

BRAIDWOOD CONSTRUCTION ASSESSMENT PROGRAM (BCAP)

MONTHLY BRIEFING

PRESENTED TO

REGIONAL OFFICE -- REGION III  
U. S. NUCLEAR REGULATORY COMMISSION

N. N. KAUSHAL  
BCAP DIRECTOR  
DECEMBER 6, 1984



PRESENTATION OUTLINE

DOCUMENTATION STATUS

CSR PROGRESS

RPSR PROGRESS

RSCAP PROGRESS

MANPOWER STATUS

SUMMARY STATUS



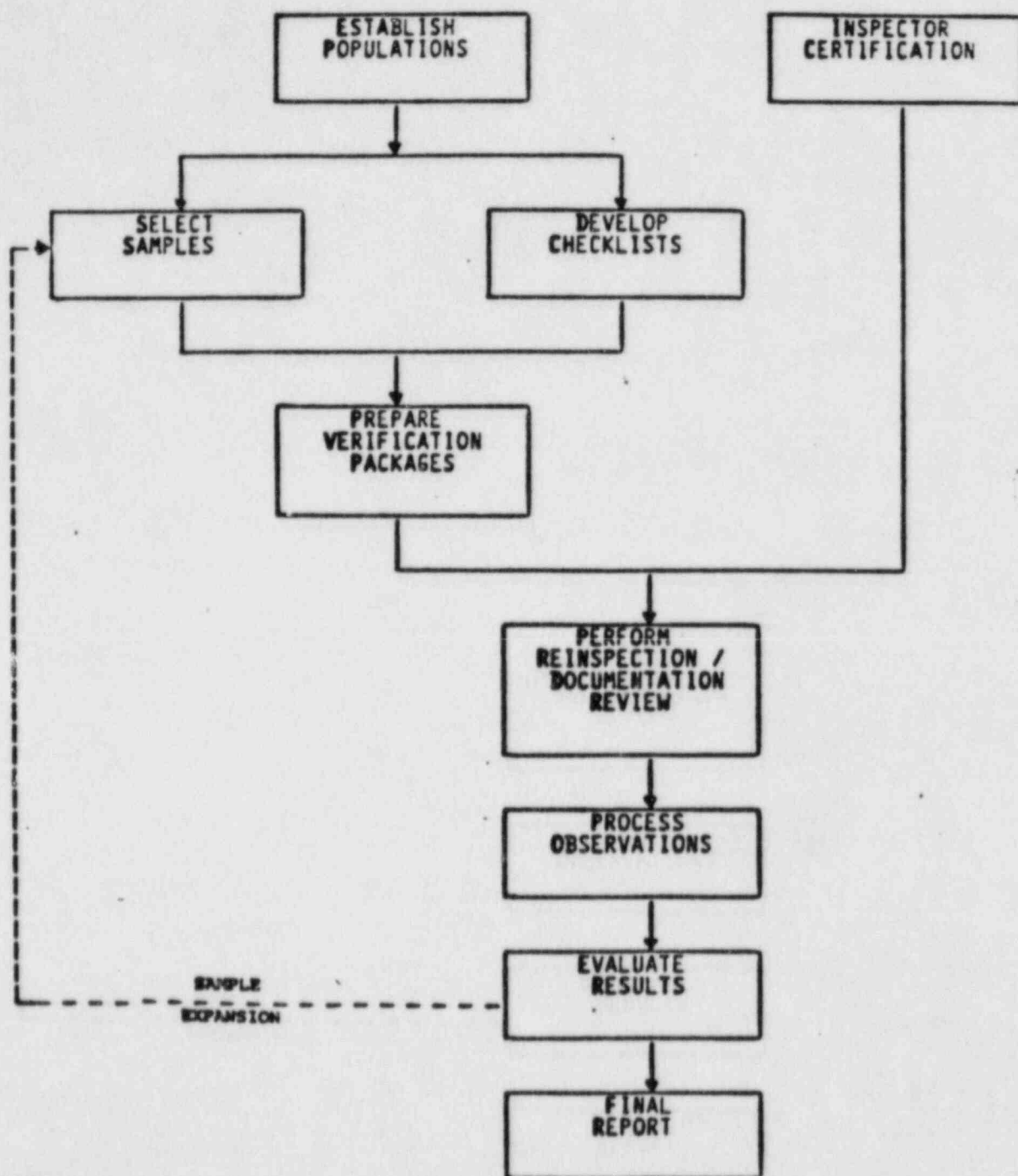
BCAP DOCUMENTATION STATUS

THE PROGRAM DOCUMENT HAS BEEN UPDATED TO INCLUDE:

- ° MINOR EDITORIAL CHANGES AND CORRECTIONS
- ° REVISED CRITERIA ON INSPECTION ATTRIBUTES FOR  
SAMPLE EXPANSIONS (PER LETTER O'CONNOR TO KEPPLER,  
AUGUST 30, 1984)
- ° ELIMINATION OF COMMONWEALTH EDISON DESIGNATED  
REPRESENTATIVE POSITION



### CSR MAJOR ACTIVITIES



(0500J)



CSR: ESTABLISHMENT OF POPULATIONS

IDENTIFICATION OF CONSTRUCTION CATEGORIES:

- ° 35 CATEGORIES (POPULATIONS) IDENTIFIED TO DATE
- ° 29 OF 35 POPULATION DESCRIPTIONS WRITTEN

IDENTIFICATION OF ITEMS IN POPULATION:

- ° 17 OF 35 COMPLETE



CSR: SAMPLE SELECTION

RANDOM PORTION:

- 13 OF 35 POPULATIONS COMPLETE

ENGINEERING JUDGEMENT PORTION:

- BACKGROUND INFORMATION REVIEW COMMENCED



CSR: DEVELOPMENT OF CHECKLISTS

POPULATION-SPECIFIC CHECKLISTS:

- ° 18 OF 35 REINSPECTION CHECKLISTS PREPARED
- ° 5 OF 35 DOCUMENTATION CHECKLISTS PREPARED
- ° 14 APPROVED FOR PACKAGE PREPARATION

GENERIC CHECKLISTS:

- ° 5 OF 10 GENERIC CHECKLISTS PREPARED
- ° 3 WELDING CHECKLISTS COMPLETED



CSR: PREPARATION OF VERIFICATION PACKAGES

- ° 310 PACKAGES IN 7 POPULATIONS ARE RELEASED FOR REINSPECTION
- ° 30 DOCUMENTATION REVIEW PACKAGES COMPLETED



CSR: INSPECTOR CERTIFICATION

LEVEL III

- ° 4 DISCIPLINES CERTIFIED
  - CIVIL/STRUCTURAL
  - MECHANICAL
  - WELDING
  - ELECTRICAL

LEVEL II

- ° 4 CIVIL/STRUCTURAL
- ° 9 MECHANICAL
- ° 10 WELDING
- ° 3 ELECTRICAL

22 INSPECTORS CERTIFIED



CSR: REINSPECTIONS AND DOCUMENTATION REVIEWS

REINSPECTIONS:

- ° COMMENCED OCTOBER 5, 1984
- ° 225 COMPLETE AS OF DECEMBER 4, 1984
- ° 392 OBSERVATION REPORTS WRITTEN

DOCUMENTATION REVIEWS:

- ° NOT STARTED



RPSR MAJOR ACTIVITIES

OVERALL RPSR CONSISTS OF THREE PRINCIPAL STEPS:

- ° IDENTIFY APPLICABLE SARGENT & LUNDY SPECIFICATIONS AND CONTRACTOR PROCEDURES.
- ° PREPARE CHECKLISTS INCLUDING:
  - CONSTRUCTION REQUIREMENTS FROM FSAR AND SPECIFICATIONS
  - PERSONNEL QUALIFICATION/CERTIFICATION REQUIREMENTS
- ° REVIEW CONTRACTOR PROCEDURES AGAINST CHECKLIST REQUIREMENTS



RPSR PROGRESS - CONT'D

IDENTIFICATION OF APPLICABLE SARGENT & LUNDY SPECIFICATIONS:

- 9 SPECIFICATIONS APPLICABLE

IDENTIFICATION OF CONTRACTOR PROCEDURES:

- 500 PROCEDURES FROM 9 CONTRACTORS HAVE BEEN  
VERIFIED APPLICABLE

(1034D)



RPSR PROGRESS - CONT'D

- ° IDENTIFICATION OF CONSTRUCTION REQUIREMENTS IN FSAR:
  - REVIEW COMPLETED
  
- ° IDENTIFICATION OF CONSTRUCTION REQUIREMENTS IN NINE APPLICABLE SPECIFICATIONS:
  - APPROXIMATELY 80% COMPLETED
  
- IDENTIFICATION OF PERSONNEL QUALIFICATION/CERTIFICATION REQUIREMENTS:
  - COMPLETED



RPSR PROGRESS - CONT'D

- ° COMPARISON OF CHECKLIST REQUIREMENTS TO CONTRACTOR PROCEDURAL REQUIREMENTS:
  - WALKTHROUGH CONDUCTED TO CHECK WORKABILITY OF PROCEDURAL STEPS
  
- ° IDENTIFICATION OF CHECKLIST REQUIREMENTS NOT COVERED BY CONTRACTOR PROCEDURES:
  - WALKTHROUGH CONDUCTED TO CHECK WORKABILITY OF PROCEDURAL STEPS



RSCAP PROGRESS

ALL SCAPS (LISTED BELOW) ARE UNDER RSCAP REVIEW:

- QUALITY CONTROL STRUCTURAL STEEL REVIEW
- SAFETY RELATED PIPE SUPPORTS
- NSSS COMPONENT SUPPORTS
- QUALITY CONTROL INSPECTOR REINSPECTION (ON HOLD)
- ELECTRICAL INSTALLATION DOCUMENTATION REVIEW
- REINSPECTION OF SAFETY RELATED MECHANICAL EQUIPMENT
- HVAC WELDING, CONFIGURATION, STIFFENERS FITTINGS
- PIPING MATERIAL VERIFICATION AND TRACEABILITY
- INSTRUMENTATION INSTALLATION VERIFICATION

(1034D)



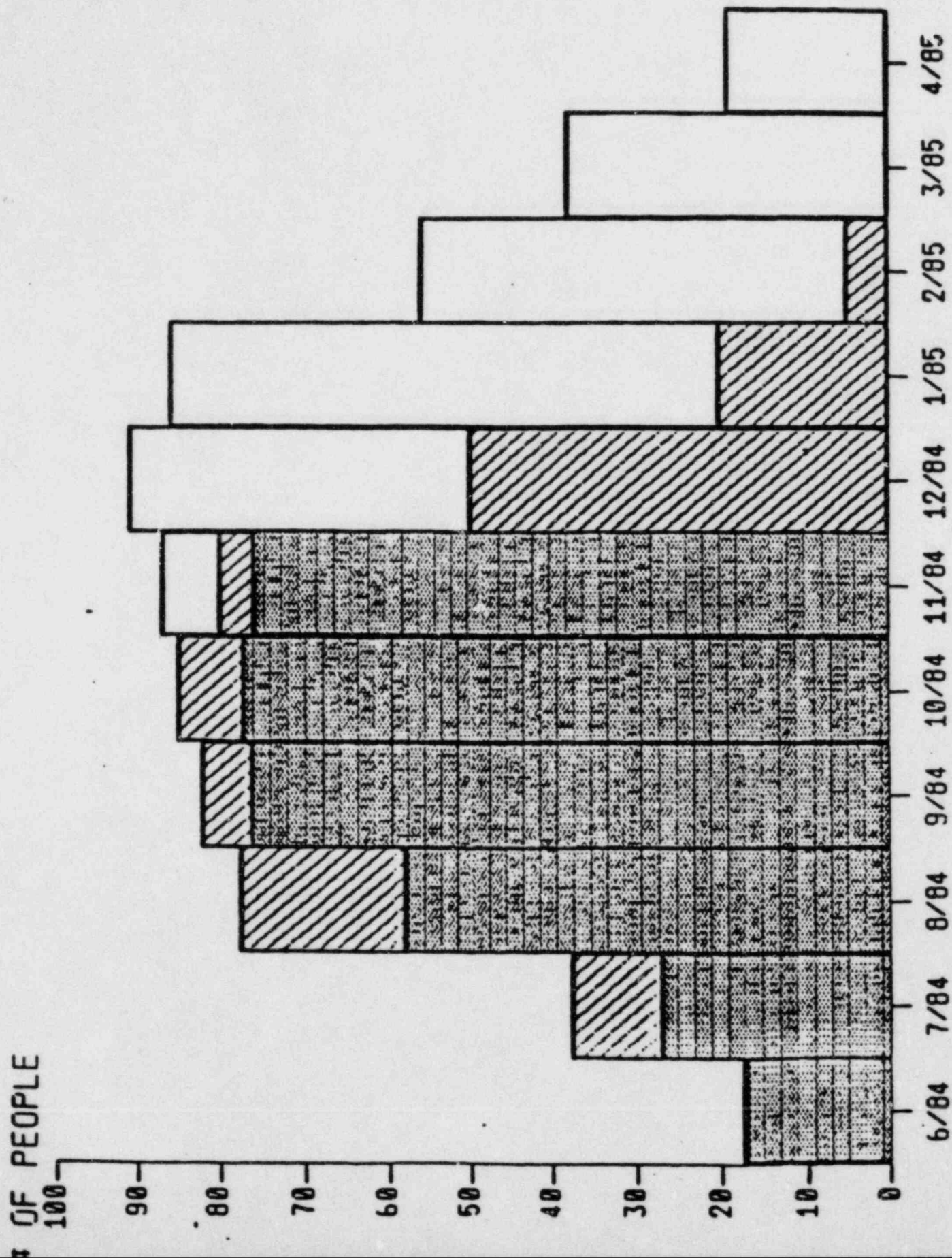
RSCAP PROGRESS - CONT'D

- RSCAP ELECTRICAL LEAD WHO WAS TEMPORARILY ASSIGNED TO CSR FOR CERTIFICATION AS LEVEL III ELECTRICAL INSPECTOR HAS BEEN RETURNED TO RSCAP

(1034D)



EQUIVALENT MANPOWER





12-06-84

Enclosure 3  
Page 1 of 9

CSR DISCREPANCIES BY CONTRACTOR

| <u>CONTRACTOR</u> | <u>POPULATION</u>      | <u>RECEIVED</u> | <u>COMPLETED</u> |
|-------------------|------------------------|-----------------|------------------|
| COMSTOCK          | CABLE PAN HANGERS      | 1               | 0                |
| PULLMAN           | DUCTS                  | 30              | 5                |
|                   | EQUIPMENT INSTALLATION | 1               | 1                |
|                   | DUCT HANGERS           | 27              | 6                |
| PHILLIPS GETSCHOW | SMALL BORE PIPING      | 3               | 2                |
| NEWBURG           | CONCRETE PLACEMENT     | 11              | 5                |
|                   |                        | —               | —                |
|                   | TOTALS                 | 73              | 19               |



12-06-84

Enclosure 3  
Page 2 of 9CSR DISCREPANCIES BY CATEGORY

| <u>CATEGORY</u>                                     | <u>RECEIVED</u> | <u>COMPLETED</u> |
|---|-----------------|------------------|
| <u>WELDING</u> - UNDERCUT, UNDERSIZE, POROSITY      | 31              | 4                |
| <u>DIMENSIONAL</u> - LOCATION, LENGTH               | 9               | 4                |
| <u>BOLTING</u> - LOOSE, MISSING, PATTERN            | 7               | 2                |
| <u>CONCRETE SURFACE DEFECT</u>                      | 6               | 1                |
| <u>DUCT DAMAGE</u> - DENTS, HOLES                   | 3               | 1                |
| <u>WRONG MATERIAL</u> - GAUGE, SIZE                 | 4               | -                |
| <u>INCOMPLETE HVAC</u> - SEALANT, CONNECTION        | 2               | -                |
| <u>EMBEDMENTS</u>                                   | 3               | 1                |
| <u>HVAC FIT-UP</u> - DUCT, HANGERS, DAMPER          | 2               | 1                |
| <u>FABRICATION</u> - CABLE PAN HANGER FIELD FAB     | 1               | -                |
| <u>INVALID</u> - NOT DISCREPANT, NOT SAFETY RELATED | 5               | 5                |
|   | <hr/> 73        | <hr/> 19         |



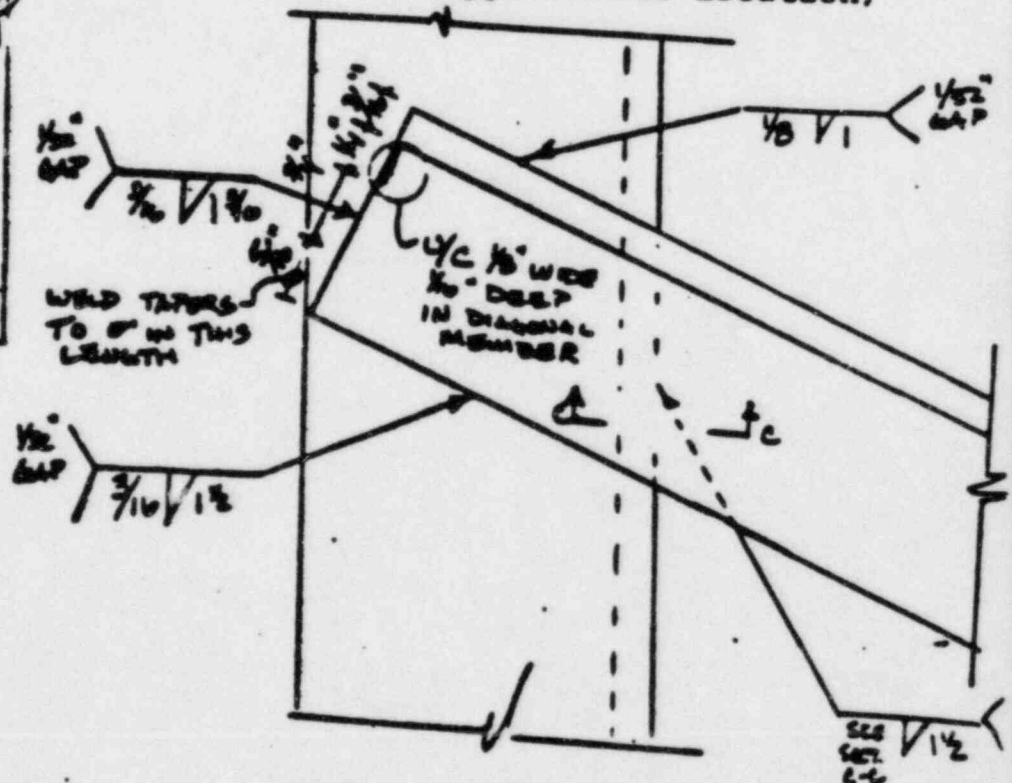
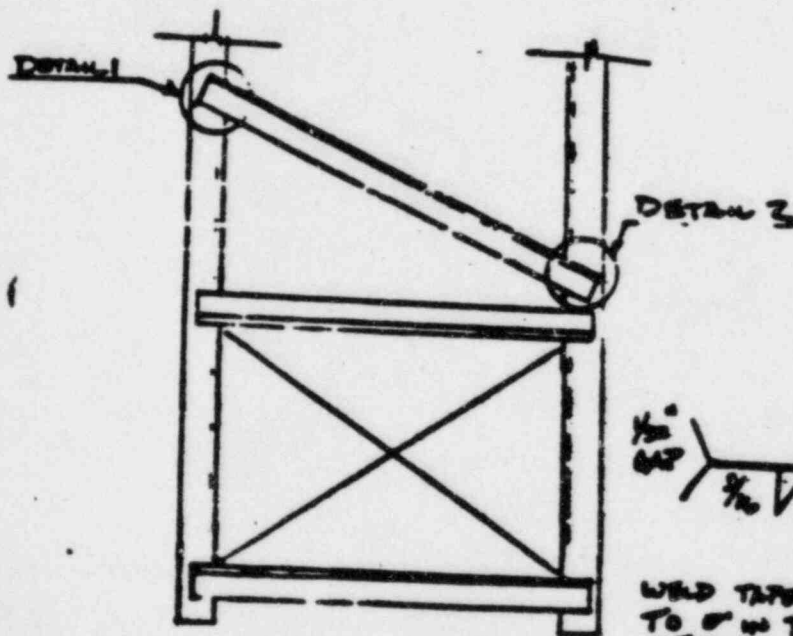
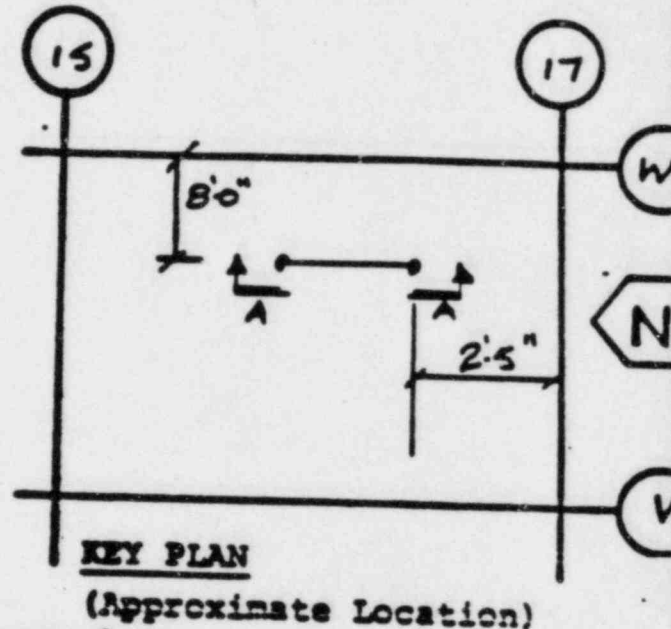
**BRAIDWOOD CONSTRUCTION ASSESSMENT PROGRAM**

**CSR WELD MAP**

Braidwood Station Units 1&2  
Project 4683/4684  
Commonwealth Edison Company  
Safety Related  
Calculation No. \_\_\_\_\_  
Revision No. \_\_\_\_\_  
Page \_\_\_\_ of \_\_\_\_

Population: HVAC HANGERS & AUX SH.  
Identification No: CSR-I-H-03  
Observation Record No: CSR-I-H-03003-112  
Package No: CSR-I-H-03003  
Drawing No: M-1310-1 REV N  
Approximate Elevation: 359'-6  
Equipment Description: HVAC HANGER  
Component No: 107  
Inspector  
Signature: [Signature]  
Inspector: Keith Daniels  
Date Inspected: 11-1-84

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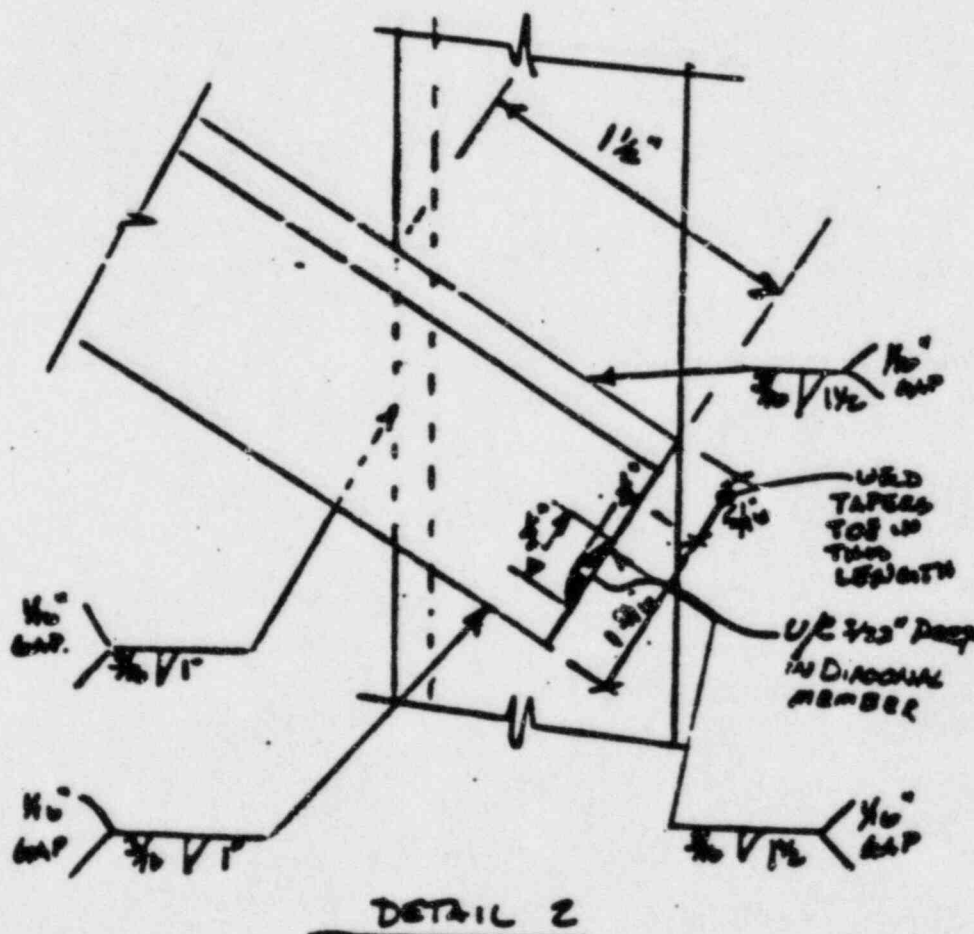
**BRAIDWOOD CONSTRUCTION ASSESSMENT PROGRAM**

**CSR WELD MAP**

**Weld Map Continuation**

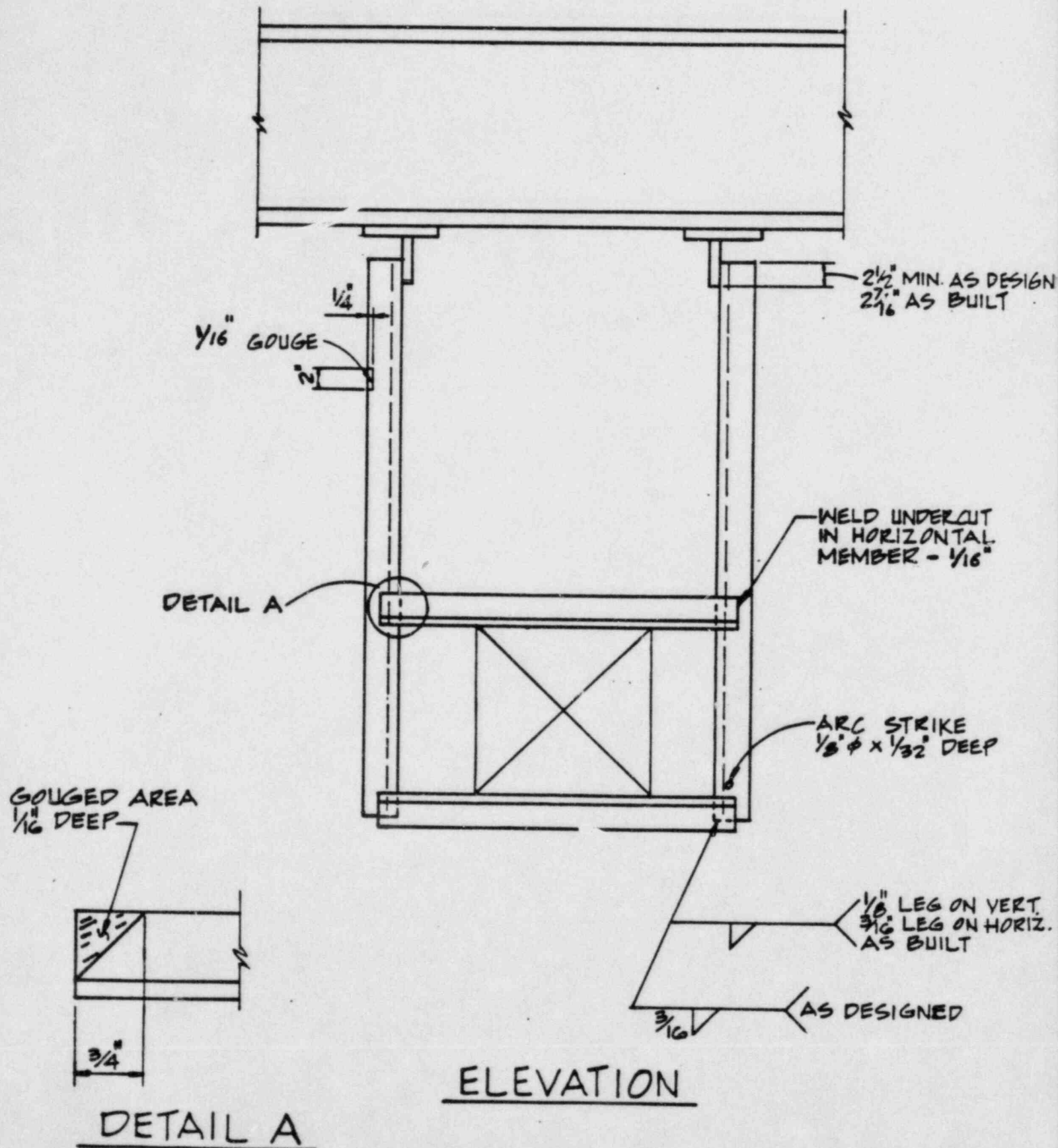
Identification No: CSR-I-H-03  
Observation Record No: CSR-I-H-03-003-142  
Package No: CSR-I-H-03-003  
Component No: 107  
Drawing No: M-1310-1 REV H  
Inspector  
Signature: *[Signature]*  
Date Inspected: 11-1-94  
Page 4 of 4

Braidwood Station Units 1  
Project 4683/4684  
Commonwealth Edison Company  
Safety Related  
Calculation No: \_\_\_\_\_  
Revision No: \_\_\_\_\_  
Page \_\_\_\_\_ of \_\_\_\_\_





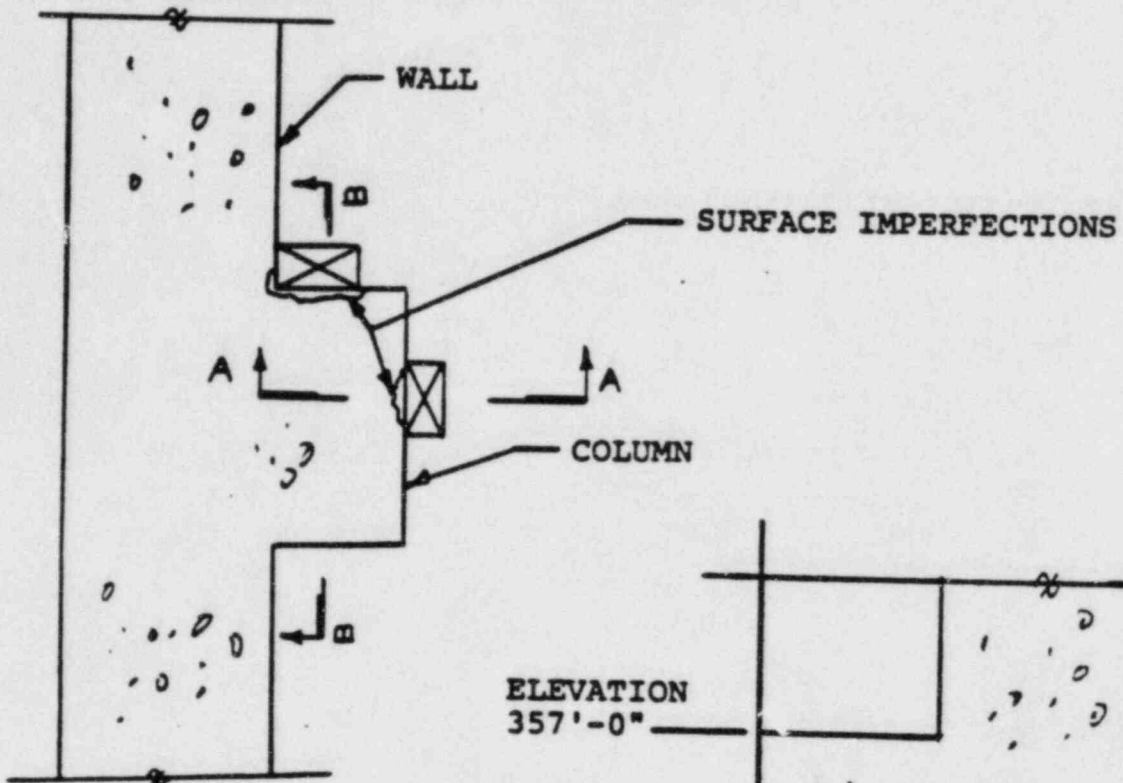
# WELD DISCREPANCIES ON HVAC SUPPORTS





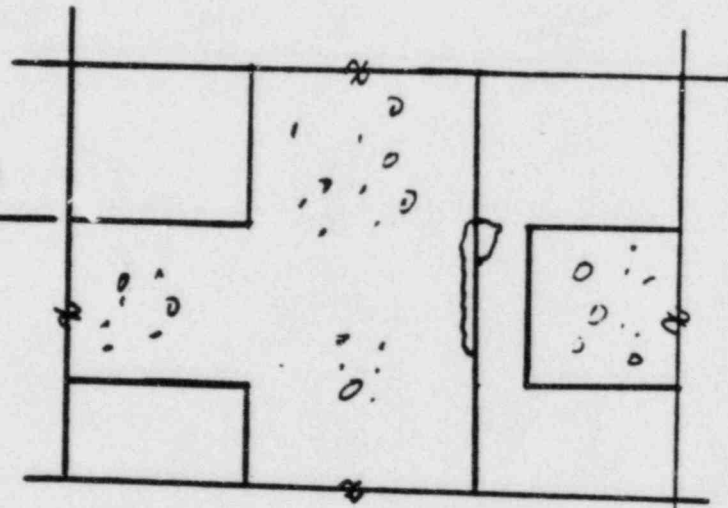
SURFACE IMPERFECTIONS  
IN  
CONCRETE WALL AND COLUMN

Enclosure 3  
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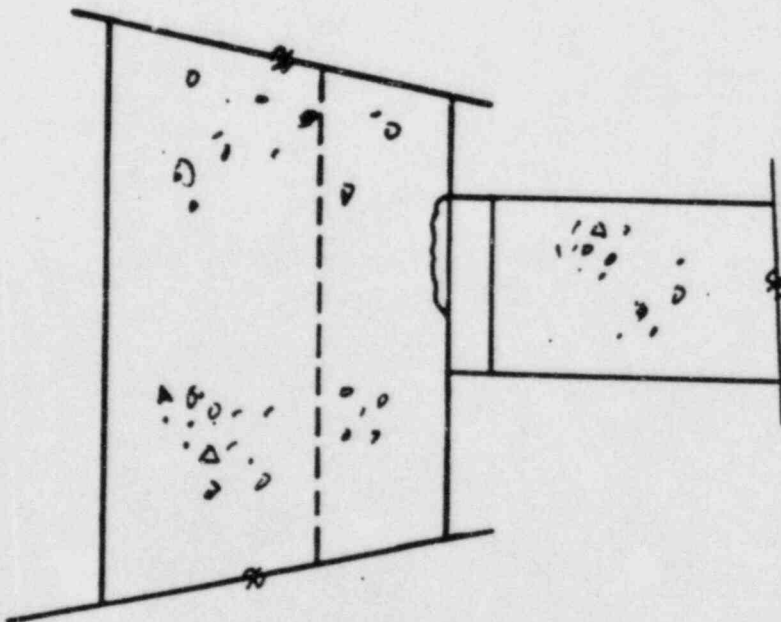
PLAN

ELEVATION  
357'-0"



SECTION 'B-B'

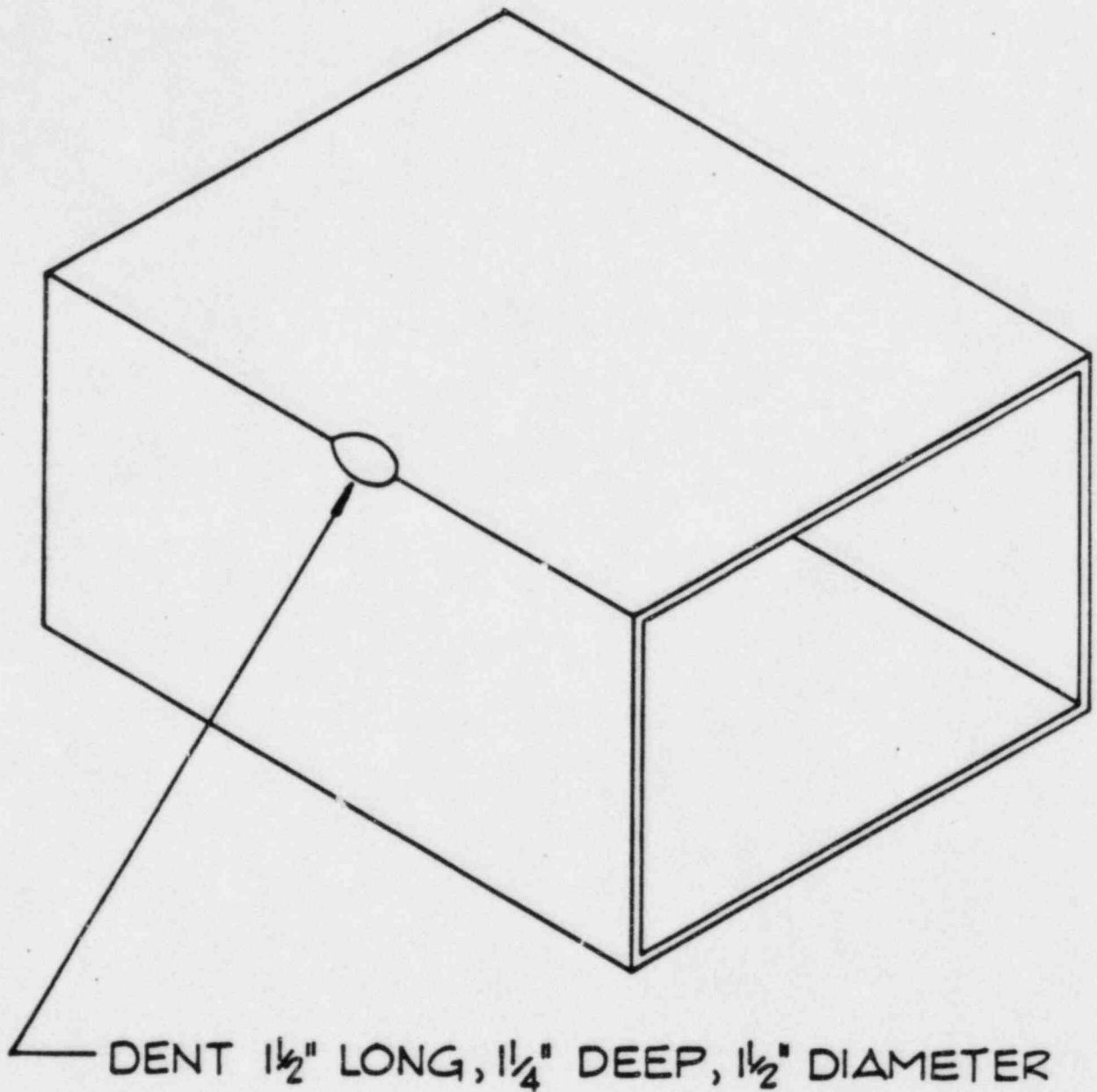
ELEVATION  
357'-0"



SECTION 'A-A'

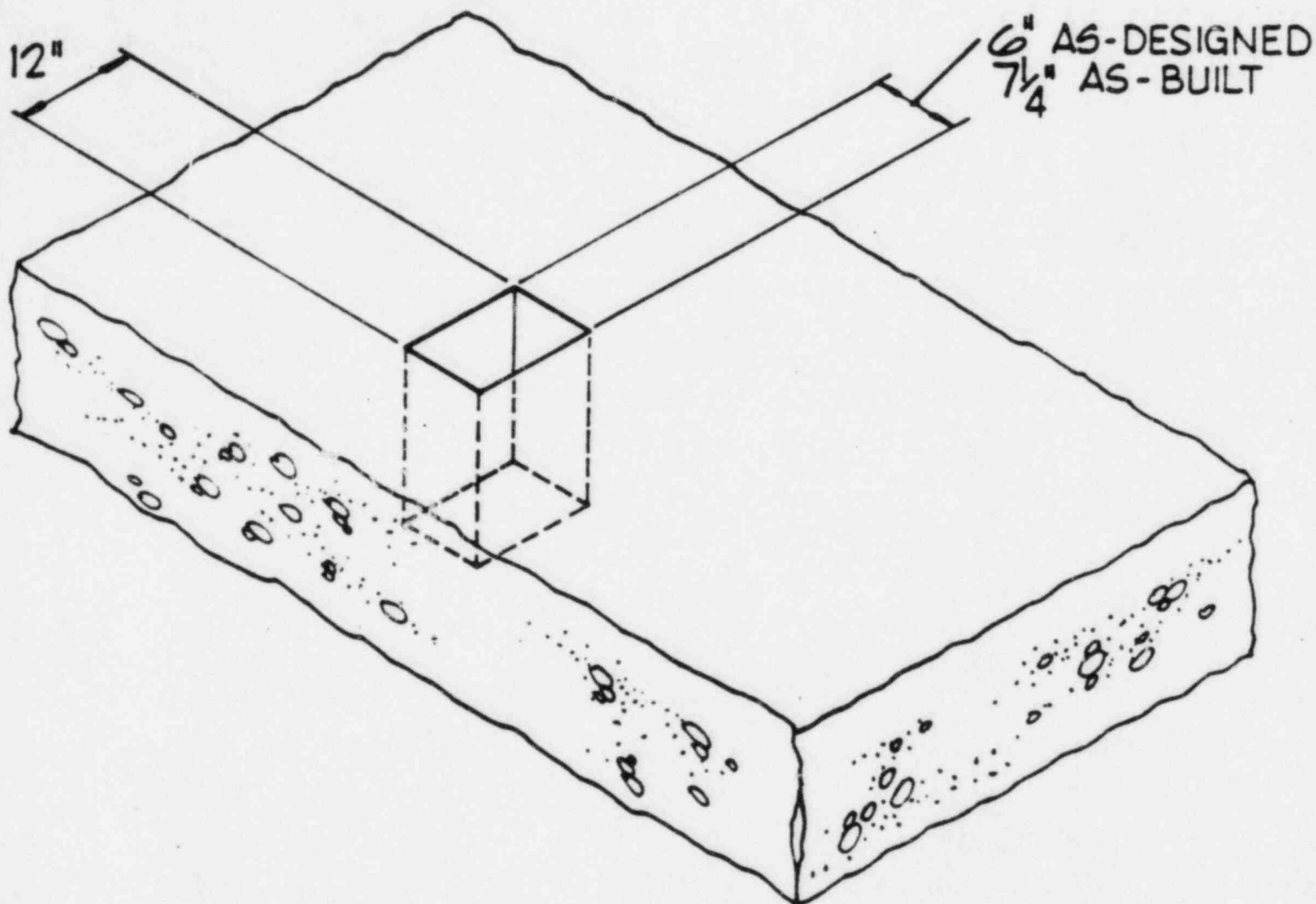


# CORNER DAMAGE ON AN DUCT





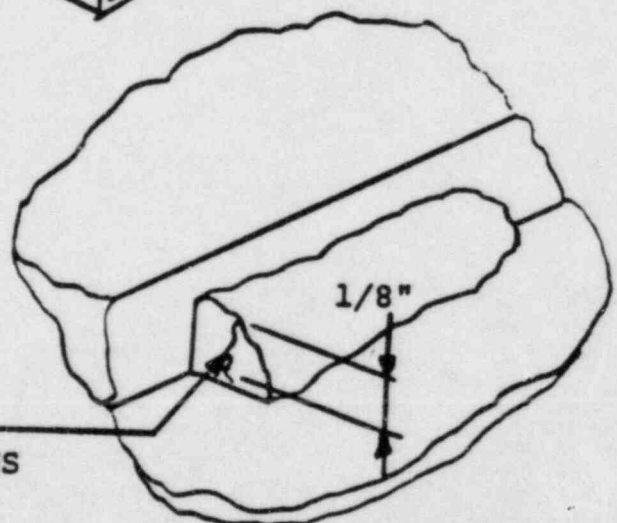
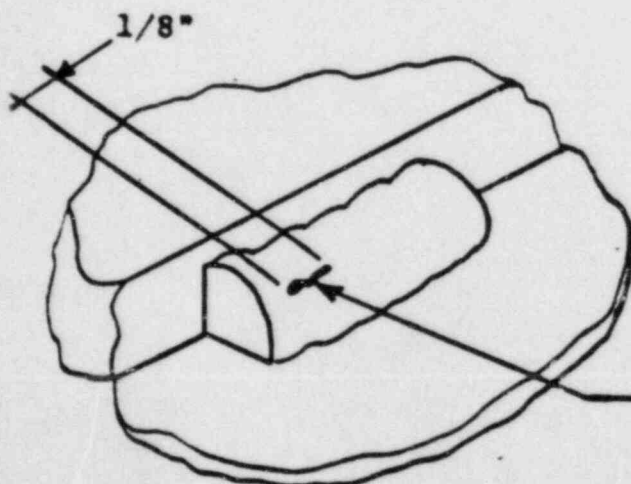
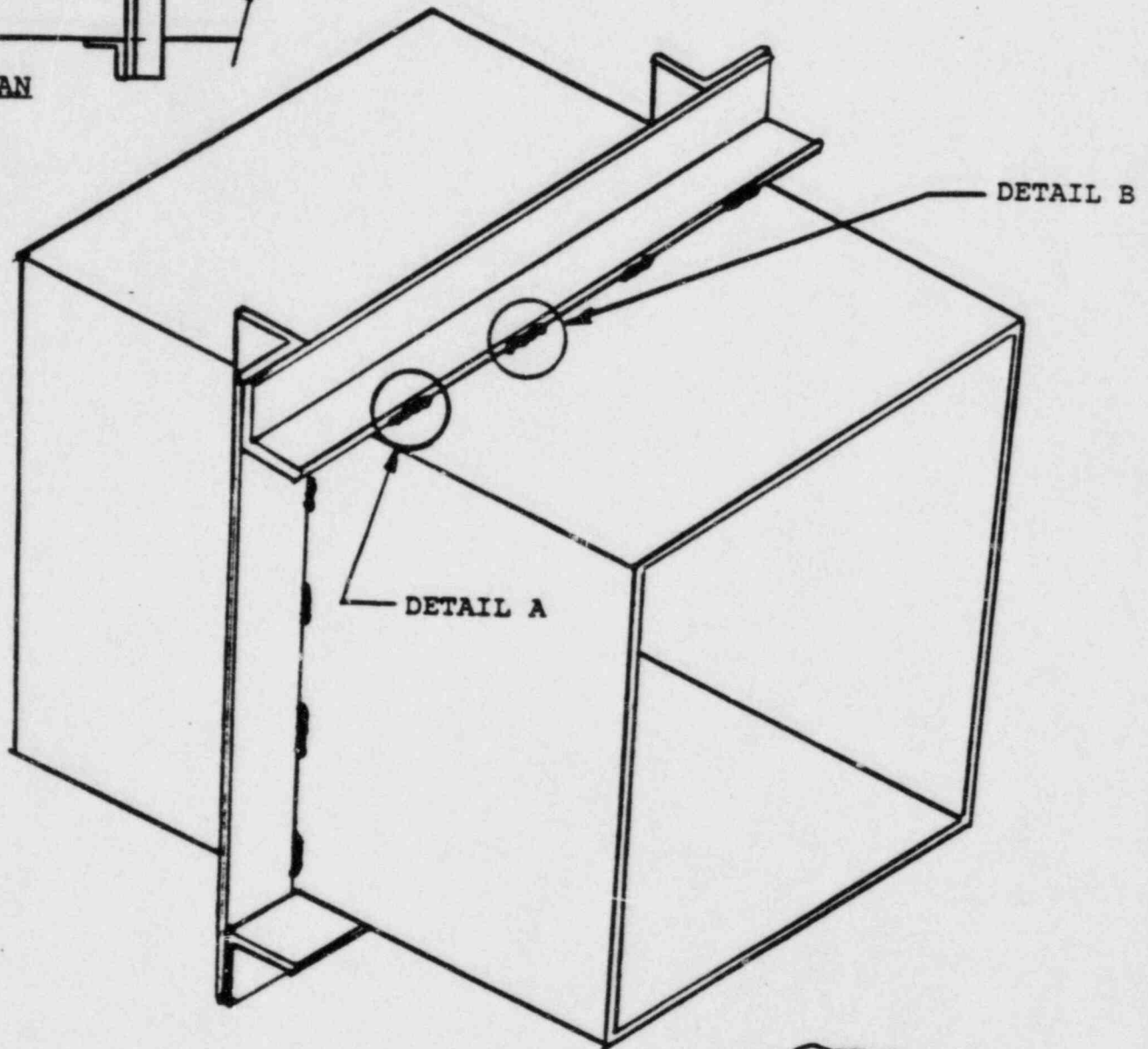
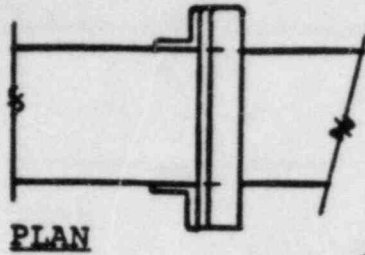
# DIMENSIONAL DISCREPANCIES OF A FORMED OPENING IN A CONCRETE SLAB





LINEAR INDICATION IN  
HVAC DUCT TO STIFFENER WELDS

Enclosure 3  
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LINEAR  
INDICATIONS

DETAIL A

DETAIL B



BCAP Q.A.

MONTHLY BRIEFING

N. P. SMITH

DECEMBER 6, 1984

(0183B)



- 0 ORGANIZATION/PERSONNEL
- 0 DEVELOPMENT EFFORTS
- 0 DOCUMENT REVIEWS
- 0 AUDIT/SURVEILLANCE SCHEDULES AND RESULTS
- 0 Q.A. OVERINSPECTION/OVERVIEW
- 0 HOLD POINTS



ORGANIZATION/PERSONNEL

O LEAD CSR POSITION HAS BEEN FILLED

O ONE ENGINEER HAS BEEN ADDED



PERSONNEL

EXPERIENCE LEVELS

(AVERAGE YEARS)

| POSITIONS  | OVERALL |        | NUCLEAR |        | Q.A.   |        |
|--|---------|--------|---------|--------|--------|--------|
|  | NOV. 5  | DEC. 6 | NOV. 5  | DEC. 6 | NOV. 5 | DEC. 6 |
| GENERAL SUPERVISOR - Q.A.<br>LEAD ELEMENT ENGINEERS<br>OVERINSPECTION SUPERVISOR<br>Q.A. ENGINEERS/SPECIALISTS | 22.9    | 22.4   | 15.9    | 14.2   | 5.0    | 4.6    |
| INSPECTORS   | 17.4    | 17.4   | 8.3     | 8.3    | N/A    | N/A    |

+ 1 ENGINEER ASSIGNED



DEVELOPMENT EFFORTS

(NOVEMBER)

0 REVISED 1 Q.A. SPECIAL INSTRUCTION

(0183B)



DOCUMENT REVIEWS  
(NOVEMBER)

|                                      |       |
|--------------------------------------|-------|
| REVISIONS TO POLICY/PLANS            | 3     |
| REVISIONS TO PROCEDURES/INSTRUCTIONS | 10    |
| LESSON PLANS                         | 0     |
| EXAMINATION QUESTION BANKS           | 0     |
| CERTIFICATION EXAMINATIONS           | 0     |
| REINSPECTION CHECKLISTS/INSTRUCTIONS | 22    |
| INSPECTOR CERTIFICATION PACKAGES     | 6     |
|                                      | <hr/> |
|                                      | 41    |



BCAP Q.A. SURVEILLANCE SCHEDULE  
(ANNUAL)

SHEET 1 OF 1

☐ - SCHEDULED SURVEILLANCE

☐ - COMPLETED SURVEILLANCE

| ACTIVITY/<br>SUBJECT AREA | YEAR           | 1984      |    |     |     |         |     |     |     |          |     |     |    |          |    |    |    |
|---------------------------|----------------|-----------|----|-----|-----|---------|-----|-----|-----|----------|-----|-----|----|----------|----|----|----|
|                           | MONTH          | SEPTEMBER |    |     |     | OCTOBER |     |     |     | NOVEMBER |     |     |    | DECEMBER |    |    |    |
|                           | WEEK<br>ENDING | 14        | 21 | 28  | 05  | 12      | 19  | 26  | 02  | 09       | 16  | 23  | 30 | 07       | 14 | 21 | 28 |
| CSR - PROCEDURES          |                |           |    |     |     |         |     |     |     |          |     |     |    |          |    |    |    |
| BCAP-20                   |                |           |    | X X |     | X X     |     | X X |     | X X      |     |     |    | X        |    |    |    |
| BCAP-21                   |                |           |    | X X | X X | X X     |     | X X |     | X X      |     |     |    | X        |    |    |    |
| BCAP-22                   |                |           |    |     | X X |         | X X |     | X X |          | X X |     |    |          | X  |    |    |
| BCAP-23                   |                |           |    | X X | X X | X X     |     | X X |     | X X      |     |     |    |          | X  |    |    |
| BCAP-24                   |                |           |    |     | X X | X X     | X X |     | X X |          | X X |     |    |          |    | X  |    |
| RPSR - PROCEDURES         |                |           |    |     |     |         |     |     |     |          |     |     |    |          |    |    |    |
| BCAP-41                   |                |           |    |     | X X | X X     | X X |     | X X |          | X X |     |    |          | X  |    |    |
| BCAP-42                   |                |           |    |     | X X | X X     | X X |     | X X |          | X X |     |    |          | X  |    |    |
| BCAP-43                   |                |           |    |     | X X | X X     |     | X X |     | X X      |     |     |    |          |    |    |    |
| RSCAP - PROCEDURES        |                |           |    |     |     |         |     |     |     |          |     |     |    |          |    |    |    |
| BCAP-60                   |                |           |    |     | X X | X X     | X X |     | X X |          | X X |     |    |          | X  |    |    |
| ADMIN. - PROCEDURES       |                |           |    |     |     |         |     |     |     |          |     |     |    |          |    |    |    |
| BCAP-01                   |                |           |    |     | X X |         | X X |     | X X |          | X X |     |    |          | X  |    |    |
| BCAP-02                   |                |           |    |     | X X |         | X X |     | X X |          | X X |     |    |          | X  |    |    |
| BCAP-03                   |                |           |    |     | X X |         | X X |     | X X |          | X X |     |    |          | X  |    |    |
| BCAP-04                   |                |           |    |     | X X |         | X X |     | X X |          | X X |     |    |          | X  |    |    |
| BCAP-06                   |                |           |    |     |     | X X     |     | X X |     | X X      |     | X X |    |          |    | X  |    |
| BCAP-07                   |                |           |    |     |     | X X     |     | X X |     | X X      |     | X X |    |          |    | X  |    |
| BCAP-08                   |                |           |    |     |     | X X     |     | X X |     | X X      |     | X X |    |          |    | X  |    |



**BCAP Q.A. AUDIT SCHEDULE  
(ANNUAL)**

SHEET 1 OF 1

☐ - SCHEDULED AUDIT

☐ - COMPLETED AUDIT

| ACTIVITY/<br>SUBJECT AREA | YEAR           | 1984      |     |     |         |     |    |    |          |    |    |     |     |          |    |    |    |
|---------------------------|----------------|-----------|-----|-----|---------|-----|----|----|----------|----|----|-----|-----|----------|----|----|----|
|                           | MONTH          | SEPTEMBER |     |     | OCTOBER |     |    |    | NOVEMBER |    |    |     |     | DECEMBER |    |    |    |
|                           | WEEK<br>ENDING | 14        | 21  | 28  | 05      | 12  | 19 | 26 | 02       | 09 | 16 | 23  | 30  | 07       | 14 | 21 | 28 |
| CSR - PROCEDURES          |                |           |     |     |         |     |    |    |          |    |    |     |     |          |    |    |    |
| BCAP-20                   |                |           | X X |     |         |     |    |    |          |    |    | X X |     |          |    |    |    |
| BCAP-21                   |                |           | X X |     |         |     |    |    |          |    |    | X X |     |          |    |    |    |
| BCAP-22                   |                |           |     | X X |         |     |    |    |          |    |    |     | X X |          |    |    |    |
| BCAP-23                   |                |           |     |     | X X     |     |    |    |          |    |    |     |     | X        |    |    |    |
| BCAP-24                   |                |           |     |     |         | X X |    |    |          |    |    |     |     |          | X  |    |    |
| RPSR - PROCEDURES         |                |           |     |     |         |     |    |    |          |    |    |     |     |          |    |    |    |
| BCAP-41                   |                |           |     | X X |         |     |    |    |          |    |    |     | X X |          |    |    |    |
| BCAP-42                   |                |           |     | X X |         |     |    |    |          |    |    |     | X X |          |    |    |    |
| BCAP-43                   |                |           |     | X X |         |     |    |    |          |    |    |     |     | X        |    |    |    |
| RSCAP - PROCEDURES        |                |           |     |     |         |     |    |    |          |    |    |     |     |          |    |    |    |
| BCAP-60                   |                |           |     | X X |         |     |    |    |          |    |    |     | X X |          |    |    |    |
| ADMIN. - PROCEDURES       |                |           |     |     |         |     |    |    |          |    |    |     |     |          |    |    |    |
| BCAP-01                   |                |           | X X |     |         |     |    |    |          |    |    | X X |     |          |    |    |    |
| BCAP-02                   |                |           | X X |     |         |     |    |    |          |    |    | X X |     |          |    |    |    |
| BCAP-03                   |                |           | X X |     |         |     |    |    |          |    |    | X X |     |          |    |    |    |
| BCAP-04                   |                |           | X X |     |         |     |    |    |          |    |    | X X |     |          |    |    |    |
| BCAP-06                   |                |           | X X |     |         |     |    |    |          |    |    |     | X X |          |    |    |    |
| BCAP-07                   |                |           | X X |     |         |     |    |    |          |    |    |     | X X |          |    |    |    |
| BCAP-08                   |                |           | X X |     |         |     |    |    |          |    |    |     | X X |          |    |    |    |

Week of December 14, 1984 new procedure BCAP-25 will be audited.

(0183B)



AUDIT AND SURVEILLANCE RESULTS  
(NOVEMBER)

| <u>PROCEDURES</u>     | <u>FINDINGS AND ITEMS</u> |               |
|-----------------------|---------------------------|---------------|
|                       | <u>OPENED</u>             | <u>CLOSED</u> |
| BCAP ADMIN PROCEDURES | 2                         | 1             |
| BCAP CSR PROCEDURES   | 0                         | 1             |
| BCAP RSCAP PROCEDURES | 0                         | 0             |
| BCAP RPSR PROCEDURES  | 0                         | 0             |
|                       | <hr/>                     |               |
| TOTAL                 | 2                         | 2             |

- 1 ITEM OPENED INVOLVED FAILURE TO FOLLOW PROCEDURES
- 1 ITEM OPENED INVOLVED PROCEDURE INADEQUACY



AUDIT AND SURVEILLANCE RESULTS  
(TO-DATE)

| <u>PROCEDURES</u>     | <u>FINDINGS AND ITEMS</u><br><u>OPENED</u> | <u>CLOSED</u> |
|-----------------------|--|---------------|
| BCAP ADMIN PROCEDURES | 11   | 9             |
| BCAP CSR PROCEDURES   | 9  | 7             |
| BCAP RSCAP PROCEDURES | 1  | 1             |
| BCAP RPSR PROCEDURES  | 0  | 0             |
|                       | <hr/>                                      | <hr/>         |
| TOTAL                 | 21   | 17            |



Q.A. OVERINSPECTION/OVERVIEW

- 0 OVERINSPECTIONS TO RECORD HAVE NOT BEGUN
- 0 REVISED Q.A. OVERINSPECTION PROCEDURE
- 0 RECERTIFYING Q.A. OVERVIEW INSPECTORS TO PTL'S  
RECENTLY REVISED PROCEDURE PRIOR TO START OF  
INSPECTIONS



Q.A. OVERINSPECTION/OVERVIEW

VALIDATION METHOD

- 0 THE VALIDATION METHOD REQUIRES A COMPLETE OVERINSPECTION
- 0 PROVIDES A SIGNAL TO THE OVERINSPECTOR AS TO POTENTIAL PROBLEM AREAS
- 0 ALLOWS THE OVERINSPECTOR TO FOCUS ON AREAS WHERE DIFFERENCES IN INSPECTION RESULTS EXIST
- 0 PROVIDES FOR EFFICIENT USE OF OVERINSPECTION TIME



HOLD POINTS

PURPOSE: TO PUT BCAP-Q.A. IN A PRO-ACTIVE MODE IN ASSURING  
QUALITY

- 0 BCAP Q.A. LETTER OF SEPTEMBER 6, 1984 PLACED HOLD POINT ON
  - IMPLEMENTATION OF COMPLETED CHECKLISTS FOR CSR
  - INSPECTOR PERFORMANCE OF FIELD INSPECTIONS
- 0 CSR CHECKLISTS - HOLD RELEASED BY SPECIFIC POPULATION  
FOLLOWING Q.A. APPROVAL
- 0 INSPECTORS - HOLD RELEASED FOR INDIVIDUAL  
INSPECTORS FOLLOWING Q.A. CERTIFICATION REVIEW



BCAP STATUS  
MEETING

for

November, 1984

INDEPENDENT EXPERT OVERVIEW GROUP

December 6, 1984



## TOPICS

- o Executive Summary
- o Overview Activities
- o Closed Issues and Concerns
- o Open Issues and Concerns



## EXECUTIVE SUMMARY

- o BCAP OVERVIEW

Functioning as designed with checks and balances in place.

- o CSR ELEMENT

Refinement of rough edges still in progress. Activities focusing on retraining of personnel and revisions to some checklists. Electrical inspections initiated. ERC's electrical inspector reported November 26, 1984.

- o RPSR ELEMENT

Checklists nearing completion. Actual review of procedures near commencement.

- o RSCAP ELEMENT

Determination of relevant commitments still in progress.

- o BCAP QA

Increased number of Lead Auditors from one to five for better distribution of audit load.



## OVERVIEW ACTIVITIES

### REINSPECTIONS

- o Surfaced two concerns in civil/structural area
  - Control points for reinspections
  - Reinspection of embeds on Class 2 side of Turbine Isolation Wall
- o Monitoring resolution of "Hold Tag" for areas to be reinspected by BCAP inspectors

### AUDITS

- o Monitored BCAP QA audits

### DOCUMENTATION REVIEW

- o Initiated reviews of BCAP observations and S&L Design Significant Evaluations
- o Maintained reviews of checklists, procedures and plans



## CLOSED ISSUES/CONCERNS

### ISSUES

- 1) Revision of documents:
  - a) BCAP QA Plan
- 2) Response to Observataions BCAP-OBS-003 and BCAP-OBS-004

### CONCERNS

- 1) Inspector certifications - Level III  
Electrical has been certified



## OPEN ISSUES/CONCERNS

### ISSUES

- 1) Revisions of documents:
  - a) BCAP Program Document

### CONCERNS

- 1) Control points for reinspections
- 2) Resolution on "Hold Tags" for areas to be reinspected by BCAP inspectors
- 3) Resolution of inspector reinspection element of RSCAP
- 4) Evaluation of CSR discrepancies to the most adverse location within the population



Enclosure 6

Items Discussed at the NRC/CECo/ERC Meeting

December 6, 1984, 9:00 A. M.

- Q. Has BCAP determined how they will address hardware inspections for the RSCAP Element of the program?
- A. BCAP feels that this will be satisfied once the Engineering Judgement Sample has been selected for the CSR element. Engineering Judgement portion of the samples has not been as yet identified.
- Q. When will the document review portion of CSR inspections start?
- A. It is expected to start the week of 12-10-84.
- Q. Does Sargent & Lundy ever need to obtain more information before they can disposition discrepancy reports?
- A. Yes, when additional information is required Sargent and Lundy requests it. An example of this is the detailed weld maps requested from BCAP.
- Q. When will BCAP Q.A. be ready to discuss the results of their inspection review?
- A. BCAP Q.A. will be prepared to discuss the inspection review with the NRC during the week of 12-10-84.
- Q. Does the IEOG plan to review all the Non Design Significant discrepancies?
- A. They plan to review all of the early ones and will adjust the number reviewed as the program develops.



The NRC stated that the presentation of Observations evaluated to date was good and asked that this presentation be continued in the next meeting.

The NRC stated that they would continue to follow the establishment of the hardware inspections pertaining to the RSCAP Element of the BCAP. They will discuss it further once the method has been established.

In conclusion the NRC stated that they feel that the BCAP is going along well. They felt that all personnel associated with the effort are doing a very good job, and that they were comfortable with the effort at this time.

The next meeting was set for January 3, 1985, 9:00 a.m. at the Mazon E.O.F.

This concluded the presentation from CECO to the NRC. At this time the NRC opened the meeting for questions to the NRC from the public.

There was a comment from a member of the public regarding the need to include the consideration of highly stressed items in the reinspection sample. In response discussion it was stated that Commonwealth Edison can be expected to be prepared to address this issue.

There being no further questions. the meeting was adjourned.



Enclosure 7  
List of Attendees

| <u>NAME</u>       | <u>POSITION</u>                   | <u>ORGANIZATION</u>   |
|-------------------|-----------------------------------|-----------------------|
| R. A. Gardner     | Reactor Inspector                 | Region III, NRC       |
| R. F. Warnick     | Chief, Branch 1                   | Region III, NRC       |
| A. B. Davis       | Deputy Regional Admin.            | Region III, NRC       |
| R. D. Schulz      | Sr. Resident - Braidwood          | Region III, NRC       |
| L. G. McGregor    | SRI Braidwood                     | Region III, NRC       |
| W. L. Forney      | Chief, Projects Seciton 1 A       | Region III, NRC       |
| B. Heishman       | Branch Chief Reactor Prog. Branch | Region III, NRC       |
| R. J. Lauer       | Attorney                          | Isham, Lincoln & Beal |
| E. D. Swartz      | Nuclear Licensing Admin.          | CECo                  |
| D. Cassel         | Attorney                          | PBI                   |
| C. W. Schroeder   | Proj. Lic. & Compliance Supt.     | CECo                  |
| P. A. Lau         | BCAP Q.A.                         | CECo                  |
| D. H. Smith       | Nuclear Licensing Adm.            | CECo                  |
| J. D. Deress      | Proj. Eng. Mgr, BY/BR             | CECo                  |
| V. A. Hoffman     | Site Manager of SWEC              | SWEC                  |
| M. I. Miller      | Attorney                          | Isham, Lincoln & Beal |
| A. Scaccia        | Off Site Emer. Planner            | CECo                  |
| D. L. Leone       | Projects Eng. Mgr. - BY & BR      | CECo                  |
| G. F. Marcus      | Director of Quality Assurance     | CECo                  |
| G. M. Orlov       | Asst. Director BCAP               | CECo                  |
| R. L. Byers       | Asst. Director BCAP               | CECo                  |
| K. T. Kostal      | Project Director Braidwood        | S & L                 |
| R. E. Ham         | IEOG, Asst. Project Manager       | ERC                   |
| B. R. Shelton     | Projects Eng. MGR                 | CECo                  |
| N. P. Smith       | General Supervisor - QA           | CECo                  |
| D. L. Shamblin    | Proj. Const. Superintendent       | CECo                  |
| E. E. Fitzpatrick | Asst. Manager QA                  | CECo                  |
| T. J. Maiman      | Manager of Projects               | CECo                  |
| N. N. Kaushal     | BCAP Director                     | CECo                  |
| L. S. Weiss       | BCAP - SWEC Deputy Mg.            | SWEC                  |
| D. L. Farrar      | Nuclear Licensing                 | CECo                  |
| W. L. Chase       | Consultant                        | ERC                   |
| R. B. Laney       | Consultant                        | ERC                   |
| I. M. Johnson     | Nuclear Communications            | CECo                  |
| M. J. Wallace     | Project Mgr.                      | CECo                  |



BRAIDWOOD STATION  
BRAIDWOOD CONSTRUCTION ASSESSMENT PROGRAM  
REPORT PERIOD NOVEMBER 1, - NOVEMBER 30, 1984

I. SUMMARY/STATUS

This is the fifth monthly Progress Report on the Braidwood Construction Assessment Program (BCAP), covering the period from November 1, through November 30, 1984.

During this period, CSR inspections have progressed on six populations and preparation of additional inspection packages has continued. In the RPSR effort, checklist preparation continued with the accumulation of construction requirements from FSAR and Sargent and Lundy specification sources. Progress continues on all active programs in the RSCAP element.

As of November 30, the number of personnel assigned to the BCAP effort has risen to 96. Satisfactory office and clerical support continues to be available to the BCAP workforce.

II. SCHEDULE ANALYSIS

The rescheduling effort initiated in November continues. A final draft of the Project Summary Schedule has been completed, reflecting current status, and established resources. Final review is expected to be completed during the first week of December.

III. PERSONNEL AND EQUIPMENT STATUS

BCAP manpower totaled 96 as of November 30, 1984. A total of five Inspectors (Level II and Level III) were certified during November. Inspection personnel activities included training, accessibility walkdowns, reinspections and weld mapping.

The Mapper Data Base, for tracking observations and verification packages, is being updated regularly. Reports are issued monthly, and interim reports are available on an "as required" basis.

IV. BCAP ELEMENT STATUS

A. CSR STATUS

During this period, preparation of visual inspection packages and performance of inspections continued. New and revised checklists and instructions were issued. At this time, six populations are being inspected: HVAC Ducts, Duct Hangers, Concrete Placements, Small Bore Pipe Configurations, Large Bore Pipe Configurations and Conduits.



In addition to the six populations now being inspected, packages for the random portion of the sample are being assembled in preparation for inspection for the following populations: Large Bore Pipe Supports (Rigid), Large Bore Pipe Supports (Non Rigid), Small Bore Pipe Supports, Small Bore Pipe Configuration - Documentation Review, HVAC Equipment, and Conduit Hangers. Technical review of 29 of 70 checklists and instructions has been completed; 16 have been signed out and are in various stages of review by Q.A., Sargent and Lundy, and IEOG. Checklists and instructions for the remaining populations in each discipline are being developed.

Work has started on identifying portions of the samples based on engineering judgement.

During November, the number of certified inspectors increased to a total of 22. This total reflects the addition of one Electrical Level III and three Electrical Level II inspectors. To date 226 inspections have been completed with 343 observations recorded.

B. RPSR STATUS

During November, the RPSR group continued to be primarily involved in listing construction requirements from the FSAR and applicable Sargent & Lundy specifications on checklists. Two additional specifications were identified during the month as within the scope of the RPSR effort. This increased the number of specifications involved from seven to nine and the number of anticipated checklists from 21 to 23. Nineteen of the 23 checklists have been partially finished. Resolution of seven items affecting the applicability of construction requirements and final reviews remain to be done. All checklists are scheduled to be completed by December 21, 1984.

Procedural reviews are scheduled to start in mid December. This involves comparing construction and personnel qualification/certification requirements on checklists with those in contractor procedures. This work is scheduled to be completed in February.

The overall RPSR effort is now expected to be completed in February 1985. This delay in expected completion of RPSR resulted from an increase in (1) the number of specifications requiring review, (2) the number of codes and standards requiring incorporation in checklists, (3) the anticipated effort to resolve items affecting the content of checklists, and (4) the anticipated time to review FSAR and Requirement/Procedure checklists.



C. RSCAP STATUS

During this period, the RSCAP plan and schedules were updated and the procedure governing RSCAP activities (BCAP-60) was revised to reflect working experience to date. All RSCAP programs have proceeded past the commitment approval cycle.

The nine RSCAP programs have progressed as follows:

- a. Quality Control Structural Steel Review - 85%.
- b. Safety Related Pipe Supports - 80%.
- c. NSSS Component Supports - 60%.
- d. Electrical Installation Documentation Review - 40%.
- e. Quality Control Inspector Reinspection Program has been placed on hold.
- f. Reinspection of Safety Related Mechanical Equipment - 25%
- g. HVAC Welding, configuration, stiffeners, fittings - 40%.
- h. Piping Heat Number Traceability - 30%.
- i. Instrumentation Installation Verification - 25%

V. PROBLEMS/DISCREPENCY FINDINGS

A. Implementation Problems

Certification of a Level III inspector for the electrical discipline, which was reported as a potential problem last month, was accomplished in November. Inspections in the electrical discipline are now underway.

B. Discrepancy Findings

As reported in Section IV a total of 343 observation reports have been written as of Nov 30, 1984. Of these the review for validity has been completed on 94. Of these, 91 have been determined to be valid discrepancies and have been forwarded to Sargent & Lundy for review for design significance.

To date S&L has not identified any discrepancy as design significant.

VI. RECOMMENDATIONS

No specific recommendations are offered at this time.

*N. N. Kaushal*  
N. N. Kaushal  
BCAP Director