

THE CINCINNATI GAS & ELECTRIC COMPANY



CINCINNATI, OHIO 45201

June 1, 1983
LOZ-83-0029

J. WILLIAMS, JR.
SENIOR VICE PRESIDENT
NUCLEAR OPERATIONS

Docket No. 50-358

U.S. Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Attention: Mr. J.G. Keppler
Regional Administrator

Gentlemen:

RE: WM. H. ZIMMER NUCLEAR POWER STATION
UNIT 1 - CONSTRUCTION WORK
APPROVAL REQUEST (CWAR) NO. 98, REVISION 1
W.O. 57300, JOB E-5590, FILE NO. 956C,

The Cincinnati Gas & Electric Company wishes to continue certain work activities which do not violate the spirit of the NRC November 12, 1982, "Order to Show Cause and Order Immediately Suspending Construction." CG&E requests NRC review and concurrence of the attached Construction Work Approval Request (CWAR) No. 98 Revision 1 covering Kellum Grips.

Removal of the wire ties at the top of all previously installed Kellum Grips supporting electrical cables in the Auxiliary and Reactor Building is required to enable H. J. Kaiser Company QC personnel to implement their inspection program for previously installed Kellum Grips supporting cables in risers.

Very truly yours,

THE CINCINNATI GAS & ELECTRIC COMPANY

By *J. Williams, Jr.*
J. WILLIAMS, JR.
SENIOR VICE PRESIDENT

Attachments

PRINCIPAL STAFF			
RA	INF		
D/RA	SCS		
A/RA	PAO		
DEPR	SLO		
DEIA	RC		
DMSP			
DE			
ML			
OL	FILE		

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PDR ADOCK 05000358
A PDR

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Mr. J.G. Keppler
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cc: NRC Office of Inspection & Enforcement
Washington, D.C. 20555
NRC Senior Resident Inspector
ATTN: W.F. Christianson
NRC Zimmer Project Inspector
Region III

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Regional Administrator
June 1, 1983
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JCH/sfr

bcc: J.C. Herman
H.C. Brinkmann
B.K. Culver
H.R. Sager
J.R. Schott
J.D. Flynn
J.A. Vennemann
G.C. Ficke

Construction Work Approval RequestCWAR Number 98, Rev. 1Contractor/Organization Foothill Electric CorporationItem Wire Ties Installed On Kellum GripsSystem I.D. All Systems

Work Description: Remove the wire ties at the top of all previously installed Kellum grips supporting electrical cables in risers in the Auxiliary and Reactor buildings. Reference the attached copies of DDC E-8139, S&L Standard EB-200 and the sketch of a typical Kellum grip installation for specific details and requirements.

Reason for Work Being Performed: To enable HJK/Q.C. to implement their inspection program for previously installed Kellum grips supporting cables in risers. Per the requirements of DDC E-8139, Kellum grip inspections cannot proceed until the top wire tie is removed. This wire tie removal and Kellum grip inspection is required to satisfy NRC I.E. Inspection Report #82-01 dated June 24, 1982 and resulting DDC-E-8139 (See Attached). *Per E-8139 5-25-83*

Safety class: Safety related and non-safety related**Location:** Building Aux. & Reactor Elevation See page 2 for elev.Coordinates N/AOther N/A**Describe work location boundaries:** Auxiliary Building & Reactor Building**Safety System Evaluation:** See page 2.Form and Evaluation Prepared by Greg DrozdaContractor/Originator SEE 4-20-83Date 4/20/83Request Reviewed by J. Schut

GCD Engineer

Date 4/20/83Request Approved by W. T. Teller

Manager-GCD

Date 4/22/83QA Concurrence by Chellu

Manager-QAD

Date 4/28/83**NRC Disposition:**☐

Approved

☐

Disapproved

☐

Require Additional Information

Above checked by _____

Technical Coordinator

Date _____

Elevations covered by CWAR 98, Rev. 1:

	473'-5"		475'-6"
	496'		503'-6"
	510'-6"		525'-7"
<u>Auxiliary Bldg.</u>	525'-7"	<u>Reactor Bldg.</u>	546'
	521'		570'-6"
	546'		593'-6"
	576'-5"		

SAFETY SYSTEM EVALUATION: DDC E-8139 deletes the requirement for the installation of a wire tie at the top of Kellum grips supporting cables in risers and provides criteria for the inspection of these Kellum grips. The scope of this CWAR covers only the removal of this top wire tie. No Kellum grips are to be installed, removed or modified. The cables supported by these Kellum grips may be safety related, non-safety related, or both; however, no work will be done to any cables and their safety related or non-safety related functions will not be affected.

INTER-DEPARTMENT CORRESPONDENCE

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TO: B. K. CULVER

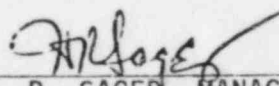
DATE: DEC. 21, 1982
HRS-82-547

FROM: H. R. SAGER

SUBJECT: WM. H. ZIMMER NUCLEAR POWER STATION UNIT I
I.E. INSPECTION REPORT #82-01 - CABLE GRIP INSPECTION
W.O. 57300, JOB E-5590 FILE NRC-1

CG&E committed to the NRC to inspect the installation of cable grips in risers greater than 35 ft., per QA-1917, dated August 4, 1982. This action was to be completed by December 31, 1982.

It is our understanding that relatively few such risers are at Zimmer and this inspection would require a minimum amount of time. Please assign the responsibility for this item to FEC, and make every effort to complete this by December 31, 1982.


H. R. SAGER, MANAGER
QUALITY ASSURANCE DEPARTMENT

FKP/apc

cc: C. F. Keller
G. M. Orlov
R. Shope

ATT	RECEIVED	NOTED
	E. K. CULVER	
	DEC 22 1982	
FILE		
RETURN TO		

INTER-DEPARTMENT CORRESPONDENCE

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TO: S. OSBORN, M. THREM, J. SHAFFER, D. SPENCE, E. ROLF, DATE: JULY 1, 1982
D. SCHULTE, W. A. HEDZIK, J. DANNER, D. C. KRAMER

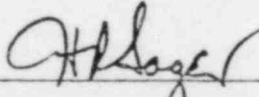
FROM: H. R. SAGER

SUBJECT: WM. H. ZIMMER NUCLEAR POWER STATION - UNIT I
NRC CORRESPONDENCE ASSIGNMENT

RE: NRC CORRESPONDENCE - I. E. Inspection Report #82-01

The attached NRC correspondence has been reviewed and the margin marked to show where you are responsible for completing required action to close open items. If you believe this assignment is incorrect, please contact P. L. Adkins (Ext. 75-461) immediately.

Since ^ano written reply is required, you are requested to notify the Quality Assurance Department of the schedule to complete the action to close these open items by July 16, 1982. Also, please advise the QA Department when you believe all action to close each open item has been completed.


H. R. SAGER, QUALITY ASSURANCE MANAGER

cc: Operations QA Supervisor

E. A. Borgmann

B. R. Sylvia

J. R. Schott

~~E. A. Culver~~

H. C. Brinkmann

K. K. Chitkara

J. D. Flynn

R. Cannon

JUL 8 - '82

12 items of Noncompliance &
10 open items require corrective action
response for 82-01
Provide response to 82-03 with this
response also

...ing changes, by which the cable pulling activities were to be accomplished. This statement appeared to be in conflict with the site QA and document control programs in that there appeared to be no requirement for Quality Assurance Department personnel to verify that the proper and latest design documents were being used prior to commencing work.

- (5) The instruction addressed the control of cable separation and cable (grip) support requirements. ~~However, the Construction Inspection Plan (CIP) which is used by QC inspectors to document the cable installation inspections did not include verification of cable separation and support requirements.~~ On February 11, 1982, the inspector reviewed the completed CIPs for cables RH417/D dated October 27, 1981, and RH419/F dated November 3, 1981. Neither record indicated evaluation or verification of cable separation or support requirements.

The inspector reviewed the Technical Review Checklist dated July 30, 1981, for Revisions 14B and 15; and the Quality Review Checklist dated August 26, 1981, for Revision 15 of QACMI E-7. The reviews were required by the April 8, 1981, Immediate Action Letter. Both reviews were inadequate, which resulted in E-7, Revision 15, being inadequate. The individual who performed the technical review incorrectly designated the inspection requirements specified in the FSAR the regulatory guides and the codes and standards as not applicable. A second individual, who performed the quality review, inadequately evaluated the quantitative and qualitative acceptance criteria and the status of inspection indicated on inspection records.

A number of these inadequacies were discussed with the licensee on November 4-5, 1981. On February 11, 1982, the licensee provided the inspector with Procedure No. EIP-4, Revision 0, which was to go into effect immediately. EIP-4, Revision 0, superseded QACMI E-7, Revision 15. The inspector made a preliminary review of EIP-4, Revision 0; and the aforementioned inadequacies appeared to have been adequately corrected with the exception of the control of cable pull tensions.

The inadequacies identified above in instruction QACMI E-7, Revision 15, are contrary to Criterion V of Appendix B to 10 CFR 50 and the CG&E QA Manual, Sections 1.3 and 5.3. This

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Regional Administrator
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August 4, 1982 - QA-1917
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requires the Quality Control inspector to review the electrical installation specification H-2173, the cable tabulation drawing, the cable pull card and list any applicable Design Document Changes prior to permitting a cable pulling operation, thus assuring a quality review before commencing work. Furthermore, the completed work package containing the design documents are reviewed by Quality Engineering as required by GQP-11.

A. Corrective Action Taken and Results Achieved

Procedure E-7 Rev. 15, has been superceded by Procedure EIP-4 Rev.), effective 2/8/82, which now includes a statement for verification by the inspector that the cable pull card matches the current revision of the design documents. The Construction Inspection Plan still requires the inspector to make his review.

General Construction Procedure GCP-3 on assembly of work packages by discipline engineers require Quality Assurance Department review.

B. Corrective Action Taken to Avoid Further Noncompliance

The assembly of work packages and review by Quality Assurance is prescribed in Procedure GCP-3.

C. Date Corrective Action Will Be Achieved

Procedure EIP-4 Rev. 0 was effective February, 1982. Work package procedure GCP-3 was in effect November, 1981.

[3a(5)]

The cable pulling procedure E-7 addressed the control of cable separation and cable grip support requirements, however, the Construction Inspection Plans (CIP) did not document these two requirements.

A. Corrective Action Taken and Results Achieved

Task VI of the Quality Confirmation Program is responsible for evaluating cable separation. More definitive design criteria regarding separation has been added to the FSAR and S&L installation specification H-2173.

Cable grip suspension systems in cable tray risers were designed by S&L and have been installed. Installation specifications require

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~~cable grips on vertical runs of cable over 35 feet when installed in conduit. Cable grip installation will be verified.~~

B. Corrective Action Taken to Avoid Further Noncompliance

The cable pulling checklist has been revised to include verification of cable grip installation. This same checklist also requires verification of compliance with cable separation requirements.

C. Date Corrective Action Will Be Achieved

~~The revised checklist was in effect February, 1982. The verification of cable grip installation will be completed by December 31, 1982.~~

3b(3)

One of the considerations for the selection of nuclear grade AMP Termination lugs was the ability to visually inspect the crimp after the crimp was made by recognizing the unique indent made when a proper crimp was made with a crimping tool that was properly calibrated. In addition, the Construction Inspection Plan requires the inspector to pull on the cable to assure tightness of the termination. In-process inspection is mandatory when the termination is to be covered and can not be visually inspected. The quality of a crimped termination can be determined in a post inspection and need not be part of an inprocess inspection. All soldered terminations were witnessed and verified by inspection personnel. We are not in violation of Criterion I or X of Appendix B, to 10CFR50.

We feel no corrective action on this item is required.

3b(4)

Cable Termination Procedure E-8, states that records of tool calibration checks, shall be maintained and made available to inspection personnel upon request. The instructions included no requirement to assure that the calibration of the tools were actually verified.

Foothill Electric Company is assigned the responsibility for calibration of terminating tools and their procedure INI-010 required maintenance of equipment calibration log and tool CO-NO-

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THE CINCINNATI GAS & ELECTRIC CO.
WM. H. ZIMMER NUCLEAR POWER STATIONDDC NO. E-8139REV. PAGE 1 OF 1

DWG./SPEC. NO. H-2173 STD. EB-200 E-13 Sheet 1	REV. <u>11</u>	DWG./SPEC. NAME H-2173 STD. EB-200	SYSTEM
DWG./SPEC. ISSUED BY: S&L	DDC PREPARED BY: <u>B. J. Stennett</u>	DATE: <u>2-16-83</u>	DDC REGISTER NO. <u>46304</u>
<input checked="" type="checkbox"/> ESSENTIAL	<input type="checkbox"/> AFFECTING SYSTEM FUNCTIONAL LOGIC	<input type="checkbox"/> NON ESSENTIAL SEISMIC	<input type="checkbox"/> NON ESSENTIAL

REASON FOR CHANGE

To provide inspection criteria for cable grips supporting cables in risers.

FOR INFORMATION ONLY

DESCRIPTION OF CHANGE

H-2173

For inspection purposes the minimum acceptable length of support weave shall be 90% of dimension "M" for a given circumference or diameter range indicated in Standard EB-200.

Drawing E-13, sheet 1, Note 8. Requirement for installation of wire tie at the top of cable grips shall be removed. All previous installations shall have the top wire tie removed.

<u>William P. Lerner</u> 2/16/83 CONSULTANT ENGR. DATE	<u>J. J. Smith</u> 2/17/83 GEO. ENGINEER DATE	<u>Nancy M. Jamieson</u> 2-17-83 SITE APPROVAL DATE
FINAL APPROVAL OF CHANGE		ENG STATUS (IF APPLICABLE)
S&L ENGINEER DATE FOR ESSENTIAL DDC ONLY		

ATTACHMENT #2 TO CWAR 98 REV.1

3/8" x 4" steel bar in place in cable pan riser section.

Cable pan riser section.

Note:

See page 2 of this Standard for catalog numbers of cable grips and dimension "M".

Single "U" eye on grip shall be supported from 3/8" x 4" steel bar.

**THIS COPY ISSUED FOR
INFORMATION ONLY
NOT TO BE USED FOR
PHYSICAL CONSTRUCTION**

**FIGURE 200A
TYPICAL CABLE
PAN RISER
CABLE SUPPORT**



SIDE VIEW

For outdoor installations use Thomas & Betts Co. Series 370, or Appleton Electric Co.'s Uni-Seal Hubs for terminating conduits.

Sheet metal box with removable cover. Size of box shall be determined from diameters and numbers of cables and conduits.

Single "U" eye on grip shall be supported from 3/8" x 4" steel bar.

The box shall be long enough that the full length of the cable grip is accessible. (See dimension "M" on page 2).

See note on page 2 of this Standard for limits on the number of cables that can be supported in one grip.

For outdoor installations box shall be hot-dipped galvanized with gasketed cover.



SIDE VIEW

Locknuts

Bushing

Provide a minimum distance of 2" from the turning diameter of the locknut to the outside of the box, all around.

A 3/8" x 4" steel bar support with 1/16" min. radius on all corners shall be spaced out from the rear of the box to hold the attachment of the cable grip. Weld the bar or bars to a plate at the back of the box.

Suitable supports for the box and the weight of the cables to be supported therein shall be provided and welded to the box.

**FIGURE 200B
TYPICAL
CONDUIT RISER
CABLE SUPPORT**

**CABLE PAN & CONDUIT
RISER CABLE SUPPORTS
TYPICAL**

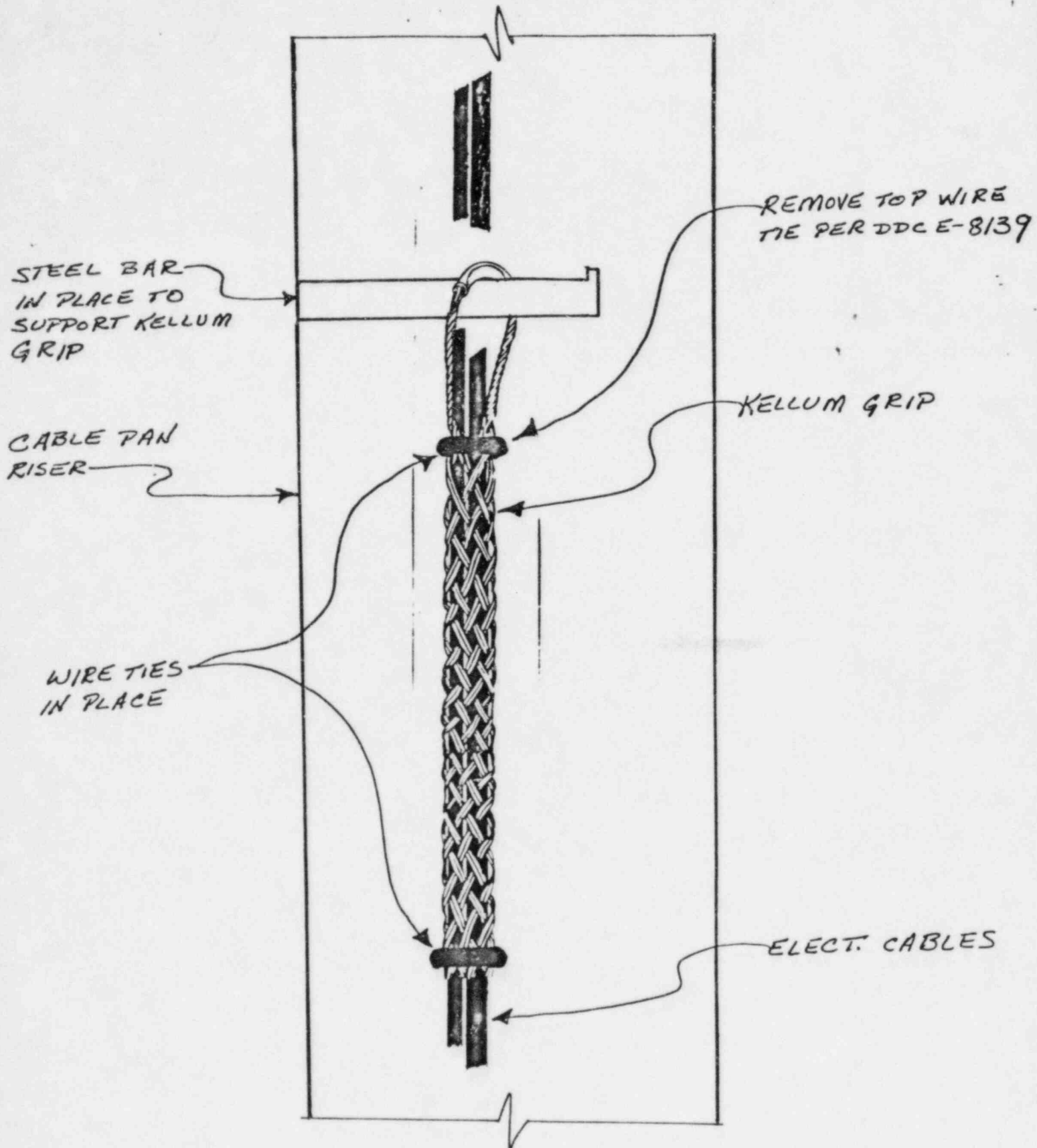
DRAWN *WCH*
APPROVED *SEA*
DATE 8-10-60
REVISED 3-21-64
1-10-72

SARGENT & LUNDY

ENGINEERS
C. I. C. A.

STANDARD

STD-EB-200



SIDE VIEW OF A TYPICAL
KELLUM GRIP INSTALLATION
IN A CABLE PAN RISER