ATTACHMENT 7
Sheet 1 of 1
Records Transmittal Form

1523

Transmittal # _____

Title CR-3 Work request Form NU 0368426

Record Type _____ Date 6/10/02

From Linda Dye / Linda Dye Phone # 240-3167
(Print Name) (Signature)

Required for Decommissioning - Yes - (Circle only if for decommissioning)

List Records Below:

Dex Ref:

TENDON

SP-182

CONTAINMENT INSPECTION

ASME SECTION XI

IWL

****

Document Services is to complete the following:

Received by: _____ Date: 6-10-02

Completed By: Dee Hamilton Date: 6-18-02

*Upon receipt of this transmittal and attached documents, please sign, date and return copy of the transmittal to: Linda Dye – PA3A

Information in this record was deleted in accordance with the Freedom of Information Act, Exemptions 6
FOIA/PA 2010-0116

q16

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Florida Power CORPORATION

WORKING COPY [redacted] NO 0368426

CR-3 WORK REQUEST FORM Page 1 of 10

PART 1

TAG NO : 5011 SYS: MX DEF. TAG NO:

TAG DESC : PRESTRESSING SYSTEM TENDONS

WR NO: NU0341602

ASME Section XI Code Class: N

BUILDING : REACTOR BUILDING ELEV: CAL SP: N/A

LOCATION : CONTAINMENT

PURPOSE : SUPPORT THE 7TH TENDON SURVEILLANCE (SP-182) TO BE PERFORMED BY PRECISION SURVEILLANCE CORP. MULTIPLE DEPARTMENT SUPPORT

INITIATOR: DENNY,MATTHEW F PHONE: 240-3873 DATE: 12/07/00 TIME: 11:17

PART 2

SAFETY RELATED:	YES	PMT	: NO	QC	: YES	REPEAT MAINT:	NO	AMS#:	652000190030
EQ EQUIPMENT	: NO	PRIORITY	: 3	ISI	: NO	HISTORY REQD:	YES	RWP	: YES
SECURITY	: YES	TAG ORDER:	NO	NDE	: NO	NPRDS	: YES	SPV	: NO
SHOP	: M	BREACH	: NO	WT	: NO	R/R	: NO	ANII	: NO
PARTS	: YES	FPWP	: NO	IP	: YES	MAINT RULE	: NO	NOCS	: NO

REQUIRED WORK PROCEDURES: SP-182 MP-806

REFERENCE WORK PROCEDURES: AI-1803 AI-1811 SP-601 CP-113A AI-607 AI-610 AI-450

POST MAINTENANCE TEST PROCEDURES: NONE

EVALUATED BY: DUNN,ROBERT C PHONE: 240-3255 DATE: 06/27/01 TIME: 19:59

IPDE APPROVAL: DUNN,ROBERT C PHONE: 240-3255 DATE: 01/06/00 TIME: 19:59

ESTIMATED MANHOURS: 722.0 $23,944

PART 3

WORK SUPERVISOR: J H Caldwell Jr DATE: 8-14-01

WORK AUTHORIZATION	DATE	Pre-Job Briefing Conducted By/Date
[signature]	8/20/01	[signature] 8/14/01

LIMITS & PRECAUTIONS:

THIS WORK WILL GENERATE RADWASTE VOLUME. WORK SUPERVISOR AND/OR LEAD PERSON MUST DISCUSS, AND UTILIZE, WASTE VOLUME REDUCTION TECHNIQUES WITH ASSIGNED WORKERS.

SECURITY SUPPORT:

SECURITY SUPPORT IS REQUIRED FOR THIS WORK ACTIVITY. CONTACT THE SECURITY SHIFT SUPERVISOR PRIOR TO COMMENCING WORK.

INITIAL RISK ASSESSMENT:

SOME ACTIVITIES SUCH AS INSTALLING/CHECKING T-POWER & LIGHTING, HEAVY LIFTING AND MOVING OF EQUIPMENT, WORK AT NIGHT WILL MAKE THIS A MEDIUM RISK ACTIVITY.

- FOR ELECTRICAL SAFETY, REFERENCE AI-610;
- FOR SCAFFOLD USE & SAFETY AT HEIGHTS REFERENCE AI-1803 AND AI-1811
- USE GENERAL SAFETY GUIDELINES AND ALWAYS USE THE APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT.
- ENSURE ALL SLINGS, HARNESSES, ETC. HAVE BEEN CHECKED AND/OR TESTED AS NECESSARY.

WORK ACTIVITY CONTACT POINTS:

PROVIDE SUPPORT AS DIRECTED BY WORK SUPERVISOR TO ENSURE CONTRACTOR CAN PERFORM SURVEILLANCE IN A TIMELY AND EFFICIENT MANNER.

CONTACT MATT DENNY, ISI ENGINEERING PROGRAMS FOR SPECIFIC REQUIREMENTS.

CONTRACTOR TO PROVIDE MAINTENANCE A POINT OF CONTACT IF NECESSARY.

INITIATORS OBSERVATIONS:

THE 7TH TENDON SURVEILLANCE PER SP-182 IS TO BE PERFORMED BY PRECISION SURVEILLANCE CORP.
USE SP-182
ELEVEN (11) TENDONS ARE TO BE INSPECTED. THE PROJECT MANAGER FOR THIS WORK IS MATT DENNY. CONTRACTOR IS EXPECTED ON SITE 7/9/01 & SURV START 7/15/01. DURATION OF WORK IS EXPECTED TO BE EIGHT (8) TO TEN (10) WEEKS. THE FOLLOWING SUPPORT WILL BE REQUIRED:

A. HEALTH PHYSICS
B. SECURITY
C. MECHANICAL SUPPORT (SCAFFOLDING, RIGGING, LIFTING)
D. TEMPORARY POWER ON RB DOME
E. PAINTING OF REMOVED TENDON CAPS

REFERENCE PREVIOUS WR 341602 & REFERENCE PREVIOUS WORK REQUESTS 301315 AND 306933 GENERATED IN SUPPORT OF THE 5TH

TENDON SURVEILLANCE PERFORMED DURING THE FALL/WINTER OF 1993.

INSPECTION REQUIREMENTS/COMMENTS:

RELATED DOCUMENT: SP-182, MP-806

QC TO PERFORM ANY REQUIRED SP-182 INSPECTIONS.

QC TO PERFORM INSPECTIONS PER MP-806 IF NECESSARY.

NOTE: VENDOR MAY SUPPLY OWN QC PERSONNEL.

THIS DOCUMENT HAS BEEN REVIEWED BY AN INSPECTION PLANNER PER CP-113C FOR THE IDENTIFICATION OF INSPECTIONS WHICH ARE NECESSARY TO ASSURE COMPLIANCE WITH THE ENGINEERING DESIGN AND WITH THE MATERIAL FABRICATION, ASSEMBLY, ERECTION, INSTALLATION, AND EXAMINATION AND TEST REQUIREMENTS.

RWP COMMENTS:

TENTON SURV., ONLY AREA OF CONCERN IS CAV-2 VA

WORK DESCRIPTION:

WORK SCOPE:

PROVIDE VARIOUS ACTIVITIES IN SUPPORT OF THE 7TH TENDON SURVEILLANCE PER SP-182.

CONTRACTOR TO PERFORM SURVEILLANCE PER SP-182.

CR3 SUPPORT TO INCLUDE:

- T-POWER SUPPORT TO THE RB ROOF (AI-450)
- LIGHTING TO RB ROOF FOR SAFETY (WORK TO BE DONE AT NIGHT)
- FORK LIFT/CHERRY PICKER DRIVERS TO SUPPORT PRE-JOB ASSEMBLY OF EQUIPMENT/RIGS, ETC.
- ASSISTANCE IN MOVING EQUIPMENT UP TO WORK AREA
- HEALTH PHYSICS SUPPORT AS REQUIRED
- NFS SUPPORT BY ERECTING/REMOVING SCAFFOLDING AT VARIOUS LOCATIONS IN THE INTERMEDIATE / AUXILIARY BUILDINGS
- MAY INCLUDE SUPPORT FOR TENDON CAP PAINTING.
- RAD WASTE SUPPORT FOR DISPOSAL OF REMOVED GREASE.

TAGGING RECOMMENDATIONS:

TAGGING OF POWER TO RB ROOF & T-POWER MAY BE REQUIRED.
FEED TO RB PLATFORM IS MTMC-10, UNIT 5BR.
DISCUSS TAGGING WITH OPERATIONS PERSONNEL AND CONTRACTOR.

WORK DESCRIPTION:

CONDUCT PRE-JOB BRIEFINGS PRIOR TO EACH EVOLUTION.

ELEVEN (11) TENDONS ARE TO BE INSPECTED. THE PROJECT MANAGER FOR THIS WORK IS MATT DENNY. CONTRACTOR IS EXPECTED ON SITE 8/6/01 & SURV START 8/13/01. DURATION OF WORK IS EXPECTED TO BE EIGHT (8) TO TEN (10) WEEKS.

ENSURE SECURITY SHIFT SUPERVISOR IS NOTIFIED OF ANY ACTIVITIES REQUIRING SECURITY SUPPORT AS EARLY AS POSSIBLE TO ENSURE PROPER SUPPORT AND PRECLUDE DELAYS. COORDINATE WITH PROJECT MANAGER AND CONTRACTOR.

MECHANICAL SUPPORT:

PROVIDE FORK LIFT / CHERRY PICKER DRIVERS FOR MOVEMENT OF VENDOR EQUIPMENT DURING SET UP AND ASSEMBLY IN THE YARD OUTSIDE THE PROTECTED AREA. CONTACT M. DENNY & CONTRACTOR CONTACT FOR SPECIFIC REQUIREMENTS.

ASSIST IN MOVING EQUIPMENT & ASSEMBLIES INTO THE PROTECTED AREA TO THE BACK BERM NEAR THE REACTOR BUILDING.

PROVIDE RIGGING, MOVING SUPPORT AS NEEDED.

ELECTRICAL SUPPORT:

PROVIDE T-POWER EQUIPMENT AS NEEDED TO THE RB ROOF. CONTRACTOR REQUIRES 2 PIGTAILS (WELDING RECPT) 480V, 60 AMP FOR EQUIPMENT.

PROVIDE LIGHTING AT THE BERM AND AT THE RB ROOF DUE TO WORK PRIMARILY BEING PERFORMED ON BACK SHIFT.

PERFORM ALL WORK PER AI-450 & CP-113A, EQUIPMENT ALTERATION LOG.

NFS SUPPORT:

ERECT SCAFFOLDING AT VARIOUS LOCATIONS IN THE INTERMEDIATE AND AUXILIARY BUILDINGS AS REQUIRED BY CONTRACTOR.

DURING THE FIRST WEEK ON SITE, CONTRACTOR WILL BE AVAILABLE TO IDENTIFY SPECIFIC SCAFFOLDING NEEDS.

AT COMPLETION OF NEED, REMOVE SCAFFOLDING.

IF REQUIRED, PROVIDE SUPPORT FOR PAINTING TENDON CAPS. (MAY NOT BE REQUIRED)

PROVIDE STATION AIR / HOSES AS NEEDED FOR OPERATING GREASING EQUIPMENT.

PROVIDE APPROX. FOUR TO FIVE 55 GALLON DRUMS AT THE BACK BERM FOR DISPOSAL OF REMOVED GREASE.

HEALTH PHYSICS/CHEMRAD SUPPORT:

HP SUPPORT AS REQUIRED FOR SURVEYS ASSOCIATED WITH SCAFFOLD ERECTION/REMOVAL AND WORK AT THE RB STRUCTURE.

CHEMRAD WASTE SUPPORT FOR HANDLING AND DISPOSAL OF REMOVED GREASE. DRUMS TO BE PROVIDED BY NFS AT THE REMOVAL SITE.

AT COMPLETION: (FOR ALL DISCIPLINES)

SUPPORT REMOVAL OF EQUIPMENT, T-POWER, LIGHTING, SCAFFOLDING ETC. FOLLOWING COMPLETION OF SURVEILLANCE.

DISPOSE OF WASTE GREASE AS REQUIRED.

SECURE WORK AREAS AND PROPERLY STORE ALL TOOLS, EQUIPMENT, AND UNUSED MATERIALS.

DOCUMENT ALL WORK PERFORMED, PARTS AND MATERIALS USED IN PART III, WORK SUMMARY.

********** MECH FAILURE CAUSE LIST **********

1. AGING/CYCLIC FATIGUE.
2. CORROSION, CRUD BUILD-UP, DIRT ACCUMULATION.
3. BLOCKED, PLUGGED, OBSTRUCTED, FOULING.
4. WELD RELATED.
5. LOOSE PARTS/DEFECTIVE CONNECTIONS.
6. SEAL LEAKAGE.
7. MATERIAL, FOREIGN, INCORRECT, DEFECT.
8. LUBRICATION - TOO LITTLE, TOO MUCH, LACK OF.
9. SEIZING, BINDING, STICKING.
10. BEARING FAILURE.
11. OTHER:

********** CORRECTIVE ACTION **********

1. CALIBRATION.
2. REPAIRED PART/COMPONENT.
3. REPLACED PART/COMPONENT.
4. REPACK.
5. ADD FLUID/LUBRICATE.
6. ADJUST/RESET/ALIGN.
7. TEMPORARY REPAIR.
8. TIGHTEN RE-TORQUE.
9. MODIFY/SUBSTITUTE COMPONENTS OR PARTS, INDICATOR.
10. REPLACED LUBRICANT.

OTHER:

COMMENTS:

MAINT _____ DATE _____

MC910R02

FLORIDA POWER CORPORATION
MAINTENANCE ACTIVITY CONTROL SYSTEM
NOTES FOR WDOC NU0368426 , TAG 5011

N O T E P A D T E X T

DWG. L-001-002

THIS WR PRINTED AND GIVEN TO MATT DENNY.

PER CONVERSATION W/ MATT DENNY, VENDOR WILL BE ON SITE WK OF 7/30/01, WW807 - M TELLER 6/12/01

REV TO PLAN, VENDOR WILL BE ON SITE WK OF 8/13/01, WW809 PER MATT DENNY - M TELLER 7/10/01

FLORIDA POWER CORPORATION

MC910R04 MAINTENANCE ACTIVITY CONTROL SYSTEM

DATE: 08/08/01

BILL OF MATERIALS FOR NU0368426

TAG	FIMIS NBR	DESCRIPTION	BOM QTY	GR LT	BM ST	RR	INSTALL QTY	INSTALL DATE

ENSURE REMOVAL OF AS MUCH PACKAGING FROM EACH ITEM AS POSSIBLE PRIOR TO RCA ENTRY

TAG ORDER NO: RB

RWP NO: _____

FPWP NO: _____

RELATED DOCUMENTS (Such as REA, MAR, PR,PKERE): REA 010597

AS FOUND: TEXT:(Include reason for deficiency, if known) Normal

COMPLETED WORK SUMMARY: (Add supporting details to continuation sheet) Performed 25th tendon surveillance per SR182. This package contains the visual exam data for the concrete surfaces, the data for the tendon surveillance, training records of personnel, procedures used and evaluation of results.

LESSONS LEARNED: (May Be Used for Input for Future Planning)
(1) Use trend data to support new base value predictions
(2) ~~Schedule~~ MD Hire contractor as turn key. Include Fork lift operator and ensure picker are available Coordinate flat bed moves with site (CDL).

AS LEFT: (Address Status Such as Operable, Incomplete (WR___), Condition of Area, etc.)

OJT PERFORMED YES ___ NO ___ IF YES, RECIPIENT _____

PRINT AND SIGN THE FOLLOWING

FIELD WORK VERIFIED/APPROVED BY: MATT DENNY /Matt Denny DATE: 1/8/02

MAINTENANCE DEFICIENCY TAG REMOVED: INITIAL N/A VERIFIED BY: _____

PACKAGE CLOSURE APPROVED BY: MATT DENNY /Matt Denny DATE: 1/8/02

8-14-01 ASSISTED IN UNLOADING EQUIPMENT OFF THE TRANSPORT TRAILERS. EPR

1 Week was spent by mechanical mntc. Supporting the assembly of the gantries in the yard.

2 days ~~was~~ were required to lift equipment on RB. (not including travel time)

- schedule RadWorker training for crane operators.

WORK PACKAGE DOCUMENTATION

NU 0368426

Related MAR No. N/A Work Request No. _____

Documents that are contained in a Work Package are to be identified. The completed checksheet must be included as part of the total Work Package.

X	*Original Work Request	X	*Request for Engineering Assistance (REA)
X	*WR Continuation Sheet(s)		*Engineering Instructions
	Work Package Documentation Check Sheet		*MOV Analysis/Calculation Sheets
X	*PRC-Approved Contractor Work Procedure(s)		Pre-job briefing/Training Attendance Sheet(s)
	*Weld Traveler Sheet(s)		Warehouse Release Tag(s)
	Material Certification(s)		Vendor Correspondence
	*FPWP(s): Write FPWP number(s) on WR.		*Inspection Plan Document Evaluation Form and all Inspection Plans
	*Issue Doc(s)		Maintenance Deficiency Tag
	Interim Print(s), Drawing(s), Sketch(es)		Fire Barrier Penetration Breach Report
	*For EQ Euipment, EQ RequirementReview Form		*Equipment Alteration Log
	*NPRDS Form		*ASME XI Work Evaluation Request
	PA&TS and/or Procedure Cover Sheet		*ASME XI Replacement Evaluation
	Procedure Sign-Off Sheets/ *Procedure Data Sheets		*ASME XI Repair Evaluation
	*Procedure Check-Off Lists		
X	*NDE Test Reports		
	*Calibration Data Sheet(s)		
	*Cable Pull Data; Terminate/Determinate Sheet(s)		
	QC Inspection Reports		
	*Instr. Data Sheets		

NOTE: Quality documentation to be included on the final Work Package is identified above by an asterisk(*).

COMMENTS: _____

Work Request Walkdown Checklist

Work Request #: 318426 Tag #: 5011 - Tendons LCO: Y (N) Maintenance Rule: Y (N)

ACTION	COMMENTS	Needs Attention	Satisfactory	N/A
Part 1 understood and correct			X	
Part 2 understood and correct			X	
Are work instructions accurate			X	
Is tagout correctly identified	Clearance: PDT: Will Call: None:			X
Are there related MDTs that should be added to work scope	MDT:			X
QC Hold Points identified and acceptable			X	
Are correct drawings, procedures, CDS, IDS identified			X	
Are composite Shop requirements adequately addressed	Discipline(s): # Hours:		X	
Other department's support req'd and scheduled	Ops: HP: ✓ Radwaste: ✓ Security: ✓ Other: HP/S E/S NPS		X	
Is dose estimate correct for high dose job	Dose at Job: Time in area: Total Dose: check with HPS ATTIME of job		X	
Are scaffold requirements adequately addressed			X	
Is insulation removal / restoration addressed adequately				X
Are required parts verified and On-Hand	PEERE: Hands On: check with MATT Denny or vendor	X		
Are rigging requirements addressed adequately	STILL NEED TO GET UP!		X	
Are FME requirements adequately addressed			X	
Are required forms / permits identified	Fire Prot: ? Con. Space: Breach Permit: ?		X	
Is component properly labeled	See MATT Denny for locations		X	
Special tools identified and available	Tools: vendor		X	
Are M&TE requirements adequately addressed				X
Are PMTs adequately addressed	SP-182		X	
Are pre-work training / mockup requirements addressed	Check TPM for infrequent tasks:			X
Are scheduled hours correct	# Men: # Hours:		X	
Are adequate contingencies included in the W.R.			X	
Are pre-staging requirements adequately addressed	before job by vendor		X	
			YES	
Are you ready to print a working copy of the W.R.			X	

Comments: Note: Any question talk with MATT Denny EXT: 3873

Field walkdown by: L. Simon Date: 8-8-01

only bottle at warehouse

ENCLOSURE 2

PRE-JOB AND POST-JOB BRIEFING CHECKLIST

NOTE

The scope of the briefing should be based upon the scope of the job, the potential impact on plant operation, safety hazards associated with the task, and the individuals and organizations involved. The supervisor or pre-job briefing leader should determine the items to be reviewed. Include all applicable asterisked items (*).

Procedure/Task Description	
Date / Time	
Lead Person	

PRE-JOB BRIEF

- ☐ *Ensure all **Personnel** involved with the task present
- ☐ Discuss **Communication** methods including coordinating actions
- ☐ Assign **Job Responsibilities** and ensure personnel **Qualifications**
- ☐ *Discuss **Job Scope** including sequence of events, hold points and applicable procedures
- ☐ Discuss applicable **Cautions, Notes,** and **Limits and Precautions** contained in the procedure(s)
- ☐ Discuss expected **Plant/Equipment Response,** including expected alarms
- ☐ *Discuss **Reactivity Management** controls to be used (ref. OI-01 Reactivity Management)
- ☐ *Discuss impact on **LCO/ LCO Impairment**
- ☐ Discuss impact on **Maintenance Rule**
- ☐ *Describe conditions that would **Warrant Stopping** the evolution/task
- ☐ Discuss **System Restoration Requirements**
- ☐ *Discuss any **ALARA** considerations (this may include an HP/ALARA briefing)
- ☐ *Discuss **Safety** implications (e.g., heat stress, additional PPE etc)
- ☐ *Discuss foreign material exclusion **FME** requirements
- ☐ Discuss requirements of the **Group Test Plan**
- ☐ Discuss **Conservative Decision Making** expectations
- ☐ *Discuss **Self Checking** and expectations for **PEER Checking**
- ☐ ***Human Performance**
  - Summarize **Critical Steps**
  - Review **Error Precursors** and human performance techniques to be applied to mitigate them
  - Evaluate **Error-likely Situations** and modify task, work environment, or change individuals, if necessary
  - Identify **Flawed Defenses** and add/modify defenses
  - Discuss **Lessons Learned** and operating experience (NUPOST, NUPOST Critique, External OE)
  - Identify potential **Consequences** of incorrect task performance and specify **Contingency** measures
  - Specify independent/concurrent **Verification,** as applicable
- ☐ Ensure **Plant Conditions** for the task established
- ☐ Ensure mechanical/electrical **Isolation is Verified**
- ☐ Ensure **Tools and Equipment** obtained and properly staged
- ☐ Ensure any required **Notifications** are made
- ☐ Ensure **Permission** to proceed obtained

POST-JOB BRIEFING

- ☐ Capture Lessons learned (NUPOST critique section, etc.)
- ☐ Initiate necessary corrective actions as appropriate (PC, MDT, W/R, REA, NUPOST, Training Request, etc)

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Florida Power CORPORATION

FLORIDA POWER CORPORATION
PURCHASE ORDER — RECEIVING REPORT

ENTITY	PURCHASE ORDER
NUC	L8004720

BLANKET RELEASE

CHANGE NOTICE

TO:
PRECISION SURVEILLANCE CORP
3468 WATLING STREET

EAST CHICAGO IN
46312

SHIP TO: FLORIDA POWER CORPORATION
CRYSTAL RIVER UNIT 3 STOREROOM

15760 WEST POWERLINE STREET

CRYSTAL RIVER, FL
34428

BUYER	SHIP VIA	F.O.B.	FREIGHT TERMS	VENDOR
080	TRUCK	NOT APPLICABLE	N/A	703199

P - PARTIAL
F - FINAL

LINE ITEM	ORDER QUANTITY	UNIT	FPC PART NUMBER	DESCRIPTION	DATE REQUIRED	QUANTITY RECEIVED	CODE
				(REF. SP-182, NOTE 3 BEFORE STEP 3.7.1.25). SHIMS: A CERTIFIED MATERIAL TEST REPORT IS REQUIRED. ********** F.P.C. INTERNAL DATA ********** 0615 222WK4013 0615018802			

SHIPMENT	DATE RECEIVED	PREPAID	COLLECT	DRAFT NO.	RECEIVED VIA	CAR NO.	PRO. NO.	RECEIVED BY	CODE
1									☐ DUPLICATE
2									☐ ERRONEOUS
FINAL									☐ SUBSTITUTE

REV 4/90

Florida Power
CORPORATION

☐ ISSUE ☐ ISSUE SPECIAL ☐ RETURN SPECIAL ☐ RETURN

I

R

IS

RS

STOREROOM NO.	☐ I ☐ IS ☐ RS ☐ R		RA	EAC	ACTIVITY	TASK
293		47543	615	222	WK4013	

LOCATION OR EXPLAINATION OF WORK

DISTRICT JOB NUMBER/PROJECT NUMBER

ISSUED BY/RETURNED BY: [signature] DATE: 8-24 1901

RECEIVED BY: [signature] DATE: 8-24 1901

PART NO./P.O. NO.	QTY.	U/I	SLED	DESCRIPTION/INFORMATION	S.O. CODE	REQ'D. QTY.
I1	1	LT		Grade and Gasket		
				40 Pins CR-002		
				40 Pins CR-003		
				39 Hose gaskets 8.23.01		
				10 nuts 8.23.01		
				1 DRUM Solvent		
				PO# L800473B		

Florida Power
CORPORATION

QUALITY CONTROL ISSUE
Central Division - Crystal River

DOCUMENT NUMBER
QCI No. 159266

RA	EAC	ACTIVITY	TASK	WORK REQUEST AND / OR MAR NUMBER(S)	STOREROOM NO.	SOURCE
615	222 220	WK. 4013		WR 4013	293	21

MMIS PART NUMBER (or P.O. ITEM NO.)	QTY	U/I	SLED	DESCRIPTION	HEAT/ SERIAL NO.	VENDOR	PURCHASE ORDER NUMBER	WAREHOUSE LOCATION	QUANTITY REQUESTED
IH1	1	LT	NA	GREASE 2090-P4	242721	PRECISION SURV	2800472	NA	10

SPECIAL HANDLING INFORMATION: NA

SPECIAL HANDLING INFORMATION

SPECIAL HANDLING INFORMATION

SPECIAL HANDLING INFORMATION

SPECIAL HANDLING INFORMATION

REMARKS

ISSUED BY SIGNATURE	DATE	RECEIVED BY SIGNATURE	DEPARTMENT	DATE	AUTHORIZED BY SIGNATURE	TITLE	DATE
	8-24-01			8-24-01			8-24-01

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FLORIDA POWER CORPORATION
PURCHASE ORDER – RECEIVING REPORT

ENTITY	PURCHASE ORDER
NUC	L8004738

TO:
PRECISION SURVEILLANCE CORP
3468 WATLING STREET

EAST CHICAGO IN
46312

SHIP TO: FLORIDA POWER CORPORATION
CRYSTAL RIVER UNIT 3 STOREROOM

15760 WEST POWERLINE STREET

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34428

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CHANGE NOTICE

BUYER	SHIP VIA	F.O.B.	FREIGHT TERMS	VENDOR
ORD	TRUCK	NOT APPLICABLE	N/A	703199

P - PARTIAL
F - FINAL

LINE ITEM	ORDER QUANTITY	UNIT	FPC PART NUMBER	DESCRIPTION	DATE REQUIRED	QUANTITY RECEIVED	COD
01	1	LT	*******LT	PROVIDE THE FOLLOWING NON-SAFETY RELATED MATERIAL: GREASE GASKETS QTY 40 PIECES - CR-002 (ATTACHED) QTY 10 PIECES - CR-003 (ATTACHED) SOLVENT QTY 1 DRUM, 55 GALLON INDUSTRIAL SOLVENT NO. 16A BY VISCOSITY. CHEMICAL COMPOSITION OF SOLVENT MUST BE CERTIFIED TO MEET THE REQUIREMENTS FOR VISCOSITY #16 (REF SP-182, NOTE BEFORE STEP 3.7.1.26). ********** F.P.C. INTERNAL DATA ********** 0615 222WK4013 0615018803 39 grease gaskets - recvd 8-23-01 10 grease gaskets recvd 8-23-01 1 Drum Solvent recvd 8-23-01 Chuck Christo 8-23-01	08/31/01		

SHIPMENT	DATE RECEIVED	PREPAID	COLLECT	DRAFT NO.	RECEIVED VIA	CAR NO.	PRO. NO.	RECEIVED BY	CODE
1									☐ DUPLICAT
2									☐ ERRONEO
FINAL									☐

REV 4/00

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FLORIDA POWER CORPORATION
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ITY	PURCHASE ORDER
NUC	L800473B

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34428

BUYER	SHIP VIA	F.O.B.	FREIGHT TERMS	VENDOR
DBO	TRUCK	NOT APPLICABLE	N/A	703199

P - PARTIAL
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LINE ITEM	ORDER QUANTITY	UNIT	FPC PART NUMBER	DESCRIPTION	DATE REQUIRED	QUANTITY RECEIVED	CODE
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SHIPMENT	DATE RECEIVED	PREPAID	COLLECT	DRAFT NO.	RECEIVED VIA	CAR NO.	PRO. NO.	RECEIVED BY	CODE
1									☐ DUPLICATI
2									☐ ERRONEOI
FINAL									☐ SUBSTITUT

REV 4/90

2-RECEIVING REPORT

Florida Power CORPORATION

FLORIDA POWER CORPORATION
PURCHASE ORDER — RECEIVING REPORT

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ENTITY	PURCHASE ORDER
NUC	L8004720

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CRYSTAL RIVER UNIT 3 STOREROOM
15760 WEST POWERLINE STREET
CRYSTAL RIVER, FL
34428

BUYER	SHIP VIA	F.O.B.	FREIGHT TERMS	VENDOR
080	TRUCK	NOT APPLICABLE	N/A	703199

P - PARTIAL
F - FINAL

LINE ITEM	ORDER QUANTITY	UNIT	FPC PART NUMBER	DESCRIPTION	DATE REQUIRED	QUANTITY RECEIVED	CODE
				* ITEMS REQUIRING PROTECTIVE CAPS/PLUGS, ADHESIVES, MARKING INK, LABELS, TAPE ETC. THAT ARE APPLIED TO OR CONTACT STAINLESS STEEL OR NICKEL ALLOY MATERIALS, MUST CONTAIN LESS THAN 200 PPM (EACH) OF LEACHABLE CLORIDES, FLUORIDES AND SULFIDES. **************			
				* THIS IS A QUALITY ORDER FOR NUCLEAR SAFETY RELATED EQUIPMENT/MATERIALS. **************			
				* ATTACHMENT "Q" (REV. 10/19/00) IS ATTACHED HERETO AND HEREIN MADE A PART OF THIS PURCHASE ORDER.			
01	1	LT	******LT	PROVIDE THE FOLLOWING SAFETY RELATED MATERIAL: QTY 10 55 GALLON DRUMS 2090-P4 GREASE BY VISCOSITY QTY 15 SETS SHIMS 3/16", 1/4", 3/8" AND 1/2" PER DRAWING NO. CR-001 (ATTACHED). GREASE: A CERTIFIED TEST REPORT BEARING TWO SIGNATURES INDICATING WATER SOLUBLE CHLORIDE AND SULFIDE CONTENT (2PPM MAX) AND NITRATE (4PPM MAX)	08/31/01		

Received →

Received 10 Dr
Cheryl Christ...
Chemical Code CYO

SHIPMENT	DATE RECEIVED	PREPAID	COLLECT	DRAFT NO.	RECEIVED VIA	CAR NO.	PRO. NO.	RECEIVED BY	CODE
1									☐ DUPLICATE
2									☐ ERRONEOU
FINAL									☐ SUBSTITUTE

REV 4/90

2–RECEIVING REPORT

P.O. DATE	PAGE
07/11/2001	5

FLORIDA POWER CORPORATION
PURCHASE ORDER – RECEIVING REPORT

ENTITY	PURCHASE ORDER
NUC	L8004720

BLANKET RELEASE

CHANGE NOTICE

TO:
PRECISION SURVEILLANCE CORP
3468 WATLING STREET

EAST CHICAGO IN
46312

SHIP TO: FLORIDA POWER CORPORATION
CRYSTAL RIVER UNIT 3 STOREROOM

15760 WEST POWERLINE STREET

CRYSTAL RIVER, FL
34428

BUYER	SHIP VIA	F.O.B.	FREIGHT TERMS	VENDOR
080	TRUCK	NOT APPLICABLE	N/A	703199

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			Received →	QTY 10 55 GALLON DRUMS 2090-P4 GREASE BY VISCOSITY			
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Received 10 Dr
Cheryl Christie & Chemical Cert C40

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FINAL									☐ SUBSTITUTI

REV 4/90

2-RECEIVING REPORT

P.O. DATE	PAGE
07/11/2001	5

Florida Power CORPORATION

FLORID' [redacted] ORATION
PURCHASE ORI [redacted] EIVING REPORT

ENTITY	PURCHASE ORDER
NUC	L8004720

BLANKET RELEASE

CHANGE NOTICE

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3468 WATLING STREET

EAST CHICAGO IN

46312

SHIP TO: FLORIDA POWER CORPORATION
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080	TRUCK	NOT APPLICABLE	N/A	703199

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Cheryl [signature]
Chemical Code CYO

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REV 4/90

2-RECEIVING REPORT

P.O. DATE
07/11/2001
PAGE
5

Florida Power CORPORATION

FLORIDA POWER CORPORATION
PURCHASE ORDER — RECEIVING REPORT

ENTITY	PURCHASE ORDER
NUC	L8004720

BLANKET RELEASE

CHANGE NOTICE

TO:
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3468 WATLING STREET

EAST CHICAGO IN

46312

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CRYSTAL RIVER UNIT 3 STOREROOM

15760 WEST POWERLINE STREET

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REV 4/00

ENCLOSURE 1

[NOCS 002542, 001858 and 007411]

Procedure Approval and Transmittal Sheet		
Procedure #	Revision #	Title

PART I PROCEDURE IMPLEMENTOR

Yes/No/N/A

	Procedure is complete for the intended function for which the procedure was obtained.
	Procedure is partially Complete (Due to new revision being issued, plant conditions, etc.)

Prepared By:	Position:	Date:

PART II DESIGNATED SUPERVISOR or RESPONSIBLE PERSON *(this must not be the same person who performed any steps in the procedure)*

Records enclosed:	

Required for Decommissioning - Yes - (Circle only if for Decommissioning)

Reason Performed (Schedule, WR#, Testing, etc.)	
Reason for Partial Completion of Procedure (Fill out only if associated block in Part I is checked "Yes"):	

TECHNICAL SPECIFICATION Acceptance Criteria Met	OTHER (NON-TECHNICAL SPECIFICATION) Acceptance Criteria Met
☐ YES ☐ NO ☐ N/A	☐ YES ☐ NO ☐ N/A

Corrective/Follow-up Action Initiated (Precursor Card, PRR, REA, CP-102, W.R., etc.) and listed below:

Route Original to:	Surveillance Coordinator (for SPs and PTs only)
	Records Management (for all other procedures)

1. *The enclosed information was reviewed and approved according to the steps outlined in this procedure.*
2. *Prior to returning any equipment to operable status and this is a SP or test, I have met face to face with the NSM/NSS to review the results of the SP or test.*
3. *I have reviewed the information enclosed and am satisfied that the above indicated result has been obtained, data is complete, and appropriate procedure pages and checklists are attached.*

Designated Supervisor:	Position:	Date:
Received by Document Services:		Date:

ENCLOSURE 3

[NOCS 62596]

TAG STATUS VERIFICATION SHEET
FOR

PROCEDURE:

For Operations SPs/PTs or other SPs/PTs that require logging readings from plant installed instrumentation:

- Check that all plant installed instruments are within their allowable calibration frequency by running the SP TAG STATUS report from MACS.

MD 1
Initial/Date

- Retain this sheet with the procedure and transmit to Records Management with the completed SP/PT.

CHEMICAL EVALUATION

PART I

1. Item Description (Provide MSDS) Visconrust 2090-P4

2. Proposed Use(s) Grease used in tendon conduit to prevent corrosion of tendon.

3. Purpose of Evaluation

☐ a. New purchase or new part add [Chemistry complete Part II].

☐ b. Evaluation of previously approved chemical for task not bounded by present color coding [Chemistry complete Part III].

☒ c. Contractor supplied material for specific project use

12R Rev

4. Name/Phone Number of Requestor Matt Denny 3873 or 8774

PART II

1. Chemical analysis available? ☒ Yes ☐ No

2. If no, is chemical analysis needed? ☐ Yes ☐ No

3. Color code assignment

☐ Blue ☐ Temporary assignment (subject to change based on chemical analysis results)

☐ Green ☒ Permanent assignment (chemical analysis available or unnecessary)

☒ Yellow

☐ Orange

☐ Red

4. Waste Disposal Code

☐ "W" -- Potentially Hazardous Waste

☒ "O" -- Non Hazardous Waste

Approved by Paul W Lam Date 8/23/01

Disapproved by _____ Date _____

Reason for disapproval or comments All excess material to remove from site when vendor is completed with task.

ORIGINAL REMAINS WITH EVALUATOR FOR FILE.
COPY TO NPES IF IN RESPONSE TO NEW PART ADD REQUEST.

Viscosity Oil Company
600-H Joliet Road
Willowbrook, Il 60521
Tel.: (630) 850-4000
Fax: (630) 850-4020

CHECKED
APR 16 2001
ERRAIN DAVID

QUALITY CONTROL CERTIFICATE
VISCONORUST 2090 P-4 CASING FILLER
NUCLEAR GRADE
Petrolia, PA

Customer P.O. Number 764
V.O. Job Number
Lot No. 242721

Physical Properties	Test	Results	Required
Wt. per Gallon @60°F (15.6°C)	-	7.500	7.3 - 7.8 lbs
Specific Gravity @ 60°F (15.6°C)	ASTM D-1298	0.90	0.88 - 0.94
Congealing Point, °F (°C)	ASTM D-938	148	135 (57) Min.
Flash Point °F (°C)	ASTM D-92	450	420 (215) Min.
Viscosity SUS @ 210°F (98.8°C)	ASTM D-88	225.0	150-300
Consistency (Cone Penetration) @ 77°F (25°C)	ASTM D-937	199	170-200
Total Base No. (Modified)	ASTM D-974	63.0	35 Min.
Water Content (% by wt.)	ASTM D-95	0.1	0.4 Max.

Chemical Properties (Note: Special ASME sample test preparations and reporting required)

Water Soluble Chlorides	ASTM D-512	1.0 ✓	2 ppm Max.
Water Soluble Nitrates	ASTM D-992-78	1.0 ✓	4 ppm Max.
Water Soluble Sulfides	APHA 4500 S (17TH Ed.)	1.0 ✓	2 ppm Max.

This certifies compliance with specifications and requirements covered by Customer's Purchase Order.

By: [redacted]
Quality Control Chemist

Date: 4/12/01

REVIEWED BY
PSE [redacted]
DATE 6-11-01
BY [redacted]

VISCOSITY OIL
600-E Joliet Road
Willowbrook, IL 60521

A Division of Pennzoil Products Company

MATERIAL SAFETY DATA SHEET

HMIS Rating:	Legend:
HEALTH = 1	0-Minimal
FIRE = 1	1-Slight
REACTIVITY= 0	2-Moderate
	3-Serious
	4-Severe

MSDS 06A490 DATE 04-27-98

********** SECTION 1 - MATERIAL IDENTIFICATION **********

Material/Trade Name: VISCONORUST 2090P-4

EMERGENCY TELEPHONE
VISCOSITY OIL
DAY ONLY 708-850-4000
24 HRS 800-546-6040

Synonyms: Rust preventive

Chemical Family/Formula: Petroleum Hydrocarbon

CAS No.: Mixture

********** SECTION 2 - INGREDIENTS **********

Composition	CAS	%	TOXICITY DATA
Solvent refined petroleum oil	64741-88-4	20-30	TLV 5mg/M3 as oil mist
Micro crystalline petrolatum	NA	40-50	NA
Modified metal alkyl/aryl Sulfonate	NA	30-40	NA

All ingredients in this product are list in the TSCA register.

********** SECTION 3 - PHYSICAL DATA **********

Boiling Point,760mm/Hg :500F
Specific Gravity,Water=1:0.885
Vapor Pressure,mm/Hg :ND
Vapor Density,Air=1 :ND
Appearance and Odor :Brown, thixotropic grease with petroleum odor.
Volatiles,% by Volume :Nil
Solubility in water,% by Volume :Insol.
Evaporation Rate,Butyl Acetate=1:Nil

********** SECTION 4 - FIRE AND EXPLOSION DATA **********

Flash point and test method	Auto ignition temp.	LFL	UFL
COC: 420F		ND %	ND %

Extinguishing Media: Water spray (fog), dry chemical, foam, Halon, carbon dioxide. Water stream may splash burning liquid, spreading the fire.

Special Fire Fighting Procedures: Class IIIB combustible liquid. Use air supplied breathing equipment for fighting interior fires. Cool fire exposed containers with water.

Unusual Fire and Explosion Hazards: None.

********** SECTION 5 - REACTIVITY DATA **********

Stability	Hazardous Polymerization
X Stable _ Unstable	_ May occur X Will not occur

Conditions and Materials to Avoid: Avoid strong oxidizers such as chlorine and oxygen, heat and sources of ignition.

Hazardous Decomposition Products: Combustion produces carbon monoxide and carbon dioxide along with thick black smoke. Traces of oxides of sulfur.

********** SECTION 6 - OCCUPATIONAL EXPOSURE LIMITS **********

No TLV established.

For oil mists, OSHA and ACGIH recommend TLV 5 mg/m3, 8hr TWA

********** SECTION 7 - HEALTH INFORMATION **********

Inhalation: Hazard is negligible unless heated to produce vapors or as a mist. Vapors or misted oils can irritate the mucous membranes and cause pulmonary irritation, dizziness and nausea.

Eye : Contact can cause irritation.

Skin : Prolonged or repeated contact with the skin may cause irritation of the hair follicles and block sebeceous glands causing rashes, oil acne or dermatitis.

High pressure injection of grease through the skin (a grease gun injury) can cause serious delayed damage to soft tissues. Regardless of the size or appearance of the wound, a physician should be contacted immediately.

Ingestion : May irritate digestive tract but is generally not harmful unless in large quantities.

Medical conditions aggravated by this product have not been determined.

********** SECTION 8 - EMERGENCY AND FIRST AID PROCEDURES **********

Skin : Wash with soap and water, or use waterless hand cleaner after skin contact. Launder contaminated clothing before reuse. If grease is injected under skin, get medical attention as soon as possible.

Eye : Flush with water for at least 15 minutes, getting under eyelids. Contact physician if irritation persists.

Inhalation: (Mists or vapors)- Remove victim from area of exposure to fresh air. If breathing difficulty or irritation persists contact a physician for assistance.

Ingestion : DO NOT INDUCE VOMITING! Contact physician for advice.

********** SECTION 9 - EMPLOYEE PROTECTION **********

Respiratory Protection: Respirators acceptable for mists or particulates recommended for protection from oil vapors or mists. Air supplied or self contained breathing equipment recommended for concentrations above 250 mg/M3.

Protective Clothing: Safety glasses, goggles, or face shield recommended to protect eyes from mists or splashing. Neoprene or Nitrile gloves and clothing recommended to prevent skin contact.

Other Protective Measures: Provide explosion proof ventilation where oils are heated or misted to meet TLV level. Employees must practice good personal hygiene, washing exposed skin several times daily and laundering contaminated clothing before reuse.

********** SECTION 10 - ENVIRONMENTAL PROTECTION **********

Spill Clean-up Procedures: Remove sources of ignition, contain spill to smallest area possible. Stop leak if possible. Pick up small spills with absorbent materials such as paper towels, "Oil Dry", sand or dirt. Recover large spills for salvage or disposal. Wash hard surfaces with safety solvent or detergent to remove remaining oil film.

Waste Disposal: Waste may be disposed of by a licensed waste disposal company. Contaminated absorbant materials may be disposed of in an approved land fill. Federal, State, and Local disposal regulations must be followed.

Environmental Hazards: Classified as an oil under section 311 of the clean water act. Spills entering surface waters or ant water courses or sewers entering/leading to surface waters that cause a sheen must be reported to the National Response center, 800-424-8802.

********** SECTION 11 - SPECIAL PRECAUTIONS **********

Store in closed containers below 120 degrees F (48.8 degrees C)

Keep away from oxidizing agents, excessive heat or sources of ignition.

********** SECTION 12 - TRANSPORTATION REQUIREMENTS **********

DOT Shipping Name: N/A DOT I.D. No.: N/A

DOT Classification: N/A UN Hazard Class: N/A

********** SECTION 13 - OTHER REGULATORY CONTROLS **********

SARA Title III Status: This product contains the following chemicals subject to the reporting requirements of Section 313 of SARA Title III:

None.

********** SECTION 14 - DATE AND SIGNATURE **********

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of this company's knowledge and believed accurate and reliable as of the date indicated. However, no representation, warranty, or guarantee is made as to it's accuracy, reliability or completeness. It is the users responsibility to satisfy himself as to the suitableness and completeness of such information for his own particular use.

Viscosity Oil Company 600-H Joliet Road Willowbrook, IL 60521

Data Prepared: 4-27-98 Approved By: J. A. SMIT, SR. RESEARCH CHEMIST

CHEMICAL EVALUATION

PART I

1. Item Description (Provide MSDS) Visconorust 1601 Solvent

2. Proposed Use(s) Used to remove the Visconorust 2090-P4 grease from tendon ends to perform visual exam.

3. Purpose of Evaluation

   ☐ a. New purchase or new part add [Chemistry complete Part II].

   ☐ b. Evaluation of previously approved chemical for task not bounded by present color coding [Chemistry complete Part III].

   ☒ c. Contractor supplied material for specific project use

4. Name/Phone Number of Requestor MATT DENNY 38B, 8774

PART II

1. Chemical analysis available? ☐ Yes ☒ No

2. If no, is chemical analysis needed? ☐ Yes ☐ No

3. Color code assignment

   ☐ Blue
   ☐ Green
   ☐ Yellow
   ☒ Orange
   ☐ Red

   ☐ Temporary assignment (subject to change based on chemical analysis results)
   ☒ Permanent assignment (chemical analysis available or unnecessary)

4. Waste Disposal Code

   ☒ "W" -- Potentially Hazardous Waste

   ☐ "O" -- Non Hazardous Waste

Approved by Paul W. C[illegible] Date 8/23/01

Disapproved by ____________ Date ____________

Reason for disapproval or comments All waste material associated with this product use must be removed by vendor when task is completed.

ORIGINAL REMAINS WITH EVALUATOR FOR FILE.
COPY TO NPES IF IN RESPONSE TO NEW PART ADD REQUEST.

TO: JOHN SCHALLER
Laboratory Supervisor
Viscosity Oil Co.
Fax # 1-630-850-4023

164

ROCK VALLEY OIL & CHEMICAL
ROCKFORD, IL.

QUALITY CONTROL CERTIFICATE
VISCOSITY OIL CO. INDUSTRIAL 16A

Viscosity Oil P.O. # 5519

Lot Number 57211

PHYSICAL PROPERTIES	TEST	RESULTS	REQUIRED
Specific Gravity @ 60°F (15.6°C)	ASTM D- 1298	0.773	0.75 – 0.79
Flash Point °F (°C)	ASTM D- 66	108°F	100(37) min
Residual Odor		PASS	Mild
Doctor Sulfur Test	ASTM D-484	PASS	Neg.
Corrosion Test	ASTM D-130	PASS	1A

By: Norma Kamler
Quality Control Chemist

Date: 6/04/01

20276
031201

REVIEWED BY
PSC QA PERSONNEL
DATE 6-5-01
BY

VISCOSITY OIL
600-H Joliet Road
Willowbrook, IL 60521

MATERIAL SAFETY DATA SHEET

HMIS Rating:	Legend:
HEALTH = 1	0-Minimal
FIRE = 2	1-Slight
REACTIVITY= 0	2-Moderate
	3-Serious
	4-Severe

MSDS	DATE
01L610	04-27-98

********** SECTION 1 - MATERIAL IDENTIFICATION **********

Material/Trade Name: INDUSTRIAL 16A

EMERGENCY TELEPHONE

CHEMTREC 800-424-9300

Synonyms: Petroleum distillate

Chemical Family/Formula: Petroleum hydrocarbon faction

CAS No.: Mixture

********** SECTION 2 - INGREDIENTS **********

Composition	CAS.	%	TOXICITY DATA
Petroleum hydrocarbon distillate	64742-48-9	100	TLV 100ppm PEL 500ppm

All ingredients in this product are list in the TSCA register.

********** SECTION 3 - PHYSICAL DATA **********

Boiling Point,760mm/Hg	:300-380 F	Volatiles,% by Volume	:100
Specific Gravity,Water=1	:0.76-0.78	Solubility in water,% by Volume	:insol.
Vapor Pressure,mm/Hg	:2mm Hg	Evaporation Rate, Ether = 1	:70
Vapor Density,Air=1	:4.9		
Appearance and Odor	:Water-white liquid, mild hydrocarbon odor.		

********** SECTION 4 - FIRE AND EXPLOSION DATA **********

Flash point and test method	Auto ignition temp.	LEL	UEL
TCC: 100 F min.	NA	0.7%	6.0%

Extinguishing Media: Water spray (fog), dry chemical, foam, Halon, carbon dioxide. Water stream may splash burning liquid, spreading the fire.

Special Fire Fighting Procedures: Class IIIB combustible liquid. Use air supplied breathing equipment for fighting interior fires. Cool fire exposed containers with water.

Unusual Fire and Explosion Hazards: A vapor accumulation would flash and/or explode if ignited. Never use a welding on or near drum, even if empty.

********** SECTION 5 - REACTIVITY DATA **********

Stability	Hazardous Polymerization
X Stable _ Unstable	_ May occur X Will not occur

Conditions and Materials to Avoid: Avoid strong oxidizers such as chlorine and oxygen, heat and sources of ignition.

Hazardous Decomposition Products: Combustion produces carbon monoxide and carbon dioxide along with smoke.

********** SECTION 6 - OCCUPATIONAL EXPOSURE LIMITS **********

No TLV established.

For solvent vapors or mists, ACGIH recommends TLV 100 PPM/8hr. day.

********** SECTION 7 - HEALTH INFORMATION **********

Inhalation: Vapors can irritate the mucous membranes and cause pulmonary irritation, dizziness and nausea.

Eye : Contact can cause irritation.

Skin : Prolonged or repeated skin contact with this product tends to remove skin oils possibly leading to irritation and dermatitis; however, based on human experience and available toxicological data, this product is judged to be neither a "corrosive" nor an "irritant" by OSHA criteria. Also, see Section 11 for additional health information.

Ingestion : This product is judged to have an acute oral LD50 (rat) greater than 5 g/kg of body weight and an acute dermal LD50 (rabbit) greater than 3.16 g/kg of body weight.

Possible aspiration hazard exists with low viscosity products during vomiting which could cause pulmonary edema which can be fatal.

Effects of Overexposure: High vapor concentrations (greater than approximately 1000 ppm) are irritating to the eyes and the respiratory tract, may cause headaches and dizziness, are anesthetic, and may have other central nervous system effects.

********** SECTION 8 - EMERGENCY AND FIRST AID PROCEDURES **********

Skin : Wash with soap and water, or use waterless hand cleaner after skin contact. Launder contaminated clothing before reuse.

Eye : Flush with water for at least 15 minutes, getting under eyelids. Contact physician if irritation persists.

Inhalation: (Mists or vapors)- Remove victim from area of exposure to fresh air. If breathing difficulty or irritation persists contact a physician for assistance.

Ingestion : DO NOT INDUCE VOMITING! Contact physician for advice.

********** SECTION 9 - EMPLOYEE PROTECTION **********

Respiratory Protection: Respirators acceptable for mists or particulates recommended for protection from oil vapors or mists in excess of the TLV (5mg/M3). Air supplied or self contained breathing equipment equipment recommended for concentrations above 250 mg/M3.

Protective Clothing: Safety glasses, goggles, or face shield recommended to protect eyes from mists or splashing. Neoprene or nitrile gloves and clothing recommended if needed to prevent skin irritation.

Other Protective Measures: Use only with ventilation sufficient to prevent exceeding recommended exposure limit or buildup of explosive concentrations of vapor in air. No smoking or open lights. Employees must practice good personal hygiene, washing exposed skin several times daily and laundering contaminated clothing before reuse.

********** SECTION 10 - ENVIRONMENTAL PROTECTION **********

Spill Clean-up Procedures: Shut off and eliminate all ignition sources. Keep people away. Recover free product. Add sand, earth or other suitable absorbent to spill area. Minimize breathing vapors. Minimize skin contact. Ventilate confined spaces. Open all windows and doors. Keep product out of sewers and watercourses by diking or impounding. Advise authorities if product has entered or may enter sewers, watercourses, or extensive land areas. Assure conformity with applicable governmental regulations. Continue to observe precautions for volatile, combustible vapors from absorbed material.

Waste Disposal: Waste may be disposed of by a licensed waste disposal company. Contaminated absorbent materials may be disposed of in an approved landfill. Federal, State, and Local disposal regulations must be followed.

Environmental Hazards: Classified as an "Oil" under Coast Guard regulations and the Clean Water Act. Spills entering a waterway that cause sheen on the water surface must be reported to the U.S. Coast Guard National Resource Center- (800) 424-8802.

********** SECTION 11 - SPECIAL PRECAUTIONS **********

"Empty" containers retain residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS OR OTHER SOURCES OF IGNITION: THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.
Keep product away from heat, sparks, pilot lights, static electricity, and open flame.

Petroleum products under high pressure, if injected through the skin (ie, from a hose leak), can cause serious delayed damage to soft tissues. Regardless of the size or appearance of the wound, a physician should be contacted immediately.

********** SECTION 12 - TRANSPORTATION REQUIREMENTS **********

DOT Shipping Name:	DOT I.D. No.:
Petroleum Naphtha or Petroleum Naphtha Mixture	NA 1255
DOT Classification:	**UN Hazard Class:**
Combustible Mixture	UN 1255

********** SECTION 13 - OTHER REGULATORY CONTROLS **********

SARA Title III Status: This product contains the following chemicals subject to the reporting requirements of Section 313 of SARA Title III:

None.

********** SECTION 14 - DATE AND SIGNATURE **********

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of this company's knowledge and believed accurate and reliable as of the date indicated. However, no representation, warranty, or guarantee is made as to it's accuracy, reliability or completeness. It is the users responsibility to satisfy himself as to the suitableness and completeness of such information for his own particular use.

Viscosity Oil Company 600-H Joliet Road Willowbrook, IL 60521

Date Prepared: 4-27-98 Approved By: J. A. SMIT, SR. RESEARCH CHEMIST

********** SECTION 11 - SPECIAL PRECAUTIONS **********

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DOT Shipping Name:	DOT I.D. No.:
Petroleum Naphtha or Petroleum Naphtha Mixture	NA 1255
DOT Classification:	**UN Hazard Class:**
Combustible Mixture	UN 1255

********** SECTION 13 - OTHER REGULATORY CONTROLS **********

SARA Title III Status: This product contains the following chemicals subject to the reporting requirements of Section 313 of SARA Title III:

None.

********** SECTION 14 - DATE AND SIGNATURE **********

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of this company's knowledge and believed accurate and reliable as of the date indicated. However, no representation, warranty, or guarantee is made as to it's accuracy, reliability or completeness. It is the users responsibility to satisfy himself as to the suitableness and completeness of such information for his own particular use.

Viscosity Oil Company 600-H Joliet Road Willowbrook, IL 60521

Date Prepared: 4-27-98 Approved By: J. A. SMIT, SR. RESEARCH CHEMIST

Florida Power
A Progress Energy Company

memo

Date: June 5, 2002

To: Carlos Colarte (ANII)

From: Matt Denny

Subject: Response to ANII Open Items Report # 02-002 NPTS02-0049

The purpose of this memo is to provide documentation of the responses to the open items documented via ANII Open Items Report # 02-002 (attached). These items are related to the 7th Tendon Surveillance performed at Crystal River Unit 3 in the fall of 2001.

Item A: Completion inspection results (data sheet 6.0) for tendon 46H39 verification of ID numbers were not recorded (i.e. "accepted" or "rejected" was not circled on the datasheet).

Resolution: A review of the recorded information versus the original stressing information was performed and the item was verified to be acceptable. The data sheet in the work package was modified by circling the "accepted" option for this item.

Item B: The anchorage inspection (data sheet 8.0) for tendons 46H29, 46H30, 46H36 and 46H37 was performed, but the results were not recorded on the data sheet (i.e. "accepted" or "rejected" was not circled on data sheet).

Resolution: A review of the data sheet versus the acceptance criteria and reporting criteria in SQ 8.1 was performed. All the data sheets were modified by circling the appropriate option. 46H30 was the only one which had the "rejected" option circled. This condition was reported, evaluated and the results of the evaluation recorded per the appropriate procedures via NCR FN750-017. The condition reported was determined to be acceptable as-is.

Item C (data sheet 8.3):

- Tendon 46H36 had no result circled.
- Tendon 62H2 had no result circled.
- Tendon D212 was missing a NCR and/or evaluation documentation for bearing plate concrete inspection, which was rejected by QC inspection.

- Tendon D339 had no result circled.

Resolution: A review of the information recorded on the appropriate data sheets, the acceptance criteria provided in Procedure SQ 8.3 and the supplemental information provided by the Responsible Professional Engineer (RPE) via memo dated September 4, 2001 (attached) resulted in the following:

- 46H36 was determined to be acceptable per procedure. "Accepted" was circled on data sheet.
- 62H2 was determined to be acceptable per guidance provided in the RPE memo. There was a spall recorded, which was not addressed in the SQ 8.3 acceptance criteria. Based on the additional clarification provided in the memo, this spall was determined to be acceptable and a NCR was not required.
- D212 was reported to CR3 engineering via memo as required per procedure SQ 8.3. A copy of this memo is provided in section 6.0 of the final PSC report. Per SQ 8.3 there is no requirement to generate a NCR for this condition (i.e. crack less than 0.050 inch wide). This item was evaluated by the RPE and found to be acceptable with no further actions. Evaluation is attached and was inserted into the work package.
- D339 was determined to be acceptable per procedure and the RPE memo. "Accepted" was circled on the data sheet.

Item D: Tendon D212 did not have the result (data sheet 9.0a) recorded.

Resolution: Reviewed the information on the datasheet and determined that this sign off was for the entire 9.8.12 step (four actions). The individual actions were recorded as acceptable. Based on this review, it can be concluded that the results for the entire step were acceptable. The "accepted" option on the data sheet was circled.

Item E: No results (i.e. "rejected" or "accepted" not circled on datasheet) recorded for retension results (data sheet 11.0) for tendons 12V1 (hold point 9.3), 45V14 (hold point 9.3) and 46H32 (hold point 9.5).

Resolution: A review of the data and the governing procedures revealed that these are stop work hold points. The signature for these hold points was provided at the time of the surveillance. With this information, it can be concluded that the hold point inspections were performed and the results were acceptable. The "accepted" option on the appropriate data sheets was circled.

Item E (second one): No results (i.e. "rejected" or "accepted" not circled on datasheet) recorded for grease can replacement (data sheet 12.0) for tendons 46H30, 46H31, 46H34, 46H35, 46H36, 46H37 and 46H39.

Resolution: A review of the procedure and the data has resulted in the determination that these hold points are to stop work and perform inspections. The fact that the steps have been initialed by the QC representative is evidence that the inspections were performed. Since there were no NCRs generated as a result of these inspections, it can be concluded that the results were acceptable. The "accepted" option has been circled on the appropriate datasheets.

Item F: There were no results recorded (data sheet 12.1) for tendon 45V14 hold point 9.8.5.1.

Resolution: This hold point was for the QC representative to measure the height of the grease remaining in the barrel after pump through. Since there is a value recorded for this measurement, it can be concluded that this item was acceptable. The appropriate data sheet has been modified by circling the "accepted" option.

Based on the resolutions provided for each item, this open item report for the 7th tendon surveillance is considered closed with no further actions required.

MFD:lfd

Attachments:
ANII Open Items Report # 02-002
Memo to Matt Denny from Joe Lese dated September 4, 2001
Copy of e-mail from Joe Lese to Matt Denny dated June 4, 2002

c:
IWE/IWL Program Notebook
WR 368426

OPEN ITEMS

NO - 02-002

TENDON SURVEILLANCE REPORT

OPEN ITEMS RECORD ISSUED BY AIA DURING:

☐ INITIAL REVIEW ☐ IN-PROGRESS REVIEW

☑ FINAL REVIEW

AIA	REPORTED OPEN ITEMS: CSC/AN11	5/20/02
	CLOSED OPEN ITEMS:	/ /

COMMENTS: DATA SHEETS. PLEASE COMPLETE THE FOLLOWING:

A. GREASE CAN REMOVAL DATA SHEET

1. TENDON 46H39. (8.5.1) HOLD POINT WITHOUT RESULT (REJECTED OR ACCEPTED)

B. ANCHORAGE INSPECTION:

1. (9.0) NOTIFICATION WITHOUT RESULT. TENDON 46H29
2. SAME TENDON 46H30
3. (8.1) CORROSION INSPECTION HOLD POINTS WITHOUT RESULT TENDON ~~46H32~~ 46H36
4. (9.c) NOTIFICATION WITHOUT RESULT. TENDON 46H37

C. BEARING PLATE CONCRETE INSPECTION

1. TENDON 46H36. NO RESULT.
2. TENDON 62H2. NO RESULT.
3. TENDON D212. PLEASE IDENTIFY NCR AND/OR EVALUATION DOCUMENTATION FOR BEARING PLATE CONCRETE INSPECTION WHICH WAS REJECTED BY QC INSP.
4. TENDON D339. NO RESULT.

AIA = AUTHORIZED INSPECTION AGENCY.

OPEN ITEMS

NO - 02-002.

TENDON SURVEILLANCE REPORT

OPEN ITEMS RECORD ISSUED BY AIA DURING:

☐ INITIAL REVIEW ☐ IN-PROGRESS REVIEW

☑ FINAL REVIEW

AIA	REPORTED OPEN ITEMS:	CVC/ANI	5/20/02
	CLOSED OPEN ITEMS:		1 1

COMMENTS: DATA SHEETS:

D. MONITOR TENDON FORCE:

1. TENDON D212. (9.8.12) HOLD POINT. NO RESULT.

E. RETENTION TENDONS

1. TENDON 12V01. (9.3) HOLD POINT. NO RESULT.
2. TENDON 45V14. (9.5)[3] HOLD POINT. NO RESULT.
3. TENDON 46H32. (9.5) HOLD POINT. NO RESULT.

E1. GREASE CAN REPLACEMENT:

1. TENDON 46H30, 46H31, 46H34, 46H35, 46H36, 46H37, 46H39 (9.1); (9.5.1); (9.6.1); (9.9.1); (9.11); & (9.12). NO RESULT.

F. GREASE REPLACEMENT

1. TENDON 45V14. (9.8.5.1) HOLD POINT. NO RESULT

NOTE: THERE ARE ORIGINAL DATA SHEETS AND TWO COPIES OF EACH ORIGINAL

FOR YOUR CONVENIENCE ALL PAGES OF ONE COPY OF THE TENDON SURVEILLANCE REPORT ARE MARKED TO IDENTIFY UNCOMPLETED RESULTS ON DATA SHEETS

AIA = AUTHORIZED INSPECTION AGENCY.

Florida Power
A Progress Energy Company

memo

Date: September 4, 2001

To: Matt Denny

From: Joe A. Lese

Subject: Visual Examination of External Reactor Building Surfaces

In accordance with ASME Section XI, Subsection IWL, a visual examination of the exterior concrete surfaces of the Reactor Building will be performed in conjunction with the 7th Tendon Surveillance at CR3. While Section 5.1.1 of IWL provides general guidelines for the visual examination of concrete surfaces, the following information is provided to supplement that information and is to be used to assist the examiners in documenting areas of distress. Documentation should include, but is not limited to the following:

1) Exposed tie wires, #9 wires, or form nails
2) Bug holes greater than 2" diameter and ¾' depth
3) Pop outs greater than 2" diameter and ¾" depth
4) Light scaling greater than 1-1/8" deep
5) Spalling greater than 8" in any direction and ¾" depth
6) Grouted form ties/form tie holes (acceptable provided no spalling or corrosion staining)
7) Grouted patches over cold joints
8) Corroding eye bolts, anchors, bolts remaining from original construction, ground clips, form ties
9) Rough/uneven concrete finish with exposed rebar
10) Cracks greater than 1 mm in maximum width
11) Abnormal deformation of concrete from its original shape
12) Leaching/staining

Documented areas of concern will be resolved on a case by case basis by Design Engineering Structural. If you require further information, please contact Joe Lese @ ext. 3898.

JAL:jal

Denny, Matthew F.

From: Lese, Joseph A.
Sent: Tuesday, June 04, 2002 1:28 PM
To: Denny, Matthew F.
Subject: Tendon Surveillance

The 7th tendon surveillance for CR3 revealed the existence of a crack in the vicinity of dome tendon D212. Per the inspection criteria, engineering needs to be notified when cracks greater than 1 millimeter are found. The subject crack is greater than 0.01" but less than 0.05". When compared to the data taken for this same location during the 6th tendon surveillance, the crack diameter has not appreciably changed and the crack has lengthened only minimally (approximately 1"). Design engineering structural finds this condition acceptable and with no adverse affect to the structural integrity of the concrete adjacent to tendon D212. This minor hairline cracking is consistent with other concrete structures at CR3 and does not warrant further investigation. This condition to be monitored again during the 8th tendon surveillance.

Joe A. Lese
Design Engineering Structural

Florida Power
A Progress Energy Company

memo

Date: June 5, 2002

To: File

From: Matt Denny

Subject: Evaluation and Acceptance of PSC Tendon Surveillance Results (25th Year) NPTS02-0050

The purpose of this memo is to provide documentation of the evaluation and acceptance of the 25th Year Tendon Surveillance results. The surveillance was conducted by Precision Surveillance Corporation (PSC) between August 2001 and January 2002 with CR-3 site overview utilizing SP-182 as the controlling site procedure. The actual procedures used for testing activities were contained in the PSC In-Service Inspection Manual for FPC Crystal River Unit 3 (N750) Revision 0. This 25th year surveillance met all the requirements of ASME Section XI, subsection IWL as modified by 10CFR50.55(a). The results of this surveillance have shown that the CR-3 containment structure has not experienced abnormal degradation and is projected to meet its minimum design criteria until the end of the forty-year life.

The following discussions will show the code compliance.

IWL-2400: Schedule
CR-3 performed the Structural Integrity Test in November of 1976. The code required the 25th surveillance be performed in November of 2001 +/- 1 year. Since the 25th surveillance was performed between 8/01 and 1/02 this requirement was met.

IWL-2510: Examination of Concrete
The concrete was visually examined (VT-3C) during the 25th surveillance period. For areas that required further evaluation, a detailed visual exam (VT-1C) was performed. The data was reviewed by the Responsible Professional Engineer (RPE) and found to be acceptable.

IWL-2520: Examination of Unbonded Post-Tensioning Systems
The random selection for CR-3 resulted in three Dome, three Vertical and 5 Horizontal tendons being selected. These tendons were D212, D126, D339, 12V1, 45V14, 61V8, 46H21, 62H13, 46H36, 53H16 and 62H3. While trying to perform liftoffs on horizontal tendon 62H13, it was determined that this tendon was not accessible for testing. Per IWL-

2521.1, 62H09 was selected as a substitute tendon. The IWL-2524 and IWL-2525 examinations were performed on the exempted tendon (62H13).

IWL-2522: Tendon Force Measurements
Tendon force measurements were performed on the selected sample and adjacent tendons as required. The acceptance criteria of IWL-3221.1 was met for all the tendons with the exception of tendon 46H36. This tendon was found below the 90% Predicted Base Value. The analysis of the as-found lift-off forces contained in Section II, item VIII on page 41 of the PSC final report, demonstrates that the as-found condition is acceptable for this tendon. Part of the analysis is a discussion on the calculation of the predicted base value for each tendon. Historically CR-3 has found numerous tendons below the 95% of predicted base value, but demonstrated the acceptability of the containment with the as-found condition. Therefore for the next surveillance, CR-3 should re-evaluate the method used for predicting the base value.

IWL-2523: Tendon Wire and Strand Sample Examination and Testing
Tendons D339, 45V14 and 53H16 were detensioned and a wire removed for testing. The acceptance criteria of IWl-3221.2 was met for all wire samples.

IWL-2524: Examination of Tendon Anchorage Areas
A VT-1 visual examination was performed for all tendons when the end cap was removed. There was some corrosion observed on the bearing plate outside the O-Ring that seals the tendon anchorage system on four tendons. These areas were cleaned and smoothed using an epoxy mix to ensure the seal would remain intact. There were also several instances of missing or broken wires observed. These instances were compared against the acceptance criteria contained in SP-182 and found to be acceptable, and therefore no further analysis was required for these conditions.

IWL-2525: Examination of Corrosion Protection Medium and Free Water
There were no instances of free water in the corrosion protection medium. The acceptance criteria of IWL-3221.4 was met for all samples taken.

IWL-2526: Removal and Replacement of Corrosion Protection Medium
The amount of grease removed and replaced was recorded for each tendon.

10CFR50.55(a)(viii) Examination of Concrete Containments

A. During the visual exam, all grease caps were examined for leakage and deformation. One minor leak was observed on tendon 53H40 (field end). The end cap was removed and the O-Ring gasket was replaced.
B. The evaluation of the trend data does not indicate an adverse trend.
C. The elongation of any tendon during restressing did not vary from previously recorded results by more than 10% and therefore was acceptable.
D. The following items shall be included in the RFO 13 NIS-1 report:
    1. The presence of water in the grease sample. There was no water recorded for this surveillance.

2. The absolute difference between the amount of grease removed and the amount replaced exceeds 10% of the net duct volume. Tendon D212 exceeded this value and this information must be included in the RFO 13 NIS-1 report. The condition was reviewed and evaluated against previous evaluations (15th and 20th surveillance) and found to be similar in nature (i.e. original greasing practices were not as precise as current practices). There was no further evaluation determined to be required.
3. Detection of grease leakage (if found). During the visual exam, grease leakage was detected on the buttresses in the intermediate building (adjacent to main steam and feedwater penetrations). The leaking material was observed and determined to be the product of the original Viconorsut P-2 grease. This grease would tend to separate into an oil product and grease product when exposed to high temperatures. The temperature in this building is usually greater that 100 degrees. In addition to this separation of the grease, the O-Rings are only designed to prevent grease leakage. The oil will escape through the joint and appear as leakage down the buttress. In an attempt to eliminate the leakage, the end caps were packed with the replacement grease (Visconorust P-4). The P-4 grease is more tolerant to the high temperatures and will not separate like the P-2 grease. The leakage in the intermediate building and on tendon 53H40 field end will be included in the RFO 13 NIS-1 report.

Based on this evaluation, the results of the 25th tendon surveillance performed at CR-3 have been determined to meet the code requirements and are determined to indicate that the CR-3 containment structure is functioning as designed. The RFO 13 NIS-1 report (due within 90 days of the completion of RFO 13) will contain discussion of the grease leakage identified and replacement grease quantity exceeding 10% of the net duct volume.

Prepared By: _____

Matt Denny

Reviewed By: _____

Joe Lese (RPE)

Reviewed By: _____

Carlos Colarte (ANII)

CONFIRMATION OF CONTRACTOR NDE MEASURING AND TEST EQUIPMENT

NDE-MTE.FRM

TO: Nuclear Quality Control (NQC)

FROM: ISI/IST

The below listed measuring and test equipment is being provided by the contractor. Upon receipt, NQC to review and confirm validity of certification and record results in Part II. Upon completion, sign below and return to ISI/IST.

PART I			PART II
EQUIPMENT NAME	I.D. NUMBER	CALIBRATION CERTIFICATIONS ATTACHED	NQC REVIEW
1400 Ton Hydr Ram	8783	Yes	X Yes ___ No
1400 Ton Hydr Ram	8833	Yes	X Yes ___ No
0-10,000 PSI gauges	Farney #2	Yes	X Yes ___ No
" "	CC 125169	Yes	X Yes ___ No
" "	CC 125168	Yes	X Yes ___ No
Pocket Thermometer	PK 42	Yes	X Yes ___ No
" "	PK 65	Yes	X Yes ___ No
Surface Thermometer	ST 71	Yes	X Yes ___ No
" "	ST 72	Yes	X Yes ___ No
24" Ruler	R-9	Yes	X Yes ___ No
" "	R-15	Yes	X Yes ___ No

TRANSMITTED BY: [signature] 9/6/01
ISI/IST PROGRAM MANAGER/DATE

REVIEWED BY:
NQC REVIEWER/DATE

Upon receipt by ISI/IST forward results to Records Management.

- Need Reference to PSC QA manual Procedure which Requires Traceability of M+TE (calibrated) to NIST.
  B P Komara 9/17/01
  - Reviewed PSC QA manual provided by PSC site personnel.
  - Manual was controlled; control number 00005.
  - Pg 12-1, Rev. date 7-1-86 addresses control of M+TE, and refers to the National Bureau of Standards (NBS).
  - NOTE: Advise PSC that NBS was changed to NIST at least five years ago. PSC needs to update manual.
    B.P. Komara 9/24/01

CONFIRMATION OF CONTRACTOR NDE MEASURING AND TEST EQUIPMENT CONTINUATION PAGE

PART I			PART II	
EQUIPMENT NAME	I.D. NUMBER	CALIBRATION CERTIFICATIONS ATTACHED	NQC REVIEW	
Optical Comparitor	OC-C	yes	X Yes	___ No
" "	OC-BB	yes	X Yes	___ No
Feeler Gauge Set	F43	Yes	X Yes	___ No
" "	F49	yes	X Yes	___ No
0-10,000 Hése gauge	57-2662	Yes	X Yes	___ No
			___ Yes	___ No
			___ Yes	___ No
			___ Yes	___ No
			___ Yes	___ No
			___ Yes	___ No
			___ Yes	___ No
			___ Yes	___ No
			___ Yes	___ No
			___ Yes	___ No
			___ Yes	___ No
			___ Yes	___ No
			___ Yes	___ No
			___ Yes	___ No
			___ Yes	___ No
			___ Yes	___ No

SHIPPING RELEASE AND PACKING LIST

QUALITY CONTROL DOCUMENTATION

PSC Formerly Inryco Surveillance

Customer: FLORIDA POWER CORPORATION	Shipment No. N/A
Project: CRYSTAL RIVER - UNIT 3	Contract: N750
Prepared by: H.F. HENDRICKSON	Fabricator: N/A
Inspected by: H.F. Hendrickson	Date: 8-7-01 Page 1 of 1

Documentation to satisfy the Quality Assurance requirements have been reviewed and found acceptable.

SIGNED H.F. Hendrickson DATE 8-7-01

PSC QUALITY ASSURANCE REPRESENTATIVE

QUANTITY	~~PART NO.~~ UNIT	DESCRIPTION
1	EACH	1400 TON HYDR-RAM # 8783
1	EACH	1400 TON HYDR. RAM # 8833

2 Total Pieces

N/A Total Weight

PSC

PRECISION SURVEILLANCE CORPORATION

3468 WATLING ST. EAST CHICAGO, IN 46312
(219) 397-5826 FAX (219) 397-5867

QUALITY ASSURANCE DOCUMENTATION CERTIFICATE OF COMPLIANCE	Precision Surveillance Corporation

Project FLORIDA POWER CORPORATION CRYSTAL RIVER - UNIT 3 Contract N750 Date 8-7-01

Material Identification 1-EA. 1400 TON RAM #8783, 1-EA. 1400 TON RAM #8833

Purchase Order No. FPC - CONTRACT # N0205TAD

Specification and Revision No. APPENDIX "C" TO FPC CONTRACT # N0205TAD

Drawing and Revision No. N/A

Procurement Requirements MET BY ATTACH RAM CALIBRATIONS

(met by material) YES

Deviations NONE

Resolution N/A

Disposition N/A

Non-Conformance NONE

Q.A. Release for NCR N/A

Deviations and Non-Conformances shall be attached to this form.
N/A to be written in for Not Applicable; all blanks shall be filled in.

This is to certify that the above material has been fabricated and inspected in compliance with the specified drawings, procedures, specifications, codes, purchase order requirements, PSC Quality Assurance Manual Revision 2 Dated 6-28-91 and the attendant quality programs.

Vendor PRECISION SURVEILLANCE CORP. Authorized Agent H.T. Hendrickson

Date 8-7-01 Title MGR., Q.A.

PSC QUALITY CONTROL ACCEPTANCE

Name & Title H.T. Hendrickson - MGR, QA-ANST Level III QC Date 8-7-01

OWNER OR AUTHORIZED AGENT INSPECTION WAIVER

Shipment Final Inspection Waived By N/A Date N/A

Agency N/A Title N/A

Supplier's Authorized Representative H.T. Hendrickson

RAM/JACK CALIBRATION RECORD FORM 12.8.G

PSC Formerly Inryco Surveillance

PROJECT CRYSTAL RIVER CONTRACT/PART NO. N750

Jack Description DUDGEON Size 1400 Tons Register No. 8783

Theoretical Ram Area 337.0 Max. Pressure 8310 PSI

Calibrating Device TELEDYNE Register No. 4721 Constant 32,989.5

Calibrating Gauge HEISE Register No. SP-27100 Date CAL. 7-24-03

Raw Data By [illegible] 8-1-01 WITNESS N/A

Mean Ram Area 333.733 sq.in. K@ 9037 Kips Agency N/A Date N/A

Computed By R.D. Hough QC Check W.S. Hedrick

Title G.M. Date 8-1-01 Title MGR, Q.A. Date 8-1-01

Target PSI	Gauge Reading PSI	Load Cell Readout
1000	1012	- 10.02
1500	1516	- 15.12
2000	2011	- 20.10
2500	2515	- 25.22
3000	3008	- 30.28
3500	3510	- 35.36
4000	4014	- 40.44
4500	4516	- 45.54
5000	5012	- 50.54
1000	1011	- 9.94
1500	1511	- 15.02
2000	2011	- 20.08
2500	2513	- 25.16
3000	3014	- 30.24
3500	3512	- 35.26
4000	4014	- 40.34
4500	4512	- 45.42
5000	5016	- 50.48
1000	1018	- 10.00
1500	1514	- 15.00
2000	2012	- 20.02
2500	2512	- 25.06
3000	3015	- 30.12
3500	3515	- 35.12
4000	4018	- 40.24
4500	4510	- 45.26
5000	5014	- 50.24

COMMENTS

RUN 1 POSITION 4'

TARGET	GAUGE	READOUT
5700	5715	-57.68

RUN 2 POSITION 8'

TARGET	GAUGE	READOUT
5700	5715	-57.66

RUN 3 POSITION 12'

TARGET	GAUGE	READOUT
5700	5712	-57.32

JACK CALIBRATION - LINEAR REGRESSION ANALYSIS

PROJECT CRYSTAL RIVER — CONTRACT NO. N750
JACK DESCRIPTION: DUDGEON — TONS: 1400 — REGISTER NO.: 8783
THEORETICAL RAM AREA (sq.in): 337.0
MAX PRESSURE (psi): 8310
CALIBRATING DEVICE USED: TELEDYNE — REGISTER NO.: 4734 — CONSTANT= 32987.5
CALIBRATING GAUGE DESCRIPTION: HEISE — REGISTER NO.: S927100

.....INPUT..... ACTUAL GAUGE READING (psi)	LOAD CELL READOUT	COMPUTED FORCE (k)
1012	10.02	330.535
1516	15.12	498.771
2011	20.10	663.049
2515	25.22	831.945
3008	30.28	998.862
3510	35.36	1166.438
4014	40.44	1334.015
4516	45.54	1502.251
5012	50.54	1667.188
5715	57.68	1902.719
1011	9.94	327.896
1511	15.02	495.472
2011	20.08	662.389
2513	25.16	829.966
3014	30.24	997.542
3512	35.26	1163.139
4014	40.34	1330.716
4512	45.42	1498.292
5016	50.48	1665.209
5715	57.66	1902.059
1018	10.00	329.875
1514	15.00	494.813
2012	20.02	660.410
2512	25.06	826.667
3015	30.12	993.584
3515	35.12	1158.521
4018	40.24	1327.417
4510	45.26	1493.014
5014	50.24	1657.292
5712	57.32	1890.844

* - - THESE READINGS HAVE BEEN OMITTED FROM THE FINAL COMPUTATIONS

ERRORS IN JACK CALIBRATION
- ERROR IN STANDARD ..... 0.0100 ksi
- INTERPOLATION IN GAUGE ..... 0.0000 ksi
- ACCURACY OF GAUGE ..... 0.0000 ksi

ERRORS IN GAUGE CALIBRATION
- INTERPOLATION IN MASTER ..... 0.0000 ksi
- INTERPOLATION IN FIELD GAUGE .... 0.0050 ksi
- ACCURACY OF MASTER ..... 0.0100 ksi
- ACCURACY OF FIELD GAUGE ..... 0.0275 ksi

ERRORS IN FIELD USE OF GAUGE
- INTERPOLATION ERROR ..... 0.0050 ksi
- ACCURACY ERROR ..... 0.0275 ksi

MAXIMUM GAUGE READING USED ..... 5.7150 ksi

** FORCE (k) = 333.733 (sq.in.) X GAUGE READING (ksi) -9.037 (k) **

CORRELATION = 0.99997921 N/NO= 1.0000 (NOT < .66667)
MAXIMUM ERROR RATIO IN JACK ..... .0056
MAXIMUM ERROR RATIO IN GAUGE ..... .0073
MAXIMUM TOTAL ERROR RATIO ..... .0092

COMPUTED BY: A. [illegible] DATE 8-1-01 CHECKED BY W. Hendrickson 8-1-01

RAM/JACK CALIBRATION RECORD FORM 12.8.G

PSC Formerly Inryco Surveillance

PROJECT CRYSTAL RIVER CONTRACT/PART NO. N750

Jack Description DUDGEON Size 1400 Tons Register No. 8833

Theoretical Ram Area 337.0 Max. Pressure 8310 PSI

Calibrating Device TELEDYNE Register No. 4734 Constant 32,987.5

Calibrating Gauge HEISE Register No. 59.29100 RECAL Date 7-24-03

Raw Data By DLPH 8-1-01 WITNESS N/A

Mean Ram Area 334.599 sq.in. K= 3.885 Kips Agency N/A Date N/A

Computed By Ronald P. Hough QC Check H. E. Henderson

Title C.M. Date 8-1-01 Title MGR., Q.A. Date 8-1-01

Target PSI	Gauge Reading PSI	Load Cell Readout
1000	1011	- 10.10
1500	1514	- 15.20
2000	2014	- 20.32
2500	2509	- 25.38
3000	3016	- 30.54
3500	3514	- 35.64
4000	4011	- 40.72
4500	4512	- 45.82
5000	5011	- 50.92
1000	1010	- 10.16
1500	1518	- 15.32
2000	2012	- 20.34
2500	2514	- 25.44
3000	3010	- 30.46
3500	3515	- 35.60
4000	4012	- 40.64
4500	4512	- 45.72
5000	5012	- 50.80
1000	1014	- 10.16
1500	1511	- 15.18
2000	2013	- 20.24
2500	2511	- 25.26
3000	3014	- 30.34
3500	3510	- 35.34
4000	4012	- 40.38
5000	4510	- 45.40
5500	5014	- 50.46

COMMENTS

RUN 1 POSITION 4'

TARGET	GAUGE	READOUT
5700	5715	-58.10

RUN 2 POSITION 8'

TARGET	GAUGE	READOUT
5700	5716	-57.92

RUN 3 POSITION 12'

TARGET	GAUGE	READOUT
5700	5710	-57.44

JACK CALIBRATION - LINEAR REGRESSION ANALYSIS

PROJECT CRYSTAL RIVER — CONTRACT NO. N750

JACK DESCRIPTION: DUDGEON — TONS: 1400 — REGISTER NO.: 8833

THEORETICAL RAM AREA (sq.in): 337.0

MAX PRESSURE (psi): 8310

CALIBRATING DEVICE USED: TELEDYNE — REGISTER NO.: 4734 — CONSTANT= 32987.5

CALIBRATING GAUGE DESCRIPTION: HEISE — REGISTER NO.: S927100

.....INPUT.....		
ACTUAL GAUGE READING (psi)	LOAD CELL READOUT	COMPUTED FORCE (k)
1011	10.10	333.174
1514	15.20	501.410
2014	20.32	670.306
2509	25.38	837.223
3016	30.54	1007.438
3514	35.64	1175.675
4011	40.72	1343.251
4512	45.82	1511.487
5011	50.92	1679.724
5715	58.10	1916.574
1010	10.16	335.153
1518	15.32	505.369
2012	20.34	670.966
2514	25.44	839.202
3010	30.46	1004.799
3515	35.60	1174.355
4012	40.64	1340.612
4512	45.72	1508.189
5012	50.80	1675.765
5716	57.92	1910.636
1014	10.16	335.153
1511	15.18	500.750
2013	20.24	667.667
2511	25.26	833.264
3014	30.34	1000.841
3510	35.34	1165.778
4012	40.38	1332.035
4510	45.40	1497.633
5014	50.46	1664.549
5710	57.44	1894.802

* - - THESE READINGS HAVE BEEN OMITTED FROM THE FINAL COMPUTATIONS

ERRORS IN JACK CALIBRATION

ERROR IN STANDARD	0.0100 ksi
INTERPOLATION IN GAUGE	0.0000 ksi
ACCURACY OF GAUGE	0.0000 ksi

ERRORS IN GAUGE CALIBRATION

INTERPOLATION IN MASTER	0.0000 ksi
INTERPOLATION IN FIELD GAUGE	0.0050 ksi
ACCURACY OF MASTER	0.0100 ksi
ACCURACY OF FIELD GAUGE	0.0275 ksi

ERRORS IN FIELD USE OF GAUGE

INTERPOLATION ERROR	0.0050 ksi
ACCURACY ERROR	0.0275 ksi
MAXIMUM GAUGE READING USED	5.7160 ksi

** FORCE (k) = 334.599 (sq.in.) X GAUGE READING (ksi) -3.885 (k) **

CORRELATION = 0.99995779 N/NO= 1.0000 (NOT < .66667)

MAXIMUM ERROR RATIO IN JACK ..... .0062

MAXIMUM ERROR RATIO IN GAUGE ..... .0073

MAXIMUM TOTAL ERROR RATIO ..... .0096

COMPUTED BY: Ronald Dudgeon DATE: 8-1-01 CHECKED BY: H.E. Hendrickson 8-1-01 DATE:

SHIPPING RELEASE AND PACKING LIST	PSC Formerly Inryco Surveillance
QUALITY CONTROL DOCUMENTATION	

Customer: FLORIDA POWER CORPORATION	Shipment No. N/A
Project: CRYSTAL RIVER - UNIT 3	Contract: N750
Prepared by: Danner J. Olson	Fabricator: N/A
Inspected by: Daniel P. Olson	Date: 9-20-01 Page 1 of 1

Documentation to satisfy the Quality Assurance requirements have been reviewed and found acceptable.

SIGNED H. F. Hendrickson DATE 8-20-01

PSC QUALITY ASSURANCE REPRESENTATIVE

QUANTITY	PART NO.	DESCRIPTION
3		0-10,000 PSI HYDRO GAUGES (FORMERLY #2, CC125169 & CC125168)
2		POCKET THERMOMETER (PK42 & PK65)
2		SURFACE THERMOMETER (ST71 & ST72
2		24" RULER (R-9 & R-15)
2		OPTICAL COMPARATOR (OC-C & OC-BB
2		FEELER GAUGE SET (F43 & F49
1		0-10,000 PSI HEISE DIGITAL GAUGE (57-2662

[ ] Total Pieces [ ] Total Weight

PSC

PRECISION SURVEILLANCE CORPORATION

3468 WATLING ST. EAST CHICAGO, IN 46312
(219) 397-5826 FAX (219) 397-5867

QUALITY ASSURANCE DOCUMENTATION

CERTIFICATE OF COMPLIANCE

Precision Surveillance Corporation

Project FLORIDA POWER CORPORATION CRYSTAL RIVER - UNIT 3 Contract N750 Date 8.20.01

Material Identification Q.C. GAUGES - Refer To Shipping Release & Packing Slip dated 8-20-01

Purchase Order No. FPC - CONTRACT # N02057AD

Specification and Revision No. APPENDIX "C" TO FPC CONTRACT # N02057AD

Drawing and Revision No. N/A

Procurement Requirements MET BY ATTACHED MTE CALIBRATIONS

(met by material) YES

Deviations NONE

Resolution N/A

Disposition N/A

Non-Conformance NONE

Q.A. Release for NCR N/A

Deviations and Non-Conformances shall be attached to this form.
N/A to be written in for Not Applicable; all blanks shall be filled in.

This is to certify that the above material has been fabricated and inspected in compliance with the specified drawings, procedures, specifications, codes, purchase order requirements, PSC Quality Assurance Manual Revision 2 Dated 6-28-91 and the attendant quality programs.

Vendor PRECISION SURVEILLANCE CORP. Authorized Agent H.F. Hendrickson

Date 8-20-01 Title MGR., Q.A.

PSC QUALITY CONTROL ACCEPTANCE

Name & Title Daniel P. O'Shea QC INSPECTOR LEVEL II Date 8-20-01

OWNER OR AUTHORIZED AGENT INSPECTION WAIVER

Shipment Final Inspection Waived By N/A Date N/A

Agency N/A Title N/A

Supplier's Authorized Representative H.F. Hendrickson

EXHIBIT A

PSC Precision Surveillance Corporation

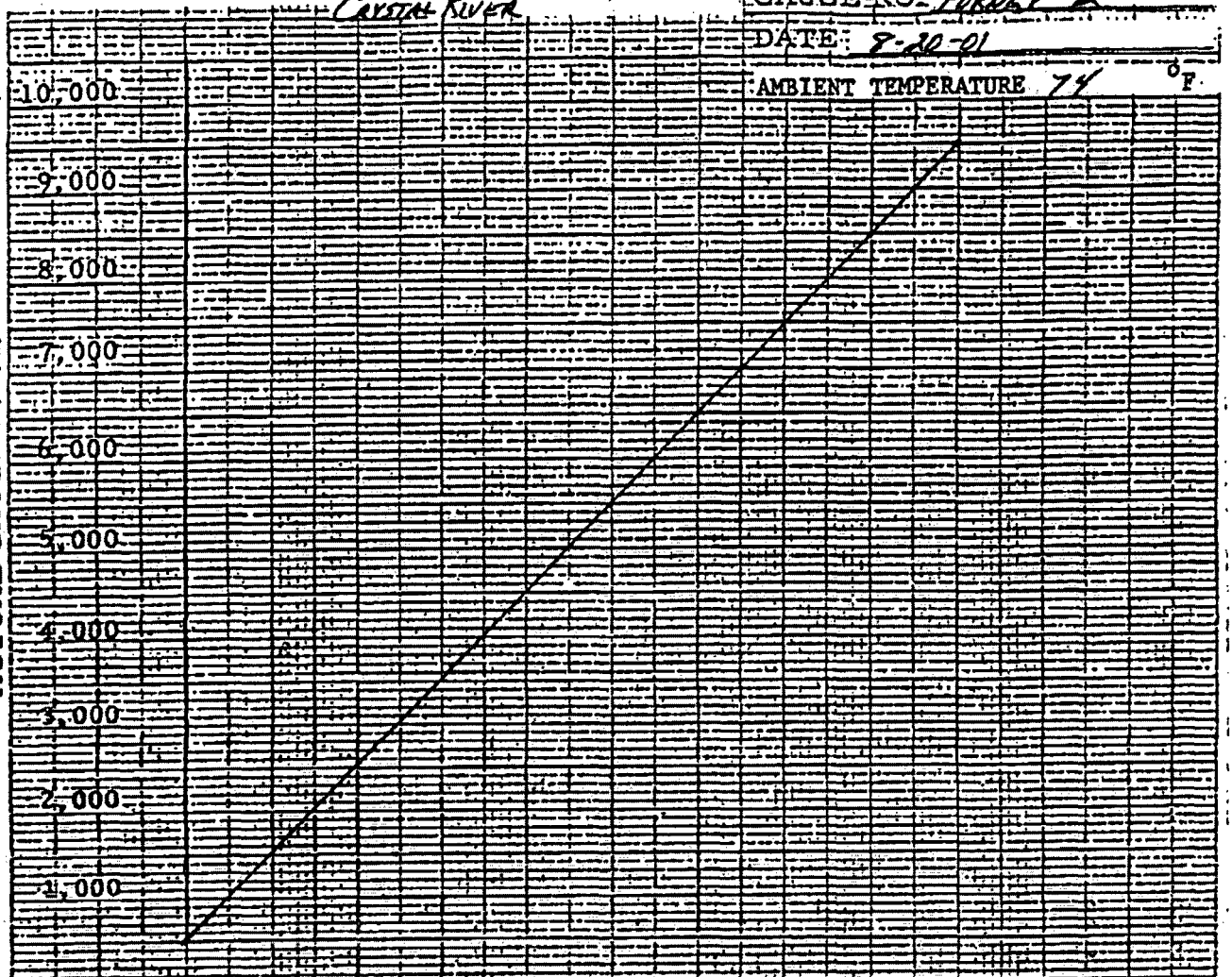
Calibration Record Sheet JOB NO. N750

Crystal River

GAUGE NO. Ashcroft #2

DATE 8-20-91

AMBIENT TEMPERATURE 74 °F



THEORETIGAL PSI TESTER WEIGHTS

Weights	Gauge P.S.I.
1,000	1000
2,000	2000
3,000	3000
4,000	4000
5,000	5000
6,000	6000
7,000	7000
8,000	8010
9,000	9010
10,000	N/A

Mansfield & Green

Dead Weigh Pressure

Model R100 Serial #1422

Calibrated By: David R. O'Shea

46 1320

K&E 10 X 10 TO 5 INCH 2 X 10 INCHES KEUFFEL & ESSER CO. MADE IN U.S.A.

PSC Precision Surveillance Corporation

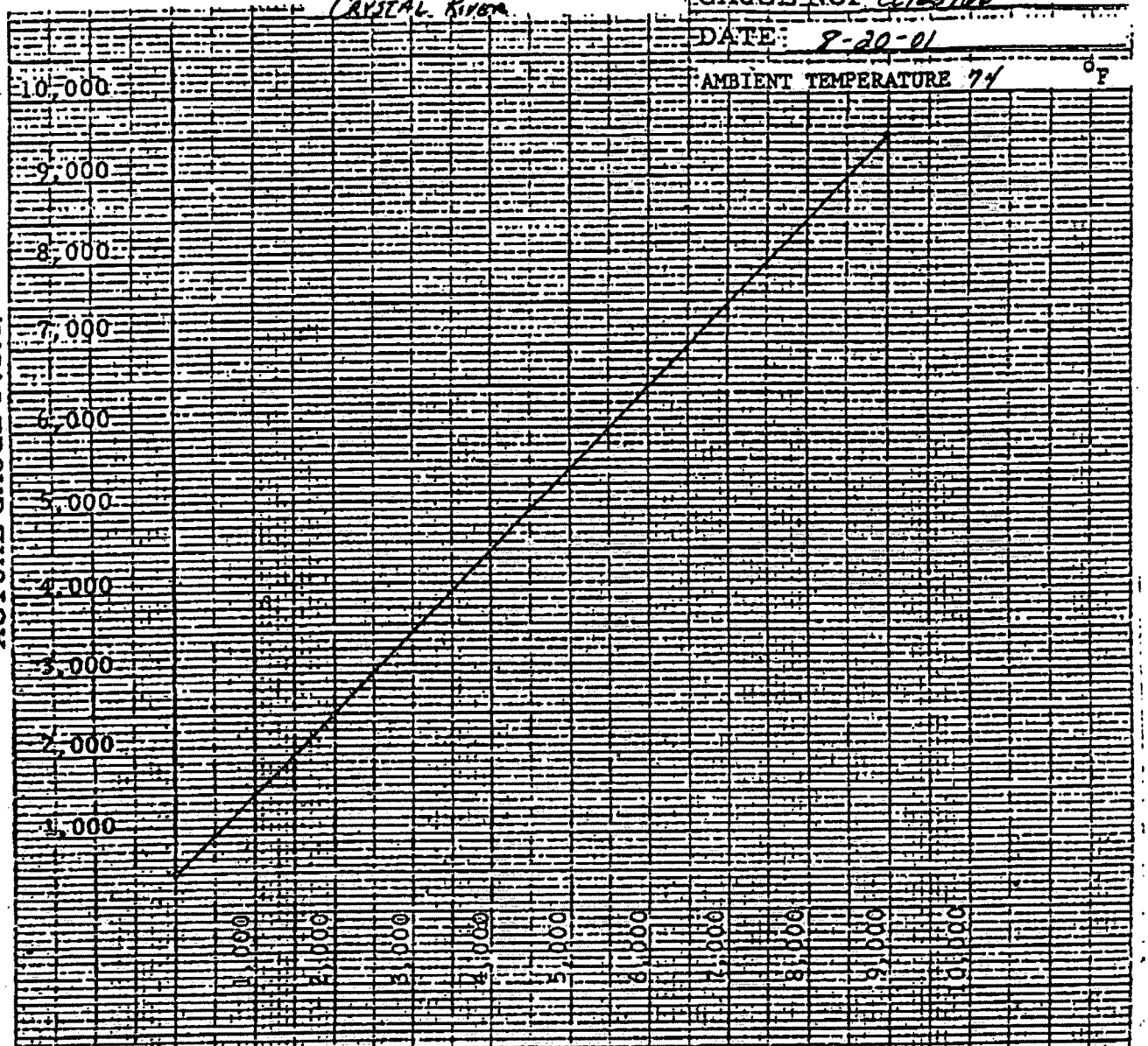
EXHIBIT A

Calibration Record Sheet JOB NO. N750

CRYSTAL RIVER GAUGE NO. CC125168

DATE: 8-20-01

AMBIENT TEMPERATURE 74 °F



46 1320

K&E 10 X 10 TO 5 INCH 5 X 10 INCHES KEUFFEL & ESSER CO. MADE IN U.S.A.

THEORETICAL PSI TESTER WEIGHTS

Weights	Gauge P.S.I.
1,000	1000
2,000	2000
3,000	3000
4,000	4000
5,000	5000
6,000	6010
7,000	7010
8,000	8000
9,000	9000
10,000	10000

Mansfield & Green

Dead Weight Pressure

Model R100 Serial #1422

Calibrated By: David P. Johnson

EXHIBIT A

PSC Precision Surveillance Corporation

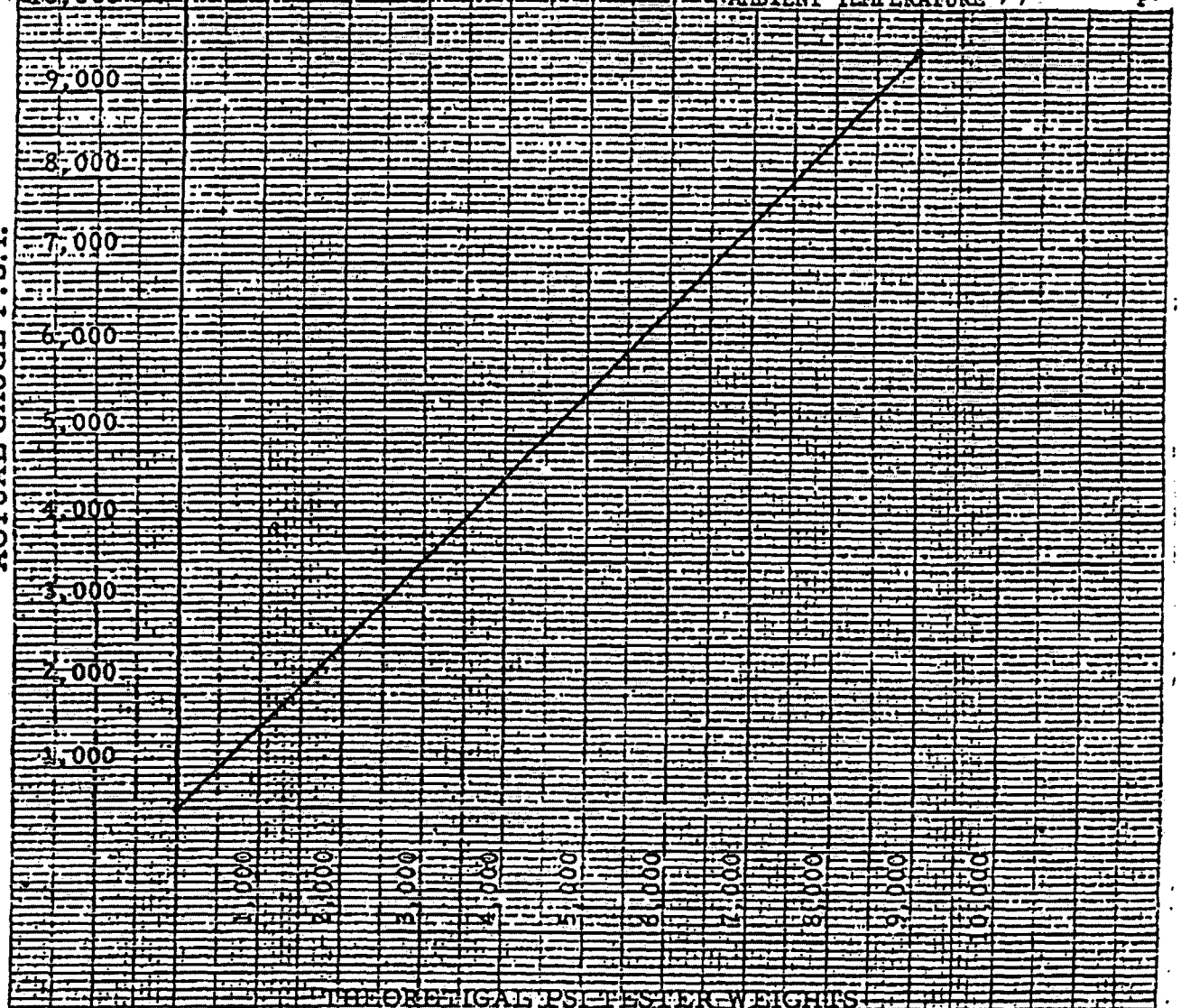
Calibration Record Sheet JOB NO. N750

CRYSTAL RIVER

GAUGE NO. CG125169

DATE 8-20-01

AMBIENT TEMPERATURE 74 °F.



46 1320

K&E 10 X 10 TO ½ INCH 2 X 90 INCHES KEUFFEL & ESSER CO. MADE IN U.S.A.

THEORETICAL PSI TESTER WEIGHTS

Weights	Gauge P.S.I.
1,000	1000
2,000	2010
3,000	3010
4,000	4000
5,000	5000
6,000	6000
7,000	7000
8,000	8010
9,000	9010
10,000	N/A

Mansfield & Green

Dead Weight Pressure

Model R-100 Serial #1422

Calibrated By: [signature]

THERMOMETER CALIBRATION RECORD

"EXHIBIT A"

PSC Framatome Inryco Surveillance

Customer Name: FP&L	Project Name: CRYSTAL RIVER	Contract Number: N750
Thermometer I.D. #: PK42		Date of calibration: 8-20-01
Manufacture: KENNEDY		Recalibration due date: 8-20-02
Type or model: POCKET		Master thermometer I.D.: 68564F+65F
Range: 0-220°F		Master calibration due date: 9-3-01
Location: N/A		

CALIBRATION DATA

Master Actual Temperature	Test Reading Temperature
162°	162°
94°	94°
40°	40°

Calibration Method:

Master and test thermometer to be immersed in agitated liquid for at least 3 minutes, and at least 3 inches of sensing or sending unit to be submerged in liquid. Comparison will be made at 3 temperature variances of no less than 50 degrees F.

Accuracy must be within one graduation of the smallest reading on the scale. If not, adjust to same reading as master. If there is no adjustment, thermometer will be returned to Quality Assurance for repair or destruction.

NOTE: Accuracy will be within 5% of the total guage face value or one unit of the smallest scale graduation whichever is smaller.

Condition: GOOD

Remarks: FOR B12.2.D-11

Calibrated By: [signature] Date: 8-20-01 Page of Page

THERMOMETER CALIBRATION RECORD

"EXHIBIT A"

PSC Form-xx
Inryco Surveillance

Customer Name: FP+L

Project Name: CRYSTAL RIVER

Contract Number: N250

Thermometer I.D. #: PK65

Date of calibration: 8-20-01

Manufacture: TREND

Recalibration due date: 8-20-02

Type or model: POCKET

Master thermometer I.D.: 63F, 64F, 65F

Range: 0°-220°F

Master calibration due date: 9-3-01

Location: N4

CALIBRATION DATA

Master Actual Temperature	Test Reading Temperature
162°	162°
94°	94°
40°	40°

Calibration Method:

Master and test thermometer to be immersed in agitated liquid for at least 3 minutes, and at least 3 inches of sensing or sending unit to be submerged in liquid. Comparison will be made at 3 temperature variances of no less than 50 degrees F.

Accuracy must be within one graduation of the smallest reading on the scale. If not, adjust to same reading as master. If there is no adjustment, thermometer will be returned to Quality Assurance for repair or destruction.

NOTE: Accuracy will be within 5% of the total guage face value or one unit of the smallest scale graduation whichever is smaller.

Condition: Good

Remarks: PER Q 12.8.D-W

Calibrated By: Daniel P. O'Hara

Date: 8-20-01

Page of Page

THERMOMETER CALIBRATION RECORD

"EXHIBIT A"

PSC Formats
Entyco Surveillance

Customer Name: FP&L

Project Name: CRYSTAL RIVER

Contract Number: N750

Thermometer I.D. #: ST 41

Date of calibration: 8-20-01

Manufacture: PTC

Recalibration due date: 8-20-02

Type or model: #309 F

Master thermometer I.D.: 63F, 64F & 65F

Range: -50° - +250°F

Master calibration due date: 9-3-01

Location: N/A

CALIBRATION DATA

Master Actual Temperature	Test Reading Temperature
162°	162°
99°	99°
40°	40°

Calibration Method:

Master and test thermometer to be immersed in agitated liquid for at least 3 minutes, and at least 3 inches of sensing or sending unit to be submerged in liquid. Comparison will be made at 3 temperature variances of no less than 50 degrees F.

Accuracy must be within one graduation of the smallest reading on the scale. If not, adjust to same reading as master. If there is no adjustment, thermometer will be returned to Quality Assurance for repair or destruction.

NOTE: Accuracy will be within 5% of the total guage face value or one unit of the smallest scale graduation whichever is smaller.

Condition: Good

Remarks: PER Q12.8.2-W

Calibrated By: [signature]

Date: 8-20-01

THERMOMETER CALIBRATION RECORD

"EXHIBIT A"

PSC Formats
Intyco Surveillance

Customer Name: FP+L	Project Name: CRYSTAL RIVER	Contract Number: N750

Thermometer I.D. #: ST 42 — Date of calibration: 8-20-01

Manufacture: PTC — Recalibration due date: 8-20-02

Type or model: SURFACE — Master thermometer I.D.: 63F, 64F + 65F

Range: -50° - +250° F — Master calibration due date: 9-3-01

Location: N/A

CALIBRATION DATA

Master Actual Temperature	Test Reading Temperature
162°	162°
94°	94°
40°	40°

Calibration Method:

Master and test thermometer to be immersed in agitated liquid for at least 3 minutes, and at least 3 inches of sensing or sending unit to be submerged in liquid. Comparison will be made at 3 temperature variances of no less than 50 degrees F.

Accuracy must be within one graduation of the smallest reading on the scale. If not, adjust to same reading as master. If there is no adjustment, thermometer will be returned to Quality Assurance for repair or destruction.

NOTE: Accuracy will be within 5% of the total guage face value or one unit of the smallest scale graduation whichever is smaller.

Condition: Good

Remarks: For A128, B-W

Calibrated By: Daniel P. Oldham — Date: 8-20-01 — Page of Pages

QUALITY CONTROL "EXHIBIT A"	PSC Formerly Inryco Surveillance
CALIBRATION FORM	

Project CRYSTAL RIVER Contract N250 Date 8-20-01

CALIBRATION DATA Recall Date 8-20-02

Gauge or Device Name 24" RULER Number R-9

Manufacturer N/A Type or Model N/A Range 0-24"

Master Calibration Device MASTER RULER / OPTICAL COMPARATOR Number MR-1 / OC-C

Master Device Calibration Date DUE 12-24-02 / DUE 8-20-02

Test Range	Reading	Error
RULER COMPARED TO MR-1 ON TENTH OF AN INCH SCALE WITH OC-C		
AT 1.00, 2.00, 4.00, 6.00, 8.00, 10.00, 12.00, 14.00, 16.00, 18.00, 20.00,		
22.00 & 23.00". ALL READINGS ARE WITHIN ±.005"		

Method of Calibration (Procedure number or describe other)

SEE ABOVE

Comments:

Calibrated By: [signature] Title: QC INSPECTOR Date: 8-20-01

EFFECTIVE DATE	PREV. REV. △	REVISION △	PAGE

QUALITY CONTROL "EXHIBIT A"

PSC Formerly Inryco Surveillance

CALIBRATION FORM

Project CRYSTAL RIVER Contract N750 Date 8-20-01

CALIBRATION DATA Recall Date 8-20-02

Gauge or Device Name 24" RULER Number R-15

Manufacturer MITUTOYO Type or Model 182-269 Range 0-24"

Master Calibration Device MASTER RULER Number MR-1
OPTICAL COMPARATOR QC-C

Master Device Calibration Date DUE: 2-24-02
DUE 8-20-02

Test Range	Reading	Error
RULER COMPARED TO MR-1 ON TENTH OPTAN OPTICAL COMPARATOR WITH QC-C AT 2.00, 4.00, 6.00, 8.00, 10.00, 12.00, 14.00, 16.00, 18.00, 20.00, 22.00 & 23.00". ALL READINGS ARE WITHIN ±.005"		

Method of Calibration (Procedure number or describe other) SEE ABOVE

Comments:

Calibrated By: [signature] Title: QC INSPECTOR Date: 8-20-01

EFFECTIVE DATE	PREV.REV. △	REVISION △	PAGE

QUALITY CONTROL "EXHIBIT A"	PSC Formerly Inryco Surveillance
CALIBRATION FORM	

Project *CRYSTAL RIVER* Contract *N750* Date *8-20-01*

CALIBRATION DATA Recall Date *8-20-02*

Gauge or Device Name *OPTICAL COMPARATOR* Number *OC-C*

Manufacture: *MITUTOYO* Type or Model *#183* Range *.0 - .500"*

Master Calibration Device *[illegible] Precision Glass Retical Calib. Scale* *8-20-01* Number *ARCS-1*

Master Device Calibration Date *DUE: 6-8-05*

Test Range	Reading	Error
.100	*.100*	*0*
.200	*.200*	*0*
.300	*.300*	*0*
.400	*.400*	*0*
.500	*.500*	*0*
.005 THRU .500	*SAME*	
AT .005 GRADS		

Method of Calibration (Procedure number or describe other)

PER Q12.0.7

Comments:

Calibrated By: *[signature]* Title: *QC INSPECTOR* Date: *8-20-01*

EFFECTIVE DATE	PREV. REV. △	REVISION △	PAGE

QUALITY CONTROL "EXHIBIT A"	PSC Formerly Intyco Surveillance
CALIBRATION FORM	

Project CRYSTAL RIVER Contract N750 Date 8-20-01

CALIBRATION DATA Recall Date 8-20-02

Gauge or Device Name OPTICAL COMPARATOR Number OCBR

Manufacturer FOWLER Type or Model 7X Range 0-.500"

Master Calibration Device PRECISION GLASS REticle CALIB. SCALE Number GRCS-1

Master Device Calibration Date DUE: 6-8-05

Test Range	Reading	Error
.100	.100	0
.200	.200	0
.300	.300	0
.400	.400	0
.500	.500	0
.005 THRU .500	BACK	
AT .005 GRADS		

Method of Calibration (Procedure number or describe other)

PER QI2.8 P

Comments:

Calibrated By: David P. O'Hara Title: QC INSPECTOR Date: 8-2-01

EFFECTIVE DATE	PREV. REV. △	REVISION △	PAGE

QUALITY CONTROL

CALIBRATION FORM "EXHIBIT C"

PSC Formerly Inryco Surveillance

Project Crystal River Contract N750 Date 8-20-01

CALIBRATION DATA Recall Date 2-20-02

Gauge or Device Name Feeler Gauge Set Number F43

Manufacturer Trinity Type or Model Steel offset leaf style Range .008-.026

Master Calibration Device Master Mic. Number MIC100

Master Device Calibration Date Due: 2-9-02

Test Range	Reading	Error
.008		
.010		
.012		
.013		
.014	each leaf checked and	
.015	found acceptable. All	
.016	readings within ± .0005"	
.018		
.019		
.020		
.025		
.026		

Method of Calibration (Procedure number or describe other)

Per Q12.8. E-11

Comments:

Calibrated By: [signature] Title: QC Inspector Date: 8-20-01

EFFECTIVE DATE	PREV.REV. △	REVISION △	PAGE 1 of

QUALITY CONTROL	PSC Formerly Inryco Surveillance
CALIBRATION FORM "EXHIBIT C"	

Project CRYSTAL RIVER Contract N1750 Date 8-20-01

CALIBRATION DATA Recall Date 2-20-02

Gauge or Device Name FEELER GAUGE Number F49

Manufacturer VASTER Type or Model BLADED LEAF STYLE Range .004-.025"

Master Calibration Device MASTER MIC Number MIC100

Master Device Calibration Date DUE: 2-3-02

Test Range	Reading	Error
.004" THRU .025"	EACH LEAF CHECKED AND FOUND ACCEPTABLE. ALL READINGS WITHIN ±.0002"	

Method of Calibration (Procedure number or describe other) FOR Q12.8.E-W

Comments:

Calibrated By: Daniel P. Oliver Title: QC INSPECTOR Date: 8-20-01

EFFECTIVE DATE	PREV. REV. △	REVISION △	PAGE 1 o

EXHIBIT A

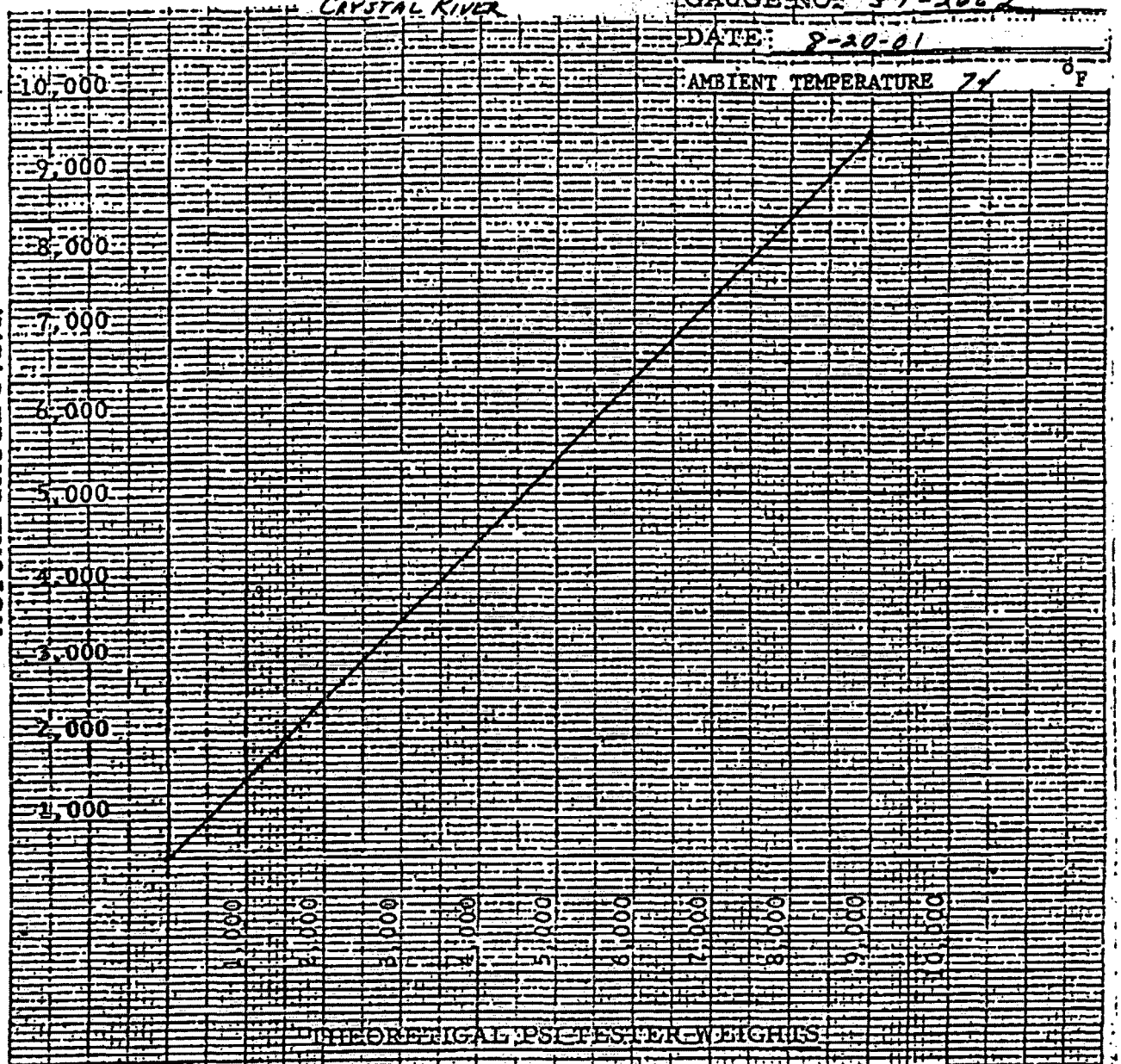
PSC Precision Surveillance Corporation

Calibration Record Sheet JOB NO: N750

CRYSTAL RIVER GAUGE NO: 97-2662

DATE: 8-20-01

AMBIENT TEMPERATURE 74 °F



Weights	Gauge P.S.I.
1,000	995
2,000	1992
3,000	2992
4,000	3994
5,000	4994
6,000	2995
7,000	6995
8,000	8002
9,000	9003
10,000	N/A

Mansfield & Green

Dead Weight Pressure

Model R100 Serial #1422

Calibrated By: [signature]

46 1320

K&E 10 X 10 TO ½ INCH 5 X 10 INCHES KEUFFEL & ESSER CO. MADE IN U.S.A.

Florida Power REQUEST FOR ENGINEERING ASSISTANCE(REA)

ORIGINATING DEPARTMENT / ORGANIZATION	REA NUMBER	Page:- 1
MECHANICAL / CIVIL DESIGN	010597	

Part 1 -- TO BE COMPLETED BY THE ORIGINATING DEPARTMENT / ORGANIZATION

[X] REA [ ] EREA [ ] TRACKING [ ] PROCEDURAL [ ] PLANT ENHANCEMENT

SYSTEM MX | EQUIPMENT TAG NO 62H2

REFERENCES / ASSOCIATED DOCUMENTS

Prob RptNo._____ MAR No._____ Vendor Manual No._____

REA No. _____ FCN No._____ PEERE No._____

Procedure No._____ WR No. NA IOC No._____ Precursor No._____

Calibration Data Sheet No._____ Instrument Data Sheet No._____

OTHERS TENDON SURVEILLANCE

DESCRIPTION OF REQUEST

REQUEST STRUCTURAL ENGINEERING ASSISTANCE FOR LIFTING AND RIGGING OF THE 4000# RAM DEVICE TO BE USED ON TENDON 62H2 (#6 BUTTRESS SIDE).

[ ] Continued

ATTACHMENTS

NONE

PROPOSED SOLUTION

INSTALL RIGGING DEVICE(S) OR PADEYE IN CEILING.

[ ] Continued

Does this REA appear to document an "ADVERSE CONDITION" as defined in CP-111?

[X] NO - Continue to process as an REA

[ ] YES - Return the REA to the Nuclear Safety Assessment Team for the generation of a Precursor Card.

ORIGINATOR	PHONE	DATE
LESE,JOSEPH A	240-3898	10/25/01
SUPERVISOR / MANAGER	**PHONE**	**DATE**
LESE,JOSEPH A	240-3898	10/25/01

FORWARD THE REA TO THE "ENGINEERING CLERK" NUCLEAR ADMIN BLDG (NA-1E)

Florida Power

REQUEST FOR ENGINEERING ASSISTANCE(REA)

MECHANICAL / CIVIL DESIGN	REA NUMBER 010597	Page: 2

Part 2 - - ENGINEERING RESOLUTION

Does this REA appear to document an "ADVERSE CONDITION" as defined in CP-111?

☒ **NO - Continue to Process as an REA**

☐ **YES - Return the REA to the Nuclear Safety Assessment Team for the generation of a Precursor Card**

This REA is ASSIGNED TO: ESAB1 ☐ **REJECTED BY Engineering:**

SUPERVISOR/MANAGER	PHONE	DATE
ENGLERT JR,GEORGE E		10/25/01

RESPONSE

LIFTING OF THE 4000 POUND RAM MAY BE ACCOMPLISHED BY USING 3/4" EYEBOLTS. SEE ATTACHED FOR ADDITIONAL INFORMATION

NPRDS REVIEWED: ☐ **YES** ☒ **NOT APPLICABLE** ☐ **Continued**

DISPOSITIONING DOCUMENTS

PR No._____ **MAR No.**_____ **Vendor Manual No.**_____

REA No._____ **FCN No.**_____ **PEERE No.**_____

Procedure No._____ **WR No.** _____ **IOC No.**_____ **Precursor No.**_____

Calibration Data Sheet No._____ **Instrument Data Sheet No.**_____

OTHERS _____

ATTACHMENTS

A. DESIGN AND EVALUATION (1 SHEET)

☐ **Continued**

Dispositioning Organization: ☒ **NED** ☐ **NPTS** ☐ **NCM** ☐ **Other**

ENGINEER	PHONE	DATE
BROWNING, ATWOOD	240-3898	10/25/01
SUPERVISOR/MANAGER	**PHONE**	**DATE**
LESE,JOSEPH A	240-3898	10/25/01

UPON RESPONSE APPROVAL - - RETURN THE REA TO THE ORIGINATING DEPT / ORG.

NOV. 12. 2001 3:12PM FPC PURCHASING NO. 378 P. 1/2

P.O. DATE	PAGE
11/12/2001	1

Florida Power
CORPORATION

NUCLEAR OPERATIONS PURCHASING, SA2E, 15760 W. POWERLINE ST.
CRYSTAL RIVER, Florida 34428-6708
Telephone (352) 563-2943

PURCHASE ORDER

ENTITY	PURCHASE ORDER
NUC	L831015A

TO:
PRECISION SURVEILLANCE CORP
3468 WATLING STREET
EAST CHICAGO, IN
46312

SHIP TO: FLORIDA POWER CORPORATION
CRYSTAL RIVER UNIT 3 STOREROOM
15760 WEST POWERLINE STREET
CRYSTAL RIVER, FL
34428

BLANKET RELEASE	CHANGE NOTICE
001	

BUYER	SHIP VIA	F.O.B.	FREIGHT TERMS	VENDOR	TERMS OF SALE
-083	N/A	NOT APPLICABLE	N/A	703199	NET 30

LINE ITEM	ORDER QUANTITY	UNIT	FPC PART NUMBER	DESCRIPTION	DATE REQUIRED	UNIT PRICE
				THIS IS A NO COST PURCHASE ORDER TO RECEIVE MATERIALS UNDER CONTRACT N02057AD FOR REACTOR BUILDING TENDON SURVEILLANCE PROJECT AT CRYSTAL RIVER UNIT #3.		
01	1	LT	********EA	PROVIDE THE FOLLOWING NON-SAFETY RELATED MATERIALS: GREASE GASKETS (15 PIECES EA) - CR-002 (ATTACHED)	11/12/2001	.00000
				********** F.P.C. INTERNAL DATA ********** 0615 220WK4013 0615018801		
				PO TOTAL ==> .00		

Any provisions to the contrary notwithstanding it is understood that items and conditions submitted by the vendor in conflict with the items and conditions on the reverse side of this Purchase Order shall be superseded by the applicable provisions of the Uniform Commercial Code (UCC) as adopted in the State of Florida, Chapter 672, Florida Statutes. This PO also constitutes notice pursuant to Section 672.207(2)(c), Florida Statutes.

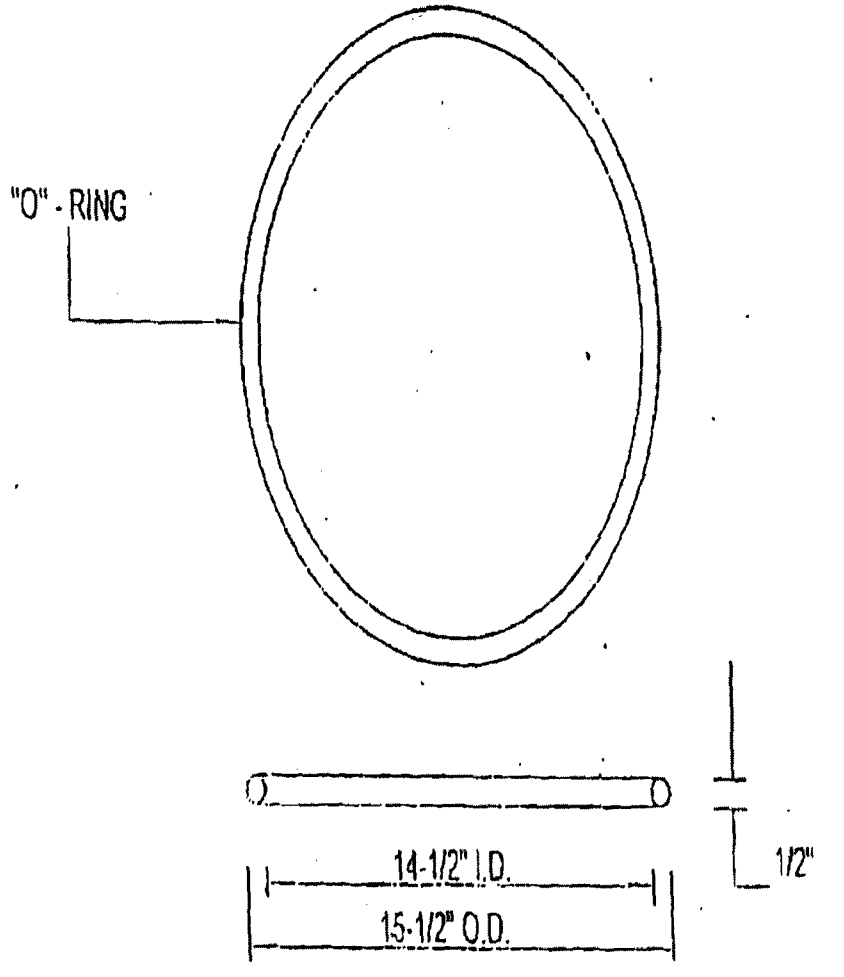
PLEASE SUBMIT INVOICE TO: 15760 W. POWERLINE ST.
SA2I ACCOUNTS PAYABLE SECTION, CRYSTAL RIVER, FLORIDA 34428-6708

SUBJECT TO CONDITIONS ON BACK OF THIS ORDER

BY Bruce Mikell 11/12/01

RET: 0 Yes RESP: Purchasing 935-518

REV. 12/96



MATERIAL: NEOPRENE OR NITRILE
BASE RUBBER
60 - DUROMETER

REF: DRAWING SEX7-003 A-090 REV. A

CRYSTAL RIVER END CAP GASKET - HOOP, DOME, UPPER VERTICAL

PSC PRECISION SURVEILLANCE CORPORATION

DRAWN BY: RCS	DATE: 2/21/97
REVISED:	DATE:
APPROVED: RDH	DATE: 2-21-97
DRAWING NO. CR002	

SHIPPING RELEASE AND PACKING LIST

QUALITY CONTROL DOCUMENTATION

PSC Formerly Inryco Surveillance

Customer: FLORIDA POWER CORPORATION	Shipment No. N/A
Project: CRYSTAL RIVER - UNIT 3	Contract: N750
Prepared by: H.F. HENDRICKSON	Fabricator: N/A
Inspected by: H.F. Hendrickson	Date: 11-5-01 Page 1 of 1

Documentation to satisfy the Quality Assurance requirements have been reviewed and found acceptable.

SIGNED H.F. Hendrickson DATE 11-5-01

PSC QUALITY ASSURANCE REPRESENTATIVE

QUANTITY	~~PART NO.~~ UNITS	DESCRIPTION
15	PIECES	GREASE GASKETS - CR-002
		FPC - P.O.# L800473B

15 Total Pieces

N/A Total Weight

PSC

Precision Surveillance Corporation

CORPORATE

3468 Watling St.
East Chicago, IN 46312
219-397-5826

P.O. Box 3027
Munster, IN 46321

CERTIFICATE OF COMPLIANCE

CUSTOMER: FLORIDA POWER CORPORATION
CRYSTAL RIVER UNIT 3 STOREROOM
15760 WEST POWERLINE STREET
CRYSTAL RIVER, FL 34428
ATTN: L8004733

PURCHASE ORDER NO. L8004733

ITEM: 15-PIECES - GREASE GASKETS - CR-002

THIS IS TO CERTIFY THAT ALL MATERIALS OR PARTS IN THE SHIPMENT AS CALLED FOR IN THE ABOVE PURCHASE ORDER COMPLY WITH THE APPROVED REQUIREMENTS, SPECIFICATIONS AND/OR DRAWINGS.

Harry F. Hendrickson
Harry F. Hendrickson
Manager, Quality Assurance

11-5-01
Date

SHIPPING RELEASE AND PACKING LIST

QUALITY CONTROL DOCUMENTATION

PSC Formerly Inryco Surveillance

Customer: FLORIDA POWER CORPORATION	Shipment No. N/A
Project: CRYSTAL RIVER - UNIT 3	Contract: N750
Prepared by: H.F. HENDRICKSON	Fabricator: N/A
Inspected by: H.F. Hendrickson	Date: 11-5-01 Page 1 of 1

Documentation to satisfy the Quality Assurance requirements have been reviewed and found acceptable.

SIGNED H.F. Hendrickson DATE 11-5-01

PSC QUALITY ASSURANCE REPRESENTATIVE

QUANTITY	~~PART NO.~~ UNITS	DESCRIPTION
15	PIECES	GREASE GASKETS - CR-002
		FPC - P.O.# L800473B

15 Total Pieces

N/A Total Weight

PSC
Precision Surveillance Corporation

CORPORATE
3468 Watling St.
East Chicago, IN 46312
219-397-5826

P.O. Box 3027
Munster, IN 46321

CERTIFICATE OF COMPLIANCE

CUSTOMER: FLORIDA POWER CORPORATION
CRYSTAL RIVER UNIT 3 STOREROOM
15760 WEST POWERLINE STREET
CRYSTAL RIVER, FL 34428
ATTN: L800473B

PURCHASE ORDER NO. L800473B

ITEM: 15-PIECES - GREASE GASKETS - CR.002

THIS IS TO CERTIFY THAT ALL MATERIALS OR PARTS IN THE SHIPMENT AS CALLED FOR IN THE ABOVE PURCHASE ORDER COMPLY WITH THE APPROVED REQUIREMENTS, SPECIFICATIONS AND/OR DRAWINGS.

Harry F. Hendrickson
Harry F. Hendrickson
Manager, Quality Assurance

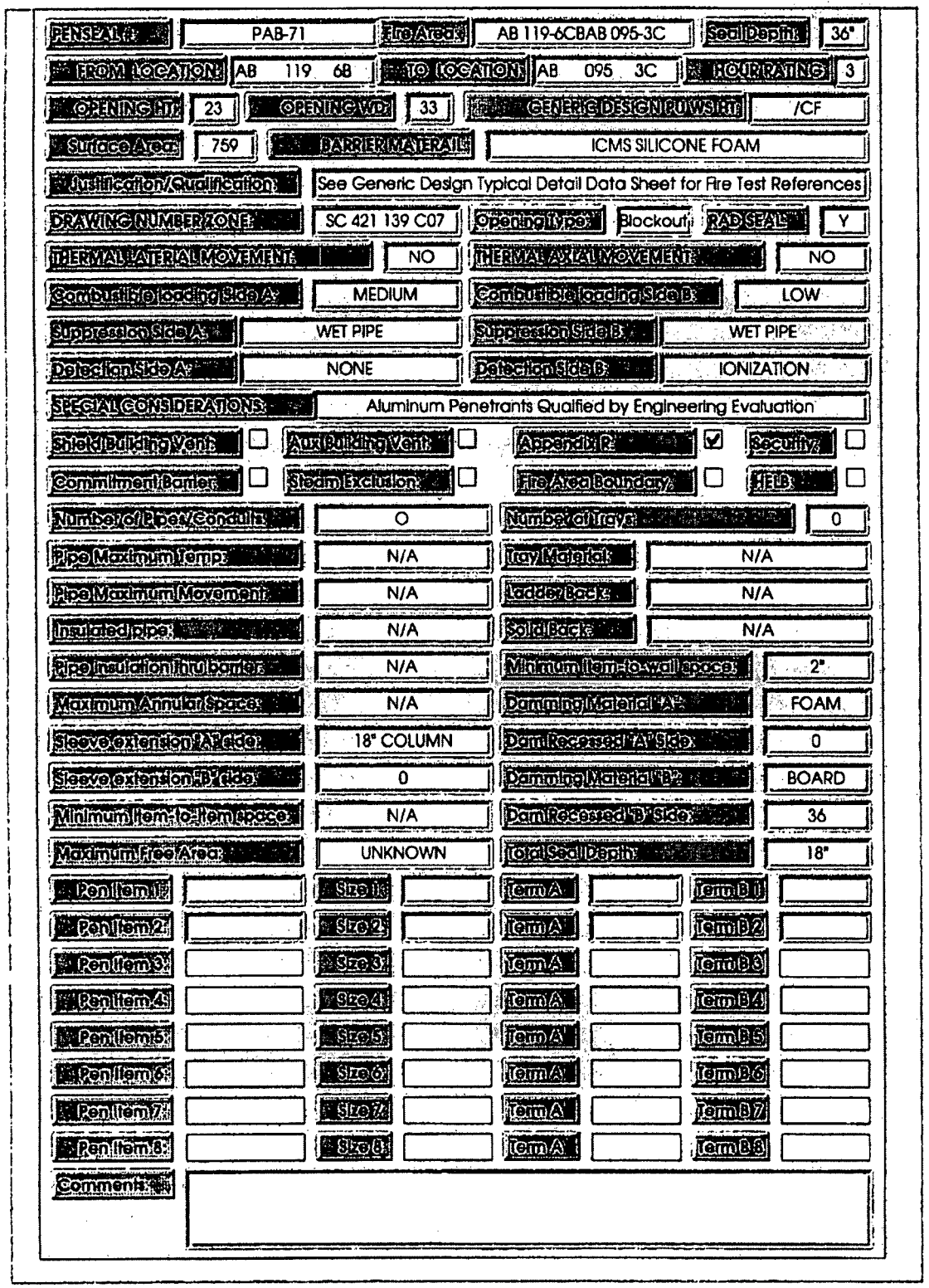
11-5-01
Date

11/06/01 FLORIDA POWER CORPORATION PAGE: 01
08:37:43 NUCLEAR ISSUE DOCUMENT RA EAC ACT TASK
PROJECT - NU0368426 PI316461 0601 220 NU0368426

STRM#: 293 ORG.NAME: KEENUM,JIMMY L. DLV.DATE: 11/ 6/01 TIME: 00:00

BIN LOC / SLED.QTY	PART NBR / SLED	UI / N/S	RQD.QTY	ISSUED/ POSTED	PART DESCRIPTION / PO # / HEAT / LOT #	SPC HND	NET AVAL ON HAND
AD-025-A	1083395	EA	3		BLT EYE CS 3/4		7
		N		3			7
AE-007-G	1035058	EA	4		ANCHR SELF DRIL RED 3/4"		7
		N		4			7
GA-019-C	1491036	EA	1		PLT CS 14X14X?/4 PRECUT		0
		S		1	F751248D HT# 1C636		2

ISSUED BY: /Tom L. Ham 11/1/01 RECEIVED BY: Jim Keenum 11-1-01 DATE:



PENSEAL #:	PAB-71	Fire Area:	AB 119-6CBAB 095-3C	Seal Depth:	36"
FROM LOCATION:	AB 119 68	TO LOCATION:	AB 095 3C	HOUR RATING:	3
OPENING HT:	23	OPENING WD:	33	GENERIC DESIGN PUWSI RT	/CF
Surface Area:	759	BARRIER MATERIAL:	ICMS SILICONE FOAM		
Justification/Qualification:	See Generic Design Typical Detail Data Sheet for Fire Test References				
DRAWING NUMBER/ZONE:	SC 421 139 C07	Opening Type:	Blockout	RAD SEAL:	Y
THERMAL LATERAL MOVEMENT:	NO	THERMAL AXIAL MOVEMENT:	NO		
Combustible loading Side A:	MEDIUM	Combustible loading Side B:	LOW		
Suppression Side A:	WET PIPE	Suppression Side B:	WET PIPE		
Detection Side A:	NONE	Detection Side B:	IONIZATION		
SPECIAL CONSIDERATIONS:	Aluminum Penetrants Qualified by Engineering Evaluation				
Shield Building Vent: ☐	Aux Building Vent: ☐	Appendix R: ☑	Security: ☐		
Commitment Barrier: ☐	Steam Exclusion: ☐	Fire Area Boundary: ☐	HELB: ☐		

Number of Pipes/Conduits:	0	Number of Trays:	0
Pipe Maximum Temp:	N/A	Tray Material:	N/A
Pipe Maximum Movement:	N/A	Ladder Back:	N/A
Insulated pipe:	N/A	Solid Back:	N/A
Pipe Insulation thru barrier:	N/A	Minimum item-to-wall space:	2"
Maximum Annular Space:	N/A	Damming Material "A":	FOAM
Sleeve extension "A" side:	18" COLUMN	Dam Recessed "A" Side:	0
Sleeve extension "B" side:	0	Damming Material "B":	BOARD
Minimum Item-to-Item space:	N/A	Dam Recessed "B" Side:	36
Maximum Free Area:	UNKNOWN	Total Seal Depth:	18"

Pen Item 1:		Size 1:		Term A1:		Term B1:	
Pen Item 2:		Size 2:		Term A2:		Term B2:	
Pen Item 3:		Size 3:		Term A3:		Term B3:	
Pen Item 4:		Size 4:		Term A4:		Term B4:	
Pen Item 5:		Size 5:		Term A5:		Term B5:	
Pen Item 6:		Size 6:		Term A6:		Term B6:	
Pen Item 7:		Size 7:		Term A7:		Term B7:	
Pen Item 8:		Size 8:		Term A8:		Term B8:	

Comments:

NOTICE:

CR 3 FIRE BARRIER and CCHE BREACH REPORT

BREACH TYPE FIRE BARRIER - ☑ CCHE - ☐

BREACH STATUS: OPEN

Part I - Fire Prot. Group:

Breach Report # 00-0258

Part II - Originator:

Originator: Matt Denny

Extension: 3873

Origination Date/Time: 10/16/01 1:30:00 AM

Part III - Breach Data:

Penetration # PAB-71 Penetration Type: Penetration Seal

Building: Auxiliary Building Elevation: 119' Location: Northeast Corner at RB Tendon Cap (Near Do

Reason for Breach:

RB Tendon Surveillance per SP-182 requires removal of Fire Barrier Penetration Seal

Planned Open Date: Planned Closure Date:

Part IV - CCHE Open Breach (Sq. In.):

Is Breach a CCHE ? Yes ☐ No ☑ (If Yes Refer to CP-147)

Measured Breach Openning Size: 0.000 SQ. INCHES

Total Envelope Opening Size at this Date/Time: 0.000 SQ.INches

NSM/NSS Advised of Total Opening Size in Envelope: Yes ☐ Opening Sealed: Yes ☐ No ☐

Recorded By Date/Time:

Part V - Related Documents:

Work Request 368426 371704 Deficiency Tag #

MAR # Precurser Card (PC):

Part VI -Operability Requirements:

Is Breach a Fire Barrier ? Yes ☑ No ☐ (If Yes refer to CP-137)

The SSOD/ASSOD has Verified that Fire Detectors are Operable on at least one side of affected Barrier. Yes ☑ NA ☐

Security Notified: Yes ☑ NA ☐

Fire Watch Assigned: Hourly (Hourly or Continuous)

Fire Prot.Notified By: Matt Denny Date/ Time: 10/16/01 1:30:00 AM

Part VII Breach Report Closure:

Barrier Integrity has been Restored by Approved Permanent or Temporary Seals or by Repair of Barrier Penetration Hardware and NSM/NSS Notified: Yes ☐

Responsible Work Supervisor:

Date/Time:

Fire Watch Secured: Yes ☐ NA ☐ Closed By: Date/ Time:

Notes/Comments:

APPROVED BY: R.E. Miller 10/16/01

SHIPPING RELEASE AND PACKING LIST

QUALITY CONTROL DOCUMENTATION

PSC Formerly Inryco Surveillance

Customer: FLORIDA POWER CORPORATION	Shipment No. N/A
Project: CRYSTAL RIVER-UNIT 3	Contract: N750
Prepared by: H.F. HENDRICKSON	Fabricator: N/A
Inspected by: H.F. Hendrickson	Date: 9-14-01 Page 1 of 1

Documentation to satisfy the Quality Assurance requirements have been reviewed and found acceptable.

SIGNED H.F. Hendrickson DATE 9-14-01

PSC QUALITY ASSURANCE REPRESENTATIVE

QUANTITY	PART NO.	DESCRIPTION
1	EACH	1400 TON HYDR. RAM # 8752

1 Total Pieces

4,500 Total Weight

QUALITY ASSURANCE DOCUMENTATION	Precision Surveillance Corporation
CERTIFICATE OF COMPLIANCE	

Project FLORIDA POWER CORPORATION CRYSTAL RIVER - UNIT 3 Contract N75C Date 9-14-01

Material Identification 1-EA. 1400 TON RAM #8752

Purchase Order No. FPC - CONTRACT # N02057AD

Specification and Revision No. APPENDIX "C" TO FPC CONTRACT # N02057AD

Drawing and Revision No. N/A

Procurement Requirements MET BY ATTACHED RAM CALIBRATION

(met by material) YES

Deviations NONE

Resolution N/A

Disposition N/A

Non-Conformance NONE

Q.A. Release for NCR N/A

Deviations and Non-Conformances shall be attached to this form.
N/A to be written in for Not Applicable; all blanks shall be filled in.

This is to certify that the above material has been fabricated and inspected in compliance with the specified drawings, procedures, specifications, codes, purchase order requirements, PSC Quality Assurance Manual Revision 2 Dated 6-28-91 and the attendant quality programs.

Vendor PRECISION SURVEILLANCE CORP. Authorized Agent H.F. Henderson

Date ~~9-14-01~~ 9-14-01 Title MGR., Q.A.

WRH 9/14/01

PSC QUALITY CONTROL ACCEPTANCE

Name & Title H.F. Henderson MGR, Q.A. - ANSI Level III Q.C. Date 9-14-01

OWNER OR AUTHORIZED AGENT INSPECTION WAIVER

Shipment Final Inspection Waived By N/A Date N/A

Agency N/A Title N/A

Supplier's Authorized Representative H.F. Henderson

RAM/JACK CALIBRATION RECORD RPK 9-14-01 FORM 12.8.G

PSC Formerly Inryco Surveillance

PROJECT Millstone/CRYSTAL RIVER CONTRACT/PART NO. N758/N750

Jack Description DUDGEON Size 1400 Tons Register No 8752

Theoretical Ram Area 337.0 Max. Pressure 5500 PSI

Calibrating Device Teledyne Register No. 4734 Constant 32987-5

Calibrating Gauge Heise Register No. 59-27100 Date DUE: 7-24-03

Raw Data By DJZ PA 4-6-01 WITNESS N/A

Mean Ram Area 331.036 sq.in. K= 11.329 Kips Agency N/A Date N/A

Computed By [signature] QC Check [signature]

Title Field Engineer Date 4/6/01 Title Lead QC. Date 4-6-01

Target PSI	Gauge Reading PSI	Load Cell Readout	COMMENTS
1000	1001	-9.66	RUN 1 POSITION 1 1/2"
1500	1503	-14.72	Target Gauge Readout
2000	2000	-19.76	5500 5505 -54.96
2500	2500	-24.78	
3000	3002	-29.84	
3500	3507	-34.90	
4000	4006	-39.92	
4500	4502	-44.88	
5000	5001	-49.90	
1000	1001	-9.70	RUN 2 POSITION 3"
1500	1501	-14.74	Target Gauge Readout
2000	2000	-19.74	5500 5500 -54.88
2500	2504	-24.82	
3000	3001	-29.80	
3500	3505	-34.86	
4000	4001	-39.84	
4500	4504	-44.86	
5000	5002	-49.88	
1000	1000	-9.64	RUN 3 POSITION 4"
1500	1502	-14.72	Target Gauge Readout
2000	2003	-19.74	5500 5500 -54.72
2500	2502	-24.76	
3000	3004	-29.76	
3500	3500	-34.72	
4000	4005	-39.80	
4500	4503	-44.74	
5000	5004	-49.78	

JACK CALIBRATION - LINEAR REGRESSION ANALYSIS

PROJECT PRE-MILLSTONE / PRE-CRYSTAL RIVER LDH 9-14-01 CONTRACT NO. N758/N750

JACK DESCRIPTION: DUDGEON TONS: 1400 REGISTER NO.: 8752

THEORETICAL RAM AREA (sq.in): 337 MAX PRESSURE (psi): 5500

CALIBRATING DEVICE USED: TELEDYNE REGISTER NO.: 4734 CONSTANT= 32987.5

CALIBRATING GAUGE DESCRIPTION: HEISE REGISTER NO.: S9-27100

LFC 4/16/01

.....INPUT.....		
ACTUAL GAUGE READING (psi)	LOAD CELL READOUT	COMPUTED FORCE (k)
1001	9.66	318.659
1503	14.72	485.576
2000	19.76	651.833
2500	24.78	817.430
3002	29.84	984.347
3507	34.90	1151.264
4006	39.92	1316.861
4502	44.88	1480.479
5001	49.90	1646.076
5505	54.96	1812.993
1001	9.70	319.979
1501	14.74	486.236
2000	19.74	651.173
2504	24.82	818.750
3001	29.80	983.028
3505	34.86	1149.944
4001	39.84	1314.222
4504	44.86	1479.819
5002	49.88	1645.417
5500	54.88	1810.354
1000	9.64	318.000
1502	14.72	485.576
2003	19.74	651.173
2502	24.76	816.771
3004	29.76	981.708
3500	34.72	1145.326
4005	39.80	1312.903
4503	44.74	1475.861
5004	49.78	1642.118
5500	54.72	1805.076

* - - THESE READINGS HAVE BEEN OMITTED FROM THE FINAL COMPUTATIONS

ERRORS IN JACK CALIBRATION

ERROR IN STANDARD	0.0100 ksi
INTERPOLATION IN GAUGE	0.0000 ksi
ACCURACY OF GAUGE	0.0000 ksi

ERRORS IN GAUGE CALIBRATION

INTERPOLATION IN MASTER	-0.0000 ksi
INTERPOLATION IN FIELD GAUGE	0.0050 ksi
ACCURACY OF MASTER	0.0100 ksi
ACCURACY OF FIELD GAUGE	0.0275 ksi

ERRORS IN FIELD USE OF GAUGE

INTERPOLATION ERROR	0.0050 ksi
ACCURACY ERROR	0.0275 ksi
MAXIMUM GAUGE READING USED	5.5050 ksi

** FORCE (k) = 331.036 (sq.in.) X GAUGE READING (ksi) -11.329 (k) **

CORRELATION = 0.99999386 N/NO= 1.0000 (NOT < .66667)

MAXIMUM ERROR RATIO IN JACK ..... .0053

MAXIMUM ERROR RATIO IN GAUGE ..... .0076

MAXIMUM TOTAL ERROR RATIO ..... .0093

2–RECEIVING REPORT

FLORIDA POWER CORPORATION
PURCHASE ORDER — RECEIVING REPORT

P.O. DATE	PAGE	ENTITY	PURCHASE ORDER	BLANKET RELEASE	CHANGE NOTICE
07/11/2001	5	NUC	L8004720		

TO:
PRECISION SURVEILLANCE CORP
3468 WATLING STREET
EAST CHICAGO IN
46312

SHIP TO: FLORIDA POWER CORPORATION
CRYSTAL RIVER UNIT 3 STOREROOM
15760 WEST POWERLINE STREET
CRYSTAL RIVER FL
34428

BUYER	SHIP VIA	F.O.B.	FREIGHT TERMS	VENDOR
080	TRUCK	NOT APPLICABLE	N/A	403199

P - PARTIAL
F - FINAL

LINE ITEM	ORDER QUANTITY	UNIT	FPC PART NUMBER	DESCRIPTION	DATE REQUIRED	QUANTITY RECEIVED	CODE
				* ITEMS REQUIRING PROTECTIVE CAPS/PLUGS, ADHESIVES, MARKING INK, LABELS, TAPE ETC. THAT ARE APPLIED TO OR CONTACT STAINLESS STEEL OR NICKEL ALLOY MATERIALS MUST CONTAIN LESS THAN 200 PPM (EACH) OF LEACHABLE CLORIDES, FLUORIDES AND SULFIDES. **************			
				* THIS IS A QUALITY ORDER FOR NUCLEAR SAFETY RELATED EQUIPMENT/MATERIALS. **************			
				* ATTACHMENT "Q" (REV. 10/19/00) IS ATTACHED HERETO AND HEREIN MADE A PART OF THIS PURCHASE ORDER.			
01	1	LT	******LT	PROVIDE THE FOLLOWING SAFETY RELATED MATERIAL: QTY 10 55 GALLON DRUMS 2090-P4 GREASE BY VISCOSITY QTY 15 SETS SHIMS 3/16", 1/4", 3/8" AND 1/2" PER DRAWING NO. CR-001 (ATTACHED). GREASE: A CERTIFIED TEST REPORT BEARING TWO SIGNATURES INDICATING WATER SOLUBLE CHLORIDE AND SULFIDE CONTENT (2PPM MAX) AND NITRATE (4PPN MAX)	08/31/01		

Received
Received T.O. [illegible]
Cheryl [illegible]
[illegible] Cole C.O.

SHIPMENT	DATE RECEIVED	PREPAID	COLLECT	DRAFT NO.	RECEIVED VIA	CAR NO.	PRO. NO.	RECEIVED BY	CODE
1									☐ DUPLICATE
2									☐ ERRONEOUS
FINAL									☐ SUBSTITUTE

REV 4/90

Florida Power
A Progress Energy Company

QUALITY CONTROL ISSUE
Central Division - Crystal River

DOCUMENT NUMBER
QCI No. 159789

RA	EAC	ACTIVITY	TASK	WORK REQUEST AND / OR MAR NUMBER(S)	STOREROOM NO.	SOURCE
615	220	WK4013		MATT JENNY / Paul Wright X84773 X84752	293	21

MMIS PART NUMBER (or P.O. ITEM NO.)	QTY	U/I	SLED	DESCRIPTION	HEAT/ SERIAL NO.	VENDOR	PURCHASE ORDER NUMBER	WAREHOUSE LOCATION	QUANTITY REQUESTED
Item#01	1	LT	N/A	Grease, 2090-P4 55 GL DRUM 3 DRUMS @ 55GL	24272	Precision Surveillance Corp	4800420	N/A	1 LT
					SPECIAL HANDLING INFORMATION: N/A				
					SPECIAL HANDLING INFORMATION				
(3) BATCH # 24272									
					SPECIAL HANDLING INFORMATION				
					SPECIAL HANDLING INFORMATION				
					SPECIAL HANDLING INFORMATION				

REMARKS: 3 DRUMS @ 55 GL

ISSUED BY SIGNATURE	DATE	RECEIVED BY SIGNATURE	DEPARTMENT	DATE	AUTHORIZED BY SIGNATURE	TITLE	DATE
G. R. Grimsley	10/19/01						

Rev. 5/97 WHITE - Document Control YELLOW - Originator PINK - Stores GOLDENROD - Stores Accounting RET: Perm. RESP: User Dept. 912 944

Florida Power
A Progress Energy Company

QUALITY CONTROL ISSUE
Central Division - Crystal River

DOCUMENT NUMBER
QCI No. 159771

RA	EAC	ACTIVITY	TASK	WORK REQUEST AND / OR MAR NUMBER(S)	STOREROOM NO.	SOURCE
615	220	222WK	4013	Paul Wright	293	21

MMIS PART NUMBER (or P.O. ITEM NO.)	QTY	U/I	SLED	DESCRIPTION	HEAT/ SERIAL NO.	VENDOR	PURCHASE ORDER NUMBER	WAREHOUSE LOCATION	QUANTITY REQUESTED
Item #01	1	LT	N/A	3/16" Shim Sets (15 Sets)	T81540	Precision Surveillance	L8004721	N/A	1 LT
				SPECIAL HANDLING INFORMATION: N/A					
Item #01	1	LT	N/A	1/2" Shim Sets (8 Sets) 15 @ 9/11/01	Y06853	Precision Surveillance	L8004721	N/A	1 LT
				SPECIAL HANDLING INFORMATION: N/A					
Item #01	1	LT	N/A	3/8" Shim Sets (7 Sets) 15 @ 9/11/01	T22350	Precision Surveillance	L8004721	N/A	1 LT
				SPECIAL HANDLING INFORMATION: N/A					
Item # 01.	1	LT	N/A	1/4" Shim Sets (15 Sets)	W24603	Precision Surveillance	L8004721	N/A	1 LT
				SPECIAL HANDLING INFORMATION: N/A					

REMARKS

ISSUED BY SIGNATURE	DATE	RECEIVED BY SIGNATURE	DEPARTMENT	DATE	AUTHORIZED BY SIGNATURE	TITLE	DATE
J. D. Grimsley	9/11/01						

FM. 5487 WHITE - Document Control YELLOW - Originator PINK - Stores GOLDENROD - Stores Accounting RET. Perm. RES

Design and Evaluation of ¾" Eye Bolts for Lifting Ram

Design:

One ¾" self drilling Red Head (103508) shall be installed in the ceiling directly in front of the tendons. A second ¾" self drilling Red Head shall be installed approximately 4 feet (+/- 2 feet) east of the first anchor. Exact location of anchors shall be determined by field to suit lifting of the ram. A SS plate 3/4"x4"x4" (1491632) with a 7/8" diameter hole shall be installed with a ¾" shoulder eye bolt (1083395) in each of the red head anchors. The first location is for supporting the ram in its final location, and the second eye bolt is for lifting the ram on and off of the cart. Refer to SP-601, for additional information on lifting devices.

The minimum distance between eyebolts should be 12" and the minimum edge distance between the eyebolt and an edge shall be 12".

A third eyebolt may be installed in the vicinity as required. A single washer may also be installed between the eyebolt and the ¾" plate.

The plate and eye bolt shall be removed after the surveillance testing. The ¾" self drilling Red Head may remain installed.

Evaluation:

Per Matt Denny, the weight of the ram is estimated as 4000 pounds. Assuming a DLF of 1.1, and 100 pounds of rigging, the required lift is 4500 pounds.

Per Design Engineering walkdown, there is no safety related equipment in the fall path of the ram. This lift does not need to meet the requirements of NUREG-0612.

Per MDC-2, each ¾" red head self drilling anchor is qualified for 11575/2.5 = 4630 pounds.

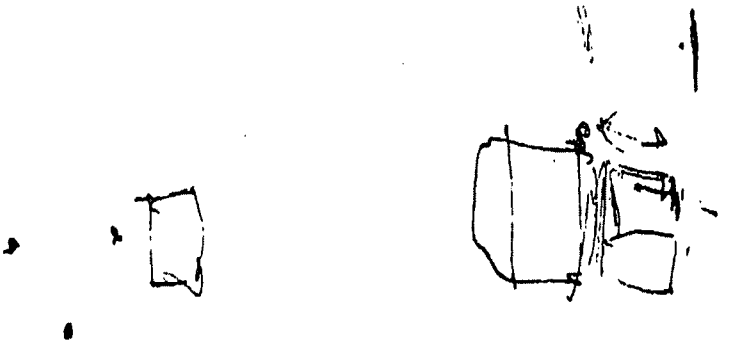
Per SP-601, each ¾" eye bolt is qualified for a vertical load of 5,200 pounds. Assuming the ram is pulled sideways 3 feet from a point 15 feet below the ceiling, the swing angle would be approximately 11 degrees. Considering that the load will be shared between two pick points, both the eyebolts and the anchors are qualified for this swing angle.

The eye bolt has a shank of 2". The self drilling anchor has a threaded length of approximately 1 ¼". 2" – 1 ¼" = ¾". A ¾" shim plate is required. Since the threaded length is 1.25 and the diameter is 0.75", the amount of threaded engagement is over 1.5D. No reduction in the capacity of the eye bolt is required.

The floor above the lift is El 119' –0" and is in the hallway near column line 340 and J. The floor is qualified for 200 psf of live load, which is equivalent to approximately a 5' x 5' area. The hallway above the lift is lightly loaded, and the floor at elevation 119' is qualified for the lift.

El 95' and 119' in the Auxilliary Building has a floor rating of at least 200 psf. The load path for the ram on these elevations is qualified by inspection.

Location and description of rigging points are not capture on any drawings, calculations, or other design documents. The temporary installation of this rigging is not considered a design change, equivalency nor a temporary modification.



Kevin Hurst
3474

Hoyt
Koon
3836
8811

NUCLEAR COMPUTER-BASED TRAINING -- Daily Student Activity Log

In-Processing Building (CBT Rm [X] Other Rm [ ])

Date: 8/27/01

Student Name (print)	Student SS#	PAT	RWT	RSP	S@H	FME	LDWR	CRNE	ERT	NUCGT-ERW	
RICHARD JASON HAMILTON	(b)(6)									S	
JAMES Lee Adams										S	

NOTES:

Florida Power
A Progress Energy Company

INTEROFFICE CORRESPONDENCE

Nuclear Technical Services	PA3A	240-3925
OFFICE	MAC	TELEPHONE

FROM: Paul A. Wright

DATE: November 15, 2001
NPTS01-0106

TO: IWE / IWL Program File

SUBJECT: Qualification of RoboProbe Parallel Laser Projector

In accordance with the 1992 Addenda of ASME Section XI, a demonstration shall be performed for alternative examination methods or newly developed techniques. The purpose of this qualification is to demonstrate the remote operating proficiency of RoboProbe Technologies DL1 Dual Parallel Laser Projector, as applied to VT-1C and VT-3C Examinations.

This qualification demonstrated equivalency of remote measurement techniques compared to standard "hands-on" measurements to perform remote visual techniques as detailed/qualified in attachment 5 -MAIL 991021.001.

As *applied for VT-1C and VT-3C examinations*, it shall provide valuable supplemental information to characterize the area e.g., approximate size, shape, orientation, location, and distribution of referenced inspection conditions.

In addition, while not intended for inspection purposes, digitally produced photographs shall be provided as informational documentation only, giving a reasonable facsimile of actual inspection observations.

The following demonstration was performed for the ANII, Carlos Colarte, on October 18, 2001.

- A tape measure was used to measure off a distance of 137', with incremental checks performed at 25, 50, 75 and 100 ft to verify the parallel state of the DL1 RoboProbe. Initial laser point calibration was set at 2" spacing and was demonstrated as being consistent throughout the verified distance range.

- The following was used to verify consistency of spacing, and resolution of the two (2) laser points, as observed on the concrete surface:

- One (1) G.E Visual Comparator Card taped to the concrete surface (see attachment 2). The Quality Assurance Card is of neutral gray color and has standard 1/16", 3/64", 1/32", and 1/64" lines, as well as graduated black dots ranging from 1/8" down to 1/64". On the edges are standard scales in 1/16" and 1 MM increments.

- One (1) strip of self-adhering yellow measuring tape in 1/16" increments was also applied.

- One (1) standard machinist scale with 1/32" graduations.

- Used: one (1) pair of pre-qualified 8-24 X 50 Bausch and Lomb Legacy Binoculars.

- Used: one (1) RoboProbe Technologies, Inc. DL1 Dula Parallel Laser Projector. Model # QAAAKG. Serial #Q00024.

- Natural lighting was utilized, without the aid of artificial illumination. Resolution was found to be acceptable as delineated in ASME Section XI requirements (see Interoffice Correspondence MAIL 991021.001 dated October 21, 1999 – Attachment 5).

- Used: one (1) Tektronix Photo Meter, Model J17, equipment tag # TI-2856, & S/N B022068. (See attachment 4.)

- In conjunction with the photometer, the sensor head attached was a Tektronix Model J1811, equipment tag # TI-2858, & S/N B030704. (See attachment 4.)

The above supplemental technique, used as an aid for characterizing approximate size, shape, orientation, location, and distribution of referenced inspection items, adequately demonstrates the consistency of the RoboProbe Laser Projector for the intended remote VT1-C, & VT3-C Visual Examinations.

The demonstration was performed in the presence of the ANII, and found to be acceptable as applied to ASME Section XI, IWA 2240 criteria.

Jerry Brown, VT1-C, & VT3-C NDE Level II	11-15-01 Date
T. Rand Wilson	11-15-01 Date
Carlos Colarte, ANII, Hartford Steam Boiler Inspection and Insurance Co.	11-15-01 Date
Paul A. Wright, NDE Level III	11-15-01 Date

Attachments:

1 - Users Manual DL1 Dual Parallel Laser Projector – (8 Pages)
2 – G.E. Visual Comparator Card – (1 Page)
3 - Photo demonstration of laser target at 137 feet – (1 Page)
4 - Calibration Records – (4 Pages)
5 - IOC dated October 21, 1999, ccMail991021.001 – (2 Pages)

cc: Records Management

IOC - NPTS01-0106
Attachment 1

ROBOPROBE® TECHNOLOGIES, INC.
ROBOTIC SOLUTIONS FOR CHALLENGING ENVIRONMENTS

User's Manual
QAAAQEM01 Revision 0
DL1 Dual Parallel Laser Projector

Printed 02/21/01

DANGER: LASER LIGHT - AVOID DIRECT EYE EXPOSURE.

1. Introduction

The DL1 dual laser projector was designed to project a dual dot size-reference pattern over surfaces and objects being viewed and video taped by the RoboProbe VT1 and VT1M long range color zoom TV cameras, no matter how far from them. It uses two individual high power red lasers, with perfectly circular patterns, to maximize brightness and facilitate the taking of relative measurements.

The DL1 projects two circular red dots on the surface being viewed or video taped. These dots are clearly visible in shaded daylight, and a screw-on red dichroic filter is also supplied for the VT1/VT1M camera to enhance their relative brightness in direct daylight. The center-to-center distance between both projected dots can be calibrated from 1" to 2". In order for this calibrated distance to remain constant over different viewing distances, both laser beams must be totally parallel.

With a calibrated distance of 1" between both laser beams and their projected dots, the DL1 can be used at viewing distances of up to 250 feet. As the laser beams are slightly divergent and the dots grow with viewing distance, we recommend a calibrated distance of 2" between beams for viewing distances larger than 250 feet.

ALTHOUGH VERY RUGGED IN CONSTRUCTION, THE DL1 IS A LABORATORY INSTRUMENT WHOSE CALIBRATION IS DELICATE AND MAY BE OFFSET BY SHOCKS AND VIBRATION. It is recommended that the dual beam parallelism should be verified, and adjusted if necessary, each time the unit is used.

4065 Winston Drive
Suite 100
Hoffman Estates, IL 60195
phone: 847-934-5567
fax: 847-934-9434
e-mail: solutions@roboprobe.com
website: http://www.roboprobe.com

IOC - NPTS01-0106
Attachment 1

2. Specifications:

- Heavy duty anodized aluminum construction.

- Two red lasers category IIIa, 4.9 mW at 635 nm, 2.2mm diameter circular beams at faceplate, divergence 0.4 mrad.

- On-Off switch and LED indicator on rear panel directly facing the operator.

- Power 8-18 Vdc 200 mA.

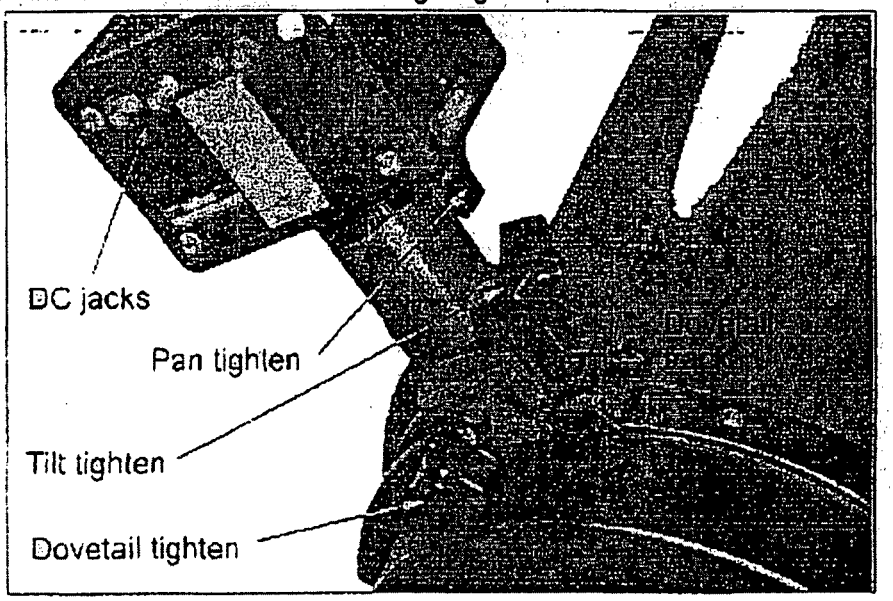
- Internal adjustment for distance between lasers, from 1"/25mm to 2"/50mm, factory adjusted to 1.0".

- External adjustments for dual beam horizontal distance and parallelism. Internal adjustment for dual beam vertical parallelism.

- RoboProbe proprietary universal dovetail mount allows easy installation and removal.

- A light filter is supplied for screwing onto VT1 and VT1M camera. This is a high saturation low pass Dichroic glass plate with 600 nm cutoff.

3. Installation on VT1 and VT1M long range zoom color cameras:



IOC - NPTS01-0106
Attachment 1

3.1 Mounting:

Loosen the dovetail knob and slide DL1's base into the dovetail track. Position DL1 where needed, then tighten the dovetail knob.

3.2 Powering:

Power looping is used on the VT1/VT1M. Connect the DC cable from the power supply (normally goes to camera) into one of DL1's two DC jacks. Both jacks are wired in parallel. Connect the 30" DC cable (supplied) into the other jack and into the camera's DC jack.

3.3 Aligning the projected dots within the camera's field of view:

Aim the VT1 or VT1M towards an easily recognizable "reference" area at the required distance. Slightly loosen the pan and tilt knobs until the DL1 can be moved with some resistance. Aim the DL1's dual red dots towards the reference area.

Looking at the TV image in zoom out, further adjust the DL1's position to make it's dots visible on the monitor screen. Slowly zoom-in to make sure the dots remain centered in the video image. Tighten the pan and tilt knobs.

4. Operation

DANGER: LASER LIGHT - AVOID DIRECT EYE EXPOSURE.

The DL1 is used to perform "relative" measurements on video images. As the "calibrated" distance between the projected red dots is known, the user simply relates that known distance to other objects within the video field of view.

To make a video measurement of an object's size, first use a ruler to measure that object directly on the TV monitor's screen, or on a video print of the image. Then measure the distance between the centers of the projected laser dots on the same screen or print. Use the formula below, where the "calibrated dot distance" is from 1" to 2", as calibrated by you before use (we ship at 1.0" unless requested otherwise). Note that the units of measurement used for the "calibrated dot distance" determine the units of the object's true size (e.g. if the distance between lasers is known in centimeters, then the true object size will also be in centimeters).

$$\text{True object size} = \frac{\text{measured object size}}{\text{measured dot distance}} \times \text{calibrated dot distance}$$

IOC - NPTS01-0106
Attachment 1

When imaging very dark surfaces, the laser dots may be so bright as to overpower the camera's sensitivity, thus darkening the object being measured. In such cases, first record an image of the object with the DL1 turned "off", then turn the lasers "on" and continue recording without changing the zoom position. First measure the size of the object on the video image with a ruler, then measure the distance between the centers of the projected dots as these appear in the picture.

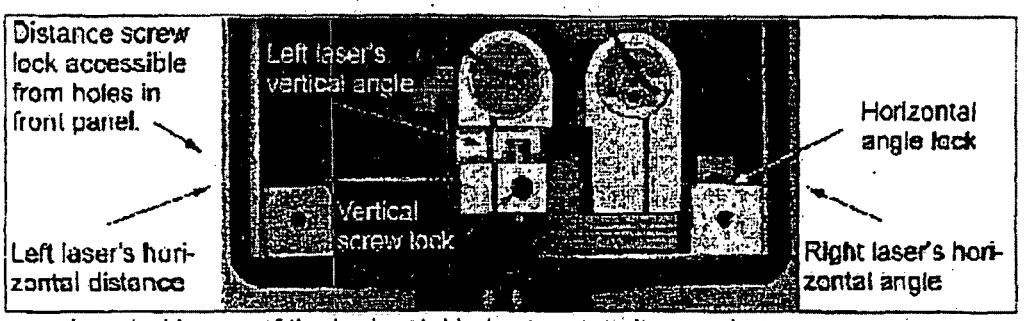
When using the DL1 in daylight, specially when looking at surfaces illuminated by direct sunlight, you may find it difficult to see the red laser dots in the video image. If the color of the object being viewed is not important to your inspection, screw the supplied red dichroic filter in front of the VT1/VT1M camera. This will only allow red light to reach the camera, thus enhancing the relative brightness of the lasers.

5. Calibration

5.1 Preamble:

a) There are three calibration alignment screws, two of which have allen key heads. When the DL1 is viewed from the rear, these are in the positions indicated in the photo below, which shows a DL1 with the rear cover removed. The alignment screws are dedicated to the following calibrations:

- Left laser's horizontal distance (on left side of DL1, 7/64" allen key head accessible through a hole in chassis)
- Right laser's horizontal angle (on right side of DL1, 7/64" allen key head accessible through a hole in chassis)
- Left laser's vertical angle (inside DL1, accessible by removing the rear panel). The adjustment of this screw is special: a very thin allen key may be



inserted in one of the horizontal holes to rotate it, see photo.

b) For each alignment screw there is a corresponding "locking screw". The "locking screws" are plastic tipped, and their purpose is not to lock the alignment screws, but to apply some friction to them. NEVER COMPLETELY TIGHTEN THE "LOCKING SCREWS". Their pressure is factory adjusted and should not

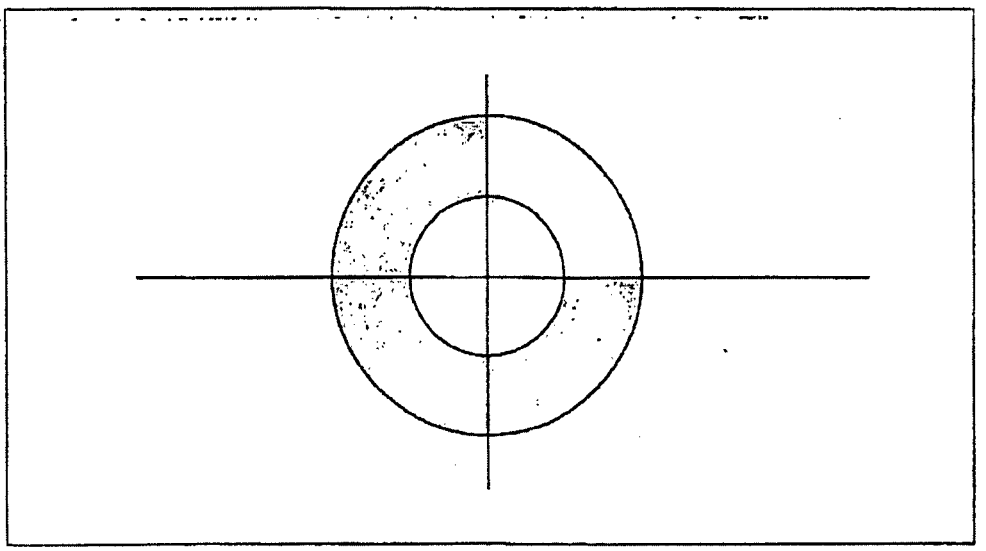
normally be readjusted, however if you decide to do so, screw them in just tight enough to feel that there is some pressure against the corresponding alignment screw.

c) Shock and vibration will affect the parallelism of both laser beams, often during transportation of the DL1 to the work site. This is normal considering the projection distances involved, which require alignment accuracies of up to 1/1000 of a degree. The user must verify and re-adjust beam parallelism at the work site, upon a target placed at about the same distance as the surface being projected upon, before every use.

However we have found that, usually, vibration induced changes to the distance between lasers is insignificant, and changes to the left laser's vertical angle may be compensated for by readjusting the right laser's horizontal angle. It will be seen later that, even though the projected spots are not perfectly horizontal, your measurements will be valid as long as the distance between them is correct.

Hence before contemplating a complete readjustment of all three alignment screws when setting up for use at the work site, try realigning only the right laser's horizontal angle.

d) A copy of the following calibration target, with 1" and 2" circles, must be used during calibration. This may be photocopied (accurate size reproduction only) on peel-off sticky labels.



IOC - NPTS01-0106
Attachment 1

5.2 Calibration task no. 1: distance between laser beams

The use of laser protection glasses for 635 nm (nanometer) light is recommended for this procedure (although not essential if care is taken no to look directly into the beams or their direct reflections). Such glasses may be purchased from optical suppliers such as Edmund Scientific (tel. 800-363-1992).

- Place the DL1 either on the VT1 or VT1M telescope, or in a bench vise. Make certain that the top surface of the DL1 is horizontal, such that both laser sources are also horizontal.

- Turn the lasers "on". Be very careful not to allow anyone to look directly into the laser beams.

- Place a paper copy of the calibration target directly on the DL1's front panel. You will see both laser dots shining through the paper. Position the target so as to center the right laser dot where the horizontal line crosses the target circle, which should be 1" or 2" as desired.

- Using a 7/64" allen key, turn the left laser's horizontal distance alignment screw (on the left side of DL1) until the left dot is centered where the left side of the calibration circle meets the horizontal line.

5.3 Calibration task no. 2: left beam's vertical angle

- With the DL1 still in its fixture as in 5.2 above, turn the lasers "on". Be very careful not to allow anyone to look directly into the laser beams.

- For a preliminary evaluation, aim the laser beams at a distant wall, preferably as far as the work site surface to be inspected. Using a 7/64" allen key, turn the right laser's horizontal angle alignment screw (on the right side of DL1) so that the right dot is far enough to the right of the other to be clearly visible.

- See if both dots are horizontal relative to one another. If one is higher than the other by more than the allowable offset below, perform the left laser's vertical angle calibration.

  Maximum allowable vertical offsets:

  - 1" if the wall's distance is equal/larger than that to the surface to be inspected.
  - 1/2" if the wall's distance is half that to the surface to be inspected.
  - 1/4" if the wall's distance is a quarter that to the surface to be inspected.
  - Etc.

IOC - NPTS01-0106
Attachment 1

A truly horizontal dot pattern is always preferable, however THE IMPORTANT FACTOR IS THAT BOTH LASER DOTS MUST BE SEPARATED BY THE CALIBRATED DISTANCE WHEN PROJECTED ON THE SURFACE BEING INSPECTED, EVEN THOUGH ONE MAY BE HIGHER THAN THE OTHER.

- If you decide to align the left laser's vertical angle, first remove the DL1's rear cover, to expose the vertical angle alignment screw as indicated in the above photo. Insert a very small allen key or paper clip into one of the holes at the top of the screw, and rotate it until both projected laser dots on the distant wall are at the same height. Now gently tap the left laser to allow it to settle into its stable position, and if this shifts the left beam vertically re-adjust the screw. Do not worry about the horizontal distance between the projected dots during this procedure.

5.4 Calibration task no. 3: right beam's horizontal angle

The horizontal distance between both projected laser dots is the most likely to shift during transportation and handling, and may be the only alignment required at the work site.

When performing this procedure, it is highly desirable to place a copy of the alignment target (a sheet of stick-on alignment targets is supplied with DL1), or a circle of the same diameter as the selected target circle, at a distance equal to that of the work site surface being inspected. Shorter distances may not allow you to see slight divergences in seemingly parallel beams, which will increase with distance as the beams are projected farther.

We recommend that the horizontal angle alignment first be performed in the same environment and set-up as for the other alignments described above. Then, when you reach the work site, "fine-tune" the horizontal angle adjustment using a target placed at an accessible area of the surface being inspected.

It is not important, at the work site, to mount the DL1 horizontally. As long as the distance (horizontal angle adjustment) between the dots is calibrated, they can be oriented at any relative angle from the horizon. This is the reason why our alignment target consists of circles: the center of both laser dots must be positioned on opposing sides of the circle, but not necessarily on the horizontal line that crosses them.

- Mount the DL1 on the VT1 or VT1M (it does not have to be horizontal). Aim the VT1 or VT1M towards the distant alignment target, then focus the image. Zoom-in until the target circle is seen clearly.

IOC - NPTS01-0106
Attachment 1

- Slightly loosen the DL1's pan and tilt knobs so that it can be moved with some resistance. Aim the DL1 such that the left laser dot is centered on the left side of the alignment circle, as seen on the video monitor.

- To make sure that the laser beams are not crossed, place you hand in front of the DL1's left laser, and see that it is the left dot that disappears.

- Using a 7/64" allen key, turn the right laser's horizontal angle alignment screw (on the right side of DL1) until the right dot is centered over the opposite side of the calibration circle. You may have to slightly reposition the DL1 to maintain both dots on opposite sides of the circle.

- Tighten the pan and tilt knobs, making sure that this does not move the projected pair of dots away from the center of the video image.

6. Maintenance

No routine maintenance is required by the DL1.

IOC - NPTS01-0106
Attachment 2

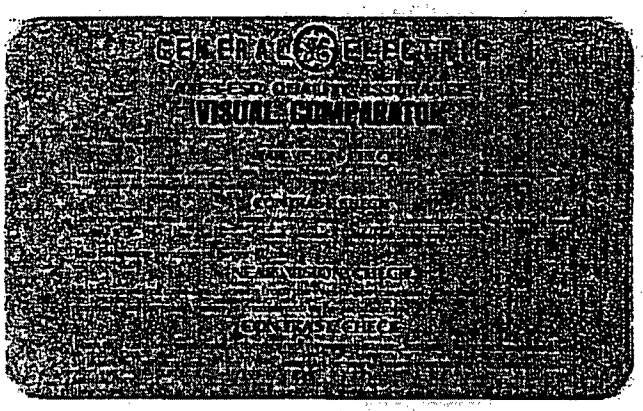
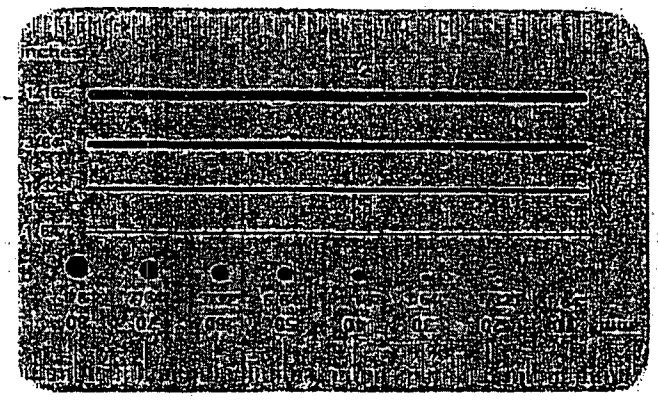


Photo Scan of G.E. Visual Comparator Card



IOC - NPTS01-0106
Attachment 3

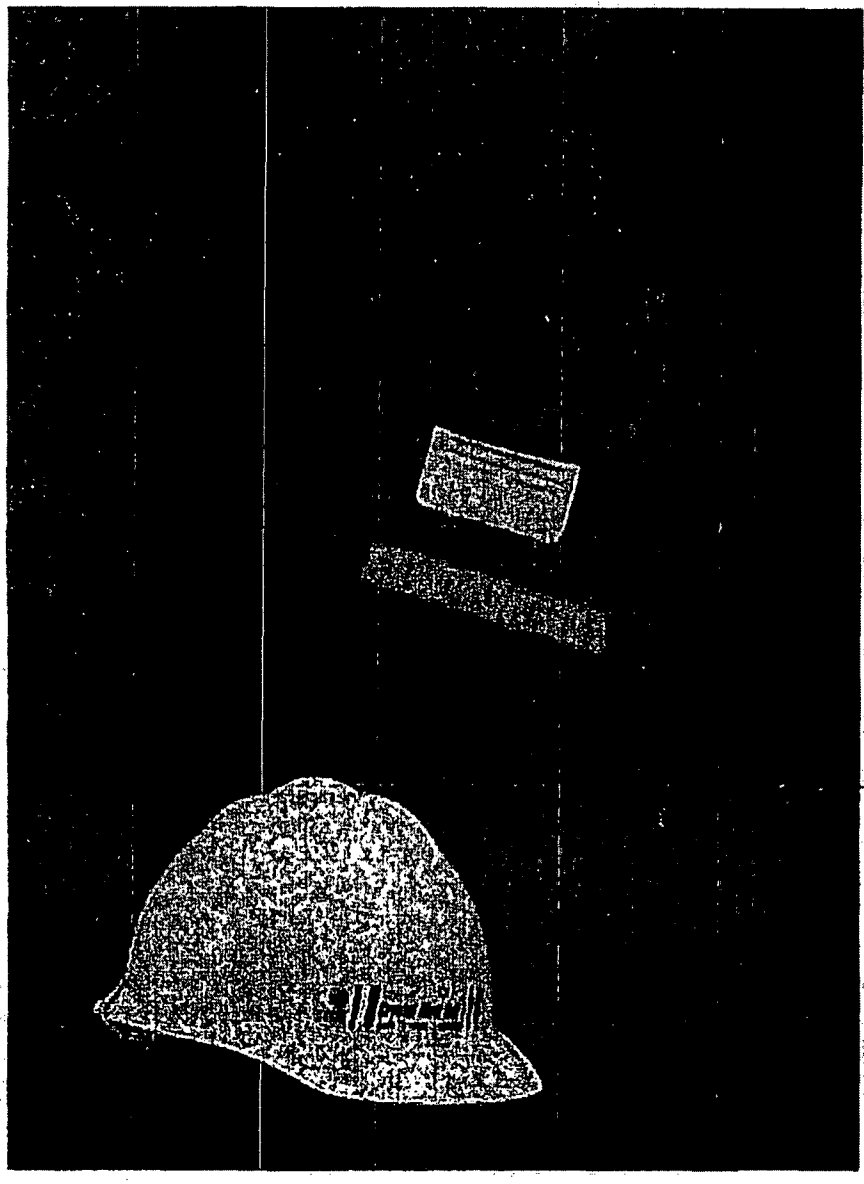


Photo taken at a distance of 137' with Sony Mavica, set on 20X full zoom.

IOC - NPTS01-0106
Attachment 4

ENCLOSURE 6 **1560**

CALIBRATION WORK SHEET NO: 00-07-090

Test Equipment TAG No: TI-2856- Due Date: 07/29/00 To Day: 01/02/01

Description: PHOTOMETER READOUT Manufacturer: TEKTRONIX

Range: .001 TO 5000 FOOT CANDLES Serial#:B022068 Model:J17

Check Reason:	RETURN DAMAGED	(J)		NON-ROUTINE CERT.	(U)
CYCLE 12	SPECIAL CERTIFICATION	(K)		FUNCTIONAL CHECK	(W)
	RECERTIFICATION	(M)	I	MANUFACTURERS CERT.	(X)
	NEW EQUIPMENT	(N)		CANNOT LOCATE	(Y)

Calibration Instruction: CI 04
Calibration WORK SHEET #: 232

Originator: CAL LAB DEPT: CALIBRATION LAB

-CALIBRATION LAB USE ONLY-

CERTIFIED PER	86 (I)	OUT-OF-TOLERANCE	(O)
CALIBRATED PER	(T)	ADJUSTMENT REQUIRED	(A)
FUNCTIONAL CHECK PER	(W)	REPAIR REQUIRED	(S)
REMOVED BY	(R)	UPDATED, NOT USED	(*)
		OUT-OF-SERVICE	(H)

Describe Work Performed:

OSC: 86 HOURS: .5 /OSC: AL HOURS: .5 /OSC: AL HOURS: .5

TEST INSTRUMENT CAL DATE: 1/2/01 DUE DATE: 12/4/01

TEST STANDARDS USED	CAL DATE	DUE DATE	COMMENTS:
TS-553	12/4/00	11/12/01	
			MMIS No: NONE
			Location: 1C

Approved By: DATE: 1-5-01

IOC - NPTS01-0106
Attachment 4

CALIBRATION DATA SHEET
Secondary Standards Lab
CI-04-232

CALIBRATION WORKSHEET NUMBER 00-07-090

I.D. NUMBER:	TI-2856
SERIAL NUMBER:	B022068
MODEL NUMBER:	J-17 / J1811
INSTRUMENT:	PHOTOMETER "TEKTRONIX"
SPECIFICATIONS:	.001 TO 5000 FOOT CANDLES
ACCURACY:	+/- 6% RNG +/- 2 COUNTS W/HEAD * TO BE USED WITH ILLUMINANCE PROBE

TEST INSTRUMENTS TO BE USED FOR CALIBRATION:

SUGGESTED STANDARD	ACTUAL STANDARD USED	DUE DATE
TS-553	TS-553	11/12/01
OR EQUIVALENT		

STANDARD RANGE	STANDARD INPUT/OUTPUT	AS FOUND INDICATION BG AT CODE AA	AS LEFT INDICATION MAC CODE BG	TOLERANCE
FC	FC	FC	FC	FC
.001 / 5000	400	401	401	375.8 / 424.2
	1000	1010	1010	939.8 / 1060.2

CALIBRATED BY: BG-AT-AA DATE: 1/2/01

APPROVED [signature] DATE 1-5-01 REVISION -1- DATE 09/28/98

IOC - NPTS01-0106
Attachment 4

ENCLOSURE 6

1562

CALIBRATION WORK SHEET NO: 00-07-089

Test Equipment TAG No: TI-2858- Due Date: 07/29/00 To Day: 01/02/01

Description: PHOTOMETER SENSOR HEAD Manufacturer: TEKTRONIX

Range: .001 TO 5000 FOOT CANDLES Serial#:B030704 Model:J1811

Check Reason:					
CYCLE 12	RETURN DAMAGED	(J)		NON-ROUTINE CERT.	(U)
	SPECIAL CERTIFICATION	(K)		FUNCTIONAL CHECK	(W)
	RECERTIFICATION	(M)	I	MANUFACTURERS CERT.	(X)
	NEW EQUIPMENT	(N)		CANNOT LOCATE	(Y)

Calibration Instruction: CI 04
Calibration WORK SHEET #: 232

Originator: CAL LAB DEPT: CALIBRATION LAB

-CALIBRATION LAB USE ONLY-

CERTIFIED PER	B6 (I)	OUT-OF-TOLERANCE	(O)
CALIBRATED PER	(T)	ADJUSTMENT REQUIRED	(A)
FUNCTIONAL CHECK PER	(W)	REPAIR REQUIRED	(S)
REMOVED BY	(R)	UPDATED, NOT USED	(*)
		OUT-OF-SERVICE	(H)

Describe Work Performed:

OSC: B6 HOURS: .5 /OSC: A7 HOURS: .5 /OSC: AP HOURS: .5

TEST INSTRUMENT CAL DATE: 1/2/01 DUE DATE: 12/4/01

TEST STANDARDS USED	CAL DATE	DUE DATE	COMMENTS:
TS-553	12/1/00	11/12/01	
			MMIS No: NONE
			Location: 1A

Approved By: DATE: 1-5-01

* CP-146 *

IOC - NPTS01-0106
Attachment 4

CALIBRATION DATA SHEET
Secondary Standards Lab
CI-04-232

Page 1 of 1

CALIBRATION WORKSHEET NUMBER 00-07089

I.D. NUMBER:	T1-2858
SERIAL NUMBER:	B030704
MODEL NUMBER:	J-17 / J1811
INSTRUMENT:	PHOTOMETER "TEKTRONIX"
SPECIFICATIONS:	.001 TO 5000 FOOT CANDLES
ACCURACY:	+/- 6% RNG +/- 2 COUNTS W/HEAD * TO BE USED WITH ILLUMINANCE PROBE

TEST INSTRUMENTS TO BE USED FOR CALIBRATION:

SUGGESTED STANDARD	ACTUAL STANDARD USED	DUE DATE
TS-553	TS-553	11/12/01
OR EQUIVALENT		

STANDARD RANGE	STANDARD INPUT/OUTPUT	AS FOUND INDICATION CODE BG AT AP	AS LEFT INDICATION CODE BG AT AP	TOLERANCE
fC	fC	fC	fC	fC
.001 / 5000	400	401	401	375.8 / 424.2
	1000	1010	1010	939.8 / 1060.2

CALIBRATED BY: BG-AT-AP DATE: 1/2/01

APPROVED [signature] DATE 1-5-01 REVISION -1- DATE 09/28/98

IOC - NPTS01-0106
Attachment 5

Florida Power
CORPORATION

INTEROFFICE CORRESPONDENCE

Engineering Programs Office. | NA2I MAC | 240-3478 Telephone.

SUBJECT: Demonstration of Visual Equivalency
TO: R.L. Hathorn.

DATE: October 21, 1999
cc:MAIL:991021.001

In accordance with the 1992 Addenda of ASME Section XI, a procedure demonstration must be performed for Visual Examination procedures. This demonstration must satisfy the maximum lower case character height resolution requirements of Table IWA-2210-1. The following demonstration was performed for the ANII, Carlos Colarte, on October 21, 1999 to validate the use of Remote VT-1 and VT-3 Visual Examination as a supplement to, and substitute for Direct VT-1 and VT-3 Visual Examination.

- A tape measure was used to measure and mark twenty-five (25) feet increments up to and including a distance of one hundred (100) feet.
- The following were mounted on cardboard backing and taped to a structural column:
  - One (1) standard machinist scale with 1/32" graduations
  - One (1) standard machinist scale with 1/10" graduations
  - One 18% Neutral Grey Card with 1/32" and 1/64" scribed lines
  - One (1) laminated card with lower case characters meeting the maximum height requirements of IWA Table 2210-1, as previously verified using an optical comparator
  - One (1) calibrated light meter, FPC Test Instrument (TI) 3375, calibrated on September 13, 1999
- At a distance of seventy-five (75) and one-hundred (100) feet, a two-million (2,000,000) candle-power spotlight and 8-24 X 50mm binoculars were utilized to achieve resolution of graduations on the machinist scales, 1/32" scribed line on the 18% Neutral Grey Card, and lower case characters meeting the maximum height requirements of Table IWA-2210-1.

For General VT Examinations, lighting resolution shall be sufficient to resolve a 1/32" black line on an 18% Neutral Grey Card. This resolution was satisfactorily demonstrated at distances up to and including one hundred (100) feet.

For Direct VT-1 Examinations, the 1992 Addenda to ASME Section XI requires that a maximum lower case character height of 0.044" at a distance of two (2) feet and a minimum lighting level of fifty (50) foot candles must be resolved. This

IOC - NPTS01-0106
Attachment 5

requirement can be satisfied by resolving a 1/32" (0.0312") graduation on a standard machinist scale ruler at two (2) feet. This resolution was satisfactorily demonstrated remotely at distances up to and including one hundred (100) feet.

For Direct VT-3 Examinations, the 1992 Addenda to ASME Section XI requires that a maximum lower case character height of 0.105" at a distance of four (4) feet and a minimum lighting level of fifty (50) foot candles must be resolved. This requirement can be satisfied by resolving a 1/10" (0.105") graduation on a standard machinist scale ruler at four (4) feet. This resolution was satisfactorily demonstrated remotely at distances up to and including one hundred (100) feet.

The above alternate techniques for verifying visual examination resolution adequacy has been demonstrated to the ANII and found to be acceptable for ASME Section XI applications in accordance with IWA 2240.

Bernard P. Komara — 10/21/99
Bernard P. Komara, FPC NDT Level III — Date

Carlos A. Colarte — 10-22-99
Carlos Colarte, ANII, Hartford Steam Boiler Inspection and Insurance Co. — Date

cc: Records Management

CONFIRMATION OF NDE PERSONNEL CERTIFICATION

CO-NDEPC FRM

TO: Nuclear Quality Control (NQC)

FROM: ISI/IST

The following NDE certifications are included in this package for NQC confirmation. Upon receipt, NQC to review the certifications per QAP-07 and record results in Part II. Upon completion, sign below and return to ISI/IST.

PART I			PART II
NAME	SS#	CERTIFICATIONS ATTACHED	NQC REVIEW
Kevin Fuqua	(b)(6)	Visual level II	X Yes ___ No
Daniel O'Shea		Visual level II	X Yes ___ No
			___ Yes ___ No
			___ Yes ___ No
			___ Yes ___ No
			___ Yes ___ No
			___ Yes ___ No
			___ Yes ___ No
			___ Yes ___ No
			___ Yes ___ No
			___ Yes ___ No

TRANSMITTED BY: [signature] 9/6/01
ISI/IST PROGRAM MANAGER/DATE

REVIEWED BY: B.P. Komara 9/6/01
NQC REVIEWER/DATE

Upon receipt by ISI/IST complete Part III and upon completion forward results to Records Management and a copy to NQC.

VT 3C and VT 1C NDE To be evaluated/performed By individuals with current FPC certifications, or approved Contract Examiners with VT 3C/VT 1C certifications Based on Successful Completion of EPRI Containment TRAINING and Examinations For Level II. Contract Personnel performing VT 3C and VT 1C must Be Approved/Endorsed by Florida Power NDE Level III.

B.P. Komara
9/6/01

CONFIRMATION OF NDE PERSONNEL CERTIFICATION

PART III

To be completed by ISI/IST Program Manager.

I have reviewed certification records and confirmed the identity of the above inspector.

Kevin Fuqua + Dan O'Shea — (b)(6)

Printed Name of Contract NDE Inspector — Social Security Number

ISI/IST Program Manager

PSC Formerly
Inryco Surveillance

QUALIFICATION OF QUALITY CONTROL INSPECTORS-PROC. QA 2.10.6.1.1.

CERTIFICATION FORM QA 2.10.6.1.1.B.

CERTIFICATE OF QUALIFICATION

This is to certify that

KEVIN K. FUQUA SSN (b)(6)

has been qualified through on-the-job experience and formal training to meet the requirements of ANSI N45.2.6-1973 and 1978 as:

QUALIFICATION CONTROL INSPECTOR LEVEL II with the following limitations N.T.H. Qual

FOR POST-TENSIONED CONTAINMENT TENDON IN-SERVICE INSPECTIONS AND CALIBRATIONS

This certification will qualify the named individual to perform quality control inspections, examinations and testing for the various manufactured products or services supplied, to meet the requirements of the projects for the Precision Surveillance Corporation and within the limitations of this qualification.

This qualification becomes effective 9-15-99 and shall remain in effect until the recertification date of 9-15-01 9-15-02 or until such time that the named individual leaves the employment of PSC, gives just cause for termination of the certification or requires additional training to maintain a proper Quality Control disposition. N.T.H. Qual

Physical Requirements: EYE Exam Date 9-13-99 to 9-13-00 by AMO-NURSE

EYE Exam Date 9-18-00 to 9-18-01 by SCE&G-ASNT LEVEL III

Exam Date _____ to _____ by _____

Approved by: H. T. Hendrickson

Quality Control Inspector Level III

Date: 9-15-99

0025Q

1033N

PSC Formerly
Inryco Surveillance

QUALIFICATION OF QUALITY CONTROL INSPECTORS-PROC. QA 2.10.6.1.1.

PERFORMANCE EVALUATION FORM QA 2.10.6.1.1.A.

PERFORMANCE EVALUATION FOR QUALITY CONTROL INSPECTORS

To be performed at periodic intervals not to exceed three years. This evaluation shall constitute continuation of certification ~~of~~ AS A QUALITY CONTROL INSPECTOR, LEVEL II

This is to certify that the performance of Quality ~~Control Inspector~~ Level II Name KEVIN K. FUQUA Social Security No. (b)(6) has been evaluated by the undersigned on this date 2-1-01.

Performance is evaluated as follows:

HAS SATISFACTORILY PERFORMED CALIBRATIONS, INSPECTIONS OF POST-TENSIONING SYSTEMS COMPONENTS, MONITORING OF SURVEILLANCE OF THE POST-TENSIONING SYSTEMS AT NUCLEAR POWER PLANTS AND OTHER QUALITY RELATED ACTIVITIES ASSIGNED SINCE LAST EVALUATION.

☒ Performance is satisfactory.

☐ Performance is unsatisfactory and requires additional training in the following areas:

N/A

This individual has been removed from inspection, examination and testing activities effective N/A.

Signed: H.F. Hendrickson Date: 2-1-01

Title: M/R, Q.A.-Q.C. Level III

Approved: H.F. Hendrickson Date: 2-1-01
Manager, Quality Assurance

This document shall be placed into the certification file for the Inspector being evaluated.

SOUTH CAROLINA ELECTRIC & GAS CO.

NUCLEAR OPERATIONS

VISUAL ACUITY RECORD

NAME Kevin Fuqua

* DISTANT VISION ** NEAR VISION

(b)(6)

✓ PASS ___ FAIL # Missed 0

REMARKS

Examiner & Title [signature]
ASNT Level III LM 7346

Date Sept 18, 2000

* Snellen Chart, 20/30 minimum acceptable acuity level

** Near Vision test to be administered using a standard Jaeger test type chart or equivalent (Ortho-Rater). For Near Vision examination, the J1 number applies.

PSC Formerly
Inryco Surveillance

PHYSICAL TESTING OF INSPECTORS-PROC. QA 2.10.6.1.1.1.

PHYSICAL TESTING FORM QA 2.10.6.1.1.1

Name DANIEL P. O'SHEA **Date** 1-12-01 **Retest Date** 1-12-02

Title Q.C. INSPECTOR **Wears Glasses** NO

1. PHYSICAL CHARACTERISTICS

(b)(6)

2. VISUAL - FAR RANGE **Test Device** B+L # 713591-101 ND

(b)(6)

3. VISUAL - NEAR RANGE **Test Device** B+L # 713565-101, 1M-X-69

(b)(6)

4. COLOR PERCEPTION **Test Device** AMERICAN OPTICAL CORP. PSEUDO-ISOCHROMATIC PLATES

(b)(6)

Score shall not be less than 10 to be acceptable for perception.

Comments NONE

5. OVERALL RATING

Capability UNLIMITED ACCEPTABILITY

Examiner H.F. Vanderhoop **Title** MGR., Q.A. / QA Examiner **Date** 1-12-01

0028Q

NDE PERSONNEL PHYSICAL EXAMINATION RECORD

Name: DANIEL O'SHEA Date: 2-1-2000

Title: INSPECTOR LEVEL II SSN: (b)(6)

VISION (Required)

			Right	Left
1.	Near Distance Exam (Snellen fraction 20/25 or J-1 required in one (1) eye at a distance not less than 12 inches)	Uncorrected	(b)(6)	
		Corrected		
2.	Far Distance Exam (Snellen fraction 20/30 required in one (1) eye at a distance of 20 feet, as applicable)	Uncorrected		
		Corrected		
3.	Ability to distinguish primary colors and differentiate contrast between these colors.	Yes		
		No		

Method used: Ishihara Plates YES or Other N/A

THE ABOVE VISION REQUIREMENTS HAVE BEEN MET Yes/No YES

VITALS (Optional)

Pulse N/A Blood Pressure N/A

Employee Daniel P. O'Shea Date 2-1-00

I have verified the near distance vision test chart used meets the requirements of figure 5.4.1.A or has been certified to meet the requirements. Yes/No/NA YES N/A

OR

I have verified that the near distance test chart used is equivalent to the required Snellen fraction. Yes/No/NA YES

I hereby certify that the information contained on this record is true and correct.

Examiner [signature] Date 2-1-2000

Title NDE LEVEL III

Remarks NONE

FORM TITLE:	FORM NO.	REV.
ANO NDE PERSONNEL PHYSICAL EXAMINATION RECORD	QCO-10D	10

PSC Formerly
Inryco Surveillance

PHYSICAL TESTING OF INSPECTORS-PROC. QA 2.10.6.1.1.1.

PHYSICAL TESTING FORM QA 2.10.6.1.1.1

Name DANIEL P. O'SHEA Date 1-28-99 Retest Date ~~2-2~~ 1-29-00 N.G.H. 1/26/99

Title Q.C. INSPECTOR Wears Glasses NO

1. PHYSICAL CHARACTERISTICS

(b)(6)

2. VISUAL - FAR RANGE Test Device B+L #713591-101 ND

(b)(6)

3. VISUAL - NEAR RANGE Test Device B+L #713565-101, 1M-X-69

(b)(6)

4. COLOR PERCEPTION Test Device AMERICAN OPTICAL CORP PSEUDO-ISOCHROMATIC PLATES

(b)(6)

Score shall not be less than 10 to be acceptable for perception.

Comments NONE

5. OVERALL RATING

Capability UNLIMITED ACCEPTABILITY

Examiner H. K. Hendrickson Title MGR., Q.A. Q.A. Supervisor Date 1-28-99

0028Q

~~REVISION 0~~
~~Revision 1, 4/28/99~~
REVISION 0
K.E.M. 5/4/99

PRECISION SURVEILLANCE CORPORATION
Visual Examination Training

NAME: Daniel P. O'Shea DATE: 4-29-99

SOCIAL SECURITY NUMBER: (b)(6)

EXAM: VISUAL GENERAL LEVEL II FOR VT-1, VT-1C, VT-3C

GRADE: 90% GRADED BY: R. D. Hough
R. D. Hough

I have neither given, received or observed any aid or information regarding this exam prior to or during its administration that could compromise this exam's integrity. I also understand my obligation to report any exam compromise by others prior, during, or subsequent to the exam administration.

I acknowledge that this examination is a way of demonstrating my knowledge of the subject associated with this examination and that I have had the opportunity, on my request, to review this entire examination with the instructor to ensure my understanding of the subject matter.

I have read and understand the above statements: Daniel P. O'Shea 4-29-99
Student Signature Date

CIRCLE ONE LETTER ANSWER FOR EACH QUESTION

1.	A	or	B	or	(C)	or	D
2.	A	or	B	or	C	or	(D)
3.	A	or	B	or	(C)	or	D
4.	A	or	(B)	or	C	or	D
X 5.	(A)	or	B	or	C	or	D
6.	(A)	or	B	or	C	or	D
7.	A	or	B	or	C	or	(D)
8.	A	or	B	or	(C)	or	D
9.	A	or	B	or	(C)	or	D
10.	(A)	or	B	or	C	or	D

~~REVISION 0~~ TK 5/4/99
~~REVISION 1, 4/28/99~~
REVISION 0

PRECISION SURVEILLANCE CORPORATION
Visual Examination Training

NAME: Daniel P. O'Shea DATE: 4-29-99

SOCIAL SECURITY NUMBER: (b)(6)

EXAM: VISUAL SPECIFIC LEVEL II FOR VT-1, VT-1C, VT-3C

GRADE: 80% GRADED BY: Ronald D. Hough

I have neither given, received or observed any aid or information regarding this exam prior to or during its administration that could compromise this exam's integrity. I also understand my obligation to report any exam compromise by others prior, during, or subsequent to the exam administration.

I acknowledge that this examination is a way of demonstrating my knowledge of the subject associated with this examination and that I have had the opportunity, on my request, to review this entire examination with the instructor to ensure my understanding of the subject matter.

I have read and understand the above statements: Daniel P. O'Shea
Student Signature Date

CIRCLE ONE LETTER ANSWER FOR EACH QUESTION

X 1.	A	or	B	or	(C)	or	D
2.	A	or	B	or	(C)	or	D
3.	A	or	B	or	C	or	(D)
4.	A	or	(B)	or	C	or	D
5.	A	or	(B)	or	C	or	D
X 6.	A	or	(B)	or	C	or	D
7.	(A)	or	B	or	C	or	D
8.	A	or	B	or	C	or	(D)
9.	A	or	B	or	(C)	or	D
10.	A	or	(B)	or	C	or	D

PRECISION SURVEILLANCE CORPORATION
Visual Examination Training
PRACTICAL EXAMINATION CHECKLIST

NAME: DANIEL P. O'SHEA DATE: 4-30-99

SOCIAL SECURITY NUMBER: (b)(6)

EXAM METHOD (VT-1) or VT-1C or VT-3C EXAM NUMBER: TN36 + TN50

GRADE: 98% INSTRUCTOR/ GRADED BY: Ronald D. Hough P.E
PSC Level III VT-1/1C/3C Examiner

I have neither given, received or observed any aid or information regarding this exam prior to or during its administration that could compromise this exam's integrity. I also understand my obligation to report any exam compromise by others prior, during, or subsequent to the exam administration.

I acknowledge that this examination is a way of demonstrating my knowledge of the subject associated with this examination and that I have had the opportunity, on my request, to review this entire examination with the instructor to ensure my understanding of the subject matter.

I have read and understand the above statements: Daniel P. O'Shea 4-30-99
Student Signature Date

POINT VALUE	INSPECTION POINTS	POINTS GRANTED/COMMENTS
10	Select procedure Verify revision	10
10	Select form Verify revision	10
5	Select equipment Verify calibration/resolution	5
5	Verify adequacy of lighting Prior to and during inspection	5
5	Record part/item number On inspection form	5
15	Inspect component/part Identify discontinuities	RPH 4-30-98
15	Compare discontinuities to Recording criteria in procedure	42 53
25	Correctly record discontinuities	
5	Sign and date form	5
5	Complete form Accurate and legible	5

PSC PROCEDURE SQ 8.0
ANCHORAGE INSPECTION
DATA SHEET 8.0
APRIL 2, 1999
Page 1 of 1
Revision 0

Daniel O'Brien
Training Head

0

ANCHORAGE INSPECTION DOCUMENTATION

PROJECT CALLAWAY PLANT SURVEILLANCE NO. 5TH YEAR 15TH

TENDON NO. n/a TENDON END/BUTTRESS NO. N/A UNIT n/a

(8.3.5) ANCHORHEAD I.D. TN36 BUSHING I.D. n/a

Q.C. Signoff

(8.1) CORROSION INSPECTION (For Corrosion Levels refer to Procedure SQ 8.1)

(8.1.1.1) Buttonheads Corrosion: Original Condition n/a Current Level 1 — 04-28-99

SQ 8.1 (2.3) COMPARISON ☐ ACCEPTABLE ☐ UNACCEPTABLE — 04-28-99

(8.1.2.1) Anchorage Head Level 2 (8.2) Cracks None Excess Stress None

(8.1.2.1) Bushing Level n/a (8.2) Cracks n/a Excess Stress n/a

(8.1.2.1) Shims Level n/a (8.2) Cracks n/a Excess Stress n/a

(8.1.2.1) Bearing Plate Level n/a (8.2) Cracks n/a Excess Stress n/a — 04-28-99

SQ 10.1.(8.1.2) Coating: Complete n/a Incomplete n/a Lgth. of Air Pocket n/a — 04-28-99

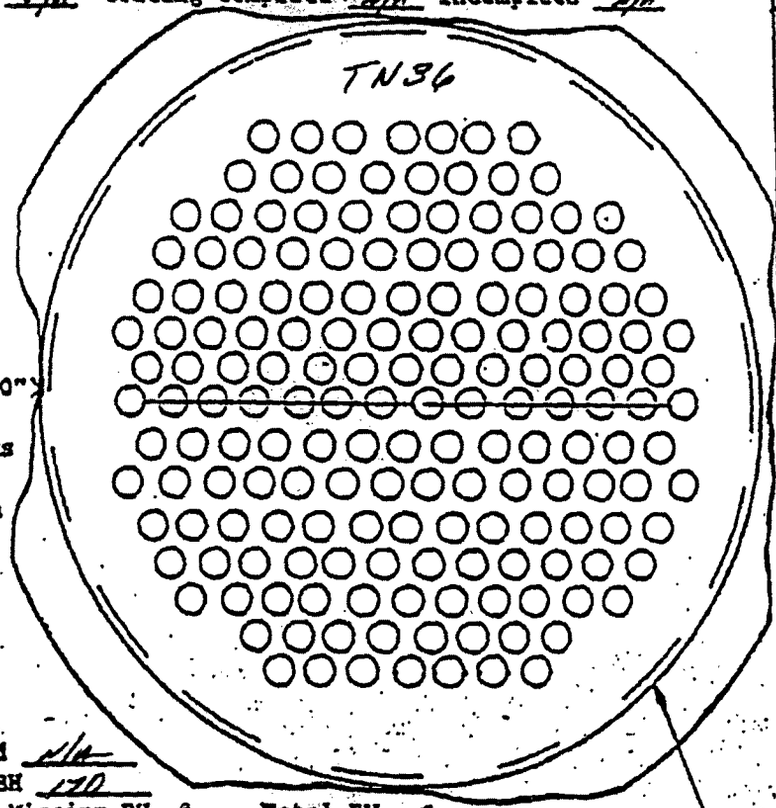
SQ 10.1 (8.2.1) Wire: Level n/a Coating Complete n/a Incomplete n/a — 04-28-99

(8.3) BUTTONHEAD INSPECTION

(8.3.3) BUTTONHEAD DATA

☒ = Discontinuous-Removed
⊠ = Removed for Testing
● = Previously Missing
◐ = Protruding
☐ = Broken/Missing
◑ = Offsize(Malformed)
B = Bisecting Crack
A = 45° Angle Slip
K = Cracked (over 0.120")
S = Slip (over 0.005")
X = Intersecting Cracks

(8.3.5) Locate Anchorage Heat Code on Sketch



04-28-99

04-28-99

(8.3.6) Offsize Totals

B = 0
A = 0
K = 0
S = 0
X = 0

(8.3.7.2) Buttonheads Found n/a — 04-28-99

(8.3.7.3) Total Effective BH 170 — 04-28-99

(8.4.1) Protruding BH 0 Missing BH 0 Total BH 0 — 04-28-99

(8.4.1.1.1) Continuity Test Required no Wires Identified/Marked YES — 04-28-99

Bushing Thread Joint Line

(9.0) Notification: Owner Notified n/a NCR No. n/a — 04-28-99

Q.C. Review _____ Level ____ Date _____

Title _____

DANIEL O'CHEA

TRAINING HEAD - BUTTONHEAD MAPPING IS NOT REQUIRED

PSC PROCEDURE SQ 8.0
ANCHORAGE INSPECTION
DATA SHEET 8.0
APRIL 2, 1999.
Page 1 of 1
Revision 0

-2

ANCHORAGE INSPECTION DOCUMENTATION

PROJECT CALLAWAY PLANT SURVEILLANCE NO. 5TH YEAR 15TH

TENDON NO. N/A TENDON END/BUTTRESS NO. N/A UNIT N/A

(8.3.5) ANCHORHEAD I.D. TN50 BUSHING I.D. N/A

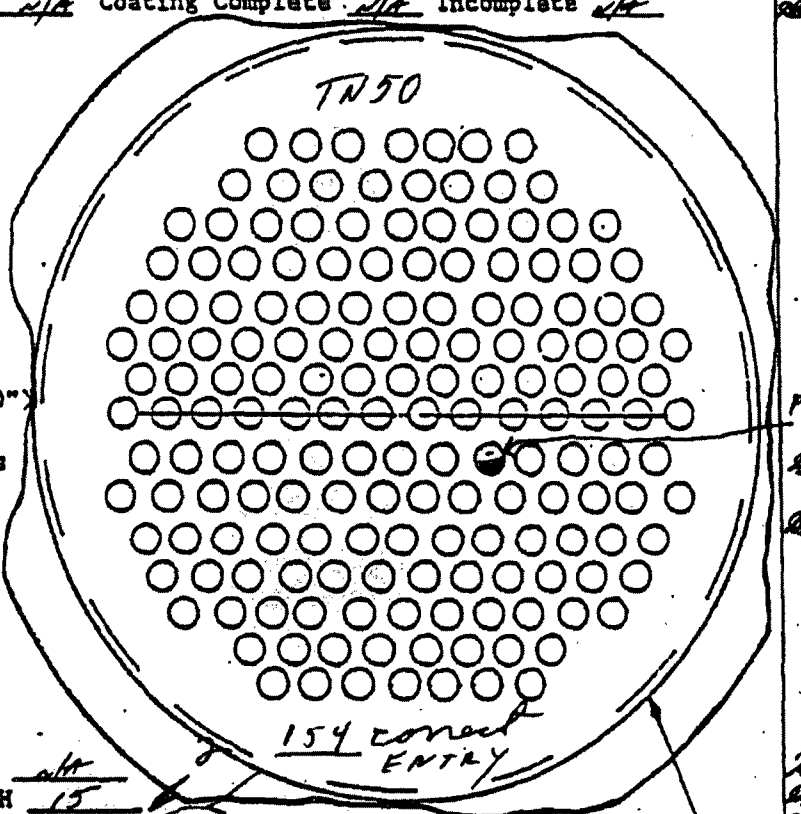
Q.C. Signoff

(8.1) CORROSION INSPECTION (For Corrosion Levels refer to Procedure SQ 8.1)
(8.1.1.1) Buttonheads Corrosion: Original Condition N/R Current Level 3 — 04-30-99
SQ 8.1 (2.3) COMPARISON ☐ ACCEPTABLE ☐ UNACCEPTABLE N/A — 04-30-99
(8.1.2.1) Anchorage Head Level 2 (8.2) Cracks NONE Excess Stress NONE
(8.1.2.1) Bushing Level N/A (8.2) Cracks N/A Excess Stress N/A
(8.1.2.1) Shims Level N/A (8.2) Cracks N/A Excess Stress N/A
(8.1.2.1) Bearing Plate Level N/A (8.2) Cracks N/A Excess Stress N/A — 04-30-99
SQ 10.1.(8.1.2) Coating: Complete N/A Incomplete N/A Lgth. of Air Pocket N/A — 04-30-99
SQ 10.1 (8.2.1) Wire: Level N/A Coating Complete N/A Incomplete N/A — 04-30-99

(8.3) BUTTONHEAD INSPECTION

(8.3.3) BUTTONHEAD DATA
☒ = Discontinuous-Removed
⊗ = Removed for Testing
● = Previously Missing
◒ = Protruding
☐ = Broken/Missing
◑ = Offsize(Malformed)
B = Bisecting Crack
A = 45° Angle Slip
K = Cracked (over 0.120")
S = Slip (over 0.005")
X = Intersecting Cracks

(8.3.5) Locate Anchorage Heat Code on Sketch



PROTRUDING 3.05" — 04-30-99

04-30-99

(8.3.6) Offsize Totals
B = 0
A = 0
K = 0
S = 0
X = 0

(8.3.7.2) Buttonheads Found N/R — 04-30-99
(8.3.7.3) Total Effective BH 15 — 04-30-99
(8.4.1) Protruding BH 1 Missing BH ~~0~~ N/A Total BH 1 — 04-30-99
(8.4.1.1.1) Continuity Test Required NO Wires Identified/Marked YES — 04-30-99
Bushing Thread Joint Line

(9.0) Notification: Owner Notified YES NCR No. N/A — 04-30-99

Q.C. Review _____ Level ____ Date _____

Title _____

PRECISION SURVEILLANCE CORPORATION
Visual Examination Training
PRACTICAL EXAMINATION CHECKLIST

NAME: DANIEL P. O'SHEA DATE: 4-30-99

SOCIAL SECURITY NUMBER: (b)(6)

EXAM METHOD: VT-1 or VT-1C & VT-3C EXAM NUMBER: PSCM SHOP STORAGE AREA

GRADE: 89% INSTRUCTOR/ GRADED BY: 4-30-99 Ronald D. Lloyd P.E.
PSC Level III VT-1/1C/3C Examiner

I have neither given, received or observed any aid or information regarding this exam prior to or during its administration that could compromise this exam's integrity. I also understand my obligation to report any exam compromise by others prior, during, or subsequent to the exam administration.

I acknowledge that this examination is a way of demonstrating my knowledge of the subject associated with this examination and that I have had the opportunity, on my request, to review this entire examination with the instructor to ensure my understanding of the subject matter.

I have read and understand the above statements: Daniel P. O'Shea 4-30-99
Student Signature Date

POINT VALUE	INSPECTION POINTS	POINTS GRANTED/COMMENTS
10	Select procedure Verify revision	10
10	Select form Verify revision	10
5	Select equipment Verify calibration/resolution	5
5	Verify adequacy of lighting Prior to and during inspection	5
5	Record part/item number On inspection form	5
15	Inspect component/part Identify discontinuities	44
15	Compare discontinuities to Recording criteria in procedure	
25	Correctly record discontinuities	
5	Sign and date form	5
5	Complete form Accurate and legible	5

TRAINING
GENERAL
VISUAL INSPECTION

-1
-4
-6

RPK 4-30-99

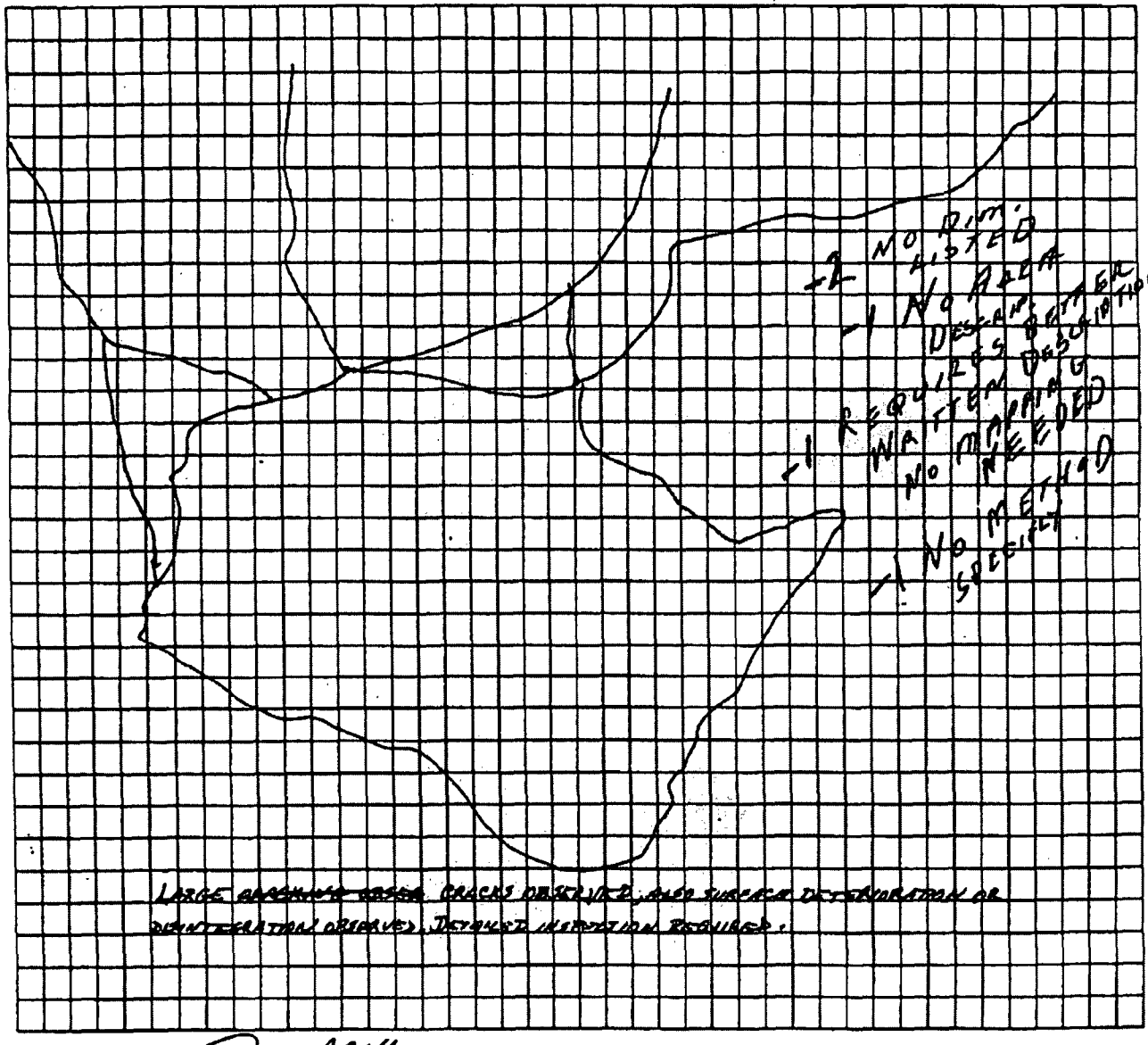
PSC PROCEDURE SQ 8.4
GENERAL EXTERIOR
SKETCH SHEET 8.4
APRIL 2, 1999

REVISION 0

PROJECT: CALLAWAY PLANT SURVEILLANCE NO. 5TH YEAR 15TH

SKETCH SHEET NO. 1 of 1 INSPECTION AREA MACHINE SHOP STORAGE AREA

Sketch each area of large spall, severe scaling, D-cracking in an area of 25 square feet or more, other surface deterioration or disintegration, or grease leakage as observed on the exterior surfaces of the containment. Use as many Sketch Sheets as necessary being sure to identify as many reference points on the Sketch as needed to locate and identify the observation.



Inspected By: [signature] Date: 4-30-99

Reviewed By: _____ Date: _____

TRAINING ~~GENERAL~~ ACR 4-30-99
DETAIL INSPECTION

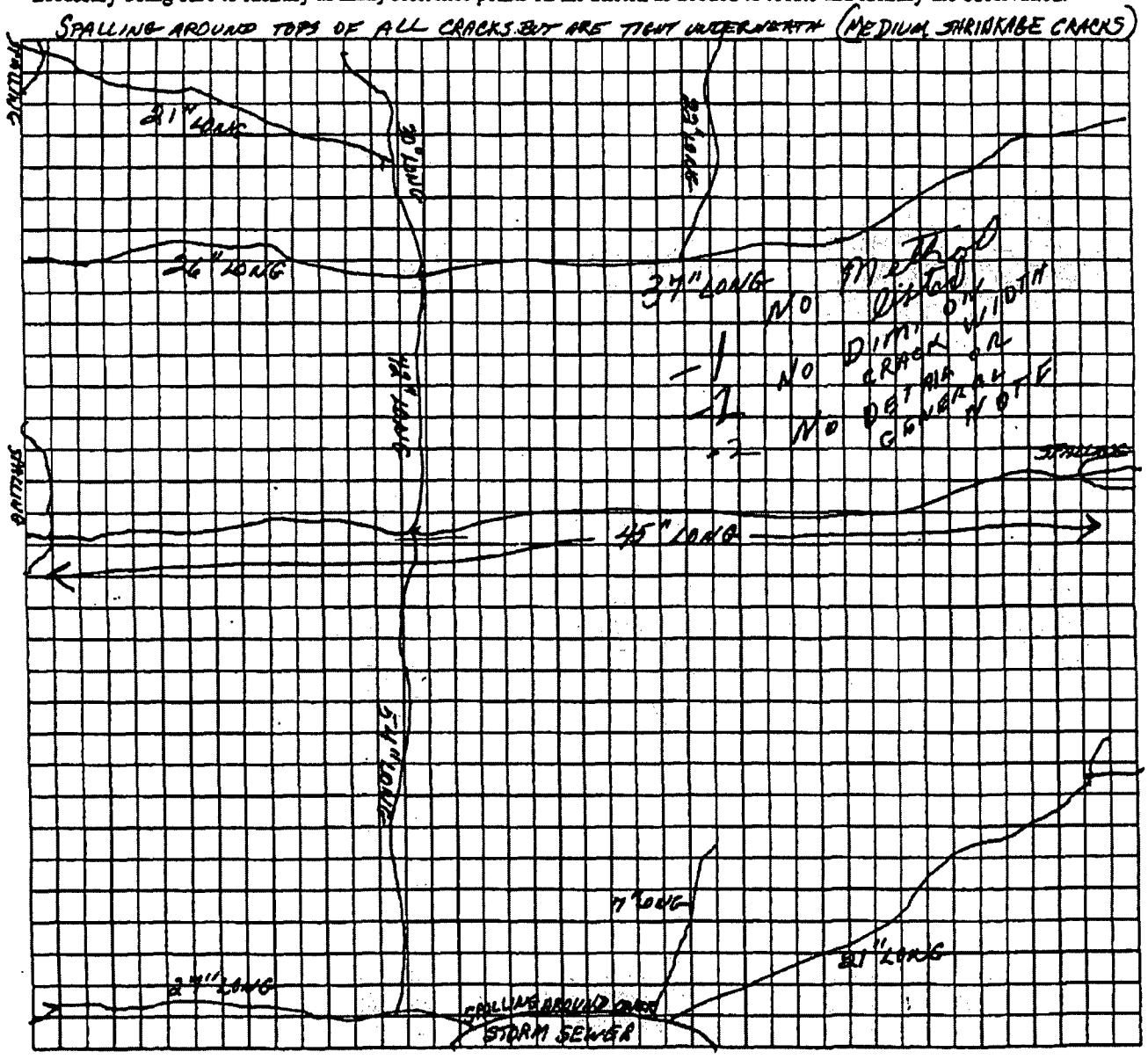
PSC PROCEDURE SQ 8.4
GENERAL EXTERIOR
SKETCH SHEET 8.4
APRIL 2, 1999
Page 1 of 1
REVISION 0

(-5)

PROJECT: CALLAWAY PLANT SURVEILLANCE NO. 5TH YEAR 15TH

SKETCH SHEET NO. 1 of 1 INSPECTION AREA MAINLINE SOUTH STORAGE AREA

Sketch each area of large spall, severe scaling, D-cracking in an area of 25 square feet or more, other surface deterioration or disintegration, or grease leakage as observed on the exterior surfaces of the containment. Use as many Sketch Sheets as necessary being sure to identify as many reference points on the Sketch as needed to locate and identify the observation.



Inspected By: [signature] Date: 4-30-99

Reviewed By: _____ Date: _____

N.T.N. 5/14/99

LEVEL II RECORD OF EXPERIENCE

(Mr)/Ms Daniel P. O'Shea has worked at PSC 3968 Watling St, E. Chicago, Ind. 46312
Location

Since 5-90 to date.

During that time he/she has participated in the following activities which involve visual examinations similar to the Visual inspection DIRECT (VT-1C) OR GENERAL (VT-3C) examination required by ASME, Section XI, Subsection IWL.

- OPERATING NUCLEAR STATION(S)

- Visual Examination(s): Palisades, Braidwood, LaSalle, Millstone, Wolf Creek, Callaway, Three Mile Island, Byron, Brunswick, Crystal River, ANO, Ft. Calhoun, Vogtle

- Repair/Replacement: Palisades, Byron, Ft. Calhoun, Braidwood Brunswick

- Modification(s): _____

- Periodic test(s): _____

- MANUFACTURING, CONSTRUCTION, FABRICATION OR INSTALLATION

- Visual Examination(s): Grant Hospital Columbus, Ohio / University of Maryland, Baltimore

- Dimensional verification: _____

- The above also meets the following Level II PSC Procedure VT1C/3C.CERT requirement:

- X High School Graduate. 1 year

- _____ Two Year Associate Degree. 6 months

- _____ Four Year College Degree. 3 months

Completed by (Candidate): Daniel P. O'Shea 4-29-99
Daniel P. O'Shea Date

Social Security Number: (b)(6)

Verified and Accepted by: Ronald P. Hough P.E. 4-30-99
(PSC Level III VT-1C/3C Examiner) Date

1 4-28-99 NO CHANGE N.T.N. 5/14/99

N.T.H. 5/14/99

LEVEL II RECORD OF EXPERIENCE
WORK EXPERIENCE RESUME

Name: O'SHEA (Last Name) DANIEL (First) P (Middle Initial)

COMPANY & LOCATION	RESPONSIBILITIES
FROM: 5-90 TO: PRESENT	AC INSPECTOR LEVEL II - VISUAL EXAMINATIONS CONCRETE, TENDON COMPONENTS I.E. ANCHORHEADS, DUCTS, BEARING PLATES, BUTTONHEADS, WIRE, STRAND, WEDGES, GREASE, TRACER MEASUREMENTS, TENDON FABRICATION/ CALIBRATIONS OF AC INSTRUMENTS AND STRESSING EQUIP.
FROM: TO:	
FROM: TO:	
FROM: TO:	

Daniel P. O'Shea 4-28-99
Signature/Date

1 4-28-99 NO CHANGE N.T.H. 5/14/99

PSC Formerly
Inryco Surveillance

PHYSICAL TESTING OF INSPECTORS-PROC. QA 2.10.6.1.1.1.

PHYSICAL TESTING FORM QA 2.10.6.1.1.1

Name DANIEL P. O'SHEA Date 1-12-01 Retest Date 1-12-02

Title Q.C. INSPECTOR Wears Glasses NO

1. PHYSICAL CHARACTERISTICS

(b)(6)

2. VISUAL - FAR RANGE Test Device B+L #713591-101 ND

(b)(6)

3. VISUAL - NEAR RANGE Test Device B+L #713565-101, 1M-X-69

(b)(6)

4. COLOR PERCEPTION Test Device AMERICAN OPTICAL CORP. PSEUDO-ISOCHROMATIC PLATES

(b)(6)

Score shall not be less than 10 to be acceptable for perception.

Comments NONE

5. OVERALL RATING

Capability UNLIMITED ACCEPTABILITY

Examiner H.F. Hendrickson Title MGR. Q.A. / QA Examiner Date 1-12-01

0028Q

PSC Formerly
Inryco Surveillance

PHYSICAL TESTING OF INSPECTORS-PROC. QA 2.10.6.1.1.1.

PHYSICAL TESTING FORM QA 2.10.6.1.1.1

Name DANIEL P. O'SHEA Date 1-28-99 Retest Date 2nd 1-29-00 1-26-01

Title Q.C. INSPECTOR Wears Glasses NO

1. PHYSICAL CHARACTERISTICS

(b)(6)

2. VISUAL - FAR RANGE Test Device B+L #713591-101 ND

(b)(6)

3. VISUAL - NEAR RANGE Test Device B+L #713565-101, 1M-X-69

(b)(6)

4. COLOR PERCEPTION Test Device AMERICAN OPTICAL CORP PSEUDO-ISOCHROMATIC PLATES

(b)(6)

Score shall not be less than 10 to be acceptable for perception.

Comments NONE

5. OVERALL RATING

Capability UNLIMITED ACCEPTABILITY

Examiner R. F. Hendrickson Title MGR., Q.A. Q.A. Supervisor Date 1-28-99

0028Q

FPL

Inter-Office Correspondence

PTN-ENG-01-0036

To: File

Date: FEB 21 2001

From: E. A. McGuffie

Department: PTN Engineering

Subject: **Turkey Point Units 3 & 4**
Review of QC Inspector
Qualification and Certification

The purpose of this letter is to document the review and approval of the qualification and certification of Precision Surveillance Corporation (PSC) QC Inspector Daniel P. O'Shea, Social Security Number 323-54-9857. Mr. O'Shea will perform visual examinations VT-1, VT-1C and VT-3C of Turkey Point containment structures during the 30th year containment concrete and tendon in-service inspection.

The documents to be reviewed consist of:

- PSC Document "Review of VT Certification Documents"
- PSC Document "Certificate of Qualification"
- FPL Document "Nuclear Engineering Certificate of NDE Personnel Qualification".

Prepared by: E. A. McGuffie Date: 2/20/01
Plant Engineering

Approved by: S P Clauman Date: 2/20/01
FPL Responsible Engineer for IWL

Accepted by: Wayne Jones Date: 2/21/01
ANII

Attachment: PSC Document "Review of VT Certification Documents"
PSC Document "Certificate of Qualification"
FPL Document "Nuclear Engineering Certificate of NDE Personnel Qualification".

cc: PSC
D. P. O'Shea
ANII
File

FPL

NUCLEAR ENGINEERING
CERTIFICATE OF NDE PERSONNEL QUALIFICATION

SS# (b)(6)

NAME O'SHEA, DANIEL P.

QUALIFICATION LEVEL II

NDE METHOD VT-C

CERTIFICATION PERIOD 2/13/01 – 2/13/04

LIMITATIONS/ENDORSEMENTS

Related Experience (No. Yrs./Dates, Company Service, Position, Brief Description)

1. SEE ATTACHED PROFESSIONAL SUMMARY (1 PAGE)
2. AND LEVEL II RECORD OF EXPERIENCE (1 PAGE)

☐ See reverse side for additional education and/or experience.

EXAMGRADES: General * Specific * Practical 100% COMPOSITE * 85.7 %

LEVEL III EXAM GRADES:
Basic ____ Method ____ Specific ____ Practical ____
Demonstration ____ COMPOSITE ____

Date of Exams 2/13/01 Administered by Edward A. McGraffie

All information supplied by me is true and correct to the best of My knowledge.

Signature Daniel P. O'Shea Date 2-19-01

CERTIFIED IN ACCORDANCE WITH ENG-CSI-9.1 Rev. 3

Certified By S. R. Hamon Date 2/20/01 Principal Level III (VT-C)

NA Date ____ Manager-CSI (For Level III Certification Only)

ATTACHMENT 3
NDE CERTIFICATION CHECKLIST
Page 1 of 2

Name / Soc. Sec. No DANIEL P. O'SHEA (b)(6)

Company PRECISION SURVEILLANCE CORP.

Method	ET	MT	PT	RT	UT	VT-1	VT-2	VT-3	VT-1C	VT-3C	Comments/Notes
Certification Level	N/A	N/A	N/A	N/A	N/A	II	N/A	N/A	II	II	
Certification Date						04/13/01			4/13/01	4/13/01	
Recertification Date						04/30/02			4/30/02	4/30/02	
Date assign. to NDE						05/90			05/90	05/90	
Formal Education (years)						12 YRS			12 YRS	12 YRS	
NDE Training (hours)					Class ____ Lab ____	4.5			6	6	
Experience (months/years) [175 hrs = 1 month]						108 mo.			108 mo.	108 mo.	
Statement of satisfactory completion in accord. with employer's written practice procedure						TCS 4.24.01			TCS 4/24/01	TCS 4.24.01	
First page copy of exams or evidence of exam completion						TCS 4.24.01			TCS 4/24.01	TCS 4.24.01	
Test grade/minimum						98%			92%	92%	
Vision satisfactory (per employers practice procedure)						TCS 4.24.01			TCS 4.24.01	TCS 4.24.01	
Copy of IDTIS industrial RT certification ID card						N/A			N/A	N/A	
Level III Signature						TCS 4/24/01			TCS 4/24/01	TCS 4/24.01	* RPE SIGNATURE RECORDED.
Restrictions	↓	↓	↓	↓	↓	SEE NOTE 1 BELOW	↓	↓	N/A	N/A	
Vision Examination	Exam Date: 04/24/01					Due Date: 04/24/02					

ASME Section XI, Appendix VIII/PDI, Ultrasonic Qualification(s): Non/Applicable ✓ Applicable _____

Comp. Level III or Designee [signature] III 04/24/01 [signature] RPE Date: 04/24/01

AI / ANII Review: [signature] Date: 4-24-01

NOTE 1: VT-1 CERTIFICATION IS LIMITED ONLY TO EXAMINATION OF POST TENSIONING, CONCRETE TENDON HARDWARE.

PSC

PRECISION SURVEILLANCE CORPORATION

3468 WATLING ST. EAST CHICAGO, IN 46312
(219) 397-5826 FAX (219) 397-5867

QUALITY ASSURANCE
DOCUMENTATION OF CERTIFICATION
KEVIN K. FUQUA

A. NAME: Kevin K. Fuqua

B. SOCIAL SECURITY NUMBER: (b)(6)

C. CITIZEN: U.S.A.

D. POSITION: Level II - Quality Control Inspector per ANSI N45.2.6-1978 for Post-Tensioning Containment Tendon In-Service Inspections.

E. EDUCATION:

(b)(6)

Diploma

(b)(6)

F. WORK EXPERIENCE:

Florida Power & Light, Jensen Beach, FL
April 1998 to November 1998 @ St. Lucie Nuclear Plant
QC Specialist

Raytheon Engrs. (Under Contract)
February 1997 to December 1997 @ St. Lucie Nuclear Plant
QC Inspector

SPEC/NRT Services (Under Contract)
December 1996 to January 1997 @ Maine Yankee
QC Inspector

NPS (Under Contract)
October 1996 to November 1996 @ Palisades Nuclear Plant
QC Inspector

Raytheon Engrs. (Under Contract)
September 1996 to October 1996 @ Commanche Peak
QC Inspector

Raytheon Engrs. (Under Contract)
April 1996 to June 1996 @ St. Lucie Nuclear Plant
QC Inspector

Raytheon Engrs. (Under Contract)
September 1995 to November 1995 @ St. Lucie Nuclear Plant
QC Inspector

PSC
PRECISION SURVEILLANCE CORPORATION
3468 WATLING ST. EAST CHICAGO, IN 46312
(219) 397-5826 FAX (219) 397-5867

NPT Technical (Under Contract)
April 1995 to May 1995 @ H. B. Robinson
QC Inspector

Raytheon Engrs. (Under Contract)
January 1995 to March 1995 @ Indian Point 2
QC Inspector

G. JUSTIFICATION FOR QUALIFICATION:

ANSI N45.2.6 - 1978 Section 3.5.2(2)

Education, training and experience in Quality Control and Quality Assurance activities to meet the cited requirement.

A. High School graduate plus three years of related experience in equivalent inspection, examination, or testing activities.

B. Specific training and testing for post-tensioning containment tendon inspection and calibration.

H. NUCLEAR JOB ACTIVITY:

The person named in this certification has been involved in various quality assurance and/or quality control activities for the following nuclear projects:

St. Lucie, Maine Yankee, Palisades, Commanche Peak, H. B. Robinson, Indian Point

I. TRAINING:

1. Classroom training Indoctrination for 10CFR21, 10CFR50, Appendix B, NRC Form 3, NRC Reg. Guide 1.35 and PSC QA Program.
2. Classroom training and testing for post-tensioning containment tendon inspection and calibration.

Reviewed and Approved: Harry F. Hendrickson 9/15/99
Harry F. Hendrickson
Manager, Quality Assurance
Level III

QA PQ-10 Rev. 2

CP&L Carolina Power & Light Company

Vision Testing Report

Worker's Name (Last, First MI) Fugua, Kevin	Plant or Location CR3
Social Security Number (b)(6)	☐ CP&L ☑ Contractor Agency: PSC FPCO
☑ Test ☐ Retest	Test Date 8/30/01
	☑ NDE/QC ☐ Receipt Inspector

DISTANT VISION *(Worker passes when Snellen 20/30 or better is attained in at least one eye)*

(b)(6)

NEAR VISION *(Worker passes when Snellen 20/20 (Titmus 2A 14/14) or better is attained in at least one eye)*

(b)(6)

Near Vision test may alternately be performed using a certified J-1 Jaeger Vision Test Card that meets the requirements of NDEP A for Nuclear, EGR-FGD-052 for Fossil.

J-1 Jaeger Vision Test Card Serial Number N/A

Supplemental Near Vision Test ☐ Pass ☐ Fail : N/A , Level III NDE Examiner/Designee

COLOR VISION: *(8 of 8 must be correctly identified, or if not requires further evaluation*)*

(b)(6)

EVALUATION RESULTS:

(b)(6)

WORKER STATEMENT:

I understand that I require corrective lenses for this job duty and I am responsible to obtain and wear the job-appropriate lenses to meet regulatory and safety requirements.

Signature: Kevin K. Fugua Date: 8-30-01

This individual has been screened for distant visual acuity, near visual acuity, and color vision in accordance with NDEP-A for Nuclear or EGR-FGD-052 for Fossil, on Titmus 2A:

- ☐ Serial Number a-30479 at BNP,
- ☐ Serial Number a-31259 at HNP,
- ☐ Serial Number a-30576 at RNP, or
- ☑ Serial Number a-35298 at CRNP, or
- ☐ Serial Number N/A at N/A (other location)

David Brown ARNP
Provider Name and Title (print clearly)

David Brown
Provider Signature

Form accepted by:

B.P. Kemara LIII Examiner — Level III NDE Examiner/QC Supervisor/Material Supervisor Name and Title (print clearly)

B.P. Kemara — Signature

9/2/01 — Date

QA Record

REVIEW OF VT
CERTIFICATION DOCUMENTS

NAME: KEVIN K. FURUA

DATE: 03 / 24 / 00 COMPANY: PSC

METHOD	VT-1	VT-1C	VT-3C	OTHER:
CERTIFICATION LEVEL	II*	II	II	
CERTIFICATION DATE	03-24-00	03-24-00	03-24-00	
RE-CERT DUE	03-24-03	03-24-03	03-24-03	
EDUCATION/ EXPERIENCE	OK	OK	OK	
TRAINING	OK	OK	OK	
EVIDENCE OF CURRENT EXAM	OK	OK	OK	
OTHER SUITABLE EVIDENCE OF QUALIFICATION	OK	OK	OK	
COMPOSITE GRADE OR EVIDENCE OF GRADE	OK	OK	OK	
LEVEL III SIGNATURE	OK	OK	OK	
EYE EXAM	EXAM DATE: 1) 9-13-99		EXAM DUE: 9-13-00	
	2) 9-18-00		9-18-01	
	3)			

CERTIFIED IN ACCORDANCE WITH – ASME SEC XI: YES X / NO _____

RESTRICTIONS: *VT-1 CERTIFICATION LIMITED TO TENDON RELATED ACTIVITIES.

H.T. Hendrickson 03-24-00
PSC Mgr., Q.A.
H.T. Hendrickson 09-18-00

Ronald D. Hough 03-24-00
LEVEL III, P.E.
R.D. HOUGH per Telecon T.S.H. 9/15/00

LEVEL II CERTIFICATION RECORD

Name: KEVIN K. FUQUA Certification Date: 03-24-00

Social Security Number: (b)(6)

Visual Method: VT-1 * Certification Level: II

* VT-1 CERTIFICATION LIMITED TO TENDON RELATED ACTIVITIES

Examination Grades:

Level II	
General: 90%	Date: 03-23-00
Specific: 100%	Date: 03-23-00
Practical: 87%	Date: 03-24-00
Composite: 92%	Date: 03-24-00

(The composite grade shall be an equally weighted average of all applicable examination grades for each category.)

Training Courses Completed

Type	Given By	Location	Hours	Date	Instructor
General	PSC	PSC	3	03-23-00	R. HOUGH
Specific	PSC	PSC	3	03-23-00	R. HOUGH
Practical	PSC	PSC	2	~~03-23-00~~ 03-23-00	R. HOUGH

We certify that the above named employee meets all of the qualification requirements of the PSC Procedure VT1.CERT for certification/recertification as a VT-1 EXAMINER, Level II.

This certificate expires after 03-24-03

Approval Signature: Ronald D. Hough
PSC Level III VT-1 Examiner

2 7-6-99 NO CHANGE

CERTIFICATION OF EXAMINERS
EXHIBIT D
APRIL 26, 1999
PAGE 1 OF 1
REVISION 0
REVISION 1, 4/28/99
REVISISON 2, 7/6/99

ANNUAL REVIEW RECORD

Name: KEVIN K. FUQUA Social Security Number: (b)(6)
Categories: VT-1 Level: II Certification Expires A
PSC Level III VT-1 Examiner Signature: Ronald D. Hauge P.E.

AR DATE	NEW VER DATE	DETAILED CCV	GENERSL CCV
9-13-00	9-18-00	N/A	N/A
Level III Evaluation (Enter C or S)	C + S	9/18/00	N/A
Level III Acceptance Signature	RDH 9-19-00	N/A	N/A
Remarks:		N/A	N/A
		N/A	N/A

AR DATE	NEW VER DATE	DETAILED CCV	GENERAL CCV
9-18-01			N/A
Level III Evaluation (Enter C or S)			N/A
Level III Acceptance Signature	R.D. Hauge RDH		N/A
Remarks:			N/A
			N/A

AR DATE	NEW VER DATE	DETAILED CCV	GENERAL CCV
			N/A
Level III Evaluation (Enter C or S)			N/A
Level III Acceptance Signature			N/A
Remarks:			N/A
			N/A

AR DATE	NEW VER DATE	DETAILED CCV	GENERAL CCV
			N/A
Level III Evaluation (Enter C or S)			N/A
Level III Acceptance Signature			N/A
Remarks:			N/A
			N/A

AR DATE	NEW VER DATE	DETAILED CCV	GENERAL CCV
			N/A
Level III Evaluation (Enter C or S)			N/A
Level III Acceptance Signature			N/A
Remarks:			N/A
			N/A

AR: Annual Review due date (i.e., Current Vision Examination date plus 1 year)
VER: New Vision Examination Record date (i.e., Date of the new eye examination)
CCV: Continued Certification Verification date (i.e., Level III VT-1 examiner approval date of visual examination activities used for continued certification purpose)
C: The requirements for maintaining the certification have been met because the new VER and CCV dates are within 1 year prior to the AR date.
S: The requirements for maintaining the certification have not been met because the new VER and/or CCV dates are not within 1 year prior to the AR date. A "Testing Record For Eliminating Suspension of Certification" must be completed to reinstate the visual examination certification.

2VT1.FORMS

(2) 7-6-99 No Change

LEVEL II CERTIFICATION RECORD

Name: KEVIN K. FURUA Certification Date: 03-24-00

Social Security Number: (b)(6)

Visual Method: VT-1C/3C Certification Level: II

Examination Grades:

Level II	
General: 90%	Date: 03-23-00
Specific: 100%	Date: 03-23-00
Practical: VT1C 89% VT3C 88%	Date: 03-24-00
Composite: 89% 93%	Date: 03-24-00

(The composite grade shall be an equally weighted average of all applicable examination grades for each category.)

Training Courses Completed

Type	Given By	Location	Hours	Date	Instructor
General	PSC	PSC	3	03-23-00	R. HOUGH
Specific	PSC	PSC	3	03-23-00	R. HOUGH
Practical	PSC	PSC	3	03-23-00	R. HOUGH

We certify that the above named employee meets all of the qualification requirements of the PSC Procedure VT1C/3C.CERT for certification/recertification as a VT-1C/3C EXAMINER, Level II.

This certificate expires after 03-24-03

Approval Signature: Ronald P. Hough P.E.
PSC Level III VT-1C/3C Examiner

2 7-6-99 NO CHANGE

ANNUAL REVIEW RECORD

Name: KEVIN K. FURUA Social Security Number: (b)(6)
Categories: VT-1C/3C Level: III Certification Expires After: [illegible]
PSC Level III VT-1C/3C Examiner Signature: Ronald D... P.E.

AR DATE	NEW VER DATE	DETAILED CCV (VT-1C)	GENERAL CCV (VT-3C)
9-13-00	9-18-00	N/A	N/A
Level III Evaluation (Enter C or S)	C+S	9/18/00	9/18/00
Level III Acceptance Signature	RD... 9-19-00	N/A	N/A
Remarks:		N/A	N/A
		N/A	N/A

AR DATE	NEW VER DATE	DETAILED CCV	GENERAL CCV
9-18-01			
Level III Evaluation (Enter C or S)			
Level III Acceptance Signature			
Remarks:			

AR DATE	NEW VER DATE	DETAILED CCV	GENERAL CCV
Level III Evaluation (Enter C or S)			
Level III Acceptance Signature			
Remarks:			

AR DATE	NEW VER DATE	DETAILED CCV	GENERAL CCV
Level III Evaluation (Enter C or S)			
Level III Acceptance Signature			
Remarks:			

AR DATE	NEW VER DATE	DETAILED CCV	GENERAL CCV
Level III Evaluation (Enter C or S)			
Level III Acceptance Signature			
Remarks:			

AR: Annual Review due date (i.e., Current Vision Examination date plus 1 year)
VER: New Vision Examination Record date (i.e., Date of the new eye examination)
CCV: Continued Certification Verification date (i.e., Level III VT-1C/3C examiner approval date of visual examination activities used for continued certification purpose)
C: The requirements for maintaining the certification have been met because the new VER and CCV dates are within 1 year prior to the AR date.
S: The requirements for maintaining the certification have not been met because the new VER and/or CCV dates are not within 1 year prior to the AR date. A "Testing Record For Eliminating Suspension of Certification" must be completed to reinstate the visual examination certification.

VT1C3C.FORM9

2 7-6-99 No CHANGE

SOUTH CAROLINA ELECTRIC & GAS CO.

NUCLEAR OPERATIONS

VISUAL ACUITY RECORD

NAME Kevin Fuqua

* DISTANT VISION	** NEAR VISION
(b)(6)	

✓ PASS ___ FAIL # Missed 0

REMARKS

Examiner & Title ASNT Level III LM 1346

Date Sept 18, 2000

* Snellen Chart, 20/30 minimum acceptable acuity level

** Near Vision test to be administered using a standard Jaeger test type chart or equivalent (Ortho-Rater). For Near Vision examination, the J1 number applies.

NDE PERSONNEL PHYSICAL EXAMINATION RECORD

Name: Kevin K. Fuqua Date: 9/13/99

Title: QC SSN: (b)(6)

VISION (Required)

			Right	Left
1.	Near Distance Exam (Snellen fraction 20/25 or J-1 required in one (1) eye at a distance not less than 12 inches)	Uncorrected	(b)(6)	
		Corrected		
2.	Far Distance Exam (Snellen fraction 20/30 required in one (1) eye at a distance of 20 feet, as applicable)	Uncorrected		
		Corrected		
3.	Ability to distinguish primary colors and differentiate contrast between these colors.	(Yes)		
		No		

Method used: Ishihara Plates ✓ or Other N/A

THE ABOVE VISION REQUIREMENTS HAVE BEEN MET (Yes)/No YES

VITALS (Optional)

Pulse (b)(6) Blood Pressure (b)(6)

Employee *Kevin K. Fuqua* Date 9/13/99

I have verified the near distance vision test chart used meets the requirements of Figure 5.4.1.A or has been certified to meet the requirements. Yes/No/NA N/A

OR

I have verified that the near distance test chart used is equivalent to the required Snellen fraction. Yes/No/NA YES

I hereby certify that the information contained on this record is true and correct.

Examiner *[signature]* Date 9-13-99

Title Registered Nurse

Remarks (b)(6)

EXHIBIT E
APRIL 26, 1999
PAGE 1 OF 1
REVISION 0
REVISION 1, 4/28/99
REVISION 2, 7/6/99

TESTING RECORD FOR ELIMINATING SUSPENSION OF CERTIFICATION

Name: KEVIN K. FUGUA Social Security Number: (b)(6)

Certification Title: VT-1 LEVEL II Review Due Date: 1-19-00

Description of Activity Performed: KEVIN K. FUGUA PASSED EYE EXAM ON 9-18-00 AND PERFORMED VT1 INSPECTION AT ANO-UNIT #2 9/00.

Date of Activity: 9-18-00 Score (If Any): N/A

I verify that the requirements for eliminating suspension of certification have been met.

Signed (Level III): Ronald P. Hough Date: 9-18-00 19 RPH 9-19-00

2VT1.FORMS

2 7-6-99 NO CHANGE

EXHIBIT C
APRIL 26, 1999
PAGE 1 OF 1
REVISION 0
REVISION 1, 4/28/99
REVISION 2, 7/6/99

CONTINUED CERTIFICATION VERIFICATION

Name: KEVIN K. FUQUA Social Security Number: (b)(6)

Certification Title: VT-1 LEVEL II Review Due Date: 9-19-00

Activity Date: 8/00	Activity: ANO-UNIT 2
	Description: INSPECTION OF [illegible]
Activity Date:	Activity: ANO-1 S1
	Description:
Activity Date:	Activity:
	Description:
Activity Date:	Activity:
	Description:
Activity Date:	Activity:
	Description:
Activity Date:	Activity:
	Description:
Activity Date:	Activity:
	Description:
Activity Date:	Activity:
	Description:

Signature (Level II): Kevin K. Fuqua Date: 9/18/00

Approval Signature (Level III): Ronald D. [illegible] Date: 9-18-00 19 APR

EVT1.FORMS

3 7-6-19 [illegible]

EXHIBIT E
APRIL 26, 1999
PAGE 1 OF 1
REVISION 0
REVISION 1, 4/28/99
REVISION 2, 7/6/99

TESTING RECORD FOR ELIMINATING SUSPENSION OR CERTIFICATION

Name: KEVIN K. FUQUA Social Security Number: (b)(6)

Certification Title: VT-1C/3C LEVEL II Review Due Date: 1-19-00

Description of Activity Performed: KEVIN K. FUQUA PASSED EYE EXAM ON 9-18-00 AND PERFORMED VT1C/3C INSPECTIONS AT ANO-UNIT 2 9/00.

Date of Activity: 9-18-00 Score (If Any): N/A

I verify that the requirements for eliminating suspension of certification have been met.

Signed (Level III): Ronald P. Hough Date: 9-19-00

RPH 9-19-00

VT1C3C.FORMS

2 7-6-99 NO CHANGE

CERTIFICATION OF EXAMINERS
EXHIBIT C
APRIL 26, 1999
PAGE 1 OF 1
REVISION 0
REVISION 1, 4/28/99
REVISION 2, 7/6/99

CONTINUED CERTIFICATION VERIFICATION

Name: KEVIN K. FOGUA Social Security Number: (b)(6)

Certification Title: VT-1E/3C LEVEL II Review Due Date: 9-18-00

Activity Date: 8/00	Activity: AREA - UNIT #2
	Description: INSPECTION OF CONCRETE
Activity Date:	Activity: AREA - ISI
	Description:
Activity Date:	Activity:
	Description:
Activity Date:	Activity:
	Description:
Activity Date:	Activity:
	Description:
Activity Date:	Activity:
	Description:
Activity Date:	Activity:
	Description:
Activity Date:	Activity:
	Description:

Signature (Level II): Kevin K. Fugua Date: 9/18/00

Approval Signature (Level III): Ronald D. Hodges Date: 9-18-00 APPR 9-19-00

VTIC3C.FORM8

Δ2 7-6-99 NO CHANGE

PRECISION SURVEILLANCE CORPORATION
Visual Examination Training

NAME: KEVIN K. FUQUA DATE: 3-23-00

SOCIAL SECURITY NUMBER: (b)(6)

EXAM: VISUAL GENERAL LEVEL II FOR VT-1, VT-1C, VT-3C

GRADE: 90% GRADED BY: Ronald D. Hoyle P.E.

I have neither given, received or observed any aid or information regarding this exam prior to or during its administration that could compromise this exam's integrity. I also understand my obligation to report any exam compromise by others prior, during, or subsequent to the exam administration.

I acknowledge that this examination is a way of demonstrating my knowledge of the subject associated with this examination and that I have had the opportunity, on my request, to review this entire examination with the instructor to ensure my understanding of the subject matter.

I have read and understand the above statements: Kevin K. Fuqua 3-23-00
Student Signature Date

CIRCLE ONE LETTER ANSWER FOR EACH QUESTION

✓ 1.	A	or	B	or	(C)	or	D
✓ 2.	A	or	B	or	C	or	(D)
✓ 3.	A	or	B	or	(C)	or	D
✓ 4.	A	or	(B)	or	C	or	D
✗ 5.	(A) ✗	or	B	or	C	or	[D]
✓ 6.	(A)	or	B	or	C	or	D
✓ 7.	A	or	B	or	C	or	(D)
✓ 8.	A	or	B	or	(C)	or	D
✓ 9.	A	or	B	or	(C)	or	D
✓ 10.	(A)	or	B	or	C	or	D

PRECISION SURVEILLANCE CORPORATION
Visual Examination Training

NAME: KEVIN K. FUQUA DATE: 3-23-00

SOCIAL SECURITY NUMBER: (b)(6)

EXAM: VISUAL SPECIFIC LEVEL II FOR VT-1, VT-1C, VT-3C

GRADE: 100% GRADED BY: Ronald D. Hough P.E.

I have neither given, received or observed any aid or information regarding this exam prior to or during its administration that could compromise this exam's integrity. I also understand my obligation to report any exam compromise by others prior, during, or subsequent to the exam administration.

I acknowledge that this examination is a way of demonstrating my knowledge of the subject associated with this examination and that I have had the opportunity, on my request, to review this entire examination with the instructor to ensure my understanding of the subject matter.

I have read and understand the above statements: Kevin K. Fuqua 3-23-00
Student Signature Date

CIRCLE ONE LETTER ANSWER FOR EACH QUESTION

✓1.	A	or	B	or	C	or	(D)
✓2.	A	or	B	or	(C)	or	D
✓3.	A	or	B	or	C	or	(D)
✓4.	A	or	(B)	or	C	or	D
✓5.	A	or	(B)	or	C	or	D
✓6.	A	or	B	or	C	or	(D)
✓7.	(A)	or	B	or	C	or	D
✓8.	A	or	B	or	C	or	(D)
✓9.	A	or	B	or	(C)	or	D
✓10.	A	or	(B)	or	C	or	D

PRECISION SURVEILLANCE CORPORATION
Visual Examination Training
PRACTICAL EXAMINATION CHECKLIST

NAME: Kevin K. Fuqua DATE: 3-23-00

SOCIAL SECURITY NUMBER: (b)(6)

EXAM METHOD: VT-1 or VT-1C or VT-3C EXAM NUMBER: N/A

GRADE: 88% INSTRUCTOR/ GRADED BY: Ronald D. Hough P.E.
PSC Level III VT-1/1C/3C Examiner

I have neither given, received or observed any aid or information regarding this exam prior to or during its administration that could compromise this exam's integrity. I also understand my obligation to report any exam compromise by others prior, during, or subsequent to the exam administration.

I acknowledge that this examination is a way of demonstrating my knowledge of the subject associated with this examination and that I have had the opportunity, on my request, to review this entire examination with the instructor to ensure my understanding of the subject matter.

I have read and understand the above statements: Kevin K. Fuqua 3/23/00
Student Signature Date

POINT VALUE	INSPECTION POINTS	POINTS GRANTED/COMMENTS
10	Select procedure Verify revision	10
10	Select form Verify revision	10
5	Select equipment Verify calibration/resolution	5
5	Verify adequacy of lighting Prior to and during inspection	5
5	Record part/item number On inspection form	2
15	Inspect component/part Identify discontinuities	10
15	Compare discontinuities to Recording criteria in procedure	15
25	Correctly record discontinuities	20
5	Sign and date form	5
5	Complete form Accurate and legible	5

PSC PROCEDURE SQ 8.0
ANCHORAGE INSPECTION
DATA SHEET 8.0
APRIL 2, 1999

Revision 0

ANCHORAGE INSPECTION DOCUMENTATION

PROJECT CALLAWAY PLANT SURVEILLANCE NO. 5TH YEAR 15TH

TENDON NO. N/A TENDON END/BUTTRESS NO. N/A -1 UNIT N/A -2

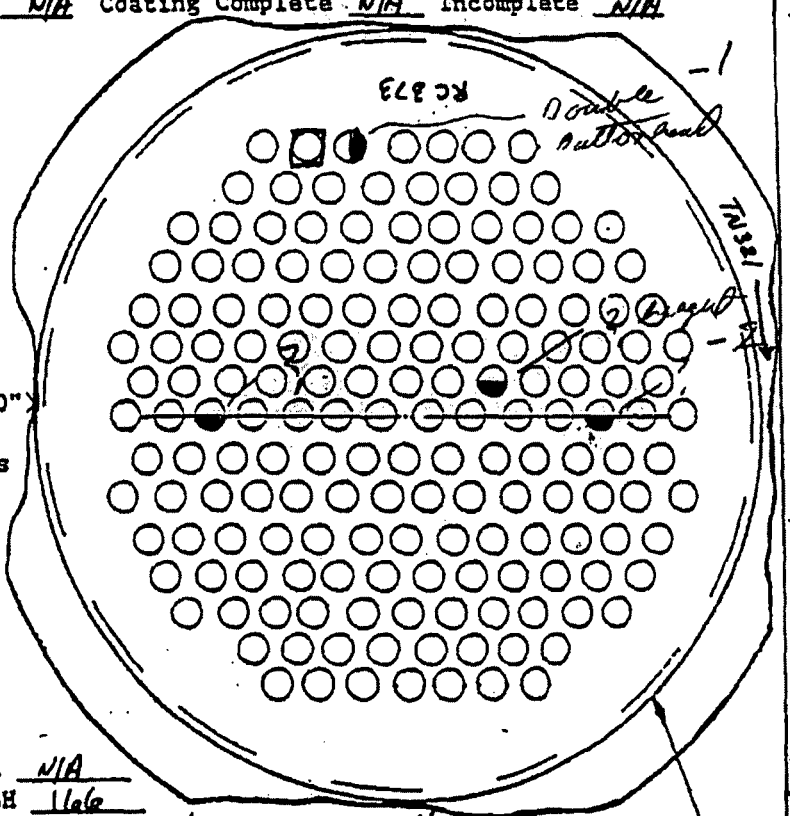
(8.3.5) ANCHORHEAD I.D. RC373 BUSHING I.D. TN321 Q.C. Signoff

(8.1) CORROSION INSPECTION (For Corrosion Levels refer to Procedure SQ 8.1)
(8.1.1.1) Buttonheads Corrosion: Original Condition N/A Current Level 2 — NH 3-23-01
SQ 8.1 (2.3) COMPARISON ☑ ACCEPTABLE 2 ☐ UNACCEPTABLE — NH 3-23-01
(8.1.2.1) Anchorage Head Level 2 (8.2) Cracks N/A Excess Stress N/A
(8.1.2.1) Bushing Level N/A 2 (8.2) Cracks N/A Excess Stress N/A
(8.1.2.1) Shims Level N/A (8.2) Cracks N/A Excess Stress N/A
(8.1.2.1) Bearing Plate Level N/A (8.2) Cracks N/A Excess Stress N/A — 3-23-01 NH N/A
SQ 10.1.(8.1.2) Coating: Complete N/A Incomplete N/A Lgth. of Air Pocket N/A — N/A
SQ 10.1 (8.2.1) Wire: Level N/A Coating Complete N/A Incomplete N/A — N/A

(8.3) BUTTONHEAD INSPECTION

(8.3.3) BUTTONHEAD DATA
☒ = Discontinuous-Removed
⊠ = Removed for Testing
● = Previously Missing
◔ = Protruding
□ = Broken/Missing
◑ = Offsize(Malformed)
B = Bisecting Crack
A = 45° Angle Slip
K = Cracked (over 0.120")
S = Slip (over 0.005")
X = Intersecting Cracks

(8.3.5) Locate Anchorage Heat Code on Sketch



(8.3.6) Offsize Totals
B = N/A
A = N/A
K = N/A
S = N/A
X = N/A

(8.3.7.2) Buttonheads Found N/A — NH 3-23-01
(8.3.7.3) Total Effective BH 1 1/8 — NH 3-23-01
(8.4.1) Protruding BH 3 Missing BH 1 Total BH 4 — NH 3-23-01
(8.4.1.1.1) Continuity Test Required YES Wires Identified/Marked N/A — NH 3-23-01
Bushing Thread Joint Line

Mapping Bushing Corrosion - 5 & LIGHTING Documentation

(9.0) Notification: Owner Notified N/A NCR No. N/A — N/A

Q.C. Review _____ Level ____ Date _____

Title _____

PRECISION SURVEILLANCE CORPORATION
Visual Examination Training
PRACTICAL EXAMINATION CHECKLIST

NAME: Kevin K. Fuqua DATE: 3-23-00

SOCIAL SECURITY NUMBER: (b)(6)

EXAM METHOD: VT-1 or VT-1C or VT-3C EXAM NUMBER: N/A

GRADE: 89% INSTRUCTOR/ GRADED BY: Ronald D. Hodge I.E.
PSC Level III VT-1/1C/3C Examiner

I have neither given, received or observed any aid or information regarding this exam prior to or during its administration that could compromise this exam's integrity. I also understand my obligation to report any exam compromise by others prior, during, or subsequent to the exam administration.

I acknowledge that this examination is a way of demonstrating my knowledge of the subject associated with this examination and that I have had the opportunity, on my request, to review this entire examination with the instructor to ensure my understanding of the subject matter.

I have read and understand the above statements: Kevin K. Fuqua 3/23/00
Student Signature Date

POINT VALUE	INSPECTION POINTS	POINTS GRANTED/COMMENTS
10	Select procedure Verify revision	10
10	Select form Verify revision	10
5	Select equipment Verify calibration/resolution	5
5	Verify adequacy of lighting Prior to and during inspection	5
5	Record part/item number On inspection form	4
15	Inspect component/part Identify discontinuities	12
15	Compare discontinuities to Recording criteria in procedure	8
25	Correctly record discontinuities	25
5	Sign and date form	5
5	Complete form Accurate and legible	5

VT-1C FOR DETAILED AREA "A"

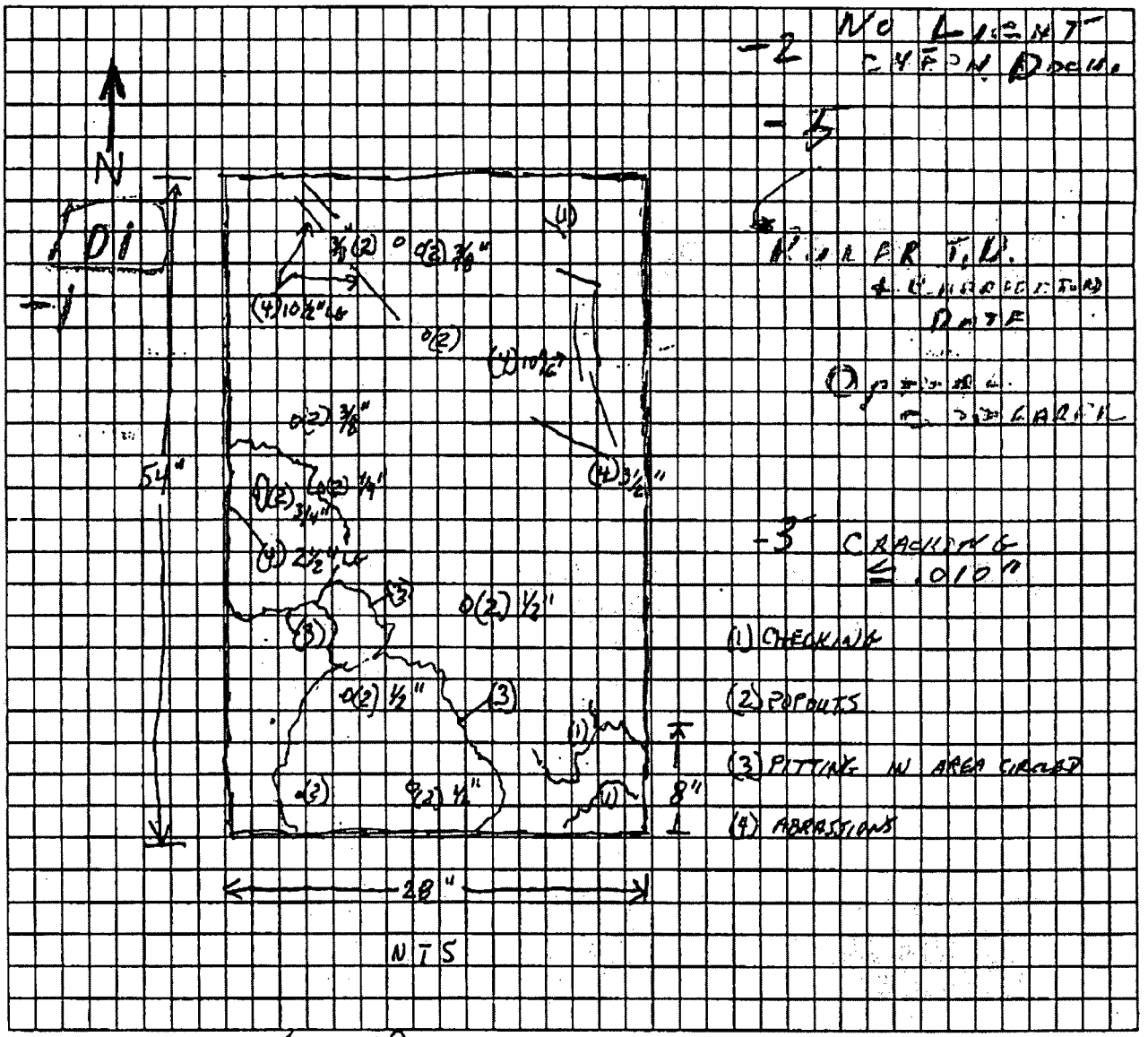
PSC PROCEDURE SQ 8.4
GENERAL EXTERIOR
SKETCH SHEET 8.4
APRIL 2, 1999

REVISION 0

PROJECT: CALLAWAY PLANT SURVEILLANCE NO. 5TH YEAR 15TH

SKETCH SHEET NO. 1 of 1 INSPECTION AREA DETAILED AREA "A"

Sketch each area of large spall, severe scaling, D-cracking in an area of 25 square feet or more, other surface deterioration or disintegration, or grease leakage as observed on the exterior surfaces of the containment. Use as many Sketch Sheets as necessary being sure to identify as many reference points on the Sketch as needed to locate and identify the observation.



Inspected By: Kevin K. Fuqua Date: 3-23-00

Reviewed By: _____ Date: _____

PRECISION SURVEILLANCE CORPORATION
Visual Examination Training
PRACTICAL EXAMINATION CHECKLIST

NAME: Kevin K. Fuqua DATE: 3-23-00

SOCIAL SECURITY NUMBER: (b)(6)

EXAM METHOD: VT-1 or VT-1C or (VT-3C) EXAM NUMBER: N/A

GRADE: 88% INSTRUCTOR/ GRADED BY: Ronald D. Jones P.E.
PSC Level III VT-1/1C/3C Examiner

I have neither given, received or observed any aid or information regarding this exam prior to or during its administration that could compromise this exam's integrity. I also understand my obligation to report any exam compromise by others prior, during, or subsequent to the exam administration.

I acknowledge that this examination is a way of demonstrating my knowledge of the subject associated with this examination and that I have had the opportunity, on my request, to review this entire examination with the instructor to ensure my understanding of the subject matter.

I have read and understand the above statements: Kevin K. Fuqua 3/23/00
Student Signature Date

POINT VALUE	INSPECTION POINTS	POINTS GRANTED/COMMENTS
10	Select procedure Verify revision	10
10	Select form Verify revision	10
5	Select equipment Verify calibration/resolution	5
5	Verify adequacy of lighting Prior to and during inspection	5
5	Record part/item number On inspection form	3
15	Inspect component/part Identify discontinuities	15
15	Compare discontinuities to Recording criteria in procedure	11
25	Correctly record discontinuities	21
5	Sign and date form	3
5	Complete form Accurate and legible	5

PROJECT: CALLAWAY PLANT SURVEILLANCE NO. 5TH YEAR 15TH

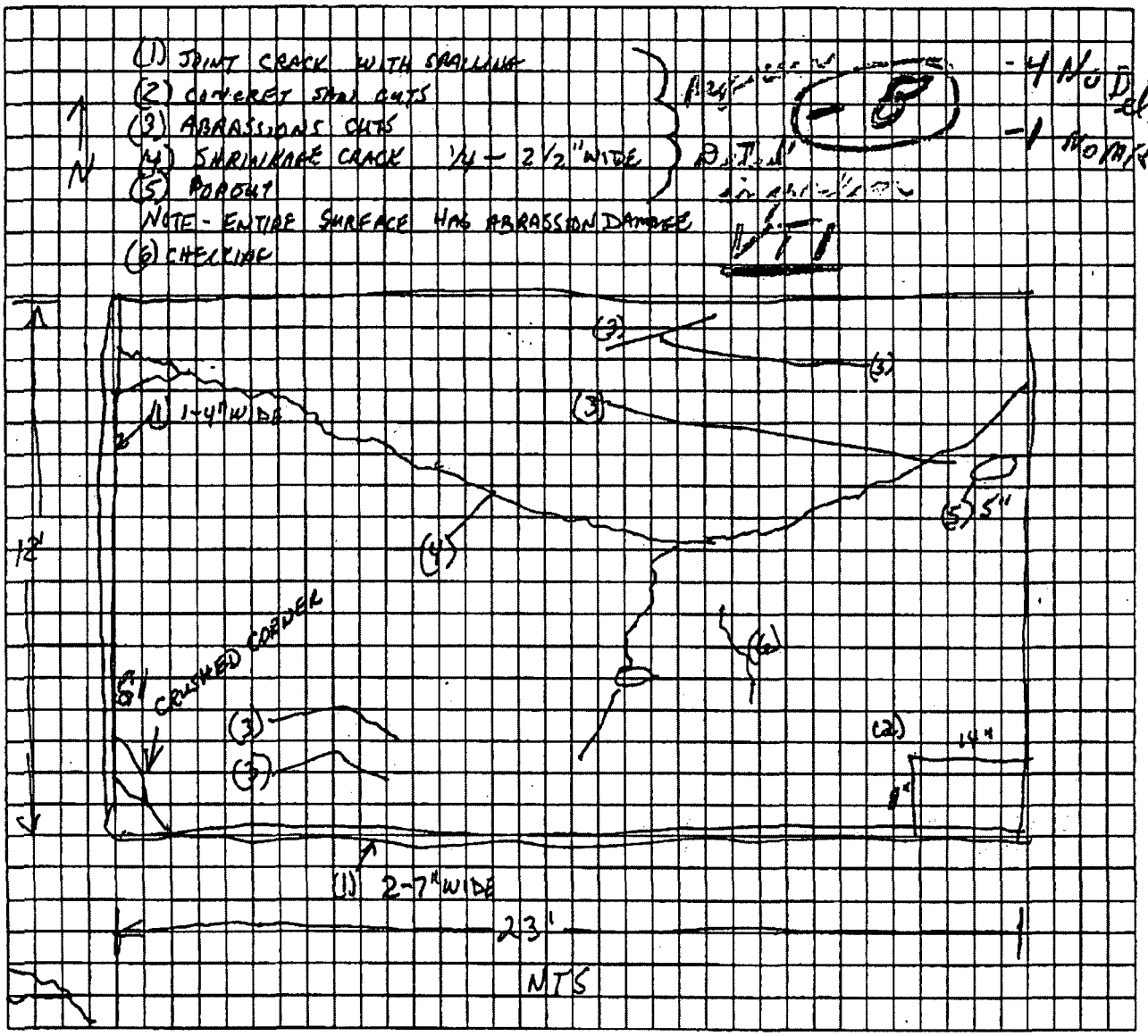
GENERAL EXTERIOR CONTAINMENT CONCRETE INSPECTION

INSPECTION AREA ~~**East Wall Aux. Bldg., Area 5**~~ LOCAL **TO** B1 -1 **Buttress A** **Elev. 2000 to 2047**	Inspection Method Used VT-3C 4'-0 Unaided -2 Note = eye OBSERVATIONS: VERIFIED > 50fc ILLUMINATION EXISTS, -4 see attach page -1 DEFICIENCIES PER ACI 201.1: JOINT CRACKS, SPALLING, ABRASIONS, SHRINKAGE CRACKS, POP-OUTS, CHECKING, CRUSHED CONCRETE, Inspected By: Kevin K Ingram Date: 3-23-00 Reviewed By: _____ Date: _____
INSPECTION AREA **Buttress A** **TO** **Buttress B** **Elev. 2000 to 2047**	Inspection Method Used _____ OBSERVATIONS: DEFICIENCIES PER ACI 201.1: Inspected By: _____ Date: _____ Reviewed By: _____ Date: _____
INSPECTION AREA **Inside Emergency Personnel Hatch Enclosure. Room 2202**	Inspection Method Used _____ OBSERVATIONS: DEFICIENCIES PER ACI 201.1: Inspected By: _____ Date: _____ Reviewed By: _____ Date: _____

PROJECT: CALLAWAY PLANT SURVEILLANCE NO. 5TH YEAR 15TH

SKETCH SHEET NO. 1 of 1 INSPECTION AREA G-1 -1

Sketch each area of large spall, severe scaling, D-cracking in an area of 25 square feet or more, other surface deterioration or disintegration, or grease leakage as observed on the exterior surfaces of the containment. Use as many Sketch Sheets as necessary being sure to identify as many reference points on the Sketch as needed to locate and identify the observation.



-2

Inspected By: _____ Date: _____

Reviewed By: _____ Date: _____

LEVEL II RECORD OF EXPERIENCE

(Mr)/Ms KEVIN K. FUQUA has worked at VARIOUS NUCLEAR PLANTS
Location

Since JAN 1995 to date.

During that time he/she has participated in the following activities which involve visual examinations similar to the Visual inspection VT-1 examination required by ASME, Section XI, Subsection IWL.

- OPERATING NUCLEAR STATION(S)

- Visual Examination(s): ST. LUCIE I+II, INDIAN PT II, PALISADES, AND

- Repair/Replacement:

- Modification(s):

- Periodic test(s):

- MANUFACTURING, CONSTRUCTION, FABRICATION OR INSTALLATION

- Visual Examination(s): SUPPORT WELDING, MOV INSTALLATION, TENDON ANCHORAGE, ELECTRICAL EQUIPMENT

- Dimensional verification: SUPPORT FABRICATION, EQUIPMENT INSTALLATION, SHIM HEIGHT, WIRE ELONGATION

- The above also meets the following Level II PSC Procedure VT1.CERT requirement:

- ✓ High School Graduate. 1 year

- _____ Two Year Associate Degree. 6 months

- _____ Four Year College Degree. 3 months

Completed by (Candidate): Kevin K. Fuqua 3-23-00
Date

Social Security Number: (b)(6)

Verified and Accepted by: Ronald D. Hough P.E. 3-24-00
(PSC Level III VT-1 Examiner) Date

2 7-6-99 NO CHANGE

LEVEL II RECORD OF EXPERIENCE
WORK EXPERIENCE RESUME

Name: FUQUA (Last Name) KEVIN (First) K (Middle Initial)

COMPANY & LOCATION	RESPONSIBILITIES
FLORIDA POWER + LIGHT @ ST. LUCIE I + II FROM: 4/98 TO: 11/98	INSPECTION OF THERMO-LAG FIRE BARRIER INSTALLATIONS, STRUCTURAL WELDING, ELECTRICAL MODIFICATIONS, CONCRETE ANCHOR INSTALLATIONS.
NPS @ PALISADES FROM: 10/96 TO: 11/96	INSPECTION OF STRUCTURAL WELDING, ELECTRICAL EQUIPMEN INSTALLATIONS + MODIFICATIONS, CONCRETE ANCHOR INSTALLATIONS
ATLANTIC GROUP @ ANO FROM: 9/99 TO: 2/00	INSPECTIONS DURING 20 YR POSTENSIONING OF TENDONS INCLUDING HARDWARE, BEARING PLATE, SHIMS, ANCHORHEADS, BUTTONHEADS & CONCRETE EXTENDING OUTWARD 2' FROM BEARING PLATE, WIRE TESTING, WIRE REMOVAL + GREASE CAN REPLACEMENT.
RAYTHEON @ INDIAN PT. II FROM: 1/95 TO: 3/95	MOV INSPECTION + TESTING

Kevin K. Fuqua 3/23/00
Signature/Date

2 7-6-99 NO CHANGE

LEVEL II RECORD OF EXPERIENCE

(Mr/Ms) KEVIN K. FUQUA has worked at VARIOUS NUCLEAR PLANTS
Location

Since JAN 1995 to date.

During that time he/she has participated in the following activities which involve visual examinations similar to the Visual inspection DIRECT (VT-1C) OR GENERAL (VT-3C) examination required by ASME, Section XI, Subsection IWL.

OPERATING NUCLEAR STATION(S)

Visual Examination(s): ST. LUCIE I + II, INDIAN PT. 2, PALISADES, AND

Repair/Replacement:

Modification(s):

Periodic test(s):

MANUFACTURING, CONSTRUCTION, FABRICATION OR INSTALLATION

Visual Examination(s): SUPPORT WELDING, MOV INSTALLATION, TENDON ANCHORAGE, ELECTRICAL EQUIPMENT

Dimensional verification: SUPPORT FABRICATION, EQUIPMENT INSTALLATION, SHIM HEIGHT, WIRE ELONGATION,

The above also meets the following Level II PSC Procedure VT1C/3C.CERT requirement:

✓ High School Graduate. 1 year

____ Two Year Associate Degree. 6 months

____ Four Year College Degree. 3 months

Completed by (Candidate): Kevin K. Fuqua 3-23-00
Date

Social Security Number: (b)(6)

Verified and Accepted by: Ronald P. Hough 3-23-00
(PSC Level III VT-1C/3C Examiner) Date

2 7-6-99 NO CHANGE

LEVEL II RECORD OF EXPERIENCE
WORK EXPERIENCE RESUME

Name: FUQUA (Last Name) KEVIN (First) K. (Middle Initial)

COMPANY & LOCATION	RESPONSIBILITIES
FLORIDA POWER & LIGHT @ ST. LUCIE I & II FROM: 4/98 TO: 11/98	INSPECTION OF THERMO-LAG FIRE BARRIER INSTALLATIONS, STRUCTURAL WELDING, ELECTRICAL MODIFACTIONS, CONCRETE ANCHOR INSTALLATIONS
NPS @ PALISADES FROM: 10/96 TO: 11/96	INSPECTION OF STRUCTURAL WELDING, ELECTRICAL EQUIPMENT INSTALLATION & MODIFICATIONS, CONCRETE EXPANSION ANCHORS
ATLANTIC GROUP @ ANO FROM: 9/99 TO: 2/00	INSPECTIONS DURING 20 YR POSTTENSIONING OF TENDONS INCLUDING, HARDWARE, BEARING PLATE, SHIMS, BUTTON HEADS, ANCHORHEADS & CONCRETE EXTENDING OUTWARD 2' FROM BEARING PLATE, WIRE TESTING, WIRE REMOVAL & GREASE CAN REPLACEMENT.
RAYTHEON @ INDIAN PT II FROM: 1/95 TO: 3/95	MOV INSPECTION & TESTING

Kevin K. Fuqua 3/23/00
Signature/Date

(2) 7-6-99 NO CHANGE

FPL

Inter-Office Correspondence

PTN-ENG-01-0037

To: File

Date: FEB 21 2001

From: E. A. McGuffie

Department: PTN Engineering

Subject: **Turkey Point Units 3 & 4**
Review of QC Inspector
Qualification and Certification

The purpose of this letter is to document the review and approval of the qualification and certification of Precision Surveillance Corporation (PSC) QC Inspector Kevin F. Fuqua, Social Security Number (b)(6) Mr. Fuqua will perform visual examinations VT-1, VT-1C and VT-3C of Turkey Point containment structures during the 30th year containment concrete and tendon in-service inspection.

The documents to be reviewed consist of:

- PSC Document "Review of VT Certification Documents"
- PSC Document "Certificate of Qualification"
- FPL Document "Nuclear Engineering Certificate of NDE Personnel Qualification".

Prepared by: E. A. McGuffie Date: 2/20/01
Plant Engineering

Approved by: S. R. Kannan Date: 2/20/01
FPL Responsible Engineer for IWL

Accepted by: Wayne Jacobs Date: 2/21/01
ANII

Attachment: PSC Document "Review of VT Certification Documents"
PSC Document "Certificate of Qualification"
FPL Document "Nuclear Engineering Certificate of NDE Personnel Qualification".

cc: PSC
K. F. Fuqua
ANII
File

FPL

NUCLEAR ENGINEERING
CERTIFICATE OF NDE PERSONNEL QUALIFICATION

SS# (b)(6)	
NAME (LAST, FIRST, MIDDLE) FUQUA, KEVIN K.	QUALIFICATION LEVEL II
NDE METHOD VT-C	CERTIFICATION PERIOD 2/13/01 – 2/13/04

LIMITATIONS/ENDORSEMENTS

Related Experience (No. Yrs./Dates, Company Service, Position, Brief Description)

1. SEE ATTACHED QUALITY ASSURANCE DOCUMENTATION
2. OF CERTIFICATION (2 PAGES)

☐ See reverse side for additional education and/or experience.

EXAM GRADES: General * Specific * Practical 100% COMPOSITE * 85.7 %

LEVEL III EXAM GRADES:
Basic ____ Method ____ Specific ____ Practical ____

Demonstration ____ COMPOSITE ____

Date of Exams 2/13/01 Administered by Edward A. McGuffie

All information supplied by me is true and correct to the best of My knowledge.

Kevin K. Fuqua 2/19/01
Signature Date

CERTIFIED IN ACCORDANCE WITH ENG-CSI-9.1 Rev. 3

Certified By [signature] Date 2/20/01 Principal Level III (VT-C)

NA Date ____ Manager-CSI (For Level III Certification Only)

PSC Formerly
Inryco Surveillance

QUALIFICATION OF QUALITY CONTROL INSPECTORS-PROC. QA 2.10.6.1.1.

CERTIFICATION FORM QA 2.10.6.1.1.B.

CERTIFICATE OF QUALIFICATION

This is to certify that

DANIEL P. O'SHEA SSN (b)(6)

has been qualified through on-the-job experience and formal training to meet the requirements of ANSI N45.2.6-1973 and 1978 as:

QUALITY CONTROL INSPECTOR LEVEL II with the following limitations

CERTIFIED FOR ALL ASPECTS OF POST-TENSIONING INSPECTIONS, AND CALIBRATIONS.

This certification will qualify the named individual to perform quality control inspections, examinations and testing for the various manufactured products or services supplied, to meet the requirements of the projects for the Precision Surveillance Corporation and within the limitations of this qualification.

This qualification becomes effective 1-27-99 and shall remain in effect until the recertification date of 1-27-02 or until such time that the named individual leaves the employment of PSC, gives just cause for termination of the certification or requires additional training to maintain a proper Quality Control disposition.

Physical Requirements: EYE Exam Date 2-12-98 to 2-12-99 by BECHTEL/CONOCO

EYE Exam Date 1-28-99 to 1-28-00 by PSC-HFH

EYE Exam Date 2-1-00 to 2-1-01 by ANO-NDE LEVEL III

EYE EXAM DATE 1-12-01 TO 1-12-02 BY PSC-HFH.

Approved by: H. F. Hendrickson

Quality Control Inspector Level III

Date: 1-27-99

0025Q

PSC Formerly
Inryco Surveillance

QUALIFICATION OF QUALITY CONTROL INSPECTORS-PROC. QA 2.10.6.1.1.

PERFORMANCE EVALUATION FORM QA 2.10.6.1.1.A.

PERFORMANCE EVALUATION FOR QUALITY CONTROL INSPECTORS

To be performed at periodic intervals not to exceed three years. This evaluation shall constitute continuation of certification ~~or~~ AS A QUALITY CONTROL INSPECTOR, LEVEL II

This is to certify that the performance of Quality Control Inspector Level II Name DANIEL P. O'SHEA Social Security No. (b)(6) has been evaluated by the undersigned on this date 2-1-01.

Performance is evaluated as follows:

HAS SATISFACTORILY PERFORMED CALIBRATIONS, INSPECTIONS OF POST-TENSIONING SYSTEM COMPONENTS, MONITORING OR SURVEILLANCE OF THE POST-TENSIONING SYSTEMS AT NUCLEAR POWER PLANTS AND OTHER QUALITY RELATED ACTIVITIES ASSIGNED SINCE LAST EVALUATION

☒ Performance is satisfactory.

☐ Performance is unsatisfactory and requires additional training in the following areas:

N/A

This individual has been removed from inspection, examination and testing activities effective N/A.

Signed: H.F. Hendrickson Date: 2-1-01

Title: MGR. Q.A. - Q.C. LEVEL III

Approved: H.F. Hendrickson Date: 2-1-01
Manager, Quality Assurance

This document shall be placed into the certification file for the Inspector being evaluated.

0025Q

1033N

PSC Formerly
Inryco Surveillance

PHYSICAL TESTING OF INSPECTORS-PROC. QA 2.10.6.1.1.1.

PHYSICAL TESTING FORM QA 2.10.6.1.1.1

Name DANIEL P. O'SHEA Date 1-12-01 Retest Date 1-12-02

Title Q.C. INSPECTOR Wears Glasses NO

1. PHYSICAL CHARACTERISTICS

(b)(6)

2. VISUAL - FAR RANGE Test Device B+L #713591-101 ND

(b)(6)

3. VISUAL - NEAR RANGE Test Device B+L #713565-101 1M-X-69

(b)(6)

4. COLOR PERCEPTION Test Device AMERICAN OPTICAL CORP. PSEUDO-ISOCHROMATIC PLATES

(b)(6)

Score shall not be less than 10 to be acceptable for perception.

Comments NONE

5. OVERALL RATING

Capability UNLIMITED ACCEPTABILITY

Examiner H. F. Hendrikson Title MGR. Q.A. QA Examiner Date 1-12-01

0028Q

PSC

Precision Surveillance Corporation

CORPORATE

3468 Watling St.
East Chicago, IN 46312
219-397-5826

P.O. Box 3027
Munster, IN 46321

QUALITY ASSURANCE
DOCUMENTATION OF CERTIFICATION
Daniel P. O'Shea

A. NAME: Daniel P. O'Shea

B. SOCIAL SECURITY NUMBER: (b)(6)

C. CITIZEN: U.S.A.

D. POSITION: Level II - Quality Control Inspector per ANSI N45.2.6-1978 for all aspects of Post Tensioning Inspection and Calibration.

E. EDUCATION:

Ottawa Township High School
Graduate 1975

F. WORK EXPERIENCE:

~~1975 - 1978 Sierra Motors 3yrs.~~
~~Assistant Parts Manager~~

~~1979 - 1985 Plumbers & Steam Fitters Local 81 7yrs.~~
~~Welders Helper~~

Delete N.N. 5/1/91

1986 - 1989 Diversifoam Products 3yrs.
Fabrication Department

1986 & 1990 Inryco & PSC 7mos.
Tendon Surveillance Field Work

1990 - 1991 PSC 1yr.
Level I Inspector (5/90 - 6/91)

G. JUSTIFICATION FOR QUALIFICATION:

ANSI N45.2.6 - 1978 Section 3.5.2(1) Level II

One year of satisfactory performance as Level I in the corresponding inspection, examination or test category or class, and

A. Specific testing, training and on-the-job participation for Post Tensioning Inspection and Calibration.

qacert.dpo

PSC

Precision Surveillance Corporation

QUALITY ASSURANCE
DOCUMENTATION OF CERTIFICATION
Daniel P. O'Shea

H. NUCLEAR JOBSITE ACTIVITY:

The person named in this certification has been involved in various quality assurance and/or quality control activities at the following nuclear jobsites:

Wolf Creek - KG&E
V.C. Summer - SCE&G
Braidwood - CECo
Palisades - Consumers Power

I. TRAINING:

1. On the job training in Tendon Surveillance operations and Q.C. Hold Points at the Wolf Creek and V.C. Summer jobsites in ~~1968~~ and 1990 by Connie Brooks. Training documented. 1989 WCNOG-245-00

2. Classroom training Indoctrination for 10CFR21, 10CFR50, Append.B, NRC Form 3, Reg Guide 1.35 and PSC QA Program on 5/22/90 by Connie Brooks, Level III. Training documented.

3. On-The-Job training in wire buttonhead inspection and use of inspection gauges by Connie Brooks, Level III on 5/30/90. Training documented.

4. On-The-Job training 9/11/90 through 9/26/90 in in-service inspections at the Braidwood site by Connie Brooks, Level III and Bill Carter, Level II. Training documented.

5. On-The-Job training 9/27/90 through 10/11/90 in pressure gauge calibration verification and tendon wire removal at the Palisades site by Connie Brooks, Level III. Training documented.

6. On-The-Job training and written exam on 10/30/90 on wire corrosion evaluation, by Connie Brooks, Level III. Training documented.

Reviewed and Approved: Harry F. Hendrickson 6/3/91
Harry F. Hendrickson
Manager, Quality Assurance
Level III

qacert.dpo

cc: O'Shea
Brooks

CERTIFICATION OF VT EXAMINERS
APRIL 26, 1999
PAGE 1 OF 1
~~REVISION 0~~ H.E.H. 5/4/99
REVISION 1, 4/28/99

REVIEW OF VT
CERTIFICATION DOCUMENTS

NAME: DANIEL P. O'SHEA

DATE: 4/30/99 COMPANY: PSC

METHOD	VT-1	VT-1C	VT-3C	OTHER:
CERTIFICATION LEVEL	II *	II	II	
CERTIFICATION DATE	4-30-99	4-30-99	4-30-99	
RE-CERT DUE	4-30-2002	4-30-2002	4-30-2002	
EDUCATION/ EXPERIENCE	ok	ok	ok	
TRAINING	ok	ok	ok	
EVIDENCE OF CURRENT EXAM	ok	ok	ok	
OTHER SUITABLE EVIDENCE OF QUALIFICATION	ok	ok	ok	
COMPOSITE GRADE OR EVIDENCE OF GRADE	ok	ok	ok	
LEVEL III SIGNATURE	ok	ok	ok	
EYE EXAM	EXAM DATE: 1) 1-28-99		EXAM DUE: 1-28-00	
	2) 2-1-00		2-1-01	
	3) 1-12-01		1-12-02	

CERTIFIED IN ACCORDANCE WITH – ASME SEC XI: YES X / NO ____

RESTRICTIONS: * VT-1 CERTIFICATION LIMITED TO TENDON RELATED ACTIVITIES

H.F. Hendrickson / 4-30-99 — PSC Mgr., Q.A.
H.F. Hendrickson 2-1-00
H.F. Hendrickson 1-12-01

Ronald D. Hough P.E. / 4-30-99
R.D. Hough 2-1-00
R.D. HOUGH per Telecon H.F.H. 1-12-01

VTFORMS

⚠1 4-28-99 NO CHANGE H.E.H. 5/4/99

LEVEL II CERTIFICATION RECORD

Name: DANIEL P. O'SHEA Certification Date: 4-30-99

Social Security Number: (b)(6)

Visual Method: VT-1 * Certification Level: II

* VT-1 CERTIFICATION LIMITED TO TENDON RELATED ACTIVITIES

Examination Grades:

Level II	
General: 90%	Date: 4-29-99
Specific: 80%	Date: 4-29-99
Practical: 98%	Date: 4-30-99
Composite: 89%	Date: 4-30-99

(The composite grade shall be an equally weighted average of all applicable examination grades for each category.)

Training Courses Completed

Type	Given By	Location	Hours	Date	Instructor
General	PSC	PSC	3	4-29-99	R. HOUGH
Specific	PSC	PSC	3	4-29-99	R. HOUGH
Practical	PSC	PSC	1½	4-30-99	R. HOUGH

We certify that the above named employee meets all of the qualification requirements of the PSC Procedure VT1.CERT for certification/recertification as a VT-1 EXAMINER, Level II.

This certificate expires after 4-30-2002

Approval Signature: Ronald D Hough, P.E.
PSC Level III VT-1 Examiner

⚠ 4-28-99 NO CHANGE H.E.N. 5/4/99

ANNUAL REVIEW RECORD

Name: DANIEL P-O'SHEA Social Security Number: (b)(6)
Categories: VT1 Level: II Certification Expires After: 4-30-2002
PSC Level III VT-1 Examiner Signature: [signature] P.E. VT-1

AR DATE	NEW VER DATE	DETAILED CCV	GENERSL CCV
1-28-00	2-1-00	N/A	N/A
Level III Evaluation (Enter C or S)	C & S	1-26-00/2-1-00	N/A
Level III Acceptance Signature [signature]		N/A	N/A
Remarks:		N/A	N/A
		N/A	N/A

AR DATE	NEW VER DATE	DETAILED CCV	GENERAL CCV
2-1-01	1-12-01	N/A	N/A
Level III Evaluation (Enter C or S)	C	1-15-01	N/A
Level III Acceptance Signature [signature]		N/A	N/A
Remarks: per telecon [illegible]		N/A	N/A
		N/A	N/A

AR DATE	NEW VER DATE	DETAILED CCV	GENERAL CCV
1-12-02			N/A
Level III Evaluation (Enter C or S)			N/A
Level III Acceptance Signature			N/A
Remarks:			N/A
			N/A

AR DATE	NEW VER DATE	DETAILED CCV	GENERAL CCV
			N/A
Level III Evaluation (Enter C or S)			N/A
Level III Acceptance Signature			N/A
Remarks:			N/A
			N/A

AR DATE	NEW VER DATE	DETAILED CCV	GENERAL CCV
			N/A
Level III Evaluation (Enter C or S)			N/A
Level III Acceptance Signature			N/A
Remarks:			N/A
			N/A

AR: Annual Review due date (i.e., Current Vision Examination date plus 1 year)
VER: New Vision Examination Record date (i.e., Date of the new eye examination)
CCV: Continued Certification Verification date (i.e., Level III VT-1 examiner approval date of visual examination activities used for continued certification purpose)
C: The requirements for maintaining the certification have been met because the new VER and CCV dates are within 1 year prior to the AR date.
S: The requirements for maintaining the certification have not been met because the new VER and/or CCV dates are not within 1 year prior to the AR date. A "Testing Record For Eliminating Suspension of Certification" must be completed to reinstate the visual examination certification.

2 7-6-99 NO CHANGE

PSC PROCEDURE VT1C/3C.CERT
CERTIFICATION OF EXAMINERS
EXHIBIT A
APRIL 26, 1999
PAGE 1 OF 1
~~REVISION 0~~ HEN 5/14/99
REVISION 1, 4/28/99

LEVEL II CERTIFICATION RECORD

Name: DANIEL P. O'SHEA Certification Date: 4-30-99

Social Security Number: (b)(6)

Visual Method: VT-1C/3C Certification Level: II

Examination Grades:

Level II	
General: 90%	Date: 4-29-99
Specific: 80%	Date: 4-29-99
Practical: 89%	Date: 4-30-99
Composite: 86%	Date: 4-30-99

(The composite grade shall be an equally weighted average of all applicable examination grades for each category.)

Training Courses Completed

Type	Given By	Location	Hours	Date	Instructor
General	PSC	PSC	3	4-29-99	R. HOUGH
Specific	PSC	PSC	3	4-29-99	R. HOUGH
Practical	PSC	PSC	3	4-30-99	R. HOUGH

We certify that the above named employee meets all of the qualification requirements of the PSC Procedure VT1C/3C.CERT for certification/recertification as a VT-1C/3C EXAMINER, Level II.

This certificate expires after 4-30-2002

Approval Signature: Ronald D. Hough P.E.
PSC Level III VT-1C/3C Examiner

VT1C3C.FORMS

1 4-28-99 NO CHANGE HEN 5/14/99

ANNUAL REVIEW RECORD

Name: DANIEL P. O'SHEA Social Security Number: (b)(6)
Categories: VT1C/3C Level: II Certification Expires After: 4-30-2002
PSC Level III VT-1C/3C Examiner Signature: Ronald D. Hough P.E.

AR DATE	NEW VER DATE	DETAILED CCV VT-1C	GENERSL CCV VT-3C
1-28-00	2-1-00	N/A	N/A
Level III Evaluation (Enter C or S)	C dS	1-26-00/2-1-00	1-26-00/2-1-00
Level III Acceptance Signature Ronald D. Hough		N/A	N/A
Remarks:		N/A	N/A
		N/A	N/A

AR DATE	NEW VER DATE	DETAILED CCV	GENERAL CCV
2-1-01	1-12-01	N/A	N/A
Level III Evaluation (Enter C or S)	C	1-15-01	1-15-01
Level III Acceptance Signature Ronald D. Hough		N/A	N/A
Remarks: per telecon 1-15-01		N/A	N/A
		N/A	N/A

AR DATE	NEW VER DATE	DETAILED CCV	GENERAL CCV
1-12-02			
Level III Evaluation (Enter C or S)			
Level III Acceptance Signature			
Remarks:			

AR DATE	NEW VER DATE	DETAILED CCV	GENERAL CCV
Level III Evaluation (Enter C or S)			
Level III Acceptance Signature			
Remarks:			

AR DATE	NEW VER DATE	DETAILED CCV	GENERAL CCV
Level III Evaluation (Enter C or S)			
Level III Acceptance Signature			
Remarks:			

AR: Annual Review due date (i.e., Current Vision Examination date plus 1 year)
VER: New Vision Examination Record date (i.e., Date of the new eye examination)
CCV: Continued Certification Verification date (i.e., Level III VT-1C/3C examiner approval date of visual examination activities used for continued certification purpose)
C: The requirements for maintaining the certification have been met because the new VER and CCV dates are within 1 year prior to the AR date.
S: The requirements for maintaining the certification have not been met because the new VER and/or CCV dates are not within 1 year prior to the AR date. A "Testing Record For Eliminating Suspension of Certification" must be completed to reinstate the visual examination certification.

2 7-6-99 NO CHANGE

PSC PROCEDURE VT1.CERT
CERTIFICATION OF EXAMINERS
EXHIBIT C
APRIL 26, 1999
PAGE 1 OF 1
REVISION 0
REVISION 1, 4/28/99
REVISION 2, 7/6/99

CONTINUED CERTIFICATION VERIFICATION

Name: DANIEL P. O'SHEA Social Security Number: (b)(6)

Certification Title: VT-1 LEVEL II Review Due Date: 2-01-01

Activity Date: 2-20-00 - 4-28-00	Activity OCONEE NUCLEAR PLANT ISI Description: INSPECTION OF ACCESSIBLE COMPONENTS
Activity Date: 5-8-00 - 7-15-00	Activity VOGTLE NUCLEAR PLANT ISI Description: INSPECTION OF ACCESSIBLE COMPONENTS
Activity Date: 7-26-00 - 9-9-00	Activity BRUNSWICK NUCLEAR PLANT ISI Description: INSPECTION OF ACCESSIBLE COMPONENTS
Activity Date: 9-15-00 - 12-20-00	Activity V.C. SUMMER NUCLEAR PLANT ISI Description: INSPECTION OF ACCESSIBLE COMPONENTS
Activity Date: _____	Activity _____ Description: _____
Activity Date: _____	Activity _____ Description: _____
Activity Date: _____	Activity _____ Description: _____
Activity Date: _____	Activity _____ Description: _____

Signature (Level II): Daniel P. O'Shea Date: 1-15-01

Approval Signature (Level III): W.T.H. for Ronald P Vaughn Date: 1-15-01 per Telecon

2 7-6-99 NO CHANGE

CONTINUED CERTIFICATION VERIFICATION

Name: DANIEL P. O'SHEA Social Security Number: (b)(6)

Certification Title: VT-UT 3C LEVEL II Review Due Date: 2-01-01

Activity Date: 2-20-00 - 4-20-00	Activity OCONEE NUCLEAR PLANT ISI Description: INSPECTION OF CONTAINMENT
Activity Date: 5-8-00 - 7-15-00	Activity VOGTLE NUCLEAR PLANT ISI Description: INSPECTION OF CONTAINMENT
Activity Date: 7-26-00 - 9-9-00	Activity BRUNSWICK NUCLEAR PLANT ISI Description: INSPECTION OF
Activity Date: 9-15-00 - 12-20-00	Activity V.C. SUMMER NUCLEAR PLANT Description: INSPECTION OF CONTAINMENT
Activity Date:	Activity Description:
Activity Date:	Activity Description:
Activity Date:	Activity Description:
Activity Date:	Activity Description:

Signature (Level II): Daniel P. O'Shea Date: 1-15-01

Approval Signature (Level III): W.S.W. for Randall D. Hough Date: 1-15-01 per Telecon

2 7-6-99 NO CHANGE

PSC PROCEDURE VT1.CERT
CERTIFICATION OF EXAMINERS
EXHIBIT C
APRIL 26, 1999
PAGE 1 OF 1
REVISION 0
REVISION 1, 4/28/99
REVISION 2, 7/6/99

CONTINUED CERTIFICATION VERIFICATION

Name: DANIEL P. O'SHEA Social Security Number: (b)(6)

Certification Title: VT-1 - LEVEL II Review Due Date: 1-26-00

Activity Date: 9-99 TO 11-99	Activity THREE MILE ISLAND ISI Description: INSPECTION OF ANCHORAGES
Activity Date: 11-99 TO 2-00	Activity ANO ISI Description: INSPECTION OF ANCHORAGES
Activity Date:	Activity Description:
Activity Date:	Activity Description:
Activity Date:	Activity Description:
Activity Date:	Activity Description:
Activity Date:	Activity Description:
Activity Date:	Activity Description:

Signature (Level II): Daniel P. O'Shea Date: 1-26-00

Approval Signature (Level III): Ronald Hough P.E. Date: 1-26-00

2 7-6-99 NO CHANGE

TESTING RECORD FOR ELIMINATING SUSPENSION OF CERTIFICATION

Name: DANIEL P. O'SHEA Social Security Number: (b)(6)

Certification Title: VT1 LEVEL II Review Due Date: 1-28-00

Description of Activity Performed: DANIEL O'SHEA PASSED EYE EXAM ON 2-1-00.

Date of Activity: 2-1-00 Score (If Any): N/A

I verify that the requirements for eliminating suspension of certification have been met.

Signed (Level III): Ronald D. Hough Date: 2-1-00

2 7-6-99 NO CHANGE

CONTINUED CERTIFICATION VERIFICATION

Name: DANIEL P. O'SHEA Social Security Number: (b)(6)

Certification Title: VT 1C/3C - LEVEL II Review Due Date: 1-26-00

Activity Date: 9-99 TO 11-99 Activity THREE MILE ISLAND I.S.I
Description: INSPECTION OF CONCRETE

Activity Date: 11-99 TO 2-00 Activity ANO I.S.I
Description: INSPECTION OF CONCRETE

Activity Date: _____ Activity _____
Description: _____

Activity Date: _____ Activity _____
Description: _____

Activity Date: _____ Activity _____
Description: _____

Activity Date: _____ Activity _____
Description: _____

Activity Date: _____ Activity _____
Description: _____

Activity Date: _____ Activity _____
Description: _____

Signature (Level II): Daniel P. O'Shea Date: 1-26-00

Approval Signature (Level III): Ronald D Hough, P.E. Date: 1-26-00

2 7-6-99 NO CHANGE

TESTING RECORD FOR ELIMINATING SUSPENSION OF CERTIFICATION

Name: DANIEL P. O'SHEA. Social Security Number: (b)(6)

Certification Title: VT-1C/3C LEVEL II Review Due Date: 1-28-00

Description of Activity Performed: DANIEL O'SHEA PASSED EYE EXAM ON 2-1-00.

Date of Activity: 2-1-00 Score (If Any): N/A

I verify that the requirements for eliminating suspension of certification have been met.

Signed (Level III): Ronald D. Hough P.E. Date: 2-1-00

2 7-6-99 NO CHANGE

PROFESSIONAL SUMMARY

A. ***NAME***

DANIEL O'SHEA
Daniel O'Shea 4-29-99

B. ***POSITION***

QUALITY CONTROL INSPECTOR

Responsible for performance of all quality control activities.

C. ***EDUCATION***

(b)(6)

D. ***WORK EXPERIENCE***

1989 - Present -	Precision Surveillance Corporation - Quality Control for surveillance of Post-Tensioning Systems
1986 - 1989	Diversifoam Products - Fabrication Department
1975 - 1986	General Construction Worker

E. ***NUCLEAR SURVEILLANCE ACTIVITY***

1. ***Responsible for the quality control activities at the following nuclear pojects for post-tensioning system:***

Braidwood - CECo	Palisades Consumers Power Co.
Calvert Cliffs - BG&E	Fort Calhoun - OPPD
Wolf Creek - WCNOC	LaSalle - CECo
Darlington - Ontario Hydro	Millstone - Northeast Utilities
Callawa - Union Electric	Brunswick CPL

2. ***Perform operation activities on the following nuclear projects for post-tensioning systems:***

V. C. Summer - SCE&G
Arkansas Nuclear One - AP&L
Wolf Creek - WCNOC (1986)

LEVEL II RECORD OF EXPERIENCE

(Mr) Ms Daniel P. O'Shea has worked at PSC, 3118 Whiteoak St, E Chicago, Ind. 46312
Location

Since 5-90 to date.

During that time he/she has participated in the following activities which involve visual examinations similar to the Visual inspection VT-1 examination required by ASME, Section XI, Subsection IWL.

- OPERATING NUCLEAR STATION(S)
- Visual Examination(s): Palisades, Braidwood, Byron, LaSalle, Millstone, Wolf Creek, Callaway, Three Mile Island, Brunswick, Crystal River AND, Ft. Calhoun, Vogle
- Repair/Replacement: Palisades, Byron, Fort Calhoun, Braidwood, Brunswick
- Modification(s): ______
- Periodic test(s): ______
- MANUFACTURING, CONSTRUCTION, FABRICATION OR INSTALLATION
- Visual Examination(s): Grant Hospital - Columbus Ohio / University of Maryland - Baltimore
- Dimensional verification: ______
- The above also meets the following Level II PSC Procedure VT1.CERT requirement:
- _X_ High School Graduate. 1 year
- ____ Two Year Associate Degree. 6 months
- ____ Four Year College Degree. 3 months

Completed by (Candidate): [signature] 4-29-99
Date

Social Security Number: (b)(6)

Verified and Accepted by: Ronald D. Hough P.E. 4-30-99
(PSC Level III VT-1 Examiner) Date

⚠1 4-28-99 NO CHANGE JEN. 5/4/99

W.F.N. 5/4/99

LEVEL II RECORD OF EXPERIENCE
WORK EXPERIENCE RESUME

Name: O'SHEA (Last Name) DANIEL (First) P. (Middle Initial)

COMPANY & LOCATION	RESPONSIBILITIES
FROM: 5-90 TO: PRESENT	QC INSPECTOR LEVEL II - VISUAL EXAMINATIONS CONCRETE, TENDON COMPONENTS IE. ANCHORHEADS, SHIMS, BEARING PLATES, BUTTONHEADS, WIRE, STRAND, WEDGES, GREASE, THREAD MEASUREMENTS, TENDON FABRICATION. CALIBRATIONS OF QC INSTRUMENTS AND STRESSING RAMS (JACKS).
FROM: TO:	
FROM: TO:	
FROM: TO:	

Signature/Date

1 4-28-99 NO CHANGE W.F.N. 5/4/99