Survey Unit Release Record				
Design #	EP-1.51-4	**Revision #**	Original	**Page 1 of 3**
Survey Unit #(s)	1.51-4			
Description	1) Embedded Pipe (EP) Survey Unit 1.51-4 meets the definition of embedded pipe for Plum Brook Reactor Facility (PBRF). 2) EP 1.51-4 is a Class 1, Group 1 survey unit as per the PBRF Final Status Survey Plan (FSSP) and Technical Basis Document (TBD)-06-004. 3) Surveys in EP 1.51-4 were performed using a scintillation detector optimized to measure gamma energies representative of Co-60. Sample #EP 3-9 from Survey Request (SR)-13 was referenced for this decision. 4) Survey Instructions for this survey unit are incorporated into and performed in accordance with (IAW) the Babcock Services Incorporated (BSI)/LVS-002, Work Execution Package (WEP) 05-006. Survey instructions described in this document constitute "Special Methods" and the survey design used in the acquisition of survey measurements. 5) Instrument efficiency determinations are developed in accordance with the BSI/LVS-002, WEP 05-006, these determinations are appropriate for the types of radiation involved and the media being surveyed.			

Approval Signatures		**Date:**
FSS/Characterization Engineer	Oal Rutledge	12-3-07
Technical Reviewer (FSS/Characterization Engineer)	G Wood	12-5-07
FSS/Characterization Manager	R. Case	12/10/07

1.0 History/Description

1.1 The subject pipe system is a 4” drain line that is part of the drain system for the annulus on the -25’ elevation of the Reactor Building.

1.2 EP 1.51-4 is approximately 72 feet in length.

2.0 Survey Design Information

2.1 EP 1.51-4 was surveyed IAW Procedure #BSI/LVS-002.

2.2 100% of the 4” ID pipe was accessible for survey. The accessible 4” ID pipe was surveyed by static measurement at one foot increments, for a total of 72 survey measurements.

2.3 Surface area for the 4” ID piping is 973 cm^2 for each foot of piping, corresponding to a total 4” ID piping surface area of 70,047 cm^2 (7.0 m^2) for the entire accessible length of (72’) of 4” piping.

3.0 Survey Unit Measurement Locations/Data

3.1 Pipe interior radiological survey forms are provided in Attachment 2 of this release record.

4.0 Survey Unit Investigations/Results

4.1 None

5.0 Data Assessment Results

5.1 Data assessment results are provided in the EP/Buried Pipe (BP) Survey Report provided in Attachment 1.

5.2 All measurement results are less than the Derived Concentration Guideline Level (DCGL) for radionuclide specific EP that corresponds to the 1 mrem/yr dose goal established in Table 3-3 of the FSSP.

5.3 When implementing the Unity Rule, provided in Section 3.6.3 of the FSSP, and applying the Nuclide Fraction (NF), provided in TBD-06-004, the survey unit that is constituted by EP 1.51-4 passes FSS.

5.4 Background was not subtracted from the survey measurements and the Elevated Measurement Comparison (EMC) was not employed for the accessible portion of this survey unit.

Statistical Summary Table

Statistical Parameter	4” Pipe
Total Number of Survey Measurements	72
Number of Measurements >MDC	62
Number of Measurements Above 50% of DCGL	0
Number of Measurements Above DCGL	0
Mean	0.0189
Median	0.0136
Standard Deviation	0.0138
Maximum	0.0790
Minimum	0.0059

6.0 Documentation of evaluations pertaining to compliance with the unrestricted use limit of 25 mrem/yr and dose contributions from Embedded Pipe and radionuclides contributing 10% in aggregate of the total dose for both structural scenarios and soils.

6.1 A review of the survey results has shown that the dose contribution for the accessible portion of EP 1.51-4 to be less than 1 mrem/yr. The dose contribution is estimated to be 0.019 mrem/yr based on the average of the actual gross counts.

7.0 Attachments

Attachment 1 – BSI EP/BP Survey Report
Attachment 2 -Pipe Interior Radiological Survey Form
Attachment 3 – DQA Worksheet
Attachment 4 –Disc containing RR for EP 1.51-4 & Spreadsheet

SECTION 7
ATTACHMENT 1
__4__ PAGE(S)

BSI EP/BP SURVEY REPORT

Pipe ID	**EP 1.51-4**	**Survey Location**	Annulus Floor Drain 25'
Survey Date	2/9/2006, 2/16/2006	**2350-1 #**	203488
Survey Time	09:30, 11:00, 08:40, 10:25	**Detector-Sled #**	1MG1 LVS-1 / 101
Pipe Size (in.)	4	**Detector Efficiency**	0.00052
DCGL (dpm/100cm2)	2.41E+05	Pipe Area Incorporated by Detector Efficiency (in cm2)	973
Pipe Area Incorporated by Survey Data (m^2)	7.0	**Field BKG** (cpm)	19.8, 21.5
Routine Survey	X	**Field MDCR** (cpm)	18.3, 18.9
QA Survey		**Nominal MDC** (dpm/100cm2)	1,557

Survey Measurement Results	
Total Number of Survey Measurements	72
Number of Measurements >MDC	62
Number of Measurements Above 50% DCGL	0
Number of Measurements Above DCGL	0
Mean	0.0189
Median	0.0136
Standard Deviation	0.0138
Maximum	0.0790
Minimum	0.0059

Survey Technician(s)	ROSENHAGEN

Survey Unit Classification	1
TBD 06-004 Piping Group	1
SR-13 Radionuclide Distribution Sample	EP 3-9
Measured Nuclide	Co-60
Area Factor/EMC Used	No
Pass/Fail FSS	Pass
MREM/YR Contribution	<1

COMMENTS:
ACTIVITY VALUES NOT BACKGROUND CORRECTED

RP Engineer | Date	Oel Rockell 12-3-07

EP 1.51-4
4" Pipe
TBD 06-004 Group 1

Measurement #	gcpm	ncpm	Co-60 activity (total dpm)	Co-60 activity (dpm/100cm2)	Cs-137 activity (dpm/100cm2)	Eu-152 activity (dpm/100cm2)	Eu-154 activity (dpm/100cm2)	Nb-94 activity (dpm/100cm2)	Ag-108m activity (dpm/100cm2)	Unity
1	29	29	55,769	5,732	227	5,438	1,446	167	40	0.034
2	20	20	38,462	3,953	157	3,750	997	115	28	0.024
3	17	17	32,692	3,360	133	3,188	847	98	23	0.020
4	21	21	40,385	4,151	165	3,938	1,047	121	29	0.025
5	21	21	40,385	4,151	165	3,938	1,047	121	29	0.025
6	18	18	34,615	3,558	141	3,375	897	104	25	0.021
7	12	12	23,077	2,372	94	2,250	598	69	17	0.014
8	15	15	28,846	2,965	118	2,813	748	87	21	0.018
9	23	23	44,231	4,546	180	4,313	1,146	133	32	0.027
10	18	18	34,615	3,558	141	3,375	897	104	25	0.021
11	10	10	19,231	1,977	78	1,875	498	58	14	0.012
12	11	11	21,154	2,174	86	2,063	548	63	15	0.013
13	9	9	17,308	1,779	71	1,688	449	52	12	0.011
14	7	7	13,462	1,384	55	1,313	349	40	10	0.008
15	8	8	15,385	1,581	63	1,500	399	46	11	0.009
16	6	6	11,538	1,186	47	1,125	299	35	8	0.007
17	5	5	9,615	988	39	938	249	29	7	0.006
18	11	11	21,154	2,174	86	2,063	548	63	15	0.013
19	9	9	17,308	1,779	71	1,688	449	52	12	0.011
20	9	9	17,308	1,779	71	1,688	449	52	12	0.011
21	10	10	19,231	1,977	78	1,875	498	58	14	0.012
22	6	6	11,538	1,186	47	1,125	299	35	8	0.007
23	11	11	21,154	2,174	86	2,063	548	63	15	0.013
24	11	11	21,154	2,174	86	2,063	548	63	15	0.013
25	11	11	21,154	2,174	86	2,063	548	63	15	0.013
26	17	17	32,692	3,360	133	3,188	847	98	23	0.020
27	15	15	28,846	2,965	118	2,813	748	87	21	0.018
28	11	11	21,154	2,174	86	2,063	548	63	15	0.013
29	13	13	25,000	2,570	102	2,438	648	75	18	0.015
30	12	12	23,077	2,372	94	2,250	598	69	17	0.014
31	6	6	11,538	1,186	47	1,125	299	35	8	0.007

EP 1.51-4
4" Pipe
TBD 06-004 Group 1

Measurement #	gcpm	ncpm	Co-60 activity (total dpm)	Co-60 activity (dpm/100cm2)	Cs-137 activity (dpm/100cm2)	Eu-152 activity (dpm/100cm2)	Eu-154 activity (dpm/100cm2)	Nb-94 activity (dpm/100cm2)	Ag-108m activity (dpm/100cm2)	Unity
32	12	12	23,077	2,372	94	2,250	598	69	17	0.014
33	7	7	13,462	1,384	55	1,313	349	40	10	0.008
34	6	6	11,538	1,186	47	1,125	299	35	8	0.007
35	12	12	23,077	2,372	94	2,250	598	69	17	0.014
36	10	10	19,231	1,977	78	1,875	498	58	14	0.012
37	10	10	19,231	1,977	78	1,875	498	58	14	0.012
38	9	9	17,308	1,779	71	1,688	449	52	12	0.011
39	9	9	17,308	1,779	71	1,688	449	52	12	0.011
40	12	12	23,077	2,372	94	2,250	598	69	17	0.014
41	13	13	25,000	2,570	102	2,438	648	75	18	0.015
42	7	7	13,462	1,384	55	1,313	349	40	10	0.008
43	10	10	19,231	1,977	78	1,875	498	58	14	0.012
44	11	11	21,154	2,174	86	2,063	548	63	15	0.013
45	18	18	34,615	3,558	141	3,375	897	104	25	0.021
46	8	8	15,385	1,581	63	1,500	399	46	11	0.009
47	13	13	25,000	2,570	102	2,438	648	75	18	0.015
48	11	11	21,154	2,174	86	2,063	548	63	15	0.013
49	14	14	26,923	2,767	110	2,625	698	81	19	0.017
50	14	14	26,923	2,767	110	2,625	698	81	19	0.017
51	24	24	46,154	4,744	188	4,500	1,196	138	33	0.028
52	27	27	51,923	5,337	212	5,063	1,346	156	37	0.032
53	34	34	65,385	6,721	266	6,375	1,695	196	47	0.040
54	67	67	128,846	13,244	525	12,563	3,340	386	92	0.079
55	52	52	100,000	10,279	407	9,751	2,592	300	72	0.061
56	53	53	101,923	10,476	415	9,938	2,642	306	73	0.062
57	30	30	57,692	5,930	235	5,625	1,495	173	41	0.035
58	34	34	65,385	6,721	266	6,375	1,695	196	47	0.040
59	29	29	55,769	5,732	227	5,438	1,446	167	40	0.034
60	24	24	46,154	4,744	188	4,500	1,196	138	33	0.028
61	36	36	69,231	7,116	282	6,750	1,795	208	50	0.042
62	29	29	55,769	5,732	227	5,438	1,446	167	40	0.034

EP 1.51-4
4" Pipe
TBD 06-004 Group 1

Measurement #	gcpm	ncpm	Co-60 activity (total dpm)	Co-60 activity (dpm/100cm2)	Cs-137 activity (dpm/100cm2)	Eu-152 activity (dpm/100cm2)	Eu-154 activity (dpm/100cm2)	Nb-94 activity (dpm/100cm2)	Ag-108m activity (dpm/100cm2)	Unity
63	30	30	57,692	5,930	235	5,625	1,495	173	41	0.035
64	8	8	15,385	1,581	63	1,500	399	46	11	0.009
65	7	7	13,462	1,384	55	1,313	349	40	10	0.008
66	8	8	15,385	1,581	63	1,500	399	46	11	0.009
67	6	6	11,538	1,186	47	1,125	299	35	8	0.007
68	12	12	23,077	2,372	94	2,250	598	69	17	0.014
69	10	10	19,231	1,977	78	1,875	498	58	14	0.012
70	11	11	21,154	2,174	86	2,063	548	63	15	0.013
71	8	8	15,385	1,581	63	1,500	399	46	11	0.009
72	8	8	15,385	1,581	63	1,500	399	46	11	0.009
									MEAN	0.019
									MEDIAN	0.014
									STD DEV	0.014
									MAX	0.079
									MIN	0.006

SECTION 7
ATTACHMENT 2
__12__ PAGE(S)

Pipe Interior Radiological Survey Form

Date: 2-9-06 Time: 0930

Pipe ID#: 1.51-1 in PIT TO 1.51-A-1 Pipe Diameter: 4" Access Point Area: -25 ANNULUS

Building: REACTOR Elevation: -25 System: ANNULUS to DRAIN

Type of Survey Investigation ____ Characterization ____ Final Survey X Other ✓

Gross ____ Co60 ✓ Cs ____

Detector ID# / Sled ID# BICRON/M61 / LVS-1 / 101

Detector Cal Date: 20-DEC-05 Detector Cal Due Date: 20-DEC-06

Instrument: 2350-1 Instrument ID #: 203488

Instrument Cal Date: 17-NOV-05 Instrument Cal Due Date: 17-NOV-06

From the Daily Pipe Survey Detector Control Form for the Selected Detector

Background Value 19.8 cpm

$MDCR_{static}$ 18.3 cpm

Efficiency Factor for Pipe Diameter 0.00052 (from detector efficiency determination)

MDC_{static} 1551 dpm/ 100 cm^2

Is the MDC_{static} acceptable? (Yes) No (if no, adjust sample count time and recalculate $MDCR_{static}$)

Comments: CONTINUATION SURVEY

Technician Signature [signature]

Pipe Interior Radiological Survey

Position #	Feet into Pipe from Opening	Count Time (min)	Gross Counts	Gross cpm	Net cpm	dpm/100cm²
1	1	1	29	29	n/a	n/a
2	2	↓	20	20	↓	↓
3	3	↓	17	17	↓	↓
4	4	↓	21	21	↓	↓
5	5	↓	21	21	↓	↓
6	6	↓	18	18	↓	↓
7	7	↓	12	12	↓	↓
8	8	↓	15	15	↓	↓
9	9	↓	23	23	↓	↓
10	10	↓	18	18	↓	↓

Package Page 1 of 3

Pipe Interior Radiological Survey Form (Continuation Form)

Date: 2-9-06
Pipe ID#: 1-ST-1 INSPECTION 1-ST-A-1 Pipe Diameter: 4" Access Point Area: -25 ANNULUS
Building: REACTOR Elevation: -25 System: ANNULUS FL. DRAIN

Position #	Feet into Pipe from Opening	Count Time (min)	Gross Counts	Gross cpm	Net cpm	dpm/100cm^2
11	11	1	10	10	N/a	N/a
12	12	1	11	11		
13	13	1	9	9		

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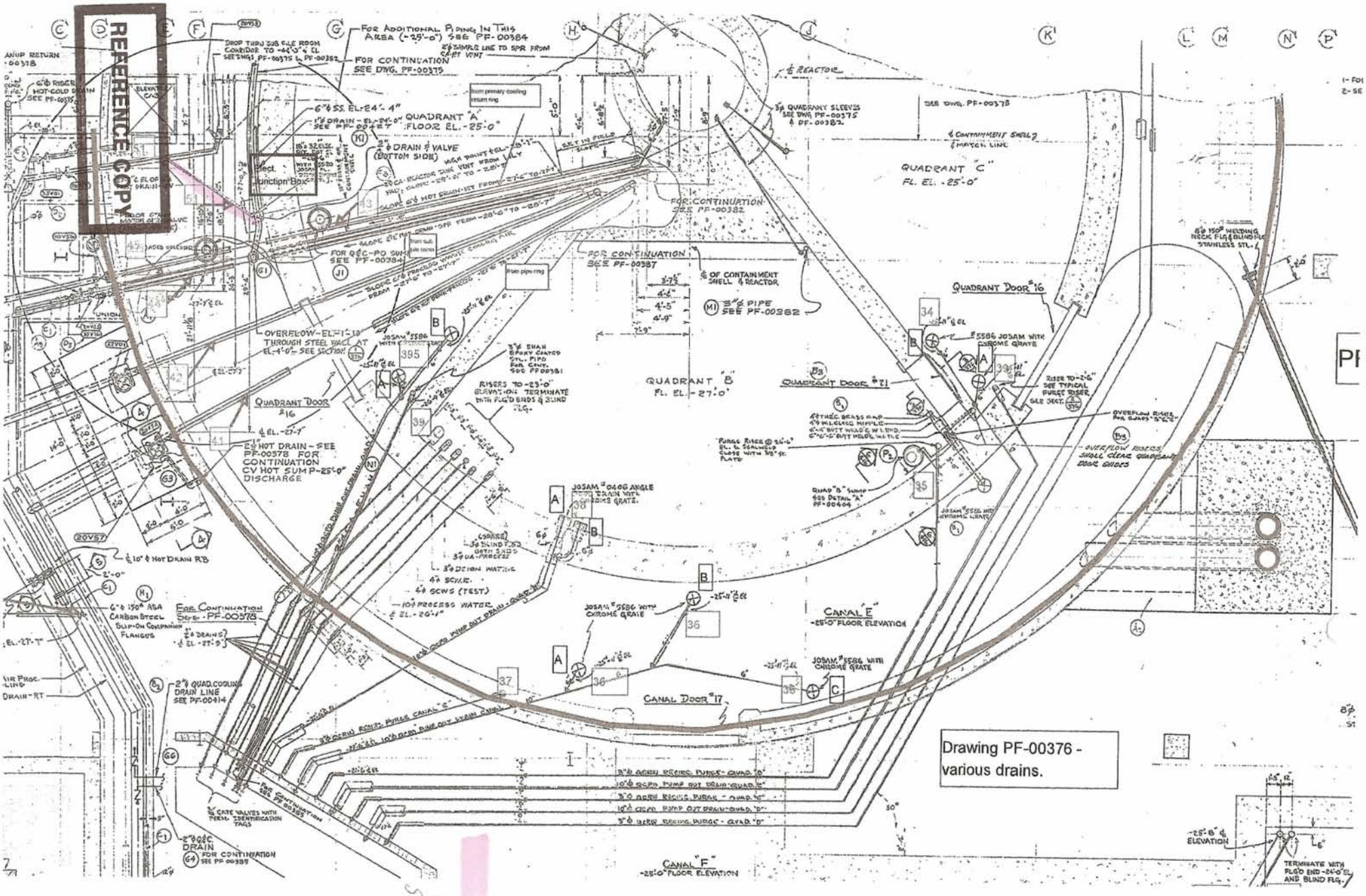

Pipe Scavenged

Pipe Interior Radiological Survey Form

Date: 7-9-06 Time: 1100

Pipe ID#: -1.51 DRAIN D.T. 1.51D TO 1.51-D-1 Pipe Diameter: 4" Access Point Area: -25 ANNULUS

Building: REACTOR Elevation: -25 System: ANNULUS FL. DRAIN

Type of Survey Investigation _____ Characterization _____ Final Survey X Other ✓

Gross _____ Co60 ✓ BICRON 1461 Cs _____

Detector ID# / Sled ID# LVS-1 / 212701 / 101

Detector Cal Date: 20-DEC-05 Detector Cal Due Date: 20-DEC-06

Instrument: 2350-1 Instrument ID #: 203488

Instrument Cal Date: 17-NOV-05 Instrument Cal Due Date: 17-NOV-06

From the Daily Pipe Survey Detector Control Form for the Selected Detector

Background Value 19.8 cpm

$MDCR_{static}$ 18.3 cpm

Efficiency Factor for Pipe Diameter 0.00052 (from detector efficiency determination)

MDC_{static} 1557 dpm/ 100 cm^2

Is the MDC_{static} acceptable? (Yes) No (if no, adjust sample count time and recalculate $MDCR_{static}$)

Comments: CONTINUATION SURVEY

Technician Signature [signature]

Pipe Interior Radiological Survey

Position #	Feet into Pipe from Opening	Count Time (min)	Gross Counts	Gross cpm	Net cpm	dpm/100cm²
1	1	1	7	7	N/A	N/A
2	2	↓	8	8	↓	↓
3	3	↓	6	6	↓	↓
4	4	↓	5	5	↓	↓
5	5	↓	11	11	↓	↓
6	6	↓	9	9	↓	↓
7	7	↓	9	9	↓	↓
8	8	↓	10	10	↓	↓
9	9	↓	6	6	↓	↓
10	10	↓	11	11	↓	↓

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REFERENCE COPY

Pipe Interior Radiological Survey Form (Continuation Form)

Date: 2-9-06
Pipe ID#: (-5) DRAIN POINT 1.5) TO 1.5)-D-1 Pipe Diameter: 4'' Access Point Area: -25 ANNULUS
Building: REACTOR Elevation: -25 System: ANNULUS FL. DR.

Position #	Feet into Pipe from Opening	Count Time (min)	Gross Counts	Gross cpm	Net cpm	dpm/100cm^2
11	11	1	11	11	n/a	n/a

n/a

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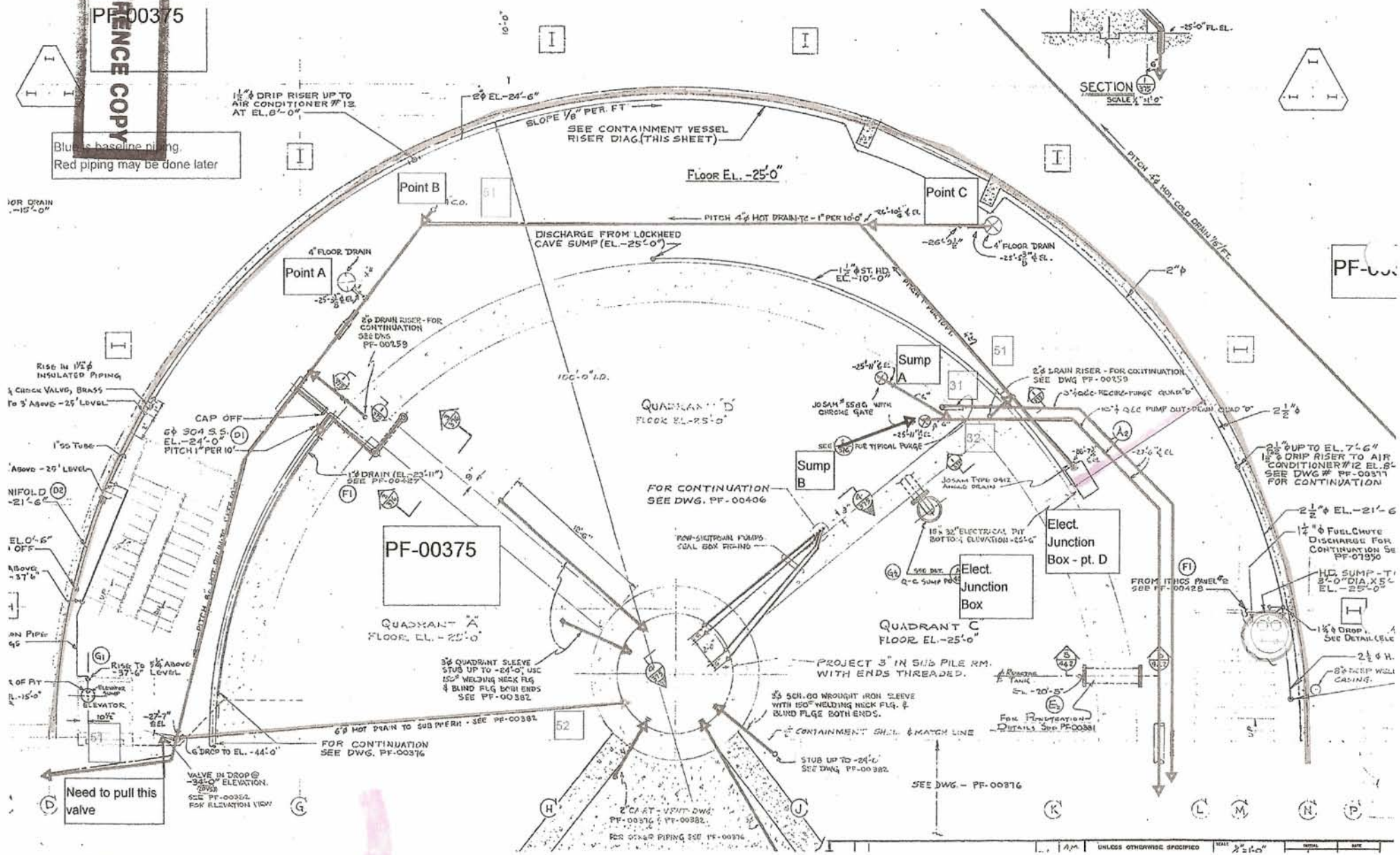
PF-00375

Blue is baseline piping.
Red piping may be done later



Pipe Interior Radiological Survey Form

Date: 2-16-06 Time: 0840

Pipe ID#: 151 Pipe Diameter: 4" Access Point Area: CORE BORE ANNULUS TO SEC BOX

Building: RX Elevation: -25 System: FLOOR DRAIN

Type of Survey Investigation ____ Characterization ____ Final Survey X Other X

Gross ____ Co60 ✓ Cs ____

Detector ID# / Sled ID# BICRON /M61 / LVS-1 - 101

Detector Cal Date: 12-20-05 Detector Cal Due Date: 1220-06

Instrument: 2350-1 Instrument ID #: 203488

Instrument Cal Date: 11-17-05 Instrument Cal Due Date: 11-17-06

From the Daily Pipe Survey Detector Control Form for the Selected Detector

Background Value 21.5 cpm

$MDCR_{static}$ 18.9 cpm

Efficiency Factor for Pipe Diameter 0.00052 (from detector efficiency determination)

MDC_{static} 1557 dpm/ 100 cm^2

Is the MDC_{static} acceptable? (Yes) No (if no, adjust sample count time and recalculate $MDCR_{static}$)

Comments: CONTINUATION SURVEY

Technician Signature

Pipe Interior Radiological Survey

Position #	Feet into Pipe from Opening	Count Time (min)	Gross Counts	Gross cpm	Net cpm	dpm/100cm²
1	1	1	11	n/a	n/a	n/a
2	2	1	17	↓	↓	↓
3	3	1	15	↓	↓	↓
4	4	1	11	↓	↓	↓
5	5	1	13	↓	↓	↓
6	6	1	12	↓	↓	↓
7	7	1	6	↓	↓	↓
8	8	1	12	↓	↓	↓
9	9	1	7	↓	↓	↓
10	10	1	6	↓	↓	↓

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Pipe Interior Radiological Survey Form (Continuation Form)

Date: 2-16-06
Pipe ID#: 1.51 Pipe Diameter: 0840 Access Point Area: CORE BORE TO ELEC BOX ANNULUS
Building: RX Elevation: -25 System: FLOOR DRAIN

Position #	Feet into Pipe from Opening	Count Time (min)	Gross Counts	Gross cpm	Net cpm	dpm/100cm^2
11	11	1	12	n/a	n/a	n/a
12	12	1	10			
13	13	1	10			
14	14	1	9			
15	15	1	9			
16	16	1	12			
17	17	1	13			
18	18	1	7			
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REFERENCE COPY

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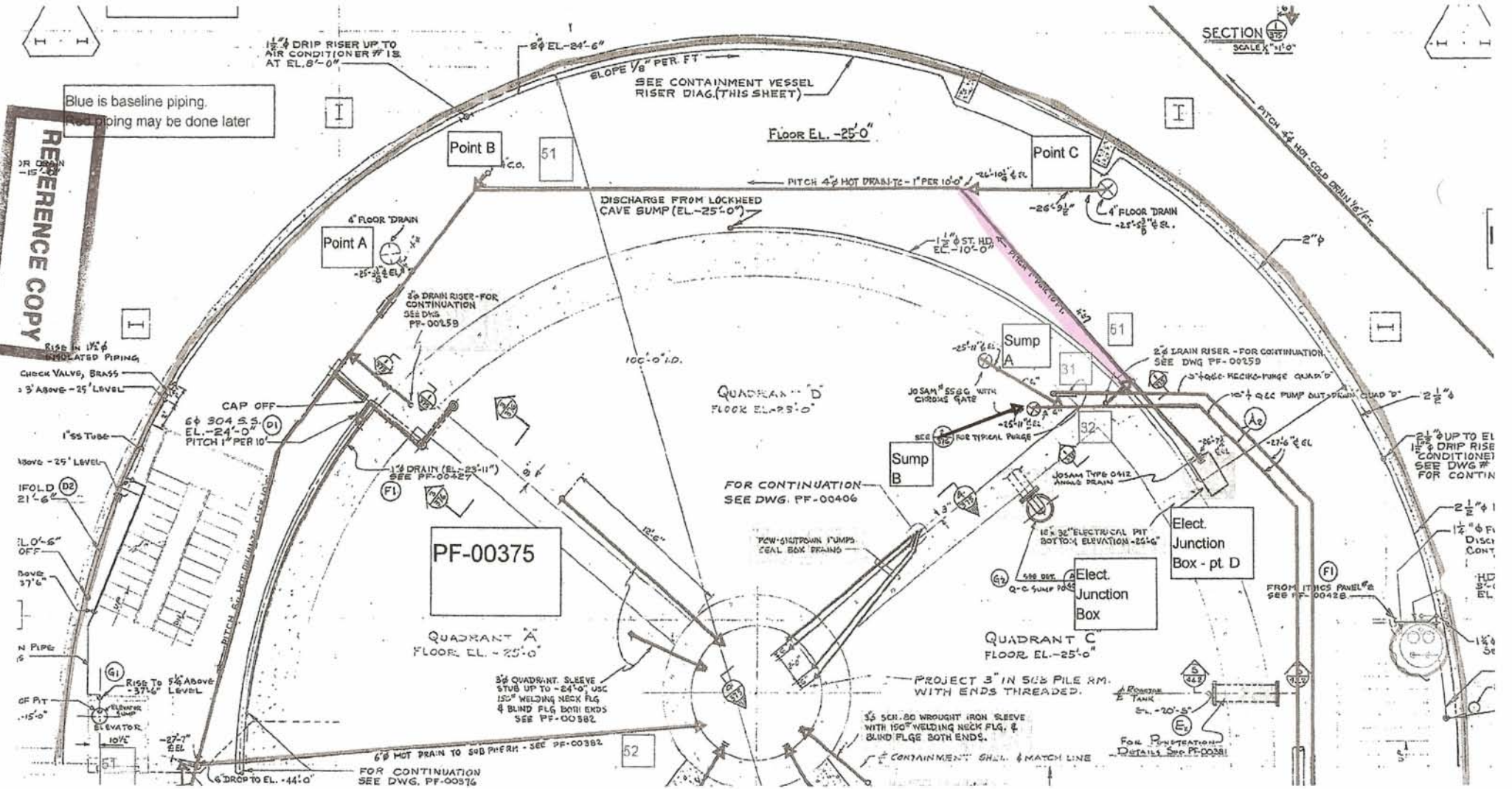
= Pipe Surveyed
1.51



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Pipe Interior Radiological Survey Form

Date: 2-16-06 Time: 1025

Pipe ID#: 1.51 Pipe Diameter: 4" Access Point Area: CORE BORE ANNULUS

Building: RX Elevation: -25 System: ANNULUS FLOOR DRAIN

Type of Survey Investigation ____ Characterization ____ Final Survey X Other ✓

Gross ____ Co60 ✓ Cs ____

Detector ID# / Sled ID# BICRON/MGI-LVS-1 / 101

Detector Cal Date: 12-20-05 Detector Cal Due Date: 12-20-06

Instrument: 2350-1 Instrument ID #: 203488

Instrument Cal Date: 11-17-05 Instrument Cal Due Date: 11-17-06

From the Daily Pipe Survey Detector Control Form for the Selected Detector

Background Value 21.5 cpm

$MDCR_{static}$ 18.9 cpm

Efficiency Factor for Pipe Diameter 0.00052 (from detector efficiency determination)

MDC_{static} 1557 dpm/ 100 cm^2

Is the MDC_{static} acceptable? (Yes) No (if no, adjust sample count time and recalculate $MDCR_{static}$)

Comments: CONTINUATION - POS # 1 SURVEYED FROM CORE BORE TO REDUCER

Technician Signature [signature]

Pipe Interior Radiological Survey

Position #	Feet into Pipe from Opening	Count Time (min)	Gross Counts	Gross cpm	Net cpm	dpm/100cm²
1	38	1	10	n/a	n/a	n/a
2	39	1	11	↓	↓	↓
3	40	1	18	↓	↓	↓
4	41	1	8	↓	↓	↓
5	42	1	13	↓	↓	↓
6	43	1	11	↓	↓	↓
7	44	1	14	↓	↓	↓
8	45	1	14	↓	↓	↓
9	46	1	24	↓	↓	↓
10	47	1	27	↓	↓	↓

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REFERENCE COPY

Pipe Interior Radiological Survey Form (Continuation Form)

Date: 2-16-06
Pipe ID#: 1.51 Pipe Diameter: 4" Access Point Area: CORE BORE ANNULUS
Building: RX Elevation: -25 System: FLOOR DRAIN

Position #	Feet into Pipe from Opening	Count Time (min)	Gross Counts	Gross cpm	Net cpm	dpm/100cm^2
11	48	1	34	N/A	N/A	N/A
12	49	1	67			
13	50	1	52			
14	51	1	53			
15	52	1	30			
16	53	1	34			
17	54	1	29			
18	55	1	24			
19	56	1	36			
20	57	1	29			
21	58	1	30			
22	59	1	8			
23	60	1	7			
24	61	1	8			
25	62	1	6			
26	63	1	12			
27	64	1	10			
28	65	1	11			
29	66	1	8			
30	67	1	8			

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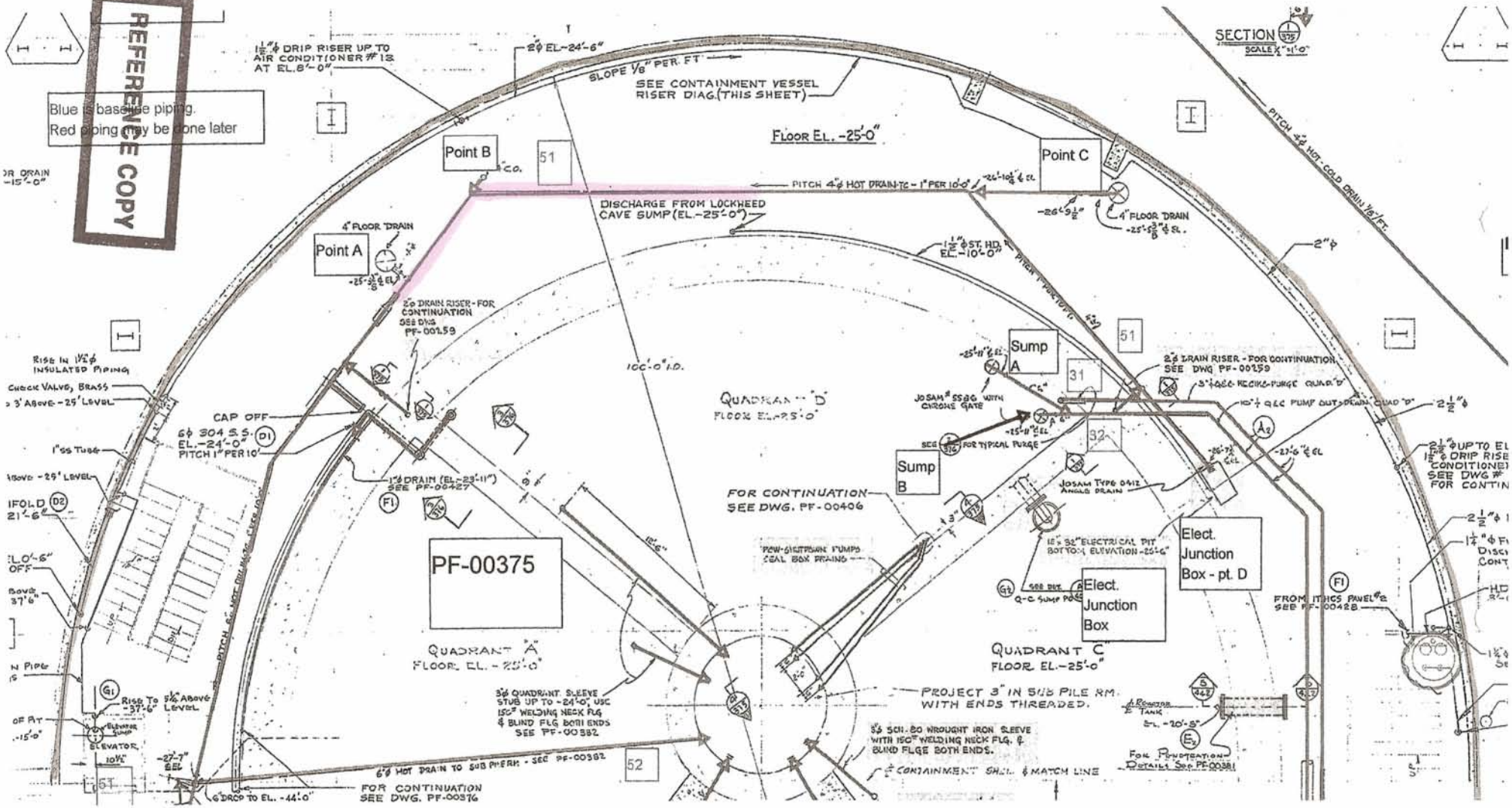
= pipe surveyed
1.51



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SECTION 7
ATTACHMENT 3
___1___ PAGE(S)

DQA Check Sheet				
Design #	EP 1.51-4	Revision #	Original	
Survey Unit #	EP 1.5-4			

Preliminary Data Review			
Answers to the following questions should be fully documented in the Survey Unit Release Record	Yes	No	N/A
1. Have surveys been performed in accordance with survey instructions in the Survey Design?	X		
2. Is the instrumentation MDC for structure static measurements below the $DCGL_W$ for Class 1 and 2 survey units, or below 0.5 $DCGL_W$ for Class 3 survey units?			X
3. Is the instrumentation MDC for embedded/buried piping static measurements below the $DCGL_W$?	X		
4. Was the instrumentation MDC for structure scan measurements, soil scan measurements, and embedded/buried piping scan measurements below the $DCGL_W$, or, if not, was the need for additional static measurements or soil samples addressed in the survey design?			X
5. Was the instrumentation MDC for volumetric measurements and smear analysis < 10% $DCGL_W$?			X
6. Were the MDCs and assumptions used to develop them appropriate for the instruments and techniques used to perform the survey?	X		
7. Were the survey methods used to collect data proper for the types of radiation involved and for the media being surveyed?	X		
8. Were "Special Methods" for data collection properly applied for the survey unit under review?	X		
9. Is the data set comprised of qualified measurement results collected in accordance with the survey design, which accurately reflects the radiological status of the facility?	x		
Graphical Data Review			
1. Has a posting plot been created?			X
2. Has a histogram (or other frequency plot) been created?			X
3. Have other graphical data tools been created to assist in analyzing the data?			X
Data Analysis			
1. Are all sample measurements below the $DCGL_W$ (Class 1 & 2), or 0.5 $DCGL_W$ (Class 3)?	X		
2. Is the mean of the sample data < $DCGL_W$?	X		
3. If elevated areas have been identified by scans and/or sampling, is the average activity in each elevated area < $DCGL_{EMC}$ (Class 1), < $DCGL_W$ (Class 2), or <0.5 $DCGL_W$ (Class 3)?			X
4. Is the result of the Elevated Measurements Test < 1.0?			X
5. Is the result of the statistical test (***S+*** for Sign Test or W_r for WRS Test) ≥ the critical value?			X

Comments:

FSS/Characterization Engineer (print/sign)	Dale Randall / Dale Randall	Date	12-3-07
FSS/ Characterization Manager (print/sign)	R. Case	Date	12/10/07

Form CS-09/2 Rev 0

SECTION 7
ATTACHMENT 4
1 DISC