

AMPHENOL

AMPHENOL SAMS DIVISION

9201 Independence Ave. • Chatsworth, Calif. 91311 • (213) 341-0710 • TWX 910-494-1211

May 15, 1979

United States Nuclear  
Regulatory Commission  
Region IV  
611 Ryan Plaza Dr.  
Arlington, Texas 76012

Attn: Mr. Uldis Potapovs,  
Chief Vendor Inspection Branch

Subj: Midlands Nuclear Site, Midlands  
Michigan, Program 51300

Gentlemen:

Bunker Ramo SAMS Quality Assurance visited subject nuclear site to re-inspect and rework items (electrical penetrations) as surfaced by Consumer Power.

The attached IOC, Howard D. Wright, Bunker Ramo SAMS Quality Assurance Manager, to Bunker Ramo SAMS Staff, delineates the action that Quality has completed to clarify and resolve the areas of concern.

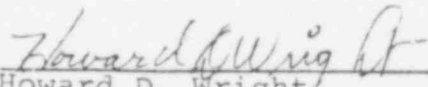
Bunker Ramo SAMS Quality, Bechtel Quality and Consumer Power Quality witnessed the re-inspection, rework and acceptance concerning the loose wire and lugs. All wires/lugs have been re-inspected and those requiring rework have been reworked.

This re-inspection, rework and inspection closes the Midlands electrical penetration condition.

Should you have any questions concerning this action, the undersigned will be pleased to discuss it with you.

Sincerely,

AMPHENOL NORTH AMERICA DIV.  
BUNKER RAMO SAMS

  
Howard D. Wright  
Quality Assurance Manager

HDW/met

Encl.

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# TEROFFICE COMMUNICATIONS

BUNKER  
RAMO

# AMPHENOL

CE AND MISSILE SYSTEMS OPERATIONS

PHENOL CONNECTOR DIVISION

Independence Ave. • Chatsworth, Calif. 91311 • (213) 341-0710 • TWX 910-494-1211

TO E. Beaupre

CC A. Berk  
C. Baldwin  
T. Kehl  
L. Stupay  
B. Wagner

DATE May 14, 1979

FROM H. D. Wright

SUBJECT Quality Assurance  
Reinspection of Midlands  
EPA Loose Wire-Lugs

The following is a list of EPA's which, during the hand pull test of wire lug connections, were found to be in a satisfactory condition.

<u>SAMS EPA S/N</u>	<u>BECHTEL EPA S/N</u>	<u>DATE OF INSPECTION</u>	<u>COMMENTS/RESULTS</u>
AS131-38	1Z150	4/30/79	All connections ok
AS131-29	1Z151	4/30/79	All connections ok
AS131-17	1Z115	4/30/79	All connections ok, center rail missing bolts
AS166-1	1Z112	4/30/79	All connections ok
AS131-13	1Z113	5/1/79	All connections ok
AS166-8	1Z119	5/1/79	All connections ok
AS137-60	1Z125	5/1/79	All connections ok
AS137-53	1Z126	5/1/79	All connections ok
AS137-47	1Z159	5/1/79	All connections ok
AS137-52	1Z160	5/1/79	All connections ok
AS131-2	1Z158	5/1/79	All connections ok
AS137-43	1Z123	5/1/79	All connections ok
AS131-26	1Z132	5/1/79	All connections ok
AS137-67	1Z133	5/1/79	All connections ok
AS136-1	1Z135	5/1/79	All connections ok
AS166-2	1Z145	5/1/79	All connections ok
AS146-1	1Z138	5/1/79	All connections ok
AS137-58	1Z147	5/1/79	All connections ok
AS136-6	1Z144	5/1/79	All connections ok
AS137-49	1Z143	5/1/79	All connections ok
AS137-63	1Z142	5/1/79	All connections ok
AS131-7	1Z101	5/2/79	All connections ok
AS137-56	1Z102	5/2/79	All connections ok
AS137-48	2Z101	5/2/79	All connections ok
AS131-30	2Z102	5/2/79	All connections ok
AS131-35	2Z103	5/2/79	All connections ok
AS131-18	2Z160	5/2/79	All connections ok
AS131-31	2Z159	5/2/79	All connections ok
AS131-32	2Z126	5/2/79	All connections ok
AS137-41	2Z154	5/2/79	All connections ok
AS137-76	2Z119	5/2/79	All connections ok
AS131-37	2Z118	5/2/79	All connections ok
AS131-6	2Z116	5/2/79	All connections ok
AS137-44	2Z150	5/2/79	All connections ok

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SAMS EPA S/N	BECHTEL EPA S/N	DATE OF INSPECTION	COMMENTS/RESULTS
AS137-62	2Z111	5/2/79	All connections ok
AS131-36	2Z112	5/2/79	All connections ok
AS166-6	2Z114	5/2/79	All connections ok
AS137-70	2Z157	5/2/79	All connections ok
AS166-5	2Z158	5/2/79	All connections ok
AS131-25	2Z123	5/2/79	All connections ok
AS137-45	2Z124	5/2/79	All connections ok
AS136-4	2Z142	5/3/79	All connections ok
AS137-64	2Z143	5/3/79	All connections ok
AS131-27	2Z132	5/3/79	All connections ok
AS131-9	2Z137	5/3/79	All connections ok
AS131-24	2Z138	5/3/79	All connections ok
AS131-22	2Z139	5/3/79	All connections ok
AS131-28	2Z145	5/3/79	All connections ok
AS137-71	2Z146	5/3/79	All connections ok
AS137-57	2Z147	5/3/79	All connections ok
AS137-73	2Z135	5/3/79	All connections ok

The following two EPA's were not listed on the letter dated 24 Apr 79, but were inspected at the request of Bechtel Engineering.

AS131-14	2Z152	5/3/79	All connections ok
AS166-3	1Z152	5/3/79	Replaced lug on Term A-1, wire had pulled out during pull test.

The following is a list of EPA's where the wires had pulled loose from the lugs.

AS131-21	1Z116	4/30/79	<u>Term. A-4 lug broken. Removed and replaced terminal lug.</u>
AS137-69	1Z111	4/30/79	<u>Term. J-8 wire pulled out of lug. Replaced lug. All other wires ok</u>
AS131-23	1Z114	5/1/79	<u>Term E2 and E12 wires pulled out of lug. Removed and replaced lugs. All other lugs and wires OK.</u>
AS131-34	1Z118	5/1/79	<u>Term. B-5 wire pulled out of lug. Removed and replaced lug. All other wires OK.</u>
AS137-68	1Z154	5/1/79	<u>Term. C-6 and C-16 wire pulled out of lugs. Replaced lugs. All other wires ok.</u>
AS131-10	1Z157	5/1/79	<u>Term. E-19, E-20, F-1 Wires pulled out of lugs. Replaced lugs. All other wires ok.</u>
AS131-8	1Z124	5/1/79	<u>Term L-2, L-4 wires pulled out of lug. Replaced lugs. Term L-3 lug broken. Removed and replaced lug. All other wires &amp; lugs OK.</u>

<u>SAMS EPA S/N</u>	<u>BECHTEL EPA S/N</u>	<u>DATE OF INSPECTION</u>	<u>COMMENTS/RESULTS</u>
AS137-65	1Z131	5/1/79	Term. G-10, G-14, H-5 wires pulled out of lug. Replaced lug. All others wires & lugs ok.
AS137-75	1Z.37	5/1/79	Term H-2, H-3, H-4 wires pulled out of lug. Replaced lugs. All others lugs and wires ok.
AS149-2	1Z139	5/1/79	Term. C-15, E-15, F-1, J-14, L-1 wires pulled out of lugs. Replaced lugs. All other wires and lugs ok.
AS131-5	1Z146	5/1/79	Term C-1 wire pulled out from lug. Replaced lug. All other wires and lugs ok.
AS137-61	1Z141	5/1/79	Term E-16 not connected. Re-connected to term. All other wires and lugs ok.
AS137-77	2Z125	5/2/79	Term H-8 wire pulled out of lug. Replaced lug. All other wires and lugs ok.
AS137-42	2Z115	5/2/79	Term N-13 wire pulled out of lug. Replaced lug. All other wires and lugs ok.
AS137-40	2Z151	5/2 '79	Term D-9 insulation on wire torn and conductor shows. Re-stripped wire and replaced lug. All other wires and lugs ok.
AS136-5	2Z113	5/2/79	Term B-17, G-4, G-15, J-7, J-10, K-4 wires pulled out of lugs. Replaced lugs. All other wires and lugs ok.
AS137-54	2Z141	5/3/79	Term E-9 wire and lug not connected to term. Re-connected. All other wires and lugs ok.
AS131-4	2Z144	5/3/79	Term D-11 and D-14 wires pulled from lugs. Replaced lugs. All other wires and lugs ok.
AS131-19	2Z133	5/3/79	Term E-13, G-10 wires pulled out of lugs. Replaced lugs. All other wires and lugs ok.
AS131-20	2Z131	5/3/79	Term B-12, B-13, B-14, B-15, B-16, B-17, B-18, B-19, B-20, C-1, C-2, C-3, C-4, C-5, C-6, C-7, C-8, C-9, C-10, C-11, C-12, C-13, C-14, C-15, C-16, C-17, C-18, C-19, C-20, D-1, D-2, D-3, D-4, D-5, D-6, D-7, D-8, D-9, E-2, E-4, G-9, G-11, G-12, G-13, G-14, G-15, H-1, H-2, H-3, H-4, H-5, H-6, H-8 . Wires pulled out of lugs. Replaced lugs. All other wires and lugs ok.

<u>SAMS</u> <u>EPA</u> <u>S/N</u>	<u>BECHTEL</u> <u>EPA</u> <u>S/N</u>	<u>DATE</u> <u>OF</u> <u>INSPECTION</u>	<u>COMMENTS/RESULTS</u>
AS131-15	12103	5/2/79	All wires and lugs hand pull ok. Term. strip F not connected like similar strips. Checked spec. at Bechtel and found the wire list. Strip was connected from terminals 2 thru 20. Should be connected 1 thru 19. Reconnected terminal strip to the proper configuration.

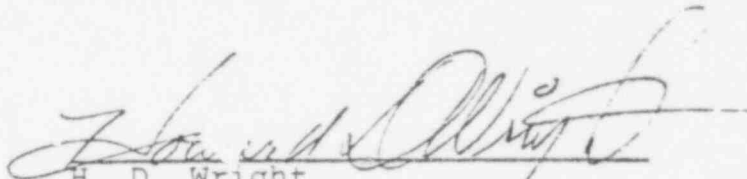
A. Two EPA's (22152, AS131-14 and 12152, AS166-3) were inspected at the request of Bechtel personnel. These two EPA's were not listed in the letter dated 24 Apr 79. The following are the results of that inspection.

AS131-14	22152	5/3/79	<u>All term conn., wiring &amp; lugs ok.</u> <u>Term A-1 wire</u> pulled out of lug. Replaced lug. Other wires and lugs ok.
AS166-3	12152	5/3/79	

B. Bechtel Engineering requested a change in the second sentence of para. 2 on page 4 to read as follows:

From: "Any replacement of lugs will be done in accordance with the Bunker Ramo approved Bechtel procedure F.P.E. 7.000, dated 1/8/79, Rev. 1."

To: "Any replacement of lugs will be done in accordance with applicable Bunker Ramo procedures with materials described therein".

  
 H. D. Wright  
 Quality Assurance Manager

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