

MEMORANDUM FOR: C.H. Weil

FROM: P.R. Pelke, Project Inspector

SUBJECT: CALLAWAY ALLEGATION

On February 5, 1985, Bruce Little received an allegation from a  
DC Level III electrical inspector. His name is [redacted]

[redacted] stated that the DC supervisor failed to follow procedure QCP-22-01001 in the certification of Level III personnel. The supervisor failed to submit the letter of certification to a current Level III for approval. Two examples were given which appear to be factual.

*P.R. Pelke*  
P.R. Pelke

~~Contains identity of confidential  
source. DO NOT DISCLOSE~~

RTH-85-7-0021  
2/5/85

8511070456 851022  
PDR FOIA  
BELL85-655 PDR



SECRET

P. R. Polke  
F. R. F. R. F.

~~Contains identity of confidential~~  
~~DO NOT DISCLOSE~~

2/7/85

Call from B. Little - Callaway

QC level III came to SRI with a concern that a QC Administrative <sup>procedure</sup> ~~procedures~~ for certification of Level III <sup>inspector</sup> was being violated.

Followup with QA indicated that 3 ~~other~~ QC inspectors had already gone to QA with the same concern plus others.

QA stated that they planned to do a review in this area of certification.

Recommended Action?

1. SRI to document receipt of concern and treat as allegation for tracking purpose.
2. Let QA do their job since the concerns were flushed up thru their system.
- 2 Follow and assess the licensee's

March 10, 1981

To: S.L. Bode	J.S. Diluvio	J.A. Smith
R.A. Barnes	R.L. Brummet	H.L. Holman
D.W. Peters	V.P. Portell	K.M. Robson
J.M. Speak	J.L. Pearson	R.D. Swank
D.S. Turley	J.G. Garrigan	M.J. Belcher
W.R. Vandeloecht	C.A. Wudtke	R.L. Pflueger
J.A. Ullman	P.L. Herring	R.L. Dudley
T.W. Ridder	T.E. Gaines	N.L. Brewer
C.P. Laurie	W.D. Battle	J.D. Geynn
B.D. Yockey	R.L. Nave	L.M. Zahara

Subject: Effective Communication

In past weeks, there have been numerous instances demonstrating a lack of effective communication within the O.C. Department. In addition, there have been instances where communication out of the department has been less than effective. On some occasions, there have been two or three parallel paths of communication in which sometimes different resolutions were reached. This is not only confusing, but counter productive.

In my letter UOSCQ 84-23, I stated that "All memorandums, letters and other correspondence with groups, departments or individuals other than O.C. must be signed by me or L.M. Zahara, and should be initialed by each of the supervisory personnel through which they report to Mr. Zahara". We must have strict adherence to this policy to eliminate future communication problems.

I would like to take the opportunity to state, once again, that it is my policy, as well as that of U.E. management, to maintain an open door for communication directly with O.C. supervisors, as well as Sr. Station Management personnel. To this end, I ask that you bring problems directly to your next line of supervision (i.e. R.L. Nave or L.M. Zahara as appropriate). If a satisfactory solution cannot be reached at that level, then bring it to the direct attention of the next supervisory level. Our aim is to solve problems through communication, not create them. I would also like to say that my door is always open if you think you need to come directly to me because of the nature of the problem. If a resolution cannot be reached at my level, I will arrange for your meeting with the next level of management to pursue the problem.



Pursuit of Quality Related Problems: From time to time, a quality related problem may not be resolved in a way that is immediately acceptable to you as an inspector. In those cases, you are obligated to bring those concerns to your supervisor. When it has reached my level, you have fulfilled your procedural requirement as a Q.C. Inspector. You should never feel that you have the full weight of Quality on your shoulders. Ultimately, Quality decisions may be made at my level or higher. You should have confidence that management is concerned and competent to pursue the issues that you have raised.

In addition, to those points already stressed, I would like to add the following requirement. On at least a daily basis, your In Basket must be completely gone through and emptied. In some cases, material has been put in an unintentional state of indefinite hold after being placed in an individual's in basket.

We have come a long way in the past 6 months, but we still have a long way to go. Keep up the good work.



T. L. Shaw

TLS/jp

cc: P.T. Appleby  
J.E. Davis  
ZC1UOSQ  
G57.72

February 18, 1984

To: All QC Personnel

Organizational Responsibilities

The attached organization chart provides further definition of many of the currently existing personnel responsibilities. Some changes have been made, which should enhance our ability to deal with the many new demands and challenges we are currently facing. Your attention is directed to the following changes and realignments.

1. Three clerk positions have been added. Two of these clerks will report to Mr. R. L. Nave for all routine matters. Anyone requiring clerical services should coordinate their requirements with Mr. Nave, or at a minimum, assure that he is cognizant of all work requested of these clerks.
2. Jean Poeschel will retain responsibility for overall administrative clerical functions, but will eventually be relieved of most routine discipline-related clerical tasks by the two clerks assigned to Mr. Nave.
3. Mr. L. M. Zahara will begin working more closely with me, so as to reinforce our capacity for addressing the myriad interfacing requirements with other departments. In order to "free-up" Mr. Zahara, most of his currently assigned routine administrative responsibilities will be reassigned to Mr. Nave, as indicated in the attached chart.
4. "Call-ins" for illness or occasional requirements for time off should generally be coordinated through first-line supervisory personnel (leads or assistant supervisors), who will keep Mr. Zahara advised of these matters. All such time off must be documented by means of a three-part memorandum to the first line assistant supervisor to whom they report (e.g., electrical, mechanical and VT personnel report to Mr. Nave; receiving and NDE personnel to Mr. Zahara). This memorandum must be retained by the assistant supervisor who will utilize it in verifying time sheets and overall trending.
5. If first level supervisory personnel are unavailable for illness call-ins, the caller must attempt to

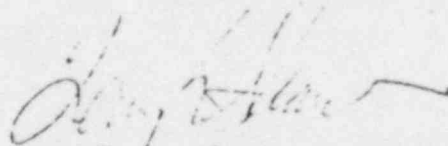
contact the next highest level of supervision in succession. If after completing this effort I have not been contacted, one of the persons listed below, outside of the caller's discipline, must be contacted.

R. L. Nave  
S. L. Bode  
J. M. Speek  
J. S. DiLuvio  
J. L. Pearson  
V. Portell

Call-ins to any other individual is not an acceptable way of reporting illnesses. The person accepting the call shall document the call on a three-part memorandum to the appropriate assistant supervisor, for record purposes. In addition to this requirement, Mr. L. M. Zahara shall be promptly informed either verbally or in writing of all unscheduled absences.

6. Vacation requests should also be coordinated with first line supervisory personnel, who will review work load and other pertinent requirements and initial the request to provide preliminary approval of the request. The lead and/or supervisor will coordinate with me or Mr. Zahara to obtain final approval of all vacation requests. First line supervisors will not approve vacations which may limit the group's ability to address known requirements, or those which might have been reasonably anticipated to be requirements during the vacation period. Approved vacations will not be cancelled by supervisor except where an absence constitutes an unacceptable burden on other personnel. Vacations which are voluntarily cancelled and re-scheduled are again subject to the considerations stated above.
7. All memorandums, letters and other correspondence with groups, departments, or individuals other than QC, must be signed by me or L. M. Zahara, and should be initialed by each of the supervisory personnel through which they report to Mr. Zahara, as shown on the attached chart. V. Portell should receive a copy of all correspondence which is of other than administrative or personal nature.

Your careful attention to the items discussed above should enhance our ability to function as the cohesive unit that QC should be. Should you have any questions regarding this organization, please refer them to V. Portell.

  
T. L. Shaw

cc: T. L. Shaw  
L. M. Zahara  
V. Portell  
J. Poeschel  
R. L. Nave  
J. L. Pearson  
S. L. Bode  
J. M. Speek  
R. D. Swank  
J. S. DiLuvio  
K. Robson  
H. Holman  
J. G. Garrigan  
J. A. Smith  
P. E. Herring  
C. A. Wudtke  
T. E. Gaines  
R. A. Barnes  
D. W. Peters  
B. D. Yockey  
D. S. Turley  
W. Vandeloecht  
J. Ullman  
T. Ridder  
M. Belcher  
R. Pflueger  
N. Brewer  
C. Laurie  
R. Dudley  
J. Guynn  
R. L. Brummet

T.L. STEW  
QC MGR. ext. 8266

V. TORIELL  
TECH ASST. ext. 8375

CLERK  
J. FOESCHEL ext. 8378

L.M. ZIVIA  
ASST QC SUPER. ext. 8263

ext. 8377

R.L. NAME  
ASST SUPER

CLERK  
PSI SUPPORT

CLERK  
PSI/QC SUPPORT

J.L. PEARSON  
VIZ/TECH SPEC  
LEAD  
ext. 8362

S.L. BODE  
MECHANICAL  
LEAD  
ext. 8363

J.M. SPECK  
ELECTRICAL  
LEAD  
ext. 8286

ext. 8116  
8117

ext. 8378

R.D. SWANK  
RECEIPT INSP  
LEAD

J.S. DILUVIO  
WELDING  
LEAD

K. ROBINSON  
H. HARRIS  
J.G. GARRIGAN  
J.A. SMITH  
P.E. HERRING  
C.A. WHITE  
T.E. GARNES

R.A. PATTER  
D.W. FLETCH  
B.D. YOCLEY

D.S. TUNLEY ext. 8376  
W. WINKLECH  
J. ULJAN  
T. RIMMER

M. PITCHER  
R. FULGER  
H. BREWER  
C. LAURE  
R. INGLEY  
J. GUNTER  
CLERK  
M. LAWSON

R.L. BRUMMET

ext. 8284  
8285  
8451  
8452

ext. 8345  
ext. 8376  
ext. 8284

ext. 8284  
8285  
8451  
8452

ext. 8116  
8117

ext. 8376

IN PROCESS  
INSP  
GROUP

PSI/TECH  
SPEC  
(SOURCES)

MECHANICAL  
ELECTRICAL  
INSTRUMENTATION

RECEIPT  
INSP  
GROUP

N D E/  
WELDING  
GROUP

QC ORGANIZATION 2/20/84  
(UOSCQ 84-23)

2/7/85

Call from B. Little - Cullman

QC level III came to SRJ with a concern that a QC Administrative <sup>inspection</sup> procedure for certification of Level II was being violated.

Followup with QA indicated that 3 ~~QC~~ QC inspectors had already gone to QA with the same concern plus others.

QA stated that they planned to do a review in this area of certification

Recommended Action:

1. SRJ to document receipt of concern and treat as allegation for tracking purpose.
2. Let QA do their job since the concerns were flushed up thru their system.
3. Follow and assess the licensee's actions. Get directly involved only if we have a problem with the scope, depth and corrective action.
4. Document our final review in an inspection report.

(H4)

T. Tautling





Section 3.4 of ANSI N45.2.6-1978 requires that, "A Level III person shall have all of the capabilities of a Level II and Level I person for the inspection, examination or test category or class in question. In addition, the individual shall also be capable of evaluating the adequacy of specific programs used to train and test inspection, examination, and test personnel whose qualifications are covered by this Standard."

Sections 3.5.1 and 3.5.2 of ANSI N45.2.6-1978 then list the recommended education and experience for, respectively, Level II and Level III personnel.

Contrary to the above, based on a review of available documentation and interviews with the individuals, the following personnel did not meet the experience requirements specified for their educational background, and certification level nor had they received a documented evaluation of actual work proficiency in lieu of such experience. In the case of the Level III individual, based on interviews with the man, he also did not have all of the capabilities of a Level II person as defined by the current UENO program in either the Civil or Electrical disciplines. He did not have experience in planning and setting up certain civil tests and electrical inspections, nor in the reporting of certain civil tests and electrical inspection, nor in evaluating the validity of the results of certain civil tests and electrical inspections. The Level III also did not have all of the capabilities of a Level I person in that he had not demonstrated proficiency in the use of the tools required to perform all civil tests or electrical inspections covered by the current UENO QC program.

R. A. Barnes, Level II Mechanical

R. A. Barnes, Level II Electrical

R. L. Brummet, Level II Mechanical

J. L. Pearson, Level II Electrical

D. W. Peters, Level II Electrical

D. W. Peters, Level II Civil

V. P. Portell, Level III Civil

V. P. Portell, Level III Electrical

R. D. Swank, Level II Electrical

L. M. Zahara, Level II Electrical



Recommended Remedial Action(s):

At this time, although others may be available, QA can anticipate only one or a combinations of the following six courses of action as acceptable corrective action to make the above listed certifications valid.

Options:

1. Withdraw the current certification(s) until full capability is achieved and verified.
2. Modify the current certification(s) (i.e. delimit, list tasks certified to perform) to reflect individual capabilities.
3. Redefine current program
  - a. To list items that a particular certification means that a person can perform certain tasks (same as 2, but in program).
  - b. Go to a "VT" type program where we do not certify by discipline.
4. Provide additional information which would support current cert(s).
5. Have a non-questioned Level III certify the men in question and provide the required documentation.
6. Conduct a performance demonstration to "prove" ability to perform all inspection for which man is currently certified.

An evaluation of the impact on the plant of non-certifiable personnel performing inspection/assessment activities must also be provided to complete corrective action on this RCA.

If further review of actual inspection activity or other pertinent information is obtained which indicates plant impact is negligible, QA will consider a reduction in the level of this RCA to level 2.

# RESPONSE TO REQUEST FOR CORRECTIVE ACTION

Form N-87(1-84)

Number and Revision: P8502-035, Rev. 0 Level: 1 Page 1 of 2

The response to the referenced "Request for Corrective Action" is provided below for your evaluation and verification. The response includes three parts in the following order: A. Cause of Condition; B. Action Taken to Resolve Problem; and C. Action Taken to Prevent Recurrence.

## A. CAUSE OF CONDITION

This condition was apparently caused by a more strict interpretation of the standard at the time the RCA was generated than was used during the preparation, review and approval process for the procedures. The amount of detail from the standard required to be reproduced in the procedure apparently has also undergone a similar interpretation change over this same time period, thus contributing to the cause of this condition.

## B. ACTION TAKEN TO RESOLVE PROBLEM

QA Surveillance Report 850209A will provide a detailed accounting of the action taken, presently underway or planned for the near future associated with resolving the concerns of this RCA.

## C. ACTION TAKEN TO PREVENT RECURRENCE

To prevent recurrence of the concerns similar to those identified in this RCA, the QC Inspection, Training, and Certification Programs will be reviewed and revised or developed as appropriate following a sequence/outline similar to the following:

1. Perform a task analysis for each area of the Inspection Program to identify what inspection activities will be performed.
2. Determine which inspection activities will require inspection procedures (some of the simpler ones may not actually require a procedure - inspector qualifications and training will suffice).
3. Prepare the required procedures (Part of the Inspection Program).
4. Develop the required training plans and tests, and the proficiency demonstrations, including example hardware as appropriate. (Part of the Training Program.)
5. Develop the required procedural controls to outline the contents of the documentation package that will be required to support a certification. This will contain or reference documentation relative to education, experience, training, testing, and proficiency demonstrations. (This is considered to be the initial certification portion of the overall Certification Program.)

Effective Date: See page 2 of 2

See page 2 of 2  
Addressee, Date

# RESPONSE TO REQUEST FOR CORRECTIVE ACTION

Form N-87(1-84)

Number and Revision: P8502-035, Rev. 0 Level: 1 Page 2 of 2

The response to the referenced "Request for Corrective Action" is provided below for your evaluation and verification. The response includes three parts in the following order: A. Cause of Condition; B. Action Taken to Resolve Problem; and C. Action Taken to Prevent Recurrence.

6. Develop the required procedural controls to support evaluation and recertification of individual certifications. This should include, as appropriate, elements allowing for retraining, proficiency demonstrations, and documentation of actual inspection activities previously performed. (This would need to be part of all three programs.)

*What are interim measures?*

Effective Date: 12-31-85

Addressee, Date

*Z. Appleby 3/18/85*

# REQUEST FOR CORRECTIVE ACTION

Form N-67(4-84)

## 1. IDENTIFICATION

Number and Revision: P8502-039, Rev. 0 Level: 2 Issue Date: 02/22/85 Page 1 of 3

To: P. T. Appleby Organization: UENO-QC Org: PTAQC

Description of Condition: (44 characters) Cert/Qual Program Deficiencies

## 2. DETAILED DESCRIPTION OF CONDITION: (Requirement vs. Deficiency; include Originator Recommended Action if appropriate.)

- 1) The Operating Quality Assurance Program (OQAP), as described in the SNUPPS-C FSAR, Rev. 7, Section 17.2.5, states in part: "The OQAP shall control activities affecting quality by providing measures for: ... 2) provisions for the inclusion in these documents of quantitative and qualitative acceptance criteria for verifying that an activity has been satisfactorily accomplished; ..."

Contrary to the above, the UENO-QC certification/qualification program for Non-NDE inspectors does not provide qualitative or quantitative acceptance criteria to determine what part or portion of a person's past work experience may be "counted" when determining if the experience and education requirements of ANSI N45.2.6-1978 are met. This program is described in procedures OCP-ZZ-01001, Rev. 2 and QCP-ZZ-01002, Rev. 2.

Additionally, the UENO-QC qualification/certification program for Non-NDE inspectors does not provide quantitative or qualitative acceptance criteria for what is required in a "documented evaluation of actual work proficiency".

- 2) ANSI N45.2.6-1978, Paragraph 2.1.2, states in part: "The need for formal training programs shall be determined, and such training activities shall be conducted as required to qualify personnel who perform inspections, examinations, and tests. On-the-job participation shall also be included in the program, with emphasis on first-hand experience gained through actual performance of inspections, examinations, and tests. Records of training, when used as the basis for certification, shall be maintained."

(continued)

The concern(s) identified by this RCA was discussed with T. L. Shaw, P. T. Appleby and J. E. Davis on 2/15/85

Condition Noted In: Surveillance Report No.: 850209

Response Due Date: 18 Mar 85 Steve Perry 22 Feb 85 George M. Maitland 2/23/85  
RCA Initiator, Date Supervising Engineer, Date

## 3. EVALUATION OF CORR. ACT.:

Response: ☒ Accepted  
☐ Rejected

RCA Initiator Paul Perry Date 23 Feb 85

## 4. VERIFICATION OF CORR. ACT.:

Implementation: ☐ Complete  
☐ Incomplete

RCA Initiator \_\_\_\_\_ Date \_\_\_\_\_

## 5. RCA CLOSED:

Supervising Engr. \_\_\_\_\_ Date \_\_\_\_\_

## 6. RETRIEVABILITY CODE:

02 QC 33 26

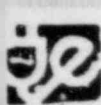
## 7. DISTRIBUTION:

AD5RCA (QA Record), AD5RCA' (File), FDF, RLP, JVL, JRV, WHZ, CSP, WAR, JED, TLS, WRR' (Action), SEM'

8. REMARKS: 1) Per discussion with J. E. Davis on 29 Mar 85, the word "documentation" used in the RCA in item C.1. The 2nd or last line should be "Demonstration".  
2) Per J. E. Davis on 29 Mar 85 and discussion with P. T. Appleby on 29 Mar 85, "first-time candidate" as used in the RCA paragraph C.3., refers to the "first-time that an individual is a candidate for certification in a specific area or discipline (e.g. electrical inspection, mechanical inspection, etc.)". P. T. Appleby

5

The UENO-QC program for certification/qualification of Non-NDE QC Inspectors defines "QC Level I", "QC Level II", and "QC Level III" personnel. These definitions do not contain all of the capabilities listed in the standard for each level of capability. Additional definition or qualification requirements which would assure that the minimum capabilities, per the standard, are met by inspector candidates are not further specified in the UENO QC program. Also, the UENO-QC program, via the definitions of the levels of inspectors, implies, but does not require, that an individual should meet the requirements of that level of inspector. This program should be clarified to assure conformance with the ANSI standard.



## RESPONSE TO REQUEST FOR CORRECTIVE ACTION

Form N-87(1-84)

Number and Revision: P8502-039, Rev. 0

Level: 2

Page 1 of 2

The response to the referenced "Request for Corrective Action" is provided below for your evaluation and verification. The response includes three parts in the following order: A. Cause of Condition; B. Action Taken to Resolve Problem; and C. Action Taken to Prevent Recurrence.

## A. CAUSE OF CONDITION

CALLAWAY PLANT

This condition was apparently caused by a more strict interpretation of the standard at the time the RCA was generated than was used during the preparation, review and approval process for the procedures. The amount of detail from the standard required to be reproduced in the procedure apparently has also undergone a similar interpretation change over this same time period, thus contributing to the cause of this condition.

## B. ACTION TAKEN TO RESOLVE PROBLEM

QCP-ZZ-01001 Rev. 3 and QCP-ZZ-01002 Rev 3 were issued on 3-6-85 to address the concerns numbered 4 and 5 in the RCA. The second item of concern within concern number 3 dealing with initial certification documentation for the case where the individual does not meet the initial education and experience requirements has also been addressed by these revisions. The concerns identified in concern numbers 1 and 2 and the first concern of number 3 have not been addressed in these revisions and will be addressed only from the standpoint of preventing recurrence as described in section 3 below.

## C. ACTION TAKEN TO PREVENT RECURRENCE

The following is a summary of the action that either has been or will be taken to address the concerns of this RCA:

1. QCP-ZZ-01002 will be revised to provide a "guidance only" definition of related experience. It will clearly indicate that the amount of previous experience which is considered "related" is subjective and within the judgment of whoever is recommending and certifying the inspector. ANSI N45.2.6-1978 and Reg. Guide 1.58 do not clearly define related experience in apparent recognition that it is a subjective determination to be made on a case-by-case basis. Therefore, the intent of this procedure revision is only to provide some guidance and is in no way to be construed to be an absolute requirement or even a minimum requirement. The final determination rests with the certifying individual's judgment. QCP-ZZ-01001 will be revised to better describe the documentation requirements relative to the evaluation of proficiency documentations used in lieu of or as part of the related work experience.
2. QCP-ZZ-01002 will be revised to provide better guidance relative to when training will be required relative to initial certification and recertification. This will be coordinated with the revision described in item (1) above since it will be

Effective Date: See page 2 of 2

See page 2 of 2

Addressee, Date



# RESPONSE TO REQUEST FOR CORRECTIVE ACTION

Form N-87(1-84)

Number and Revision: P8502-039, Rev. 0

Level: 2

Page 2 of 2

The response to the referenced "Request for Corrective Action" is provided below for your evaluation and verification. The response includes three parts in the following order: A. Cause of Condition; B. Action Taken to Resolve Problem; and C. Action Taken to Prevent Recurrence.

related to the amount of previous experience for which the individual to be certified can be given credit. This revision will also better describe the documentation requirements relative to how the training documentation will be traceable to or part of the certification packages.

3. Again QCP-ZZ-01002 will be revised in conjunction with the revision described in item (1) above to provide guidance relative to initial capabilities of a first-time candidate for certification. Again this will only be guidance since it is a subjective decision by the certifying individual. The revision to QCP-ZZ-01001 will address the concern associated with documentation of the basis for certification when the individual does not meet the initial education and experience (based upon the results of the subjective related experience determination) requirements.
4. QCP-ZZ-01001 Rev. 3 section 4.4.1 was issued on 3-6-85 to resolve this concern. This change is considered adequate to resolve this concern.
5. QCP-ZZ-01002 Rev. 3 sections 2.1, 2.2, and 2.3 was issued on 3-6-85 to resolve the concern relative to the capabilities listed in ANSI N45.2.6-1978. In the same revision sections 4.1, 4.2 and 4.3 were revised to make the capabilities described in sections 2.1, 2.2, and 2.3, respectively, part of the qualification requirements. These changes are considered adequate to resolve the concerns of this item.

It should be recognized that the above discussion addresses specific procedures which will contain various specific pieces of the program to resolve various concerns. A revision of this magnitude and the fact that QCP-ZZ-01001 also addresses the ASME and SNT certification programs, could result in an overall restructuring of the four procedures involved. A definite possibility presently exists to have only three procedures, one for ANSI, ASME and SNT and thus move the QCP-ZZ-01001 requirements, as appropriate, into each program procedure. If this occurs, the intent of the above described changes will still be followed, however the procedure numbers and possibly the section numbers within those procedures may no longer be accurate. If this restructuring does occur, this RRCA will not be revised to provide another point-by-point accounting of the concerns versus the changes based upon the fact that the intent of the changes will still be incorporated into the program.

Effective Date: 4-30-85

Addressee Date

*CA* 3/18/85

# REQUEST FOR CORRECTIVE ACTION

Form N-67(4-84)

## 1. IDENTIFICATION

Number and Revision: P8502-034, Rev. 0 Level: 3 Issue Date: 02/22/85 Page 1 of 2

To: P. T. Appleby Organization: UENO-QC Org: PIAQC

Description of Condition: (44 characters) Insufficient Records to Support QC Certs

## 2. DETAILED DESCRIPTION OF CONDITION: (Requirement vs. Deficiency; include Originator Recommended Action if appropriate.)

The accepted QA Program requires, in FSAR Section 17.2.17, paragraph 3, Rev. 8, that quality assurance records include documentary evidence related to qualifications of personnel.

Contrary to the above, insufficient records were available to support the certifications of the following individuals at the Level indicated:

R. A. Barnes, Level III Receipt

J. M. Speck, Level II Mechanical

D. S. Turley, Level II Mechanical

L. M. Zahara, Level III Receipt

The specific records needed were developed during interviews with the above individuals. During these interviews the personnel orally listed experience which, if documented and accurate, would fulfill the requirements of ANSI N45.2.6-1978 for certification at the listed Level of capability in the listed disciplines. The list of documents which must be added to the certification file or otherwise added as QA records to support their certification are listed on the attachment to this RCA.

(Continued)

The concern(s) identified by this RCA was discussed with T. L. Shaw, J. E. Davis and  
on 2/15/85 P. T. Appleby

Condition Noted In: Surveillance Report No.: 850209

Response Due Date: 18 MAR 85 [Signature] RCA Initiator, Date [Signature] Supervising Engineer, Date

## 3. EVALUATION OF CORR. ACT.:

Response: ☒ Accepted  
☐ Rejected

[Signature] 29 MAR 85  
RCA Initiator Date

## 4. VERIFICATION OF CORR. ACT.:

Implementation: ☐ Complete  
☐ Incomplete

                                           
RCA Initiator Date

## 5. RCA CLOSED:

                                           
Supervising Engr. Date

## 6. RETRIEVABILITY CODE:

17 TR 33 22

## 7. DISTRIBUTION:

AD5RCA (QA Record), AD5RCA (File),  
FDF, RLP, JVL, JRV, WHZ, CSP, WAR,  
JED, TLS, WRR (Action), SEM

## 8. REMARKS:



<u>NAME</u>	<u>CERTIFICATION</u>	<u>DOCUMENTATION REQUIRED</u>
Barnes, R. A.	Receipt-3;	Provide additional details of experience in receipt activities at DIC, including the percentage of time in these activities. Provide the same information for the receipt activities at Morrison-Knudsen.
Speek, J. M.	Mechanical-2;	Provide details of mechanical related work while in the Navy. These details should include what is required for an individual to become a U.S. Navy QA Supervisor at the Pearl Harbor Submarine Base.
Turley, D. S.	Mechanical-2;	Provide details of mechanical related work experience in the Navy and at Callaway.
Zahara, L. M.	Receipt-3;	Provide documentation of previous certification in receipt activities for previous employers. Also provide more details of experience in receipt at UE and other companies.

Number and Revision: P8502-034, Rev. 0

The response to the referenced "Request for Corrective Action" is provided below for your evaluation and verification. The response includes three parts in the following order: A. Cause of Condition; B. Action Taken to Resolve Problem; and C. Action Taken to Prevent Recurrence.

## A. CAUSE OF CONDITION

This condition was apparently caused by a more strict interpretation of the standard at the time the RCA was generated than was used during the preparation, review and approval process for the procedures. The amount of detail from the standard required to be reproduced in the procedure apparently has also undergone a similar interpretation change over this same time period, thus also contributing to the cause of this condition.

## B. ACTION TAKEN TO RESOLVE PROBLEM

The inspectors lacking documentation have acquired the additional information or have incorporated it into their resumes. The revised resumes will be added to their certification packages.

## C. ACTION TAKEN TO PREVENT RECURRENCE

QCP-ZZ-01001 Rev. 3 was issued on 3-6-85 with section 4.4.1 strengthened to better define the requirements of a certification package.

NOTE: Based upon additional reviews of various inspector training and certification documentation by QC and OA, the action described in Part B will be taken for any additional inspectors falling into the same category as those described in this RCA.

Have we confirmed this - ?  
Were revised resume's confirmed as accurate?

Effective Date: 4-30-85

\_\_\_\_\_  
Addressee, Date

\_\_\_\_\_  
Addressee, Date

Safety-Related

February 22, 1985

SURVEILLANCE REPORT

Surveillance Report No.: 850209  
Surveillance Dates: 02/07-15/85  
No Response Required

TO: P. T. Appleby  
Assistant Manager, Support Services

FROM: C. S. Petzel, Quality Assurance  
W. A. Ruhlman, Quality Assurance Consultant

SUBJECT: Review of Certifications of UENO Quality Control  
Inspectors

PERSONNEL CONTACTED: (Listed on Attachment A)

REFERENCES/CONTROLLING DOCUMENTS: (Listed on Attachment B)

RESULTS:

Quality Assurance has reviewed the certification documentation for current UENO receipt, mechanical, electrical, and civil inspection personnel. This documentation was compared to current UE program commitments; (i.e., controlling document numbers 1, 2, and 3) for inspection, examination, and testing personnel. The specific commitment is: "The qualification of UE QC personnel or contracted QC personnel performing work at the plant shall be in accordance with Regulatory Guide 1.58 (ANSI N45.2.6-1978)." The exception UE has taken to this commitment is: "In instances where the education and experience recommendations of ANSI N45.2.6-1978 are not met by QC personnel, UE will demonstrate, by documented results of written examinations and evaluations of actual work proficiency, that these individuals possess comparable or equivalent competence." The QC inspectors were interviewed to determine if they could provide any additional information to support their certifications. The results of this review and interviews are tabulated below:

RECEIVED

FEB 25 1985

CALLAWAY PLANT  
QA TECHNICAL SUPPORT

Name/Certification	Meets ANSI N45.2.6-1978 Education & Experience Requirements (At time of Certification)	Meets UE's Exception to ANSI N45.2.6-1978 (At time of Cert.)	Remarks: See Note Listed Below
R. A. Barnes	YES		
Level 3 - Civil	NO	NO	2
Level 2 - Electrical	NO	NO	2
Level 2 - Mechanical	NO	NO	1
Level 3 - Receipt	NO		
R. L. Brummet		NO	2
Level 2 - Mechanical	NO		
D. L. Heider	YES		
Level 2 - Electrical			
E. L. Irwin	YES		
Level 2 - Mechanical			
R. L. Nave	YES		
Level 3 - Mechanical			
J. L. Pearson		NO	2
Level 2 - Electrical	NO		
Level 2 - Mechanical	YES		
Level 2 - Receipt	YES		
D. W. Peters		NO	2
Level 2 - Civil	NO	NO	2
Level 2 - Electrical	NO		
Level 3 - Mechanical	YES		
V. P. Portell		NO	2
Level 3 - Civil	NO	NO	2
Level 3 - Electrical	NO		
Level 2 - Mechanical	YES		
T. W. Ridder	YES		
Level 2 - Electrical			
J. M. Speek	YES		
Level 3 - Electrical	NO	NO	1
Level 2 - Mechanical			
R. D. Swank		NO	2
Level 2 - Electrical	NO		
Level 2 - Mechanical	YES		
Level 3 - Receipt	YES		

Name/Certification	Meets ANSI N45.2.6-1978 Education & Experience Requirements (At time of Certification)	Meets UE's Exception to ANSI N45.2.6-1978 (At time of Cert.)	Remarks: See Note Listed Below
D. S. Turley	YES		
Level 2 - Electrical	NO	NO	1
Level 2 - Mechanical			
L. M. Zahara	NO	NO	2
Level 2 - Electrical	YES		
Level 2 - Mechanical	NO	NO	1
Level 3 - Receipt			

NOTES:

- 1) Based upon insufficient records and discussion with the individual, QA believes that the individual is certifiable at the listed level/area combination; however, additional documentation is needed to support the certification.
- 2) Based upon insufficient records and no additional details disclosed during a discussion with the individual, QA does not believe that the individual is certifiable at the listed level/area combination.

RCA PB502-035, Rev. 0 has been written to address the insufficient records issue listed in the above table via Note 1. RCA PB502-034, Rev. 0 has been written to address the issue that the UE program requirements for certification of QC inspectors have not been met. This issue is listed in the above table via Notes 2 and 3.

In reading the conclusions listed in the table, QA notes that ANSI N45.2.6 uses the terminology "related experience in equivalent inspection, examination, or testing activities" in defining education and experience for each inspection level. QC has not defined this terminology in any of their procedures; thus, there were no qualitative or quantitative criteria to determine what part or portion of a person's past work experience can be "counted" when making an evaluation to determine if the ANSI N45.2.6-1978 requirements have been met. This lack of qualitative and quantitative acceptance criteria has been combined with other programmatic inadequacies and addressed by RCA PB502-039, Rev. 0.

While conducting this surveillance, QA utilized the following criteria in making an evaluation of past work experience to determine if it constituted "related experience in equivalent inspection, examination, or testing activities." The bases for these criteria were similarity to published guidance in this area in SNT-TC-1A (1975 and 1980) as well as experience with current industry applications at other nuclear power plant sites.

- 1) In order to be counted on a one-for-one basis, the person must have spent at least 25% of his time actually working in the discipline. This is based on SNT-TC-1A's criteria.
- 2) For a mechanical certification, time spent in the nuclear Navy in ratings such as Machinist Mate, Engineman, Electrician's Mate and similar ratings in other services was counted on a one-for-one basis after the person completed basic training (and began actual field work). Boilermakers, steamfitters, shipfitters, pipefitters, and similar construction crafts were also counted on a one-for-one basis. Electrician's Mates were counted because replacement of bearings on motors is virtually the same as replacement of bearings on pumps; torquing of bolts on motor mounts is the same as torquing bolts on pumps or flanges; alignment of electrical equipment is the same as alignment of mechanical equipment. On the basis of similar logic, welding experience in the commercial industry was counted when a person was involved in the "fit-up" aspects.
- 3) For an electrical certification, time spent in the nuclear Navy as an Electrician's Mate, I-C man, and similar ratings in other services was counted on a one-for-one basis after the person completed basic training and began actual field work. Construction electricians were also counted on a one-for-one basis. While Nuclear Power School does teach basic electrical work as a Machinist Mate does not involve work with cables, terminations, controllers and other electrical activities. Therefore, no credit was given since 25% of Nuclear Power School is not devoted to electrical. However, if a Machinist Mate qualified as Engineering Watch Supervisor (EWS) or as an Auxiliary Electrician Aft (AEA), or as an Electric Plant Control Panel (EPCP) operator, or as a Shutdown Electrical watchstander (SEW) or similar positions in other services, then the basic electrical school as well as a portion of his service time was counted in determining experience.
- 4) For a civil certification, none of the current QC inspectors had any service time which was considered "equivalent." However, time in the Marine construction battalions (C-Bs) and similar service rate which involved work in soil compaction, structural steel and concrete placement would have been counted on a one-for-one basis. Similarly, construction time spent in a civil test lab or a commercial testing facility would be counted. Primarily, because of the broad spectrum of civil activities included in QCP-ZZ-07000, Rev. 0, a person was evaluated with respect to a wide variety of civil tests. A civil certification was the most difficult for a person to receive a satisfactory evaluation upon during this surveillance without documented work experience in civil testing activities since QCP-ZZ-07000 covers such a broad range of inspections.

- 5) For a receipt certification, a wide variety of previous work experience was accepted as equivalent on a one-for-one basis. Unlike a Civil certification, the current UE receipt inspection procedures, QCP-ZZ-03002, Rev. 3 and QCP-ZZ-03004, Rev. 2, define a very narrow range of skill requirements. Since very few measurements are required during our receipt inspection, a UE Level II Receipt Inspector would not require the same amount of specific work experience as a Level II Receipt Inspector working for DIC at Callaway during construction. Therefore, virtually any previous experience that required an individual to locate acceptance criteria documents and then determine that an object met the requirements of those documents, was considered "equivalent."

No evidence was found where any of the current inspectors had been given a "documented evaluation of actual work proficiency." This conclusion was based upon a knowledge of the NRC's interpretation of that part of UE's exception to the education and experience requirements of ANSI N45.2.6-1978. During our (UE) meeting with the NRC representative prior to their acceptance of our QA program (including Chapter 3A of the SNUPPS-C FSAR), this exception was interpreted to mean documentation of actual work proficiency in the particular tests that a man would be certified to perform. That is, a civil inspector would have to perform a concrete slump test; an electrical inspector would have to observe a cable pull and determine if cable stress criteria had been satisfied; a mechanical inspector would have to inspect a pump to motor alignment and determine if acceptance criteria had been met; a receipt inspector would have to determine what type of sampling requirements apply if a sampling receipt inspection process is authorized. These are, of course, only examples; a wide range -- approximating all of the TYPES of tests or inspections to be performed -- would have to be included in the actual documented performance demonstration. Both acceptable and unacceptable samples would have to be included to determine if an inspector could differentiate (i.e., it would not be considered adequate if an electrical inspector was taken into the field and shown a cabinet full of acceptable terminations; he would have to be shown a terminal board with both acceptable and unacceptable terminations and be required to actually identify which ones were which).

Because the program does not include these requirements nor any qualitative or quantitative criteria for conducting and documenting this activity which is required by the QA program, RCA P8502-039 has been written which includes this and other programmatic deficiencies.

During review of the certifications of Non-NDE QC personnel, QA has identified some program deficiencies. Two of the deficiencies have been previously mentioned in this report. The certification/qualification program defined by QCP-ZZ-01001, Rev. 2 and QCP-ZZ-01002, Rev. 2 is also deficient in the following areas:

- 1) The program does not provide for determination of the need for formal training programs either on a generic basis or on a case-by-case basis for qualifying personnel who perform inspection, examination, and test activities. The program



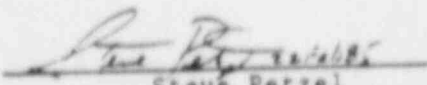
does not specifically provide for OJT. The determination of need for formal training is required by ANSI N45.2.6-1978, Paragraph 2.1.2.

- 2) The program does not provide for determining the initial capability of a candidate for certification. This is required by ANSI N45.2.6-1978, Paragraph 2.2. It also does not provide for the documentation required by Reg. Guide 1.58, Rev. 1, Position C.10 for when an individual does not meet the minimum education and experience requirements of ANSI N45.2.6-1978.
- 3) The program does not state what minimum information is required to be on a letter of certification as required by ANSI N45.2.6-1978, Paragraph 2.4.
- 4) The definitions of "QC Level I", "QC Level II", and "QC Level III" that appear in QCP-ZZ-01002, Rev. 2 do not agree with the levels of capability for an individual as stated in ANSI N45.2.6-1978, Paragraphs 3.2, 3.3, and 3.4 respectively. Also this procedure, via the definitions of the levels of inspectors, implies that an individual of a certain level should be able to perform a given capability (task) in the definition; however, the procedure does not specifically require that a person be capable of performing that capability. This is required by ANSI N45.2.6-1978, Paragraph 3.1.

RCA PB502-039, Rev. 0 has been issued to address the program deficiencies listed above.

During interviews with the various QC inspectors, a concern was raised with respect to dispositions made to cable repairs.

As a result of this concern, the original scope of this surveillance was expanded to include a review of Nonconforming Material Reports (NMRs). A review was made of over 1300 NMRs in the QA vault and in the QC Department files. The reviewer looked specifically for cases where "problems" documented dealt with cables or terminations. Based on this review, 26 cases of electrical device or wiring damage were found. Several cases of incorrect dispositions were found. This issue is on RCA PB502-039, Rev. 0. This portion of the surveillance was conducted by Mr. L. E. Petty, QA Consultant.

  
Steve Petzel  
QA Engineer

  
W. A. Ruhlman  
QA Consultant

1.27.85

CSP:WAR:sas

See Page 7 for Distribution



Attachments: A) Personnel Contacted During Surveillance  
B) References/Controlling Documents

DISTRIBUTION

cc: AD5S850209 (As a QA Record)  
AD5S850209 TR, QC (File)  
S. E. Miltenberger  
F. D. Field  
R. L. Powers  
W. H. Zvanut  
J. V. Laux  
J. R. Veatch  
J. C. Gearhart  
F. J. Forck  
W. R. Robinson (info)  
C. S. Petzel  
W. A. Ruhlman  
T. L. Shaw  
J. E. Davis  
P. T. Appleby  
D. F. Schnell

PERSONNEL CONTACTED DURING SURVEILLANCE

P. T. Appleby - Assistant Manager, Support Services  
R. A. Barnes - QC Inspector  
J. E. Davis - Superintendent, Compliance  
D. L. Heider - QC Inspector  
E. L. Irwin - QC Inspector  
S. N. Land - QC Inspector  
R. W. Laughlin - QC Inspector  
R. L. Nave - Assistant Supervisor, QC  
J. L. Pearson - QC Inspector  
D. W. Peters - QC Inspector  
V. P. Portell - Assistant Supervisor, QC  
T. L. Shaw - Supervisor, QC  
J. M. Speak - QC Inspector  
R. D. Swank - QC Inspector  
D. S. Turley - QC Inspector  
L. M. Zahara - Assistant Supervisor, QC

REFERENCES/CONTROLLING DOCUMENTS

- 1) SNUPP-C FSAR, Rev. 7, Appendix 3A, Commitment to Regulatory Guide 1.58
- 2) Regulatory Guide 1.58, Rev. 1 - September, 1980, Qualification of Nuclear Power Plant Inspection, Examination, and Testing Personnel
- 3) Standard ANSI N45.2.6-1978, Qualification of Inspection, Examination, and Testing Personnel for Nuclear Power Plants
- 4) OQAM, Rev. 7, Section 17.2.10 - Inspection
- 5) Quality Control Procedure, QCP-ZZ-01001, Rev. 2, Certification of Quality Control Personnel
- 6) Quality Control Procedure, QCP-ZZ-01002, Rev. 2, Qualification of Quality Control Personnel for Non-NDE Inspection Activities
- 7) Technical Specification 6.5.2.9b

## TYPICAL INSPECTION AREA QUESTIONS FOR QC INSPECTORS

(SR 850209)

During discussions with each inspector who was certified in a mechanical, electrical or civil area, certain questions were asked to attempt to ascertain the degree of familiarity of the inspector with certain "common" inspection or testing aspects in his discipline. The below listed questions are typical. Not every inspector was asked each question, and the answers from one question may have lead to a slight variation in asking other questions. These questions were not used as a "negative" basis for any of the certificates in question, but were considered on a positive basis when deciding if additional documentation alone would provide a basis for certification.

### Civil

Describe how to perform a slump test. How do you perform cadwell tests for ultimate strength? For what and how do you test rebar? Describe a typical rebar/cadwell sampling plan. When qualifying a person for cadwelding, what are the important attributes (position)? Describe what you would consider important about aggregate. How do you perform a seive test and what do you look for? What is the significance of moisture on aggregate? How do you perform a compressions test on concrete? How do you obtain a concrete sample? How do you use a surface comparitor (for paint surfaces)? What do you look for in a finished surface? Describe how you would determine coating thickness. How do temperature and humidity affect coatings? What is a "fish-eye" and a "holiday" when referring to coatings?

### Electrical

Describe what you look for in a termination? How can you (or can you) tell if the proper crimping tool was used if you weren't there? How can you (or can you) tell if a cable was overstressed during the pulling process? If you weren't there? How do you determine if minimum bend radius criteria have been met? Do you know any "rules of thumb" for making this determination? How many leads can be terminated under a single screw on a terminal board? Can you overstress a cable (single conductor) with only a single man performing the pull? What are (are there any) requirements for the use of lubricants on a cable pull?

### Mechanical

Describe how you perform a cleanliness inspection. Describe the important "things to look for" on a blue check. Explain what point you would look for or what is critical when replacing a bearing. Sealed? Sleeve? What do you look for when replacing "EQ" items? What is important when observing torquing? What is critical in (how do you inspect) equipment alignment?

March 25, 1985

SURVEILLANCE REPORT

Surveillance Report No: 850209A  
Surveillance Dates: 03/09-25, 1985  
No Response Required

TO: P. T. Appleby  
Assistant Manager, Support Services

FROM: T. W. Stotlar, Quality Assurance Engineer  
W. A. Ruhlman, Quality Assurance Consultant

SUBJECT: Review of Additional Documentation and QC Action Relative to  
Certification of UENO Quality Control Inspectors

OBJECTIVE: Review of Additional documentation relative to UENO Quality  
Control Inspectors' training and certifications and review ongoing  
QC Department evaluations being conducted and documented as a  
result of Surveillance Report #850209

PERSONNEL CONTACTED:

P. T. Appleby - Assistant Manager, Support Services  
J. E. Davis - Superintendent, Compliance  
T. L. Shaw - Supervisor, QC  
V. P. Portell - Assistant Supervisor, QC  
L. M. Zahara - Assistant Supervisor, QC  
L. D. Russell - Quality Control Inspector  
J. L. Pearson - Quality Control Inspector  
P. L. Brummet - Quality Control Inspector

REFERENCES/CONTROLLING DOCUMENTS: (Listed on Attachment A)

RESULTS:

As a result of the QC group's corrective action taken to resolve RCA's  
P8502-034, P8502-035, and P8502-039, additional information has been obtained  
for QA review. That additional information includes the following:

- a) Training records
- b) Performance evaluations
- c) Results of evaluation of all QC inspectors employed by UENO under the  
operations QA program (85 total inspectors)
- d) Results of the Work Authorizing document review for involvement of QC  
inspectors whose certifications are questionable (scheduled to be  
completed on 3/29/85).

Based on QA review of training records (items 8-11 on Attachment A), 5 of the  
previously identified 7 inspectors with questionable certifications would be  
certifiable if satisfactory performance demonstrations were documented. This

determination is identified by Note 3 on Attachment D. In addition, interviews were conducted with J. L. Pearson, R. L. Brummet and V. P. Portell. Based on these interviews J. L. Pearson's Electrical Level II certification could be supported when additional information is documented in the Certification file. R. L. Brummet's certification as Mechanical Level II could be supported if a satisfactory performance demonstration is documented. V. P. Portell's Civil Level III and Electrical Level III could be justified based on the use of "management prerogatives" specified in ANSI N45.2.6-1978 Section 3.5. (See Attachment D and G for further discussion). V. P. Portell's Electrical Level II certification could be supported if a satisfactory performance demonstration is documented. In addition, F. A. Barne's Civil Level III broad-based certification cannot be supported because of the limitation identified on his Civil Level II certification. This condition is identified on Attachment D Note 2.

QA also determined from a review of records that performance evaluations were performed. These evaluations were documented (pass/fail) on all certificates approved by Mr. Schottel. In three cases, the actual questions asked were documented. However, QA's review of the general nature of these questions, their lack of coverage of all areas and tasks, and with a knowledge of the NRC's interpretation when they accepted Union Electric's clarification in FSAP Chapter 3A (See Surveillance Report #850209, Page 5 of 7, second paragraph for a discussion of this meaning.), leads QA to the conclusion that the performance demonstration given does not meet the intent of UE's commitment to ANSI N45.2.6-1978 as modified by UE's clarification in FSAP Chapter 3A. However, the additional documentation reviewed during this Surveillance does indicate that QC management did perform activities which they felt met the intent of Union Electric's commitments. Although the clarification was in effect when Mr. Schottel conducted his performance demonstration evaluations, the NRC had not yet met with Union Electric to clearly define their interpretation. Although the Superintendent, Compliance (to whom the Supervisor, QC reports) was later an attendee at the meetings with the NRC when the position was annunciated, no one in the QC organization was directly involved. The failure to fully implement an acceptable performance demonstration program may have resulted from the failure of QA and upper level managers to assure that QC management was aware of NRC's interpretation of Union Electric's clarification of ANSI N45.2.6-1978.

QA's detailed recommendations relative to the qualification/certification process which should be implemented have been delivered to UENO for inclusion in their review and assessment of the overall QC program. In addition, QA also recommends that QC supervision monitor the actual inspections or tests performed by each newly certified inspector until they achieve a level of confidence in the individual's performance. This "monitoring" is in addition to the certification program items previously submitted, and is considered to be in excess of the minimum requirements established by Union Electric's commitments, but the monitoring represents what QA believes would be prudent management action.

Review of Ongoing Evaluations Being Conducted and Documented by QC:

The first action taken as a result of the original Surveillance was the decertification of all individuals identified as questionable on RCA P8502-035. QC management had also limited the certification of one Level III Civil inspector not initially identified as questionable by QA. All of this action is considered conservative based upon the fact that additional documentation reviewed by QA has indicated that one QC inspector (J. L. Pearson) could be recertified by documenting his past experience and seven others (indicated by Note 3 on Attachment D) could be recertified based on completion of a performance demonstration.

QC management, as part of their investigation to determine the scope of the questionable certifications, also reviewed the records of all 85 QC personnel who may have performed reviews or inspections under the operational QA program. They used acceptance criteria similar to that utilized by QA during the initial surveillance. As a result of that investigation, QC identified (in Reference 13) 15 additional individuals whose certifications might be questionable.

When the QC Department's review was conducted, they looked at the files for previously employed QC inspectors: this increased scope accounts for the fact that they identified 15 additional questionable certifications. However, they also looked again at current employees and identified the same inspectors previously identified by QA with one exception. The QC review did not identify J. M. Speeks' Level II Mechanical certification as questionable even though QA had listed it on RCA P8502-034. The QA review had identified that Mr. Speek's file only needed to include an expanded resume which could detail the tasks which he had previously accomplished which were suitable for consideration as "equivalent experience" in order to remove any questions about his Mechanical Level II certification. This expanded resume had been included in his file prior to the QC review, thus he was not identified as questionable nor were his certifications questionable at the time the QC review was completed.

QC management's detailed actions, which include a review of activities performed by any inspector whose certifications are questionable, is given in Attachment E. The Engineering/QA evaluation of the possible impact on these activities is ongoing. (It was begun on 03/12/85.) All actions completed to date as part of this Engineering/QA evaluation have been conservative, and none has indicated any adverse impact on installed structures, systems or components. As of March 25, 1985, approximately 95% of all work requests had been reviewed; approximately 285 involved inspectors with questionable certifications relative to the activity. Based on an Engineering/QA evaluation of the actual activity conducted, none of the 285 identified to date had any adverse impact on installed hardware.

QA originally identified nine QC inspectors with questionable certifications. When combined with the 15 additional inspectors identified as part of the QC review, this yielded a group of 24 inspectors whose work activities were to be reviewed by QC as described in Attachments E and F. However, QA considered J. D. Schottel to be certifiable for the reasons set forth in the following paragraph. In addition, QA did not list H. L. Holman as an inspector with questionable certification since he was never certified by Union Electric.



Mr. Holman was listed as questionable by QC based on the fact that he may have conducted some reviews even though he was never certified. Mr. Holman's name is part of the document search documented in Attachments E and F. Although, J. M. Speck and D. S. Turley were identified as having questionable certifications in surveillance report 850209, they have been eliminated as needing further evaluation based on additional information incorporated into their certification file. Eliminating these two individuals yields the list of 20 inspectors considered by QA to be of questionable certification as listed on Attachment D.

QA's evaluation of Mr. Schottel takes into account: the fact that he completed the Electrical training course and all electrical examinations; his B.S. in Metallurgical Engineering and his M.S. in Nuclear Engineering; his QA experience at other Nuclear Power Plants; and his cumulative 32 months of QA/QC experience. We note that the Standard would require only six months of related experience for a Level II certification with a B.S. degree. And, while the Standard requires five years of related experience for a B.S. degree in order to be a Level III, QA feels that some part of his Master's degree can be counted as part of this five years with the remainder of the credit coming from his 32 months of actual equivalent experience in the nuclear industry. In addition, Mr. Shottel's certification was given because no Level III existed at the time of certification. This utilization of management prerogative, and consideration of other factors adequately support the certification and complies with ANSI N45.2.6-1978, Section 3.5.

#### CONCLUSION:

Based on the review conducted by QC as surveilled by QA during this Surveillance, and based on the conservative interpretations relative to education/experience/training which have been applied, we conclude that all QC inspectors with questionable certifications have been identified as listed on Attachment D. We also feel that QC management's approach to the identification of the inspections and reviews performed by personnel with questionable certifications has likewise been thorough and conservative to date. And, when coupled with the Engineering/QA evaluation which is being conducted, we believe that possible adverse effects on installed hardware will be identified if any exist.

As mentioned on RCA P8502-035, Rev. 0, QA will consider downgrading the identified inadequacies to a Level 2 if there has been no significant adverse impact on installed equipment. We do not anticipate that it will be possible to make this determination (of possible impact) until the Engineering/QA evaluations have been completed and any reinspections, if needed, have been conducted and reviewed.

Now that the full extent of questionable certifications has been identified the issue can be placed in proper perspective. Attachment B provides the results of the QC department's evaluation of questionable certifications of inspectors who were not identified in the previous surveillance, including disposition of certain questionable certifications. This evaluation identified (a) 11 certifications/3 inspectors in which no tasks were performed



which required certification, therefore no further evaluation was necessary in this area, (b) 9 certifications/8 inspectors in which additional information could be added to the file to support certification, (c) 17 certifications/10 inspectors whose previous certification, training, experience, education, performance cannot be supported in the broad base category. Attachment lists 75 inspectors with 207 certifications that comply with UENO program commitments. Attachment D lists 20 inspectors with 29 certifications which remain questionable. These inspectors along with J. M. Speck and D. [unclear] are being identified as stated earlier for further evaluation. A total of 11 inspectors with 247 certifications have been evaluated, 207 of which meet UENO program commitments and 22 inspectors with 29 (11.7%) certifications remain questionable.

Based on personal interviews with current employees and based on the review of work activities completed to date, there have been no cases where any inspectors performed inspections in areas where they were not qualified and capable of performing adequate inspections.

T. W. Stotlar 3-26-85

T. W. Stotlar  
Quality Assurance Engineer

W. A. Ruhlman 3/26/85  
Quality Assurance Consultant

WAR/TWS/ldj JM 3/26/85

DISTRIBUTION:

- AD5S850209A (As a QA Record)
- AD5S850209A QC (File)
- F. D. Field
- R. L. Powers
- J. C. Gearhart
- J. V. Laux
- J. R. Veatch
- F. J. Forck
- W. H. Zvanut
- W. R. Robinson (info)
- S. E. Miltenberger
- C. S. Petzel
- L. E. Petty
- T. L. Shaw
- J. E. Davis

REFERENCES/CONTROLLING DOCUMENTS

- 1) SNUPPS-C FSAR, Rev. 7, Appendix 3A, Commitment to Regulatory Guide 1.58
- 2) Regulatory Guide 1.58, Rev. 1 - September, 1980, Qualification of Nuclear Power Plant Inspection, Examination, and Testing Personnel
- 3) Standard ANSI N45.2.6-1978, Qualification of Inspection, Examination, and Testing Personnel for Nuclear Power Plants
- 4) OQAM, Rev. 7, Section 17.2.10 - Inspection
- 5) Quality Control Procedure, QCP-ZZ-01001, Rev. 2, Certification of Quality Control Personnel
- 6) Quality Control Procedure, QCP-ZZ-01002, Rev. 1, Qualification of Quality Control Personnel for Non-NDE Inspection Activities
- 7) Technical Specification 6.5.2.9b
- 8) Mechanical QC Inspector Training Program Course Description
- 9) Electrical QC Inspector Training Program Course Description
- 10) Training Program Attendance Records, Electrical and Mechanical QC Inspectors
- 11) Examination Answer Keys, Electrical and Mechanical QC Inspector Examinations
- 12) Electrical and Mechanical QC Inspectors' Graded Examinations
- 13) Memo, L. D. Russell and V. P. Portell to J. E. Davis, dated 03/09/85

EVALUATION OF QUESTIONABLE  
CERTIFICATIONS

Name	Previous Certification/ Experience Other than UE	Previous U.E. Certification	Acceptable Areas of Certification
(Batey, R. J.)	Doc. Tech. I	VT-2 II (a) VT-3 II (a) VT-4 II [Limited to Doc. Review] (a)	See Note 1.
Battle, W. D.	Civil II - Concrete - Soils - Coatings - Lead Auditor	Civil II (c) - Complete  Civil II (Limited) - Drypack - Surface Mounted Plates & Expan- sion Anchors	Civil II - Concrete (includes Drypack) - Soils - Coatings
Brewer, N. L.	Doc. Tech II	Receipt II (b) - Complete	Reference Letter of Justification for Receipt II Certi- fication - See Note 7.
Brown, L. D.	Mechanical II - Instrumentation  Welding II - Complete  Electrical II Raceway	Mechanical II (c) - Complete	Mechanical II - Instrumentation
Brown, J. K.	Mechanical II - Instrumentation - Hydro  Receipt II - Complete	VT-3 II (a) VT-4 II (a)	See Note 3. VT-2 II

Name	Previous Certification/ Experience Other than UE	Previous U.E. Certification	Acceptable Areas of Certification
Gaines, T. E.	Mechanical II - Hydro	VT-3 II (b) VT-4 II (b)	VT-2 II Reference Letter of Justification for VT-3 & 4, Level II Certification - See Note 6.
Herring, P. L.	Mechanical II - Hydro - Hangers  Non-Q (Trainee III)	Mechanical II (c) - Complete  VT-1 II (b) - Limited to valve insp.	Mechanical II - Hydro - Hangers  Reference Letter of Justification for VT-1, Level II Certification - See Note 6.
(Lawson, M. L.)	Doc. Tech. II	Receipt II (a) - Complete	See Note 4.
Lechner, S. J.	Mechanical II - Instrumentation - Pipe  Electrical II - Complete	Mechanical II (c) - Complete	Mechanical II - Instrumentation - Pipe
McFarland, R. A.	Mechanical II - Pipe - Hangers  Welding II - Complete	Mechanical II (c) - Complete	Mechanical II - Pipe - Hangers
Morgan, J.	Welding II - Structural	VT-2, Level II (b)	Reference Letter of Justification for VT-2, Level II Certification - See Note 6.

Name	Previous Certification/ Experience Other than UE	Previous U.E. Certification	Acceptable Areas of Certification
Orf, D. L.	Civil II - Concrete - Blockwalls - Fire Rated Doors - Subcontractor surveillance	Civil II (c) - Complete	Civil II - Concrete - Blockwalls - Fire Rated Doors
Pasley, J. M.	Civil II - Soils - Coatings - Subcontractor surveillance	Civil II (c) - Complete  Civil III (a) - Complete	Civil II - Soils - Coatings  See Note 2.
Pruitt, V. R.	Mechanical II - Instrumentation - Pipe  Welding II - Complete  NDE II - PT	Mechanical II (c) - Complete	Mechanical II - Instrumentation - Pipe
Scheperle, G. P.	Mechanical II - Pipe - Equipment	Mechanical II (c) - Complete	Mechanical II - Pipe - Equipment
(Thomas, D. R.)	Civil II - Pre-Pour - Cadwelding - Soils - Structural	Civil II (a) - Complete	Civil II - Pre-Pour - Cadwelding - Soils - Structural See Note 5.
Wudtke, C. A.	Mechanical II - Hydro	VT-1 II (a) VT-3 II (a) VT-4 II (a)	VT-2 II See Note 5.

Name	Previous Certification/ Experience Other than UE	Previous U.E. Certification	Acceptable Areas of Certification
Barnes, R. A.	See RCA P8502-035	Civil II (c) - Complete  Civil III (c) - Complete  Electrical II (c) - Complete  Mechanical II (c) - Complete  VT-1 II (c) VT-2 II (c) VT-3 II (c) VT-4 II (c)	Civil II (Limited)
Speak, J. M.		Mechanical II (b)	See Note 6.
Turley, D. S.		Mechanical II (b)	See Note 6.
(Holman, H. L.)	Start-up Engineer Draftsman	None	None issued.
Pearson, J. L.	See RCA P8502-035	Electrical II (b) - Complete	See Note 6.
Zahara, L. H.		Receipt III (b)	See Note 6.

Based upon discussions with the individual's QC Supervisor, the following information applies. Letters or other documentation has or will be placed on file to substantiate or reiterate the information in these notes.

NOTE 1 - Individual did not perform any duties requiring Level II certification.

NOTE 2 - Individual did not perform any duties requiring Level III certification.

NOTE 3 - Individual did not perform any VT-3 and VT-4 inspections.

NOTE 4 - Individual did not perform any receipt Level II inspections.

NOTE 5 - Individual was assigned only VT-2 inspection work.

NOTE 6 - Additional information was supplied to substantiate certification at the indicated area/level. This information was documented and added to file.

Additional Annotations:

- (a) Denotes a questionable certification; however, no task requiring certification was performed in this area. No further evaluation is necessary for this certification.
- (b) Additional information was supplied to the certification file prior to this Surveillance Report. This certification meets UENO program commitments and is included on Attachment C.
- (c) These broad based certifications are questionable; however, the documentation supports limited certification. These certifications require further evaluation and are included on Attachment D.
- (d) Inspectors do not appear on Attachment C or D.



CERTIFICATIONS THAT COMPLY WITH  
UENO PROGRAM COMMITMENTS

<u>NAME</u>	<u>U.E. CERTIFIED</u>
S. J. Adams	Electrical, Level II
T. L. Antweiler	Mechanical, Level II
T. H. Armstrong	Mechanical, Level II
R. A. Barnes	Receipt, Level II & III
J. H. Baxter	Electrical, Level II
M. J. Belcher	Receipt, Level II
D. Bettenhausen	VT-1, 2, 3, 4, Level II
S. L. Bode	Mechanical, Level II & III Receipt, Level II VT-1, 2, 3, 4, Level II
P. A. Bohnert	VT-2, 3, 4, Level II [Limited to Doc. Review]
G. K. Brandow	VT-2, Level II
R. H. Brockmeier	Mechanical, Level II Receipt, Level II
B. G. Broman	Mechanical, Level II Welding, Level II
J. K. Brown	VT-2, Level II
R. L. Brummet	NDE II, MT-PT, Level II VT-1, 2, 3, 4, Level II
N. L. Brewer	Receipt, Level II
T. J. Buersmeyer	Electrical, Level II
P. J. Cody	Mechanical, Level II Receipt, Level II Welding, Level II
E. J. Crawford	Mechanical, Level II

<u>NAME</u>	<u>U.E. CERTIFIED</u>
J. S. Diluvio	Electrical, Level II Mechanical, Level II Welding, Level II NDE - PT, Level II NDE - MT, Level II VT-1, 2, 3, & 4, Level II
M. E. Dubeau	VT-1, Level II VT-2, Level II VT-3, Level II VT-4, Level II NDE - MT, PT, Level II
B. J. Dudley	VT-2, 3, 4, Level II [Limited to Doc. Review]
R. L. Dudley	Receipt, Level II
J. L. Edmondson	Electrical, Level II
K. S. Edwards	VT-2, 3, 4, Level II [Limited to Doc. Review]
S. E. Febles	NDE - MT, PT, Level II VT-2, 3, 4, Level II Welding, Level II
T. E. Gaines	Receipt, Level II VT-2, Level II
J. G. Garrigan	VT-1, 3, 4, Level II
J. N. Guynn	Receipt, Level II
R. Hagar	Electrical, Level II
G. W. Hamilton	Receipt, Level II Mechanical, Level II VT-1, 2, 3, 4, Level III
B. W. Haugen	Electrical, Level II
D. L. Heider	Electrical, Level II
S. M. Henage	VT-2, 3, 4, Level II [Limited to Doc. Review]
P. L. Herring	VT-2, 3, 4, Level II
L. P. Hume	Electrical, Level II Welding, Level II

<u>NAME</u>	<u>U.E. CERTIFIED</u>
E. L. Irwin	Mechanical, Level II VT-1, 2, 3, 4, Level II Welding, Level II
S. W. Jesse	VT-2, Level II
A. J. Kemple	Electrical, Level II
S. N. Land	Welding, Level II NDE - MT, PT, Level II
R. W. Laughlin	NDE - MT, PT, Level II VT-1, 2, 3, & 4, Level II Welding, Level II
C. P. Laurie	Receipt, Level II
S. J. Lechner	Welding, Level II
M. J. Major	Mechanical, Level II
T. L. Matheny	Electrical, Level II
H. T. Moon	VT-1, 2, 3, 4, Level II [Limited to Doc. Review]
D. L. Moore	Electrical, Level II
D. E. Moreland	Civil, Level II
J. Morgan	VT-2, Level II
R. L. Nave	Mechanical, Level II & III VT-1, 2, 3, & 4, Level II
D. W. Neterer	Electrical, Level II & III Mechanical, Level II NDE - PT, Level II Receipt, Level II
D. R. Oelrichs	VT-2, Level II Mechanical, Level II
P. S. Olsen	VT-2, 3, 4, Level II
J. L. Pearson	Mechanical, Level II Receipt, Level II VT-1, 2, 3, 4, Level II
D. W. Peters	Mechanical, Level II VT-1, 2, 3, 4, Level II Welding, Level II

<u>NAME</u>	<u>U.E. CERTIFIED</u>
R. L. Pflueger	Receipt, Level II
V. P. Portell	Mechanical, Level II NDE, PT, Level II VT-1, 2, 3, 4, Level II
K. R. Richey	Electrical, Level II
T. W. Ridder	Electrical, Level II
K. M. Robson	VT-3 & 4, Level II
J. D. Schottel	Mechanical, Level III Receipt, Level III VT-1, 2, 3, & 4, Level III Welding, Level III Electrical, Level III
D. L. Smith	Receipt, Level II
J. A. Smith	VT-1, 3, & 4, Level II
E. P. Smola	Electrical, Level II
J. M. Speek	Electrical, Level II & III Mechanical, Level II VT-1, 2, 3, & 4, Level II
T. W. Stites	Electrical, Level II
R. D. Swank	Mechanical, Level II Receipt, Level II Welding, Level II VT-1, 2, 3, 4, Level II
D. S. Turley	Electrical, Level II Mechanical, Level II VT-1, 2, 3, & 4, Level II
J. A. Ullman	Electrical, Level II
J. W. Vandelight	Electrical, Level II
W. R. Vandeloecht	Electrical, Level II
G. G. Weinzettle	Electrical, Level II
T. C. Weisenberger	VT-2, Level II

<u>NAME</u>	<u>U.E. CERTIFIED</u>
F. A. Wadake	VT-2, Level II
B. D. Yockey	Mechanical, Level II
L. H. Zahara	Mechanical, Level II NDE, PT-MT-VT, Level III VT-1, 2, 3, 4, Level III Welding, Level III Receipt, Level III

COMPOSITE LIST OF ALL QC INSPECTORS WITH REMAINING QUESTIONABLE CERTIFICATIONS  
BASED ON A QA SURVEILLANCE AND QA'S EVALUATION OF QC'S REVIEW

QC INSPECTOR'S NAME	QUESTIONABLE AREA/LEVEL	NOTES
R. A. Barnes	Civil, Level III	2
	Electrical, Level II	3
	Mechanical, Level II	3
	VT-1, 2, 3, 4, Level II	
R. L. Brummet	Mechanical, Level II	3
J. L. Pearson	Electrical, Level II	1
D. W. Peters	Civil, Level II	1
	Electrical, Level II	2
V. P. Portell	Civil, Level III	5
	Electrical, Level III	5
	Electrical, Level II	3
R. D. Swank	Electrical, Level II	3
L. M. Zahara	Electrical, Level II	3
W.D. Battle	Civil, Level II	2
L. D. Brown	Mechanical, Level II	2
P. L. Herring	Mechanical, Level II	2
S. J. Lechner	Mechanical, Level II	2
R. A. McFarland	Mechanical, Level II	2
D. L. Orf	Civil, Level III	2,6
J. M. Pasley	Civil, Level II	2
V. R. Pruitte	Mechanical, Level II	2
G. P. Scheperle	Mechanical, Level II	2
D. L. Bettenhausen	Electrical, Level II	4
S. L. Bode	Electrical, Level II	4
R. H. Brockmeier	Electrical, Level II	4
G. W. Hamilton	Electrical, Level II	4

NOTES:

- 1) Based upon the lack of records and the lack of additional information obtained during the personal interviews, QA does not believe that the individual is certifiable at the listed area/level combination. (See RCA P8502-035, Rev. 0.)
- 2) Based on limited certification by the previous employer, this individual's experience will not support the broad-category UE certification. A UE certification in the areas certified by the previous employer or where UENO program has been followed would be acceptable.
- 3) Based on training records and course outlines reviewed as well as the individual's documented education and experience, the inspector would be certifiable at the indicated area/level combination if a satisfactory performance demonstration were documented.
- 4) This inspector is the same as Note 3 above. However, since he is no longer employed as a QC inspector, completion of a satisfactory performance demonstration is not considered appropriate.
- 5) Although this inspector's education and experience do not meet the literal requirements of ANSI N45.2.6-1978 for certification as a Level III, he could be certified by UENO management based on the use of "management prerogatives" as set forth in Section 3.5 of the Standard. Additional details are contained in the Surveillance Report under the Discussion heading.
- 6) At the time that QA conducted this Surveillance, this inspector was not part of the UENO QC organization. However, prior to issuing this Surveillance Report, UEQA was made aware of potential plans to rehire this inspector and certify him in the areas where he was previously certified under the DIC program. QA concurred that such certification would be acceptable.



QC FOLLOW-UP ACTION TO SURVEILLANCE REPORT #850209

To resolve the concerns of the Surveillance Report #850209, the QC Department has initiated the following action:

- A. A review of documentation to determine which additional QC personnel have questionable certifications that will require review of the work performed. This included a review of computer listing of personnel and a review of the QA record files for all QC certifications issued by UENO. UEQC Supervisors have reviewed the list of questionable certificates thus generated and have concurred that the 85 QC personnel identified, as a result of the review, represents the total QC inspector population under the Operations QA Program. This task was completed on 03/09/85.
- B. Utilizing the list generated in A above, the QC Department performed an evaluation/comparison of certifications, education, and experience received outside of UENO and the UENO QC certifications received. The QC Department utilized criteria similar to that established in Surveillance Report #850209 for performance of this review. An attempt was made to categorize subdisciplines in which an Inspector was certifiable. Attachment B is a summary of the results.

Quality Assurance's review of the QC Department's evaluation performed in A & B above consisted of a review of certification, education, training and experience for the following personnel:

- 1) W. D. Battle
- 2) L. D. Brown
- 3) S. L. Bode
- 4) R. H. Brockmeier
- 5) J. D. Schottel
- 6) D. W. Neterer
- 7) P. L. Herring

This review verified that the evaluation performed by the QC Department was adequate and conservative. The evaluation has identified additional UENO QC personnel whose certification is questionable based on the criteria specified in Surveillance Report #850209. Attachment D identifies those individuals whose certification remains questionable.

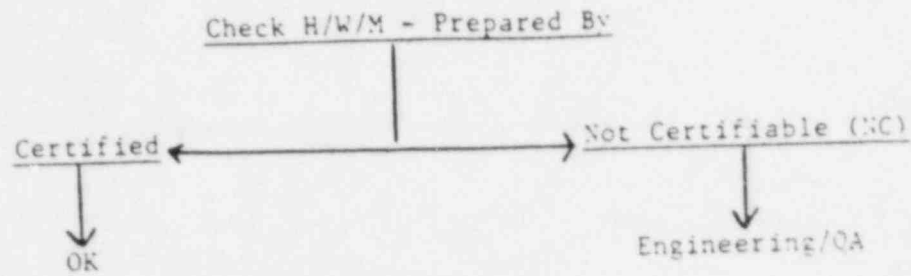
- C. Review of Startup Maintenance Authorizations (SMA), Work Requests (WR), and Repeating Work Requests (RWR) is being conducted as follows:

- 1) Work authorizing documents are currently being reviewed to identify work that involved individuals whose certification is questionable. These individuals are identified as a result of B above. Currently, research is being conducted to determine the involvement of UENO QC during the startup phase. The results of this research will determine whether Startup Maintenance Authorizations (SMAs) require evaluation. At the time of initiation of the Startup Work Request (SWR) Program by the Startup organization, operations was utilizing a Work Request Program. To administratively allow UENO maintenance and therefore UENO QC involvement, UENO wrote a Work Request per operations program commitments using the SWR as justification. Therefore, Startup Work Requests will not contain evidence of UENO Quality Control involvement. The QC involvement with SWRs activities will be documented on Work Requests.
  - 2) The work authorizing documents identified in C1 above are being reviewed by QC to determine if the scope of work performed by the QC inspector was within an area in which he/she was not certifiable. These areas include preparing the Hold/Witness/Monitor points, preparing and approving Maintenance Inspection Checklists, and Field Inspections. Attachment F outlines the criteria utilized for determining the need for Engineering/QA reviewers evaluation.
- D. The QA/Engineering reviewers evaluate the work documents, identified in C2 above, for actual work performed and task performed by the QC inspectors with questionable certification. The evaluation includes:
- 1) Acceptability of Hold/Witness/Monitoring points, based on agreement of the reviewers that the appropriate inspection attributes were identified.
  - 2) Acceptability of the maintenance inspection checklist, based on agreement of the reviewers that the checklist contains appropriate inspection attributes and acceptance criteria to perform the task.
  - 3) Acceptability of inspection, based on agreement of the reviewers that the inspection was a) within the skills of the QC inspector (like kind replacement, routine activities performed by skilled craft; e.g., turn-of-the-nut torquing, routine terminations, etc.), b) conducted with adequate inspection instructions, or c) there was no impact on equipment.

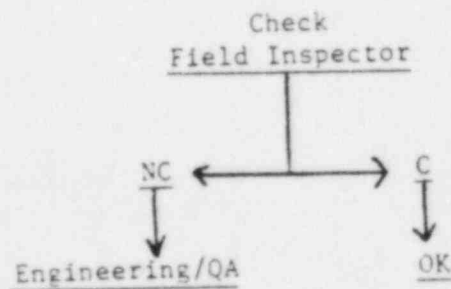
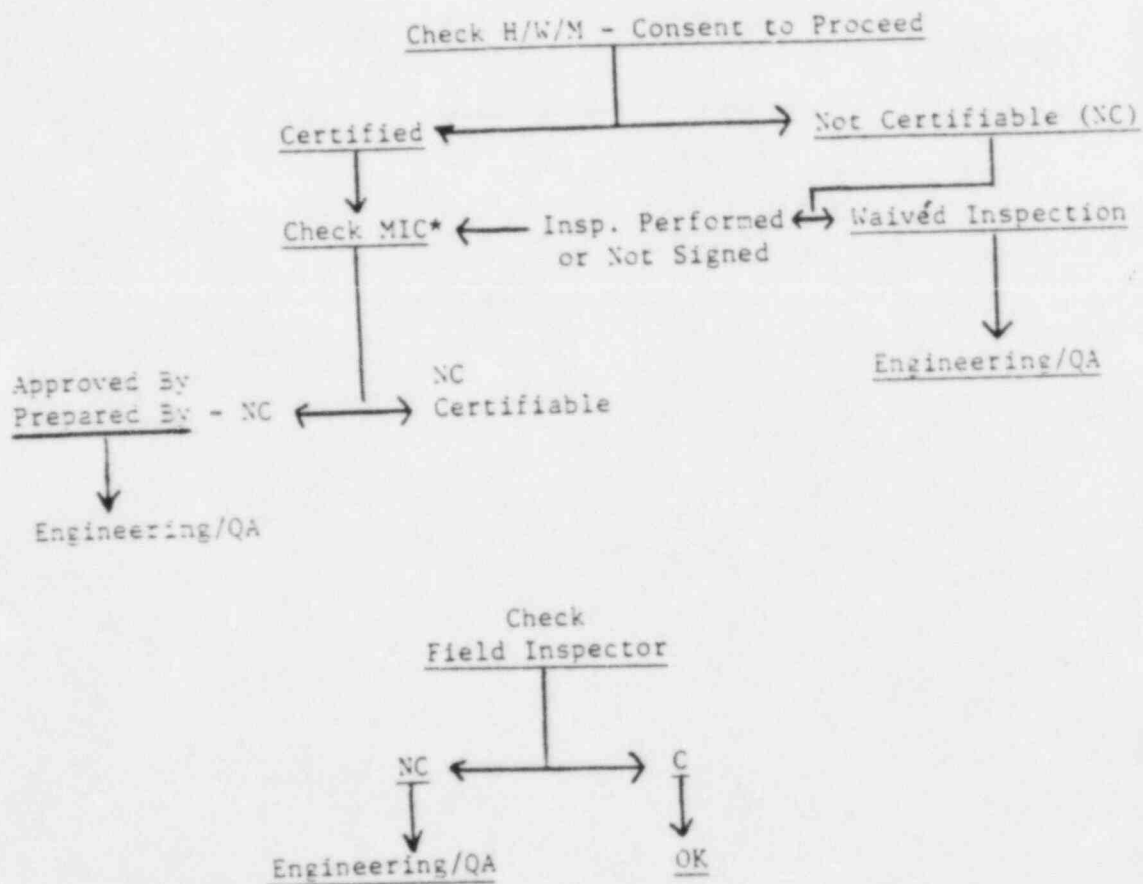
Based on the above criteria, equipment history, and retest verification, the task force determines the need for reinspection.

Based on QA's reviews and involvement and the corrective action to date by the QC Department, the actions being taken to resolve the concerns identified in Surveillance Report #850209 are currently acceptable.

HOLD/WITNESS/MONITOR (H/W/M) - NO INSPECTION SPECIFIED



HOLD/WITNESS/MONITOR (H/W/M) - INSPECTION SPECIFIED



### DISCUSSION

To preclude any misinterpretation of this Surveillance, a Discussion Section is being added to provide details which would not normally be included. If additional clarification of any of the issues covered in this Surveillance is desired by the recipients, they should contact the authors or the authors' management.

Note 5 on Attachment D indicates that UENO management could recertify Mr. V. P. Portell based on management prerogatives allowable under and described in ANSI N45.2.6-1978. In order to do so, UEQA believes that management should establish that extenuating circumstances exist. Management would also need to define, as part of that recertification process, the pertinent factors that they considered when concluding that they had reasonable assurance that Mr. Portell can competently perform as a Level III. Section 3.5 of ANSI N45.2.6-1978 lists two other factors -- demonstrated capability in a given job based on previous performance or satisfactory completion of capability testing -- which may be used. Of course, other factors might also be relevant.

While QA does not recommend nor rule out the action to recertify Mr. Portell under the provisions of management prerogative, QA also believes that such a certification would not be opposed to safety or quality considerations nor would it be contrary to the OQAP. As UENO management is aware, the QA interpretation -- one independent of cost and schedule and other similar management considerations -- is only required to be implemented (by 10CFR50, Appendix B) when the proposed action is opposed to safety or quality considerations or when it would not implement the OQAP. [References: 10CFR50, Appendix B, Criterion I, 7th sentence; OQAP (FSAR Chapter 17.2), Section 17.2.1, 5th paragraph, 2nd sentence; ANSI N18.7-1976, Section 3.2, 3rd paragraph, 1st sentence.]

Throughout this and the original Surveillance, QA used the terminology "not certifiable" or "questionable certification." These terms do not reflect in any way on the capability of the person relative to ability to actually perform QC inspections. UE's commitments, as outlined in the QA program, are designed to provide management (the NRC and the public) with a description of "all those planned and systematic actions necessary to provide adequate confidence that a structure, system or component will perform satisfactorily in service."\* This is accomplished by including in those commitments "the managerial and administrative controls to be used to assure safe operation."\* It is therefore possible to establish controls which are written in such a way that a person who is highly capable is not certifiable. The obverse is also true, but less likely: A person who is not capable could be certifiable. The Standard (and UE's commitment thereto) is designed to deal with the "normal or average" case. For those cases, the established controls provide adequate confidence that acceptable action will occur.

Recognizing the above potentials, QA normally takes the more conservative approach. However, the more conservative approach may not be economical or efficient and it is therefore acceptable to implement a less conservative approach as long as such action is not opposed to safety considerations and it implements the OQAP.

However, to remove all uncertainty relative to performance, QA has and continues to recommend actual performance demonstrations be performed prior to certification of inspectors. Such a course is the only way in which it can be "proved" that a given inspector is capable or qualified to perform an inspection. Therefore, since QA only reviewed the experience/training/education of the inspectors, the only determination which they could (or did) make was that a person is or is not certifiable. A paperwork review does not allow a determination that a person is or is not qualified.

QA also does not see any attempt on the part of QC management to circumvent the established qualification program nor any intentional violations of procedures. A discussion of the possible reasons for the difference in interpretation is given in the Surveillance on page 2.

\* Quoted from 10CFR50, Appendix B, Introduction.

April 23, 1985

SURVEILLANCE REPORT

Surveillance Report No.: 850209B  
Surveillance Dates: 3/12/85 - 4/18/85  
No Response Required

To: S. E. Miltenberger

From: T. W. Stotlar/S. M. Pohl

Title: Quality Assurance and Engineering Evaluation of OC Inspections

Objective: Determine the impact on plant hardware due to inspection activities by Quality Control personnel with questionable certifications.

Quality Assurance/Engineering Evaluation Team Participants:

- 1) T. W. Stotlar - QA Engineer
- 2) L. E. Petty - QA Consultant
- 3) T. M. DeVincentis - Assistant Engineer
- 4) S. M. Pohl - Engineer
- 5) S. M. Bond - Assistant Engineer
- 6) G. W. Polowy - Engineer
- 7) J. P. Lueckenhoff - Engineer
- 8) W. A. Witt - Assistant Engineer
- 9) M. D. Haag - Engineer
- 10) J. R. Meehan - Engineer

Personnel Contacted:

R. D. Swank	B. Little	R. Goldschmidt
L. D. Russell	J. M. Speck	R. Johnson
J. E. Davis	V. Becherle	
J. E. McLaughlin	D. Kaftor	

References/Controlling Documents:

- 1) OOAM Section 17.2.10, Rev. 7
- 2) QCP-ZZ-04001, Rev. 3
- 3) QCP-ZZ-04002, Rev. 2
- 4) OCT-ZZ-04003, Rev. 0
- 5) Maintenance Procedures
- 6) M-02 P&ID Drawings
- 7) E07000
- 8) APA-ZZ-00125, Rev. 1
- 9) APA-ZZ-00126, Rev. 0



### Summary To Management

As documented in Surveillance Reports 850209 and 850209A, QA and QC identified 22 Quality Control inspectors who were certified in areas for which their experience and on-the-job training did not support certification. The Quality Control group conducted a review of all work authorizing documents since the start of the Operations QA program. QC identified the work activities which involved UENO QC inspectors with questionable certifications. A primary portion of the corrective action program undertaken by UENO management, documented in Request for Corrective Actions P8502-034, P8502-035, and P8502-039, was to evaluate the impact on plant hardware due to activities performed by QC inspectors with questionable certifications.

Therefore, a Quality Assurance/Engineering Evaluation Team was established to provide an independent review of work documents which involved activities performed by QC inspectors with questionable certifications. The team was utilized to determine if any adverse impact on plant hardware exists due to this condition. In addition, to provide an additional confidence in the evaluation team's conclusions, 8 work requests were chosen and the work performed was field verified.

The four member evaluation team reviewed 681 Work Requests, 53 Preventive Maintenance Task Sheets, and 165 Start-up Maintenance Authorizations. The team concluded that there was no adverse impact on plant hardware function or quality. Management recommendations and further details of the results of the evaluation are provided in the body of this report.

### Evaluation Details

The team, consisting of 2 QA Engineers and 2 Plant Engineers, performed the evaluations. Each document was reviewed by each member of the team. Each item was dispositioned by agreement of the team members.

The scope of the 4 member team's review included evaluations of the actual work that was performed by the craft and the activities performed by the QC inspector. The QC activities evaluated included:

- 1) Preparation of the Hold/Witness/Monitoring Point (HWMP) Notification
- 2) Approval of the Maintenance Inspection Checklists (MIC)
- 3) Field Inspection of the activity.

The guidelines utilized to perform the evaluation were as follows:

- 1) Adequacy of the HWMP Notification

QC inspectors prepare the HWMP Notification and attach it to the work document. This notifies the craft that QC should be present when these activities are performed.

Each team member reviewed the HWMP Notification to determine that appropriate Hold/Witness Monitoring points had been specified. The team members evaluated the scope of work performed and actual work performed. This included consideration of the safety significance of

the activity, the required craft skill level, the previous work performed on that hardware, and component retest requirements.

2) Adequacy of Maintenance Inspection Checklist

QC inspectors document inspection attributes, acceptance criteria, and results of the inspection on the MIC. The team members' evaluation of MIC's consisted of the following:

- a) The scope of work to be performed and the actual work performed.

This included consideration of the safety significance, skill level required by the craft and QC inspector for performance of this activity, previous work performed on the component, cause of failure if appropriate, and component retest requirements.

- b) Conformance to appropriate standards, specifications and design documents.

Each team member determined that appropriate attributes were specified and adequate acceptance criteria was provided.

3) Acceptability of Inspection

The team member's evaluation of the impact on the quality and function of hardware due to QC inspections performed by personnel with questionable certifications considered the following:

- a) Scope of work actually performed.

This included consideration of safety significance, required skill level of the craft and QC inspector for the actual work documented.

- b) Extent of procedural controls for the work activity.

This included the evaluation of the adequacy of established acceptance criteria provided in the MIC, the procedural controls utilized by the craft, and the programmatic controls utilized for retesting the hardware after the work activity was completed.

- c) Assumptions made concerning the skill level of QC inspectors with questionable certifications consisted of the following:

- i) The QC inspector had limited technical knowledge in the activities which he/she was required to inspect.

- ii) The inspector had adequate knowledge in the mechanics of performing inspections. The inspectors meet the requirements for Level 1 inspectors per ANSI N45.2.6-1978.

- d) Activities determined by the evaluation team to be within the skills of all of the subject QC inspectors with questionable certifications are as follows:

- 1) Like kind replacements
- 2) Determination with reterminations of electrical components
- 3) Minor disassembly with reassembly of components
- 4) Verification of cleanliness
- 5) Reading gauges, meters, and charts
- 6) Monitoring procedural compliance
- 7) Ability to follow specific instructions, procedures, and drawings
- 8) Utilization of simple measuring devices
- 9) Determining visual gross damage of parts

Items c and d are considered conservative in that all inspectors involved held valid certifications in other areas, which assures basic knowledge of inspection program requirements.

#### Results:

There was no adverse impact on plant hardware due to Quality Control inspection activities. The team concluded that the majority of work performed was within the normal skills of the craft and QC inspectors and required only minimum or no instructions. The team determined that soldering, crimping complex component disassembly/reassembly (e.g. pump rebuilding), fire barrier installation and initial terminations (new installations) are examples of activities that would require enhanced skills of the craft and QC inspectors or adequate instructions. The team determined that adequate instructions were provided to the craft and QC inspectors for these activities.

The team reviewed a sample of 53 Preventive Maintenance Task (PMT) sheets. The team determined that QC coverage was adequate and the work activities were within the skills of the craft and inspector. The PMT sheets and associated Repeating Work Requests (RWP) provide adequate instructions to perform the activities. Due to this evaluation no further evaluations were conducted on PMT sheets and RWR's.

Field verifications were utilized as strictly a confirmatory step and provide additional confidence in the results of the work document evaluations. The following is a summary of the verifications performed:

- 1) WR #46070 - Verified cable ID, E27000 application, quality of termination WR #3226
- 2) WR #46073 - Verified proper type of lug for wire size and proper crimp WR #4215
- 3) WR #46072 - Verified heater size and type, wiring condition, proper lugs operable WR #4839
- 4) WR #43629 - Verified wire type, cabling termination accuracy, proper lugs and crimps WR #27853
- 5) WR #43627 - Board installed. If board was not installed the SA system would be disabled. WR #7661

- 6) WR #43631 - Verified breaker replacement, 30 amp to replace 10 amp, termination and wire size and type WR #9296
- 7) WR #43632 - Verified phasing per E07000 motor direction of rotation correct, motor terminations were inaccessible WR #4840
- 8) WR #43628 - Verified proper installation and density of fire barrier WR #26859

These verifications were performed utilizing MIC's generated by a certified QC inspector. The inspection team participants included QA, craft, and certified QC inspectors. The inspection was witnessed by the site resident NRC Inspector.

The results of each work document evaluation were recorded on "QA/Engineer Evaluation of Work Document" sheets. Attachment A provides a sample of the evaluation results. The entire set of Evaluation Sheets are available in the QA data file.

#### Conclusions:

The results of the evaluation and field verifications provide assurance that QC inspectors have adequately verified conformance to applicable documented instructions, procedures, drawings, and specifications as required by the OQAM Chapter 17.2.10, Rev. 7. Since the deficiencies identified with QC certifications had no adverse impact on plant hardware, the level for Request for Corrective Action P8502-035 will be lowered from Level 1 to 2.

The team believes that process monitoring of on-going activities needs to be increased in the areas of like kind replacement, crimping, and terminations. The team believes that these activities are important to safety, and QC does not have adequate documented justification for the current monitoring frequency. The team recommends that QC evaluate the current process monitoring frequencies and establish a basis for subsequent monitoring activities as required by the OQAM Chapter 17.2.10, Rev. 7. This condition is provided as a recommendation and not a RCA due to the corrective action initiated by QC prior to this report.

Although criteria were established for the performance of this review, the evaluations included opinions of the team. However, the opinions of the team were conservative. For example, the team did not take credit for the Callaway Plant Training and Qualification programs for the craft, during the course of the evaluations. These programs provide specific instructions for maintenance craft in defined areas. In addition, Quality Assurance Audits and Surveillances, Technical Specifications surveillances, and other associated programmatic controls provide an additional level of confidence that work activities are conducted correctly.

In addition, management's actions taken in Quality Control program revisions will provide Union Electric Company with an enhanced and more effective inspection program for verification of compliance with documented instructions, procedures, drawings, and specifications.

If you have any questions concerning this surveillance, contact J. V. Laux,  
Supervising Engineer, Quality Assurance Technical Support.

*S. M. Pohl*  
S. M. Pohl  
Engineer *WR*  
*4/25/85*  
TWS/l dj

*T. W. Stotlar*  
T. W. Stotlar  
QA Engineer *JW* *4/25/85*

cc: AD5S850209B (As a QA Record)

AD5S850209B QC (file)

F. D. Field w/a  
R. L. Powers w/a  
W. H. Zvanut w/a  
J. V. Laux w/a  
J. C. Gearhart w/a  
F. J. Forck w/a  
J. P. Veatch w/a  
T. W. Stotlar w/a  
L. E. Petty w/a  
P. T. Appleby w/a  
J. E. Davis w/a  
T. L. Shaw w/a  
W. R. Campbell w/a  
T. M. DeVincentis w/a  
S. M. Pohl w/a  
S. M. Bond w/a  
G. W. Polowy w/a  
J. P. Lueckenhoff w/a  
W. A. Witt w/a  
M. D. Hagg w/a  
J. R. Meehan w/a  
K. K. Hammann w/a

QA/ENGINEER EVALUATION OF  
WORK DOCUMENTS

Document Title Work Request

### Participants

LEP      CWP

TWS JPL

[illegible]



QA/ENGINEER EVALUATION OF  
WORK DOCUMENTS

Attachment A

to SR 850209B

Page 2 of 10

Date of Evaluation 3/19/85

Participants

LEP GWP

TWS JPL

Document Title Work Requests

Document Number	Comp. I. D.	Actual Work Performed	Task Performed By Questionable QCI	Disposition	Closed Open
4154	NE106	Voided		Obtain document, No QC inspection required	C
22001	NE106	Scheme Check	HWMP Missing MIC/JLP	Visual verification to drwgs. within the skills of QCI	C
3225	NE107	Reland Wires	Insp/RDS 1 Visual Verif.		C
21996	NE107	Scheme Check	No HWMP Sheet	Obtain document calibrated SAT, No QC inspection required	C
5862	NE107	Replaced Relay	HWMP/JLP Non-specified	Calibrated SAT	C
34334	SE-RE-18	Install 1 hr. fire barrier wrap	MIC/VPP	MIC Adequate	C
1560	CG-536	Calibrate & Install	HWMP/JLP Non-specified	Retest SAT	C
34404	SGK-05A	Found connector broke loose	MIC/SJL	HWMP Adequate	C
				MIC Adequate	C



QA/ENGINEER EVALUATION OF  
WORK DOCUMENTS

### Participants

LEP TWD

TWS	SMP <sub>0</sub>
0.00	0.00
0.05	0.05
0.10	0.10
0.15	0.15
0.20	0.20
0.25	0.25
0.30	0.30
0.35	0.35
0.40	0.40
0.45	0.45
0.50	0.50
0.55	0.55
0.60	0.60
0.65	0.65
0.70	0.70
0.75	0.75
0.80	0.80
0.85	0.85
0.90	0.90
0.95	0.95
1.00	1.00

Document Title Work Request

[illegible]

## Document Title Work Request

	LEP	SMPo
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99	0.0000	0.0000
100	0.0000	0.0000

[illegible]

QA/ENGINEER EVALUATION OF  
WORK DOCUMENTS

Date of Evaluation 3/14/85

### Participants

LEP	SMP'o
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	TWS	SMB
1990	1.00	1.00
1991	1.00	1.00
1992	1.00	1.00
1993	1.00	1.00
1994	1.00	1.00
1995	1.00	1.00
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2096	1.00	1.00
2097	1.00	1.00
2098	1.00	1.00
2099	1.00	

Document Title Work Request

[illegible]

## Document Title Work Request

TWS      SMB

Document Number	Comp. I. D.	Actual Work Performed	Task Performed By Questionable QCI	Disposition	Closed Open
17829	BG-HCI-8357B	Switch input leads	Insp/VPP	IR written concerning QC not being notified. IR closed	C
5769	BG-LB-106C & D	Replace card	HWMP Non-specified	Like kind replacement not specified. See SR for discussion	C
27333	BG-LCV-112A	Calibrate LB Card	Insp/VPP	IR written for not notifying QC. IR closed	C
2143	BG-LQY-105	Replace card	HWMP/RDS Non-specified	Like kind replacement not specified. See SR for discussion.	C
3195	BG-LT-149	Wired BG-LT-112 with BG-LT-149	MIC/JLP	MIC Adequate	C
28017	BG-PI-190	Reinstall Insul.	MIC/RAB, DLO Insp. DLO	MIC Adequate Inspection visual	C

## Document Title Work Request

TWS      SMR

Document Number	Comp. I. D.	Actual Work Performed	Task Performed By Questionable QCI	Disposition	Closed Open
00770	BG-FT-111	Replace xmitter	MIC/VPP Insp./RAB 1) Like kind 2) Cleanliness 3) Term determ.	MIC Adequate Insp. visual within skills of craft and QC	C
33177	BG-FT-111	Replace xmitter	MIC/DWP	MIC not consistent with previous WR 00770. Retest Satisfactory	C
5798	BG-FT-183	Replace xmitter	MIC/VPP	MIC did not address cleanliness. Retested Satisfactory.	C
8569	BG-FY-111	Replace card Install chart	HWMP/RDS Non-specified	Like kind not verified. See SR for discussion	C
38696	BG-FY-111	recorder to monitor input/output	MIC/RAB	MIC Adequate	C

QA/ENGINEER EVALUATION OF  
WORK DOCUMENTS

## Participants

LEP SMPo

TWS SMB

Document Title Work Request

Document Number	Comp. I. D.	Actual Work Performed	Task Performed By Questionable QCI	Disposition	Closed Open
4260	PBG-05A	Replace Mechanical Seal	Insp/RAB	Verification of Procedure steps MPM-BG-QP002, MTM-ZZ-QW001 within the skills	C
3269	PBG-05B	Replace Mechanical Seals	Insp/RAB	Same as above WR 4260	C
33538	N/A	Install concrete curbs CMP-84-0508	MIC/RAB	MIC Adequate	C
1852	BG-FI-138A	Replace meter & cal	MIC/JLP, VPP Insp/VPP 1) Term & determ.	MIC Adequate Term & determ visual within the skills of craft and QCI	C
2921	BG-FQY-215A	Install & cal new card	HWMP/VPP None Specified	Like kind not verified by QC. See SR for discussion. Retest SAT.	C
27448	BG-FT-110	Remove, Reinstall xmitter. Inspect.	Insp/RAB	Visual within skills of craft and QCI	C

Date of Evaluation 3/14/85

Document Title Work Request

TWS      SMB

Document Number	Comp. I. D.	Actual Work Performed	Task Performed By Questionable QCI	Disposition	Closed Open
30618	Insulation	Replaced & Mod.	MIC/RAB, DLO	MIC Adequate	C
33704	Insulation	Replaced & Mod.	MIC/DLO	MIC Adequate	
7637	RG-TS-137A	Replace card	MIC/RDS No inspection	MIC did not require verification of like kind. See SR for discussion.	C
24735	DP-BG-02B	Repair Breaker Install on pump	MIC/DWP	MIC Adequate Temp Mod 84E445	C
16495	PBG-04	in warehouse Reversed output of controller	MIC/SJL Insp/GS 1) Cleanliness	MIC and Inspection within skills of craft and QCI	C
33384	PBG-04		2) Like kind 3) Switching lines	Within the skills of the craft and QCI	C
32784	PBG-04	Replace head gaskets	Insp/RAM 1) Parts 2) Torque 3) Cleanliness	Within the skills of the craft and QCI	C



QA/ENGINEER EVALUATION OF  
WORK DOCUMENTS

## Participants

LEP SMPo

TWS SMB

Document Title Work Request

Document Number	Comp. I. D.	Actual Work Performed	Task Performed By Questionable QCI	Disposition	Closed
					Open
19979	RG-HCV-128 BG-TCV-129 BG-PCV-131 BG-TCV-381A	Rework Air Supply	MIC/GS	MIC Adequate IR 84-820 written to address QC failure to witness job.	C
23609	SNUBBER RG	Modify Insulation	HWMP/GS Non-specified	HWMP Adequate	
24568	RG-FT-156 RG-FT-160	Tighten Vent Cap	MIC/RAM Insp/RAM 1) Verify Integrity	Within the skills of the craft and QCI visual - does not leak	C
26293	RG26-R505 & R507/242	Modify Insulation Jacket	HWMP/GS Non-specified	HWMP Adequate	C
30403	Insulation	Modify Insulation Jacket	MIC/DLO, RAB Inspected DLO 1) Removal 2) Tagging 3) Securing	Within the skills of craft and QCI visual	C
30589	Insulation	Modify Insulation Jacket	HWMP/GS Non-specified	HWMP Adequate	C

# ALLEGATION MANAGEMENT SYSTEM

ALLEGATION NUMBER - RIII-85-A-0021

RUN DATE: 850903

DOCKET/FACILITY/UNIT: 05000483 / CALLAWAY 1  
DOCKET/FACILITY/UNIT: /  
DOCKET/FACILITY/UNIT: /  
DOCKET/FACILITY/UNIT: /

/ 1  
/  
/  
/

ACTIVITY TYPES - REACTOR

MATERIAL LICENCES -

FUNCTIONAL AREAS - CONSTRUCTION

DESCRIPTION - PROCEDURES NOT FOLLOWED IN CERTIFICATION OF TWO LEVEL 3  
QUALITY CONTROL INSPECTORS.

CONCERNS -

1

SOURCE - CONTRACTOR EMPLOYEE

CONFIDENT - IMP

RECEIVED - 850205 BY - BH LITTLE

/ R3

ACTION OFFICE CONTACT - GC WRIGHT

- (FTS)388-5695

SAFETY SIGNIFICANCE - NO

BOARD NOTIFICATION - NO

STATUS - OPEN SCHED COMPLETION - 850801 DATE CLOSED -

ALLEGATION SUBSTANTIATED -

ALLEGER NOTIFIED -

OI ACTION - NO OI REPORT NUMBER -

REMARKS - THIS ALLEGATION WAS REVIEWED IN INSPECTION REPORT NO.  
50-483/85002 (PARAGRAPH 4) AND INSPECTION REPORT NO.  
50-483/85012 (IN DRAFT). THE ALLEGATION OF A PROCEDURAL  
VIOLATION WAS SUBSTANTIATED.

A 10 CFR 2.206 PETITION WAS ALSO FILED BASED ON VARIOUS  
PUBLIC ACCOUNTS OF THIS ALLEGATION.

ENTERED SYSTEM - 850402 CLOSED SYSTEM -

RECORD CHANGED - 850715

(A1)

10

102 ready to be issued  
Report ready to be issued

FORM 1411-3

PRINTED IN U.S.A.

## UE adds 15 inspectors to roles of unqualified

CHRISTOPH SZECHENYI  
of the Tribune's staff

Union Electric Co. has identified 22 inspectors — 15 more than initially reported — who lacked qualifications to ensure the safe operation and maintenance of its Callaway County nuclear power plant, a Nuclear Regulatory Commission official said this week.

The official, Bruce Little, said utility engineers and auditors who began investigating inspectors' backgrounds last month have identified about 250 inspections performed by the 22 inspectors during the past three years.

A special utility task force has found that the 22 inspectors were qualified to do all 230 of the jobs reviewed as of Friday, Little said. The task force has found no evidence of deficiencies in the plant's hardware.

The St. Louis utility is reviewing about 12,000 work orders, said Little, a commission inspector at Callaway.

He said his agency will wait for Union Electric to complete its study before considering action. He said the utility is conducting a thorough investigation and has found no evidence that the inspectors' work compromised the plant's safety.

Billie Garde, a staff member with the Government Accountability Project, a public interest group in Washington, D.C., voiced doubts. "The system had to have broken down in a fairly significant fashion," she said. "The NRC's approach to this is dangerously inadequate."

Little said he cannot assess whether the unqualified personnel influenced the safety of the plant near Fulton until he looks at the work orders and, if necessary, examines the inspectors' field work. He plans to start that part of his investigation on Monday.

The \$3 billion plant, which started

operating in December, generates 1,150 megawatts of electricity for customers in St. Louis and dozens of Mid-Missouri towns such as Ashland and Moberly. The plant is 35 miles east of Columbia.

Mike Cleary, a Union Electric spokesman, said utility officials declined to comment on their investigation of the inspectors' work. "We don't see a need for a blow-by-blow account of what's being done," he said. But he confirmed that 22 inspectors lacked certain credentials.

Little said he expects the utility to wrap up its study by the end of March. At that time, Cleary said, Union Electric will provide the commission with a report of its findings. Little plans to file a report of his own findings and recommendations by the end of April.

In early March, the utility concluded that seven of its present inspectors lacked sufficient training or experience in some areas of work they had been doing at the plant. As a result, Union Electric suspended the men from doing certain jobs.

Union Electric employed 13 of the 22 inspectors, Little said. Seven of the 13 still work as quality control personnel in restricted capacities. Nine others had worked for independent construction contractors, including Daniel International Co., which helped build the plant.

Nuclear plant inspectors check electrical, mechanical and civil engineering work throughout the plant, including systems such as pipes and valves in the reactor building.

Garde said Daniel International helped build Kansas' Wolf Creek nuclear power plant, which has been plagued with structural flaws. The regulatory commission recently gave the plant near Burlington, Kan., an operating license.

Inspection problems have turned up at several U.S. nuclear power

plants, Garde said, including the William H. Zimmer plant in Ohio, a Midland, Mich., plant and the Marble Hill plant in Indiana. All three have been shut down for severe deficiencies. Quality control questions have also been raised at the Comanche Peak plant near Glen Rose, Texas.

Cleary said Union Electric engineers are carefully evaluating the jobs performed by the inspectors with questionable credentials. "We're looking at the nature of the work involved," he said. "If it didn't require a high level of expertise, we'll probably assume it was done all right. We'll also check to see if the work had been subjected to additional inspections."

The utility's engineers have not reinspected any areas yet, Cleary said. Some reinspections may be difficult, if not impossible, to perform because plant materials have become radioactive.

A longtime nuclear power opponent, Kay Drey of University City, said yesterday she and the Coalition for the Environment will file a petition asking the commission to shut down the Callaway plant.

The recent qualification problem, she said, "makes it all the more obvious that we have to call on the regulatory commission to shut down the plant until Union Electric can demonstrate that the systems are safe."

### THE WEATHER

Cloudy today, with a 70 percent chance of showers. High around 50, with southwest winds at 10 to 15 miles per hour. Tonight, 60 percent chance of showers, with the low in the mid-30s. Tomorrow, cloudy with a 30 percent chance of showers. High in the mid-40s.

# Yearlong workers' rift revealed in UE safety assurance problems

By CHRISTOPH SZECHENYI  
of the Tribune's staff

Friction between inspectors and their supervisors at the Callaway County nuclear power plant had surfaced nearly a year before Union Electric Co. started investigating its deteriorating quality control system, an internal memo reveals.

Company documents show that on March 10, 1984, quality control supervisor Terry Shaw ordered inspectors under him to take technical problems to him or to an assistant supervisor before approaching other department managers.

"In past weeks, there have been numerous instances demonstrating a lack of effective communication within the quality control department," Shaw wrote in the memo to 30 people, many of whom were inspectors. "Our aim is to solve problems through communication, not create them."

But some inspectors said this week that they repeatedly got no action from Shaw when voicing concerns about supervisors who were unqualified to make technical decisions for ensuring safety. In addition, the utility confirmed today that inspectors took their concerns to Shaw's boss in early December, nearly two months before the utility started an audit of problems.

Several inspectors said they did not trust some supervisors because they lacked expertise in certain quality control areas. "On a day to day basis, you're going to have technical questions," said one informed source who requested anonymity. "Management wants us to go to them for answers, yet how can they discuss these problems when they're not technically qualified?"

One assistant supervisor, Vernon Portell, recently lost certification for two types of inspections at the \$3 billion plant near Fulton. Reacting to the finished audit, dated Feb. 22, plant manager Steve Miltenberger suspended Portell's certification. Portell, however, retains his supervisory role.

"A supervisor does not have to be certified at any level in any discipline," said Robert Powers, assistant manager of the division that oversees the effectiveness of

Shaw's inspectors. "I would expect a supervisor to be competent in inspection philosophy."

Several inspectors said such a management attitude and supervisors' shortage of expertise spurred inspectors' complaints to Powers' office, which did the audit outlined inadequate training, education and experience among seven of 13 inspectors — including Portell and assistant supervisor L.M. Zahara — and sparked suspension of some of their duties.

Following the audit's suggestion, the company suspended inspectors from some tasks until their qualifications are established. Union Electric is also reviewing some 12,000 work orders to determine whether disqualified men did inspections that could jeopardize plant's safety.

The St. Louis utility is also reviewing the credentials and work of 50 to 60 more inspectors employed by a firm that helped build the plant, which started generating electricity in December.

The Nuclear Regulatory Commission's inspector at Callaway is also planning to review some work orders.

Yesterday, the Fulton Sun quoted plant spokesman Mike Cleary as saying that "we have a good system in place for recourse...I'm not sure why the inspectors didn't go up the quality control chain of command."

But today, Cleary admitted that statement was true. He said he had been unaware of the inspectors' problems when he talked to the Fulton newspaper.

He conceded that seven or eight inspectors had taken their concerns in early December to Paul Appleby, assistant plant manager who oversees quality control operations.

Cleary said the inspectors' concerns "were taken seriously." After the interviews, Cleary said, Appleby put together a plan for corrective action. Cleary said he didn't know what changes Appleby had proposed.

Inspectors said this week that they grew impatient with Appleby's efforts, and so they asked Powers' quality assurance office to investigate. Powers noted that inspectors have the right under company policy to complain to his division.

Auditors concluded managers had broken written company rules in several instances by certifying inspectors. The inspectors check electrical, mechanical and material work throughout the plant, including systems in the reactor building and other key components.

Columbia Tribune: 3/8/85

## THE WEATHER

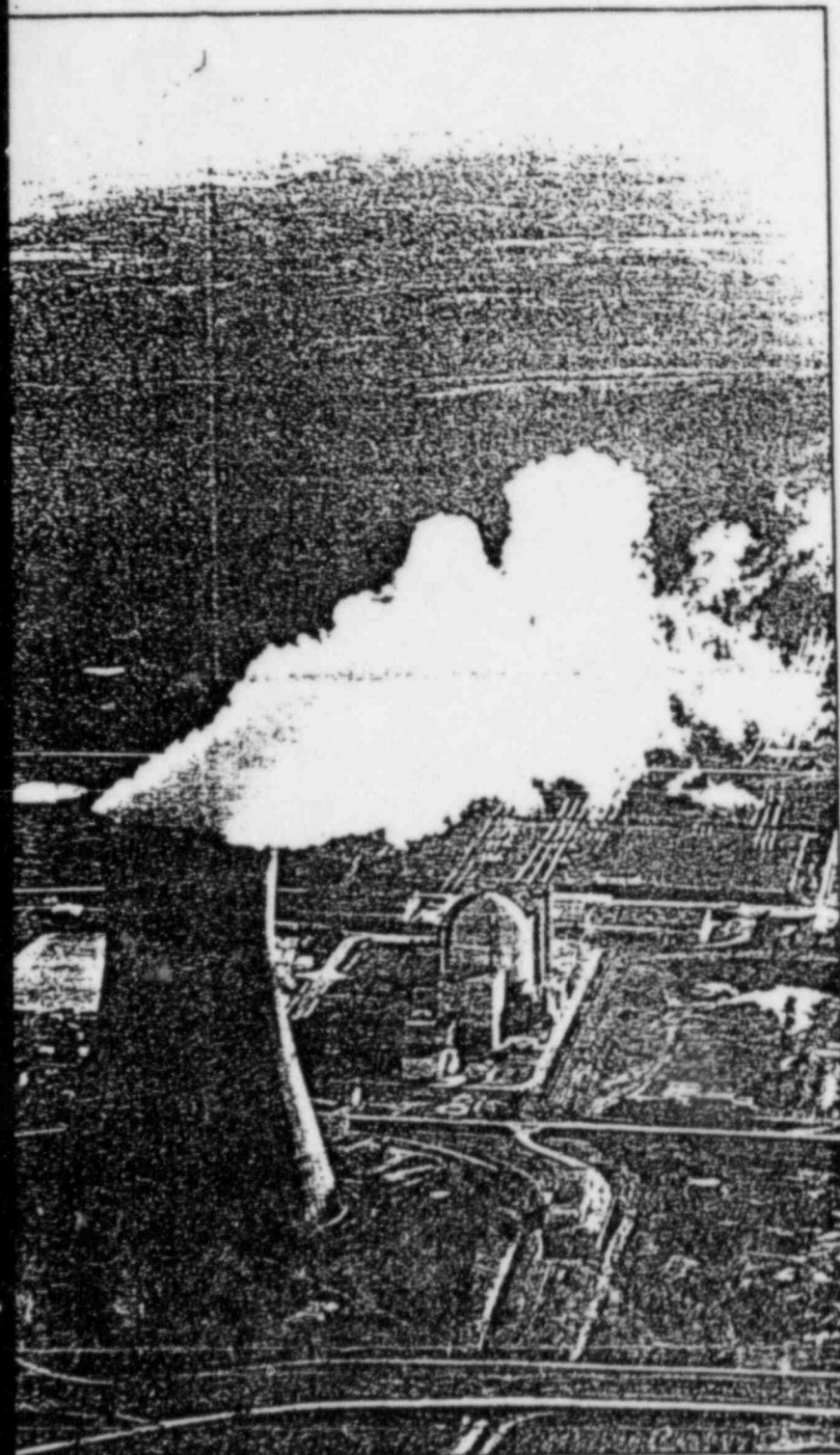
Fair tonight with a low in the upper 30s. Mostly sunny tomorrow. High around 60.



# Qualified plant inspectors

The Callaway County nuclear power plant, with the Missouri River in the distance.

David Rees photo



for corrective action: three quality control advisors, Vernon Portell, many years of experience in civil inspections, fields he

responsible for approval of inspectors, quality supervisor Terry Shaw, on since Oct. 22 violations rules for certifying in-

on that Shaw recommended for two technicians was Portell. Last week,

Callaway plant manager Steve Miltenberger suspended Portell's dual certification. He retains his supervisory position, Cleary said, but he has been barred from further civil or electrical inspections.

• Most of the 13 men had authority for inspections in more than one of the four technical categories — totaling 28 certifications among them — but half of those certifications were found questionable. In some cases, the men did not meet criteria accepted within the industry. In others, Union Electric had ignored

its own rules by exempting some men from the criteria without documenting why.

After finishing their report, auditors whittled the list of unqualified inspectors to seven by verifying technical prowess with documents or in interviews with the other inspectors.

• On five procedural points, quality control managers dodged Union Electric's own written policies for proper certification of the inspectors charged with ensuring Callaway's safe operation.

Regulatory commission inspector Little said sidestepping company policy violates federal rules. When granted licenses to build and operate Callaway, Union Electric pledged to uphold NRC regulations as well as company policies, Little noted.

On Tuesday, Cleary said, "We do not believe we have committed any violations." But Union Electric, Little stressed, knows the rules.

Until the utility and Little complete their reviews of the certification problem, Little said, the problems are considered "potential violations" that could lead to disciplinary action or fines by the commission.

In addition to suggesting that the certifications be pulled from the seven inspectors until their qualifications are established, the audit proposed several other steps for improving the certification process.

In response, Powers said, a group of inspectors, managers and quality assurance workers will recommend specific changes to match or exceed the prevailing industry standards for certification.

Powers said the review of maintenance work orders would show whether some plant systems need reinspection. Until the review is finished, Cleary added, Union Electric has contracted to hire two more inspectors to meet the workload. Cleary said the men average two inspections a day.

In explaining the origin of the certification problem, Powers said some inspectors had been hired by Union Electric from contractor Daniel International Co. Then, company managers gave them new certifications based on overly broad interpretations of industry standards, Powers said. The standards say officials may take related experience into consideration in certifying inspectors.

Said one inspector: "They abused the term 'related experience.' The bottom line is we have a lousy management situation."

Two plant workers close to the problem said managers had hoped to save money by using inspectors for multiple duties instead of hiring more employees.

Powers denied cost savings as a motive. "We felt there were some program weaknesses and perhaps some judgments that shouldn't have been made. I consider any violation of the program as a significant concern."

*This story was compiled and written by Tribune reporters Christoph Szecsenyi and Dolores Whiskeyman and editor Paul Roberts.*

# UE targets unqualified p

Concern surfaces about quality, safety assurances at Callaway.

(C) 1985 Columbia Daily Tribune  
Union Electric Co. has allowed unqualified inspectors for more than three years to help ensure the safety of its Callaway County nuclear power plant. The utility recently suspended seven inspectors from numerous duties after an internal investigation revealed shortcomings in their training, education or experience.

The discovery has raised company officials' doubts about the plant's safe operation, leading them to begin revamping the quality control inspection system.

Concerns won't be resolved until the utility completes a massive review of inspectors' work dating back to 1981, company officials said yesterday. The review is expected to take at least three more weeks.

"We're interested in seeing if there are any safety problems," said company spokesman Mike Cleary, "and in correcting them if they exist."

The St. Louis utility is reviewing work by 50 to 60 more inspectors employed by a contractor who helped build the plant near Fulton. Union Electric wants to ensure that inspectors had adequate skills and certification.

A recent company audit, prompted by internal complaints, uncovered deficiencies with seven of 13 utility inspectors. As a result, the utility began studying about 12,000 work orders this week to determine whether unqualified men conducted faulty inspections, hundreds of which were done in key safety-related systems. "We need to review those records to find out what they actually did," said James Gearhart, the Union Electric employee who supervised the audit.

The Nuclear Regulatory Commission has not moved to alter plant operations in the wake of the findings. Bruce Little, commission inspector at Callaway, said he will review some utility work orders. So far, the utility has reported no evidence that the unqualified inspectors compromised safety; Little said.

The agency's regional office in Chicago, responsible for overseeing Callaway's operation, has alerted its top division chiefs and the five commissioners in Washington, D.C. Little said the utility might have violated NRC rules.

Bob Pollard, a staff member of the Union of Concerned Scientists in Washington and a former commission worker, said regulators should shut down the plant until the utility completes its reviews.

Lambasting the federal agency's inaction, Pollard said: "That's exactly what the difficulty is over at the NRC. Instead of proof that a plant is safe, they operate on the absence of proof that it is dangerous."

The \$3 billion Callaway plant — completed at more than five times

its original price estimate — supplies 1,150 megawatts for about 1 million Union Electric customers in St. Louis and dozens of Mid-Missouri communities, such as Ashland and Moberly. After eight years of construction, the plant, which is 35 miles from Columbia, started operating in December.

Any citizen may petition the NRC to halt the plant's operation until the safety review is finished. Unscheduled shutdowns, the company has estimated, would cost the utility about \$750,000 a day.

Doubts about inspections strike at the heart of the plant's quality assurance program, Pollard said. "The paper process is the only way they have to assure public safety."

Robert Powers, the plant's assistant quality assurance manager, said interviews with disqualified inspectors revealed that when they encountered work outside their areas of expertise, they passed the job along to qualified men.

"We don't have any concern about the plant's construction," he added, noting that the inspectors did all their work during what is considered the plant's operational phase, since midyear 1981.

One worker, who requested anonymity for fear of superiors' reprisals, said he found certification papers on his desk a few months ago allowing him to do inspections for which he lacked complete training. He and other workers said managers wanted to improve efficiency by using multicertified inspectors.

"I was afraid...I might get asked to do something I had no experience in," the worker said this week, "and at that point, I would have had to say, 'Get somebody else in here who knows what they're doing.'"

Other workers said they never recall seeing or hearing of an inspector who proceeded with an inspection for which he wasn't qualified. In such instances, the workers said, the inspector always turned to someone qualified. But the employees noted that the inspectors in question — and their work — have caused alarm about the quality control program. A final ruling about safety can come only when reviews are finished, the workers agreed.

Two utility divisions are the key players: the quality control branch, which inspects maintenance work and repairs to make sure they meet strict safety regulations; and Powers' quality assurance wing, which reports only to corporate headquarters and functions to ensure that members of the quality control staff perform correctly.

In late January, the quality assurance office received complaints from inspectors who questioned the credentials and abilities of other quality control inspectors and two division supervisors. Powers said his auditors began investigating the next day. Among the findings outlined in a Feb. 23 audit report and



four requests for corrective action:

- One of three quality control assistant supervisors, Vernon Portell, lacked necessary experience in civil and electrical inspections, fields he oversaw.

- The man responsible for approving certification of inspectors, quality control supervisor Terry Shaw, on three occasions since Oct. 23 violated company rules for certifying inspectors.

One person that Shaw recommended be certified for two technical duties was Portell. Last week,

Callaway plant manager St. tenberger suspended Portell certification. He retains his job position, Cleary said, but been barred from further electrical inspections.

- Most of the 13 men had 1 for inspections in more than the four technical categories, totaling 28 certifications and — but half of those certifications were found questionable. cases, the men did not meet accepted within the industry, Union Electric had



ALLEGATION DATA FORM  
Instructions on reverse side

U.S. NUCLEAR REGULATORY COMMISSION

RECEIVING OFFICE

1. Facility(ies) Involved:  
(If more than 3, or if generic, write GENERIC)

(Name)

CALLAWAY

Docket Number (if applicable)

0	5	0	0	0	4	8	3

2. Functional Area(s) Involved:  
(Check appropriate boxes)

<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

operations  
construction  
safeguards  
other (Specify) \_\_\_\_\_

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

onsite health and safety  
offsite health and safety  
emergency preparedness

3. Description:  
(Limit to 100 characters)

P	R	O	C	E	D	U	R	E	S		N	O	T		F	O	L	L	O	W	E	D		I
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4. Source of Allegation:  
(Check appropriate box)

<input checked="" type="checkbox"/>
<input type="checkbox"/>
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<input type="checkbox"/>
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contractor employee  
licensee employee  
NRC employee  
organization (Specify) \_\_\_\_\_  
other (Specify) \_\_\_\_\_

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

security guard  
news media  
private citizen

5. Date Allegation Received:

MM	DD	YY
02	05	85

6. Name of Individual Receiving Allegation:

(First two initials and last name)

BH LITTLE

7. Office:

R	I	I	I
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ACTION OFFICE

8. Action Office Contact:

(First two initials and last name)

WL FORNEY

9. FTS Telephone Number:

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10. Status:  
(Check one)

<input checked="" type="checkbox"/>
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Open, if followup actions are pending or in progress  
Closed, if followup actions are completed

11. Date Closed:

MM	DD	YY

12. Remarks:  
(Limit to 50 characters)

C	O	M	P	L	E	T	I	O	N		D	A	T	E	:	5	/	4	/	8	5		

13. Allegation Number:



Office	Year	Number
RIII	85	A-0021

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