

PDR-016



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

JUN 21 1984

Ms. Billie Pirner Garde
Citizens Clinic Director
Government Accountability Project
Institute for Policy Studies
1901 Que Street, NW
Washington, DC 20009

IN RESPONSE REFER
TO FOIA-84-441

Dear Ms. Garde:

This is in partial response to your letter dated May 29, 1984, in which you requested, pursuant to the Freedom of Information Act (FOIA), all records relevant to and/or generated in connection with NRC inspections and any subsequent analysis into the electrical equipment qualification of Rockbestos cable.

At this time, we are placing the records identified on enclosed Appendix A in the NRC Public Document Room for your inspection and copying. The records will be filed in folder FOIA-84-441 under your name.

Additional records and the knowledgeable staff are being transferred from NRC's Region IV office to headquarters. Therefore, there will be a delay in further search for and review of the records subject to your request. We will notify you as soon as the search and review are completed.

Sincerely,

J. M. Felton, Director
Division of Rules and Records
Office of Administration

Enclosure: Appendix A

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APPENDIX A

1. March 1970 Franklin Institute Research Laboratories (Franklin) Final Report No. F-C2750, "Test of Electrical Cables under Simulated Post-Accident Reactor Containment Service".
2. Sept. 1970 Franklin Report No. F-C2857, "Test of Electrical Cables under Simulated Post-Accident Reactor Containment Service".
3. Sept. 1970 Excerpt of report identified at No. 2 above with marginal notations.
4. March 1971 Franklin Supplemental report to F-C2857, Technical Report No. NP-04, "Tests of Electrical Cables After Simulated Post Accident Reactor Containment Service".
5. Sept. 1974 Franklin Report No. F-C3859-2, "Tests of Electrical Cables under Simultaneous Exposure to Gamma Radiation, Steam and Chemical Spray while Electrically Energized".
6. 11/18/76 Giannotti's handwritten note on samples test.
7. 12/22/76 Certified Test Report.
8. 5/5/77 Rockbestos Firewall EP Aging and Radiation Data.
9. 1/18/78 Rockbestos report, "Qualification of Firewall III Coaxial Constructions for Class IE Service in Nuclear Generating Stations".
10. 4/10/78 Giannotti's handwritten note entitled, "Humidity Resistance".
11. 2/22/79 Ltr to Giannotti from Castaldi, Isomedix.
12. 4/12/79 Giannotti's handwritten note entitled, "Humidity Resistance".
13. 3/13/80 Giannotti's handwritten note, "IEEE Class IE Nuclear Qualification".
14. 5/9/80 Group of charts and handwritten notes.
15. 6/2/80 Giannotti's handwritten note, "Nuclear Qualification IEEE 383 Class IE".
16. 6/2/80 Rockbestos report, "Qualification of Firewall III Class IE Electric Cables, Irradiation Cross-Linked Insulation with Factory Insulation Rework".
17. 4/23/82 Rockbestos report, "Report on Qualification Tests for Second Generation Solid Dielectric Coaxial Constructions and Cellular Dielectric Coaxial Constructions for Class IE Service in Nuclear Generating Stations" No. 2806.
18. 5/5/82 Test reports in-house as of 5/5/82, "Computer Library File, Executive Summary Listing".

APPENDIX A CONTINUED

19. 10/8/81 Rockbestos report QR # 1812, "Qualification of Firewall III Class IE Instrumentation Cables Class IE Control Cables Containing Factory Splices and KXL 420 Rework".
20. 2/18/83 Memo to Eisenhut from Vollmer, "Equipment Placed in NRC Qualification Category II.B (Not Qualified)", w/stated enclosures.
21. 7/8/83 Memo to Denton and others from Calvo, "Daily Highlight".
22. 7/11/83 Rockbestos diagram with attached records.
23. 7/12/83 Memo to Halman from Grenier, "Request for Processing of an NRR Procurement Action: RFPA No. NRC-03-79-118", w/stated attachment.
24. 7/14/83 Handwritten note.
25. 7/14/83 EG&G Telecopier transmittal request form with attached handwritten note to Jim from T. Humphrey and attachments.
26. 7/15/83 Ltr to R. LaGrange from Toman, Franklin, w/attachments.
27. 7/18/83 Handwritten note to LaGrange from Toman, w/attached 7/15/83 ltr identified at No. 26 above.
28. 7/29/83 Memo to Noonan from Masciantonio, "Trip Report - Information Gathering on Rockbestos Cable at Franklin Research Center", w/attached RIDS form and 7/22/82 ltr to Haynes from Milligan, LILCO which is in the PDR: 8208050348/ADOCK/50-322.
29. 8/16/83 Handwritten note of attendees at meeting, w/attachments.
30. 8/24/83 8/5/83 Meeting Summary of TMI-1, "GPU Nuclear/Rockbestos Fireproof Cable Development and Test Program".
31. 11/14/83 Franklin Report F-C5569-306, "Evaluation of Rockbestos Cable Manufacturing Testing".
32. 11/30/83 Ltr to NRR from Hukill, GPU Nuclear, "NRC Letter, from J. Van Vliet to GPU Nuclear Corporation 'GPU Nuclear/Rockbestos Fire Proof Cable Development and Test Program' Dated August 24, 1983", w/ attached draft "Fire Proof Cable Development and Test Program".
33. 12/16/83 Memo to Docket File 99900277 from Potapovs, "Inspection Report 99900277/83-04", w/o stated attachment which is in the PDR.
34. 12/30/83 Memo to Distribution from Thomas, "Meeting Notice with the Rockbestos Cable Company", w/attached notes.
35. 1/10/84 Memo to McKnight from Noonan, "Placement of a Document in PDR", w/o stated attachment which is in the PDR.

APPENDIX A CONTINUED

36. 2/6/84 Memo to Baer from Thomas, "Comments on FRC Meeting Report on Rockbestos Cable Issue in IE Offices - Dated January 5, 1984".
37. 2/7/84 Memo to Noon and Baer from Partlow, "Proposed IE Information Notice on Environmental Qualification Testing of Rockbestos Cable", w/attached copy of same memo w/different marginal notations and stated draft IE Information Notice 84-XX Environmental Qualification Testing of Rockbestos Cable.
38. 2/13/84 Ltr to NRR from Wilson, "GPUN Letter 5211-83-324, Dated November 30, 1983", w/attachment.
39. 2/17/84 Memo to Partlow from Baer, "Proposed IE Information Notice on Environmental Qualification Testing of Rockbestos Cable", w/attached 1/23/84 Note to Partlow from Baer, "Draft Information Notice on Rockbestos Cables".
40. 2/17/84 Memo to Lainas from Johnston, "Three Mile Island 1 - Fire Proof Cable Test Program Review (TAC #53363)", w/stated enclosure.
41. 3/1984 Franklin Report F-C3798, "Qualification Tests of Electrical Cables Under Simulated Reactor Containment Service Conditions Including Loss-of-Coolant Accident While Electrically Energized".
42. 3/1/84 Note to Armand from T. Le, w/attached draft Information Notice identified at No. 37 above.
43. 3/15/84 Ltr to Hukill from Stolz, "TMI-1 Fire Proof Cable Test Program", w/stated enclosure.
44. 5/15/84 Memo to Region III Files from Ulie, "Witnessing Fire Test on Fire Resistive Cabling Conducted at Underwriters Laboratories".
45. 5/24/84 Memo to Potapovs from Baer, "Review Comments on Addendum to Franklin Research Center Report F-C5569-306 Regarding Evaluation of Rockbestos Cable Manufacturing Testing", w/o attachment which is identified at No. 31 above.
46. Undated Typed and handwritten comments with attached 12/23/83 Memo to Partlow from Bangart, "Draft Information Notice on Rockbestos Cables" and attached draft IE Information Notice No. 83- QA Deficiencies in Environmental Qualification Testing of Rockbestos Cables.
47. Undated Memo to Eisenhut and Jordan from Vollmer, "Environmental Qualification of Rockbestos Electrical Cable" in handwritten draft form.
48. Undated Handwritten notes.

APPENDIX A CONTINUED

49. Undated Handwritten draft memo to Eisenhut from Vollmer, "Board Notification Regarding Rockbestos Electrical Cable"
50. Undated Copy of memo identified at No. 49 above w/revisions and attachments.
51. Undated Typed draft memo for Noon from U.P., "Preliminary Inspection Findings Concerning the Rockbestos Company's Equipment Qualification Program", w/attachments.
52. Undated Handwritten notes.
53. Undated Handwritten notes.
54. Undated Handwritten notes entitled "Samples Through Profile".
55. Undated Handwritten notes and table and charts.
56. Undated Handwritten notes and diagram.
57. Undated Handwritten trip summary August 16-17-83 Rockbestos Corp.
58. Undated Handwritten notes entitled "Report No. 1812R".
59. Undated Handwritten notes entitled "Specific Findings".
60. Undated Handwritten notes entitled "Qualification of Firewall EP", w/attachments.
61. Undated Handwritten notes.
62. Undated Revised draft IE Information Notice 83- : Environmental Qualification Testing of Rockbestos Cable.
63. Undated Typed draft memo to Eisenhut and Jordan from Vollmer, "Environmental Qualification of Electrical Cable Manufactured by the Rockbestos Company, New Haven, Connecticut", w/attached list "Persons Contacted", 8/31/83 Ltr to Rockbestos from Iepson, Franklin w/attachment, and 11/21/83 Memo to Potapovs from Baer, "Franklin Research Center Final Report F-5569-306, Evaluation of Rockbestos Cable Manufacturing Testing".
64. Undated Typed notes entitled "Pull Test".
65. Undated Typed pages entitled "Containment Electrical Cables - Cerro Wire & Cable Co. Firewall III".
66. Undated Franklin's "Technical Evaluation Report - Rockbestos Qualification Data".
67. Undated Computer run on Cerro Wire and Cable.

APPENDIX A CONTINUED

68. Undated Listing entitled "EQF Test Report Review Executive Summary Listing".
69. Undated Computer run on Facilities Referencing PGR #5433.
70. Undated Listings on keyword searches.

33.

GEN/TR
FIRL
F-C2750

Technical

Final Report
F-C2750

1208

Report

TEST OF ELECTRICAL CABLES UNDER SIMULATED
POST-ACCIDENT REACTOR CONTAINMENT SERVICE

by

LeRoy E. Witcher
W. H. Steigelmann

March 1970

Prepared for

CERRO WIRE AND CABLE COMPANY
New Haven, Connecticut



THE FRANKLIN INSTITUTE RESEARCH LABORATORIES
BENJAMIN FRANKLIN PARKWAY • PHILADELPHIA, PENNA. 19103

1. INTRODUCTION

In the event of an accident at a nuclear power station in which the primary system is ruptured and steam is released, equipment and components which are internal to the containment vessel and which are involved in safety-related systems must continue to function. In particular, many electrical cables must remain functional after exposure to nuclear radiation, chemical sprays, and the temperature, pressure, and moisture environment that results from the accident.

The test program described in this report was conducted to determine the adequacy of certain electrical cables intended for nuclear power plant service. In this program, samples of the cables were subjected to irradiation, exposure to a steam environment and chemical spray while electrically energized.

The four types of cable tested were the following:

- S-1: 12 AWG - 7 conductor, silicone rubber insulation with overall asbestos braid
- S-2: Same as above, different silicone formula
- S-3: Same as above, different silicone formula
- XP: 12 AWG - 5 conductor, cross-linked polyethylene insulated, with overall neoprene jacket

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F-C3050

Technical

Final Report
F-C3050

Report

QUALIFICATION TESTS OF CABLES UNDER
SIMULATED REACTOR CONTAINMENT SERVICE CONDITIONS

By

G.R. Boardman
S.P. Carfagno
L.E. Witcher

May 1971

F. R. C.
NUCLEAR ENG - PT.
LIBRARY

Prepared for

Cerro Wire & Cable Co.
New Haven, Conn.

2997

2. SAMPLE IDENTIFICATION

One sample of each of seven types of cable were tested. The samples were designated as follows:

<u>Sample No.</u>	<u>Number of Conductors</u>	<u>Conductor Size</u>	<u>Cable Code</u>
W9	1	500 MCM	644N6023
W21	3	10 AWG	655N3112
W33	2	10 AWG	655N3111
W47	21	16 AWG	655N3118
W57	2	14 AWG*	655N3121
W62	5	14 AWG*	655N3119
W68	7	16 AWG*	655N3120

Each cable sample was 10 ft in length.

*Indicates shielded cables.

GEN/TR
FIRL
F-C3859-2

Technical

Final Report
F-C3859-2

Report

DEVELOPMENT OF A
SPECIALIZED CHEMICAL
ANALYSIS SYSTEM

1967

Final Report
F-C3859-2

2. SAMPLE DESCRIPTION

The eleven cable samples tested included six 7/C control cables, one 5/C control cable and four 1/C cables. (One control cable was subsequently replaced with one 1/C cable.)

The lengths and descriptions of the cables are given below:

<u>Sample</u>	<u>Length (feet)</u>	<u>Description</u>
A	21	7/C-14 Awg Firewall III
B	8	7/C-12 Awg Firewall III with Raychem splice
C	25-1/2	7/C-14 Awg Firewall III modified Hypalon JKT
D	19	7/C-14 Awg Firewall EP
E	8	7/C-14 Awg Firewall EP with Raychem splice
F	30-1/2	5/C-14 Awg Firewall SR
G*	18	7/C-12 Awg Firewall SR with Hotsplice
G	35	1/C-14 Awg Solid Wire Conductor
H	31	1/C-14 Awg Firewall III
I	34	1/C-14 Awg Firewall EP
J	30	1/C-14 Awg Firewall SR
K	22	1/C-16 Awg Minitrol

7/C sample G replaced with 1/C sample G.

GOVERNMENT ACCOUNTABILITY PROJECT

Institute for Policy Studies
1901 Que Street, N.W., Washington, D.C. 20009

(202) 234-9382

Freedom of Information Act Request

FREEDOM OF INFORMATION
ACT REQUEST

FOIA-84-441

May 29, '84

Rec'd 5-31-84

Director
Office of Administration
Nuclear Regulatory Commission
Washington, D.C. 20555

To Whom It May Concern:

Pursuant to the Freedom of Information Act (FOIA), 5 U.S.C. §552, the Government Accountability Project (GAP) of the Institute for Policy Studies requests copies of any and all agency records and information, including but not limited to notes, letters, memoranda, drafts, minutes, diaries, logs, calendars, tapes, transcripts, summaries, interview reports, procedures, instructions, engineering analyses, drawings, files, graphs, charts, maps, photographs, agreements, handwritten notes, studies, data sheets, notebooks, books, telephone messages, computations, voice recordings, computer run-offs, any other data compilations, interim and/or final reports, status reports, and any and all other records relevant to and/or generated in connection with--NRC inspections (and any subsequent analysis) into the electrical equipment qualification of Rockbustos cable. This request covers all material generated by and currently (or formerly) in the possession of those members of the NRC staff in the Office of Nuclear Reactor Regulations (NRR), the vendor inspection branch, Region IV, and any and all persons who were involved in the review of this material and the production of NUREG 0040, and any drafts, comments on, or submittals of NUREG 0040.

This request includes all agency records as defined in 10 C.F.R. §9.3a(b) and the NRC Manual, Appendix 0211, Parts 1.A.2 and A.3 (approved October 8, 1980) whether they currently exist in the NRC official, "working," investigative or other files, or at any other location, including private residences.

If any records as defined in 10 C.F.R. §9.3a(b) and the NRC Manual, supra, and covered by this request have been destroyed and/or removed after this request, please provide all surrounding records, including but not limited to a list of all records which have been or are destroyed and/or removed, a description of the action(s) taken relevant to, generated in connection with, and/or issued in order to implement the action(s).

GAP requests that fees be waived, because "finding the information can be considered as primarily benefitting the general public," 5 U.S.C. §552(a)(4)(a). GAP is a non-profit, nonpartisan public interest organization concerned with honest and open government. Through public outreach, the Project promotes whistleblowers as agents

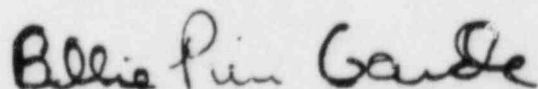
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of government accountability. Through its Citizens Clinic, GAP offers assistance to local public interest and citizens groups seeking to ensure the health and safety of their communities. The Citizens Clinic is currently assisting several citizens groups, local governments and intervenors in the mid-Michigan area concerning the construction of the Midland plant.

We are requesting the above information as part of an ongoing monitoring project on the adequacy of the NRC's efforts to protect public safety and health at nuclear power plants.

For any documents or portions that you deny due to a specific FOIA exemption, please provide an index itemizing and describing the documents or portions of documents withheld. The index should provide a detailed justification of your grounds for claiming each exemption, explaining why each exemption is relevant to the document or portion of the document withheld. This index is required under Vaughn v. Rosen (1), 484 F.2d 820 (D.C.Cir. 1973), cert. denied, 415 U.S. 977 (1974).

We look forward to your response to this request within ten days.



Billie Pirner Garde
Citizens Clinic Director