

**Commonwealth Edison**

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

November 27, 1984

| PRINCIPAL STAFF | | |
|-----------------|------|--------|
| RA | DRP | orig+1 |
| D/RA | DRS | for |
| RC | DRSS | |
| PAO | ML | |
| SGA | OL | |
| ETC | OI | |
| DRMA | FILE | for |

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

Subject: Braidwood Station Units 1 & 2
 Braidwood Construction Assessment Program
Docket No. 50-456 and 50-457

- References (a): J. J. O'Connor Letter to J. G. Keppler
 "Braidwood Construction Assessment Program
 (BCAP)" dated June 22, 1984
- (b): J. G. Keppler Letter to J. J. O'Connor
 dated July 27, 1984
- (c): J. J. O'Connor Letter to J. G. Keppler
 dated August 30, 1984
- (d): J. G. Keppler Letter to C. Reed dated
 September 14, 1984

Dear Mr. Keppler:

Reference (a) transmitted the Braidwood Construction Assessment Program (BCAP) scope document to the NRC for review. References (b), (c), and (d) were followup letters which resulted in BCAP approval. The third open briefing on the status of the BCAP effort was provided to the NRC on November 8, 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 December 6, 1984 at the Mazon EOF.

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

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

8501040192 841210
 PDR ADOCK 05000456
 Q PDR

Very truly yours,

David H. Smith
 Nuclear Licensing Administrator

Attachments

cc: NRC Resident Inspector - Braidwood
 NRC BCAP Inspector - Braidwood
 John Hansel - ERC
 N. N. Kaushal - CECO

9473N

NOV 30 1984

Meeting Summary
BCAP NRC/CECo/ERC Monthly Meeting
November 8, 1984 9:00 a.m.
Mazon EOF

The meeting was opened with a brief statement by R. F. Warnick of the NRC Region III giving the purpose for the meeting, that is, to discuss BCAP, it's progress, and the Independent Expert Overview Group's (IEOG) review of the BCAP. Mr. Warnick also stated that upon completion of the presentation by CECo and the IEOG, the NRC would respond to questions from the public in attendance.

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

I. Introduction

Presented by the CECo Manager of Projects to provide the major topics of the presentation (see Enclosure 1).

II. BCAP Task Force

Presented by the BCAP Director to provide the BCAP achievements for the month of October (see Enclosure 2).

III. Sargent & Lundy

Presented by the Sargent & Lundy Project Director to provide Sargent & Lundy's status of work (see Enclosure 3).

IV. Quality Assurance

Presented by the General Supervisor of Quality Assurance to describe the overview activities of the CECo BCAP QA group (see Enclosure 4).

V. IEOG Progress Report

Presented by the Assistant Project Manager of the IEOG to describe the overview activities of the IEOG (see Enclosure 5).

Additional items discussed during the meeting are included in Enclosure 6. The attendance for the meeting is provided in Enclosure 7. The meeting adjourned at 11:00 a.m.

BRAIDWOOD CONSTRUCTION ASSESSMENT PROGRAM

(BCAP)

MONTHLY NRC STAFF BRIEFING

NOVEMBER 8, 1984

| | | |
|------|-----------------------------------|--------------|
| I. | INTRODUCTION | TOM MAIMAN |
| II. | BCAP TASK FORCE | NINU KAUSHAL |
| III. | SARGENT AND LUNDY | KEN KOSTAL |
| IV. | QUALITY ASSURANCE | NEIL SMITH |
| V. | INDEPENDENT EXPERT OVERVIEW GROUP | JOHN HANSEL |

BRAIDWOOD CONSTRUCTION ASSESSMENT PROGRAM (BCAP)

MONTHLY BRIEFING

PRESENTED TO

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

N. N. KAUSHAL
BCAP DIRECTOR
NOVEMBER 8, 1984

PRESENTATION OUTLINE

DOCUMENTATION STATUS

CSR PROGRESS

RPSR PROGRESS

RSCAP PROGRESS

MANPOWER STATUS

SUMMARY STATUS

BCAP DOCUMENTATION STATUS

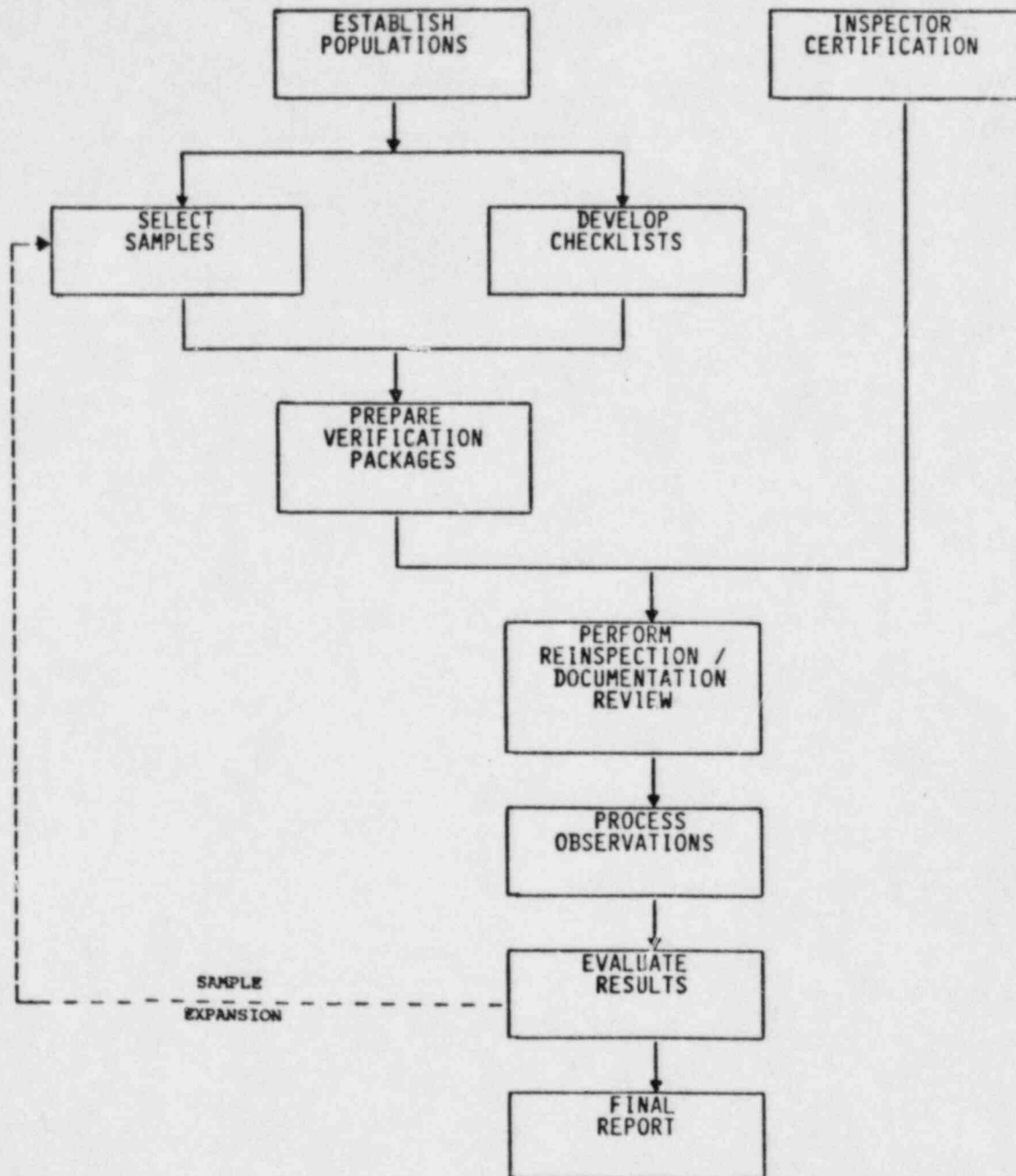
- ° ALL PROCEDURES COMPLETED. SEVERAL REVISED BASED ON EXPERIENCE
- ° ALL PLANS HAVE BEEN UPDATED TO PROVIDE CONSISTENCY.
- ° UPDATING OF PROGRAM DOCUMENT IN PROGRESS TO INCORPORATE COMMITMENTS TO NRC

BCAP DOCUMENTATION STATUS - CONT'D

UPDATING OF THE PROGRAM DOCUMENT INCLUDES:

- ° 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
- ° 22 OF 35 POPULATION DESCRIPTIONS WRITTEN

IDENTIFICATION OF ITEMS IN POPULATION:

- ° 12 OF 35 COMPLETE

CSR: SAMPLE SELECTION

RANDOM PORTION:

- ° 5 OF 35 POPULATIONS COMPLETE

ENGINEERING JUDGEMENT PORTION:

- ° BACKGROUND INFORMATION REVIEW COMMENCED

CSR: DEVELOPMENT OF CHECKLISTS

POPULATION-SPECIFIC CHECKLISTS:

- ° 18 OF 35 REINSPECTION CHECKLISTS PREPARED
- ° 4 OF 35 DOCUMENTATION CHECKLISTS PREPARED
- ° 7 APPROVED FOR PACKAGE PREPARATION

GENERIC CHECKLISTS:

- ° 2 WELDING CHECKLISTS COMPLETED

CSR: PREPARATION OF VERIFICATION PACKAGES

- ° 209 PACKAGES IN 5 POPULATIONS ARE RELEASED FOR REINSPECTION
- ° 0 DOCUMENTATION REVIEW PACKAGES COMPLETED
- ° APPROXIMATELY 7000 PACKAGES REQUIRED ASSUMING NO SIGNIFICANT SAMPLE EXPANSION

CSR: INSPECTOR CERTIFICATION

LEVEL III

- ° 3 DISCIPLINES CERTIFIED
 - CIVIL/STRUCTURAL
 - MECHANICAL
 - WELDING

- ° IN-PROGRESS
 - ELECTRICAL

LEVEL II

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

18 INSPECTORS CERTIFIED

CSR: REINSPECTIONS AND DOCUMENTATION REVIEWS

REINSPECTIONS:

- ° COMMENCED OCTOBER 5, 1984
- ° 85 COMPLETE AS OF NOVEMBER 6, 1984
- ° 131 OBSERVATION REPORTS WRITTEN

DOCUMENTATION REVIEWS:

- ° NOT STARTED

CSR: EVALUATION OF RESULTS

- ° PROCEDURE ISSUED NOVEMBER 2, 1984
- ° NO WORK TO DATE

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:

- ° 7 SPECIFICATIONS APPLICABLE
- ° 2 SPECIFICATIONS UNDER STUDY

IDENTIFICATION OF CONTRACTOR PROCEDURES:

- ° 425 PROCEDURES FROM 7 CONTRACTORS CONSIDERED
- ° 350 VERIFIED APPLICABLE AS OF JUNE 30, 1984

RPSR PROGRESS - CONT'D

- ° IDENTIFICATION OF CONSTRUCTION REQUIREMENTS IN FSAR:
 - REVIEW COMPLETED

- ° IDENTIFICATION OF CONSTRUCTION REQUIREMENTS IN SEVEN APPLICABLE SPECIFICATIONS:
 - APPROXIMATELY 40% 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

REVIEW OF TWO (2) ADDITIONAL SCAP'S WAS INITIATED DURING THE LAST MONTH. THIS BRINGS ALL SCAPS (LISTED BELOW) 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

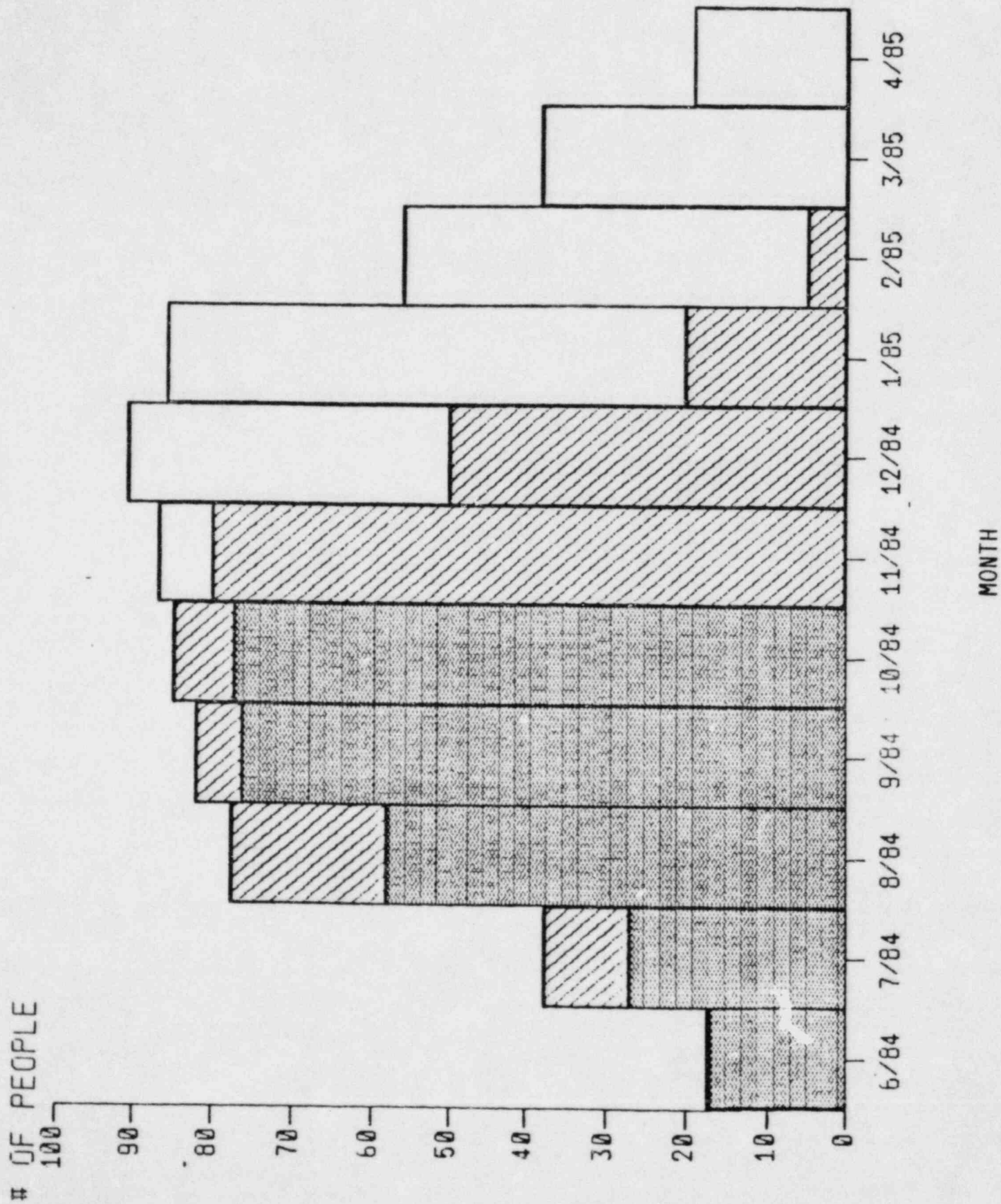
RSCAP PROGRESS - CONT'D

- ° WORK PRIORITIES WERE REARRANGED TO COMPLETE REVIEW OF COMMITMENTS FOR ALL SCAP'S TO SUPPORT QUALITY ASSURANCE TASK FORCE
- ° RSCAP ELECTRICAL LEAD WAS TEMPORARILY ASSIGNED TO CSR FOR CERTIFICATION AS LEVEL III ELECTRICAL INSPECTOR

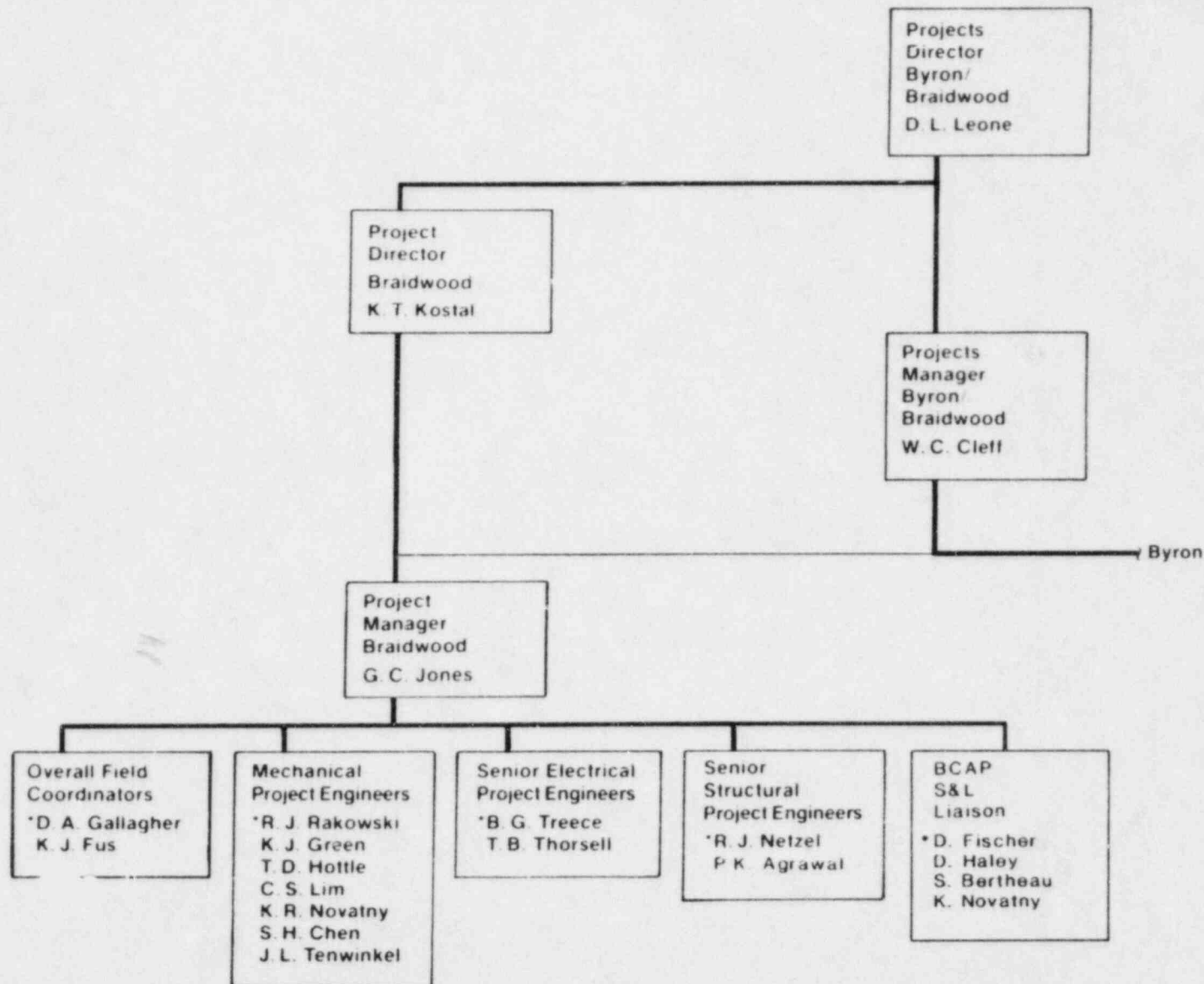
BCAP SUMMARY STATUS

- ° ALL PROCEDURES AND PLANS ARE COMPLETE
- ° RPSR AND RSCAP CONTINUE TO MAKE SATISFACTORY PROGRESS
- ° CSR INSPECTIONS ARE UNDERWAY, SIGNIFICANT PROGRESS IS BEING MADE

EQUIVALENT MANPOWER

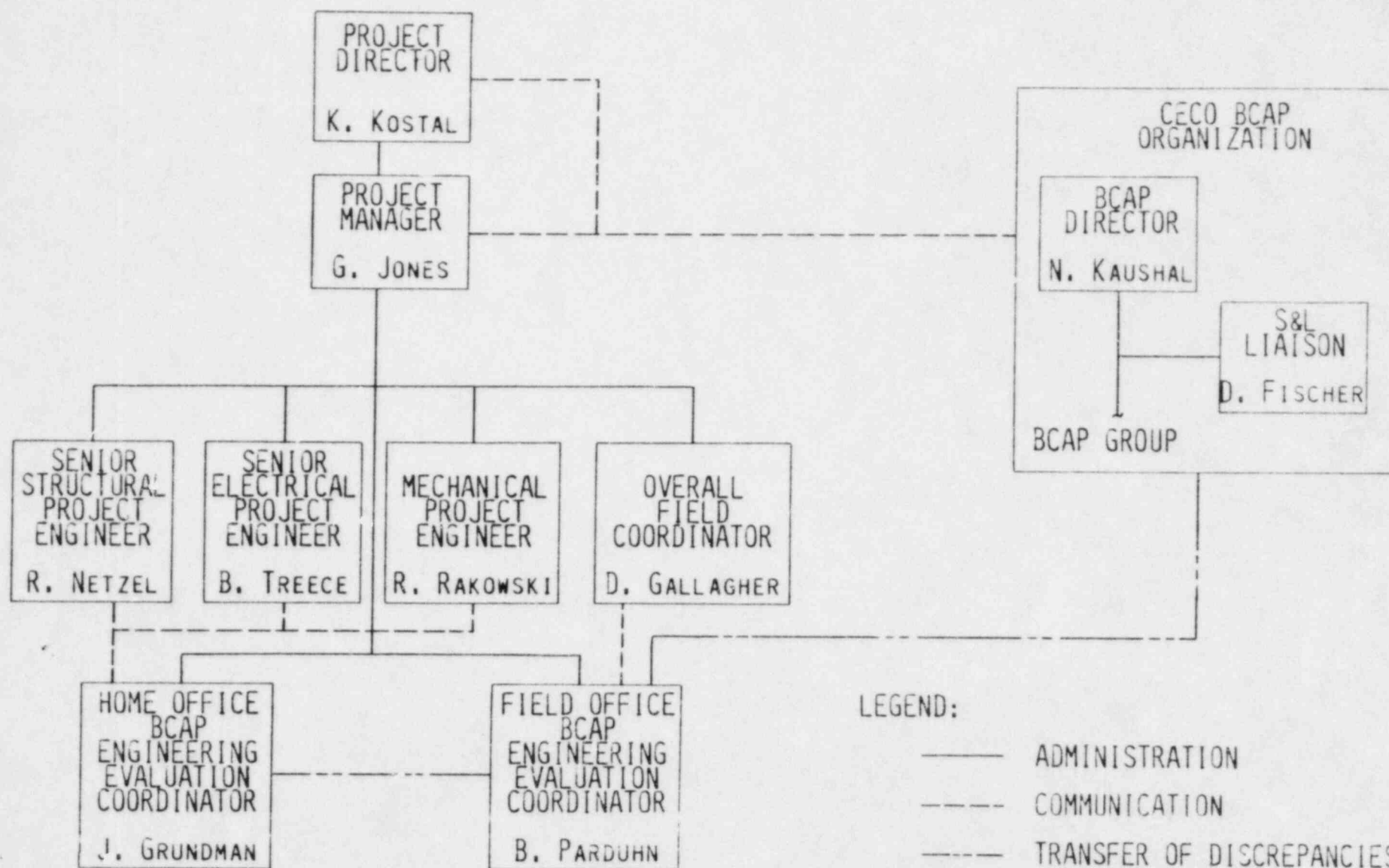


Sargent & Lundy Braidwood Organization Chart



*Indicates primary responsibility for overall project design and coordination

SARGENT & LUNDY
BCAP
ORGANIZATION CHART



11-7-84

SARGENT & LUNDY
SCOPE

RESPOND TO BCAP DOCUMENT REQUESTS

PREPARE RESPONSES TO BCAP TECHNICAL INFORMATION REQUESTS

REVIEW CSR CHECKLISTS

EVALUATE RPSR CONCERNS

EVALUATE CSR DISCREPANCIES

11-7-84

SARGENT & LUNDY
STATUS OF WORK

LIAISON GROUP

. CSR CHECKLISTS

RECEIVED 11

RETURNED 8

. TECHNICAL INFORMATION REQUESTS

RECEIVED 60

RETURNED 56

. DOCUMENT REQUESTS

RECEIVED 18

RETURNED 18

ENGINEERING EVALUATIONS GROUP

. CSR DISCREPANCIES

RECEIVED 31

BCAP Q.A.

MONTHLY BRIEFING

N. P. SMITH

NOVEMBER 8, 1984

(0109B)

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

ORGANIZATION/PERSONNEL

- 0 ONE ENGINEER HAS BEEN ADDED TO STAFF AS TEMPORARY
LEAD ENGINEER REPLACEMENT
- 0 ONE INSPECTOR WAS DENIED CERTIFICATION AND RELEASED
- 0 ONE INSPECTION SUPERVISOR RESIGNED
- 0 ONE INSPECTION SUPERVISOR HAS BEEN ASSIGNED

EXPERIENCE LEVELS

(AVERAGE YEARS)

| POSITIONS | OVERALL | | NUCLEAR | | Q.A. | |
|--|---------|--------|---------|--------|--------|--------|
| | OCT. 1 | NOV. 5 | OCT. 1 | NOV. 5 | OCT. 1 | NOV. 5 |
| GENERAL SUPERVISOR - Q.A. LEAD ELEMENT ENGINEERS OVERINSPECTION SUPERVISOR Q.A. ENGINEERS/SPECIALISTS | 22.9 | 22.9 | 15.9 | 15.9 | 5.0 | 5.0 |
| INSPECTORS | 17.8 | 17.4* | 7.4 | 8.3* | N/A | N/A |

* - 1 RESIGNED
- 1 RELEASED
+ 1 ASSIGNED

- 1 TOTAL CHANGE

DEVELOPMENT EFFORTS

(OCTOBER)


- 0 ADDED 1. Q.A. SPECIAL INSTRUCTION
- 0 REVISED 6 Q.A. SPECIAL INSTRUCTIONS
- 0 DELETED 1 Q.A. SPECIAL INSTRUCTION
- 0 CONDUCTED TRAINING FOR THE ABOVE CHANGES
- 0 REVISED Q.A. PLAN


(0109B)

DOCUMENT REVIEWS

(OCTOBER)

| | |
|--------------------------------------|-------|
| REVISIONS TO POLICY PLANS | 1 |
| REVISIONS TO PROCEDURES/INSTRUCTIONS | 22 |
| LESSON PLANS | 2 |
| EXAMINATION QUESTION BANKS | 1 |
| CERTIFICATION EXAMINATIONS | 0 |
| REINSPECTION CHECKLISTS/INSTRUCTIONS | 19 |
| CERTIFICATION PACKAGES | 37 |
| | <hr/> |
| | 82 |

 - SCHEDULED AUDIT


 - COMPLETED AUDIT

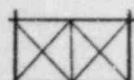
| ACTIVITY/ SUBJECT AREA | YEAR | 1984 | | | | | | | | | | | | | | | |
|---------------------------|----------------|-----------|-----|-----|---------|-----|----|----|----------|----|----|----|----|----------|----|----|----|
| | MONTH | SEPTEMBER | | | OCTOBER | | | | NOVEMBER | | | | | DECEMBER | | | |
| | 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 | | | | | |
| BCAP-21 | | | X X | | | | | | | | | X | | | | | |
| BCAP-22 | | | | X X | | | | | | | | | X | | | | |
| BCAP-23 | | | | | X X | | | | | | | | | X | | | |
| BCAP-24 | | | | | | X 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 | | | | | | | | | X | | | | | |
| BCAP-02 | | | X X | | | | | | | | | X | | | | | |
| BCAP-03 | | | X X | | | | | | | | | X | | | | | |
| BCAP-04 | | | X X | | | | | | | | | X | | | | | |
| BCAP-06 | | | X X | | | | | | | | | | X | | | | |
| BCAP-07 | | | X X | | | | | | | | | | X | | | | |
| BCAP-08 | | | X X | | | | | | | | | | X | | | | |

BCAP Q.A. SURVEILLANCE SCHEDULE
(ANNUAL)

SHEET 1 OF 1

Enclosure 4
Page 8 of 14

 - SCHEDULED SURVEILLANCE

 - 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 | | X | | | | X | | | |
| BCAP-21 | | | | X X | X X | X X | | X X | | X | | | | X | | | |
| BCAP-22 | | | | | X X | | X X | | X X | | X | | | | X | | |
| BCAP-23 | | | | X X | X X | X X | | X X | | X | | | | | X | | |
| BCAP-24 | | | | | X X | X X | X X | | X X | | X | | | | | X | |
| RPSR - PROCEDURES | | | | | | | | | | | | | | | | | |
| BCAP-41 | | | | | X X | X X | X X | | X X | | X | | | | X | | |
| BCAP-42 | | | | | X X | X X | X X | | X X | | X | | | | X | | |
| BCAP-43 | | | | | X X | X X | | X X | | X | | | | | | | |
| RSCAP - PROCEDURES | | | | | | | | | | | | | | | | | |
| BCAP-60 | | | | | X X | X X | X X | | X X | | X | | | | X | | |
| ADMIN. - PROCEDURES | | | | | | | | | | | | | | | | | |
| BCAP-01 | | | | | X X | | X X | | X X | | X | | | | X | | |
| BCAP-02 | | | | | X X | | X X | | X X | | X | | | | X | | |
| BCAP-03 | | | | | X X | | X X | | X X | | X | | | | X | | |
| BCAP-04 | | | | | X X | | X X | | X X | | X | | | | X | | |
| BCAP-06 | | | | | | X X | | X X | | X | | X | | | | X | |
| BCAP-07 | | | | | | X X | | X X | | X | | X | | | | X | |
| BCAP-08 | | | | | | X X | | X X | | X | | X | | | | X | |

(0069B)

AUDIT RESULTS

(OCTOBER)

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

1 FINDING INVOLVED PROCEDURAL INADEQUACY (NOW CLOSED).

1 FINDING INVOLVES FAILURE TO FOLLOW PROCEDURE (RESOLUTION
PENDING)

SURVEILLANCE RESULTS

(OCTOBER)

| <u>PROCEDURES</u> | <u>ITEMS</u> | |
|-------------------|---------------|---------------|
| | <u>OPENED</u> | <u>CLOSED</u> |
| ADMIN | 2 | 0 |
| CSR | 2 | 0 |
| RSCAP | 0 | 0 |
| RPSR | 0 | 0 |
| | <hr/> | |
| TOTAL | 4 | 0 |

2 ITEMS INVOLVE PROCEDURAL INADEQUACY (RESOLUTION PENDING).

2 ITEMS INVOLVE FAILURE TO FOLLOW PROCEDURES (RESOLUTION PENDING).

AUDIT AND SURVEILLANCE RESULTS
(TO - DATE)

| <u>PROCEDURES</u> | <u>FINDING AND ITEMS</u> | |
|-------------------|--------------------------|---------------|
| | <u>OPENED</u> | <u>CLOSED</u> |
| ADMIN | 9 | 7 |
| CSR | 9 | 6 |
| RSCAP | 1 | 1 |
| RPSR | 0 | 0 |
| | <hr/> | |
| TOTAL | 19 | 14 |

Q.A. OVERINSPECTION

- ① INDEPENDENT VALIDATION PERFORMED BY Q.A. OVERINSPECTION GROUP
- ① BCAP REINSPECTOR'S IDENTITY UNKNOWN TO Q.A. OVERINSPECTOR
- ① RESULTS OF Q.A. OVERINSPECTION REPORTED AND RECORDS RETAINED

Q.A. OVERINSPECTION

(CONTINUED)

- ① ROLE OF Q.A. IS OVERVIEW
- ① ALLOWS Q.A. OVERINSPECTOR TO JUDGE THE QUALITY OF THE BCAP TASK FORCE INSPECTION FOR EACH ITEM INSPECTED
- ① ALLOWS Q.A. OVERINSPECTOR TO CONCENTRATE OVERVIEW EFFORT IN POTENTIAL PROBLEM AREAS
- ① PERMITS TIMELY FEEDBACK TO THE BCAP TASK FORCE INSPECTOR

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 AND RPSR
- INSPECTOR PERFORMANCE OF FIELD INSPECTIONS

0 INCREMENTAL LIFTING OF HOLD POINT

- RPSR - HOLD RELEASED OCTOBER 3, 1984

- CSR - HOLD LIFTED FOR FOLLOWING:

HVAC HANGERS AND AUXILIARY STEEL

HVAC DUCT

CONCRETE PLACEMENT

SMALL BORE PIPE CONFIGURATION

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

BCAP STATUS

MEETING

for

October, 1984

INDEPENDENT EXPERT OVERVIEW GROUP

November 8, 1984

TOPICS

- o Executive Summary
- o Documentation Reviews Completed
- o Overview Activities
- o Status of Observations and Requests for Corrective Action
- o Open Issues and Concerns

EXECUTIVE SUMMARY

o BCAP OVERVIEW

Well structured and designed to provide insight into the quality of construction at the Braidwood Station.

o CSR ELEMENT

Positive audit results - reinspections underway, some rough edges require refinement.

o RPSR

Positive audit results - most preparatory work for procedure reviews has been completed.

o RSCAP

Effort to ensure the problems are properly defined is nearing completion.

o BCAP QA

Doing a good job of checks to ensure compliance with procedures.

DOCUMENT REVIEWS COMPLETED

PLANS

- o RSCAP Plan, Rev. 1
- o Overview Plan, Rev. 1

PROCEDURES

- o BCAP-02, Rev. 1 - Organization and Responsibility
- o BCAP-03, Rev. 1 - Records Management
- o BCAP-04, Rev. 2 - BCAP Interface with Contractors
- o BCAP-06, Rev. 3 - Observation and Discrepancy/Concern Processing
- o BCAP-07, Rev. 1 & 2 - BCAP Reports
- o BCAP-42, Rev. 1 & 2 - RPSR - Preparation of Checklist

BCAP/QA PROCEDURES

- o QASI-04, Rev. 3 - Training Qualification and Certification of QA Personnel

CSR CHECKLISTS

- o Small Bore Piping Configuration

S&L PROCEDURES

- o PI-BB-75, Rev. 0 - Engineering Evaluation of BCAP Discrepancies/Concerns

OVERVIEW ACTIVITIES

AUDITS

- o BCAP QA (0 findings, 3 concerns)
- o CSR (0 findings)
- o RPSR (0 findings)

SURVEILLANCES

- o CSR (Populations)
 - HVAC hanger/auxiliary steel welding reinspection
 - Concrete placement reinspection (Issued Observations BCAP-OBS-003 and BCAP-OBS-004)
 - HVAC hanger/auxiliary steel welding QA overinspection
 - Electrical Conduit
- o RPSR
- o RSCAP
- o Inspector Certifications

| Activities for October | Observations or Findings | | Answered Satisfactorily | | RCA's Written | | Open or Unresolved | |
|------------------------|-----------------------------|------|----------------------------|------|------------------|------|-----------------------|------|
| | Mo. | Cum. | Mo. | Cum. | Mo. | Cum. | Mo. | Cum. |
| AUDITS: | | | | | | | | |
| RSCAP | 0 | 0 | | | | | | |
| Administration | 0 | 4 | 0 | 4 | | | | |
| SURVEILLANCES: | | | | | | | | |
| CSR | 2 | 3 | 1 | 1 | | | 2 | 2 |
| RPSR | | | | | | | | |
| RSCAP | | | | | | | | |
| Administration | 0 | 1 | 0 | 1 | | | | |
| BCAP Quality Assurance | | | | | | | | |
| INSPECTIONS: | | | | | | | | |
| TOTAL | 2 | 8 | 1 | 6 | | | 2 | 2 |

CLOSED ISSUES/CONCERNS

CSR

- A satisfactory resolution to observation BCAP-OBS-002 (Small Bore Piping Configuration) was received. The results of the resolution were incorporated into the revised checklist.
- The CSR Plan was revised and reissued resolving open issues against that plan.

RSCAP

- Procedure BCAP-60 was revised and reissued resolving open issues against that procedure.

GENERAL

- Procedure BCAP-07 was revised and reissued resolving open issues against that procedure.

OPEN ISSUES/CONCERNS

ISSUES

- 1) Revisions of documents:
 - a) BCAP Program Document
 - b) BCAP QA Plan
- 2) Response to Observations BCAP-OBS-003 and BCAP-OBS-004 (Concrete Placement Population)

CONCERNS

- 1) Inspector certifications - Level III Electrical not yet certified
- 2) Reinspection results - Differences between BCAP and BCAP QA inspectors

Enclosure 6

Items Discussed At The NRC/CECo/ERC Meeting

November 8, 1984 9:00 a.m.

- Q. Is the removal of the IEOG interface representative in line with the revised protocol?
- A. Yes, this action is within the protocol established.
- Q. What is the status of the BCAP Electrical level III inspector?
- A. One Level III candidate failed to pass the examination and has been removed as a candidate. The second Level III candidate has successfully passed the testing and only requires BCAP QA to complete an audit of his parent company. This candidate is expected to be certified by mid-November. The third candidate is currently undergoing testing and is expected to be certified during the month of November.
- Q. How will engineering judgment be applied to the CSR sample selection?
- A. Engineering judgment will be used to select additional items for reinspection based on review of 50.55e reports and picking items from systems more important to safety. It was noted that none of the engineering judgment sample had been selected to date.
- Q. The IEOG has issued observation BCAP-OBS-004 recently. What is CECO doing to resolve this concern?
- A. Each of the four specific items stated in Observation 004 are being addressed as well as establishing the methodology for the evaluation of differences between BCAP and BCAP QA overinspection results. This methodology will also establish acceptance levels for inspection discrepancies.
- Q. Has Sargent & Lundy reviewed the observation concerning cracks in the HVAC base metal?
- A. That observation is currently undergoing evaluation by Sargent & Lundy. Upon completion, the results will be discussed with the NRC.
- Q. What addresses the acceptability of the original inspector?
- A. This will be addressed as a part of the QC Inspector Reinspection program at Braidwood Station.

Q. If during Sargent & Lundy's evaluation of an observation something requiring reporting under Part 21 is identified, who will report it?

A. CECo will report it.

The NRC discussed with CECo and the IEOG the two approaches to the BCAP QA overinspection. One approach to be a complete overinspection and the other a validation overinspection to confirm the BCAP Task Force reinspection results. It was left that BCAP QA would develop additional backup to support the validation overinspection approach.

The NRC discussed with CECo and the IEOG the need to establish a method for evaluating the performance of the Level II inspectors. It was understood that CECo would establish the methodology to evaluate the performance and acceptability of the Level II inspector's work.

In conclusion the NRC stated that they feel that the BCAP was going along well. They indicated that ERC was doing a good job and Q.A. was doing a very good job. They stated they were comfortable with the effort at this time.

The next meeting was set for December 6, 1984, 9:00 a.m. at the Mazon EOF.

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 in attendance.

Q. Does the NRC feel that the turnover of three BCAP QA personnel affected:
A. Productivity, or B. Represents an overall concern?

A. It was felt that the loss of the three BCAP QA personnel early in the program did not affect the productivity and that no overall concern had been identified at this time.

Q. Does the NRC have a concern with the performance of the Level II inspectors?

A. There is not concern at this time. It was stated that the NRC feels that BCAP has a good inspector training program. It was further stated that CECo is working to establish the methodology to evaluate inspector performance.

Q. Concern was expressed over the change in approach proposed for the BCAP QA overinspections.

A. The NRC stated that they have already planned to follow this item closely, and that CECo has agreed to satisfy the NRC and the IEOG with their overview inspection approach.

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 |
| B. Davis | Deputy Regional Admin. | Region III, NRC |
| R. D. Schulz | Sr. Resident - Braidwood | Region III, NRC |
| C. C. Stokes | Consultant | P. S. Ass. |
| D. Cassel | Attorney | BPI |
| R. J. Lauer | Attorney | Isham, Lincoln & Beal |
| E. D. Swartz | Nuclear Licensing Admin. | CECo |
| J. G. Toscas | Admin. Assist., Nuclear Info | CECo/Comm. Service |
| C. W. Schroeder | Proj. Lic. & Compliance Supt. | CECo |
| R. R. Minue | Nuclear Engineer | State of IL Dept. Nuclear Safety |
| G. P. Hoppe | Engineer | IL Commerce Commission |
| J. D. Deress | Proj. Eng. Mgr, BY/BR | CECo |
| V. A. Hoffman | Site Manager of SWEC | SWEC |
| M. I. Miller | Attorney | IL & B |
| 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 |
| J. L. Hansel | IEOG Project Manager | ERC |
| 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 |

Braidwood Station
Braidwood Construction Assessment Program
Report Period October 1, - October 31, 1984

I. SUMMARY STATUS

This is the fourth monthly Progress Report on the Braidwood Construction Assessment Program (BCAP), covering the period from October 1, through October 31, 1984.

During this period, CSR inspections were begun on four populations and additional inspection packages were prepared. In the RPSR effort, applicable Sargent & Lundy specifications were identified and appropriate construction requirements were transferred to checklists. Under RSCAP, the remaining two additional programs were brought under review and progress was made in the review of all nine programs.

Progress on all parts of the program continued to be audited and surveilled by Independent Expert Overview Group (IEOG) and Commonwealth Edison Quality Assurance. Where necessary, plans, procedures and activities were altered to accommodate their comments and recommendations and to take advantage of work experience.

As of October 31, the number of personnel assigned to the BCAP effort has risen to 87. Satisfactory office and clerical support continues to be available to the BCAP workforce.

II. SCHEDULE ANALYSIS

A rescheduling effort has been initiated for the balance of the BCAP work to take into account the current status of the program. New milestone dates and additional resource requirements are to be defined during November. Preliminary estimates indicate that the work will extend through March 1985.

III. PERSONNEL AND EQUIPMENT STATUS

BCAP manpower totaled 87 as of October 31, 1984. A total of eighteen Inspectors (Level II and Level III) were certified during October. Inspection personnel activities have included training, accessibility walkdowns and reinspections.

The Mapper system, for tracking observations and verification packages, is now operational.

IV. BCAP ELEMENT STATUS

A. CSR Status

During October, work concentrated on preparing visual inspection packages and performing inspections on four populations, including HVAC Ducts, Duct Hangers, Concrete Placements, and Small Bore Pipe Configuration. In addition, visual inspection packages were made ready for conduit inspection.

A total of 90 observations are being processed. Structural observations related mainly to embedment plates. Observations related to HVAC duct hangers and duct work involve undersize and undercut welds, damage, and out of tolerance dimensions.

Twenty-four of 70 checklists and instructions have completed technical review; nine were submitted to Quality Assurance, Sargent and Lundy and IEOG for review. A total of 150 reinspection packages, representing all four CSR disciplines, were prepared.

In addition to the four populations now being inspected, immediately following in November will be populations of Large Bore Pipe Configuration, Small Bore Pipe Supports and Large Bore Pipe Supports. Also expected to begin in November is inspection of Conduit Hangers and Cable.

B. RPSR Status

During October 1984, the RPSR group was primarily involved in listing construction requirements from applicable Sargent & Lundy specifications on checklists. To date, seven specifications have been identified as applicable to RPSR. With the exception of 15 technical questions remaining to be resolved, this effort was completed for 8 of the anticipated 28 checklists. Thirty other technical questions related to the seven specifications were resolved during the effort.

After technical questions are resolved, construction requirements identified during the FSAR review will be included on checklists. These checklists will then be used in accordance with BCAP-43 to compare FSAR and specification requirements with those in contractor procedures.

The anticipated number of checklists reported last month was 21. The increase to 28 was due to the addition during October of lists for personnel qualification and certification requirements.

An audit was performed by ERC during the week of October 22, 1984. No findings were reported.

C. RSCAP Status

The review of the nine programs listed below was initiated and has progressed as shown:

- a. Quality Control Structural Steel Review - 75%.
- b. Safety Related Pipe Supports - 70%.
- c. NSSS Component Supports - 60%.
- d. Electrical Installation Documentation Review - 40%.
- e. Quality Control Inspection Reinspection Program has been suspended by CECO Management - On Hold.
- f. Reinspection of Safety Related Mechanical Equipment - 10%.
- g. HVAC Welding, Configuration, Stiffeners, Fittings - 25%.
- h. Piping Heat Number Traceability - 10%.

Reviews and surveillances of RSCAP Progress were conducted by CECO corporate Q.A. and BCAP - Q.A. No findings were reported.

V. PROBLEMS/DISCREPANCE FINDINGS

A. Implementation Problems

Certification of a Level III Inspector for the electrical discipline could not be accomplished in October. One candidate did not pass the Commonwealth Edison practical test. A second candidate certification could not be completed pending an audit of the Quality Assurance program of his parent company. A third candidate is currently being tested. Lack of a certified Level III electrical inspector has prevented initiation of inspection work in the electrical area. However, intensive efforts are underway to expedite certification of a Level III electrical inspector and the problem is expected to be resolved by mid November.

B. Discrepancy Findings

As stated in section IV, a total of 90 observation reports have been written as of October 31, 1984. Of these, review for validity has been completed for 19. Of the 19 reviewed, 17 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