

TEXAS UTILITIES GENERATING CO. CPSES	INSTRUCTION NUMBER	REVISION	ISSUE DATE	PAGE
	QI-QP-11.4-29	0	MAR 12 1984	1 of 4
USE OF ELCOMETER ADHESION TESTER FOR ISOLATING AREAS OF QUESTIONABLE COATING ADHESION	PREPARED BY:	<u>Fred A. Linton</u>	<u>3/12/84</u>	DATE
	APPROVED BY:	<u>D. L. Nelson</u>	<u>3-12-84</u>	DATE
	APPROVED BY:	<u>M. L. Fisher</u>	<u>3/12/84</u>	DATE

1.0 REFERENCES

- 1-A CP-QP-13.0, "CONTROL OF MEASURING & TESTING EQUIPMENT"
- 1-B CP-QP-15.0, "TAGGING SYSTEM"
- 1-C CP-QP-16.0, "NONCONFORMANCES"
- 1-D CP-QP-18.0, "INSPECTION REPORT"

2.0 GENERAL

2.1 PURPOSE & SCOPE

The purpose of this instruction is to outline methods utilized by designated quality control personnel in performing adhesion testing on protective coatings using the Elcometer 106 Adhesion Tester.

2.2 RESPONSIBILITIES

- 2.2.1 Performance of adhesion testing is to be done on a case by case basis as directed by the responsible Quality Engineer (L-III). The responsible Quality Engineer (L-III) will also select and direct the personnel implementing this procedure.

3.0 INSTRUCTION

3.1 ADHESION TEST

- 3.1.1 Area to be tested should be flat and rigid for 1 3/4" outward from center of dolly to assure dolly is not subjected to shear stress. Area should be free of oil, grease, and surface irregularities which would affect the alignment of the adhesion tester.

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- 3.1.2 Abrade area to be tested and dolly with medium grit sandpaper. After abrading, clean both items with a suitable solvent to assure they are clean and free of contamination (i.e., dust, oil, grease, etc.) prior to applying adhesive.

NOTE: New dollies may need to be abraded prior to use due to polished surface finish of contact area when supplied by manufacturer. Care should be taken when abrading new dollies and when removing coatings and adhesive from used dollies to assure contact area is not bevelled or rounded.

- 3.1.3 After preparing surface, mix adhesive thoroughly to assure maximum bond strength. Apply adhesive evenly over contact area and firmly press dolly onto test area. Twist dolly approximately 1/4 turn to assure complete contact with test surface. Wipe excess adhesive from around dolly taking care not to disturb dolly.
- 3.1.4 Apply magnetic dolly clamp or piece of adhesive tape (i.e., duct tape or masking tape) to dolly to hold dolly firmly in place while adhesive cures. Cure time should be sufficient that adhesive does not prematurely fail while performing test. (Reference Sec. 3.1.8 NOTE 1).
- 3.1.5 Recommended adhesives are:
1. Red Double Bubble epoxy adhesive supplied by Hardman Inc.
 2. Araldite AV-100 regular supplied by CIBA-GEIGY Plastics & Additives Co.
- 3.1.6 After adhesive has cured, use dolly cutter or knife to cut around dolly to substrate, taking care not to disturb dolly while cutting.
- 3.1.7 To prepare adhesion tester for use, loosen handwheel of adhesion tester and place claw under head of dolly making sure that instrument legs are placed squarely on surface. Set indicator pin to zero before tightening handwheel.
- 3.1.8 Rotate handwheel clockwise with a smooth motion applying pulling force to the dolly. Continue turning wheel until indicator reads 250 p.s.i. At that point, release pressure from instrument by turning handwheel counterclockwise and remove instrument from dolly. If coatings fail prior to reaching 250 p.s.i., isolate area of failure in accordance with Paragraph 3.1.9 and record failed reading.

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NOTE 1: If adhesive should fail prior to reaching 250 p.s.i. minimum, test should be reperformed.

NOTE 2: This test is a "GO-NO GO" test. If 250 p.s.i. is reached, record reading and discontinue test. Remove dolly if failure was not obtained @ 250 p.s.i.

3.1.9 If a dolly should fail below the minimum strength of 250 p.s.i., the following additional adhesion testing shall be performed:

Four additional dollies shall be adhesion tested at approximately one foot from the failing dolly and spaced radially at approximately 90 degree intervals. Repeat until 250 p.s.i. minimum is attained. Dimensions and locations of the unacceptable area(s) and results of additional testing shall be documented on Attachment 1.

3.2 DOCUMENTATION

Results of inspections per this procedure shall be documented on the Inspection Report, Attachment 1.

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ATTACHMENT 1

COMANCHE PEAK STEAM ELECTRIC STATION

INSPECTION REPORT

ITEM DESCRIPTION Protective Coatings		IDENTIFICATION NO.	SYSTEM/STRUCTURE DESIGNATION	
SPEC. NO. AS-31	REV. 5	REF. I.C. DOC. & REV. & CHANGE NO. QI-QP-11.4-29 Rev.	MEASURE OR TEST EQUIP. IDENT. NO.	
<input type="checkbox"/> IN PROCESS INSPECTION <input type="checkbox"/> PRE-INSTALLATION VERIFICATION <input type="checkbox"/> INSTALLATION INSPECTION <input type="checkbox"/> FINAL INSPECTION <input type="checkbox"/> PRE-TEST INSPECTION				
INSPECTION RESULTS <input type="checkbox"/> INSPECTION COMPLETED, ALL APPLICABLE ITEMS SATISFACTORY <input type="checkbox"/> INSPECTION COMPLETED, UNSATISFACTORY ITEMS LISTED BELOW				
ITEM NO.	INSPECTION ATTRIBUTES		SAT	UNSAT
1.	Type of coatings being tested:			
	Steel: <input type="checkbox"/> Primer <input type="checkbox"/> Finish Coat			
	Concrete: <input type="checkbox"/> Surfacer <input type="checkbox"/> Finish Coat			
2.	Perform adhesion test per Para. 3.0:			
	Record adhesion test strength in PSI:			
	Dolly #1			
	Dolly #2			
	Dolly #3			
	Dolly #4			
	Dolly #5			
REMARKS (Draw Space)				
RECEIVED REC NO.	I.R. CLOSED <input type="checkbox"/>	DATE	SIGNATURE	
			QC INSPECTOR	

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Rec'd 9/11/84

CP-QP-2.1

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Rev'd 9/11/84 Rev O June 16.

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TRAINING OF INSPECTION PERSONNEL	PREPARED BY: <u>D.T. Ott LMB</u>			<u>7/17/84</u> DATE
	APPROVED BY: <u>C. Vega</u>			<u>7/17/84</u> DATE

1.0 REFERENCES

1-A CP-QP-2.0, "Implementation of the CPSES QA Program"

2.0 GENERAL

The purpose of this procedure is to establish the minimum requirements for training, qualification and certification of Quality Engineers and personnel performing inspection to provide assurance that these personnel have and maintain the appropriate knowledge and skill to properly perform their assigned responsibility, in accordance with Reference 1-A.

The requirements contained herein apply to Quality Engineers and Inspection Personnel involved with activities not under the jurisdiction of the ASME Code, Section III, Division I.

Certifications issued to personnel meeting the requirements of this procedure may be issued independently for Unit 1 or Unit 2 activities per the applicable Quality Instruction.

2.1 RESPONSIBILITIES

The QC Supervisor is responsible for ensuring that inspection personnel are trained in accordance with appropriate procedures/instructions.

The TUGCO Training QE is designated the responsibility to maintain the inspector personnel training file consistent with this Procedure and applicable Instructions. The TUGCO Training QE will review the training records for legibility, completeness, and identification of the item involved.

FOR INFORMATION ONLY
HISTORICAL FILE

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It is of utmost necessity that all personnel involved in quality activities be aware of the certification process and requirements, and take the necessary actions to assure that inspections are performed only by certified personnel. The individual inspector/technician/Level III is responsible for determining his/her current certification status.

The TUGCO Quality Engineering Supervisor is responsible for providing classroom training and certification of inspection/Level III personnel. The cognizant discipline Quality Engineer is delegated responsibility to develop individual Training outlines for inspection personnel.

3.0

PROCEDURE

Level I & II personnel performing inspections shall have experience in and shall have completed a technical training course in the area of inspection responsibilities.

The education, experience and on the job training, specified in this procedure or supplementary instructions may be reduced by the Quality Engineering Supervisor when other factors can provide reasonable assurance that personnel can competently perform a particular task as prescribed by detailed written Quality Procedures/Instructions. Such decisions shall be documented as part of the certification process and shall be included in the inspector's personnel training file.

3.1

GENERAL INDOCTRINATION AND TRAINING

The following are minimum indoctrination and training requirements for inspection/Level III personnel. Indoctrination requirements shall normally be satisfied within the first sixty days of employment, and shall be documented on Attachment 1. General Training shall be completed prior to certification in any Procedure/Instruction, and shall be documented on Attachment 8.

Personnel satisfying documented technical training requirements may be assigned to inspection or testing functions prior to completion of the QA indoctrination requirements.

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a. 10CFR50, Appendix B; ANSI N45.2

The method of presentation of this material will be by reading/study assignment, informal discussions, seminars or other appropriate means. An oral review covering ANSI N45.2 and the 18 Criteria will be given by the responsible QC Supervisor who shall, upon satisfactory completion, so note by signing the General Indoctrination Outline (Attachment 1).

b. Industry Standards

Inspection personnel should become familiar with prepared standards (ANSI, IEEE, AWS, AISC, etc.) applicable to assigned duties as assigned by the QC Supervisor. The method of presentation may be through study, formal seminars, or other appropriate means. Supplemental exposure is acquired by daily association with these standards. The familiarization is a continuing process and as such requires no formal checkout.

c. 10CFR50.55(e) and 10CFR 21

The method of presentation will be by assigned reading, study and/or training sessions. Upon completion and understanding of the basic requirements as they relate to job duties and responsibilities, the individual shall so note by signing the Indoctrination Outline. Formal or informal study sessions shall emphasize the need for prompt reporting of product deficiencies or failures.

d. Inspection personnel shall become familiar with prepared CPSES Site Procedures and Instructions that are applicable to all assigned inspection duties, but do not require certification. The method of presentation may be by reading/study assignment, informal discussions, seminars or other appropriate means. An oral checkout covering applicable Site Procedures/Instructions will be given by the individual QC Supervisor who shall upon satisfactory completion, so note by signing the General Training Outline, Attachment 8. This outline shall be completed prior to certification in any activity.

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3.2 PERSONNEL CAPABILITIES

There are three levels of qualification. The requirements for each level are not limiting with regard to organizational position or professional status, but rather, are limiting with regard to functional activities.

3.2.1 QC Technician (Level I) Capabilities

A QC Technician shall be capable of performing the inspections, examinations, and tests that are required to be performed in accordance with documented instructions. The individual shall be familiar with the tools and equipment to be employed and shall have demonstrated proficiency in their use. The individual shall also be capable of determining that the calibration status of inspection and measuring equipment is current, that the measuring and test equipment is in proper condition for use, and that the inspection, examination, and test procedures are approved.

3.2.2 QC Inspector (Level II) Capabilities

A QC Inspector shall have all of the capabilities of a QC Technician for the inspection, examination or test. Additionally, a QC Inspector shall have demonstrated capabilities in planning inspections, examinations, and tests; in setting up tests including preparation and set-up of related equipment, as appropriate; in supervising or maintaining surveillance over the inspections, examinations, and tests; in reporting inspection, examinations, and testing results; and in evaluating the validity and acceptability of inspection, examination, and test results.

3.2.3 Level III Personnel Capabilities

A Level III person shall have the technical capabilities of a QC Inspector in generating and performing inspection, examination or test. In addition, the individual shall also be capable of evaluating the adequacy of specific programs used to train and test inspection, examinations, and test personnel whose qualifications are covered by this procedure.

NOTE: At CPSES, Level III personnel are generally assigned to the Quality Engineering Department.

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3.3 EDUCATION AND EXPERIENCE

The following is the recommended personnel education and experience for each level. These education and experience recommendations should be treated to recognize that other factors may provide reasonable assurance that a person can competently perform a particular task. Other factors which may demonstrate capability in a given job are previous performance or satisfactory completion of capability testing.

Use of the measures outlined in this section to establish that an individual has the required qualifications in lieu of required education and experience shall result in documented objective evidence (i.e., procedures and record of written test) demonstrating that the individual indeed does have "comparable" or "equivalent" competence to that which would be gained from having the required education and experience. This determination shall be made by the Quality Engineering Supervisor.

3.3.1 QC Technician (Level I)

A QC Technician shall have:

- a. High school graduation and six months of related experience in equivalent inspection, examination, or testing activities, or
- b. Completion of college level work leading to an Associate Degree in related discipline plus three months of related experience in equivalent inspection, examination, or testing activities, or
- c. Four-year college degree with no experience in equivalent inspection, examination or testing activities.

3.3.2 QC Inspector (Level II)

A QC Inspector shall have:

- a. One year of satisfactory performance as QC Technician in the corresponding inspection, examination or test category, or
- b. High school graduation plus three years of related experience in equivalent inspection, examination, or testing activities, or

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- c. Completion of college level work leading to an Associate Degree in a related discipline plus one year related experience in equivalent inspection, examination, or testing activities, or
- d. Four-year college graduation plus six months of related experience in equivalent inspection, examination, or testing activities.

3.3.3 Level III PERSONNEL

A Level III shall have:

- a. Six years of satisfactory performance as a QC Inspector in the corresponding inspection, examination or test category, or
- b. High school graduation plus ten years of related experience in equivalent inspection, examination, or testing activities, or high school graduation plus eight years experience in equivalent inspection, examination, or testing activities, with at least two years as QC Inspector and with at least two years associated with nuclear facilities--or if not, at least sufficient training to be acquainted with the relevant quality assurance aspects of a nuclear facility, or
- c. Completion of college level work leading to an Associate Degree and seven years of related experience in equivalent inspection, examination, or testing activities, with at least two years of this experience associated with nuclear facilities--or if not, at least sufficient training to be acquainted with the relevant quality assurance aspects of a nuclear facility, or
- d. Four-year college graduation plus five years of related experience in equivalent inspection, examination, or testing activities, with at least two years of this experience associated with nuclear facilities--or if not, at least sufficient training to be acquainted with the relevant quality assurance aspects of a nuclear facility.

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3.4 PHYSICAL REQUIREMENTS

Each person who performs inspections shall be physically capable of performing the assigned task. As a minimum, inspection personnel shall have:

- a. Natural or corrected near distance acuity such that the inspection person is capable of reading J-1 letters on a standard Jaeger's test type chart for near vision or equivalent test type. This test shall be performed annually.
- b. Color vision as applicable.

NOTE: Waivers may be granted on a case-by-case basis by the TUGCO Site Quality Engineering Supervisor.

3.5 ON THE JOB TRAINING (OJT)

Minimum on the job training requirements are established within each discipline instruction. OJT shall be given under the direct supervision of a qualified, certified Level I OJT instructor, whose qualification shall be documented on the instructor qualification form (Attachment 2). Certification as a Level II Inspector shall automatically certify the individual as an OJT Instructor.

3.6 EXAMINATIONS

Examinations may be oral, written, practical or any combination thereof. Discipline or functional supervisors are responsible for administering oral and/or practical examinations as evidence of proficiency and assembling the results in a manner suitable for a review by the Quality Engineering staff, who shall administer a written examination. Waivers for any examinations must be approved by the Quality Engineering Supervisor.

3.7 CERTIFICATION

Quality Engineering personnel shall be certified by the Site QA Manager and Quality Engineering Supervisor as being qualified to perform their assigned tasks, by a letter to be placed in the personnel training file. Attachments 1, 5 and 8 are applicable to Quality Engineers.

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NOTE: Discipline Certification for Quality Engineers is as follows:

- a) Mechanical, including:
Structural
Class V Supports
Hiltis
Welding
Raceway Supports
Instrumentation
Rad Waste
- b) Civil, including:
Concrete
Protective Coatings
Thermo-lag
- c) Electrical, including:
Raceway
Cable Installation
Equipment
Separations
Soldering
Instrumentation
Fire Protection
Cable Terminations
Lighting

Inspection personnel shall be certified by the TUGCO Site QA Manager and applicable discipline Level III as being qualified to perform their assigned tasks. The Inspection Certification Form (Attachment 3) shall be used to document this certification. The Inspection Certification Form shall be placed in the person's file along with the individual's Training Outline(s). The effective period of certification shall be one (1) year, at which time the individual will be evaluated for recertification by his/her QC Supervisor. This evaluation will be documented on the recertification evaluation form (Attachment 7) and if deemed appropriate after the evaluation, as delineated by the recertification evaluation form, additional formal training/OJT/or retesting may be required before recertification. The recertification evaluation form shall be forwarded to the TUGCO Training QE, for review by the applicable Level III. After review, an individual may be recertified on the Quality Control recertification form (Attachment 4) which along with the recertification evaluation form shall remain a part of the individuals file.

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When project requirements dictate an individual may be certified to a limited scope of an inspection activity. The limited scope certification shall be documented on the Inspection Certification Form (Attachment 3) and shall clearly delineate the inspection authority given the inspector.

Discipline or functional supervisors may request additional training and recertification of personnel under their control at any time that performance warrants.

3.8 MAINTENANCE OF PERSONNEL CERTIFICATIONS

3.8.1 The TUGCO Training QE shall be responsible for updating of QC technician's and inspector's certifications when procedures/instruction revisions are made.

3.8.2 This certification maintenance shall be by formal training and/or required reading. Formal training will be conducted by the TUGCO Training QE or the cognizant discipline Quality Engineer. Updating by required reading shall be the responsibility of the Discipline/Functional QC Supervisor under the direction of the TUGCO Training QE.

3.8.3 This certification maintenance will be documented on a formal Classroom Attendance Sheet (Attachment 5) or a Required Reading Completion Form (Attachment 6). The applicable form will be maintained by the TUGCO Training QE in the technician's/inspector's training file.

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ATTACHMENT 1

COMANCHE PEAK STEAM ELECTRIC STATION

GENERAL INDOCTRINATION TRAINING

TO BE COMPLETED BY: _____
(60 Days After Employment)

NAME _____

DOCUMENT:

1. Final Safety Analysis Report
Chapter(s) 17, _____
2. Title 10 Code of Federal Regulations
Part 50, Appendix B and ANSI N45.2 _____
3. NRC Regulatory Guides (As Assigned)*
_____'_____'_____'_____'_____'_____
4. Industry Standards (As Assigned)*
_____'_____'_____'_____'_____'_____
5. QA/QC Procedures and Instructions
(As Assigned)*
_____'_____'_____'_____'_____'_____
6. Title 10 Code of Federal Regulations,
Part 21 and 10CFR50.55E _____
7. Other applicable documents as listed
below;

VERIFIED BY _____ DATE _____

OUTLINE APPROVED BY: _____
A. Vega
SITE QA MANAGER

*NOTE: If Item "NOT APPLICABLE" so State on outline

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ATTACHMENT 2

TEXAS UTILITIES GENERATING COMPANY QUALITY ASSURANCE DEPARTMENT INSTRUCTOR QUALIFICATION

NAME: _____ DATE: _____
 LEVEL OF CERTIFICATION: _____
 ACTIVITY CERTIFIED TO PERFORM: _____

 TUGCO PROCEDURE/INSTRUCTION NO.: _____
 TYPE OF EXAMINATION GIVEN: _____ ORAL _____ WRITTEN _____ PRACTICAL
 RESULT OF EXAMINATION(s): _____

COMMENTS: Based upon a consideration of the education, previous work experience, formal training in the current revision of the CPSES procedure/instruction, and the individual's own on-the-job training, a previous certification has been made for this Q.C. Technician in this activity. A satisfactory evaluation of the individual's demonstrated proficiency in the performance of daily work has now been made, and, with recognition that the CPSES QC inspector training program addresses specific QC inspection functions, it is felt that there is reasonable assurance that the individual can competently perform as an QJT QC Instructor in this activity. This certification specifically covers giving QJT instruction in this procedure, including the use of personal knowledge and observation to participate in the On-The-Job Q.C. Trainee's instruction.

This QJT Training Certification expires on _____

TYPICAL

 Level III

 Quality Engineering Supervisor

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ATTACHMENT 3

TYPICAL

TEXAS UTILITIES GENERATING COMPANY
QUALITY ASSURANCE DEPARTMENT
INSPECTION CERTIFICATION

NAME _____ DATE _____

LEVEL OF CERTIFICATION _____

ACTIVITY CERTIFIED TO PERFORM: _____

_____ UNTIL _____

TUGCO PROCEDURE/INSTRUCTION NO: _____

TYPE OF EXAMINATION _____ ORAL _____ WRITTEN _____ PRACTICAL

RESULTS OF EXAMINATION: _____

COMMENTS: _____

RELATED EXPERIENCE: _____ YEARS _____ MONTHS

EDUCATION: _____ GRADUATION/DEGREE

FORMAL TRAINING _____ HRS. _____ COMPLETED

OJT TRAINING _____ HOURS COMPLETED THIS ACTIVITY

EXAMINATION: _____

EVALUATED ON: _____ WITH CONSIDERATION OF RECORDS OF

EDUCATION, EXPERIENCE AND TRAINING, JOB PROFICIENCY AND

DEMONSTRATED SKILL BY _____

PHYSICAL HEALTH _____ FOR ASSIGNED TASK OF THIS

PROCEDURE/ACTIVITY. RECOMMEND ASSIGNMENT AS A LEVEL _____

WITH RE-EVALUATION OF JOB PERFORMANCE AND PROFICIENCY ON

OR ABOUT: _____

Level III

TUGCO QA Manager

DATE

DATE

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ATTACHMENT 4

COMANCHE PEAK STEAM ELECTRIC STATION

QUALITY ASSURANCE DEPARTMENT

QUALITY CONTROL RECERTIFICATION

NAME: _____ DATE: _____

LEVEL OF CERTIFICATION: _____

ACTIVITY CERTIFIED TO PERFORM: _____

TUGCO PROCEDURE/INSTRUCTION NO. (S): _____

NOTE: SEE RECLASSIFICATION EVALUATION FORM.

COMMENTS: BASED ON PREVIOUS CERTIFICATION IN THIS ACTIVITY, AND CONTINUED SATISFACTORY PERFORMANCE, THE ABOVE NAMED INDIVIDUAL IS HEREBY RECERTIFIED AND AUTHORIZED TO PERFORM ACTIVE QC INSPECTIONS AT CPSES IN THE AREAS LISTED ABOVE. THIS RECERTIFICATION WILL EXPIRE ON _____.

SUPERVISOR _____

APPROVAL _____

DATE _____

DATE _____

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ATTACHMENT #7

COMANCHE PEAK STEAM ELECTRIC STATION
RE-CERTIFICATION EVALUATION RECORD

TO: _____ DATE: _____

The certification on procedure _____ for
_____ is due to expire on _____.

Please conduct and oral and or written/practical evaluation with
the above named individual (and document the results below).
This evaluation will help with determining whether or not recert-
ification should occur.

1. Has the individual been active in inspection in this area during
the last 6 - 12 months.

___ YES ___ NO

(1a) If above answered "NO" and you desire individual recertified,
additional training and or OJT should accompany this form
back to training QE.

2. Is individual knowledgeable of current procedure requirement relevant
to this area of inspection?

___ YES ___ NO

(2a) If #2 answered "NO" refer to (1a) above.

COMMENTS: _____

INSPECTOR/TECHNICIAN _____ DATE _____

QC SUPERVISOR/LEAD _____ DATE _____

TRAINING QE/DISCIPLINE [] DATE _____

QE SUPERVISOR _____ DATE _____

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ATTACHMENT #8

COMANCHE PEAK STEAM ELECTRIC STATION

GENERAL TRAINING OUTLINE

CP-QP-2.1 REV. ____

THIS OUTLINE SHALL BE COMPLETED PRIOR TO CERTIFICATION
IN ANY ACTIVITY

NAME: _____ DATE COMMENCED: _____

Document:

Signature/Date

A. General CP-QP's:

1. CP-QP-2.0, "Implementation of CPSES QA PROGRAM" _____
2. CP-QP-3.0, "CPSES SITE QA/QC ORGANIZATION" _____
3. CP-QP-2.1, "TRAINING OF INSPECTION PERSONNEL" _____
4. CP-QP-13.0, "CONTROL OF MEASURING AND TEST EQUIPMENT" _____
5. CP-QP-15.0, "TAGGING SYSTEM" _____
6. CP-QP-16.0, "NONCONFORMANCES" _____
7. CP-QP-18.0, "INSPECTION REPORTS" _____
8. CP-QP-19.5, "SURVEILLANCE OF PLANT CONDITIONS" _____

B. NON-QA/QC RELATED PROCEDURES:

1. CP-CPM 6.3, "PREPARATION, APPROVAL AND CONTROL OF OPERATIONAL TRAVELERS" _____
2. CP-CPM 6.10, "INSPECTED ITEM REMOVAL NOTICE FORM" _____

C. QE, QC Lead/Supervisor has reviewed and discussed the above with individual.

VERIFIED BY: _____ DATE _____

TRAINING OUTLINE APPROVED BY A. Vega DATE 5/4/84
A. VEGA
TUGCO SITE QA MANAGER

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TRAINING OF INSPECTION PERSONNEL	PREPARED BY: <u>[Signature]</u> <u>2/11/84</u> DATE APPROVED BY: <u>[Signature]</u> <u>2/17/84</u> DATE [Signature] 2-15-84 R. G. Tolson			
1.0 <u>REFERENCES</u> None 2.0 <u>GENERAL</u> The purpose of this procedure is to establish the minimum requirements for training, qualification and certification of personnel performing inspection to provide assurance that these personnel have and maintain the appropriate knowledge and skill to properly perform their assigned responsibility. The requirements contained herein apply to inspection personnel involved with activities not under the jurisdiction of the ASME Code, Section III, Division I. 3.0 <u>PROCEDURE</u> The TUGCO QA Supervisor is responsible for the training and certification of inspection personnel. In order to develop professional growth, the cognizant QC discipline supervisor is delegated responsibility to develop individual Training outlines for inspection personnel, depending on experience and education. Level I personnel performing inspection shall have experience in and shall have completed a technical training course and examination in the area of inspection responsibilities. Level II personnel performing inspections shall have experience in and shall have completed a technical training course in the area of inspection responsibilities.	FOR INFORMATION FILE HISTORICAL FILE			

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The education, experience and on the job training, specified in this procedure or supplementary instructions may be reduced by the Site QA Supervisor when other factors can provide reasonable assurance that personnel under his direction can competently perform a particular task as prescribed by detailed written Quality Procedures/Instructions. Such decisions shall be documented as part of the certification process and shall be included in the inspector's personnel file.

The Training Coordinator is designated responsibility to maintain the inspector personnel file consistent with this Procedure and applicable Instructions, within the Permanent Plant Records Vault. The Training Coordinator will review the training records for legibility, completeness, and identification of the item involved.

3.I INDOCTRINATION AND TRAINING

The following are minimum indoctrination and training requirements for inspection personnel. Indoctrination requirements shall normally be satisfied within the first sixty days of employment, and shall be documented on Figure 1.

Personnel satisfying documented technical training requirements may be assigned to inspection or testing functions prior to completion of the QA indoctrination requirements.

a. 10CFR50, Appendix B; ANSI N45.2

The method of presentation of this material will be by reading/study assignment, informal discussions, seminars or other appropriate means. An oral checkout covering ANSI N45.2 and the 18 Criteria will be given by the responsible supervisor who shall, upon satisfactory completion, so note by signing the General Training Outline (Figure 1).

b. Industry Standards

Inspection personnel should become familiar with prepared standards (ANSI, IEEE, ASME, etc.) applicable to assigned duties. The method of presentation may be through study, formal seminars, or other appropriate means. Supplemental exposure is acquired by daily association with these standards. The familiarization is a continuing process and as such requires no formal checkout.

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c. 10CFR50.55(e) and 10CFR 21

The method of presentation will be by assigned reading, study and/or training sessions. Upon completion and understanding of the basic requirements as they relate to job duties and responsibilities, the individual shall so note by signing the Training Outline. Formal or informal training sessions shall emphasize the need for prompt reporting of product deficiencies or failures to the TUGCO Site QA Supervisor.

3.2 PERSONNEL CAPABILITIES

There are three levels of qualification. The requirements for each level are not limiting with regard to organizational position or professional status, but rather, are limiting with regard to functional activities.

3.2.1 QC Technician (Level I) Capabilities

A QC Technician shall be capable of performing the inspections, examinations, and tests that are required to be performed in accordance with documented instructions. The individual shall be familiar with the tools and equipment to be employed and shall have demonstrated proficiency in their use. The individual shall also be capable of determining that the calibration status of inspection and measuring equipment is current, that the measuring and test equipment is in proper condition for use, and that the inspection, examination, and test procedures are approved.

3.2.2 QC Inspector (Level II) Capabilities

A QC Inspector shall have all of the capabilities of a QC Technician for the inspection, examination or test. Additionally, a QC Inspector shall have demonstrated capabilities in planning inspections, examinations, and tests; in setting up tests including preparation and set-up of related equipment, as appropriate; in supervising or maintaining surveillance over the inspections, examinations, and tests; in reporting inspection, examinations, and testing results; and in evaluating the validity and acceptability of inspection, examination, and test results.

3.2.3 Level III Personnel Capabilities

A Level III person shall have all of the capabilities of a QC Inspector for the inspection, examination or test. In

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addition, the individual shall also be capable of evaluating the adequacy of specific programs used to train and test inspection, examinations, and test personnel whose qualifications are covered by this procedure.

3.3 EDUCATION AND EXPERIENCE

The following is the recommended personnel education and experience for each level. These education and experience recommendations should be treated to recognize that other factors may provide reasonable assurance that a person can competently perform a particular task. Other factors which may demonstrate capability in a given job are previous performance or satisfactory completion of capability testing.

Use of the measures outlined in this section to establish that an individual has the required qualifications in lieu of required education and experience shall result in documented objective evidence (i.e., procedures and record of written test) demonstrating that the individual indeed does have "comparable" or "equivalent" competence to that which would be gained from having the required education and experience. This determination shall be made by the TUGCO QA Site Supervisor:

3.3.1 QC Technician (Level I)

A QC Technician shall have:

- a. High school graduation and six months of related experience in equivalent inspection, examination, or testing activities, or
- b. Completion of college level work leading to an Associate Degree in related discipline plus three months of related experience in equivalent inspection, examination, or testing activities, or
- c. Four-year college degree with no experience in equivalent inspection, examination or testing activities.

3.3.2 QC Inspector (Level II)

A QC Inspector shall have:

- a. One year of satisfactory performance as QC Technician in the corresponding inspection, examination or test category, or

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- b. High school graduation plus three years of related experience in equivalent inspection, examination, or testing activities, or
- c. Completion of college level work leading to an Associate Degree in a related discipline plus one year related experience in equivalent inspection, examination, or testing activities, or
- d. Four-year college graduation plus six months of related experience in equivalent inspection, examination, or testing activities.

3.3.3 Level III

A Level III shall have:

- a. Six years of satisfactory performance as a QC Inspector in the corresponding inspection, examination or test category, or
- b. High school graduation plus ten years of related experience in equivalent inspection, examination, or testing activities, or high school graduation plus eight years experience in equivalent inspection, examination, or testing activities, with at least two years as QC Inspector and with at least two years associated with nuclear facilities--or if not, at least sufficient training to be acquainted with the relevant quality assurance aspects of a nuclear facility, or
- c. Completion of college level work leading to an Associate Degree and seven years of related experience in equivalent inspection, examination, or testing activities, with at least two years of this experience associated with nuclear facilities--or if not, at least sufficient training to be acquainted with the relevant quality assurance aspects of a nuclear facility, or
- d. Four-year college graduation plus five years of related experience in equivalent inspection, examination, or testing activities, with at least two years of this experience associated with nuclear facilities--or if not, at least sufficient training to be acquainted with the relevant quality assurance aspects of a nuclear facility.

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3.4 PHYSICAL REQUIREMENTS

Each person who performs inspections shall be physically capable of performing the assigned task. As a minimum, inspection personnel shall have:

- a. Natural or corrected near distance acuity such that the inspection person is capable of reading J-1 letters on a standard Jaeger's test type chart for near vision or equivalent test type. This test shall be performed annually.
- b. Color vision as applicable.

NOTE: Waivers may be granted on a case-by-case basis by the TUGCO Site QA Supervisor.

3.5 ON THE JOB TRAINING (OJT)

Minimum on the job training requirements are established within each discipline instruction. On the job training shall be under the direct supervision of a qualified Inspector or Instructor. Qualification as an OJT Instructor shall be certified on the Instructor qualification form. (Figure 2).

3.6 EXAMINATIONS

Examinations may be oral, written, practical or any combination thereof. Discipline or functional supervisors are responsible for administering oral and/or practical examinations and assembling the results in a manner suitable for a review by the Quality Engineering staff, who shall administer a written examination. Waivers for any examinations must be approved by the TUGCO Site QA Supervisor.

3.7 CERTIFICATION

Inspection personnel shall be certified by the TUGCO Site QA Supervisor as being qualified to perform their assigned tasks. The Inspection Certification Form (Figure 3) shall be used to document this certification. The Inspection Certification Form shall be placed in the person's file along with the individual's Training Outline(s). The effective period of certification shall be one (1) year, at which time the person will be re-evaluated and, if appropriate, additional training will be conducted. He may

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then be recertified and documented on the Quality Control Recertification Form (Figure 4) and this will be filed in the person's file.

When project requirements dictate an individual may be certified to a limited scope of an inspection activity. The limited scope certification shall be documented on the Inspection Certification Form (Figure 3) and shall clearly delineate the inspection authority given the inspector.

Discipline or functional supervisors may require additional training and recertification of personnel under their control at any time that performance warrants.

3.8 MAINTENANCE OF PERSONNEL CERTIFICATIONS

3.8.1 The TUGCO QA/QC Training Coordinator shall be responsible for updating of QC technician's/inspector's certifications when procedures/instruction revisions are made.

3.8.2 This certification maintenance shall be by formal training and/or required reading. Formal training will be conducted by the TUGCO QA/QC Training Coordinator or the cognizant discipline Quality Engineer. Updating by required reading shall be the responsibility of the Discipline/Building QC Supervisor under the direction of the TUGCO QA/QC Training Coordinator.

3.8.3 This certification maintenance will be documented on a formal Classroom Attendance Sheet (Attachment 5) or a Required Reading Completion Form (Attachment 6). The applicable form will be maintained by the TUGCO QA/QC Training Coordinator in the technician's/inspector's training file.

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FIGURE 1

COMANCHE PEAK STEAM ELECTRIC STATION

• GENERAL TRAINING OUTLINE

TO BE COMPLETED BY: _____
(60 Days After Employment)

NAME: _____

DOCUMENT:

SIGNATURE / DATE

1. Final Safety Analysis Report

Chapter(s) 17 _____

2. Title 10 Code of Federal Regulations,
Part 50, Appendix B and ANSI N45.2

3. NRC Regulatory Guides (As Assigned)

4. Industry Standards (As Assigned)

5. QA/QC Procedures and Instructions
(As Assigned)

6. Title 10 Code of Federal Regulations,
Part 21 and 10CFR50.55e

7. Other applicable Documents as listed
below:

TYPICAL

VERIFIED BY _____ DATE _____

OUTLINE APPROVED BY: _____ DATE: _____

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FIGURE 2

TEXAS UTILITIES GENERATING COMPANY QUALITY ASSURANCE DEPARTMENT INSTRUCTOR QUALIFICATION

NAME: _____ DATE: _____
 LEVEL OF CERTIFICATION: _____
 ACTIVITY CERTIFIED TO PERFORM: _____
 TUGCO PROCEDURE/INSTRUCTION NO.: _____
 TYPE OF EXAMINATION GIVEN: _____ ORAL _____ WRITTEN _____ PRACTICAL
 RESULT OF EXAMINATION(s): _____

COMMENTS: Based upon a consideration of the education, previous work experience, formal training in the current revision of the CPSES procedure/instruction, and the individual's own on-the-job training, a previous certification has been made for this Q.C. Technician in this activity. A satisfactory evaluation of the individual's demonstrated proficiency in the performance of daily work has now been made, and, with recognition that the CPSES QC Inspector training program addresses specific QC inspection functions, it is felt that there is reasonable assurance that the individual can competently perform as an OJT QC Instructor in this activity. This certification specifically covers giving OJT instruction in this procedure, including the use of personal knowledge and observation to participate in the On-The-Job Q.C. Trainee's instruction. This OJT Training Certification expires in one year if no inspections are performed in this activity by the individual, and regardless, on _____.

Supervisor

Approval

TYPICAL

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FIGURE 3

TEXAS UTILITIES GENERATING COMPANY
QUALITY ASSURANCE DEPARTMENT
INSPECTION CERTIFICATION

NAME John Smith DATE 11/23/81

LEVEL OF CERTIFICATION QC Technician--Random Conduit Fabrication

ACTIVITY CERTIFIED TO PERFORM: Evaluation of Random Conduit

Fabrication Activities UNTIL: 11/23/83
DATE

TUGCO PROCEDURE/INSTRUCTION NO.: CP-QP-11.3-30

TYPE OF EXAMINATION GIVEN: XX ORAL XX WRITTEN XX PRACTICAL

RESULT OF EXAMINATION(S): Satisfactory Oral in QC Office; 82.2%
on written examination; Practical examination with satisfactory
results before QC Supervisor H. Williams.

COMMENTS: Trainee qualified with examinations, OJT training and
14 years' experience.

RELATED EXPERIENCE: 14 YEARS

EDUCATION: H.S. plus 3 years- not yet GRADUATION/DEGREE
college

FORMAL TRAINING: Rev. 14 of procedure 11.3-30 COMPLETED

OJT TRAINING: Satisfactory - 43.5 HOURS THIS ACTIVITY

EXAMINATION: Satisfactory - 82.2

EVALUATED ON: 11/23/81 WITH CONSIDERATION OF RECORDS OF
EDUCATION, EXPERIENCE AND TRAINING, JOB PROFICIENCY AND DEMON-
STRATED SKILL BY: H. Williams, QC Supervisor

PHYSICAL HEALTH: Satisfactory FOR ASSIGNED TASK OF
THIS PROCEDURE/ACTIVITY. RECOMMEND ASSIGNMENT AS LEVEL 1

WITH RE-EVALUATION OF JOB PERFORMANCE AND PROFICIENCY ABOUT:
11/23/82

SUPERVISOR

APPROVAL, LEVEL III

DATE

DATE

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FIGURE 4

TEXAS UTILITIES GENERATING COMPANY
QUALITY ASSURANCE DEPARTMENT
QUALITY CONTROL RECERTIFICATION

NAME: _____ DATE: _____

LEVEL OF CERTIFICATION: QC TECHNICIAN (LEVEL 1)

ACTIVITY CERTIFIED TO PERFORM: _____

TUGCO PROCEDURE/INSTRUCTION NO.(S): _____

TYPE OF RECERTIFICATION EXAM GIVEN:

_____ ORAL _____ WRITTEN _____ PRACTICAL

RESULTS OF RECERTIFICATION EXAM: _____

COMMENTS: BASED ON PREVIOUS CERTIFICATION IN THIS ACTIVITY,
AND CONTINUED SATISFACTORY PERFORMANCE, THE ABOVE NAMED INDIVIDUAL IS HEREBY RECERTIFIED AND AUTHORIZED TO PERFORM ACTIVE QC INSPECTIONS AT CPSES IN THE AREAS LISTED ABOVE. THIS RECERTIFICATION WILL EXPIRE IN ONE YEAR IF NO INSPECTIONS ARE PERFORMED, AND REGARDLESS ON _____.

SUPERVISOR

APPROVAL

DATE

DATE

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TRAINING OF INSPECTION PERSONNEL	PREPARED BY: <u>B.C. Smith</u>			10/17/83 DATE
	APPROVED BY: <u>B.C. Smith for</u> <u>R.G. Tolson</u>			10/17/83 DATE

1.0 REFERENCES

None

2.0 GENERAL

The purpose of this procedure is to establish the minimum requirements for training, qualification and certification of personnel performing inspection to provide assurance that these personnel have and maintain the appropriate knowledge and skill to properly perform their assigned responsibility.

The requirements contained herein apply to inspection personnel involved with activities not under the jurisdiction of the ASME Code, Section III, Division I.

3.0 PROCEDURE

The TUGCO QA Supervisor is responsible for the training and certification of inspection personnel. In order to develop professional growth, the cognizant QC discipline supervisor is delegated responsibility to develop individual Training outlines for inspection personnel, depending on experience and education.

Level I personnel performing inspection shall have experience in and shall have completed a technical training course and examination in the area of inspection responsibilities.

Level II personnel performing inspections shall have experience in and shall have completed a technical training course in the area of inspection responsibilities.

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The education, experience and on the job training, specified in this procedure or supplementary instructions may be reduced by the Site QA Supervisor when other factors can provide reasonable assurance that personnel under his direction can competently perform a particular task as prescribed by detailed written Quality Procedures/Instructions. Such decisions shall be documented as part of the certification process and shall be included in the inspector's personnel file.

The Training Coordinator is designated responsibility to maintain the inspector personnel file consistent with this Procedure and applicable Instructions, within the Permanent Plant Records Vault. The Training Coordinator will review the training records for legibility, completeness, and identification of the item involved.

3.1

INDOCTRINATION AND TRAINING

The following are minimum indoctrination and training requirements for inspection personnel. Indoctrination requirements shall normally be satisfied within the first sixty days of employment, and shall be documented on Figure 1.

Personnel satisfying documented technical training requirements may be assigned to inspection or testing functions prior to completion of the QA indoctrination requirements.

a. 10CFR50, Appendix B; ANSI N45.2

The method of presentation of this material will be by reading/study assignment, informal discussions, seminars or other appropriate means. An oral checkout covering ANSI N45.2 and the 18 Criteria will be given by the responsible supervisor who shall, upon satisfactory completion, so note by signing the General Training Outline (Figure 1).

b. Industry Standards

Inspection personnel should become familiar with prepared standards (ANSI, IEEE, ASME, etc.) applicable to assigned duties. The method of presentation may be through study, formal seminars, or other appropriate means. Supplemental exposure is acquired by daily association with these standards. The familiarization is a continuing process and as such requires no formal checkout.

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c. 10CFR50.55(e) and 10CFR 21 -

The method of presentation will be by assigned reading, study and/or training sessions. Upon completion and understanding of the basic requirements as they relate to job duties and responsibilities, the individual shall so note by signing the Training Outline. Formal or informal training sessions shall emphasize the need for prompt reporting of product deficiencies or failures to the TUGCO Site QA Supervisor.

3.2 PERSONNEL CAPABILITIES

There are three levels of qualification. The requirements for each level are not limiting with regard to organizational position or professional status, but rather, are limiting with regard to functional activities.

3.2.1 QC Technician (Level I) Capabilities

A QC Technician shall be capable of performing the inspections, examinations, and tests that are required to be performed in accordance with documented instructions. The individual shall be familiar with the tools and equipment to be employed and shall have demonstrated proficiency in their use. The individual shall also be capable of determining that the calibration status of inspection and measuring equipment is current, that the measuring and test equipment is in proper condition for use, and that the inspection, examination, and test procedures are approved.

3.2.2 QC Inspector (Level II) Capabilities

A QC Inspector shall have all of the capabilities of a QC Technician for the inspection, examination or test. Additionally, a QC Inspector shall have demonstrated capabilities in planning inspections, examinations, and tests; in setting up tests including preparation and set-up of related equipment, as appropriate; in supervising or maintaining surveillance over the inspections, examinations, and tests; in reporting inspection, examinations, and testing results; and in evaluating the validity and acceptability of inspection, examination, and test results.

3.2.3 Level III Personnel Capabilities

A Level III person shall have all of the capabilities of a QC Inspector for the inspection, examination or test. In

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addition, the individual shall also be capable of evaluating the adequacy of specific programs used to train and test inspection, examinations, and test personnel whose qualifications are covered by this procedure.

3.3 EDUCATION AND EXPERIENCE

The following is the recommended personnel education and experience for each level. These education and experience recommendations should be treated to recognize that other factors may provide reasonable assurance that a person can competently perform a particular task. Other factors which may demonstrate capability in a given job are previous performance or satisfactory completion of capability testing.

Use of the measures outlined in this section to establish that an individual has the required qualifications in lieu of required education and experience shall result in documented objective evidence (i.e., procedures and record of written test) demonstrating that the individual indeed does have "comparable" or "equivalent" competence to that which would be gained from having the required education and experience. This determination shall be made by the TUGCO QA Site Supervisor.

3.3.1 QC Technician (Level I)

A QC Technician shall have:

- a. High school graduation and six months of related experience in equivalent inspection, examination, or testing activities, or
- b. Completion of college level work leading to an Associate Degree in related discipline plus three months of related experience in equivalent inspection, examination, or testing activities, or
- c. Four-year college degree with no experience in equivalent inspection, examination or testing activities.

3.3.2 QC Inspector (Level II)

A QC Inspector shall have:

- a. One year of satisfactory performance as QC Technician in the corresponding inspection, examination or test category, or

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- b. High school graduation plus three years of related experience in equivalent inspection, examination, or testing activities, or
- c. Completion of college level work leading to an Associate Degree in a related discipline plus one year related experience in equivalent inspection, examination, or testing activities, or
- d. Four-year college graduation plus six months of related experience in equivalent inspection, examination, or testing activities.

3.3.3 Level III

A Level III shall have:

- a. Six years of satisfactory performance as a QC Inspector in the corresponding inspection, examination or test category, or
- b. High school graduation plus ten years of related experience in equivalent inspection, examination, or testing activities, or high school graduation plus eight years experience in equivalent inspection, examination, or testing activities, with at least two years as QC Inspector and with at least two years associated with nuclear facilities--or if not, at least sufficient training to be acquainted with the relevant quality assurance aspects of a nuclear facility, or
- c. Completion of college level work leading to an Associate Degree and seven years of related experience in equivalent inspection, examination, or testing activities, with at least two years of this experience associated with nuclear facilities--or if not, at least sufficient training to be acquainted with the relevant quality assurance aspects of a nuclear facility, or
- d. Four-year college graduation plus five years of related experience in equivalent inspection, examination, or testing activities, with at least two years of this experience associated with nuclear facilities--or if not, at least sufficient training to be acquainted with the relevant quality assurance aspects of a nuclear facility.

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3.4 - PHYSICAL REQUIREMENTS

Each person who performs inspections shall be physically capable of performing the assigned task. As a minimum, inspection personnel shall have:

- a. Natural or corrected near distance acuity such that the inspection person is capable of reading J-1 letters on a standard Jaeger's test type chart for near vision or equivalent test type. This test shall be performed annually.
- b. Color vision as applicable.

NOTE: Waivers may be granted on a case-by-case basis by the TUGCO Site QA Supervisor.

3.5 ON THE JOB TRAINING (OJT)

Minimum on the job training requirements are established within each discipline instruction. On the job training shall be under the direct supervision of a qualified Inspector or Instructor. Qualification as an OJT Instructor shall be certified on the Instructor qualification form. (Figure 2).

3.6 EXAMINATIONS

Examinations may be oral, written, practical or any combination thereof. Discipline or functional supervisors are responsible for administering oral and/or practical examinations and assembling the results in a manner suitable for a review by the Quality Engineering staff, who shall administer a written examination. Waivers for any examinations must be approved by the TUGCO Site QA Supervisor.

3.7 CERTIFICATION

Inspection personnel shall be certified by the TUGCO Site QA Supervisor as being qualified to perform their assigned tasks. The Inspection Certification Form (Figure 3) shall be used to document this certification. The Inspection Certification Form shall be placed in the person's file along with the individual's Training Outline(s). The effective period of certification shall be one (1) year, at which time the person will be re-evaluated and, if appropriate, additional training will be conducted. He may

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then be recertified and documented on the Quality Control Recertification Form (Figure 4) and this will be filed in the person's file.

When project requirements dictate, an individual may be certified to a limited scope of an inspection activity. The limited scope certification shall be documented on the Inspection Certification Form (Figure 3) and shall clearly delineate the inspection authority given the inspector.

Discipline or functional supervisors may require additional training and recertification of personnel under their control at any time that performance warrants.

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FIGURE 1

COMANCHE PEAK STEAM ELECTRIC STATION

• GENERAL TRAINING OUTLINE

TO BE COMPLETED BY: _____
(60 Days After Employment)

NAME: _____

DOCUMENT:

SIGNATURE / DATE

1. Final Safety Analysis Report

Chapter(s) 17 _____

2. Title 10 Code of Federal Regulations,

Part 50, Appendix B and ANSI N45.2 _____

3. NRC Regulatory Guides (As Assigned) _____

4. Industry Standards (As Assigned) _____

5. QA/QC Procedures and Instructions
(As Assigned) _____

6. Title 10 Code of Federal Regulations,
Part 21 and 10CFR50.55e _____

7. Other applicable Documents as listed
below: _____

TYPICAL

VERIFIED BY _____ DATE _____

OUTLINE APPROVED BY: _____ DATE: _____

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FIGURE 2

TEXAS UTILITIES GENERATING COMPANY
QUALITY ASSURANCE DEPARTMENT
INSTRUCTOR QUALIFICATION

NAME: _____ DATE: _____
 LEVEL OF CERTIFICATION: _____
 ACTIVITY CERTIFIED TO PERFORM: _____

 TUGCO PROCEDURE/INSTRUCTION NO.: _____
 TYPE OF EXAMINATION GIVEN: _____ ORAL _____ WRITTEN _____ PRACTICAL
 RESULT OF EXAMINATION(s): _____

COMMENTS: Based upon a consideration of the education, previous work experience, formal training in the current revision of the CPSES procedure/instruction, and the individual's own on-the-job training, a previous certification has been made for this Q.C. Technician in this activity. A satisfactory evaluation of the individual's demonstrated proficiency in the performance of daily work has now been made, and, with recognition that the CPSES QC Inspector training program addresses specific QC inspection functions, it is felt that there is reasonable assurance that the individual can competently perform as an QJT QC Instructor in this activity. This certification specifically covers giving QJT instruction in this procedure, including the use of personal knowledge and observation to participate in the On-The-Job Q.C. Trainee's instruction. This QJT Training Certification expires in one year if no inspections are performed in this activity by the individual, and regardless, on _____.

Supervisor

Approval

TYPICAL

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FIGURE 3

TEXAS UTILITIES GENERATING COMPANY
QUALITY ASSURANCE DEPARTMENT
INSPECTION CERTIFICATION

NAME John Smith DATE 11/23/81
 LEVEL OF CERTIFICATION QC Technician--Random Conduit Fabrication
 ACTIVITY CERTIFIED TO PERFORM: Evaluation of Random Conduit
Fabrication Activities UNTIL: 11/23/83
 DATE
 TUGCO PROCEDURE/INSTRUCTION NO.: CP-QP-11.3-30
 TYPE OF EXAMINATION GIVEN: XX ORAL XX WRITTEN XX PRACTICAL
 RESULT OF EXAMINATION(S): Satisfactory Oral in QC Office: 82.2%
on written examination; Practical examination with satisfactory
results before QC Supervisor H. Williams.
 COMMENTS: Trainee qualified with examinations, OJT training and
14 years' experience.
 RELATED EXPERIENCE: 14 YEARS
 EDUCATION: H.S. plus 3 years not yet GRADUATION/DEGREE
college
 FORMAL TRAINING: Rev. 14 of procedure 11.3-30 COMPLETED
 OJT TRAINING: Satisfactory - 43.5 HOURS THIS ACTIVITY
 EXAMINATION: Satisfactory - 82.2
 EVALUATED ON: 11/23/81 WITH CONSIDERATION OF RECORDS OF
 EDUCATION, EXPERIENCE AND TRAINING, JOB PROFICIENCY AND DEMON-
 STRATED SKILL BY: H. Williams, QC Supervisor
 PHYSICAL HEALTH: Satisfactory FOR ASSIGNED TASK OF
 THIS PROCEDURE/ACTIVITY. RECOMMEND ASSIGNMENT AS LEVEL 1
 WITH RE-EVALUATION OF JOB PERFORMANCE AND PROFICIENCY ABOUT:
11/23/82

TYPICAL

SUPERVISOR

APPROVAL, LEVEL III

DATE

DATE

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FIGURE 4

TEXAS UTILITIES GENERATING COMPANY
QUALITY ASSURANCE DEPARTMENT
QUALITY CONTROL RECERTIFICATION

NAME: _____ DATE: _____

LEVEL OF CERTIFICATION: QC TECHNICIAN (LEVEL 1)

ACTIVITY CERTIFIED TO PERFORM: _____

TUGCO PROCEDURE/INSTRUCTION NO.(S): _____

TYPE OF RECERTIFICATION EXAM GIVEN:

_____ ORAL _____ WRITTEN _____ PRACTICAL

RESULTS OF RECERTIFICATION EXAM: _____

COMMENTS: BASED ON PREVIOUS CERTIFICATION IN THIS ACTIVITY,
AND CONTINUED SATISFACTORY PERFORMANCE, THE ABOVE NAMED INDIVIDUAL IS HEREBY RECERTIFIED AND AUTHORIZED TO PERFORM ACTIVE QC INSPECTIONS AT CPSES IN THE AREAS LISTED ABOVE. THIS RECERTIFICATION WILL EXPIRE IN ONE YEAR IF NO INSPECTIONS ARE PERFORMED, AND REGARDLESS ON _____.

SUPERVISOR

APPROVAL

DATE

DATE

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	CP-QP-2.1	13	JUL 28 1983	1 of 11
TRAINING OF INSPECTION PERSONNEL	PREPARED BY: <u>G. Manning</u>			7/27/83 DATE
	APPROVED BY: <u>[Signature]</u>			7/28/83 DATE
<div data-bbox="318 687 644 723">1.0 REFERENCES</div> <div data-bbox="475 751 550 780">None</div> <div data-bbox="318 812 594 846">2.0 GENERAL</div> <div data-bbox="475 870 1438 1032"> <p>The purpose of this procedure is to establish the minimum requirements for training, qualification and certification of personnel performing inspection to provide assurance that these personnel have and maintain the appropriate knowledge and skill to properly perform their assigned responsibility.</p> <p>The requirements contained herein apply to inspection personnel involved with activities not under the jurisdiction of the ASME Code, Section III, Division I.</p> </div> <div data-bbox="318 1185 627 1219">3.0 PROCEDURE</div> <div data-bbox="475 1242 1438 1436"> <p>The TUGCO QA Supervisor is responsible for the training and certification of inspection personnel. In order to develop professional growth, the cognizant QC discipline supervisor is delegated responsibility to develop individual Training outlines for inspection personnel, depending on experience and education.</p> <p>Level I personnel performing inspection shall have experience in and shall have completed a technical training course and examination in the area of inspection responsibilities.</p> <p>Level II personnel performing inspections shall have experience in and shall have completed a technical training course in the area of inspection responsibilities.</p> </div>				

HISTORICAL FILE
FOR INFORMATION ONLY

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The education, experience and on the job training, specified in this procedure or supplementary instructions may be reduced by the Site QA Supervisor when other factors can provide reasonable assurance that personnel under his direction can competently perform a particular task as prescribed by detailed written Quality Procedures/Instructions. Such decisions shall be documented as part of the certification process and shall be included in the inspector's personnel file.

The Training Coordinator is designated responsibility to maintain the inspector personnel file consistent with this Procedure and applicable Instructions, within the Permanent Plant Records Vault. The Training Coordinator will review the training records for legibility, completeness, and identification of the item involved.

3.1 INDOCTRINATION AND TRAINING

The following are minimum indoctrination and training requirements for inspection personnel. Indoctrination requirements shall normally be satisfied within the first sixty days of employment, and shall be documented on Figure 1.

Personnel satisfying documented technical training requirements may be assigned to inspection or testing functions prior to completion of the QA indoctrination requirements.

a. 10CFR50, Appendix B; ANSI N45.2

The method of presentation of this material will be by reading/study assignment, informal discussions, seminars or other appropriate means. An oral checkout covering ANSI N45.2 and the 18 Criteria will be given by the responsible supervisor who shall, upon satisfactory completion, so note by signing the General Training Outline (Figure 1).

b. Industry Standards

Inspection personnel should become familiar with prepared standards (ANSI, IEEE, ASME, etc.) applicable to assigned duties. The method of presentation may be through study, formal seminars, or other appropriate means. Supplemental exposure is acquired by daily association with these standards. The familiarization is a continuing process and as such requires no formal checkout.

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c. 10CFR50.55(e) and 10CFR 21

The method of presentation will be by assigned reading, study and/or training sessions. Upon completion and understanding of the basic requirements as they relate to job duties and responsibilities, the individual shall so note by signing the Training Outline. Formal or informal training sessions shall emphasize the need for prompt reporting of product deficiencies or failures to the TUGCO Site QA Supervisor.

3.2 PERSONNEL CAPABILITIES

There are three levels of qualification. The requirements for each level are not limiting with regard to organizational position or professional status, but rather, are limiting with regard to functional activities.

3.2.1 QC Technician (Level I) Capabilities

A QC Technician shall be capable of performing the inspections, examinations, and tests that are required to be performed in accordance with documented instructions. The individual shall be familiar with the tools and equipment to be employed and shall have demonstrated proficiency in their use. The individual shall also be capable of determining that the calibration status of inspection and measuring equipment is current, that the measuring and test equipment is in proper condition for use, and that the inspection, examination, and test procedures are approved.

3.2.2 QC Inspector (Level II) Capabilities

A QC Inspector shall have all of the capabilities of a QC Technician for the inspection, examination or test. Additionally, a QC Inspector shall have demonstrated capabilities in planning inspections, examinations, and tests; in setting up tests including preparation and set-up of related equipment, as appropriate; in supervising or maintaining surveillance over the inspections, examinations, and tests; in reporting inspection, examination, and testing results; and in evaluating the validity and acceptability of inspection, examination, and test results.

3.2.3 Level III Personnel Capabilities

A Level III person shall have all of the capabilities of a QC Inspector for the inspection, examination or test. In

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addition, the individual shall also be capable of evaluating the adequacy of specific programs used to train and test inspection, examinations, and test personnel whose qualifications are covered by this procedure.

3.3 EDUCATION AND EXPERIENCE

The following is the recommended personnel education and experience for each level. These education and experience recommendations should be treated to recognize that other factors may provide reasonable assurance that a person can competently perform a particular task. Other factors which may demonstrate capability in a given job are previous performance or satisfactory completion of capability testing.

Use of the measures outlined in this section to establish that an individual has the required qualifications in lieu of required education and experience shall result in documented objective evidence (i.e., procedures and record of written test) demonstrating that the individual indeed does have "comparable" or "equivalent" competence to that which would be gained from having the required education and experience. This determination shall be made by the TUGCO QA Site Supervisor.

3.3.1 QC Technician (Level I)

A QC Technician shall have:

- a. High school graduation and six months of related experience in equivalent inspection, examination, or testing activities, or
- b. Completion of college level work leading to an Associate Degree in related discipline plus three months of related experience in equivalent inspection, examination, or testing activities, or
- c. Four-year college degree with no experience in equivalent inspection, examination or testing activities.

3.3.2 QC Inspector (Level II)

A QC Inspector shall have:

- a. One year of satisfactory performance as QC Technician in the corresponding inspection, examination or test category, or

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- b. High school graduation plus three years of related experience in equivalent inspection, examination, or testing activities, or
- c. Completion of college level work leading to an Associate Degree in a related discipline plus one year related experience in equivalent inspection, examination, or testing activities, or
- d. Four-year college graduation plus six months of related experience in equivalent inspection, examination, or testing activities.

3.3.3 Level III

A Level III shall have:

- a. Six years of satisfactory performance as a QC Inspector in the corresponding inspection, examination or test category, or
- b. High school graduation plus ten years of related experience in equivalent inspection, examination, or testing activities, or high school graduation plus eight years experience in equivalent inspection, examination, or testing activities, with at least two years as QC Inspector and with at least two years associated with nuclear facilities--or if not, at least sufficient training to be acquainted with the relevant quality assurance aspects of a nuclear facility, or
- c. Completion of college level work leading to an Associate Degree and seven years of related experience in equivalent inspection, examination, or testing activities, with at least two years of this experience associated with nuclear facilities--or if not, at least sufficient training to be acquainted with the relevant quality assurance aspects of a nuclear facility, or
- d. Four-year college graduation plus five years of related experience in equivalent inspection, examination, or testing activities, with at least two years of this experience associated with nuclear facilities--or if not, at least sufficient training to be acquainted with the relevant quality assurance aspects of a nuclear facility.

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3.4 PHYSICAL REQUIREMENTS

Each person who performs inspections shall be physically capable of performing the assigned task. As a minimum, inspection personnel shall have:

- a. Natural or corrected near distance acuity such that the inspection person is capable of reading J-1 letters on a standard Jaeger's test type chart for near vision or equivalent test type. This test shall be performed annually.
- b. Color vision as applicable.

NOTE: Waivers may be granted on a case-by-case basis by the TUGCO Site QA Supervisor.

3.5 ON THE JOB TRAINING (OJT)

Minimum on the job training requirements are established within each discipline instruction. On the job training shall be under the direct supervision of a qualified Inspector or Instructor. Qualification as an OJT Instructor shall be certified on the Instructor qualification form. (Figure 2).

3.6 EXAMINATIONS

Examinations may be oral, written, practical or any combination thereof. Discipline or functional supervisors are responsible for administering oral and/or practical examinations and assembling the results in a manner suitable for a review by the Quality Engineering staff, who shall administer a written examination. Waivers for any examinations must be approved by the TUGCO Site QA Supervisor.

3.7 CERTIFICATION

Inspection personnel shall be certified by the TUGCO Site QA Supervisor as being qualified to perform their assigned tasks. The Inspection Certification Form (Figure 3) shall be used to document this certification. The Inspection Certification Form shall be placed in the person's file along with the individual's Training Outline(s). The effective period of certification shall be one (1) year, at which time the person will be re-evaluated and, if appropriate, additional training will be conducted. He may

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then be recertified and documented on the Quality Control Recertification Form (Figure 4) and this will be filed in the person's file.

Discipline or functional supervisors may require additional training and recertification of personnel under their control at any time that performance warrants.

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FIGURE 1

COMANCHE PEAK STEAM ELECTRIC STATION

- GENERAL TRAINING OUTLINE

TO BE COMPLETED BY: _____
(60 Days After Employment)

NAME: _____

DOCUMENT:

SIGNATURE / DATE

1. Final Safety Analysis Report
Chapter(s) 17 _____
2. Title 10 Code of Federal Regulations,
Part 50, Appendix B and ANSI N45.2

3. NRC Regulatory Guides (As Assigned)

4. Industry Standards (As Assigned)

5. QA/QC Procedures and Instructions
(As Assigned)

6. Title 10 Code of Federal Regulations,
Part 21 and 10CFR50.55e

7. Other applicable Documents as listed
below: _____

CAL

VERIFIED BY _____ DATE _____

OUTLINE APPROVED BY: _____ DATE: _____

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FIGURE 2

TEXAS UTILITIES GENERATING COMPANY
QUALITY ASSURANCE DEPARTMENT
INSTRUCTOR QUALIFICATION

NAME: _____ DATE: _____
 LEVEL OF CERTIFICATION: _____
 ACTIVITY CERTIFIED TO PERFORM: _____
 TUGCO PROCEDURE/INSTRUCTION NO.: _____
 TYPE OF EXAMINATION GIVEN: _____ ORAL _____ WRITTEN _____ PRACTICAL _____
 RESULT OF EXAMINATION(s): _____

COMMENTS: Based upon a consideration of the education, previous work experience, formal training in the current revision of the CPSES procedure/ instruction, and the individual's own on-the-job training, a previous certification has been made for this Q.C. Technician in this activity. A satisfactory evaluation of the individual's demonstrated proficiency in the performance of daily work has now been made, and, with recognition that the CPSES QC inspector training program addresses specific QC inspection functions, it is felt that there is reasonable assurance that the individual can competently perform as an QJT QC instructor in this activity. This certification specifically covers giving QJT instruction in this procedure, including the use of personal knowledge and observation to participate in the On-The-Job Q.C. Trainee's instruction. This QJT Training Certification expires in one year if no inspections are performed in this activity by the individual, and regardless, on _____.

Supervisor

Approval

TYPICAL

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FIGURE 3

TEXAS UTILITIES GENERATING COMPANY
QUALITY ASSURANCE DEPARTMENT
INSPECTION CERTIFICATION

NAME John Smith DATE 11/23/81
 LEVEL OF CERTIFICATION QC Technician--Random Conduit Fabrication
 ACTIVITY CERTIFIED TO PERFORM: Evaluation of Random Conduit
Fabrication Activities UNTIL: 11/23/83
 DATE
 TUGCO PROCEDURE/INSTRUCTION NO.: CP-QP-11.3-30
 TYPE OF EXAMINATION GIVEN: XX ORAL XX WRITTEN XX PRACTICAL
 RESULT OF EXAMINATION(S): Satisfactory Oral in QC Office; 82.2%
on written examination; Practical examination with satisfactory
results before QC Supervisor H. Williams.
 COMMENTS: Trainee qualified with examinations, OJT training and
14 years' experience.
 RELATED EXPERIENCE: 14 YEARS
 EDUCATION: H.S. plus 3 years - not yet GRADUATION/DEGREE
college
 FORMAL TRAINING: Rev. 14 of procedure 11.3-30 COMPLETED
 OJT TRAINING: Satisfactory - 43.5 HOURS THIS ACTIVITY
 EXAMINATION: Satisfactory - 82.2
 EVALUATED ON: 11/23/81 WITH CONSIDERATION OF RECORDS OF
 EDUCATION, EXPERIENCE AND TRAINING, JOB PROFICIENCY AND DEMON-
 STRATED SKILL BY: H. Williams, QC Supervisor
 PHYSICAL HEALTH: Satisfactory FOR ASSIGNED TASK OF
 THIS PROCEDURE/ACTIVITY. RECOMMEND ASSIGNMENT AS LEVEL 1
 WITH RE-EVALUATION OF JOB PERFORMANCE AND PROFICIENCY ABOUT:
11/23/82

TRIAL

SUPERVISOR _____ APPROVAL, LEVEL III _____
 DATE _____ DATE _____

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FIGURE 4

TEXAS UTILITIES GENERATING COMPANY
QUALITY ASSURANCE DEPARTMENT
QUALITY CONTROL RECERTIFICATION

NAME: _____ DATE: _____

LEVEL OF CERTIFICATION: QC TECHNICIAN (LEVEL I)

ACTIVITY CERTIFIED TO PERFORM: _____

TUGCO PROCEDURE/INSTRUCTION NO.(S): _____

TYPE OF RECERTIFICATION EXAM GIVEN:

_____ ORAL _____ WRITTEN _____ PRACTICAL

RESULTS OF RECERTIFICATION EXAM: _____

COMMENTS: BASED ON PREVIOUS CERTIFICATION IN THIS ACTIVITY,
AND CONTINUED SATISFACTORY PERFORMANCE, THE ABOVE NAMED INDIVIDUAL IS HEREBY RECERTIFIED AND AUTHORIZED TO PERFORM ACTIVE QC INSPECTIONS AT CPSES IN THE AREAS LISTED ABOVE. THIS RECERTIFICATION WILL EXPIRE IN ONE YEAR IF NO INSPECTIONS ARE PERFORMED, AND REGARDLESS ON _____.

SUPERVISOR

APPROVAL

DATE

DATE

TEXAS UTILITIES GENERATING CO CPSES	PROCEDURE NUMBER CP-QP-2.1	REVISION 12	ISSUE DATE DEC 17 1982	PAGE 1 of 11
TRAINING OF INSPECTION PERSONNEL	PREPARED BY: <u>B. G. Scott</u> 12/16/82 DATE APPROVED BY: <u>R. J. Brown</u> 12/16/82 DATE			

1.0 REFERENCES

None

2.0 GENERAL

The purpose of this procedure is to establish the minimum requirements for training, qualification and certification of personnel performing inspection to provide assurance that these personnel have and maintain the appropriate knowledge and skill to properly perform their assigned responsibility.

The requirements contained herein apply to inspection personnel involved with activities not under the jurisdiction of the ASME Code, Section III, Division I.

3.0 PROCEDURE

The TUGCO QA Supervisor is responsible for the training and certification of inspection personnel. In order to develop professional growth, the cognizant QC discipline supervisor is delegated responsibility to develop individual Training outlines for inspection personnel, depending on experience and education.

Level I personnel performing inspection shall have experience in and shall have completed a technical training course and examination in the area of inspection responsibilities.

Level II personnel performing inspections shall have experience in and shall have completed a technical training course in the area of inspection responsibilities.

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The education, experience and on the job training, specified in this procedure or supplementary instructions may be reduced by the Site QA Supervisor when other factors can provide reasonable assurance that personnel under his direction can competently perform a particular task as prescribed by detailed written Quality Procedures/Instructions. Such decisions shall be documented as part of the certification process and shall be included in the inspector's personnel file.

The Training Coordinator is designated responsibility to maintain the inspector personnel file consistent with this Procedure and applicable Instructions, within the Permanent Plant Records Vault. The Training Coordinator will review the training records for legibility, completeness, and identification of the item involved.

3.1 INDOCTRINATION AND TRAINING

The following are minimum indoctrination and training requirements for inspection personnel. Indoctrination requirements shall normally be satisfied within the first sixty days of employment, and shall be documented on Figure 1.

Personnel satisfying documented technical training requirements may be assigned to inspection or testing functions prior to completion of the QA indoctrination requirements.

a. 10CFR50, Appendix B; ANSI N45.2

The method of presentation of this material will be by reading/study assignment, informal discussions, seminars or other appropriate means. An oral checkout covering ANSI N45.2 and the 18 Criteria will be given by the responsible supervisor who shall, upon satisfactory completion, so note by signing the General Training Outline (Figure 1).

b. Industry Standards

Inspection personnel should become familiar with prepared standards (ANSI, IEEE, ASME, etc.) applicable to assigned duties. The method of presentation may be through study, formal seminars, or other appropriate means. Supplemental exposure is acquired by daily association with these standards. The familiarization is a continuing process and as such requires no formal checkout.

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c. 10CFR50.55(e) and 10CFR 21

The method of presentation will be by assigned reading, study and/or training sessions. Upon completion and understanding of the basic requirements as they relate to job duties and responsibilities, the individual shall so note by signing the Training Outline. Formal or informal training sessions shall emphasize the need for prompt reporting of product deficiencies or failures to the TUGCO Site QA Supervisor.

3.2 PERSONNEL CAPABILITIES

There are three levels of qualification. The requirements for each level are not limiting with regard to organizational position or professional status, but rather, are limiting with regard to functional activities.

3.2.1 QC Technician (Level I) Capabilities

A QC Technician shall be capable of performing the inspections, examinations, and tests that are required to be performed in accordance with documented instructions. The individual shall be familiar with the tools and equipment to be employed and shall have demonstrated proficiency in their use. The individual shall also be capable of determining that the calibration status of inspection and measuring equipment is current, that the measuring and test equipment is in proper condition for use, and that the inspection, examination, and test procedures are approved.

3.2.2 QC Inspector (Level II) Capabilities

A QC Inspector shall have all of the capabilities of a QC Technician for the inspection, examination or test. Additionally, a QC Inspector shall have demonstrated capabilities in planning inspections, examinations, and tests; in setting up tests including preparation and set-up of related equipment, as appropriate; in supervising or maintaining surveillance over the inspections, examinations, and tests; in reporting inspection, examination, and testing results; and in evaluating the validity and acceptability of inspection, examination, and test results.

3.2.3 Level III Personnel Capabilities

A Level III person shall have all of the capabilities of a QC Inspector for the inspection, examination or test. In

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addition, the individual shall also be capable of evaluating the adequacy of specific programs used to train and test inspection, examinations, and test personnel whose qualifications are covered by this procedure.

3.3 EDUCATION AND EXPERIENCE

The following is the recommended personnel education and experience for each level. These education and experience recommendations should be treated to recognize that other factors may provide reasonable assurance that a person can competently perform a particular task. Other factors which may demonstrate capability in a given job are previous performance or satisfactory completion of capability testing.

Use of the measures outlined in this section to establish that an individual has the required qualifications in lieu of required education and experience shall result in documented objective evidence (i.e., procedures and record of written test) demonstrating that the individual indeed does have "comparable" or "equivalent" competence to that which would be gained from having the required education and experience. This determination shall be made by the TUGCO QA Site Supervisor.

3.3.1 QC Technician (Level I)

A QC Technician shall have:

- a. High school graduation and six months of related experience in equivalent inspection, examination, or testing activities, or
- b. Completion of college level work leading to an Associate Degree in related discipline plus three months of related experience in equivalent inspection, examination, or testing activities, or
- c. Four-year college degree with no experience in equivalent inspection, examination or testing activities.

3.3.2 QC Inspector (Level II)

A QC Inspector shall have:

- a. One year of satisfactory performance as QC Technician in the corresponding inspection, examination or test category, or

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- b. High school graduation plus three years of related experience in equivalent inspection, examination, or testing activities, or
- c. Completion of college level work leading to an Associate Degree in a related discipline plus one year related experience in equivalent inspection, examination, or testing activities, or
- d. Four-year college graduation plus six months of related experience in equivalent inspection, examination, or testing activities.

3.3.3 Level III

A Level II^r shall have:

- a. Six years of satisfactory performance as a QC Inspector in the corresponding inspection, examination or test category, or
- b. High school graduation plus ten years of related experience in equivalent inspection, examination, or testing activities, or high school graduation plus eight years experience in equivalent inspection, examination, or testing activities, with at least two years as QC Inspector and with at least two years associated with nuclear facilities--or if not, at least sufficient training to be acquainted with the relevant quality assurance aspects of a nuclear facility, or
- c. Completion of college level work leading to an Associate Degree and seven years of related experience in equivalent inspection, examination, or testing activities, with at least two years of this experience associated with nuclear facilities--or if not, at least sufficient training to be acquainted with the relevant quality assurance aspects of a nuclear facility, or
- d. Four-year college graduation plus five years of related experience in equivalent inspection, examination, or testing activities, with at least two years of this experience associated with nuclear facilities--or if not, at least sufficient training to be acquainted with the relevant quality assurance aspects of a nuclear facility.

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3.4 PHYSICAL REQUIREMENTS

Each person who performs inspections shall be physically capable of performing the assigned task. As a minimum, inspection personnel shall have:

- a. Natural or corrected near distance acuity such that the inspection person is capable of reading J-1 letters on a standard Jaeger's test type chart for near vision or equivalent test type. This test shall be performed annually.
- b. Color vision as applicable.

NOTE: Waivers may be granted on a case-by-case basis by the TUGCO Site QA Supervisor.

3.5 ON THE JOB TRAINING (OJT)

Minimum on the job training requirements are established within each discipline instruction. On the job training shall be under the direct supervision of a qualified Inspector or Instructor. Qualification as an OJT Instructor shall be certified on the Instructor qualification form. (Figure 2).

3.6 EXAMINATIONS

Examinations may be oral, written, practical or any combination thereof. Discipline or functional supervisors are responsible for administering oral and/or practical examinations and assembling the results in a manner suitable for a review by the Quality Engineering staff, who shall administer a written examination. Waivers for any examinations must be approved by the TUGCO Site QA Supervisor.

3.7 CERTIFICATION

Inspection personnel shall be certified by the TUGCO Site QA Supervisor as being qualified to perform their assigned tasks. The Inspection Certification Form (Figure 3) shall be used to document this certification. The Inspection Certification Form shall be placed in the person's file along with the individual's Training Outline(s). The effective period of certification shall be three (3) years, at which time the person will be re-evaluated and, if appropriate, additional training will be conducted. He may

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then be recertified and documented on the Quality Control Recertification Form (Figure 4) and this will be filed in the person's file.

Discipline or functional supervisors may require additional training and recertification of personnel under their control at any time that performance warrants.

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FIGURE 1

COMANCHE PEAK STEAM ELECTRIC STATION

- GENERAL TRAINING OUTLINE

TO BE COMPLETED BY: _____
(90 Days After Employment)

NAME: _____

DOCUMENT:

SIGNATURE / DATE

1. Final Safety Analysis Report

Chapter(s) 17 _____

2. Title 10 Code of Federal Regulations,

Part 50, Appendix B and ANSI 145.2

3. NRC Regulatory Guides (As Assigned)

4. Industry Standards (As Assigned)

5. QA/QC Procedures and Instructions

(As Assigned)

6. Title 10 Code of Federal Regulations,

Part 21 and 10CFR50.55e

7. Other applicable Documents as listed

below:

TECHNICAL

VERIFIED BY: _____ DATE: _____

OUTLINE APPROVED BY: _____ DATE: _____

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FIGURE 2

TEXAS UTILITIES GENERATING COMPANY
QUALITY ASSURANCE DEPARTMENT
INSTRUCTOR QUALIFICATION

NAME: _____ DATE: _____
 LEVEL OF CERTIFICATION: _____
 ACTIVITY CERTIFIED TO PERFORM: _____

 TUGCO PROCEDURE/INSTRUCTION NO.: _____
 TYPE OF EXAMINATION GIVEN: _____ ORAL _____ WRITTEN _____ PRACTICAL
 RESULT OF EXAMINATION(s): _____

COMMENTS: Based upon a consideration of the education, previous work experience, formal training in the current revision of the CPSES procedure/instruction, and the individual's own on-the-job training, a previous certification has been made for this Q.C. Technician in this activity. A satisfactory evaluation of the individual's demonstrated proficiency in the performance of daily work has now been made, and, with recognition that the CPSES QC Inspector training program addresses specific QC inspection functions, it is felt that there is reasonable assurance that the individual can competently perform as an QJT QC instructor in this activity. This certification specifically covers giving QJT instruction in this procedure, including the use of personal knowledge and observation to participate in the On-The-Job Q.C. Trainee's instruction. This QJT Training Certification expires in one year if no inspections are performed in this activity by the individual, and regardless, on _____.

Supervisor

Approval

TYPICAL

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FIGURE 3

TEXAS UTILITIES GENERATING COMPANY
QUALITY ASSURANCE DEPARTMENT
INSPECTION CERTIFICATION

NAME John Smith DATE 11/23/81
 LEVEL OF CERTIFICATION QC Technician--Random Conduit Fabrication
 ACTIVITY CERTIFIED TO PERFORM: Evaluation of Random Conduit
Fabrication Activities UNTIL: 11/23/83
 DATE
 TUGCO PROCEDURE/INSTRUCTION NO.: CP-QP-11.3-30
 TYPE OF EXAMINATION GIVEN: XX ORAL XX WRITTEN XX PRACTICAL
 RESULT OF EXAMINATION(S): Satisfactory Oral in QC Office; 82.2%
on written examination; Practical examination with satisfactory
results before QC Supervisor H. Williams.
 COMMENTS: Trainee qualified with examinations, OJT training and
14 years' experience.
 RELATED EXPERIENCE: 14 YEARS
 EDUCATION: H.S. plus 3 years- not yet GRADUATION/DEGREE
College
 FORMAL TRAINING: Rev. 14 of procedure 11.3-30 COMPLETED
 OJT TRAINING: Satisfactory - 43.5 HOURS THIS ACTIVITY
 EXAMINATION: Satisfactory - 82.2
 EVALUATED ON: 11/23/81 WITH CONSIDERATION OF RECORDS OF
 EDUCATION, EXPERIENCE AND TRAINING, JOB PROFICIENCY AND DEMON-
 STRATED SKILL BY: H. Williams, QC Supervisor
 PHYSICAL HEALTH: Satisfactory FOR ASSIGNED TASK OF
 THIS PROCEDURE/ACTIVITY. RECOMMEND ASSIGNMENT AS LEVEL 1
 WITH RE-EVALUATION OF JOB PERFORMANCE AND PROFICIENCY ABOUT:
11/23/82

SUPERVISOR

APPROVAL, LEVEL III

DATE

DATE

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FIGURE 4

TEXAS UTILITIES GENERATING COMPANY
QUALITY ASSURANCE DEPARTMENT
QUALITY CONTROL RECERTIFICATION

NAME: _____ DATE: _____

LEVEL OF CERTIFICATION: QC TECHNICIAN (LEVEL 1)

ACTIVITY CERTIFIED TO PERFORM: _____

TUGCO PROCEDURE/INSTRUCTION NO.(S): _____

TYPE OF RECERTIFICATION EXAM GIVEN:

_____ ORAL _____ WRITTEN _____ PRACTICAL

RESULTS OF RECERTIFICATION EXAM: _____

COMMENTS: BASED ON PREVIOUS CERTIFICATION IN THIS ACTIVITY,
AND CONTINUED SATISFACTORY PERFORMANCE, THE ABOVE NAMED INDIVIDUAL IS HEREBY RECERTIFIED AND AUTHORIZED TO PERFORM ACTIVE QC INSPECTIONS AT CPSES IN THE AREAS LISTED ABOVE. THIS RECERTIFICATION WILL EXPIRE IN ONE YEAR IF NO INSPECTIONS ARE PERFORMED, AND REGARDLESS ON _____.

SUPERVISOR

APPROVAL

DATE

DATE

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TRAINING OF INSPECTION PERSONNEL	PREPARED BY: <u>C. M. Morris</u> <u>11/29/82</u> DATE			
	APPROVED BY: <u>L. H. Dean</u> <u>11/29/82</u> DATE			

1.0 REFERENCES

None

2.0 GENERAL

The purpose of this procedure is to establish the minimum requirements for training, qualification and certification of personnel performing inspection to provide assurance that these personnel have and maintain the appropriate knowledge and skill to properly perform their assigned responsibility.

The requirements contained herein apply to inspection personnel involved with activities not under the jurisdiction of the ASME Code, Section III, Division I.

3.0 PROCEDURE

The TUGCO QA Supervisor is responsible for the training and certification of inspection personnel. In order to develop professional growth, the Training Coordinator is delegated responsibility to develop individual Training outlines for inspection personnel, depending on experience and education.

Personnel performing inspection should have experience in and shall have completed a technical training course and examination in their area of inspection responsibilities.

The education, experience and on the job training, specified in this procedure or supplementary instructions may be reduced by the Quality Control Supervisor or Site QA Supervisor when other factors can provide reasonable assurance that personnel under his direction can competently perform a particular task as prescribed by detailed written Quality Procedures/Instructions. Such decisions shall be documented as part of the certification process and shall be included in the inspector's personnel file.

TUGCO QA

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The Training Coordinator is designated responsibility to maintain the inspector personnel file consistent with this Procedure and applicable Instructions, within the Permanent Plant Records Vault.

3.1 INDOCTRINATION AND TRAINING

The following are minimum indoctrination and training requirements for inspection personnel. Indoctrination requirements shall normally be satisfied within the first sixty days of employment, and shall be documented on Figure 1.

Personnel satisfying documented technical training requirements may be assigned to inspection or testing functions prior to completion of the QA indoctrination requirements.

a. 10CFR50, Appendix B; ANSI N45.2

The method of presentation of this material will be by reading/study assignment, informal discussions, seminars or other appropriate means. An oral checkout covering ANSI N45.2 and the 18 Criteria will be given by the responsible supervisor who shall, upon satisfactory completion, so note by signing the General Training Outline (Figure 1).

b. Industry Standards

Inspection personnel should become familiar with prepared standards (ANSI, IEEE, ASME, etc.) applicable to assigned duties. The method of presentation may be through study, formal seminars, or other appropriate means. Supplemental exposure is acquired by daily association with these standards. The familiarization is a continuing process and as such requires no formal checkout.

c. 10CFR50.55(e) and 10CFR 21

The method of presentation will be by assigned reading, study and/or training sessions. Upon completion and understanding of the basic requirements as they relate to job duties and responsibilities, the individual shall so note by signing the Training Outline. Formal or informal training sessions shall emphasize the need for prompt reporting of product deficiencies or failures to the TUGCO Site QA Supervisor.

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3.2 PERSONNEL CAPABILITIES

There are three levels of qualification. The requirements for each level are not limiting with regard to organizational position of professional status, but rather, are limiting with regard to functional activities.

3.2.1 QC Technician (Level I) Capabilities

A QC Technician shall be capable of performing the inspections, examinations, and tests that are required to be performed in accordance with documented instructions. The individual shall be familiar with the tools and equipment to be employed and shall have demonstrated proficiency in their use. The individual shall also be capable of determining that the calibration status of inspection and measuring equipment is current, that the measuring and test equipment is in proper condition for use, and that the inspection, examination, and test procedures are approved.

3.2.2 QC Inspector (Level II) Capabilities

A QC Inspector shall have all of the capabilities of a QC Technician for the inspection, examination or test. Additionally, a QC Inspector shall have demonstrated capabilities in planning inspections, examinations, and tests; in setting up tests including preparation and set-up of related equipment, as appropriate; in supervising or maintaining surveillance over the inspections, examinations, and tests; in reporting inspection, examinations, and testing results; and in evaluating the validity and acceptability of inspection, examination, and test results.

3.2.3 Level III Personnel Capabilities

A Level III person shall have all of the capabilities of a QC Inspector for the inspection, examination or test. In addition, the individual shall also be capable of evaluating the adequacy of specific programs used to train and test inspection, examinations, and test personnel whose qualifications are covered by this procedure.

3.3 EDUCATION AND EXPERIENCE

The following is the recommended personnel education and experience for each level. These education and experience recommendations should be treated to recognize that other factors may provide reasonable assurance that a person can

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competently perform a particular task. Other factors which may demonstrate capability in a given job are previous performance or satisfactory completion of capability testing.

Use of the measures outlined in this section to establish that an individual has the required qualifications in lieu of required education and experience shall result in documented objective evidence (i.e., procedures and record of written test) demonstrating that the individual indeed does have "comparable" or "equivalent" competence to that which would be gained from having the required education and experience. This determination shall be made by the TUGCO QA Site Supervisor.

3.3.1 QC Technician (Level I)

A QC Technician shall have:

- a. High school graduation and six months of related experience in equivalent inspection, examination, or testing activities, or
- b. Completion of college level work leading to an Associate Degree in related discipline plus three months of related experience in equivalent inspection, examination, or testing activities, or
- c. Four-year college degree with no experience in equivalent inspection, examination or testing activities.

3.3.2 QC Inspector (Level II)

A QC Inspector shall have:

- a. One year of satisfactory performance as QC Technician in the corresponding inspection, examination or test category, or
- b. High school graduation plus three years of related experience in equivalent inspection, examination, or testing activities, or
- c. Completion of college level work leading to an Associate Degree in a related discipline plus one year related experience in equivalent inspection, examination, or testing activities, or

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- d. Four-year college graduation plus six months of related experience in equivalent inspection, examination, or testing activities.

3.3.3 Level III

A Level III shall have:

- a. Six years of satisfactory performance as a QC Inspector in the corresponding inspection, examination or test category, or
- b. High school graduation plus ten years of related experience in equivalent inspection, examination, or testing activities, or high school graduation plus eight years experience in equivalent inspection, examination, or testing activities, with at least two years as QC Inspector and with at least two years associated with nuclear facilities--or if not, at least sufficient training to be acquainted with the relevant quality assurance aspects of a nuclear facility, or
- c. Completion of college level work leading to an Associate Degree and seven years of related experience in equivalent inspection, examination, or testing activities, with at least two years of this experience associated with nuclear facilities--or if not, at least sufficient training to be acquainted with the relevant quality assurance aspects of a nuclear facility, or
- d. Four-year college graduation plus five years of related experience in equivalent inspection, examination, or testing activities, with at least two years of this experience associated with nuclear facilities--or if not, at least sufficient training to be acquainted with the relevant quality assurance aspects of a nuclear facility.

3.4 PHYSICAL REQUIREMENTS

Each person who performs inspections shall be physically capable of performing the assigned task. As a minimum, inspection personnel shall have:

- a. Natural or corrected near distance acuity such that the inspection person is capable of reading J-1 letters on a standard Jaeger's test type chart for near vision or equivalent test type. This test shall be performed annually.

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b. Color vision as applicable.

NOTE: Waivers may be granted on a case-by-case basis by the TUGCO Site QA Supervisor.

3.5 ON THE JOB TRAINING (OJT)

Minimum on the job training requirements are established within each discipline instruction. On the job training shall be under the direct supervision of a qualified Inspector or Instructor. Qualification as an OJT Instructor shall be certified on the Instructor qualification form. (Figure 2).

3.6 EXAMINATIONS

Examinations may be oral, written, practical or any combination thereof. Discipline or functional supervisors are responsible for administering oral and/or practical examinations and assembling the results in a manner suitable for a review by the Quality Engineering staff, who shall administer a written examination. Waivers for any examinations must be approved by the TUGCO Site QA Supervisor.

3.7 CERTIFICATION

Inspection personnel shall be certified by the TUGCO Site QA Supervisor as being qualified to perform their assigned tasks. The Inspection Certification Form (Figure 3) shall be used to document this certification. The Inspection Certification Form shall be placed in the person's file along with the individual's Training Outline(s). The effective period of certification shall be three (3) years, at which time the person will be re-evaluated and, if appropriate, additional training will be conducted. He may then be recertified and documented on the Quality Control Recertification Form (Figure 4) and this will be filed in the person's file.

Discipline or functional supervisors may require additional training and recertification of personnel under their control at any time that performance warrants.

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FIGURE 1

COMANCHE PEAK STEAM ELECTRIC STATION

- GENERAL TRAINING OUTLINE

TO BE COMPLETED BY: _____
(60 Days After Employment)

NAME: _____

DOCUMENT:

SIGNATURE / DATE

1. Final Safety Analysis Report

Chapter(s) 17 _____

2. Title 10 Code of Federal Regulations,
Part 50, Appendix B and ANSI N45.2

3. NRC Regulatory Guides (As Assigned)

4. Industry Standards (As Assigned)

5. QA/QC Procedures and Instructions
(As Assigned)

6. Title 10 Code of Federal Regulations,
Part 21 and 10CFR50.55e

7. Other applicable Documents as listed
below:

TYPICAL

VERIFIED BY _____ DATE _____

OUTLINE APPROVED BY: _____ DATE: _____

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FIGURE 2

TEXAS UTILITIES GENERATING COMPANY
QUALITY ASSURANCE DEPARTMENT
INSTRUCTOR QUALIFICATION

NAME: _____ DATE: _____
 LEVEL OF CERTIFICATION: _____
 ACTIVITY CERTIFIED TO PERFORM: _____
 TUGCO PROCEDURE/INSTRUCTION NO.: _____
 TYPE OF EXAMINATION GIVEN: ☐ ORAL ☐ WRITTEN ☐ PRACTICAL
 RESULT OF EXAMINATION(s): _____

COMMENTS: Based upon a consideration of the education, previous work experience, formal training in the current revision of the CPSES procedure/instruction, and the individual's own on-the-job training, a previous certification has been made for this Q.C. Technician in this activity. A satisfactory evaluation of the individual's demonstrated proficiency in the performance of daily work has now been made, and, with recognition that the CPSES QC Inspector training program addresses specific QC inspection functions, it is felt that there is reasonable assurance that the individual can competently perform as an QJT QC Instructor in this activity. This certification specifically covers giving QJT instruction in this procedure, including the use of personal knowledge and observation to participate in the On-The-Job Q.C. Trainee's instruction. This QJT Training Certification expires in one year if no inspections are performed in this activity by the individual, and regardless, on _____.

Supervisor

Approval

TYPICAL

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FIGURE 3

TEXAS UTILITIES GENERATING COMPANY
QUALITY ASSURANCE DEPARTMENT
INSPECTION CERTIFICATION

NAME John Smith DATE 11/23/81
 LEVEL OF CERTIFICATION QC Technician--Random Conduit Fabrication
 ACTIVITY CERTIFIED TO PERFORM: Evaluation of Random Conduit
Fabrication Activities UNTIL: 11/23/83
 DATE
 TUGCO PROCEDURE/INSTRUCTION NO.: CP-QP-11.3-30
 TYPE OF EXAMINATION GIVEN: XX ORAL XX WRITTEN XX PRACTICAL
 RESULT OF EXAMINATION(S): Satisfactory Oral in QC Office, 82.2%
on written examination; Practical examination with satisfactory
results before QC Supervisor H. Williams.
 COMMENT: Trainee qualified with examinations, OJT training and
14 years' experience.
 RELATED EXPERIENCE: 14 YEARS
 EDUCATION: H.S. plus 3 years not yet GRADUATION/DEGREE
college
 FORMAL TRAINING: Rev. 14 of procedure 11.3-30 COMPLETED
 OJT TRAINING: Satisfactory - 43.5 HOURS THIS ACTIVITY
 EXAMINATION: Satisfactory - 82.2
 EVALUATED ON: 11/23/81 WITH CONSIDERATION OF RECORDS OF
 EDUCATION, EXPERIENCE AND TRAINING, JOB PROFICIENCY AND DEMON-
 STRATED SKILL BY: H. Williams, QC Supervisor
 PHYSICAL HEALTH: Satisfactory FOR ASSIGNED TASK OF
 THIS PROCEDURE/ACTIVITY. RECOMMEND ASSIGNMENT AS LEVEL 1
 WITH RE-EVALUATION OF JOB PERFORMANCE AND PROFICIENCY ABOUT:
11/23/82

TYPICAL

SUPERVISOR _____ APPROVAL, LEVEL III _____
 DATE _____ DATE _____

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FIGURE 4

TEXAS UTILITIES GENERATING COMPANY
QUALITY ASSURANCE DEPARTMENT
QUALITY CONTROL RECERTIFICATION

NAME: _____ DATE: _____

LEVEL OF CERTIFICATION: QC TECHNICIAN (LEVEL 1)

ACTIVITY CERTIFIED TO PERFORM: _____

TUGCO PROCEDURE/INSTRUCTION NO.(S): _____

TYPE OF RECERTIFICATION EXAM GIVEN:

_____ ORAL _____ WRITTEN _____ PRACTICAL

RESULTS OF RECERTIFICATION EXAM: _____

COMMENTS: BASED ON PREVIOUS CERTIFICATION IN THIS ACTIVITY,
AND CONTINUED SATISFACTORY PERFORMANCE, THE ABOVE NAMED INDIVIDUAL IS HEREBY RECERTIFIED AND AUTHORIZED TO PERFORM ACTIVE QC INSPECTIONS AT CPSES IN THE AREAS LISTED ABOVE. THIS RECERTIFICATION WILL EXPIRE IN ONE YEAR IF NO INSPECTIONS ARE PERFORMED, AND REGARDLESS ON _____.

SUPERVISOR

APPROVAL

DATE

DATE

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TRAINING OF INSPECTION PERSONNEL	PREPARED BY: <u>Jerry C. Walter</u> <u>11/4/81</u> DATE			
	APPROVED BY: <u>[Signature]</u> <u>11/4/81</u> DATE			

1.0 REFERENCES

None

2.0 GENERAL

The purpose of this procedure is to establish the minimum requirements for training, qualification and certification of personnel performing inspection to provide assurance that these personnel have and maintain the appropriate knowledge and skill to properly perform their assigned responsibility.

The requirements contained herein apply to inspection personnel involved with activities not under the jurisdiction of the ASME Code, Section III, Division I.

3.0 PROCEDURE

The TUGCO QA Supervisor is responsible for the training and certification of inspection personnel. In order to develop professional growth, the Training Coordinator is delegated responsibility to develop individual Training outlines for inspection personnel, depending on experience and education.

Personnel performing inspection should have experience in and shall have completed a technical training course and examination in their area of inspection responsibilities.

The education, experience and on the job training, specified in this procedure or supplementary instructions may be reduced by the Quality Control Supervisor or Site QA Supervisor when other factors can provide reasonable assurance that personnel under his direction can competently perform a particular task as prescribed by detailed written Quality Procedures/Instructions. Such decisions shall be documented as part of the certification process and shall be included in the inspector's personnel file.

HISTORICAL FILE
FOR INFORMATION ONLY

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The Training Coordinator is designated responsibility to maintain the inspector personnel file consistent with this Procedure and applicable Instructions, within the Permanent Plant Records Vault.

3.1 INDOCTRINATION AND TRAINING

The following are minimum indoctrination and training requirements for inspection personnel. Indoctrination requirements shall normally be satisfied within the first sixty days of employment, and shall be documented on Figure 1.

Personnel satisfying documented technical training requirements may be assigned to inspection or testing functions prior to completion of the QA indoctrination requirements.

a. 10CFR50, Appendix B; ANSI N45.2

The method of presentation of this material will be by reading/study assignment, informal discussions, seminars or other appropriate means. An oral checkout covering ANSI N45.2.6 and the 18 Criteria will be given by the responsible supervisor who shall, upon satisfactory completion, so note by signing the General Training Outline (Figure 1).

b. Industry Standards

Inspection personnel should become familiar with prepared standards (ANSI, IEEE, ASME, etc.) applicable to assigned duties. The method of presentation may be through study, formal seminars, or other appropriate means. Supplemental exposure is acquired by daily association with these standards. The familiarization is a continuing process and as such requires no formal checkout.

c. 10CFR50.55(e) and 10CFR 21

The method of presentation will be by assigned reading, study and/or training sessions. Upon completion and understanding of the basic requirements as they relate to job duties and responsibilities, the individual shall so note by signing the Training Outline. Formal or informal training sessions shall emphasize the need for prompt reporting of product deficiencies or failures to the TUGCO Site QA Supervisor.

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3.2 PERSONNEL CAPABILITIES

There are three levels of qualification. The requirements for each level are not limiting with regard to organizational position of professional status, but rather, are limiting with regard to functional activities.

3.2.1 QC Technician (Level I) Capabilities

A QC Technician shall be capable of performing the inspections, examinations, and tests that are required to be performed in accordance with documented instructions. The individual shall be familiar with the tools and equipment to be employed and shall have demonstrated proficiency in their use. The individual shall also be capable of determining that the calibration status of inspection and measuring equipment is current, that the measuring and test equipment is in proper condition for use, and that the inspection, examination, and test procedures are approved.

3.2.2 QC Inspector (Level II) Capabilities

A QC Inspector shall have all of the capabilities of a QC Technician for the inspection, examination or test. Additionally, a QC Inspector shall have demonstrated capabilities in planning inspections, examinations, and tests; in setting up tests including preparation and set-up of related equipment, as appropriate; in supervising or maintaining surveillance over the inspections, examinations, and tests; in reporting inspection, examinations, and testing results; and in evaluating the validity and acceptability of inspection, examination, and test results.

3.2.3 Level III Personnel Capabilities

A Level III person shall have all of the capabilities of a QC Inspector for the inspection, examination or test. In addition, the individual shall also be capable of evaluating the adequacy of specific programs used to train and test inspection, examinations, and test personnel whose qualifications are covered by this procedure.

3.3 EDUCATION AND EXPERIENCE

The following is the recommended personnel education and experience for each level. These education and experience recommendations should be treated to recognize that other factors may provide reasonable assurance that a person can

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competently perform a particular task. Other factors which may demonstrate capability in a given job are previous performance or satisfactory completion of capability testing.

Use of the measures outlined in this section to establish that an individual has the required qualifications in lieu of required education and experience shall result in documented objective evidence (i.e., procedures and record of written test) demonstrating that the individual indeed does have "comparable" or "equivalent" competence to that which would be gained from having the required education and experience. This determination shall be made by the TUGCO QA Site Supervisor.

3.3.1 QC Technician (Level I)

A QC Technician shall have:

- a. High school graduation and six months of related experience in equivalent inspection, examination, or testing activities, or
- b. Completion of college level work leading to an Associate Degree in related discipline plus three months of related experience in equivalent inspection, examination, or testing activities, or
- c. Four-year college degree with no experience in equivalent inspection, examination or testing activities.

3.3.2 QC Inspector (Level II)

A QC Inspector shall have:

- a. One year of satisfactory performance as QC Technician in the corresponding inspection, examination or test category, or
- b. High school graduation plus three years of related experience in equivalent inspection, examination, or testing activities, or
- c. Completion of college level work leading to an Associate Degree in a related discipline plus one year related experience in equivalent inspection, examination, or testing activities, or

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- d. Four-year college graduation plus six months of related experience in equivalent inspection, examination, or testing activities.

3.3.3 Level III

A Level III shall have:

- a. Six years of satisfactory performance as a QC Inspector in the corresponding inspection, examination or test category, or
- b. High school graduation plus ten years of related experience in equivalent inspection, examination, or testing activities, or high school graduation plus eight years experience in equivalent inspection, examination, or testing activities, with at least two years as QC Inspector and with at least two years associated with nuclear facilities--or if not, at least sufficient training to be acquainted with the relevant quality assurance aspects of a nuclear facility, or
- c. Completion of college level work leading to an Associate Degree and seven years of related experience in equivalent inspection, examination, or testing activities, with at least two years of this experience associated with nuclear facilities--or if not, at least sufficient training to be acquainted with the relevant quality assurance aspects of a nuclear facility, or
- d. Four-year college graduation plus five years of related experience in equivalent inspection, examination, or testing activities, with at least two years of this experience associated with nuclear facilities--or if not, at least sufficient training to be acquainted with the relevant quality assurance aspects of a nuclear facility.

3.4 PHYSICAL REQUIREMENTS

Each person who performs inspections shall be physically capable of performing the assigned task. As a minimum, inspection personnel shall have:

- a. Natural or corrected near distance acuity such that the inspection person is capable of reading J-1 letters on a standard Jaeger's test type chart for near vision or equivalent test type. This test shall be performed annually.

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b. Color vision as applicable.

NOTE: Waivers may be granted on a case-by-case basis by the TUGCO Site QA Supervisor.

3.5 ON THE JOB TRAINING (OJT)

Minimum on the job training requirements are established within each discipline instruction. On the job training shall be under the direct supervision of a qualified Inspector or Instructor. Qualification as an OJT Instructor shall be certified on the Instructor qualification form. (Figure 2).

3.6 EXAMINATIONS

Examinations may be oral, written, practical or any combination thereof. Discipline or functional supervisors are responsible for administering oral and/or practical examinations and assembling the results in a manner suitable for a review by the Quality Engineering staff, who shall administer a written examination. Waivers for any examinations must be approved by the TUGCO Site QA Supervisor.

3.7 CERTIFICATION

Inspection personnel shall be certified by the TUGCO Site QA Supervisor as being qualified to perform their assigned tasks. The Inspection Certification Form (Figure 3) shall be used to document this certification. The Inspection Certification Form shall be placed in the person's file along with the individual's Training Outline(s). The effective period of certification shall be three (3) years, at which time the person will be re-evaluated and, if appropriate, additional training will be conducted. He may then be recertified and documented on the Quality Control Recertification Form (Figure 4) and this will be filed in the person's file.

Discipline or functional supervisors may require additional training and recertification of personnel under their control at any time that performance warrants.

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FIGURE 1

COMANCHE PEAK STEAM ELECTRIC STATION

• GENERAL TRAINING OUTLINE

TO BE COMPLETED BY: _____
(60 Days After Employment)

NAME: _____

DOCUMENT:

SIGNATURE / DATE

1. Final Safety Analysis Report

Chapter(s) 17 _____

2. Title 10 Code of Federal Regulations,

Part 50, Appendix B and ANSI N45.2 _____

3. NRC Regulatory Guides (As Assigned) _____

4. Industry Standards (As Assigned) _____

5. QA/QC Procedures and Instructions

(As Assigned) _____

6. Title 10 Code of Federal Regulations,

Part 21 and 10CFR50.55e _____

7. Other applicable Documents as listed
below: _____

TYPICAL

VERIFIED _____ DATE _____

OUTLINE APPROVED BY: _____ DATE: _____

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FIGURE 2

TEXAS UTILITIES GENERATING COMPANY
QUALITY ASSURANCE DEPARTMENT
INSTRUCTOR QUALIFICATION

NAME: _____ DATE: _____
 LEVEL OF CERTIFICATION: _____
 ACTIVITY CERTIFIED TO PERFORM: _____

 TUGCO PROCEDURE/INSTRUCTION NO.: _____
 TYPE OF EXAMINATION GIVEN: _____ ORAL _____ WRITTEN _____ PRACTICAL
 RESULT OF EXAMINATION(s): _____

COMMENTS: Based upon a consideration of the education, previous work experience, formal training in the current revision of the CPSES procedure/instruction, and the individual's own on-the-job training, a previous certification has been made for this Q.C. Technician in this activity. A satisfactory evaluation of the individual's demonstrated proficiency in the performance of daily work has now been made, and, with recognition that the CPSES QC Inspector training program addresses specific QC inspection functions, it is felt that there is reasonable assurance that the individual can competently perform as an OJT QC Instructor in this activity. This certification specifically covers giving OJT instruction in this procedure, including the use of personal knowledge and observation to participate in the On-The-Job Q.C. Trainee's instruction. This OJT Training Certification expires in one year if no inspections are performed in this activity by the individual, and regardless, on _____.

Supervisor

Approval

TYPICAL

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FIGURE 3

TEXAS UTILITIES GENERATING COMPANY
QUALITY ASSURANCE DEPARTMENT
INSPECTION CERTIFICATION

NAME John Smith DATE 11/23/81
 LEVEL OF CERTIFICATION QC Technician--Random Conduit Fabrication
 ACTIVITY CERTIFIED TO PERFORM: Evaluation of Random Conduit
Fabrication Activities UNTIL: 11/23/83
 DATE
 TUGCO PROCEDURE/INSTRUCTION NO.: CP-QP-11.3-30
 TYPE OF EXAMINATION GIVEN: XX ORAL XX WRITTEN XX PRACTICAL
 RESULT OF EXAMINATION(S): Satisfactory Oral in QC Office: 82.2%
on written examination; Practical examination with satisfactory
results before QC Supervisor H. Williams.
 COMMENTS: Trainee qualified with examinations, QJT training and
14 years' experience.
 RELATED EXPERIENCE: 14 YEARS
 EDUCATION: H.S. plus 3 years not yet GRADUATION/DEGREE
college
 FORMAL TRAINING: Rev. 14 of procedure 11.3-30 COMPLETED
 QJT TRAINING: Satisfactory - 43.5 HOURS THIS ACTIVITY
 EXAMINATION: Satisfactory - 82.2
 EVALUATED ON: 11/23/81 WITH CONSIDERATION OF RECORDS OF
 EDUCATION, EXPERIENCE AND TRAINING, JOB PROFICIENCY AND DEMON-
 STRATED SKILL BY: H. Williams, QC Supervisor
 PHYSICAL HEALTH: Satisfactory FOR ASSIGNED TASK OF
 THIS PROCEDURE/ACTIVITY. RECOMMEND ASSIGNMENT AS LEVEL 1
 WITH RE-EVALUATION OF JOB PERFORMANCE AND PROFICIENCY ABOUT:
11/23/82

TYPICAL

SUPERVISOR

APPROVAL, LEVEL III

DATE

DATE

TUGCC OA

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FIGURE 4

TEXAS UTILITIES GENERATING COMPANY
QUALITY ASSURANCE DEPARTMENT
QUALITY CONTROL RECERTIFICATION

NAME: _____ DATE: _____

LEVEL OF CERTIFICATION: QC TECHNICIAN (LEVEL 1)

ACTIVITY CERTIFIED TO PERFORM: _____

TUGCO PROCEDURE/INSTRUCTION NO.(S): _____

TYPE OF RECERTIFICATION EXAM GIVEN:

_____ ORAL _____ WRITTEN _____ PRACTICAL

RESULTS OF RECERTIFICATION EXAM: _____

COMMENTS: BASED ON PREVIOUS CERTIFICATION IN THIS ACTIVITY,
AND CONTINUED SATISFACTORY PERFORMANCE, THE ABOVE NAMED INDIVIDUAL IS HEREBY RECERTIFIED AND AUTHORIZED TO PERFORM ACTIVE QC INSPECTIONS AT CPSES IN THE AREAS LISTED ABOVE. THIS RECERTIFICATION WILL EXPIRE IN ONE YEAR IF NO INSPECTIONS ARE PERFORMED, AND REGARDLESS ON _____.

SUPERVISOR

APPROVAL

DATE

DATE

TEXAS UTILITIES GENERATING CO CPSES	PROCEDURE NUMBER	REVISION	ISSUE DATE	PAGE
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TRAINING OF INSPECTION
PERSONNEL

PREPARED BY:

Jerry C. Walker 9-29-81
DATE

APPROVED BY:

L. A. Tolson

9/29/81
DATE

HISTORICAL FILE

1.0 REFERENCES

None

2.0 GENERAL

The purpose of this procedure is to establish the minimum requirements for training, qualification and certification of personnel performing inspection to provide assurance that these personnel have and maintain the appropriate knowledge and skill to properly perform their assigned responsibility.

The requirements contained herein apply to inspection personnel involved with activities not under the jurisdiction of the ASME Code, Section III, Division I.

3.0 PROCEDURE

The TUGCO QA Supervisor is responsible for the training and certification of inspection personnel. In order to develop professional growth, the Training Coordinator is delegated responsibility to develop individual Training outlines for inspection personnel, depending on experience and education.

Personnel performing inspection should have experience in and shall have completed a technical training course and examination in their area of inspection responsibilities.

The education, experience and on the job training, specified in this procedure or supplementary instructions may be reduced by the Quality Control Supervisor or Site QA Supervisor when other factors can provide reasonable assurance that personnel under his direction can competently perform a particular task as prescribed by detailed written Quality Procedures/Instructions. Such decisions shall be documented as part of the certification process and shall be included in the inspector's personnel file.

FOR INFORMATION ONLY

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The Training Coordinator is designated responsibility to maintain the inspector personnel file consistent with this Procedure and applicable Instructions, within the Permanent Plant Records Vault.

3.1 INDOCTRINATION AND TRAINING

The following are minimum indoctrination and training requirements for inspection personnel. Indoctrination requirements shall normally be satisfied within the first sixty days of employment, and shall be documented on Figure 1.

Personnel satisfying documented technical training requirements may be assigned to inspection or testing functions prior to completion of the QA indoctrination requirements.

a. 10CFR50, Appendix B; ANSI N45.2

The method of presentation of this material will be by reading/study assignment, informal discussions, seminars or other appropriate means. An oral checkout covering ANSI N45.2.6 and the 18 Criteria will be given by the responsible supervisor who shall, upon satisfactory completion, so note by signing the General Training Outline (Figure 1).

b. Industry Standards

Inspection personnel should become familiar with prepared standards (ANSI, IEEE, ASME, etc.) applicable to assigned duties. The method of presentation may be through study, formal seminars, or other appropriate means. Supplemental exposure is acquired by daily association with these standards. The familiarization is a continuing process and as such requires no formal checkout.

c. 10CFR50.55(e) and 10CFR 21

The method of presentation will be by assigned reading, study and/or training sessions. Upon completion and understanding of the basic requirements as they relate to job duties and responsibilities, the individual shall so note by signing the Training Outline. Formal or informal training sessions shall emphasize the need for prompt reporting of product deficiencies or failures to the TUGCO Site QA Supervisor.

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3.2 PERSONNEL CAPABILITIES

There are three levels of qualification. The requirements for each level are not limiting with regard to organizational position or professional status, but rather, are limiting with regard to functional activities.

3.2.1 QC Technician (Level I) Capabilities

A QC Technician shall be capable of performing the inspections, examinations, and tests that are required to be performed in accordance with documented instructions. The individual shall be familiar with the tools and equipment to be employed and shall have demonstrated proficiency in their use. The individual shall also be capable of determining that the calibration status of inspection and measuring equipment is current, that the measuring and test equipment is in proper condition for use, and that the inspection, examination, and test procedures are approved.

3.2.2 QC Inspector (Level II) Capabilities

A QC Inspector shall have all of the capabilities of a QC Technician for the inspection, examination or test. Additionally, a QC Inspector shall have demonstrated capabilities in planning inspections, examinations, and tests; in setting up tests including preparation and set-up of related equipment, as appropriate; in supervising or maintaining surveillance over the inspections, examinations, and tests; in reporting inspection, examinations, and testing results; and in evaluating the validity and acceptability of inspection, examination, and test results.

3.2.3 Level III Personnel Capabilities

A Level III person shall have all of the capabilities of a QC Inspector for the inspection, examination or test. In addition, the individual shall also be capable of evaluating the adequacy of specific programs used to train and test inspection, examinations, and test personnel whose qualifications are covered by this procedure.

3.3 EDUCATION AND EXPERIENCE

The following is the recommended personnel education and experience for each level. These education and experience recommendations should be treated to recognize that other factors may provide reasonable assurance that a person can

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competently perform a particular task. Other factors which may demonstrate capability in a given job are previous performance or satisfactory completion of capability testing.

Use of the measures outlined in this section to establish that an individual has the required qualifications in lieu of required education and experience shall result in documented objective evidence (i.e., procedures and record of written test) demonstrating that the individual indeed does have "comparable" or "equivalent" competence to that which would be gained from having the required education and experience. This determination shall be made by the TUGCO QA Site Supervisor.

3.3.1 QC Technician (Level I)

A QC Technician shall have:

- a. High school graduation and six months of related experience in equivalent inspection, examination, or testing activities, or
- b. Completion of college level work leading to an Associate Degree in related discipline plus three months of related experience in equivalent inspection, examination, or testing activities.
- c. Four-year college degree with no experience in equivalent inspection, examination or testing activities.

3.3.2 QC Inspector (Level II)

A QC Inspector shall have:

- a. One year of satisfactory performance as QC Technician in the corresponding inspection, examination or test category, or
- b. High school graduation plus three years of related experience in equivalent inspection, examination, or testing activities, or
- c. Completion of college level work leading to an Associate Degree in a related discipline plus one year related experience in equivalent inspection, examination, or testing activities, or

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- d. Four-year college graduation plus six months of related experience in equivalent inspection, examination, or testing activities.

3.3.3

Level III

A Level III shall have:

- a. Six years of satisfactory performance as a QC Inspector in the corresponding inspection, examination or test category, or
- b. High school graduation plus ten years of related experience in equivalent inspection, examination, or testing activities, or high school graduation plus eight years experience in equivalent inspection, examination, or testing activities, with at least two years as QC Inspector and with at least two years associated with nuclear facilities--or if not, at least sufficient training to be acquainted with the relevant quality assurance aspects of a nuclear facility, or
- c. Completion of college level work leading to an Associate Degree and seven years of related experience in equivalent inspection, examination, or testing activities, with at least two years of this experience associated with nuclear facilities--or if not, at least sufficient training to be acquainted with the relevant quality assurance aspects of a nuclear facility, or
- d. Four-year college graduation plus five years of related experience in equivalent inspection, examination, or testing activities, with at least two years of this experience associated with nuclear facilities--or if not, at least sufficient training to be acquainted with the relevant quality assurance aspects of a nuclear facility.

3.4

PHYSICAL REQUIREMENTS

Each person who performs inspections shall be physically capable of performing the assigned task. As a minimum, inspection personnel shall have:

- a. Natural or corrected near distance acuity such that the inspection person is capable of reading J-1 letters on a standard Jaeger's test type chart for near vision or equivalent test type.

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b. Color vision as applicable.

NOTE: Waivers may be granted on a case-by-case basis by the TUGCO Site QA Supervisor.

3.5 ON THE JOB TRAINING (OJT)

Minimum on the job training requirements are established within each discipline instruction. On the job training shall be under the direct supervision of a qualified Inspector or Instructor. Qualification as an OJT Instructor shall be certified on the Instructor qualification form. (Figure 2).

3.6 EXAMINATIONS

Examinations may be oral, written, practical or any combination thereof. Discipline or functional supervisors are responsible for administering oral and/or practical examinations and assembling the results in a manner suitable for a review by the Quality Engineering staff, who shall administer a written examination. Waivers for any examinations must be approved by the TUGCO Site QA Supervisor.

3.7 CERTIFICATION

Inspection personnel shall be certified by the TUGCO Site QA Supervisor as being qualified to perform their assigned tasks. The Inspection Certification Form (Figure 3) shall be used to document this certification. The Inspection Certification Form shall be placed in the person's file along with the individual's Training Outline(s). The effective period of certification shall be three (3) years, at which time the person will be re-evaluated and, if appropriate, additional training will be conducted. He may then be recertified and documented on the Quality Control Recertification Form (Figure 4) and this will be filed in the person's file.

Discipline or functional supervisors may require additional training and recertification of personnel under their control at any time that performance warrants.

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FIGURE 1

COMANCHE PEAK STEAM ELECTRIC STATION

GENERAL TRAINING OUTLINE

TO BE COMPLETED BY: _____
(60 Days After Employment)

NAME: _____

DOCUMENT:

SIGNATURE / DATE

1. Final Safety Analysis Report

Chapter(s) 17 _____

2. Title 10 Code of Federal Regulations,

Part 50, Appendix B and ARSI R45.2 _____

3. NRC Regulatory Guides (As Assigned) _____

4. Industry Standards (As Assigned) _____

5. QA/QC Procedures and Instructions

(As Assigned) _____

6. Title 10 Code of Federal Regulations,

Part 21 and 10CFR50.55e _____

7. Other applicable Documents as listed
below: _____

TYPICAL

VERIFIED BY _____ DATE _____

OUTLINE APPROVED BY: _____ DATE: _____

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FIGURE 2

TEXAS UTILITIES GENERATING COMPANY
QUALITY ASSURANCE DEPARTMENT
INSTRUCTOR QUALIFICATION

NAME: _____ DATE: _____
 LEVEL OF CERTIFICATION: _____
 ACTIVITY CERTIFIED TO PERFORM: _____

 TUGCO PROCEDURE/INSTRUCTION NO.: _____
 TYPE OF EXAMINATION GIVEN: _____ ORAL _____ WRITTEN _____ PRACTICAL
 RESULT OF EXAMINATION(s): _____

COMMENTS: Based upon a consideration of the education, previous work experience, formal training in the current revision of the CPSES procedure/instruction, and the individual's own on-the-job training, a previous certification has been made for this Q.C. Technician in this activity. A satisfactory evaluation of the individual's demonstrated proficiency in the performance of daily work has now been made, and, with recognition that the CPSES QC Inspector training program addresses specific QC inspection functions, it is felt that there is reasonable assurance that the individual can competently perform as an OJT QC Instructor in this activity. This certification specifically covers giving OJT instruction in this procedure, including the use of personal knowledge and observation to participate in the On-The-Job Q.C. Trainee's instruction. This OJT Training Certification expires in one year if no inspections are performed in this activity by the individual, and regardless, on _____.

Supervisor

Approval

TYPICAL

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FIGURE 3

TEXAS UTILITIES GENERATING COMPANY
QUALITY ASSURANCE DEPARTMENT
INSPECTION CERTIFICATION

NAME John Smith DATE 11/23/81
 LEVEL OF CERTIFICATION QC Technician--Random Conduit Fabrication
 ACTIVITY CERTIFIED TO PERFORM: Evaluation of Random Conduit
Fabrication Activities UNTIL: 11/23/83
 DATE
 TUGCO PROCEDURE/INSTRUCTION NO.: CP-QP-11.3-30
 TYPE OF EXAMINATION GIVEN: XX ORAL XX WRITTEN XX PRACTICAL
 RESULT OF EXAMINATION(S): Satisfactory Oral in QC Office; 82.2%
on written examination; Practical examination with satisfactory
results before QC Supervisor H. Williams.
 COMMENTS: Trainee qualified with examinations, OJT training and
14 years' experience.
 RELATED EXPERIENCE: 14 YEARS
 EDUCATION: H.S. plus 3 years not yet GRADUATION/DEGREE
college
 FORMAL TRAINING: Rev. 14 of procedure 11.3-30 COMPLETED
 OJT TRAINING: Satisfactory - 43.5 HOURS THIS ACTIVITY
 EXAMINATION: Satisfactory - 82.2
 EVALUATED ON: 11/23/81 WITH CONSIDERATION OF RECORDS OF
 EDUCATION, EXPERIENCE AND TRAINING, JOB PROFICIENCY AND DEMON-
 STRATED SKILL BY: H. Williams, QC Supervisor
 PHYSICAL HEALTH: Satisfactory FOR ASSIGNED TASK OF
 THIS PROCEDURE/ACTIVITY. RECOMMEND ASSIGNMENT AS LEVEL 1
 WITH RE-EVALUATION OF JOB PERFORMANCE AND PROFICIENCY ABOUT:
11/23/82

TYPICAL

SUPERVISOR

APPROVAL, LEVEL III

DATE

DATE

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FIGURE 4

TEXAS UTILITIES GENERATING COMPANY
QUALITY ASSURANCE DEPARTMENT
QUALITY CONTROL RECERTIFICATION

NAME: _____ DATE: _____

LEVEL OF CERTIFICATION: QC TECHNICIAN (LEVEL 1)

ACTIVITY CERTIFIED TO PERFORM: _____

TUGCO PROCEDURE/INSTRUCTION NO.(S): _____

TYPE OF RECERTIFICATION EXAM GIVEN:
_____ ORAL _____ WRITTEN _____ PRACTICAL

RESULTS OF RECERTIFICATION EXAM: _____

COMMENTS: BASED ON PREVIOUS CERTIFICATION IN THIS ACTIVITY,
AND CONTINUED SATISFACTORY PERFORMANCE, THE ABOVE NAMED INDIVIDUAL IS HEREBY RECERTIFIED AND AUTHORIZED TO PERFORM ACTIVE QC INSPECTIONS AT CPSES IN THE AREAS LISTED ABOVE. THIS RECERTIFICATION WILL EXPIRE IN ONE YEAR IF NO INSPECTIONS ARE PERFORMED, AND REGARDLESS ON _____.

SUPERVISOR _____ APPROVAL _____

DATE _____ DATE _____

TYPICAL

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TRAINING OF INSPECTION PERSONNEL	PREPARED BY: <u>BC Dett</u>			8/3/81 DATE
	APPROVED BY: <u>[Signature]</u>			8/3/81 DATE

HISTORICAL FILE

1.0 REFERENCES

None

2.0 GENERAL

The purpose of this procedure is to establish the minimum requirements for training, qualification and certification of personnel performing inspection to provide assurance that these personnel have and maintain the appropriate knowledge and skill to properly perform their assigned responsibility.

The requirements contained herein apply to inspection personnel involved with activities not under the jurisdiction of the ASME Code, Section III, Division I.

3.0 PROCEDURE

The TUGCO QA Supervisor is responsible for the training and certification of inspection personnel. In order to develop professional growth, the Training Coordinator is delegated responsibility to develop individual Training outlines for inspection personnel, depending on experience and education.

Personnel performing inspection should have experience in and shall have completed a technical training course and examination in their area of inspection responsibilities.

The education, experience and on the job training, specified in this procedure or supplementary instructions may be reduced by the Quality Control Supervisor or Site QA Supervisor when other factors can provide reasonable assurance that personnel under his direction can competently perform a particular task as prescribed by detailed written Quality Procedures/

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Instructions. Such decisions shall be documented as part of the certification process and shall be included in the inspector's personnel file.

The Training Coordinator is designated responsibility to maintain the inspector personnel file consistent with this Procedure and applicable Instructions, within the Permanent Plant Records Vault.

3.1 INDOCTRINATION AND TRAINING

The following are minimum indoctrination and training requirements for inspection personnel. Indoctrination requirements shall normally be satisfied within the first sixty days of employment, and shall be documented on Figure 1.

Personnel satisfying documented technical training requirements may be assigned to inspection or testing functions prior to completion of the QA indoctrination requirements.

a. 10CFR50, Appendix B; ANSI N45.2

The method of presentation of this material will be by reading/study assignment, informal discussions, seminars or other appropriate means. An oral checkout covering ANSI N45.2.6 and the 18 Criteria will be given by the responsible supervisor who shall, upon satisfactory completion, so note by signing the General Training Outline (Figure 1).

b. Industry Standards

Inspection personnel should become familiar with prepared standards (ANSI, IEEE, ASME, etc.) applicable to assigned duties. The method of presentation may be through study, formal seminars, or other appropriate means. Supplemental exposure is acquired by daily association with these standards. The familiarization is a continuing process and as such requires no formal checkout.

c. 10CFR50.55(e) and 10CFR 21

The method of presentation will be by assigned reading, study and/or training sessions. Upon completion and understanding of the basic requirements as they relate to job duties and responsibilities, the individual shall so

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note by signing the Training Outline. Formal or informal training sessions shall emphasize the need for prompt reporting of product deficiencies or failures to the TUGCO Site QA Supervisor.

3.2 PERSONNEL CAPABILITIES

There are three levels of qualification. The requirements for each level are not limiting with regard to organizational position of professional status, but rather, are limiting with regard to functional activities.

3.2.1 QC Technician (Level I) Capabilities

A QC Technician shall be capable of performing the inspections, examinations, and tests that are required to be performed in accordance with documented instructions. The individual shall be familiar with the tools and equipment to be employed and shall have demonstrated proficiency in their use. The individual shall also be capable of determining that the calibration status of inspection and measuring equipment is current, that the measuring and test equipment is in proper condition for use, and that the inspection, examination, and test procedures are approved.

3.2.2 QC Inspector (Level II) Capabilities

A QC Inspector shall have all of the capabilities of a QC Technician for the inspection, examination or test. Additionally, a QC Inspector shall have demonstrated capabilities in planning inspections, examinations, and tests; in setting up tests including preparation and set-up of related equipment, as appropriate; in supervising or maintaining surveillance over the inspections, examinations, and tests; in reporting inspection, examinations, and testing results; and in evaluating the validity and acceptability of inspection, examination, and test results.

3.2.3 Level III Personnel Capabilities

A Level III person shall have all of the capabilities of a QC Inspector for the inspection, examination or test. In addition, the individual shall also be capable of evaluating the adequacy of specific programs used to train and test inspection, examinations, and test personnel whose qualifications are covered by this procedure.

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3.3 EDUCATION AND EXPERIENCE

The following is the recommended personnel education and experience for each level. These education and experience recommendations should be treated to recognize that other factors may provide reasonable assurance that a person can competently perform a particular task. Other factors which may demonstrate capability in a given job are previous performance or satisfactory completion of capability testing.

Use of the measures outlined in this section to establish that an individual has the required qualifications in lieu of required education and experience shall result in documented objective evidence (i.e., procedures and record of written test) demonstrating that the individual indeed does have "comparable" or "equivalent" competence to that which would be gained from having the required education and experience. This determination shall be made by the TUGCO QA Site Supervisor.

3.3.1 QC Technician (Level I)

A QC Technician shall have:

- a. High school graduation and six months of related experience in equivalent inspection, examination, or testing activities, or
- b. Completion of college level work leading to an Associate Degree in related discipline plus three months of related experience in equivalent inspection, examination, or testing activities.
- c. Four-year college degree with no experience in equivalent inspection, examination or testing activities.

3.3.2 QC Inspector (Level II)

A QC Inspector shall have:

- a. One year of satisfactory performance as QC Technician in the corresponding inspection, examination or test category, or
- b. High school graduation plus three years of related experience in equivalent inspection, examination, or testing activities, or

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- c. Completion of college level work leading to an Associate Degree in a related discipline plus one year related experience in equivalent inspection, examination, or testing activities, or
- d. Four-year college graduation plus six months of related experience in equivalent inspection, examination, or testing activities.

3.3.3 Level III

A Level III shall have:

- a. Six years of satisfactory performance as a QC Inspector in the corresponding inspection, examination or test category, or
- b. High school graduation plus ten years of related experience in equivalent inspection, examination, or testing activities, or high school graduation plus eight years experience in equivalent inspection, examination, or testing activities, with at least two years as QC Inspector and with at least two years associated with nuclear facilities--or if not, at least sufficient training to be acquainted with the relevant quality assurance aspects of a nuclear facility, or
- c. Completion of college level work leading to an Associate Degree and seven years of related experience in equivalent inspection, examination, or testing activities, with at least two years of this experience associated with nuclear facilities--or if not, at least sufficient training to be acquainted with the relevant quality assurance aspects of a nuclear facility, or
- d. Four-year college graduation plus five years of related experience in equivalent inspection, examination, or testing activities, with at least two years of this experience associated with nuclear facilities--or if not, at least sufficient training to be acquainted with the relevant quality assurance aspects of a nuclear facility.

3.4 PHYSICAL REQUIREMENTS

Each person who performs inspections shall be physically capable of performing the assigned task. As a minimum, inspection personnel shall have:

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a. Natural or corrected near distance acuity such that the inspection person is capable of reading J-1 letters on a standard Jaeger's test type chart for near vision or equivalent test type.

b. Color vision as applicable.

NOTE: Waivers may be granted on a case-by-case basis by the TUGCO Site QA Supervisor.

3.5 ON THE JOB TRAINING (OJT)

Minimum on the job training requirements are established within each discipline instruction. On the job training shall be under the direct supervision of a qualified Inspector or Instructor. Qualification as an OJT Instructor shall be certified on the Instructor qualification form. (Figure 2).

3.6 EXAMINATIONS

Examinations may be oral, written, practical or any combination thereof. Discipline or functional supervisors are responsible for administering oral and/or practical examinations and assembling the results in a manner suitable for a review by the Quality Engineering staff, who shall administer a written examination. Waivers for any examinations must be approved by the TUGCO Site QA Supervisor.

3.7 CERTIFICATION

Inspection personnel shall be certified by the TUGCO Site QA Supervisor as being qualified to perform their assigned tasks. The effective period of certification shall be three (3) years, at which time the person will be re-evaluated and if appropriate, additional training will be conducted. He may then be recertified. The Inspection Certification (Figure 3) shall be used to document this certification. A copy of the Inspection Certification shall be placed in the person's file along with the individual's Training Outline(s).

Discipline or functional supervisors may require additional training and recertification of personnel under their control at any time that performance warrants.

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FIGURE 1

COMANCHE PEAK STEAM ELECTRIC STATION

• GENERAL TRAINING OUTLINE

TO BE COMPLETED BY: _____
(60 Days After Employment)

NAME: _____

DOCUMENT:

SIGNATURE / DATE

1. Final Safety Analysis Report
Chapter(s) 17 _____
2. Title 10 Code of Federal Regulations,
Part 50, Appendix B and ANSI N45.2

3. NRC Regulatory Guides (As Assigned)

4. Industry Standards (As Assigned)

5. QA/QC Procedures and Instructions
(As Assigned)

6. Title 10 Code of Federal Regulations,
Part 21 and 10CFR50.55e

7. Other applicable Documents as listed
below: _____

THICAL

VERIFIED BY _____ DATE _____

OUTLINE APPROVED BY: _____ DATE: _____

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FIGURE 2

TEXAS UTILITIES GENERATING COMPANY
QUALITY ASSURANCE DEPARTMENT
INSTRUCTOR QUALIFICATION

NAME: _____ DATE: _____
 LEVEL OF CERTIFICATION: _____
 ACTIVITY CERTIFIED TO PERFORM: _____

 TUGCO PROCEDURE/INSTRUCTION NO.: _____
 TYPE OF EXAMINATION GIVEN: _____ ORAL _____ WRITTEN _____ PRACTICAL _____
 RESULT OF EXAMINATION(s): _____

COMMENTS: Based upon a consideration of the education, previous work experience, formal training in the current revision of the CPSES procedure/ instruction, and the individual's own on-the-job training, a previous certification has been made for this Q.C. Technician in this activity. A satisfactory evaluation of the individual's demonstrated proficiency in the performance of daily work has now been made, and, with recognition that the CPSES QC Inspector training program addresses specific QC inspection functions, it is felt that there is reasonable assurance that the individual can competently perform as an OJT QC instructor in this activity. This certification specifically covers giving OJT instruction in this procedure, including the use of personal knowledge and observation to participate in the On-The-Job Q.C. Trainee's instruction. This OJT Training Certification expires in one year if no inspections are performed in this activity by the individual, and regardless, on _____.

Supervisor

Approval

TYPICAL

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FIGURE 3

TEXAS UTILITIES GENERATING COMPANY
QUALITY ASSURANCE DEPARTMENT
INSPECTION CERTIFICATION

NAME John Smith DATE 11/23/81
 LEVEL OF CERTIFICATION QC Technician--Random Conduit Fabrication
 ACTIVITY CERTIFIED TO PERFORM: Evaluation of Random Conduit
Fabrication Activities UNTIL: 11/23/83
 DATE
 TUGCO PROCEDURE/INSTRUCTION NO.: CP-QP-11.3-30
 TYPE OF EXAMINATION GIVEN: XX ORAL XX WRITTEN XX PRACTICAL
 RESULT OF EXAMINATION(S): Satisfactory Oral in QC Office: 82.2%
on written examination; Practical examination with satisfactory
results before QC Supervisor H. Williams.
 COMMENTS: Trainee qualified with examinations, OJT training and
14 years' experience.
 RELATED EXPERIENCE: 14 YEARS
 EDUCATION: H.S. plus 3 years- not yet GRADUATION/DEGREE
college
 FORMAL TRAINING: Rev. 14 of procedure 11.3-30 COMPLETED
 OJT TRAINING: Satisfactory - 43.5 HOURS THIS ACTIVITY
 EXAMINATION: Satisfactory - 82.2
 EVALUATED ON: 11/23/81 WITH CONSIDERATION OF RECORDS OF
 EDUCATION, EXPERIENCE AND TRAINING, JOB PROFICIENCY AND DEMON-
 STRATED SKILL BY: H. Williams, QC Supervisor
 PHYSICAL HEALTH: Satisfactory FOR ASSIGNED TASK OF
 THIS PROCEDURE/ACTIVITY. RECOMMEND ASSIGNMENT AS LEVEL 1
 WITH RE-EVALUATION OF JOB PERFORMANCE AND PROFICIENCY ABOUT:
11/23/82

SUPERVISOR _____ APPROVAL, LEVEL III _____
 DATE _____ DATE _____

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	CP-QP-2.1	7	JUN 5 1981	1 of 7
TRAINING OF INSPECTION PERSONNEL	PREPARED BY: <u>Richard A. Schubert</u>			6.4.1981 DATE
	APPROVED BY: <u>[Signature]</u>			6/4/81 DATE

1.0 REFERENCES

None

2.0 GENERAL

The purpose of this procedure is to establish the minimum requirements for training, qualification and certification of personnel performing inspection to provide assurance that these personnel have and maintain the appropriate knowledge and skill to properly perform their assigned responsibility.

The requirements contained herein apply to inspection personnel involved with activities not under the jurisdiction of the ASME Code, Section III, Division I.

3.0 PROCEDURE

The TUGCO QA Supervisor is responsible for the training and certification of inspection personnel. In order to develop professional growth, the Training Coordinator is delegated responsibility to develop individual Training outlines (Figure 1) for inspection personnel, depending on experience and education. On-the-job (OJT) training shall be under the direct supervision of a qualified Inspector or Instructor. Qualification as OJT Instructor shall be certified on an Instructor qualification form. (Figure 2).

Personnel performing inspection should have experience in and should have completed a technical training course and examination in their area of inspection responsibilities.

The education, experience and on the job training, specified in this procedure or supplementary instructions may be reduced by the Quality Control Supervisor when other factors can provide reasonable assurance that personnel under his direction can competently perform a particular task as prescribed by

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detailed written Quality Procedures/Instructions. Such decisions shall be documented as part of the certification process and shall be included in the inspector's personnel file.

The Training Coordinator is designated responsibility to maintain the inspector personnel file consistent with this Procedure and applicable Instructions, within the Permanent Plant Records Vault.

3.1 INDOCTRINATION AND TRAINING

The following are minimum indoctrination and training requirements for inspection personnel. Indoctrination requirements shall normally be satisfied within the first sixty days of employment, and shall be documented on Figure 1.

Personnel satisfying documented technical training requirements may be assigned to inspection or testing functions prior to completion of the QA indoctrination requirements.

a. 10CFR50, Appendix B; ANSI N45.2

The method of presentation of this material will be by reading/study assignment, informal discussions, seminars or other appropriate means. An oral checkout covering ANSI N45.2.6 and the 18 Criteria will be given by the responsible supervisor who shall, upon satisfactory completion, so note by signing the General Training Outline (Figure 1).

b. Industry Standards

Inspection personnel should become familiar with prepared standards (ANSI, IEEE, ASME, etc.) applicable to assigned duties. The method of presentation may be through study, formal seminars, or other appropriate means. Supplemental exposure is acquired by daily association with these standards. The familiarization is a continuing process and as such requires no formal checkout.

c. 10CFR50.55(e) and 10CFR 21

The method of presentation will be by assigned reading, study and/or training sessions. Upon completion and understanding of the basic requirements as they relate to job duties and responsibilities, the individual shall so

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note by signing the Training Outline. Formal or informal training sessions shall emphasize the need for prompt reporting of product deficiencies or failures to the TUGCO Site QA Supervisor.

d. Technical Training

Minimum training, education and experience requirements will be defined in technical training outlines prepared for specific inspection activities. (Civil, Electrical, etc.)

3.2 PHYSICAL REQUIREMENTS

Each person who performs inspections shall be physically capable of performing the assigned task. As a minimum, inspection personnel shall have:

- a. Natural or corrected near distance acuity such that the inspection person is capable of reading J-1 letters on a standard Jaeger's test type chart for near vision or equivalent test type.
- b. Color vision as applicable.

NOTE: Waivers may be granted on a case-by-case basis by the TUGCO Site QA Supervisor.

3.3 EXAMINATIONS

Examinations may be oral, written, practical or any combination thereof. Discipline or functional supervisors are responsible for administering oral and/or practical examinations and assembling the results in a manner suitable for a review by QA Engineering staff, who shall administer a written examination. Waivers for any examinations must be approved by a Level III CPSES Inspector or Instructor.

3.4 CERTIFICATION

Where specifically required by applicable codes and standards, inspection personnel shall be certified by the TUGCO Site QA Supervisor as being qualified to perform their assigned tasks. The effective period of certification shall be three (3) years, at which time the person will be re-evaluated and if appropriate, additional training will be conducted. He may then be recertified. The Inspection Certification (Figure 3) shall be used to document this certification. A copy of the

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Inspection Certification shall be placed in the person's file along with the individual's Training Outline(s).

Discipline or functional supervisors may require additional training and recertification of personnel under their control at any time that performance warrants.

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FIGURE 1

COMANCHE PEAK STEAM ELECTRIC STATION

+ GENERAL TRAINING OUTLINE

TO BE COMPLETED BY: _____
(50 Days After Employment)

NAME: _____

DOCUMENT:

SIGNATURE / DATE

1. Final Safety Analysis Report
Chapter(s) 17 _____
2. Title 10 Code of Federal Regulations,
Part 50, Appendix B and ANSI N45.2

3. NRC Regulatory Guides (As Assigned)

4. Industry Standards (As Assigned)

5. QA/QC Procedures and Instructions
(As Assigned)

6. Title 10 Code of Federal Regulations,
Part 21 and 19CFR50.55e

7. Other applicable Documents as listed
below:

TYICAL

VERIFIED BY _____ DATE _____

OUTLINE APPROVED BY: _____ DATE: _____

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FIGURE 2

TEXAS UTILITIES GENERATING COMPANY
QUALITY ASSURANCE DEPARTMENT
INSTRUCTOR QUALIFICATION

NAME: _____ DATE: _____
 LEVEL OF CERTIFICATION: _____
 ACTIVITY CERTIFIED TO PERFORM: _____

 TUGCO PROCEDURE/INSTRUCTION NO.: _____
 TYPE OF EXAMINATION GIVEN: ☐ ORAL ☐ WRITTEN ☐ PRACTICAL
 RESULT OF EXAMINATION(s): _____

COMMENTS: Based upon a consideration of the education, previous work experience, formal training in the current revision of the CPSES procedure/ instruction, and the individual's own on-the-job training, a previous certification has been made for this Q.C. Technician in this activity. A satisfactory evaluation of the individual's demonstrated proficiency in the performance of daily work has now been made, and, with recognition that the CPSES QC inspector training program addresses specific QC inspection functions, it is felt that there is reasonable assurance that the individual can competently perform as an OJT QC instructor in this activity. This certification specifically covers giving OJT instruction in this procedure, including the use of personal knowledge and observation to participate in the On-The-Job Q.C. Trainee's instruction. This OJT Training Certification expires in one year if no inspections are performed in this activity by the individual, and regardless, on _____.

Supervisor

Approval

TYPICAL

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FIGURE 3

TEXAS UTILITIES GENERATING COMPANY
QUALITY ASSURANCE DEPARTMENT
INSPECTION CERTIFICATION

NAME John Smith DATE 11/23/81

LEVEL OF CERTIFICATION QC Technician--Random Conduit Fabrication

ACTIVITY CERTIFIED TO PERFORM: Evaluation of Random Conduit

Fabrication Activities UNTIL: 11/23/83
DATE

TUGCO PROCEDURE/INSTRUCTION NO.: CP-QP-11.3-30

TYPE OF EXAMINATION GIVEN: XX ORAL XX WRITTEN XX PRACTICAL

RESULT OF EXAMINATION(S): Satisfactory Oral in QC Office; 82.2%
on written examination; Practical examination with satisfactory
results before QC Supervisor H. Williams.

COMMENTS: Trainee qualified with examinations, QJT training and
14 years' experience.

RELATED EXPERIENCE: 14 YEARS

EDUCATION: H.S. plus 3 years - not yet GRADUATION/DEGREE
college

FORMAL TRAINING: Rev. 14 of procedure 11.3-30 COMPLETED

QJT TRAINING: Satisfactory - 43.5 HOURS THIS ACTIVITY

EXAMINATION: Satisfactory - 82.2

EVALUATED ON: 11/23/81 WITH CONSIDERATION OF RECORDS OF
EDUCATION, EXPERIENCE AND TRAINING, JOB PROFICIENCY AND DEMON-
STRATED SKILL BY: H. Williams, QC Supervisor

PHYSICAL HEALTH: Satisfactory FOR ASSIGNED TASK OF
THIS PROCEDURE/ACTIVITY. RECOMMEND ASSIGNMENT AS LEVEL 1

WITH RE-EVALUATION OF JOB PERFORMANCE AND PROFICIENCY ABOUT:
11/23/82

SUPERVISOR

APPROVAL, LEVEL III

DATE

DATE

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	CP-QP-2.1	6	12-19-79	1 of 3
TRAINING OF INSPECTION PERSONNEL	PREPARED BY: <u>JR. Anderson</u>			12/18/79 DATE
	APPROVED BY: <u>R. Tolson</u>			12/18/79 DATE

HISTORICAL FILE
FOR INFORMATION ONLY

1.0 REFERENCES

None

2.0 GENERAL

The purpose of this procedure is to establish the minimum requirements for training, qualification and certification of personnel performing inspection to provide assurance that these personnel have and maintain the appropriate knowledge and skill to properly perform their assigned responsibility.

The requirements contained herein apply to inspection personnel involved with activities not under the jurisdiction of the ASME Code, Section III, Division I.

3.0 PROCEDURE

The TUGCO Site QA Supervisor is responsible for the training and certification of inspection personnel. In order to develop professional growth, Training Outlines (Figure 1) shall be individually developed for inspection personnel, depending on experience and education. On-the-job training shall be under the direct supervision of a qualified Inspector or Instructor.

Personnel performing inspection should have experience in and should have completed a technical training course and examination in their area of inspection responsibilities.

The education, experience and on the job training, specified in this procedure or supplementary instructions may be reduced by the Quality Control Supervisor when other factors can provide reasonable assurance that personnel under his direction can competently perform a particular task as prescribed by detailed written Quality Procedures/Instructions. Such decisions shall be documented as part of the certification process and shall be included in the inspectors personnel file.

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3.1

INDOCTRINATION AND TRAINING

The following are minimum indoctrination and training requirements for inspection personnel. Indoctrination requirements shall normally be satisfied within the first sixty days of employment.

Personnel satisfying documented technical training requirements may be assigned to inspection or testing functions prior to completion of the QA indoctrination requirements.

a. 10CFR50, Appendix B; ANSI N43.2

The method of presentation of this material will be by reading/study assignment, informal discussions, seminars or other appropriate means. An oral checkout covering the 18 Criterion will be given by the responsible supervisor and upon satisfactory completion will so note by signing Figure 1.

b. Industry Standards

Inspection personnel should become familiar with prepared standards (ANSI, IEEE, ANS, ASME, etc.) applicable to assigned duties. The method of presentation may be through study, formal seminars, or other appropriate means. Supplemental exposure is acquired by daily association with these standards. The familiarization is a continuing process and as such requires no formal checkout.

c. 10CFR50.55(e) and 10CFR21

The method of presentation will be by assigned reading, study and/or training sessions. Upon completion and understanding of the basic requirements as they relate to job duties and responsibilities, the individual shall so note by signing the Training Outline (Figure 1). Formal or informal training sessions shall emphasize the need for prompt reporting of product deficiencies or failures to the TUGCO Site QA Supervisor.

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d. Technical Training

Minimum training, education and experience requirements will be defined in technical training outlines prepared for specific inspection activities. (Civil, Electrical, etc.)

3.2

PHYSICAL REQUIREMENTS

Each person who performs inspections shall be physically capable of performing the assigned task. As a minimum, inspection personnel shall have:

- a. Natural or corrected near-distance acuity such that the inspection person is capable of reading J-1 letters on a standard Jaeger's test type chart for near vision or equivalent test type.
- b. Color vision as applicable.

NOTE: Waivers may be granted on a case basis by the TUGCO Site QA Supervisor.

3.3

EXAMINATIONS

Examinations may be oral, written, practical or any combination thereof. Discipline or functional supervisors are responsible for administering examinations and assembling the results in a manner suitable for a review by required staff personnel.

3.4

CERTIFICATION

Where specifically required by applicable codes and standards inspection personnel shall be certified by the TUGCO Site QA Supervisor as being qualified to perform their assigned tasks. The effective period of certification shall be three (3) years, at which time the person will be re-evaluated and if appropriate, addition training will be conducted. He may then be recertified. The Inspection Certification (Figure 2) shall be used to document this certification. A copy of the Inspection Certification shall be placed in the person's file along with the individual's Training Outline(s).

Discipline or functional supervisors may require re-training and recertification of personnel under their control at any time that performance warrants.

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FIGURE 1

COMANCHE PEAK STEAM ELECTRIC STATION
GENERAL TRAINING OUTLINE

NAME:

DOCUMENT:

SIGNATURE/DATE

1. Title 10 code of Federal Regulations,
Part 50, Appendix B and ANSI N45.2
2. Industry Standards (As Assigned)
3. Title 10 Code of Federal Regulations,
Part 21 and 10 CFR 50.55.e
4. QA/QC Procedures and Instructions
(As Assigned)

5. Other Applicable Documents (list)

Verified by

Date

Rev. 5

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TRAINING OF INSPECTION PERSONNEL	PREPARED BY: <u>W. Pennington</u>			10/18/79 DATE
	APPROVED BY: <u>R. J. Johnson</u>			10/18/79 DATE

**FOR INFORMATION
HISTORICAL FILE**

1.0

REFERENCES

2.0

GENERAL

The purpose of this procedure is to establish the minimum requirements for training, qualification and certification of personnel performing inspection to provide assurance that these personnel have and maintain the appropriate knowledge and skill to properly perform their assigned responsibility.

The requirements contained herein apply to inspection personnel involved with activities not under the jurisdiction of the ASME Code, Section III, Division 1.

3.0

PROCEDURE

The TUGCO Site QA Supervisor is responsible for the training and certification of inspection personnel. In order to develop professional growth, Training Outlines (Figure 1) shall be individually developed for inspection personnel, depending on experience and education. On-the-job training shall be under the direct supervision of a qualified Inspector or Instructor.

Personnel performing inspection should have experience in and shall have completed a technical training course and examination in their area of inspection responsibilities.

It should be realized that the education and experience specified should not be treated as absolute. When other factors can provide reasonable assurance that personnel with proven related experience can completely perform a particular task as defined by the Site Quality Assurance Supervisor or his designee, thru oral or written examination in their scope of inspection responsibilities.

VOID

TEXAS UTILITIES GENERATING CO. CPSES	PROCEDURE NUMBER	REVISION	ISSUE DATE	PAGE
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3.1

INDOCTRINATION AND TRAINING

a. 10 CFR 50, Appendix B; ANSI N45.2

The method of presentation of this material will be by reading/study assignment, informal discussions, seminars or other appropriate means. An oral check-out covering the 18 Criterion will be given by the responsible supervisor and upon satisfactory completion will so note by signing Figure 1.

b. Industry Standards

Inspection personnel should become familiar with prepared standards (ANSI, IEEE, ANS, ASME, etc.) applicable to assigned duties. The method of presentation may be through study, formal seminars, or other appropriate means. Supplemental exposure is acquired by daily association with these standards. The familiarization is a continuing process and as such requires no formal checkout.

c. 10 CFR 50.55(e) and 10 CFR 21

The method of presentation will be by assigned reading, study and/or training sessions. Upon completion and understanding of the basic requirements as they relate to job duties and responsibilities, the individual shall so note by signing the Training Outline (Figure 1). Formal or informal training sessions shall emphasize the need for prompt reporting of product deficiencies or failures to the TUGCo Site QA Supervisor.

d. Technical Training

Minimum training, education and experience requirements will be defined in technical training outlines prepared for specific inspection activities. (Civil, Electrical, etc.)

3.2

PHYSICAL REQUIREMENTS

Each person who performs inspections shall be physically capable of performing the assigned task. As a minimum, inspection personnel shall have:

- a. Natural or corrected near-distance acuity such that the inspection person is capable of reading J-1 letters on a standard Jaeger's test type chart for near vision or equivalent test type.

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b. Color vision as applicable.

NOTE: Waivers may be granted on a case basis by the TUGCo Site QA Supervisor.

3.3

EXAMINATIONS

Examinations may be oral, written, practical or any combination thereof. Discipline or functional supervisors are responsible for administering examinations and assembling the results in a manner suitable for review by required staff personnel.

3.4

CERTIFICATION

Where specifically required by applicable codes and standards inspection personnel shall be certified by the TUGCo Site QA Supervisor as being qualified to perform their assigned tasks. The effective period of certification shall be three (3) years, at which time the person will be re-evaluated and if appropriate, additional training will be conducted. He may then be recertified. The Inspection Certification (Figure 2) shall be used to document this certification. A copy of the Inspection Certification shall be placed in the person's file along with the individual's Training Outline(s).

Discipline or functional supervisors may require re-training and recertification of personnel under their control at any time that performance warrants.

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FIGURE 1

COMANCHE PEAK STEAM ELECTRIC STATION
GENERAL TRAINING OUTLINE

NAME:

DOCUMENT:

SIGNATURE/DATE

1. Title 10 code of Federal Regulations,
Part 50, Appendix B and ANSI N45.2
2. Industry Standards (As Assigned)
3. Title 10 Code of Federal Regulations,
Part 21 and 10 CFR 50.55.e
4. QA/QC Procedures and Instructions
(As Assigned)

5. Other Applicable Documents (list)

Verified by

Date

Rev. 5

TEXAS UTILITIES GENERATING CO. CPSES	PROCEDURE NUMBER CP-QP-2.1	REVISION 4	ISSUE DATE 10-20-78	PAGE 1 of 5
TRAINING OF INSPECTION PERSONNEL	PREPARED BY: <u>James C. Smith</u> <u>10-20-78</u> Date APPROVED BY: <u>RS Jolson</u> <u>10/20/78</u> Date			

1.0 REFERENCES

NONE

2.0 GENERAL

The purpose of this procedure is to establish the minimum requirements for training, qualification and certification of personnel performing inspection to provide assurance that these personnel have and maintain the appropriate knowledge and skill to properly perform their assigned responsibility.

The requirements contained herein apply to inspection personnel involved with activities not under the jurisdiction of the ASME Code, Section III, Division 1.

3.0 PROCEDURE

The TUGCO Site QA Supervisor is responsible for the training and certification of inspection personnel. In order to develop professional growth, Training Outlines (Figure 1) shall be individually developed for inspection personnel, depending on experience and education. On-the-job training shall be under the direct supervision of a qualified Inspector.

Personnel performing inspection should have experience in and shall have completed a technical training course and examination in their area of inspection responsibilities.

3.1 INDOCTRINATION AND TRAINING

The following are the minimum training and indoctrination requirements for inspection personnel. These requirements shall be satisfied within the first sixty days of employment. Personnel satisfying documented technical training requirements may be assigned to inspection or testing functions prior to completion of the QA indoctrination requirements.

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a. 10 CFR 50, Appendix B; ANSI N45.2

The method of presentation of this material will be by reading/study assignment, informal discussions, seminars or other appropriate means. An oral checkout covering the 18 Criterion will be given by the responsible Supervisor and upon satisfactory completion will so note by signing Figure 1.

b. Final Safety Analysis Report

The method of presentation will be by assigned reading and study. Emphasis will be placed on Chapter 17. An oral checkout will be given by the responsible Supervisor. Upon satisfactory completion, the Supervisor will sign Figure 1.

c. NRC Regulatory Guides

The method of presentation will be by assigned reading and study of Regulatory Guides pertinent to assigned activities. After completion and understanding of assigned reading, the individual will so note by signing Figure 1.

d. Industry Standards

Inspection personnel will become familiar with prepared standards (ANSI, IEEE, ANS, ASME, etc.) applicable to assigned duties. The method of presentation may be through study, formal seminars, or other appropriate means. Supplemental exposure is acquired by daily association with these standards. The familiarization is a continuing process and as such requires no formal checkout.

e. 10 CFR 50.55(e) and 10 CFR 21

The method of presentation will be by assigned reading, study and formal training sessions. Upon completion and understanding of the basic requirements as they relate to job duties and responsibilities, the individual shall so note by signing the Training Outline (Figure 1).

TEXAS UTILITIES GENERATING CO. CPSES	INSTRUCTION NUMBER	REVISION	ISSUE DATE	PAGE
	CP-QP-2.1	4	10-20-78,	3 of 5

f. Technical Training

Minimum training, education and experience requirements will be defined in technical training outlines prepared for specific inspection activities. (Civil, Electrical, etc.)

3.2 PHYSICAL REQUIREMENTS

Each person who performs inspections shall be physically capable of performing the assigned task. As a minimum, inspection personnel shall have:

- a. Natural or corrected near-distance acuity such that the inspection person is capable of reading J-1 letters on a standard Jaeger's test type chart for near vision or equivalent test type.
- b. Color vision as applicable.

Note: Waivers may be granted on a case basis by the TUGCO Site QA Supervisor

3.3 EXAMINATIONS

Examinations may be oral, written, practical or any combination thereof. Discipline or functional supervisors are responsible for administering examinations and assembling the results in a manner suitable for review by required staff personnel.

3.4 CERTIFICATION

Where specifically required by applicable codes and standards inspection personnel shall be certified by the TUGCO Site QA Supervisor as being qualified to perform their assigned tasks. The effective period of certification shall be three years, at which time the person will be re-evaluated and if appropriate, additional training will be conducted. He shall then be recertified. The Inspection Certification (Figure 2) shall be used to document this certification. A copy of the Inspection Certification shall be placed in the person's file along with the individual's Training Outline.

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FIGURE 1

COMANCHE PEAK STEAM ELECTRIC STATION

GENERAL TRAINING OUTLINE

NAME:

DOCUMENT:

SIGNATURE/DATE

1. Final Safety Analysis Report

Chapter(s) 17 _____

2. Title 10 Code of Federal Regulations,

Part 50, Appendix B and ANSI N45.2 _____

3. NRC Regulatory Guides (As Assigned) _____

4. Industry Standards (As Assigned) _____

N/A

5. QA/QC Procedures and Instructions

(As Assigned) _____

6. Title 10 Code of Federal Regulations,

Part 21 and 10CFR50.55.a _____

7. Other Applicable Documents _____

VERIFIED BY _____

DATE _____

TUGCO QA

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TRAINING OF INSPECTION PERSONNEL	PREPARED BY: <u>James C. Smith</u>			<u>10-17-78</u> Date
	APPROVED BY: <u>R. J. Tolson</u>			<u>10/17/78</u> Date

1.0

REFERENCES

NONE

2.0

GENERAL

The purpose of this procedure is to establish the minimum requirements for training, qualification and certification of personnel performing inspection to provide assurance that these personnel have and maintain the appropriate knowledge and skill to properly perform their assigned responsibility.

The requirements contained herein apply to inspection personnel involved with activities not under the jurisdiction of the ASME Code, Section III, Division 1.

3.0

PROCEDURE

The TUGCO Site QA Supervisor is responsible for the training and certification of inspection personnel. In order to develop professional growth, Training Outlines (Figure 1) shall be individually developed for inspection personnel, depending on experience and education. On-the-job training shall be under the direct supervision of a qualified Inspector.

Personnel performing inspection should have experience in and shall have completed a technical training course and examination in their area of inspection responsibilities.

3.1

INDOCTRINATION AND TRAINING

The following are the minimum training and indoctrination requirements for inspection personnel. These requirements shall be satisfied within the first sixty days of employment. Personnel satisfying documented technical training requirements may be assigned to inspection or testing functions prior to completion of the QA indoctrination requirements.

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a. 10 CFR 50, Appendix B; ANSI N45.2

The method of presentation of this material will be by reading/study assignment, informal discussions, seminars or other appropriate means. An oral checkout covering the 18 Criterion will be given by the responsible Supervisor and upon satisfactory completion will so note by signing Figure 1.

b. Final Safety Analysis Report

The method of presentation will be by assigned reading and study. Emphasis will be placed on Chapter 17. An oral checkout will be given by the responsible Supervisor. Upon satisfactory completion, the Supervisor will sign Figure 1.

c. NRC Regulatory Guides

The method of presentation will be by assigned reading and study of Regulatory Guides pertinent to assigned activities. After completion and understanding of assigned reading, the individual will so note by signing Figure 1.

d. Industry Standards

Inspection personnel will become familiar with prepared standards (ANSI, IEEE, ANS, ASME, etc.) applicable to assigned duties. The method of presentation may be through study, formal seminars, or other appropriate means. Supplemental exposure is acquired by daily association with these standards. The familiarization is a continuing process and as such requires no formal checkout.

e. 10 CFR 50.55(e) and 10 CFR 21

The method of presentation will be by assigned reading, study and formal training sessions. Upon completion and understanding of the basic requirements as they relate to job duties and responsibilities, the individual shall so note by signing the Training Outline (Figure 1).

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f. Technical Training

Minimum training, education and experience requirements will be defined in technical training outlines prepared for specific inspection activities. (Civil, Electrical, etc.)

3.2 PHYSICAL REQUIREMENTS

Each person who performs inspections shall be physically capable of performing the assigned task. As a minimum, inspection personnel shall have:

- a. Natural or corrected near-distance acuity such that the inspection person is capable of reading J-1 letters on a standard Jaeger's test type chart for near vision or equivalent test type.
- b. Color vision as applicable.

Note: Waivers may be granted on a case basis by the TUGCO Site QA Supervisor

3.3 EXAMINATIONS

Examinations may be oral, written, practical or any combination thereof. Discipline or functional supervisors are responsible for administering examinations and assembling the results in a manner suitable for review by required staff personnel.

3.4 CERTIFICATION

Where specifically required by applicable codes and standards inspection personnel shall be certified by the TUGCO Site QA Supervisor as being qualified to perform their assigned tasks. The effective period of certification shall be three years, at which time the person will be re-evaluated and if appropriate, additional training will be conducted. He shall then be recertified. The Inspection Certification (Figure 2) shall be used to document this certification. A copy of the Inspection Certification shall be placed in the person's file along with the individual's Training Outline.

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FIGURE 1

COMANCHE PEAK STEAM ELECTRIC STATION

GENERAL TRAINING OUTLINE

NAME:

DOCUMENT:

SIGNATURE/DATE

1. Final Safety Analysis Report

Chapter(s) 17 _____

2. Title 10 Code of Federal Regulations,

Part 50, Appendix B and ANSI N45.2 _____

3. NRC Regulatory Guides (As Assigned) _____

4. Industry Standards (As Assigned) _____

N/A

5. QA/QC Procedures and Instructions

(As Assigned) _____

6. Title 10 Code of Federal Regulations,

Part 21 and 10CFR50.55.e _____

7. Other Applicable Documents _____

VERIFIED BY

DATE

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FIGURE 2

TEXAS UTILITIES GENERATING COMPANY QUALITY ASSURANCE DEPARTMENT INSPECTION CERTIFICATION

NAME: _____ DATE: _____

LEVEL OF CERTIFICATION: _____

ACTIVITY CERTIFIED IN: _____

TUGCO PROCEDURE/INSTRUCTION NO: _____

TYPE OF EXAMINATION GIVEN:

_____ ORAL _____ WRITTEN _____ PRACTICAL

RESULT OF EXAMINATION(s) _____

COMMENTS: _____

SUPERVISOR

TUGCO QA

TEXAS UTILITIES GENERATING CO. CPSES	INSTRUCTION NUMBER	REVISION	ISSUE DATE	PAGE
	CP-QP-2.1	2	8-10-78	1 of 5
TRAINING OF INSPECTION PERSONNEL	PREPARED BY: <u>David B. Lewis</u> 8-10-78 Date			
	APPROVED BY: <u>[Signature]</u> 8/10/78 Date			

1.0

REFERENCES

NONE

2.0

GENERAL

The purpose of this procedure is to establish the minimum requirements for training, qualification and certification of personnel performing inspection to provide assurance that these personnel have and maintain the appropriate knowledge and skill to properly perform their assigned responsibility.

The requirements contained herein apply to inspection personnel involved with activities not under the jurisdiction of the ASME Code, Section III, Division 1.

3.0

PROCEDURE

The TUGCO Site QA Supervisor is responsible for the training and certification of inspection personnel. In order to develop professional growth, Training Outlines (Figure 1) shall be individually developed for inspection personnel, depending on experience and education. On-the-job training shall be under the direct supervision of a qualified Inspector.

Personnel performing inspection should have experience in and shall have completed a technical training course and examination in their area of inspection responsibilities.

3.1

INDOCTRINATION AND TRAINING

The following are the minimum training and indoctrination requirements for inspection personnel. These requirements shall be satisfied within the first sixty days of employment. Personnel satisfying documented technical training requirements may be assigned to inspection or testing functions prior to completion of the QA indoctrination requirements.

TUGCO QA

TEXAS UTILITIES GENERATING CO. CPSES	INSTRUCTION NUMBER	REVISION	ISSUE DATE	PAGE
	CP-QP-2.1	2	8-10-78	2 of 5

a. 10 CFR 50, Appendix B; ANSI N45.2

The method of presentation of this material will be by reading/study assignment, informal discussions, seminars or other appropriate means. An oral checkout covering the 18 Criterion will be given by the responsible Supervisor and upon satisfactory completion will so note by signing Figure 1.

b. Final Safety Analysis Report

The method of presentation will be by assigned reading and study. Emphasis will be placed on Chapter 17. An oral checkout will be given by the responsible Supervisor. Upon satisfactory completion, the Supervisor will sign Figure 1.

c. NRC Regulatory Guides

The method of presentation will be by assigned reading and study of Regulatory Guides pertinent to assigned activities. After completion and understanding of assigned reading, the individual will so note by signing Figure 1.

d. Industry Standards

Inspection personnel will become familiar with prepared standards (ANSI, IEEE, ANS, ASME, etc.) applicable to assigned duties. The method of presentation may be through study, formal seminars, or other appropriate means. Supplemental exposure is acquired by daily association with these standards. The familiarization is a continuing process and as such requires no formal checkout.

e. 10 CFR 50.55(e) and 10 CFR 21

The method of presentation will be by assigned reading, study and formal training sessions. Upon completion and understanding of the basic requirements as they relate to job duties and responsibilities, the individual shall so note by signing the Training Outline (Figure 1).

TEXAS UTILITIES GENERATING CO. CPSES	INSTRUCTION NUMBER	REVISION	ISSUE DATE	PAGE
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f. Technical Training

Minimum training, education and experience requirements will be defined in technical training outlines prepared for specific inspection activities. (Civil, Electrical, etc.)

3.2

PHYSICAL REQUIREMENTS

Each person who performs inspections shall be physically capable of performing the assigned task. As a minimum, inspection personnel shall have:

- a. Natural or corrected near-distance acuity such that the inspection person is capable of reading J-1 letters on a standard Jaeger's test type chart for near vision or equivalent test type.
- b. Color vision as applicable.

Note: Waivers may be granted on a case basis by the TUGCO Site QA Supervisor

3.3

EXAMINATIONS

Examinations may be oral, written, practical or any combination thereof. Discipline or functional supervisors are responsible for administering examinations and assembling the results in a manner suitable for review by required staff personnel.

3.4

CERTIFICATION

Where specifically required by applicable codes and standards inspection personnel shall be certified by the TUGCO Site QA Supervisor as being qualified to perform their assigned tasks. The effective period of certification shall be three years, at which time the person will be re-evaluated and if appropriate, additional training will be conducted. He shall then be recertified. The Inspection Certification (Figure 2) shall be used to document this certification. A copy of the Inspection Certification shall be placed in the person's file along with the individual's Training Outline.

TEXAS UTILITIES GENERATING CO. CPSES	INSTRUCTION NUMBER	REVISION	ISSUE DATE	PAGE
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FIGURE 1

COMANCHE PEAK STEAM ELECTRIC STATION

GENERAL TRAINING OUTLINE

NAME:

DOCUMENT:

SIGNATURE/DATE

1. Final Safety Analysis Report

Chapter(s) 17 _____

2. Title 10 Code of Federal Regulations,

Part 50, Appendix B and ANSI N45.2

3. NRC Regulatory Guides (As Assigned)

4. Industry Standards (As Assigned)

N/A

5. QA/QC Procedures and Instructions

(As Assigned)

6. Title 10 Code of Federal Regulations,

Part 21 and 10CFR50.55.a

7. Other Applicable Documents

VERIFIED BY

DATE

TEXAS UTILITIES GENERATING CO. CPSES	INSTRUCTION NUMBER	REVISION	ISSUE DATE	PAGE
	CP-QP-2.1	2	8-10-78	5 of 5

FIGURE 2

TEXAS UTILITIES GENERATING COMPANY
QUALITY ASSURANCE DEPARTMENT
INSPECTION CERTIFICATION

NAME: _____ DATE: _____

LEVEL OF CERTIFICATION: _____

ACTIVITIES CERTIFIED TO PERFORM: _____

BASIS FOR CERTIFICATION (SEE ATTACHED)

EXAMINATION GIVEN: ☐ ORAL ☐ PRACTICAL ☐ WRITTEN

RESULTS OF EXAMINATION: _____

EYE EXAMINATION: ☐ SAT ☐ UNSAT DATE: _____

QA/QC INDOCTRINATION COMPLETED: DATE _____

REEVALUATION/RECEERTIFICATION DUE: _____

COMMENTS:

SUPERVISOR

DATE

Form 2.0-2

TUGCO QA

TEXAS UTILITIES GENERATING CO. CPSES	PROCEDURE NUMBER	REVISION	ISSUE DATE	PAGE
	CP-QP-2.1	1	6-12-78	1 of 5
TRAINING OF INSPECTION PERSONNEL	PREPARED BY: <u>David S. Lewis</u>			6-12-78 DATE
	APPROVED BY: <u>R. J. Tolson</u>			6/12/78 DATE

1.0 REFERENCES

NONE.

2.0 GENERAL

The purpose of this procedure is to establish the minimum requirements for training, qualification and certification of personnel performing inspection to provide assurance that such personnel have and maintain the appropriate knowledge and skill to properly perform their assigned responsibility.

The requirements contained herein apply to inspection personnel involved with activities not under the jurisdiction of the ASME Code, Section III, Division 1.

3.0 PROCEDURE

The TUGCO Site QA Supervisor is responsible for the training and certification of inspection personnel. In order to develop professional growth, Training Outlines (Figure 1) shall be individually developed for inspection personnel, depending on experience and education. On-the-job training shall be under the direct supervision of a qualified Inspector.

Personnel performing inspection should have experience in and shall have completed a technical training course and examination in their area of inspection responsibilities.

3.1 INDOCTRINATION AND TRAINING

The following are the minimum training and indoctrination requirements for inspection personnel.

TEXAS UTILITIES GENERATING CO. CPSES	PROCEDURE NUMBER	REVISION	ISSUE DATE	PAGE
	CP-QP-2.1	1	6-12-78	2 of 5

a. 10 CFR 50, Appendix B; ANSI N45.2

The method of presentation of this material will be by reading/study assignment, informal discussions, seminars or other appropriate means. An oral checkout covering the 18 Criterion will be given by the responsible Supervisor and upon satisfactory completion will so note by signing Figure 1.

b. Final Safety Analysis Report

The method of presentation will be by assigned reading and study. Emphasis will be placed on Chapter 17. An oral checkout will be given by the responsible Supervisor. Upon satisfactory completion, the Supervisor will sign Figure 1.

c. NRC Regulatory Guides

The method of presentation will be by assigned reading and study of Regulatory Guides pertinent to assigned activities. After completion and understanding of assigned reading, the individual will so note by signing Figure 1.

d. Industry Standards

Inspection personnel will become familiar with prepared standards (ANSI, IEEE, ANS, ASME, etc.) applicable to assigned duties. The method of presentation may be through study, formal seminars, or other appropriate means. Supplemental exposure is acquired by daily association with these standards. The familiarization is a continuing process and as such requires no formal checkout.

e. 10 CFR 50.55(e) and 10 CFR 21

The method of presentation will be by assigned reading, study and formal training sessions. Upon completion and understanding of the basic requirements as they relate to job duties and responsibilities, the individual shall so note by signing the Training Outline (Figure 1).

TEXAS UTILITIES GENERATING CO. CPSES	PROCEDURE NUMBER	REVISION	ISSUE DATE	PAGE
	CP-QP-2.1	1	6-12-78	3 of 5

f. Technical Training

Minimum training, education and experience requirements will be defined in technical training outlines prepared for specific inspection activities. (Civil, Electrical, etc.)

3.2 PHYSICAL REQUIREMENTS.

Each person who performs inspections shall be physically capable of performing the assigned task. As a minimum, inspection personnel shall have:

- a. Natural or corrected near-distance acuity such that the inspection person is capable of reading J-I letters on a standard Jaeger's test type chart for near vision or equivalent test type.
- b. Color vision as applicable.

Note: Waivers may be granted on a case basis by the TUGCO Site QA Supervisor.

3.3 EXAMINATIONS

Examinations may be oral, written, practical or any combination thereof. The TUGCO Site QA Supervisor is responsible for administering the examination and shall evaluate the results.

3.4 CERTIFICATION

Where specifically required by applicable codes and standards, inspection personnel shall be certified by the TUGCO Site QA Supervisor as being qualified to perform their assigned tasks. The effective period of certification shall be three years, at which time the person will be re-evaluated and if appropriate, additional training will be conducted. He shall then be recertified. The Inspection Certification (Figure 2) shall be used to document this certification. A copy of the Inspection Certification shall be placed in the person's file along with the individual's Training Outline.

TEXAS UTILITIES GENERATING CO. CPSes	PROCEDURE NUMBER	REVISION	ISSUE DATE	PAGE
	CP-QP-2.1	1	6-12-78	4 of 5

FIGURE 1

COMANCHE PEAK STEAM ELECTRIC STATION

GENERAL TRAINING OUTLINE

NAME:

DOCUMENT:

SIGNATURE/DATE

1. Final Safety Analysis Report

Chapter(s) 17 _____

2. Title 10 Code of Federal Regulations,

Part 50, Appendix B and ANSI N45.2 _____

3. NRC Regulatory Guides (As Assigned) _____

4. Industry Standards (As Assigned) _____

N/A

5. QA/QC Procedures and Instructions

(As Assigned) _____

6. Title 10 Code of Federal Regulations,

Part 21 and 10CFR50.55.e _____

7. Other Applicable Documents _____

VERIFIED BY _____

DATE _____

TEXAS UTILITIES GENERATING CO. CPSES	PROCEDURE NUMBER	REVISION	ISSUE DATE	PAGE
	CP-QP-2.1	1	6-12-78	5 of 5

FIGURE 2

TEXAS UTILITIES GENERATING COMPANY QUALITY ASSURANCE DEPARTMENT INSPECTION CERTIFICATION

NAME: _____ DATE: _____

LEVEL OF CERTIFICATION: _____

ACTIVITIES CERTIFIED TO PERFORM: _____

BASIS FOR CERTIFICATION (SEE ATTACHED)

EXAMINATION GIVEN: ORAL PRACTICAL WRITTEN

RESULTS OF EXAMINATION: _____

EYE EXAMINATION: SAT UNSAT DATE: _____

QA/QC INDOCTRINATION COMPLETED: DATE _____

REEVALUATION/RECERTIFICATION DUE: _____

COMMENTS:

TUGCO SITE QA SUPERVISOR DATE

TEXAS UTILITIES GENERATING CO. CPSES	PROCEDURE NUMBER CP-QP-2.1	REVISION 0	ISSUE DATE 5-30-78	PAGE 1 of 5
TRAINING OF INSPECTION AND TESTING PERSONNEL	PREPARED BY: <u>David E. Lewis</u> 5-30-78 DATE APPROVED BY: <u>R. L. Tolson</u> 5/30/78 DATE			

1.0 REFERENCES

NONE.

2.0 GENERAL

The purpose of this procedure is to establish the minimum requirements for training, qualification and certification of personnel performing inspection and testing and to provide assurance that these personnel have and maintain the appropriate knowledge and skill to properly perform their assigned responsibility.

The requirements contained herein apply to inspection and testing personnel involved with activities not under the jurisdiction of the ASME Code, Section III, Division 1.

3.0 PROCEDURE

The TUGCO Site QA Supervisor is responsible for the training and certification of inspection and testing personnel. In order to develop professional growth, Training Outlines (Figure 1) shall be individually developed for inspection and testing personnel, depending on experience and education. On-the-job training shall be under the direct supervision of a qualified Inspector.

Personnel performing inspection and testing should have experience in and shall have completed a technical training course and examination in their area of inspection and testing responsibilities.

3.1 INDOCTRINATION AND TRAINING

The following are the minimum training and indoctrination requirements for inspection and test personnel.

TEXAS UTILITIES GENERATING CO.	PROCEDURE NUMBER	REVISION	ISSUE DATE	PAGE
CPSes	CP-QP-2.1	0	5-30-78	2 of 5

a. 10 CFR 50, Appendix B; ANSI N45.2

The method of presentation of this material will be by reading/study assignment, informal discussions, seminars or other appropriate means. An oral checkout covering the 18 Criterion will be given by the responsible Supervisor and upon satisfactory completion will so note by signing Figure 1.

b. Final Safety Analysis Report

The method of presentation will be by assigned reading and study. Emphasis will be placed on Chapter 17. An oral checkout will be given by the responsible Supervisor. Upon satisfactory completion, the Supervisor will sign Figure 1.

c. NRC Regulatory Guides

The method of presentation will be by assigned reading and study of Regulatory Guides pertinent to assigned activities. After completion and understanding of assigned reading, the individual will so note by signing Figure 1.

d. Industry Standards

Inspection and test personnel will become familiar with prepared standards (ANSI, IEEE, ANS, ASME, etc.) applicable to assigned duties. The method of presentation may be through study, formal seminars, or other appropriate means. Supplemental exposure is acquired by daily association with these standards. The familiarization is a continuing process and as such requires no formal checkout.

e. 10 CFR 50.55(e) and 10 CFR 21

The method of presentation will be by assigned reading, study and formal training sessions. Upon completion and understanding of the basic requirements as they relate to job duties and responsibilities, the individual shall so note by signing the Training Outline (Figure 1).

f. Technical Training

Minimum training, education and experience requirements will be defined in technical training outlines prepared for specific inspection and test activities. (Civil, Electrical, etc.)

TEXAS UTILITIES GENERATING CO. CPSES	PROCEDURE NUMBER	REVISION	ISSUE DATE	PAGE
	CP-QP-2.1	0	5/30/78	3 of 5

3.2 PHYSICAL REQUIREMENTS

Each person who performs inspections, examinations, and tests shall be physically capable of performing the assigned task. As a minimum, inspection personnel shall have:

- a. Natural or corrected near-distance acuity such that the inspection person is capable of reading J-I letters on a standard Jaeger's test type chart for near vision or equivalent test type.
- b. Color vision as applicable.

NOTE: Waivers may be granted on
a case basis by the TUGCO
Site QA Supervisor.

3.3 EXAMINATIONS

Examinations may be oral, written, practical or any combination thereof. The TUGCO Site QA Supervisor is responsible for administering the examination and shall evaluate the results.

3.4 CERTIFICATION

Where specifically required by applicable codes and standards, inspection and test personnel shall be certified by the TUGCO Site QA Supervisor as being qualified to perform their assigned tasks. The effective period of certification shall be three years, at which time the person will be re-evaluated and if appropriate, additional training will be conducted. He shall then be recertified. The Inspection and Test Certification (Figure 2) shall be used to document this certification. A copy of the Inspection and Test Certification shall be placed in the person's file along with the individual's Training Outline.

3.5 EFFECTIVE IMPLEMENTATION DATE

This procedure is effective and shall be implemented for soil, concrete and reinforcing steel testing personnel as soon as practical after the issue date of REV. 0. The effective implementation date for other personnel will be established by separate documentation (memorandum, etc.).

TEXAS UTILITIES GENERATING CO. CPSES	PROCEDURE NUMBER	REVISION	ISSUE DATE	PAGE
	CP-QP-2.1	0	5-30-78	4 of 5

FIGURE 1

COMANCHE PEAK STEAM ELECTRIC STATION

GENERAL TRAINING OUTLINE

NAME:

DOCUMENT:

SIGNATURE/DATE

1. Final Safety Analysis Report

Chapter(s) 17 _____

2. Title 10 Code of Federal Regulations,
Part 50, Appendix B and ANSI N45.2

3. NRC Regulatory Guides (As Assigned)

4. Industry Standards (As Assigned)

N/A

5. QA/QC Procedures and Instructions
(As Assigned)

6. Title 10 Code of Federal Regulations,
Part 21 and 10CFR50.55.e

7. Other Applicable Documents

VERIFIED BY _____

DATE _____

TEXAS UTILITIES GENERATING CO. CPSES	PROCEDURE NUMBER	REVISION	ISSUE DATE	PAGE
	CP-QP-2.1	0	5-30-78	5 of 5

FIGURE 2

TEXAS UTILITIES GENERATING COMPANY
QUALITY ASSURANCE DEPARTMENT
INSPECTION AND TESTING CERTIFICATION

NAME: _____ DATE: _____

LEVEL OF CERTIFICATION: _____

ACTIVITIES CERTIFIED TO PERFORM: _____

BASIS FOR CERTIFICATION (SEE ATTACHED)

EXAMINATION GIVEN: ORAL PRACTICAL WRITTEN

RESULTS OF EXAMINATION: _____

EYE EXAMINATION: SAT UNSAT DATE: _____

QA/QC INDOCTRINATION COMPLETED: DATE _____

REEVALUATION/RECERTIFICATION DUE: _____

COMMENTS:

TUGCO SITE QA SUPERVISOR DATE

TEXAS UTILITIES GENERATING CO. CPSES	PROCEDURE NUMBER	REVISION	ISSUE DATE	PAGE
	CP-QP-2.1	0	5-30-78	1 of 5
TRAINING OF INSPECTION AND TESTING PERSONNEL	PREPARED BY: <u>[Signature]</u> <u>5-30-78</u> DATE APPROVED BY: <u>[Signature]</u> <u>5/30/78</u> DATE			

1.0 REFERENCES

NONE.

2.0 GENERAL

The purpose of this procedure is to establish the minimum requirements for training, qualification and certification of personnel performing inspection and testing and to provide assurance that these personnel have and maintain the appropriate knowledge and skill to properly perform their assigned responsibility.

The requirements contained herein apply to inspection and testing personnel involved with activities not under the jurisdiction of the AGM Code, Section III, Division 1.

3.0 PROCEDURE

The TUGCO Site QA Supervisor is responsible for the training and certification of inspection and testing personnel. In order to develop professional growth, Training Outlines (Figure 1) shall be individually developed for inspection and testing personnel, depending on experience and education. On-the-job training shall be under the direct supervision of a qualified Inspector.

Personnel performing inspection and testing should have experience in and shall have completed a technical training course and examination in their area of inspection and testing responsibilities.

3.1 INDOCTRINATION AND TRAINING

The following are the minimum training and indoctrination requirements for inspection and test personnel.