



STALLATION & SERVICE ENGINEERING DIVISION

22 Technology Park

Norcross, Georgia 30092

PROCEDURE NO. QC1.2.1

TITLE

REVISION NO. 0

PROCEDURE FOR
QUALIFICATION AND CERTIFICATION
OF
NONDESTRUCTIVE EXAMINATION PERSONNEL

DATE OF FIRST ISSUE:

Prepared By:

Date

2/23/82

Reviewed and Approved By:

Date

R.E. Edwards, Level III 2/23/82

Approved For Use By:

Date

2/23/82

DATE
ISSUED:

CONTROLLED COPY NO.

INSTRUCTIONS:

This procedure title was previously issued as QC-2-380

CLIENT / COMPONENT APPROVAL - Show Status, Signature and Date

Cutty Hays 3-15-82
Plant Quality Superintendent

C. M. Lynch 3/15/82
Technical Superintendent

Wm Macdonald 3-16-82
Authorized Inspector

8404050315 840326
PDR ADOCK 05000373
Q PDR

GENERAL ELECTRIC



1.0 SCOPE

- 1.1 This procedure establishes the requirements for qualification and certification of personnel for Nondestructive Examination (NDE) within the General Electric Installation and Service Engineering Business Division, Southern Department. In addition, this procedure describes the responsibilities and administrative controls necessary to implement the NDE Qualification and Certification Program.

2.0 GENERAL

- 2.1 This procedure outlines the requirements for training, qualification, and certification of NDE personnel. The visual examination method VT-1 is considered an NDE method and is included in this procedure.
- 2.2 The training course for Radiographic Examination (RT) will be administered by a recognized NDE school outside the company and is not considered a part of this procedure.
- 2.3 The guidelines of the American Society for Nondestructive Testing (ASNT) Recommended Practice Number SNT-TC-1A, 1975 Edition, are satisfied where required by the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code.
- 2.4 Personnel certifications issued prior to the date of this procedure shall remain valid until such time as they expire or are revoked.

3.0 DEFINITIONS

- 3.1 Terms used in this procedure are defined as follows:

- a) Qualification - the skill, training, experience, and physical ability required to properly perform duties of a specific job.
- b) Certification - the written testimony of qualification.
- c) Experience - the knowledge and skill derived from direct observation and participation in performing a nondestructive examination.
- d) Training - the program developed to impart the knowledge and skills necessary for qualification.
- e) NDE Level III Examiner - The individual appointed by the Manager, Quality Assurance; responsible for the implementation of this procedure.



4.0 RESPONSIBILITIES

- 4.1 The Manager, Quality Assurance (QA) has the responsibility to assure that the program described herein is implemented.
- 4.2 The Manager, QA shall be responsible for appointing an NDE Level III Examiner. The NDE Level III Examiner shall be responsible for the training, qualification, and certification of personnel within the Nuclear Plant Services Section.
- 4.3 The Manager, QA has the responsibility to assure that training programs administered by recognized NDE schools outside the company for the purpose of qualification of GE/I&SE personnel, meets the requirements of this procedure.
- 4.4 The NDE Level III shall sign and issue a Certificate of Qualification for personnel meeting the requirements of this procedure. The Manager, QA shall also sign the Certificate.
- 4.5 NDE personnel shall be responsible for recording work experience on their individual NDE Experience Record (Exhibit A) and forwarding a copy of the record to the NDE Level III Examiner semi-annually.
- 4.6 Each manager or supervisor of a project or activity utilizing NDE personnel shall be responsible for assuring individuals have a copy of the following prior to the commencement of work:
 - a) Certificate of Qualification (Exhibit B)
 - b) Education, Training, Experience, and Examination Summary (Exhibit C)
 - c) Vision Acuity Record (Exhibit D)

5.0 NONDESTRUCTIVE EXAMINATION METHODS

- 5.1 Qualification and certification of nondestructive examination personnel to this procedure shall be applicable to each of the following methods:
 - a) Radiograph Examination (RT)
 - b) Ultrasonic Examination (UT)
 - c) Magnetic Particle Examination (MT)
 - d) Liquid Penetration Examination (PT)
 - e) Visual Examination, VT-1 (VT-1)

6.0 LEVELS OF QUALIFICATION AND DUTIES

- 6.1 There are three (3) basic levels of qualification designated Level I, Level II, and Level III. These levels have been sub-divided to acknowledge differing skills, abilities, and duties.



6.1.1 Level I-T

- a) In the process of being qualified and certified to Level I, an individual may be considered a trainee and be certified to a Level I-T. This certification is based on the individual's education and training which shall meet the requirements of Level I.
- b) A trainee may work along with a certified individual to gain experience and shall not independently conduct examinations, interpret results of an examination, or write a report for examination results.

6.1.2 Level I

- a) Meets the level I education, training, experience and examination requirements of this procedure.
- b) Qualified to properly perform specific calibrations, specific examinations, and record data according to written procedures under the guidance of a Level II or Level III.
- c) Not qualified to independently evaluate or accept the results of an examination.

6.1.3 Level II

- a) Meets the Level II education, training, experience and examination requirements of this procedure.
- b) Thoroughly familiar with the scope and limitations of the method.
- c) Qualified to direct or perform calibrations and examinations to record results in accordance with written procedures.
- d) Qualified to interpret and evaluate indications in accordance with applicable codes, standard, and specifications.
- e) Qualified to organize and prepare reports on NDE results.
- f) Qualified to specify and/or prepare NDE procedures for the methods in which he is certified.
- g) Qualified to provide on the job training and guidance to Level I and Level I-T personnel.



6.1.5 Level III

- a) Meets the Level III education, training, experience and examination requirements of this procedure.
- b) Qualified to perform duties and responsibilities of a Level II.
- c) Qualified to interpret codes, standards, and specifications in the preparation of procedures.
- d) Qualified to establish techniques and designate the particular NDE examination and technique to be used.
- e) Qualified to train and assist qualification and certification of NDE personnel.
- f) Has sufficient practice background in the applicable materials, fabrication, and/or product technology to establish techniques and to assist in establishing acceptance criteria when none are otherwise available.
- g) Provides technical direction and guidance to NDE personnel.

7.0 EDUCATION, TRAINING AND EXPERIENCE

- 7.1 Personnel seeking certification in a nondestructive examination method shall have sufficient education, training, and experience to ensure understanding of the principles and procedures in those areas of NDE in which they are being certified.
- 7.2 Personnel shall complete an organized training course to become thoroughly familiar with the principles and practices of the examination method in which they are being certified.
- 7.3 Training courses shall be conducted by the Company (GE) or by recognized NDE schools outside the Company. GE/I&SE training course outlines shall meet as a minimum the applicable requirements of Tables 7.3-A through 7.3-D.
- 7.4 Work experience requirements in Tables 7.4-A and 7.4-B expressed in months are based on a normal 40 hour work week (175 hours per month). When work is performed in excess of a 40 hour week, credit shall be based on total hours. Work experience shall be recorded as hours on the Individual Work Experience Record.

8.0 EXAMINATIONS

- 8.1 Examinations to verify physical and technical qualifications of NDE personnel shall be conducted by the NDE Level III Examiner (see paragraph 4.2), or his selected representative. The written examinations shall be



administered without ^{Access} ~~success~~ to reference material (closed book) except necessary data, such as graphs, tables, etc., may be used. The examinations shall consist of the following:

8.1.1 Physical

An examination shall be given to assure natural or corrected near and far vision. The examination shall also include color and contrast perception. The vision acuity examination shall be administered in accordance with an approved procedure.

8.1.2 GENERAL (Written)

The general written examination shall cover the basic theory, principles and practices relative to the applicable NDE method.

8.1.3 Specific (Written)

8.1.3.1 The specific written examination shall cover the equipment, operating procedures, and examination technique the examinee may encounter in his specific assignments.

8.1.3.2 The specific examination shall also cover the procedures or codes and acceptance criteria used in nondestructive examination procedures.

8.1.4 Practical

8.1.4.1 The person considered for certification shall demonstrate to the satisfaction of the NDE Level III Examiner, he is familiar with and can operate the necessary equipment and analyze the resultant information to the degree required.

8.1.4.2 At least one selected specimen shall be examined and evaluated to a procedure by the person considered for certification.

8.1.4.3 The description of the specimen, the examination procedure, including check points, and the results of the examination shall be documented.

8.1.5 Level I Examinations

8.1.5.1 General Examination - The designated number of questions for each NDE discipline shall be as follows:

Examination Method	Number of Questions
Radiographic	40
Magnetic Particle	30
Ultrasonic	40
Liquid Penetrant	30
Visual Examination, VT-1	15



- 8.1.5.2 Specific Examination - The designated number of questions for each NDE discipline shall be as follows:

<u>Examination Method</u>	<u>Number of Questions</u>
Radiographic	20
Magnetic Particle	20
Ultrasonic	15
Liquid Penetrant	20
Visual Examination, VT-1	10

- 8.1.5.3 Practical Examination - Proficiency shall be demonstrated in performing the applicable examination, and limited evaluations of the results, on a test specimen to a written procedure. Ten check points will be required to establish an understanding of procedural and test requirements.

8.1.6 Level II Examination

- 8.1.6.1 General Examination - The designated number of questions for each NDE method shall be as follows:

<u>Examination Method</u>	<u>Number of Questions</u>
Radiographic	40
Magnetic Particle	30
Ultrasonic	40
Liquid Penetrant	30
Visual Examination, VT-1	15

- 8.1.6.2 Specific Examination - The designated number of questions for each NDE method shall be as follows:

<u>Examination Method</u>	<u>Number of Questions</u>
Radiographic	20
Magnetic Particle	15
Ultrasonic	20
Liquid Penetrant	15
Visual Examination, VT-1	10

- 8.1.6.3 Practical Examination - Proficiency shall be demonstrated in selecting and performing the applicable nondestructive examination and evaluating the results obtained on one or more samples approved by the NDE Level III Examiner. At least ten different checkpoints requiring an understanding of test variables and procedural requirements shall be included in this practical examination.



8.1.7 Level III Examination

8.1.7.1 General Examination - 30 NDE Level II questions on the NDE method to be certified, plus 10 NDE Level II general questions each in three other NDE methods. (A total of sixty questions).

8.1.7.2 Specific Examination - The designated number of questions for each NDE method shall be as follows:

Examination Method	Number of Questions
Radiographic	20
Magnetic Particle	20
Ultrasonic	20
Liquid Penetrant	20
Visual Examination, VT-1	10

8.1.7.3 Practical Examination - Proficiency shall be demonstrated in selecting, specifying, and writing specifications and/or procedures for the performance of the applicable nondestructive examination using appropriate reference material.

8.2 Grading

8.2.1 The NDE Level III Examiner shall be responsible for the conducting and grading of examinations of NDE personnel. The actual administration and grading of examinations may be delegated to the duly selected representative of the NDE Level III Examiner individual and so recorded.

8.2.2 Minimum required percentile grades for Levels I, II and III are detailed in paragraph 8.2.3. These grades shall be a composite grade based upon the general, specific and practical tests as weighed in paragraph 8.2.4.

8.2.3 Examination for Levels I and II requires a composite grade of 80% or greater. In addition, each grade for the general, specific and practical examinations shall be 70% or greater. Test objects shall be used in the practical examinations of Levels I and II and at least 90% of the known indications shall be found. For Level III, a composite grade of 90% is required, and no grade shall be less than 80%.

8.2.4 A percentile weight factor shall be applied to the percentage grades of the various examinations. The percentile weight assigned any particular examination shall be as listed below:

8.2.4.1 NDE Level I and II Examination Grades

1. General - 0.3
2. Specific - 0.4
3. Practical - 0.3



8.2.4.2 Level III Examination Grades

1. General - 0.4
2. Specific - 0.4
3. Practical - 0.2

8.2.4.3 The composite grade (Gc) is determined as follows:

$$Gc = (Gg \times Wg) + (Gs \times Ws) + (Gp \times Wp)$$

Where Gc = Composite Grade

Gg = Actual grade from general examination in percent

Wg = Percentile weight of general examination

Gs = Actual grade from specific examination in percent

Ws = Percentile weight of specific examination

Gp = Actual grade from practical examination in percent

Wp = Percentile weight of practical examination

8.2.4.4 Example:

Test results obtained for Level I examination =

General (Gg) = 87%

Specific (Gs) = 93%

Practical (Gp) = 90%

Percentile weight assigned for each examination

General (Wg) = 0.3

Specific (Ws) = 0.4

Practical (Wp) = 0.3

1.0

Then: $Gc = (87 \times 0.3) + (93 \times 0.4) + (90 \times 0.3)$

$Gc = 26.1 + 37.2 + 27.0$

$Gc = 90.3\%$

8.3 Re-examination

Those failing to attain the required grades must wait at least 30 days or show evidence of having received suitable additional training as determined by the Manager, QA.

9.0 CERTIFICATION

- 9.1 Certification of NDE personnel is the responsibility of the NDE Level III Examiner with approval by the Manager, QA (paragraph 4.4).



- 9.2 Certification of NDE personnel shall be based on demonstration of satisfactory qualification as determined by procedure outlined in Sections 7.0 and 8.0.
- 9.3 Certification records for NDE personnel, shall be kept on file in the office of and maintained by the NDE Level III Examiner. The certification records shall consist of the following, as a minimum:
- a) Name of certified individual
 - b) Level of certification and examination method
 - c) Educational background and experience of certified individual
 - d) Statement indicating satisfactory completion and records of training in accordance with the employer's written procedure.
 - e) Results of the physical examination prescribed as vision acuity and contrast perception.
 - f) Copies of current examination and percentile weights assigned to each examination and grades of all previous examinations and a description of the practical test object.
 - g) Composite grade of examination
 - h) Effective and expiration date of certification or recertification date
 - i) Signature of certifying agency representative

9.4 Re-certification

- 9.4.1 The levels of NDE personnel shall be re-certified at least once every three years by re-examination in accordance with Sections 8.0 and 9.0.
- 9.4.2 Certifications may be revoked at the discretion of the Manager, QA.
- 9.4.3 NDE personnel not performing to a particular NDE method for a period of one year (interrupted service) shall be re-examined in accordance with Sections 8.0 and 9.0.

10.0 ACCEPTANCE OF NDE CERTIFICATIONS FROM OTHER GENERAL ELECTRIC COMPANY COMPONENTS

Individuals holding current NDE certifications from other General Electric components shall be certified to this procedure by examination providing the individuals have been actively engaged in the applicable NDE method within the last one year.

11.0 TERMINATION

- 11.1 Certifications shall be automatically terminated when an employee leaves General Electric Company.



11.2 A terminated Level I or II employee from another company may be certified to his former NDE level based on examination as described in Section 8.0 provided all of the following conditions are met to the satisfaction of the Manager, QA:

- a) The employee has proof of prior certification
- b) The employee was working in the capacity to which he had been certified within six months of his termination
- c) The employee is being re-certified within six months of his termination

TABLE 7.3-A
VISUAL EXAMINATION METHOD
(VT-1)

SUBJECT	TRAINING HOURS			
	Level I		Level II	
1.0 Introduction	.5*	.5**	0*	0**
1.1 Purpose of Visual Examination				
a) Condition of part				
b) Alignment of mating surfaces				
c) Shape of part				
d) Evidence of leaking				
2.0 Visual Examination Methods	.5	.5	.5	.5
2.1 Direct Visual Examination				
2.2 Remote Visual Examination				
3.0 Visual Indications	1.0	1.0	1.0	1.0
3.1 Type of Indications				
3.2 Reason for Indications				
3.3 Appearance of Indications				
4.0 Visual Examination Aids	1.0	1.0	1.5	1.5
4.1 Optical Equipment				
4.2 Linear Measuring Equipment				
4.3 Pressure Gauges				
4.4 Temperature Indicators				
5.0 Procedures	1.0	1.0	1.0	1.0
5.1 Requirements				
5.2 Reports				
TOTAL MINIMUM HOURS	4.0	4.0	4.0	4.0

*Two years or more of College Engineering or Science Study

**High School Graduate or equivalent

TABLE 7.3-B
LIQUID PENETRANT EXAMINATION METHOD

SUBJECT	TRAINING HOURS			
	Level I		Level II	
1.0 Principles	1.0*	1.0**	1.0*	2.0**
a) General				
b) Physics				
c) Visibility of Indications				
d) Examination Procedure				
e) Examination Process				
f) Process Selection				
g) Capabilities of Examination				
h) Limitations				
2.0 Equipment and Materials	1.0	1.0	1.0	2.0
a) Precleaning and Postcleaning Equipment				
b) Stationary Penetrant Test Equipment				
c) Portable Penetrant Test Equipment				
d) Black Light				
e) Materials				
3.0 Techniques	1.0	1.0	1.0	2.0
a) General				
b) Surface Preparation				
c) Application of Penetrants				
d) Application of Emulsifier				
e) Removal of Penetrants				
f) Application of Developer				
g) Drying				
h) Penetrant Examination Processes				
4.0 Interpretation of Test Results	1.0*	1.0**	1.0*	2.0**
a) General				
b) Indications				
c) Categories of Relevant Indications				
d) Discontinuity Depth Determination				
e) Typical Indications				
TOTAL MINIMUM HOURS	4.0	4.0	4.0	8.0

*Two years or more of College Engineering or Science Study

**High School Graduate or equivalent

TABLE 7.3-C
MAGNETIC PARTICLE EXAMINATION METHOD

SUBJECT	TRAINING HOURS			
	Level I		Level II	
1.0 Theory of Magnetism	1.5*	2.0**	0*	0**
a) General				
b) Magnetic Poles				
c) Magnetic Field				
d) Lines of Force				
e) Longitudinal Magnetization				
f) Horseshoe Magnet				
g) Leakage Fields				
2.0 Magnetic Materials	.25	.5	0	0
3.0 Electrically Induced Magnetic Fields	2.0	2.5	1.0	1.5
a) General				
b) Right Hand Rule				
c) Coil				
d) Magnetic Flux				
e) Flux Density				
f) Permeability				
g) Reluctance				
h) Residual Magnetism				
i) Retentivity				
j) Coercive Force				
4.0 Hysteresis Loop	.5	1.0	.5	.5
a) General				
b) Virgin Curve				
c) Residual Magnetism				
d) Coersive Force				
e) Reversed Polarity				
f) Curve Characteristics				
5.0 Direction of Magnetic Field	.75	1.0	0	1.0
a) Longitudinal Magnetization				
b) Circular Magnetization				
6.0 Magnetizing Current Characteristics	1.0	1.5	.75	1.25
a) Alternating Current				
b) Half-Wave Rectified Current				
c) Penetration Characteristics				



TABLE 7.3-C
MAGNETIC PARTICLE EXAMINATION METHOD
(continued)

SUBJECT	TRAINING HOURS			
	Level I		Level II	
7.0 Current Requirements				
a) Circular Magnetization	1.0*	1.5**	.75*	1.25**
b) Longitudinal Magnetization				
c) Prod Magnetization				
8.0 Magnetic Particle Application				
a) Examination Method	1.0	2.0	1.0	2.5
b) Surface Preparation				
c) Codes, Standards, Instructions				
d) Flaw Classification				
e) Post Examination Cleaning				
f) Reports				
TOTAL MINIMUM HOURS	8.0	12.0	4.0	8.0

* Two years or more of College engineering or Science Study

** High School Graduate or equivalent

TABLE 7.3-D
ULTRASONIC EXAMINATION METHOD

SUBJECT	TRAINING HOURS			
	Level I		Level II	
1.0 Fundamental Properties of Sound	.6*	1.0**	4.0*	4.0**
a) Frequency, Velocity, Wavelength				
b) Definition of ultrasonic vibrations				
c) General application of ultrasonic vibrations				
2.0 Principles of Wave Propagation	3.0	5.0	4.0	4.0
a) Modes of vibration				
b) Acoustic impedance				
c) Reflection				
d) Refraction and mode conversion				
e) Diffraction, dispersion, and attenuation				
f) Fresnel Zone				
3.0 General of Ultrasonic Waves	3.0	5.0	4.0	4.0
a) Piezoelectric and types of crystals				
b) Construction of ultrasonic search units				
c) Characteristics of search units				
d) Care of search units				
4.0 Ultrasonic Examination Methods	3.6	6.0	4.0	4.0
a) Contact testing				
b) Immersion testing				
c) Modified Immersion testing				
d) Resonance testing				
5.0 Ultrasonic Examination Equipment	1.8	3.0	0	0
a) Description of basic pulse-echo instrument				
b) Special instruments				
c) Scanning equipment				
6.0 Operation of Specific Equipment	4.8	8.0	4.0	4.0
a) General operating characteristic				
b) Functional block diagram of circuits				
c) Purpose and adjustment of external controls				
d) Care of equipment				



TABLE 7.3-D
ULTRASONIC EXAMINATION METHOD
(continued)

SUBJECT	TRAINING HOURS			
	Level I		Level II	
7.0 Specific Testing procedures	4.8*	8.0**	12.0*	12.0**
a) Selection of test parameters				
b) Test standardization				
c) Interpretation of results				
d) Test records				
8.0 Variables Affecting Test Results	2.4	4.0	8.0	8.0
a) Instrument performance variations				
b) Search unit performance variations				
c) Inspected part variations				
d) Discontinuity variations				
TOTAL MINIMUM HOURS	24.0	40.0	40.0	40.0

* Two years or more of College Engineering or Science Study

** High School Graduate or equivalent



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TABLE 7.4-A
MINIMUM TRAINING AND EXPERIENCE REQUIREMENTS

TRAINING (HOURS)

	VT-I		PT		MT		UT		RT	
	Level I	Level II	Level I	Level II	Level I	Level II	Level I	Level II	Level I	Level II
*Completion with a passing grade of at least 2 years of engineering or science study at a university, college or technical school	4	4	4	4	8	4	24	40	12	40
**High school graduation, diploma or its equivalent	4	4	4	8	12	8	40	40	20	40
WORK TIME EXPERIENCE (MONTHS)										
All educational levels as listed above	1 Mo.	2	1	2	1	3	3	9	3	9

Notes: Training shall be as outlined in Tables 7.3-A through 7.3-D. For Level II certification, the experience shall consist of time at Level I. If a person is being qualified directly to Level II with no time at Level I, the required experience shall consist of the sum of the times required for Level I and Level II as a trainee and the hours of training required for Level I and Level II in total shall apply. Credit for experience may be gained simultaneously in two or more disciplines. The candidate must spend at least 25% of his work time on each discipline for which experience is being claimed.



TABLE 7.4-B

Level III Minimum Education and Experience Requirements

METHOD	Required Work Experience (Months)		
	Four Years of College (Note 1)	Two Years of College (Note 2)	Less than 2 Years College (Note 3)
VT-1	12	24	48
PT	12	24	48
MT	12	24	48
UT	12	24	48
RT	12	24	48

(Note 1) Graduate of a four-year accredited engineering or science college or university with a degree in Engineering or Science plus one year's experience in nondestructive examination in an assignment comparable to that of a Level II in the applicable examination method. If the college or university degree is issued in nondestructive examination, the one year's experience requirement may be reduced to six months.

(Note 2) Completion with a passing grade of at least two years of engineering or science study at an accredited university, college, or technical school, plus two year's experience as a certified Level II in the applicable examination method.

(Note 3) Four years experience as a certified Level II in the applicable examination method.



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GENERAL  ELECTRIC

INSTALLATION
AND SERVICE
ENGINEERING

Southern Service Department

22 Technology Park, P.O. Box 105064
Norcross, Georgia 30348

CERTIFICATE OF QUALIFICATION

THIS IS TO CERTIFY THAT

HAS MET THE QUALIFICATIONS NECESSARY TO PROVIDE ASSURANCE OF
CAPABILITIES AND IS RECOGNIZED FOR THOSE EXAMINATION, INSPEC-
TION AND TESTING METHODS SHOWN. THE QUALIFICATION PROCESS IS
DESCRIBED IN THE QUALITY ASSURANCE PROGRAM OF THE GENERAL
ELECTRIC COMPANY, INSTALLATION & SERVICE ENGINEERING DIVISION,
AND MEETS THE REQUIREMENTS OF SNT-TC-1A, 1975 EDITION.

<u>METHOD</u>	<u>LEVEL</u>	<u>EFFECTIVE DATE</u>	<u>EXPIRATION DATE</u>
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QUALIFICATION APPROVED
BY LEVEL III EXAMINER

CERTIFICATION APPROVED
BY MANAGER, QUALITY ASSURANCE

DATE

DATE

EXHIBIT B

GENERAL  ELECTRIC



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TITLE: OF NONDESTRUCTIVE EXAMINATION PERSONNEL



INSTALLATION & SERVICE
ENGINEERING DIVISION

PERSONNEL QUALIFICATION AND CERTIFICATION
EDUCATION, TRAINING, EXPERIENCE, AND EXAMINATION SUMMARY

FORM NO: 6C-82

Name: _____ I.D. No: _____ Component: _____

* CERTIFICATION SUMMARY

METHOD	LEVEL	EFFECTIVE	EXPIRATION

* EDUCATION SUMMARY

* TRAINING SUMMARY

We certify that this employee has satisfactorily completed the required training for the applicable level of certification in the above methods.

* EXPERIENCE SUMMARY

* EXAMINATION RESULTS SUMMARY

METHOD	LEVEL	EXAM SERIES	GENERAL		SPECIFIC		PRACTICAL		COMPOSITE SCORE	ADMINISTERED BY LEVEL III EXAMINER
			Points	Percent	Points	Percent	Points	Percent		

* RECORDS OF QUALIFICATION ARE ON FILE IN THE NUCLEAR SUPPORT SERVICES OFFICE

Summary Prepared by: _____

Summary Approved by: _____

LEVEL III: EXAMINER

DATE

MANAGER, NUCLEAR QUALITY ASSURANCE

DATE

GENERAL ELECTRIC

EXHIBIT C

GENERAL ELECTRIC




INSTALLATION & SERVICE
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		VISION ACUITY RECORD (FOR USE WITH PROCEDURE QC-4-380) FORM NO: QC-4-380 REV. 1														
Name _____		Identification No. _____														
Component _____		Birth Date _____														
NEAR VISION NATURAL CORRECTED	LEFT EYE	RIGHT EYE	BOTH EYES	LEFT EYE	RIGHT EYE	BOTH EYES	LEFT EYE	RIGHT EYE	BOTH EYES	LEFT EYE	RIGHT EYE	BOTH EYES	LEFT EYE	RIGHT EYE	BOTH EYES	
	J.	J.	J.	J.	J.	J.	J.	J.	J.	J.	J.	J.	J.	J.	J.	
FAR VISION NATURAL CORRECTED	LEFT EYE	RIGHT EYE	BOTH EYES	LEFT EYE	RIGHT EYE	BOTH EYES	LEFT EYE	RIGHT EYE	BOTH EYES	LEFT EYE	RIGHT EYE	BOTH EYES	LEFT EYE	RIGHT EYE	BOTH EYES	
	LINE NO.	LINE NO.	LINE NO.	LINE NO.	LINE NO.	LINE NO.	LINE NO.	LINE NO.	LINE NO.	LINE NO.	LINE NO.	LINE NO.	LINE NO.	LINE NO.	LINE NO.	
CONTRAST PERCEPTION	LINE WIDTH			LINE WIDTH			LINE WIDTH			LINE WIDTH			LINE WIDTH			
COLOR PERCEPTION (A) PLATE NO. 9 CANNOT BE READ WITH NORMAL COLOR PERCEPTION (B) PLATE NO. 11 HAS A LINE TO TRACE. SHOW AS (SAT.) SATISFACTORY OR (UN.) UNSATISFACTORY (C) PLATE NO. 14 HAS TWO LINES TO BE TRACED. SHOW AS (SAT.) SATISFACTORY OR (UN.) UNSATISFACTORY FOR TOP AND BOTTOM LINE	PLATE NO.	PLATE READ	PLATE NO.	PLATE READ	PLATE NO.	PLATE READ	PLATE NO.	PLATE READ	PLATE NO.	PLATE READ	PLATE NO.	PLATE READ	PLATE NO.	PLATE READ		
	1		1		1		1		1		1		1			
	2		2		2		2		2		2		2			
	3		3		3		3		3		3		3			
	4		4		4		4		4		4		4			
	5		5		5		5		5		5		5			
	6		6		6		6		6		6		6			
	7		7		7		7		7		7		7			
	8		8		8		8		8		8		8			
	9(A)		9(A)		9(A)		9(A)		9(A)		9(A)		9(A)			
	10		10		10		10		10		10		10			
	11(B)		11(B)		11(B)		11(B)		11(B)		11(B)		11(B)			
	12		12		12		12		12		12		12			
	13		13		13		13		13		13		13			
14(C)	T. B.	14(C)	T. B.	14(C)	T. B.	14(C)	T. B.	14(C)	T. B.	14(C)	T. B.	14(C)	T. B.			
RESTRICTIONS IF NONE WRITE THE WORD NONE																
VISION IS SATISFACTORY FOR:	NEAR FAR CONTRAST COLOR	NEAR FAR CONTRAST COLOR	NEAR FAR CONTRAST COLOR	NEAR FAR CONTRAST COLOR	NEAR FAR CONTRAST COLOR	NEAR FAR CONTRAST COLOR	NEAR FAR CONTRAST COLOR	NEAR FAR CONTRAST COLOR	NEAR FAR CONTRAST COLOR	NEAR FAR CONTRAST COLOR	NEAR FAR CONTRAST COLOR	NEAR FAR CONTRAST COLOR	NEAR FAR CONTRAST COLOR	NEAR FAR CONTRAST COLOR		
EXAMINED BY:																
TITLE																
DATE																
NEXT EXAMINATION DUE:																
COMMENTS:																

GENERAL ELECTRIC

EXHIBIT D

GENERAL ELECTRIC