Duke Power
A Duke Energy Company

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September 20, 2004

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Subject: Duke Energy
Oconee Nuclear Station, Unit 1, 2, and 3
Docket No. 50-269,-270,-387
Third Ten Year Inservice Inspection Interval
Request for Relief No. 04-ON-006

Pursuant to 10 CFR 50.55a(g)(5)(ii), attached is a Request for Relief from the requirement to examine 100% of the volume specified by the ASME Boiler and Pressure Vessel Code, Section XI, 1989 Edition with no Addenda (as modified by Code Case N-491). This request is to allow Duke Energy to take credit for one (1) limited visual (VT-3) examination per unit on a Letdown Filter Housing support described in the attached request. During examination of the subject Unit 1 support, the VT-3 examination coverage did not meet the 100% examination requirements. The obtainable coverage for the examination is indicated on the attached request. As discussed in the attached request, achievement of greater examination coverage for these welds constitutes a hardship without a compensating increase in quality or safety due to radiation and contamination concerns aggravated by the existence of insulation on the support and asbestos abatement concerns.

This examination has been performed on Unit 1, but similar conditions exist on Units 2 and 3 such that relief is also requested for the equivalent components on those units. Therefore, Duke Energy requests that the NRC grant relief as authorized under 10 CFR 50.55a(a)(3)(ii).

If there are any questions or further information is needed you may contact R. P. Todd at (864) 885-3418.

A047

Very truly yours,

R. A. Jones,
Site Vice President,
Oconee Nuclear Station

Attachment

xc w/att: Mr. William D. Travers
Administrator,
U.S. Nuclear Regulatory Commission, Region II
Atlanta Federal Center
61 Forsyth St., SWW, Suite 23T85
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L. N. Olshan, Project Manager, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
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xc(w/o attch):

M. C. Shannon
Senior NRC Resident Inspector
Oconee Nuclear Station

Mr. Henry Porter
Division of Radioactive Waste Management
Bureau of Land and Waste Management
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2600 Bull St.
Columbia, SC 29201

Proposed Relief in Accordance with 10 CFR 50.55a (a)(3)(ii)
Inservice Inspection Hardship
Duke Energy Corporation
Oconee Nuclear Station – Unit 1 (EOC-21) Interval Start Date= 7-15-1993 Interval End Date=1-1-2004
Unit 2 (EOC-20) Interval Start Date= 12-16-1994 Interval End Date=9-9-2004
Unit 3 (EOC-21) Interval Start Date= 12-16-1994 Interval End Date=12-16-2004
Third 10-Year Interval – Inservice Inspection Plan
ASME Section XI Code – 1989 Edition with No Addenda

	I.	II. & III.	IV.	V.	VI.	VII.
Limited Area/Weld I.D. Number	**System / Component for Which Relief is Requested:** Area or Weld to be Examined	**Code Requirement from Which Relief is Requested:** 100% Exam Volume Coverage Exam Category Item No. Fig. No. Limitation Percentage	**Basis for Relief**	**Alternate Examinations or Testing**	**Justification for Granting Relief**	**Implementation Schedule**
1-LDFTR-1A	High Pressure Injection System Component Support for Letdown Filter 1A	(Code Case N-491) Exam Category F-A Item No. F01.040.035 Fig. IWF-1300-1(a) Limited Coverage of the IWF-Support Examination Boundary-C	See Paragraph "A"	See Paragraph "B"	See Paragraph "C"	See Paragraph "D"
2-LDFTR-2A	High Pressure Injection System Component Support for Letdown Filter 2A	(Code Case N-491) Exam Category F-A Item No. F01.040.028 To be examined during EOC 20 in May of 2004				
3-LDFTR-3A	High Pressure Injection System Component Support for Letdown Filter 3A	(Code Case N-491) Exam Category F-A Item No. F01.040.038 To be examined during EOC 21 in October of 2004				

See Attachment A for a drawing on F01040 support area/weld locations.
See Attachment B for inspection data on the Unit 1 item listed in the above table for this Relief Request.
Note: Item for Unit 1 in this relief request was inspected during October of 2003.

IV. Basis for Relief

Paragraph A: (The support leg brackets are SA 476 Type 304 material, the threaded half couplings are SA 182 F 304 material, and the support legs are SA 106 Gr. B material.
During the remote visual examination of the Letdown Filter Housing support (Item F01.040.035), the examination was limited because portions of the support were covered by insulation and the inspection was performed using a camera mounted to an extendable boom which limited viewing portions of the inspection area. The room could not be entered into by personnel to inspect or remove the insulation due to it being in a highly contaminated area and it is also an area that may have asbestos concerns. RP states that the most recent encounter with insulation in this area resulted in airborne activity measuring 19.6 DAC (beta /gamma) and 130 DAC (alpha). It would take considerable effort of changing the installed filters and decon efforts to get the whole body exposure rates to a manageable range (100 mr/hr general area).

The following is an estimate that shows 1.050 rem for the total dose that would be received to perform an examination that allows you to inspect 100% of the required examination area:

Clean room and establish asbestos abatement controls 10 hours X 50 mr/hr = 500 mrem
Install Shielding 1 hour X 200 mr/hr = 200 mrem
Strip Insulation .5 hour X 100 mr/hr = 50 mrem,
Perform inspection .5 hour X 100 mr/hr = 50 merm
Remove shielding .5 hr X 100 mr/hr = 50 mrem
Install insulation 1 hour X 100 mr/hr = 100 mrem
Clear area 2 hours X 50 mr/hr = 100 mrem

The 1.050 rem would be the dose received to inspect the support for 1 unit. To inspect a support for each unit, it would take a total of 3.150 rem.

The dose received to perform the remote inspection that was performed by QC and civil engineering was 0 mrem. The dose (1.050 rem) that would be received to prepare the Letdown Filter Housing support so that 100% of the support could be examined would be a hardship for Duke Energy. There were no indications found that would cause the support to be inoperable, on the areas of the support that were examined.

For supports listed in the table above, all configurations, including interference, are the same for Units 1, 2, and 3. Therefore, all three units are being documented in this Relief Request as described in NRC Inspection Report No. 50-269/95-05, 50-270/95-05, 50-287/95-05 dated May 5, 1995. While only the Unit 1 examination has been completed at this time, approximately the same configuration and examination coverage is expected; therefore, relief is also being sought for the same supports in Units 2 and 3.

V. Alternate Examinations or Testing

Paragraph B:
The scheduled 10-year code examination was performed on the referenced area/support and it resulted in the noted limited coverage of the required VT-3 examination surface. No additional examinations are planned for the area/support during the current inspection interval.

VI. Justification for Granting Relief

Paragraph C:
Visual (VT-3) examination of the Letdown Filter 1A Housing support for the item number F01.040 was conducted using personnel, qualified in accordance with paragraph IWA-2300 of the 1989 Edition with no addenda, ASME Section XI Code. The examination procedure was demonstrated using the remote camera equipment and the 1/32 inch black line on an 18% neutral gray card. Although 100% of the required examination surfaces could not be examined, the amount of surface that was examined and the Engineering Evaluation (Attachment B, Page 6 of 6) of the visual examination results provides an acceptable level of quality and integrity.

In addition to the F01.040 support that relief is being requested for required due to examination surfaces that could not be inspected, there was a remote visual examination of accessible surfaces on the Letdown Filter1B housing support. The examinations performed by civil engineering and QC didn't identify any indications that would raise concern about the structural integrity of the support. The inspection on the 1B letdown Filter housing was not a required exam (Note 3 of Table -2500-1 in Code Case N-491 states that in cases where there are multiple components within a system of similar design, function and service, the support of only one of the multiple components are required to be examined.) but was performed to see if the 1B support would be more accessible. The examination coverage is about the same for Letdown Filter 1A Housing support as it is for the 1B Letdown Filter housing support.

The letdown filter housings are located in a room that is normally inaccessible and are not routinely visually inspected. There is a floor drain in the room where the letdown filter housings are located as well as in the adjacent room where the letdown storage tank is located. (Note the letdown filter room and letdown storage tank room are interconnected by pipe sleeves that pass through the wall between the two rooms.) Any water that goes into these floor drains ends up in the low activity waste tank. The low activity waste tank is pumped to a waste tank in rad waste and the level in these tanks is monitored to identify when there appears to be excessive waste. Through this monitoring, leaks from the letdown filter housing and associated pipe would be identified.

In addition to the monitoring of the waste tank level, there are local radiation monitors which would detect Xenon gas from a leak at the letdown filters. Also since the letdown filters are directly connected to the reactor coolant system (RCS), leakage at the filter housings would be seen as RCS leakage during the RCS leakage calculation, which is run once each shift. In the control room there is a continuous indication of the level of the letdown storage tank; a decreasing level in this tank would be an indicator of a RCS leak, the source of which would have to be identified.

The combination of these leakage detection systems would provide adequate assurance that if a leak was to develop it would be detected in a timely manner.

Duke Energy has examined the support referenced in this request to the maximum extent possible utilizing the latest in examination techniques and equipment. The Letdown Filter Housing and support identified in this request was built and inspected in accordance to the 1968 ASME Section III Construction Code and verified to be free from unacceptable fabrication defects. Based on the inspections during construction and the coverage and results of the required visual VT-3 exams this outage, it is Duke's belief that this examination provides a reasonable assurance of component integrity.

VII. Implementation Schedule

Paragraph D
The scheduled third 10-year interval plan code examination for Unit 1 was performed on the referenced area/support resulting in limited inspection of the required surfaces of the support being examined. The Unit 2 and Unit 3 supports are scheduled to be examined during the spring and fall outages of 2004. No additional examinations are planned for the supports during the current inspection interval. The same area/support may be examined again as part of the next (fourth) 10-year interval plan, depending on the applicable code year edition and addenda requirements adopted in the future.

VIII. Other Information

The following individuals contributed to the development of this relief request:

James J. McArdle (NDE Level III Examiner) provided Sections II through V and part of Section VI.

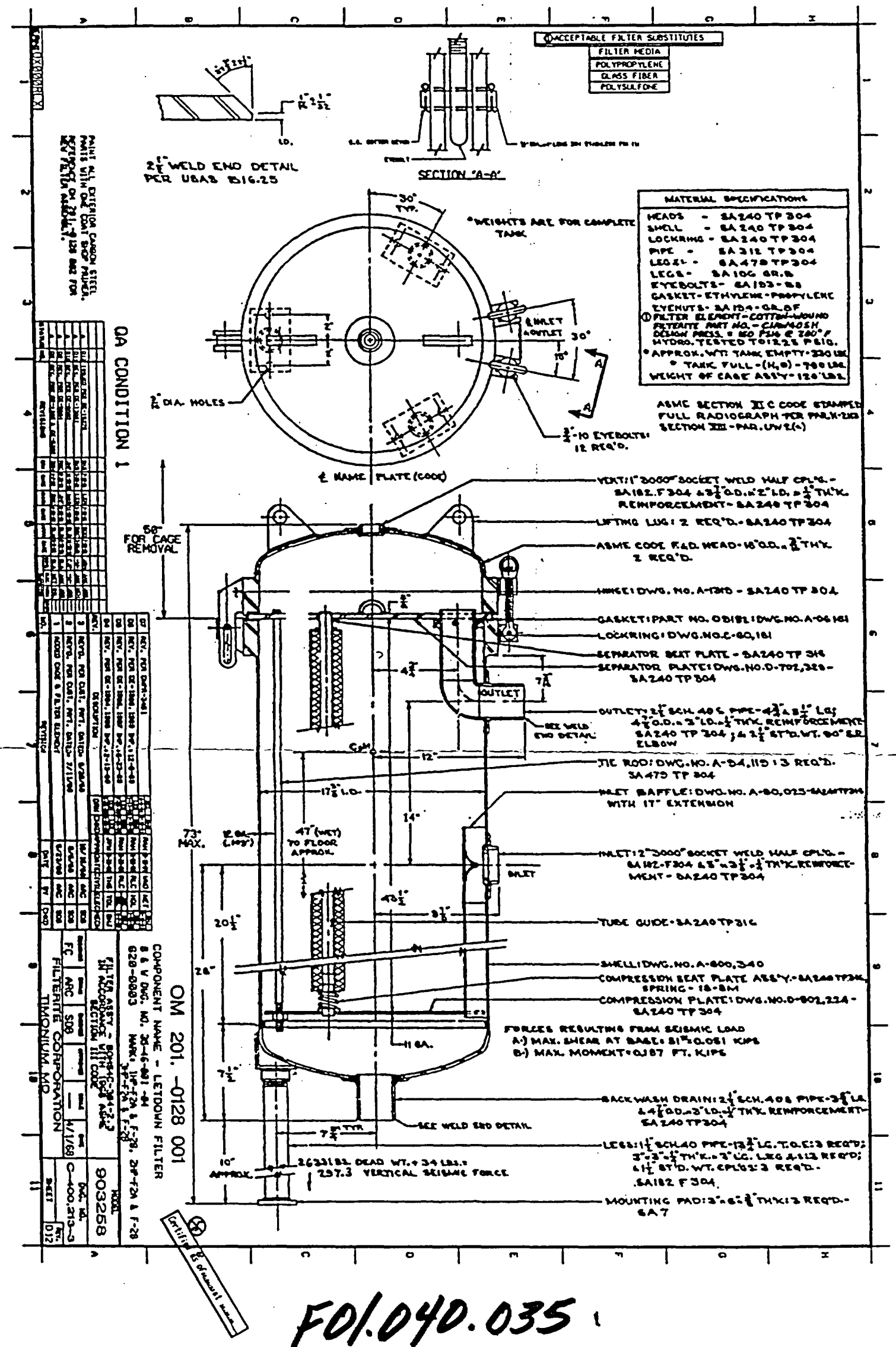
B. W. Carney, Jr. (Oconee Engineering) provided part of Section VI.

Larry C. Keith (Oconee ISI Plan Manager) compiled the remaining sections.

Sponsored By: Larry C. Keith **Date** 4-13-04

Approved By: R. Kevin Rhyne **Date** 4/13/04

ATTachMeNT "A"



FO1.040.035 1
1-LDFTR-1A

98579823

Attachment B
Page 1 of 6

QAL-14
Form QAL-14A
Revision 14

PAGE 1 OF 2
PROJECT Oconee
UNIT 1

DUKE POWER COMPANY

ISI VISUAL EXAMINATION VT-3 HANGERS

☐ PSI ☒ ISI

W.O. # / NSM	98579823	PROCEDURE QAL-14 N/A 2-9-4	REV. 25

INSPECTOR	LEVEL	DATE	VISUAL METHOD: ☒ DIRECT ☑ REMOTE
PS Eberhart	II	10-15-3	VISUAL AIDS / M&TE SN: REMOTE CAMERA FLASHLIGHT
			SYSTEM STATUS: ☐ HOT ☑ COLD ☐ OTHER (EXPLAIN IN COMMENTS)

S/R NUMBER	REV.	I.D. NUMBER	ACTUAL SYSTEM TEMPERATURE
1A LETDOWN FILTER SUPPORT		1-LDFTR-1A	N/A

RESULTS: ☐ ACCEPTABLE ☐ UNACCEPTABLE, (REQUIRES NDE, EVALUATION OR REPAIR)
☑ (OPTIONAL) SEE ENGINEERING JUSTIFICATION ATTACHED

IND. NO.	INDICATION TYPE	LENGTH	WIDTH	REMARKS
				SEE PAGE 2 OF 2

MECHANICAL SHOCK SUPPRESSOR	A	B	LIMIT STOP	A	B
HOT SETTING	N/A	N/A	ACTUAL TRAVEL (COMP/TENSION)	N/A	N/A
COLD SETTING	N/A	N/A	HYDRAULIC SHOCK SUPPRESSOR	A	B
ACTUAL PISTON SETTING	N/A	N/A	FLUID LEVEL	N/A	N/A
VARIABLE SPRING SUPPORTS	A	B	HOT SETTING	N/A	N/A
HOT LOAD	N/A	N/A	COLD SETTING	N/A	N/A
COLD LOAD	N/A	N/A	ACTUAL PISTON SETTING	N/A	N/A
LOAD IND. READING	N/A	N/A			
CONSTANT SUPPORT	A	B			
HOT LOAD	N/A	N/A			
COLD LOAD	N/A	N/A			
POSITION IND. READING	N/A	N/A			
TOTAL NO. OF DIV. SCALE	N/A	N/A			

COMMENTS/DISPOSITION
(OPTIONAL) SKETCH/DRAWING ATTACHED ☒ N/A PSE 10-15-3
Letdown Filter 1A
Class B.

PIP: ☐ YES ☑ NO SERIAL NO. N/A

FINAL REVIEW	DATE	ANII REVIEW	DATE
T. R. Clemson	12-18-03	[signature]	12/18/03

ITEM NUMBER F01.040.035

REVIEWED
Initial ☐ Final ☒
ANII Date 3/4/4
HSBCT

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TIMM121                    TASK COMPLETION COMMENTS                  02/09/04 10:35
____ Help   Data   Print   Roadmap   Exit

W/O Task : 98579823 01    Task Status: COMPLETE      Status Date    : 10/21/03
Title    : PERFORM VT-3 EXAM ON ITEM F01.040.035___  Resp. Facility: ON
Facility : ON     Unit: 1_            UTC          : _____________
Equipment: ___ __ _________           Mfr. Code    : _____________
Component: ___ __ _________           Model No.    : ____________________
Work Item: MSC ISIINSPECTIONS_____    Serial No.:  ____________________
Plan Dur. Change: N_  Delays/Barriers: N_  Plan Improvement: N_  PJA Comments -
================================================================================
Last Update By: PSE1290_                    Last Update Date: 02/09/04
09/25/03 11:33:14: H. MORGAN GRANTED CLEARANCE TO BEGIN WORK._____ HWM7312_
10/15/3 VT-3 PERFORMED -- ACCESS IS LIMITED AS IS VISIBILITY. CAMERA_ PSE1290_
WAS USED WITH ONBOARD LIGHTING AND ZOOM. FILTER IS INSULATED. LOWER_ PSE1290_
PART OF LEGS, BASEPLATES AND ANCHORS WERE VISIBLE. NO DETRIMENTAL____ PSE1290_
INDICATIONS WERE NOTED. THIS WAS A LIMITED INSPECTION PERFORMED WITH_ PSE1290_
CIVIL ENGINEERING PRESENT AND LOOKING AT COLOR MONITOR. PSE1290/TAH66 PSE1290_
95 CREW 261_____ PSE1290_
18% NEUTRAL GREY CARD TESTED WITH CAMERA LIGHT IN RP OFFICE WITH_____ PSE1290_
REDUCED OFFICE LIGHTING TO SIMULATE ACTUAL CONDITIONS AT THE_____ PSE1290_
                                                          More:   +
RECORD COMPLETION COMMENTS, F9 TO STEP THROUGH TASK COMPLETION PANELS
F1=Help  F4=Prompt  F6=Refresh  F7=Bkwd  F8=Fwd  F10=Perform Msg  F12=Cancel
4-©              1 Sess-3    162.113.67.5              NTCPNBJE          2/2
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TIMM121                    TASK COMPLETION COMMENTS                  02/09/04 10:35
____ Help   Data   Print   Roadmap   Exit

W/O Task : 98579823 01    Task Status: COMPLETE      Status Date    : 10/21/03
Title    : PERFORM VT-3 EXAM ON ITEM F01.040.035___  Resp. Facility: ON
Facility : ON     Unit: 1_            UTC          : _____________
Equipment: ___ __ ________            Mfr. Code    : _____________
Component: ___ __ ________            Model No.    : _____________________
Work Item: MSC ISIINSPECTIONS_____    Serial No.   : _____________________
Plan Dur. Change: N_  Delays/Barriers: N_  Plan Improvement: N_  PJA Comments -
================================================================================
Last Update By: PSE1290_                  Last Update Date: 02/09/04
FILTER PSE1290 CREW 261_____________________________________________ PSE1290_
_____________________________________________________________________ ________
_____________________________________________________________________ ________
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                                                                  More:  -
RECORD COMPLETION COMMENTS, F9 TO STEP THROUGH TASK COMPLETION PANELS
F1=Help  F4=Prompt  F6=Refresh  F7=Bkwd  F8=Fwd  F10=Perform Msg  F12=Cancel
4-©              1 Sess-3    162.113.67.5              NTCPNBJE          2/2
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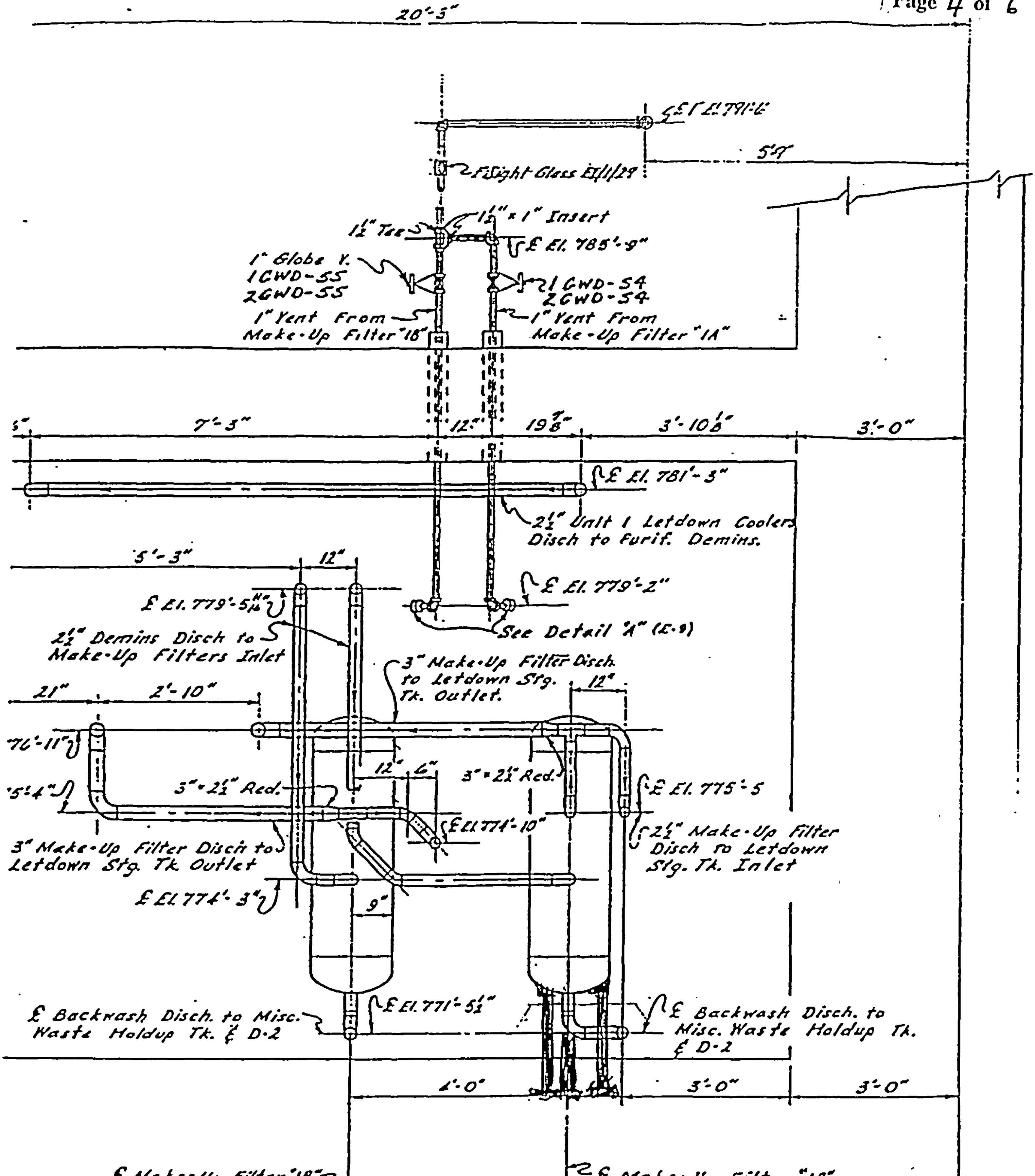
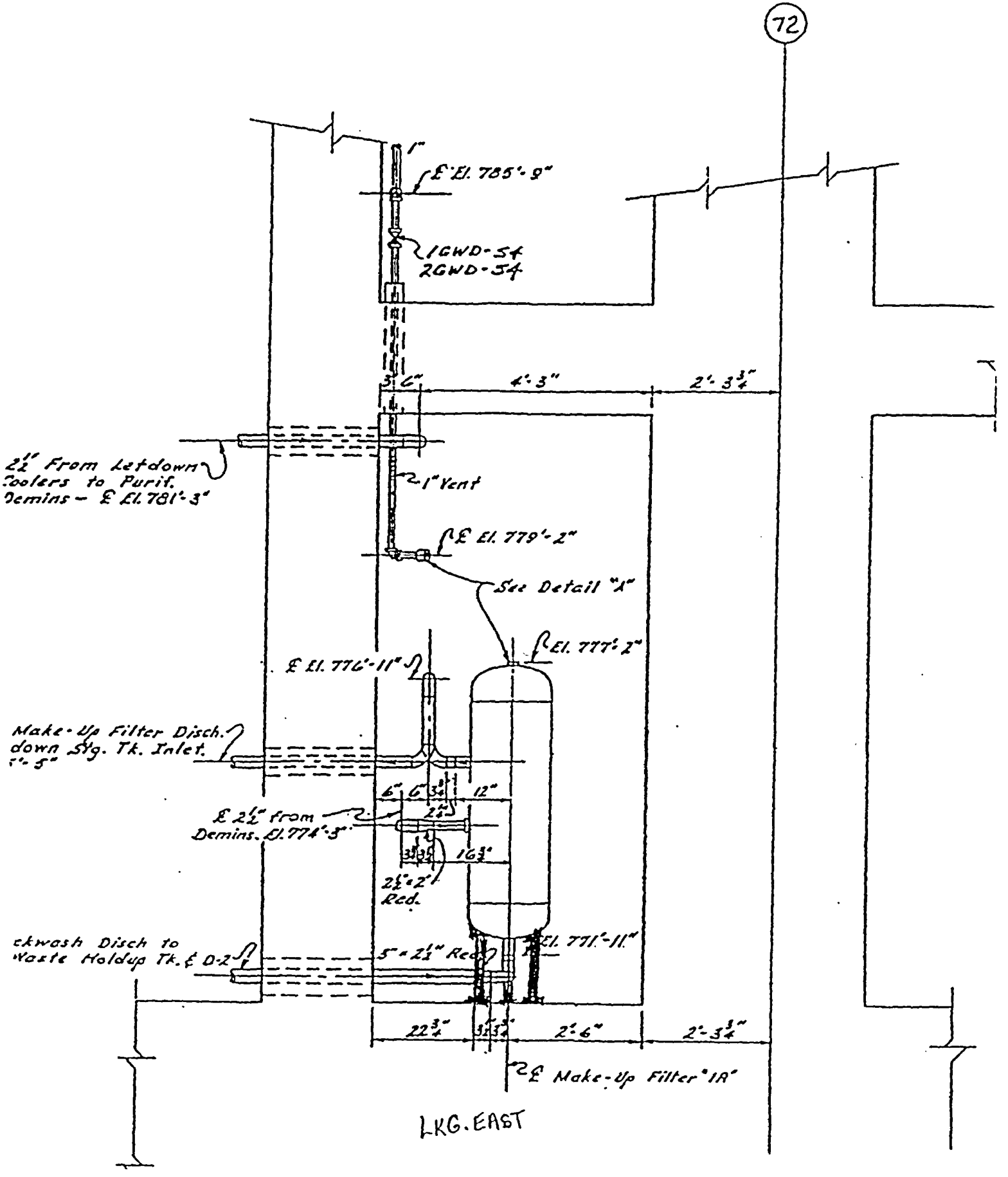


THIS VIEW IS
LKG. SOUTH

CAMERA LOWERED FROM HATCH ABOVE - INSULATION COVERED PART OF ANGLES TO TANK — LEGS SOUTHEAST, NORTH, WEST LEGS VISIBLE - BASEPLATES PARTIALLY VISIBLE - EVERYTHING WE SAW LOOKED GOOD -


72
1"
℄ El. 785'-9"
1GWD-54
2GWD-54
3" 6"
4'-3"
2'-3¾"
2½" From Letdown Coolers to Purif. Demins – ℄ El. 781'-3"
2-1" Vent
℄ El. 779'-2"
See Detail "A"
El. 777'-2"
℄ El. 776'-11"
Make-Up Filter Disch. down Stg. Tk. Inlet 5'-5"
6" 6" 3" 12"
℄ 2½" from Demins. El. 774'-3"
3" 16¾"
2½"-2" Red.
El. 771'-11"
ckwash Disch to Waste Holdup Tk. ℄ D-2
5"-2½" Red.
22¾" 3" 3" 2'-6" 2'-3¾"
2℄ Make-Up Filter "1A"
LKG. EAST

Attachment to Form QAL-14A

Support No. 1-LDFLTR-1A-HOUSING SUPPORT
QA Item No. F01.040.035

Civil Engineering Comments/Disposition:

Civil Engineering evaluated the support posts and their anchorage for 1A & 1B Letdown Filter Housing for the reported discrepancies per acceptance requirements of Code Case N-491, section 3122.3. The conclusions and recommendations are as follows:

Indication #1:

"Using a RP camera mounted on an extendable boom, VT-3 of the support posts and their anchorage for 1A & 1B Letdown Filter Housing was performed. The filter housing is insulated, covering parts of the legs under the housing. With lighting on the camera, QC was able to see a portion of the legs and the base plates/anchors. There has been some leakage in the past during filter changes. This has caused some surface rust but not bad enough to have buckled paint. This is a limited inspection. However, QC feels that the overall condition of the support is good."

Civil engineering also observed/inspected the support posts and their anchorage for 1A & 1B Letdown Filter Housing along with the QC inspectors in aux. bldg. unit-1. Since the filter housing is insulated covering parts of the legs under the housing, some visibility of the support legs and the anchorage is restricted due to limited access. Based on what was seen during inspection using the RP camera with lighting mounted on an extendable boom, the support legs, base plates and anchor bolts do not appear to have any degradation or damage that could raise a concern about its structural integrity besides some minor surface rust as reported. However, a Request For Relief for 1A & 1B Letdown Filter Housing needs to be processed since the complete inspection can not be performed.

Originated By: H. B. Patel / H.B. Patel Date: 12/17/2003

Checked By: PGW Date: 12/18/03