



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

OCT 30 1984

MEMORANDUM FOR: James G. Keppler, Regional Administrator
FROM: C. E. Norelius, Director, Division of Reactor Projects
SUBJECT: PROGRESS REPORT - NRC ONGOING INSPECTION OF BRAIDWOOD
CONSTRUCTION ASSESSMENT PROGRAM (BCAP)

The following information was provided by the NRC inspector assigned to follow the BCAP. It covers the period of October 9 through October 19, 1984. Similar type progress reports will be issued between the normal monthly inspection reports to inform NRC management of ongoing BCAP activities and issues.

BCAP Status

Reinspections of Heating, Ventilating, and Air Conditioning (HVAC) hangers and ducts and reinspections of concrete placements have commenced in the Construction Sample Reinspection (CSR) BCAP element. BCAP QA initiated overinspections of HVAC hangers and ducts upon completion of the reinspections of these items by the CSR BCAP inspectors. The Reverification of Procedures to Specification Requirements (RPSR) BCAP element should commence procedure reverifications during the week of October 22, 1984. The Review of Significant Corrective Action Programs (RSCAP) BCAP element has continued during this review period. To date, a high percentage of the components reinspected under the CSR BCAP element have resulted in at least one observation being generated. However, only a small number of components have been reinspected. ERC personnel have been onsite performing reviews. These reviews have included field inspections by ERC inspectors. Total BCAP manpower is presently 84 personnel.

Review of BCAP Program

During this review period the inspector performed the following reviews of BCAP activities:

- 1) reviewed revised BCAP procedures
- 2) reviewed CSR reinspection activities
- 3) reviewed QA overinspection activities
- 4) reviewed BCAP observations
- 5) reviewed RPSR activities

Problem Areas Identified

One significant problem was identified during this review period. During CSR concrete placement reinspections, BCAP inspectors were identifying deficiencies in concrete embedments such as a two piece embedment installed where the design drawing identified a one piece embedment, embedments identified on design drawings which were not installed, and embedments installed which were not identified on the design drawings. The CSR inspectors were documenting these deficiencies as comments/remarks on the inspection records in lieu of documenting these deficiencies as observations. ERC had previously identified this matter and was in the process of issuing an observation. In response to the inspector's concern with the handling of concrete embedment deficiencies, the licensee stated that the embedment deficiencies would be documented as observations. Open item #8.

Status of Open Items

To ensure the proper tracking and closure of open items identified in the NRC BCAP progress reports, all open items will be uniquely identified and tracked to closure.

Open items which have not been closed to date and their current status are as follows:

4. (Closed) Inspector concerns with the training of BCAP personnel who are performing functions other than OC inspections. The Corrective Action Request (CAR) written by BCAP QA to document BCAP training deficiencies was closed on October 2, 1984. The closure of this CAR was based on satisfactory resolution of the training deficiencies and the satisfactory results of a QA audit of BCAP training. The inspector reviewed the revised training procedure and the training records of four BCAP engineers. The revised procedure and the training records were satisfactory. This item is closed.
5. (Open) The licensee had failed to provide site orientation for two BCAP QA inspectors who had reviewed and approved BCAP procedures. The licensee initiated a CAR to document this deficiency. This item will remain open until the CAR has been closed by the licensee and corrective actions taken reviewed by the NRC.
6. (Open) Inspector concerns with the qualifications of BCAP inspectors who were in the process of being certified. The licensee stated that BCAP inspectors will be certified in accordance with site requirements. This item will remain open until the certification process is complete and the inspector has reviewed BCAP inspector qualifications on a case by case basis.

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7. (Closed) Controls were not in place to prevent the rework of items selected for reinspection during the CSR BCAP element. During this review period the inspector observed BCAP hold tags installed on components which were to be reinspected under the CSR BCAP element. These hold tags prohibit the rework of an item prior to its reinspection. This item is closed.

C. E. Norelius

C. E. Norelius, Director
Division of Reactor Projects

cc: R. C. DeYoung, OIE
J. N. Grace, IE
D. G. Eisenhut, NRR
M. Wallace, CECO
Braidwood SRIs



Commonwealth Edison

One First National Plaza, Chicago, Illinois
Address Reply to: Post Office Box 767
Chicago, Illinois 60690

October 10, 1984

Mr. James G. Keppler
Regional Administrator - Region III
U. S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

SUBJECT: Braidwood Nuclear Power Station Units 1 and 2
Status Briefing on BCAP Held on October 4, 1984
at Mazon Emergency Off-Site Facility (EOF)
NRC Docket Nos. 50-456 and 50-457

REFERENCE: (a) J. J. O'Connor Letter to J. G. Keppler
"Braidwood Construction Assessment Program
(BCAP)" dated June 22, 1984

Dear Mr. Keppler:

Reference (a) described the Braidwood Construction Assessment Program (BCAP). The second open briefing on the status of the BCAP effort was provided to the NRC on October 4, 1984 at the Mazon EOF. Forwarded herewith is a meeting summary including a copy of the visual-aid material used in the presentations. The next briefing meeting is scheduled for 9:00 a.m. on November 8, 1984 at the Mazon EOF.

Also forwarded herewith for your information is the BCAP Director's Progress Report for the month of September, 1984.

Please direct any questions relating to BCAP to Mike Wallace, Assistant Manager of Projects and Braidwood Project Manager.

David H. Smith
Nuclear Licensing Administrator

8410230132

Attachments

cc: NRC Resident Inspector - Braidwood
NRC BCAP Inspector - Braidwood ✓
John Hansel - ERC

(0948d)

MEETING SUMMARY

BCAP NRC/CECo/ERC/ MONTHLY MEETING

OCTOBER 4, 1984 9:00 A.M

MAZON EOF

The monthly meeting was opened with a brief statement by R. Warnick, of the NRC Region III, giving the purpose for the meeting, that is, to discuss the BCAP, its progress, and the Independent Expert Overview Group's (IEOG) review of the BCAP.

The following is the agenda utilized for the remainder of the meeting.

I. INTRODUCTION

Presented by the Braidwood Project Manager to provide the major topics of the presentation (see enclosure 1).

II. BCAP TASK FORCE

Presented by the BCAP Director to provide the BCAP's achievements for the month of September and the current status (see enclosure 2).

III. QUALITY ASSURANCE

Presented by the BCAP Quality Assurance Supervisor to describe the overview activities for the month of September and the current status (see enclosure 3).

IV. INDEPENDENT EXPERT OVERVIEW GROUP

Presented by the Assistant Project Manager of the IEOG to describe the overview activities for month of September of the IEOG (see enclosure 4).

Additional items discussed during the meeting are included in enclosure 5. The attendance for the meeting is provided in enclosure 6. The meeting adjourned at 10:15 A.M.

BRAIDWOOD CONSTRUCTION ASSESSMENT PROGRAM

(BCAP)

MONTHLY NRC STAFF BRIEFING

OCTOBER 4, 1984

- | | | |
|------|-----------------------------------|--------------|
| I. | INTRODUCTION | MIKE WALLACE |
| II. | BCAP TASK FORCE | NINU KAUSHAL |
| III. | QUALITY ASSURANCE | NEIL SMITH |
| IV. | INDEPENDENT EXPERT OVERVIEW GROUP | BOB HAMM |

BRAIDWOOD CONSTRUCTION ASSESSMENT PROGRAM (BCAP)
MONTHLY BRIEFING

PRESENTED TO

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

N. N. KAUSHAL
BCAP DIRECTOR
OCTOBER 4, 1984

CSR PROGRESS

- LIST OF CONSTRUCTION CATEGORIES ESTABLISHED

- RANDOM PORTION OF THE SAMPLE IDENTIFIED AND INSPECTION PACKAGES ARE READY FOR:
 - HVAC DUCTS
 - HVAC DUCT HANGERS
 - CONCRETE PLACEMENT

- RANDOM PORTION OF THE SAMPLE IS BEING ESTABLISHED FOR:
 - CONDUITS
 - CONDUIT SUPPORTS
 - CABLES
 - SMALL BORE PIPING CONFIGURATION
 - LARGE BORE PIPING CONFIGURATION
 - LARGE BORE PIPING SUPPORTS

CSR PROGRESS - CONT'D

- TWO LEVEL III INSPECTORS (CIVIL/STRUCTURAL AND MECHANICAL/WELD) CERTIFIED

- ONE LEVEL II INSPECTOR CERTIFIED IN BOTH MECHANICAL AND WELDING AREAS

- TWO LEVEL II INSPECTORS CERTIFIED IN MECHANICAL AREA

- CERTIFICATION PACKAGES ARE ESSENTIALLY COMPLETED FOR TWO MORE LEVEL II INSPECTORS (CIVIL/STRUCTURAL)

- NO INSPECTIONS PERFORMED TO DATE

CSR PROGRESS - CONT'D

CSR PROGRESS HAS BEEN SLOWER THAN EXPECTED FOR SEVERAL REASONS:

- ° INTENSIVE AUDIT SURVEILLANCE AND OVERVIEW ACTIVITY RESULTED IN DIVERSION OF TASK FORCE RESOURCES TO SUPPORT THESE ACTIVITIES

- ° COMMENTS/OBSERVATIONS FROM THESE AUDITS, ETC. ALTHOUGH MOSTLY MINOR REQUIRED ADDITIONAL EFFORT FOR RESOLUTION. NO SERIOUS PROGRAMMATIC DEFICIENCIES HAVE BEEN IDENTIFIED

- ° QUALIFICATION AND CERTIFICATION OF BCAP INSPECTORS TOOK LONGER THAN ANTICIPATED

- ° REWORK ON SOME SAMPLE POPULATIONS WAS NECESSARY AS A RESULT OF INCOMPLETE INFORMATION PROVIDED BY CONTRACTORS.

CSR PROGRESS - CONT'D

IN THE COURSE OF PREPARING INSPECTION PACKAGES, THE FOLLOWING OBSERVATION/DISCREPANCY WAS IDENTIFIED:

- OBSERVATION CSR-D-H-2-0-1

THE HVAC CONTRACTOR DID NOT DOCUMENT INSPECTIONS OF FIRE DAMPERS FOR "SQUARENESS" AND "FRAME TO BLADE" CLEARANCES AFTER ERECTION AS RECOMMENDED BY THE FIRE DAMPER VENDOR

RPSR PROGRESS

- ° FSAR REVIEW FOR IDENTIFYING ESSENTIAL CONSTRUCTION REQUIREMENTS COMPLETED

- ° REVIEW OF SARGENT AND LUNDY SPECIFICATIONS FOR IDENTIFYING ESSENTIAL CONSTRUCTION REQUIREMENTS IN PROGRESS

- ° REVIEW OF REQUIREMENTS AGAINST PROCEDURES EXPECTED TO START ON OCTOBER 9

- ° NO OBSERVATIONS OR CONCERNS HAVE BEEN IDENTIFIED TO DATE

- ° OVERALL PROGRESS HAS BEEN SATISFACTORY

RSCAP PROGRESS

REVIEW OF THE FOLLOWING SEVEN CAP'S IS IN PROGRESS
(INCLUDES TWO REVIEWS INITIATED DURING THE LAST
MONTH):

- QUALITY CONTROL STRUCTURAL STEEL REVIEW
- SAFETY RELATED PIPE SUPPORTS
- NSSS COMPONENT SUPPORTS
- ELECTRICAL INSTALLATION DOCUMENTATION REVIEW
- QUALITY CONTROL INSPECTOR REINSPECTION
- REINSPECTION OF SAFETY RELATED MECHANICAL
EQUIPMENT
- HVAC WELDING, CONFIGURATION, STIFFENERS
FITTINGS

OVERALL RSCAP PROGRESS HAS BEEN SATISFACTORY

RSCAP PROGRESS - CONT'D

REVIEW TO DATE HAS IDENTIFIED THE FOLLOWING
OBSERVATIONS:

- 004-01 - FAILURE TO COMPLETE FORM REQUIRED
BY THE PROCEDURE

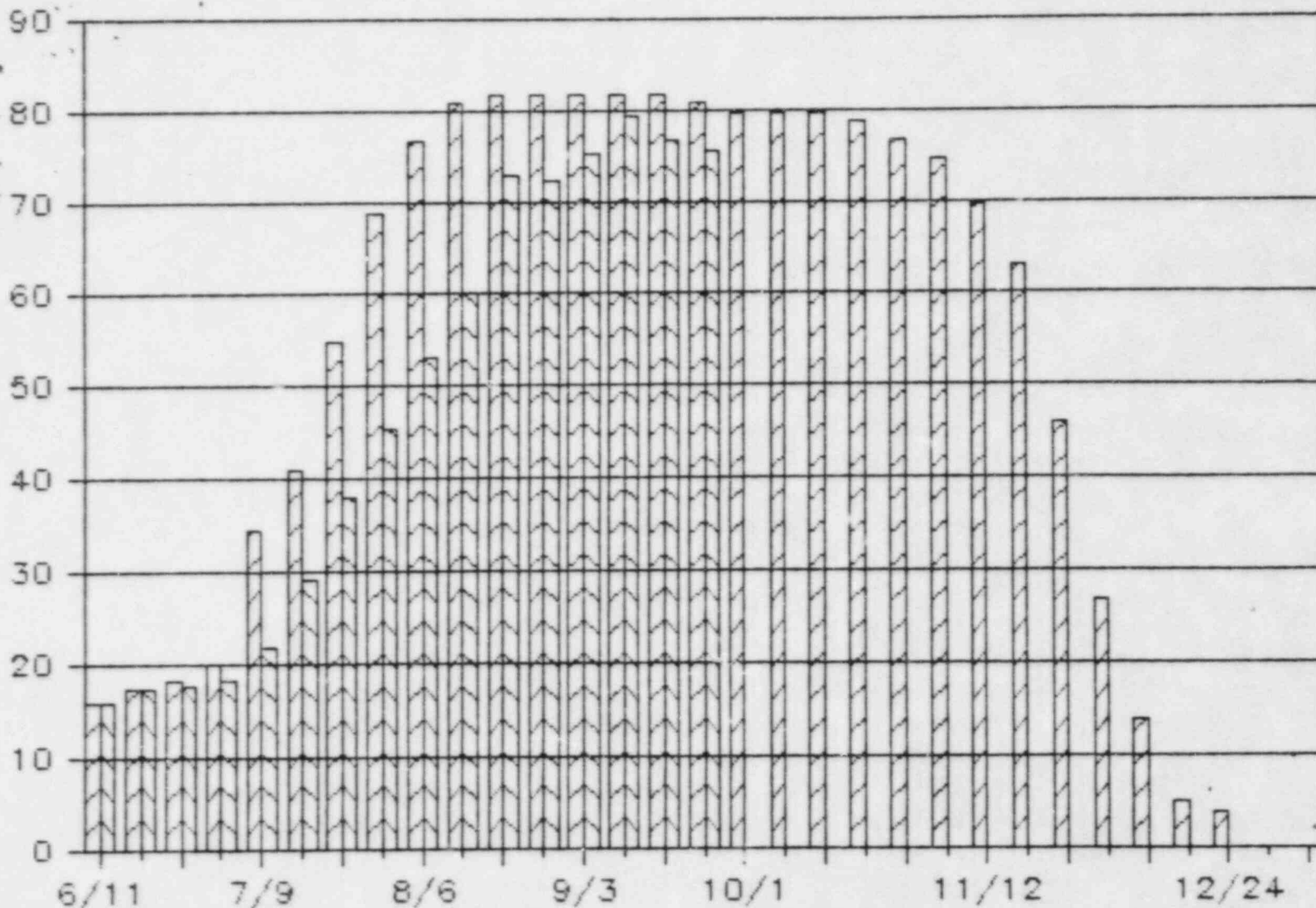
- 004-02 - FAILURE TO USE INSPECTION TOOL
REQUIRED BY PROCEDURE

SUMMARY BCAP STATUS

- RSCAP AND RPSR PROGRESS HAS BEEN SATISFACTORY
- CSR PROGRESS HAS BEEN SLOWER THAN ANTICIPATED
- INSPECTOR CERTIFICATIONS TOOK LONGER THAN PLANNED
- WORK PREPARATORY TO INSPECTIONS HAS BEEN THOROUGHLY CHECKED
- NO INSPECTIONS HAVE BEEN INITIATED
- GOAL FOR THE NEXT MONTH IS TO MAKE SIGNIFICANT PROGRESS ON INSPECTIONS

TOTAL BCAP EQUIVALENT MANPOWER

PERSONNEL



STATUS AS OF WEEK #16 BEGINNING 9/24/84



PLANNED



ACTUAL

BCAP Q.A.

MONTHLY BRIEFING

N. P. SMITH

OCTOBER 4, 1984

- ORGANIZATION/PERSONNEL

- DEVELOPMENT EFFORTS

- DOCUMENT REVIEW EFFORTS

- AUDIT/SURVEILLANCE SCHEDULES AND RESULTS

- BCAP Q.A. INTERNAL REVIEWS

- HOLD POINTS

ORGANIZATIONAL/PERSONNEL

- ADDED ONE TECHNICAL SPECIALIST

- LOST ONE LEAD ENGINEER

PERSONNEL

EXPERIENCE LEVELS

(AVERAGE YEARS)

| | OVERALL | | NUCLEAR | | Q.A. | |
|--|---------|--------|---------|--------|---------|--------|
| | 1 SEPT. | 1 OCT. | 1 SEPT. | 1 OCT. | 1 SEPT. | 1 OCT. |
| GENERAL SUPERVISOR - Q.A. LEAD ELEMENT ENGINEERS OVERINSPECTION SUPERVISOR Q.A. ENGINEERS/SPECIALISTS | 21.9 | 22.9 | 13.4 | 15.9 | 5.3* | 5.0 |
| INSPECTORS | 14 | 14 | 7.4 | 7.4 | -- | -- |

*RECALCULATED

DEVELOPMENT EFFORTS

- ADDED 4. Q.A. SPECIAL INSTRUCTIONS

- REVISED 11 Q.A. SPECIAL INSTRUCTIONS

- DELETED 1 Q.A. SPECIAL INSTRUCTION

- CONDUCTED TRAINING TO THE ABOVE CHANGES

- REVISION TO Q.A. PLAN TO REFLECT JUNE 30, 1984
EFFECTIVE DATE FOR CSR

BCAP DOCUMENT REVIEWS
(SEPTEMBER)

| | |
|--------------------------------------|-------|
| REVISION TO POLICY PLANS | 3 |
| REVISIONS TO PROCEDURES/INSTRUCTIONS | 26 |
| LESSON PLANS | 3 |
| EXAMINATION QUESTION BANKS | 6 |
| CERTIFICATION EXAMINATIONS | 6 |
| REINSPECTION CHECKLISTS/INSTRUCTIONS | 5 |
| CERTIFICATION PACKAGES | 2 |
| | <hr/> |
| | 51 |

BCAP INSPECTOR CERTIFICATION
PACKAGE REVIEW PROCESS

- AT PRESENT PERFORMED PRIOR TO THE INSPECTOR(S) PERFORMING INSPECTIONS.
- REVIEW PERFORMED IN ACCORDANCE WITH A SITE QUALITY INSTRUCTION. ELEMENTS OF THE REVIEW INCLUDE THE FOLLOWING:
 - EVALUATION OF EXPERIENCE FOR THE CORRESPONDING EDUCATION AND CERTIFICATION LEVEL.
 - VERIFICATION THAT REQUIRED TRAINING HAS BEEN COMPLETED.
 - A. INDOCTRINATION
 - B. READ/STUDY
 - C. CLASSROOM
 - D. ON-THE-JOB
 - VERIFICATION OF SATISFACTORY COMPLETION OF PRACTICAL AND WRITTEN EXAMINATIONS.
 - VERIFICATION THAT REQUIRED CERTIFICATION DOCUMENTS ARE COMPLETED IN ACCORDANCE WITH THE BCAP PERSONNEL QUALIFICATION AND CERTIFICATION PROCEDURE.
- ANY COMMENTS DOCUMENTED AND RESOLVED BY FORMAL COMMENT SHEET.

EXAMPLE

Experience Evaluation

For: Level III
Candidate

Education:

| Requirements (BCAP-08 & ANSI N45.2.6 (1978)) | Experience Summary | | | | Requirement to Experience Comparison |
|---|-----------------------|------------|----------------------|------|--|
| | Discipline & Level | Time Frame | Months Experience | Type | |
| 1. 8 years with 2. & 3. | | | | | Exceeds req'mnts. by _____. |
| 2. At least 2 yrs as a L-II | | | | | Exceeds req'mnts. by _____. |
| 3. At least 2 yrs associated with nuclear facilities | | | | | Exceeds req'mnts. by _____. |

Evaluation Results:

Performed By: BCAP-Q.A.
Signature Date

BCAP Q.A. AUDIT SCHEDULE
(ANNUAL)

SHEET 1 OF 1

X | - SCHEDULED AUDIT

X | X | - COMPLETED AUDIT

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

BCAP Q.A. SURVEILLANCE SCHEDULE
(ANNUAL)

| |
|---|
| X |
|---|

 - SCHEDULED SURVEILLANCE

| | |
|---|---|
| X | X |
|---|---|

 - COMPLETED SURVEILLANCE

| ACTIVITY/ SUBJECT AREA | YEAR | 1984 | | | | | | | | | | | | | | | |
|---------------------------|----------------|-----------|-----|-----|---------|----|----|----|----------|----|----|----|----------|----|----|----|----|
| | MONTH | SEPTEMBER | | | OCTOBER | | | | NOVEMBER | | | | DECEMBER | | | | |
| | WEEK 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 | | | |
| BCAP-21 | | | X X | X | X | | X | | X | | | | | X | | | |
| BCAP-22 | | | | X | | X | | X | | X | | | | | X | | |
| BCAP-23 | | | X X | X | X | | X | | X | | | | | X | | | |
| BCAP-24 | | | | X | X | X | | X | | X | | | | | | X | |
| RPSR - PROCEDURES | | | | | | | | | | | | | | | | | |
| BCAP-41 | | | | X X | X | X | | X | | X | | | | X | | | |
| BCAP-42 | | | | X X | X | X | | X | | X | | | | X | | | |
| BCAP-43 | | | | X | X | | X | | X | | | | | | | | |
| RSCAP - PROCEDURES | | | | | | | | | | | | | | | | | |
| BCAP-60 | | | | X X | X | X | | X | | X | | | | X | | | |
| ADMIN. - PROCEDURES | | | | | | | | | | | | | | | | | |
| BCAP-01 | | | | X | | X | | X | | X | | | | X | | | |
| BCAP-02 | | | | X | | X | | X | | X | | | | X | | | |
| BCAP-03 | | | | X | | X | | X | | X | | | | X | | | |
| BCAP-04 | | | | X | | X | | X | | X | | | | X | | | |
| BCAP-06 | | | | | X | | X | | X | | X | | | | | X | |
| BCAP-07 | | | | | X | | X | | X | | X | | | | | X | |
| BCAP-08 | | | | | X | | X | | X | | X | | | | | X | |

SITE AUDIT* RESULTS

| | FINDINGS | |
|-----------------------|----------|--------|
| | OPEN | CLOSED |
| BCAP ADMIN PROCEDURES | 1 | 2 |
| BCAP CSR PROCEDURES | 4 | 0 |
| BCAP RSCAP PROCEDURES | 0 | 0 |
| BCAP RPSR PROCEDURES | 0 | 1 |
| | <hr/> | |
| TOTAL | 5 | 3 |

- * DETAILED STEP-BY-STEP VERIFICATION
7 FINDINGS INVOLVED PROCEDURAL VIOLATIONS OF A MINOR NATURE.
1 FINDING INVOLVED PROCEDURAL VIOLATION WITH DELAY POTENTIAL.

OFF-SITE AUDIT RESULTS

| <u>AUDIT AREA</u> | <u>FINDINGS</u> | |
|---|-----------------|---------------|
| | <u>OPEN</u> | <u>CLOSED</u> |
| DANIEL INTERNATIONAL QC INSPECTOR CERTIFICATION PROGRAM | 0 | 0 |

SURVEILLANCE RESULTS

| <u>AREA</u> | <u>OPEN</u> | <u>ITEMS</u> | <u>CLOSED</u> |
|----------------|-------------|--------------|---------------|
| RSCAP TRAINING | 0 | | 1 |
| CSR PROCEDURES | 3 | | 0 |
| | <hr/> | | |
| TOTAL | 3 | | 1 |

BCAP Q.A. INTERNAL REVIEWS

- DETAILED STEP-BY-STEP VERIFICATION TO ASSURE
BCAP Q.A. WAS IMPLEMENTING PROCEDURES CORRECTLY

- 4 CORRECTIVE ACTION REQUESTS WRITTEN (1 CLOSED)

NO ITEMS FOUND THAT WOULD IMPACT Q.A. WORK DONE TO DATE.

HOLD POINTS

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

- BCAP Q.A. LETTER OF SEPTEMBER 6, 1984 PLACED HOLD POINT ON
 - IMPLEMENTATION OF COMPLETED CHECKLISTS FOR CSR AND RPSR
 - INSPECTOR PERFORMANCE OF FIELD INSPECTIONS

HOLD POINTS STATUS

- RPSR CHECKLISTS - HOLD RELEASED OCTOBER 3, 1984
BASED ON AUDIT

- CSR CHECKLISTS - AWAITING CLOSURE OF AUDIT FINDINGS

- INSPECTORS - HOLD BEING RELEASED FOR INDIVIDUAL
INSPECTORS FOLLOWING BCAP Q.A. CERTIFICATION REVIEW

BCAP STATUS
MEETING

for

September, 1984

INDEPENDENT EXPERT OVERVIEW GROUP

October 4, 1984

TOPICS

- o **Introductory Remarks**
 - o **Documentation Reviews Completed**
 - o **Overview Activities**
 - o **Status of Observations and Requests
for Corrective Action**
 - o **Open Issues and Concerns**
-

DOCUMENTATION REVIEWS COMPLETED

- o BCAP PLAN
- o OVERVIEW PLAN
- o CSR
- o RPSR
- o RSCAP
- o BCAP QUALITY ASSURANCE
- o ADMINISTRATIVE PROCEDURES

DOCUMENT REVIEWS COMPLETED

Plans

- RPSR Plan, Rev. 1

Procedures

- BCAP-01, Rev. 1
- BCAP-04, Rev. 1
- BCAP-06, Rev. 1 & 2
- BCAP-20, Rev. 1
- BCAP-21, Rev. 1
- BCAP-22, Rev. 1
- BCAP-41, Rev. 1
- BCAP-42, Rev. 1
- BCAP-43, Rev. 1

BCAP/QA Procedures

- QASI-01 through 16

CSR Draft Checklists

- HVAC Hangers and Auxiliary Steel
 - Generic AWS D1.1 Visual Weld Inspection
 - AWS D1.3 Visual Weld Inspection
-

Overview Activities

Audits:

- o RSCAP (0 findings)
- o Administration (4 findings)

Surveillances:

- o CSR (Populations)
 - Small Bore Piping Configuration
(Issued Observation BCAP-OBS-02)
 - Concrete Placement
 - Structural Steel
 - Electrical Conduit
 - HVAC Duct
 - HVAC Hangers/Auxiliary Steel
 - Generic AWS D1.1 Visual Weld
Inspection
 - AWS D1.3 Visual Weld Inspection
 - o RPSR
 - o RSCAP
 - o Inspector Certifications
-

Activities for September

| | Observations or Findings | | Answered Satisfactorily | | RCA's Written | | Open or Unresolved | |
|-------------------------|-----------------------------|--------|----------------------------|------|------------------|------|-----------------------|------|
| | Mo. | Cum. | Mo. | Cum. | Mo. | Cum. | Mo. | Cum. |
| AUDITS: | | | | | | | | |
| RSCAP Administration | 0 4 | 0 4 | 4 | 4 | | | | |
| SURVEILLANCES: | | | | | | | | |
| CSR | 1 | 1 | | | | | 1 | 1 |
| RPSR | | | | | | | | |
| RSCAP Administration | 1 | 1 | 1 | 1 | | | | |
| BCAP Quality Assurance | | | | | | | | |
| INSPECTIONS: | | | | | | | | |
| TOTAL | 6 | 6 | 5 | 5 | | | 1 | 1 |

CLOSED ISSUES/CONCERNS

RSCAP

Activity is underway by a separate group to assess the adequacy of commitments to correct/prevent recurrence of each problem.

RPSR

A review of the FSAR to determine applicable requirements/commitments is nearing completion.

General

The inconsistency between June 1 and June 30 dates is being corrected as the affected documents are revised.

Open Issues/Concerns

Issues

- 1) Revisions of documents to incorporate revisions committed to the IEOG:
 - a) BCAP Program Document
 - b) BCAP Overview Plan
 - c) RSCAP Plan
 - d) CSR Plan
 - e) BCAP QA Plan
 - f) BCAP Procedures BCAP-07, 60

- 2) Response to Observation BCAP-OBS-002
(Small Bore Piping Configuration Population)

Concerns

- 1) Inspector certifications

ENCLOSURE 5

Items Discussed at NRC/CECo/ERC Meeting

October 4, 1984 9:00 A.M.

- Q. Will the RSCAP element include a sample inspection of hardware in the field?
- A. The RSCAP element will not include a sample inspection of hardware. However, the CSR element will include, as a part of it's sample, hardware inspections of items involved in the corrective action programs.
- Q. Does BCAP Q.A verify the inspector education and experience stated in the Inspector Qualification Package?
- A. BCAP Q.A. does verify inspector education and experience on a spot check basis. Furthermore, BCAP Q.A. has performed an off-site audit of Daniel International Corporation to assure the adequacy of their education and experience verification program.
- Q. How many people has the IEOG assigned to the BCAP overview?
- A. The IEOG normally has from 6 to 10 personnel on site at any time, and will adjust the number of personnel assigned as required to maintain the proper overview involvement.

Enclosure 6

| <u>NAME</u> | <u>POSITION</u> | <u>ORGANIZATION</u> |
|-------------------|---|-------------------------------|
| R. Warnick | Branch Chief | Region III, NRC |
| R. Gardner | Reactor Inspector | Region III, NRC |
| C. W. Schroeder | Proj. Licensing & Compliance Supt. | CECO |
| D. Swartz | Nuclear Licensing Administrator | CECO |
| N. P. Smith | Gen. Supervisor - QA | CECO |
| D. H. Smith | Nuclear Licensing Administrator | CECO |
| E. E. Fitzpatrick | Asst. Manager - QA | CECO |
| R. E. Ham | Asst. Project Manager | ERC |
| W. L. Chase | Asst. Project Manager | ERC |
| K. T. Kostal | Proj. Director Braidwood. | S&L |
| R. L. Byers | BCAP Asst. Director | BCAP |
| G. M. Orlov | BCAP Asst. Director | BCAP |
| W. J. Shewski | Manager QA | CECO |
| J. D. Deress | Proj. Engineering Manager B/B | CECO |
| D. L. Shamblin | Proj. Construction Superintendent | CECO |
| D. L. Cecchett | Licensing Engineer | CECO |
| R. J. Lauer | Attorney | IL&B |
| D. Powell | Division of Engineering | IL Dept. of Nuclear Safety |
| R. Minue | Nuc. Eng./Div. of Engineering | IL Dept. of Nuclear Safety |
| A. Scaccia | Offsite Planner | CECO |
| R. Marabito | Public Affairs Officer | Region III, NRC |
| I. M. Johnson | Communications Coordinator | CECO |
| J. Hoppe | | IL Commerce Com. |
| N. N. Kaushal | BCAP Director | CECO |
| M. J. Wallace | Asst. Mgr. of Projs. & Proj. Mgr. Braidwood | CECO |
| T. J. Maiman | Manager of Projects | CECO |

Braidwood Station

Braidwood Construction Assessment Program

Program Progress Report

Report Period September 1 - September 30, 1984

I. SUMMARY STATUS

This is the third monthly Progress Report on the Braidwood Construction Assessment Program (BCAP). This report covers the period from September 1 through September 30, 1984.

During this period the plans and procedures were revised to incorporate working experience and also to accommodate review comments and results of audits and surveillances by Independent Expert Overview Group (IEOG) and Commonwealth Edison Quality Assurance. Particular attention was also devoted to the qualification and certification of the inspectors.

Under CSR, effort continued on completion of checklists and instructions and associated inspection packages. Under RPSR, review of the PSAR for identification of essential construction requirements, was completed. Under RSCAP, review of two additional programs was initiated bringing the total under review to seven. However, no inspections (under CSR) have been performed to date.

As of September 30, 1984 the number of personnel assigned to the BCAP effort has risen to 84. Satisfactory office and clerical support continues to be available to the BCAP workforce.

II. SCHEDULE ANALYSIS

The overall BCAP effort is approximately six weeks behind schedule. This delay is a combination of the previously reported delays (three weeks in the completion of procedures) and the current period delays (three weeks in the training/certification of inspectors and the preparation of reinspection & document review packages). The overall effort will be replanned to take this delay into account.

III. PERSONNEL AND EQUIPMENT STATUS

Actual number of personnel totalled 84 as of September 30, 1984, compared to the planned 82 at this time. Inspection personnel participated in accessibility walkdowns, and training for reinspection/documentation reviews. Two of the three required level III inspectors have been certified.

IV. BCAP ELEMENT STATUS

A. CSR STATUS

During September work concentrated on writing and issuing the population checklists and instructions and training and certification of inspectors. Out of a total of 70 checklists and instructions, three have been completed and an additional 15 are in various stages of review.

Procedure revisions were made to CSR-20,21 and 22 to more clearly define the activities done to establish populations, select samples and prepare checklists and instructions.

Inspections are scheduled first for HVAC ducts, duct hangers and concrete placements. All activities and documents have been completed, reviewed and approved to support the inspection of these three populations. Small bore piping configuration and electrical conduit, conduit hangers and cables are the next populations scheduled for inspection; contractors' lists of completed items for these categories continue to be reviewed to determine their accuracy and completeness.

Sargent & Lundy design documents are being used to define population items for conduit, conduit hangers and cable trays.

Certification of two level III inspectors, one for mechanical and weld disciplines and one for the civil/structural discipline, has been completed. Training and certification of level II inspectors is in progress. Certification of level II inspectors in the mechanical, weld and civil/structural disciplines is expected to be completed in the first week of October. This will support initiation of inspections on HVAC ducts, HVAC duct hangers and concrete placements.

Audits of CSR were performed by BCAP-QA and IEOG

B. RPSR Status

During September 1984, the RPSR group completed training on BCAP procedures 41, 42, and 43. Other RPSR activity involved reviewing the FSAR for construction requirements that fell within the RPSR scope. This review was completed. Preparation of six checklists with construction requirements from applicable Sargent & Lundy specifications was also started. About 20% of these checklists were completed. At least 15 additional checklists will be completed by the end of the RPSR effort. The staff of the RPSR element increased to eight by the addition of a support structural and HVAC engineer.

C. RSCAP Status

During this period, review of two additional programs was initiated. This brings the total number of programs under review to seven. The review of these programs was completed to the extent shown:

- a. Quality Control Structural Steel Review - 65%
- b. Safety Related Pipe Supports - 58%
- c. NSSS Component Supports - 45%
- d. Electrical Installation Documentation Review - 30%
- e. Quality Control Inspector Reinspection - 25%
- f. Reinspection of Safety Related Mechanical Equipment - 10%
- g. HVAC Welding, Configuration, Stiffeners Fittings - 10%

Work has not begun on review of the following two significant corrective action programs:

- h. Piping Heat Number Traceability
- i. Instrumentation Installation Verification

Audits of RSCAP effort were performed by BCAP-QA and IEOG.

V. PROBLEMS/DISCREPANCY FINDINGS

A. Implementation Problems

During September, a significantly increased level of audit and surveillance activity resulted in expenditure of substantial BCAP resources in support of these activities. A number of minor findings regarding early engineering work and the first issue of some procedures also resulted in unanticipated BCAP effort on corrective actions. None of these findings reflect programmatic deficiencies. However, they did contribute to lack of satisfactory progress on CSR. A detailed evaluation of the qualifications of inspectors prior to certification also resulted in delays in completing the inspector certifications.

B. Major Discrepancy Findings

None to date.

VI. RECOMMENDATIONS

No specific recommendations are offered at this time.

N. N. Kaushal

N. N. Kaushal, Director
Braidwood Construction Assessment Program