated by the firm ceasing to operate and filing for reorganization under Chapter 11 of the bankruptcy statutes. An Assistant U.S. Attorney has determined that Ray Miller may have shipped substandard products to at least 125 companies in the 19-year period before the FBI began its probe in July 1979. Under the terms of the plea agreement, Ray Miller, Inc. is to notify, by February 1, 1983, all companies with which it had business dealings, concerning the firm's fraudulent practices.

Some of the nuclear industry companies appearing on an FBI-generated list of Ray Miller customers for the year 1979 include Babcock and Wilcox, Combustion Engineering, Goodyear Atomic, Tennessee Valley Authority, Virginia Electric and Power (VEPCO), and Allied Chemical (at Barnwell).

VEPCO and Barnwell are aware of the Ray Miller problem. VEPCO has placed suspect fraudulent material, which had not been installed, on hold.

B. Discussion

Specifically, the scheme to defraud as practiced by Ray Miller, Inc. from approximately 1960 to 1979 was exposed by an extensive investigation conducted by the Federal Bureau of Investigation. The primary practices which formed that scheme, as detailed by the FBI, are as follows:

1. Markings on pipes and nipples indicating the foreign country where the product was manufactured were removed and the pipes and nipples were sold as domestic-made products.
2. Stainless steel (304 and 316) couplings, flanges, and bushings having standard carbon content were altered by imprinting an "L", making the marking on couplings, flanges and bushings appear as low carbon content materials.
3. Falsely notarized documents were prepared with billings, certifying that the materials shipped were of low carbon content when in fact they were not.
4. Welded and drawn tubing was altered by removing the markings "WD" from this product and it was sold as seamless tubing.

The Ray Miller records were made available to the NRC after the company officers who pleaded guilty were sentenced on December 23, 1982. On January 6 and 7, 1983, members of the NRC met with the FBI and the Assistant U.S. Attorney in Charleston, West Virginia to discuss the Ray Miller, Inc. case and to review a sample of the 29 boxes of records currently in the custody of the FBI. These records cover the period from 1975 to 1979. After 1979, Ray Miller, Inc. apparently ceased its fraudulent practices. The NRC is checking on the availability of records that pre-date 1975.

During the sampling of records by the NRC, the following additional documentation of product substitution was identified: machined items were sold as forged ones, and materials with a low capacity to withstand pressure, i.e., 150 psi pipe plugs, were sold as materials capable of withstanding much greater pressures, e.g., 3000 psi pipe plugs. Some of the invoices reviewed by NRC representatives and used as undeniable evidence by the U.S. Attorney's Office, were found to actually have the written notation, "Remark", indicating product fraud.

Primarily, the NRC representatives attempted to ascertain the extent that Ray Miller's fraudulent practices may have impacted nuclear-related companies. Based on a sampling of the records, the NRC staff reached the following very general conclusions:

1. It appears that Ray Miller, Inc. supplied products to only a few companies directly involved in the nuclear power industry. However, the full extent to which the firm's products may be used in the nuclear industry is not known, since these products were sold to many jobbers and distributors.
2. Most shipments which were received directly by nuclear-related businesses were relatively small.
3. Generally, only a small portion of Ray Miller products purchased by nuclear industry companies appears to be fraudulent.

A search of the License Event Report file has been conducted by the National Science Information Center (Oak Ridge, Tennessee) for the NRC and no instances were identified in which nuclear facilities have reported deficiencies attributed to Ray Miller, Inc. materials.

C. Guidance

Enclosed for your information and appropriate action is a list from the Charleston office of Ray Miller's customers in 1979. As previously noted, this list resulted from an FBI investigation and may not be all inclusive, since orders made through other Ray Miller branch offices were sometimes filled by the Charleston office. A composite list of customers for other years is not available.

Therefore, the NRC staff suggests that, like VEPCO, other nuclear industry companies isolate suspect Ray Miller products which may have been received and prevent the further installation of such materials until more information is obtained. Efforts are continuing to coordinate resources from various sectors of the nuclear industry and DOE to provide a detailed examination of all Ray Miller records known to exist. It is conjectured that these efforts will yield useful information for

IN 83-01
January 26, 1983
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placing "bounds" on the types of fraudulent materials shipped and identifying a more comprehensive list of buyers who may have received these materials.



Edward L. Jordan, Director
Division of Emergency Preparedness
and Engineering Response
Office of Inspection and Enforcement

Technical Contact: R. M. Young, IE
301-492-9672

Attachments:

1. List of Ray Miller Customers for 1979
2. List of Recently Issued IE Information Notices

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
WASHINGTON, D. C. 20555

April 15, 1983

IE INFORMATION NOTICE NO. 83-01, SUPPLEMENT 1: RAY MILLER, INC.

Addressees:

All holders of a nuclear power reactor operating license (OL) or construction permit (CP), nuclear fuel cycle licensees and Category B, Priority I material licensees.

Purpose:

This information notice is a supplement to IE Information Notice No. 83-01, issued on January 26, 1983. This generic communication provides an expanded customer list and information related to a potentially significant problem involving fraudulent products that may have been sold to nuclear industry companies by Ray Miller, Inc. of Charleston, West Virginia. The sale of fraudulent materials may have been direct to nuclear industry companies, or indirect, e.g., supplied through several tiers of subcontractors.

Planned Future Actions:

This information notice is being issued as an intermediate step. Actions planned for the near future include issuance of an IE Bulletin to reactor or nuclear fuel cycle licensees with an enclosed computer listing of all purchase orders that apparently involve fraudulent substitution of materials. At approximately the same time, NRC plans to send a letter to each nonlicensee company that received apparently fraudulent material from Ray Miller with specific information on the purchase order number, date, and type of fraud apparently committed. These purchasers will be requested to provide information to the NRC identifying any NRC reactor or nuclear fuel cycle licensees that may have been supplied fraudulent materials.

Discussion:

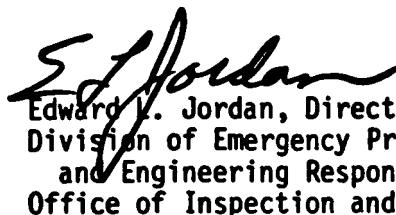
On February 25, 1983, members of the NRC completed a detailed review of the 29 boxes of Ray Miller, Inc. records that are under the custody of the U.S. Attorney's Office in Charleston, West Virginia. The results of this review have been inputted into computer data files. The information that is immediately available includes a more comprehensive customer list than that provided with IE Information Notice 83-01, and a designation of those companies that apparently received fraudulent materials. This list is provided in Attachment 1.

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The attached updated customer list enumerates those customers that received materials from the Charleston, West Virginia office during the period 1975-1979. The presence of a company's name on this list does not necessarily mean that it received fraudulent material, only that the company was a customer of Ray Miller, Inc. of Charleston or received materials directly from the Charleston office. However, there is not absolute certainty that orders were filled as specified, because notations on the work sheets may not have been recorded in all cases. Notations were generally written onto the work sheets when substitutions were made.

The designation of those companies that apparently received fraudulent materials is shown by an asterisk on the customer list. A review of notations on the work sheets indicate that substitution of material apparently occurred for part of at least one order placed by these companies during the period 1975-1979. Details concerning these apparently fraudulent shipments will be provided to those companies who may have received such shipments, as soon as further sorting and evaluation of the data file is completed.

If you have any questions regarding this matter please contact the Regional Administrator of the appropriate NRC Regional Office or this office.



Edward L. Jordan, Director
Division of Emergency Preparedness
and Engineering Response
Office of Inspection and Enforcement

Technical Contact: Ronald M. Young, IE
(301) 49-29672

Attachments:

1. Updated Customer List
2. List of Recently Issued Information Notices

APPENDIX B
Documentation of Bulletin Closeout

TABLE B.1 BULLETIN CLOSEOUT STATUS, NUCLEAR POWER FACILITIES

Facility	Utility	Docket	Facility	NRC Region (1)	NSSS	Utility Response Date	Inspection Report and Date	Closeout Status and Criterion (2)
			Status					
Arkansas 1	AP&L	50-313	OL	IV	B&W	03-26-84	84-18(07-11-84)	Closed 3
Arkansas 2	AP&L	50-368	OL	IV	C-E	03-26-84	84-18(07-11-84)	Closed 3
Beaver Valley 1	DLC	50-334	OL	I	W	03-15-84 08-15-84		Closed 3
Beaver Valley 2	DLC	50-412	CP	I	W	03-22-84	84-05(06-07-84)	Closed 3
Bellefonte 1	TVA	50-438	CP	II	B&W	03-22-84	84-22(10-26-84)	Closed 1
Bellefonte 2	TVA	50-439	CP	II	B&W	03-22-84	84-22(10-26-84)	Closed 1
Big Rock Point 1	CPC	50-155	OL	III	GE	03-01-84	84-01(04-02-84)	Closed 3
Braidwood 1	CECO	50-456	CP	III	W	03-20-84	84-13(08-06-84)	Closed 3
Braidwood 2	CECO	50-457	CP	III	W	03-20-84	84-13(08-06-84)	Closed 3
Browns Ferry 1	TVA	50-259	OL	II	GE	03-22-84	88-28(12-09-88)	Closed 3
Browns Ferry 2	TVA	50-260	OL	II	GE	03-22-84	88-28(12-09-88)	Closed 3
Browns Ferry 3	TVA	50-296	OL	II	GE	03-22-84	88-28(12-09-88)	Closed 3
Brunswick 1	CP&L	50-325	OL	II	GE	03-23-84 06-01-84 07-31-84 11-09-84 01-31-85		Closed 3
Brunswick 2	CP&L	50-324	OL	II	GE	03-23-84 06-01-84 07-31-84 11-09-84 01-31-85		Closed 3
Byron 1	CECO	50-454	CP	III	W	03-20-84		Closed 3
Byron 2	CECO	50-455	CP	III	W	03-20-84		Closed 3
Callaway 1	UE	50-483	CP	III	W	03-23-84 09-20-84	84-22(06-14-84)	Closed 3

Notes indicated by numbers in parentheses are located on page B-9.

TABLE B.1 BULLETIN CLOSEOUT STATUS, NUCLEAR POWER FACILITIES (contd)

Facility	Utility	Docket	Facility Status 07-22-83 (1)	NRC		Utility Response Date	Inspection Report and Date	Closeout Status and Criterion (2)
				Region	NSSS			
Calvert Cliffs 1	BG&E	50-317	OL	I	C-E	03-22-84 08-29-84	85-07(04-24-85)	Closed 1
Calvert Cliffs 2	BG&E	50-318	OL	I	C-E	03-22-84 08-29-84	85-07(04-24-85)	Closed 1
Catawba 1	DUPCO	50-413	CP	II	W	03-22-84	84-56(07-19-84)	Closed 3
Catawba 2	DUPCO	50-414	CP	II	W	03-22-84	84-26(07-19-84)	Closed 3
Clinton 1	IP	50-461	CP	III	GE	12-20-83	84-04(04-24-84)	Closed 3
Comanche Peak 1	TUGCO	50-445	CP	IV	W	02-17-84 03-22-84 05-22-84	87-36(02-09-88)	Closed 3
Comanche Peak 2	TUGCO	50-446	CP	IV	W	02-17-84 03-22-84 05-22-84	87-27(02-09-88)	Closed 3
Cook 1	IMECO	50-315	OL	III	W	03-22-84 08-01-84	84-15(09-18-84)	Closed 3
Cook 2	IMECO	50-316	OL	III	W	03-22-84 08-01-84	84-17(09-18-84)	Closed 3
Cooper Station	NPPD	50-298	OL	IV	GE	09-13-83	83-31(12-15-83)	Closed 3
Crystal River 3	FPC	50-302	OL	II	B&W	03-22-84	87-32(12-18-87)	Closed 1
Davis-Besse 1	TECO	50-346	OL	III	B&W	03-12-84	85-16(05-29-85)	Closed 3
Diablo Canyon 1	PG&E	50-275	OL	V	W	03-22-84	84-24(10-10-84)	Closed 3
Diablo Canyon 2	PG&E	50-323	OL	V	W	03-22-84	84-14(10-10-84)	Closed 3
Dresden 2	CECO	50-237	OL	III	GE	03-20-84	84-06(05-25-84)	Closed 3
Dresden 3	CECO	50-249	OL	III	GE	03-20-84	84-05(05-25-84)	Closed 3
Duane Arnold	IELPCO	50-331	OL	III	GE	03-22-84	84-14(12-10-84)	Closed 3

Notes indicated by numbers in parentheses are located on page B-9.

TABLE B.1 BULLETIN CLOSEOUT STATUS, NUCLEAR POWER FACILITIES (contd)

Facility	Utility	Docket	Facility Status			NRC Region	Utility Response Date	Inspection Report and Date	Closeout Status and Criterion (2)
			07-22-83 (1)		NSSS				
Farley 1	APCO	50-348	OL	II	W	03-09-84	84-05 (03-26-84)	Closed 3	
Farley 2	APCO	50-364	OL	II	W	03-09-84	84-05 (03-26-84)	Closed 3	
Fermi 2	DECO	50-341	CP	III	GE	05-08-84		Closed 3	
FitzPatrick	NYPA	50-333	OL	I	GE	05-11-84	88-23 (12-15-88)	Closed 3	
Fort Calhoun 1	OPPD	50-285	OL	IV	C-E	03-22-84	85-27 (01-17-86)	Closed 3	
Ginna	RG&E	50-244	OL	I	W	03-21-84	84-10 (06-27-84)	Closed 3	
Grand Gulf 1	MP&L	50-416	LPTL	II	GE	03-13-84 05-24-84 08-16-84	85-19 (06-11-85)	Closed 3	
B-3	Haddam Neck	CYAPCO	50-213	OL	I	W	03-27-84 07-31-84	84-32 (02-06-85)	Closed 3
Harris 1	CP&L	50-400	CP	II	W	03-23-84 06-01-84 11-09-84 01-31-85	85-29 (08-16-85)	Closed 3	
Hatch 1	GPC	50-321	OL	II	GE	03-21-84	84-43 (11-15-84)	Closed 3	
Hatch 2	GPC	50-366	OL	II	GE	03-21-84	84-43 (11-15-84)	Closed 3	
Hope Creek 1	PSE&G	50-354	CP	I	GE	03-21-84 08-08-84 08-24-84	84-13 (09-21-84)	Closed 3	
Indian Point 2	ConEd	50-247	OL	I	W	03-22-84 08-17-84	84-32 (01-03-85)	Closed 1	
Indian Point 3	NYPA	50-286	OL	I	W	03-21-84 08-17-84	84-09 (05-02-84)	Closed 3	

Notes indicated by numbers in parentheses are located on page B-9.

TABLE B.1 BULLETIN CLOSEOUT STATUS, NUCLEAR POWER FACILITIES (contd)

Facility	Utility	Docket	Facility Status 07-22-83 (1)	NRC Region	NSSS	Utility Response Date	Inspection Report and Date	Closeout Status and Criterion (2)	
Kewaunee	WPS	50-305	OL	III	W	03-30-84 05-24-84	84-04 (06-25-84)	Closed 3	
LaSalle 1	CECO	50-373	OL	III	GE	03-20-84 05-11-84 08-31-84	84-29 (12-28-84) 88-19 (08-09-88)	Closed 3	
LaSalle 2	CECO	50-374	CP	III	GE	03-20-84 05-11-84 08-31-84	84-37 (12-28-84) 88-19 (08-09-88)	Closed 3	
Limerick 1	PECO	50-352	CP	I	GE	03-22-84 08-17-84	84-19 (05-17-84)	Closed 3	
Limerick 2	PECO	50-353	CP	I	GE	03-22-84 08-17-84	84-06 (05-17-84)	Closed 3	
8-4	Maine Yankee	MYAPCO	50-309	OL	I	C-E	03-22-84 08-23-84	Response of 03-22-84	Closed 2
McGuire 1	DUPCO	50-369	OL	II	W	03-22-84	84-41 (01-28-85)	Closed 1	
McGuire 2	DUPCO	50-370	OL	II	W	03-22-84	84-38 (01-28-85)	Closed 1	
Millstone 1	NNECO	50-245	OL	I	GE	03-27-84 07-31-84		Closed 3	
Millstone 2	NNECO	50-336	OL	I	C-E	03-27-84 07-31-84 06-21-85	Response of 06-21-85 (3)	Closed 2	
Millstone 3	NNECO	50-423	CP	I	W	03-27-84 05-23-84 07-31-84	84-18 (10-30-84)	Closed 3	
Monticello	NSP	50-263	OL	III	GE	03-12-84	84-04 (04-26-84)	Closed 3	
Nine Mile Point 1	NMP	50-220	OL	I	GE	03-23-84	84-25 (01-25-85)	Closed 3	
Nine Mile Point 2	NMP	50-410	CP	I	GE	03-27-84 08-17-84	85-19 (08-06-85)	Closed 3	

Notes indicated by numbers in parentheses are located on page B-9.

TABLE B.1 BULLETIN CLOSEOUT STATUS, NUCLEAR POWER FACILITIES (contd)

Facility	Utility	Docket	Facility Status 07-22-83 (1)	NRC Region	NSSS	Utility Response Date	Inspection Report and Date	Closeout Status and Criterion (2)
North Anna 1	VEPCO	50-338	OL	II	W	03-22-84 04-05-84	84-38(11-28-84)	Closed 3
North Anna 2	VEPCO	50-339	OL	II	W	03-22-84 04-05-84	84-38(11-28-84)	Closed 3
Oconee 1	DUPCO	50-269	OL	II	B&W	03-22-84	87-32(08-19-87)	Closed 3
Oconee 2	DUPCO	50-270	OL	II	B&W	03-22-84	87-32(08-19-87)	Closed 3
Oconee 3	DUPCO	50-287	OL	II	B&W	03-22-84	87-32(08-19-87)	Closed 3
Oyster Creek 1	GPUN	50-219	OL	I	GE	04-18-84 08-14-84	85-06(04-04-85)	Closed 1
Palisades	CPC	50-255	OL	III	C-E	03-01-84 03-30-84 04-09-86	86-10(05-01-86)	Closed 3
Palo Verde 1	APSCO	50-528	CP	V	C-E	03-23-84 11-07-84	84-54(12-07-84)	Closed 3
Palo Verde 2	APSCO	50-529	CP	V	C-E	03-23-84 11-07-84	84-37(12-07-84)	Closed 3
Palo Verde 3	APSCO	50-530	CP	V	C-E	03-23-84 11-07-84	84-26(12-07-84)	Closed 3
Peach Bottom 2	PECO	50-277	OL	I	GE	03-21-84 08-16-84		Closed 3
Peach Bottom 3	PECO	50-278	OL	I	GE	03-21-84 08-16-84		Closed 3
Perry 1	CEI	50-440	CP	III	GE	03-16-84 01-15-85 06-07-85 10-14-85	85-59(11-26-85)	Closed 1

Notes indicated by numbers in parentheses are located on page B-9.

TABLE B.1 BULLETIN CLOSEOUT STATUS, NUCLEAR POWER FACILITIES (contd)

Facility	Utility	Docket	Facility Status			NRC Region (1)	Utility Response Date	Inspection Report and Date	Closeout Status and Criterion (2)
			07-22-83	NSSS					
Pilgrim 1	BECO	50-293	OL	I	GE	02-27-84 09-11-84			Closed 3
Point Beach 1	WEPCO	50-266	OL	III	W	09-26-83	84-15(10-16-84)	Closed 1	
Point Beach 2	WEPCO	50-301	OL	III	<u>W</u>	09-26-83	84-13(10-16-84)	Closed 1	
Prairie Island 1	NSP	50-282	OL	III	W	03-12-84	84-03(04-26-84)	Closed 3	
Prairie Island 2	NSP	50-306	OL	III	<u>W</u>	03-12-84	84-03(04-26-84)	Closed 3	
Quad Cities 1	CECO	50-254	OL	III	GE	03-20-84 04-19-84	90-02(04-04-90)	Closed 1	
Quad Cities 2	CECO	50-265	OL	III	GE	03-20-84 04-19-84	90-02(04-04-90)	Closed 1	
Rancho Seco 1	SMUD	50-312	OL	V	B&W	03-12-84	84-14(10-30-84)	Closed 3	
River Bend 1	GSU	50-458	CP	IV	GE	03-22-84 05-30-84 09-28-84 11-26-84	85-30(05-09-85)	Closed 3	
Robinson 2	CP&L	50-261	OL	II	<u>W</u>	03-23-84 06-01-84 11-09-84 01-31-85	85-12(03-07-85)	Closed 3	
Salem 1	PSE&G	50-272	OL	I	<u>W</u>	03-14-84 06-12-84	87-31(12-23-87)	Closed 3	
Salem 2	PSE&G	50-311	OL	I	<u>W</u>	03-14-84 06-12-84	87-32(12-23-87)	Closed 3	
San Onofre 1	SCE	50-206	OL	V	<u>W</u>	03-22-84 10-01-84	84-23(10-24-84)	Closed 3	
San Onofre 2	SCE	50-361	OL	V	C-E	03-21-84	84-26(10-24-84)	Closed 3	
San Onofre 3	SCE	50-362	OL	V	C-E	03-21-84	84-27(10-24-84)	Closed 3	

Notes indicated by numbers in parentheses are located on page B-9.

TABLE B.1 BULLETIN CLOSEOUT STATUS, NUCLEAR POWER FACILITIES (contd)

Facility	Utility	Docket	Facility Status 07-22-83 (1)	NRC Region	NSSS	Utility Response Date	Inspection Report and Date	Closeout Status and Criterion (2)
Seabrook 1	PSNH	50-443	CP	I	W	03-22-84 06-06-84 07-17-84	85-09 (06-06-85)	Closed 3
Sequoyah 1	TVA	50-327	OL	II	W	03-22-84 01-11-88 (4) 03-17-88	88-58 (01-19-89)	Closed 1
Sequoyah 2	TVA	50-328	OL	II	W	03-22-84 01-11-88 (4) 03-17-88	88-58 (01-19-89)	Closed 1
Shoreham	LILCO	50-322	CP	I	GE	03-22-84 08-14-84	84-44 (12-03-84)	Closed 3
South Texas 1	HL&P	50-498	CP	IV	W	03-22-84	86-38 (03-26-87)	Closed 3
South Texas 2	HL&P	50-499	CP	IV	W	03-22-84	86-38 (03-26-87)	Closed 3
St. Lucie 1	FPL	50-335	OL	II	C-E	04-04-84 06-01-84	84-20 (06-21-84)	Closed 3
St. Lucie 2	FPL	50-389	OL	II	C-E	04-04-84 06-01-84	84-21 (06-21-84)	Closed 3
Summer 1	SCE&G	50-395	OL	II	W	03-22-84	84-11 (05-18-84)	Closed 1
Surry 1	VEPCO	50-280	OL	II	W	03-22-84 04-05-84	90-30 (11-26-90)	Closed 1
Surry 2	VEPCO	50-281	OL	II	W	03-22-84 04-05-84	90-30 (11-26-90)	Closed 1
Susquehanna 1	PP&L	50-387	OL	I	GE	03-16-84 08-17-84	84-14 (05-14-84)	Closed 1
Susquehanna 2	PP&L	50-388	CP	I	GE	03-16-84 08-17-84	84-16 (05-14-84)	Closed 1
TMI 1	GPUN	50-289	OL	I	B&W	03-28-84	84-38 (02-07-85)	Closed 1

Notes indicated by numbers in parentheses are located on page B-9.

TABLE B.1 BULLETIN CLOSEOUT STATUS, NUCLEAR POWER FACILITIES (contd)

Facility	Utility	Docket	Facility Status			NRC Region	Utility Response Date	Inspection Report and Date	Closeout Status and Criterion (2)
			07-22-83	(1)	NSSS				
Trojan	PGE	50-344	OL	V	<u>W</u>	03-22-84	84-02 (03-08-84)	Closed 3	
Turkey Point 3	FPL	50-250	OL	II	<u>W</u>	04-04-84	84-12 (04-20-84)	Closed 3	
Turkey Point 4	FPL	50-251	OL	II	<u>W</u>	04-04-84	84-12 (04-20-84)	Closed 3	
Vermont Yankee 1	VYNP	50-271	OL	I	GE	11-21-83 03-22-84	87-02 (03-02-87)	Closed 3	
Vogtle 1	GPC	50-424	CP	II	<u>W</u>	03-12-84 06-26-84 07-05-84 02-12-85	85-23 (06-20-85)	Closed 3	
Vogtle 2	GPC	50-425	CP	II	<u>W</u>	03-12-84 06-26-84 07-05-84 02-12-85	85-23 (06-20-85)	Closed 3	
Waterford 3	LP&L	50-382	OL	IV	C-E	03-21-84	85-24 (10-23-85)	Closed 3	
Watts Bar 1	TVA	50-390	CP	II	<u>W</u>	03-22-84	85-03 (02-15-85)	Closed 3	
Watts Bar 2	TVA	50-391	CP	II	<u>W</u>	03-22-84	85-04 (02-15-85)	Closed 3	
WNP 2	WPPSS	50-397	CP	V	GE	02-08-84	84-21 (08-21-84)	Closed 3	
Wolf Creek 1	KG&E	50-482	CP	IV	<u>W</u>	03-23-84 06-28-84 09-20-84	84-18 (10-17-84)	Closed 1	
Yankee-Rowe 1	YAEKO	50-029	OL	I	<u>W</u>	05-25-84 05-29-85	85-14 (08-30-85)	Closed 3	
Zion 1	CECO	50-295	OL	III	<u>W</u>	03-20-84	84-03 (05-21-84)	Closed 3	
Zion 2	CECO	50-304	OL	III	<u>W</u>	03-20-84	84-03 (05-21-84)	Closed 3	

Notes indicated by numbers in parentheses are located on page B-9.

TABLE B.2 BULLETIN CLOSEOUT STATUS, NUCLEAR FUEL FACILITIES

Facility	Docket	Facility Status 12-31-81 (5)	NRC Region	Response Date	Inspection Report and Date	Closeout Status and Criterion (2)
Allied-General Nuclear Services (Barnwell)	50-332	CPE	II	12-09-83		Closed 3
Nuclear Fuel Services, Inc. & New York State Atomic Development Authority (West Valley)	50-201	LE	I	08-29-83		Closed 3

Notes indicated by numbers in parentheses are located below.

Notes for tables B.1 and B.2:

1. For Table B.1, facility status relates to 07-22-83, and is based on Reference 1 (page B-10). The following abbreviations apply:
CP, construction permit; LPTL, low power testing license; OL, operating license.
2. The closeout criteria are on page B-10.
3. The NRC memorandum of 03-05-90 to J. F. Stolz from G. S. Vissing substantiates closeout of the bulletin for Millstone 2.
4. The response of 01-11-88 from Sequoyah 1,2 is a reply to Inspection Report 87-44.
5. For Table B.2, facility status relates to 12-31-81, and is based on Reference 3 (page B-10). The following abbreviations apply:
CPE, construction permit in effect; LE, license in effect.

CRITERIA FOR CLOSEOUT OF BULLETIN

1. The bulletin is closed when the response and an NRC inspection report indicate that the required actions have been implemented for a facility which had been furnished material from Ray Miller, Inc., directly or indirectly for use in safety-related systems.
2. A response for the utility (without future commitment) indicates that all required actions were completed.

Note: a) This criterion is applied only when criteria 1 and 3 do not address the circumstances and a subsequent inspection report that holds the bulletin open has not been found.

b) The decision to include this criterion was made by Steven Varga, Charles Rossi, Carl Berlinger, and Richard Kiessel (all of NRR) during their meeting of March 5, 1990.

3. The bulletin is closed when the response indicates that no fraudulent material supplied by Ray Miller, Inc., during 1975 through 1979 was furnished directly or indirectly to the facility for use in safety-related systems. If the response is doubtful, a closing inspection report is required.

REFERENCES

1. United States Nuclear Regulatory Commission, Licensed Operating Reactors, Status Summary Report, Data as of 02-28-90, NUREG-0020, Volume 14, Number 3, March 1990.
2. United States National Archives and Records Administration, Office of the Federal Register, Code of Federal Regulations, Energy, Title 10, Chapter I, Nuclear Regulatory Commission, Parts 0-199, revised as of January 1, 1990, 10CFR 0-199.
3. United States Nuclear Regulatory Commission, Facilities License Application Record, Data as of 12-31-81, NUREG-0652, Volume 1, Number 3, February 1982.

APPENDIX C
Utility Manhours Expended on IEB 83-07

TABLE C.1

Facility	Perform Requested Review and Testing	Perform Requested Documentation	Total	Closeout Status and Criterion
Beaver Valley 1	NR	NR	400	Closed 3
Calvert Cliffs 1,2	10	434	444	Closed 1
Cooper Station	NR	NR	50	Closed 3
Crystal River 3	800	60	860	Closed 1
Duane Arnold	110	40	150	Closed 3
Farley 1,2	NR	NR	750	Closed 3
Haddam Neck	NR	NR	235	Closed 3
Indian Point 3	NR	NR	220	Closed 3
Kewaunee	1000	40	1040	Closed 3
Millstone 1,3	NR	NR	470	Closed 3
Millstone 2	NR	NR	235	Closed 2
Nine Mile Point 1	NR	NR	400	Closed 3
Nine Mile Point 2	233	25	258	Closed 3
Palo Verde 1,2,3	NR	NR	900	Closed 3
Point Beach 1,2	NR	NR	100	Closed 1
Susquehanna 1,2	400	100	500	Closed 1
Vermont Yankee 1	NR	NR	150	Closed 3
Total			7162	

NR signifies "not reported".

APPENDIX D
Abbreviations

AEPSCO	American Electric Power Services Corporation
APCO	Alabama Power Company
AP&L	Arkansas Power and Light Company
APSCO	Arizona Public Service Company
BECO	Boston Edison Company
BG&E	Baltimore Gas and Electric Company
B&W	Babcock & Wilcox Company
BWR	Boiling Water Reactor
C-E	Combustion Engineering Incorporated
CECO	Commonwealth Edison Company
CEI	Cleveland Electric Illuminating Company
CFR	Code of Federal Regulations
CHI	Construction Halted Indefinitely
ConEd	Consolidated Edison Company of New York, Inc.
CP	Construction Permit
CPC	Consumers Power Company
CPE	Construction Permit in Effect
CP&L	Carolina Power and Light Company
CR	Contractor Report
CYAPCO	Connecticut Yankee Atomic Power Company
DECO	Detroit Edison Company
DLC	Duquesne Light Company
DOE	Department of Energy
DUPCO	Duke Power Company
FPC	Florida Power Corporation
FPL	Florida Power & Light Company
GAO	Government Accounting Office
GDC	General Design Criteria
GE	General Electric Company
GPC	Georgia Power Company
GPUN	GPU Nuclear Corporation
GSU	Gulf States Utilities Company
HL&P	Houston Lighting and Power Company
IE	(See NRC/IE)
IEB	Inspection and Enforcement Bulletin (NRC)
IELPCO	Iowa Electric Light and Power Company
IMECO	Indiana and Michigan Electric Company
IN	Inspection and Enforcement Information Notice (NRC)
IP	Illinois Power Company
IR	Inspection Report (NRC/Region)
KG&E	Kansas Gas and Electric Company
LE	License in Effect
LER	Licensee Event Report
LILCO	Long Island Lighting Company
LP&L	Louisiana Power and Light Company
LPTL	Low Power Testing License
MP&L	Mississippi Power and Light Company
MYAPCO	Maine Yankee Atomic Power Company
NMP	Niagara Mohawk Power Company
NNECO	Northeast Nuclear Energy Company
NPPD	Nebraska Public Power District

NRC/IE Nuclear Regulatory Commission/
Office of Inspection & Enforcement
NRR Office of Nuclear Reactor Regulation (NRC)
NSP Northern States Power Company
NSSS Nuclear Steam Supply System
NYPA New York Power Authority
OL Operating License
OPPD Omaha Public Power District
PECO Philadelphia Electric Company
PGE Portland General Electric Company
PG&E Pacific Gas and Electric Company
PP&L Pennsylvania Power and Light Company
PSEG Public Service Electric and Gas Company
PSNH Public Service Company of New Hampshire
PWR Pressurized Water Reactor
R Region (NRC)
RG&E Rochester Gas and Electric Corporation
SCE Southern California Edison Company
SCE&G South Carolina Electric and Gas Company
SDI Shut Down Indefinitely
SMUD Sacramento Municipal Utility District
SS Stainless Steel
TECO Toledo Edison Company
TMI Three Mile Island
TUGCO Texas Utilities Generating Company
TVA Tennessee Valley Authority
UE Union Electric Company
VEPCO Virginia Electric and Power Company
VYNP Vermont Yankee Nuclear Power Corporation
W Westinghouse Electric Corporation
WEPCO Wisconsin Electric Power Company
WNP Washington Nuclear Project
WPPSS Washington Public Power Supply System
WPS Wisconsin Public Service Corporation
YAECO Yankee Atomic Electric Company