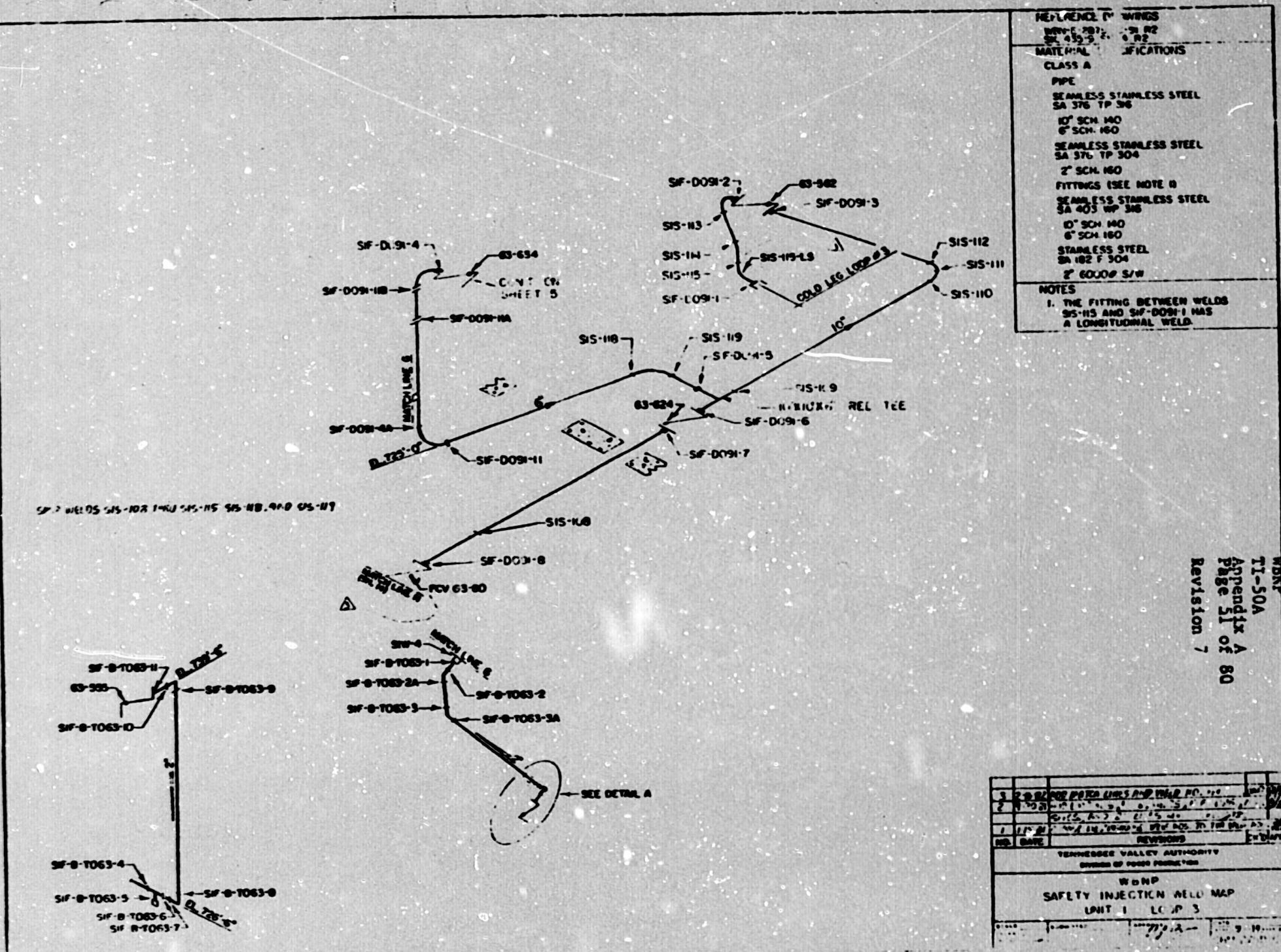

WBNP
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Revision 7

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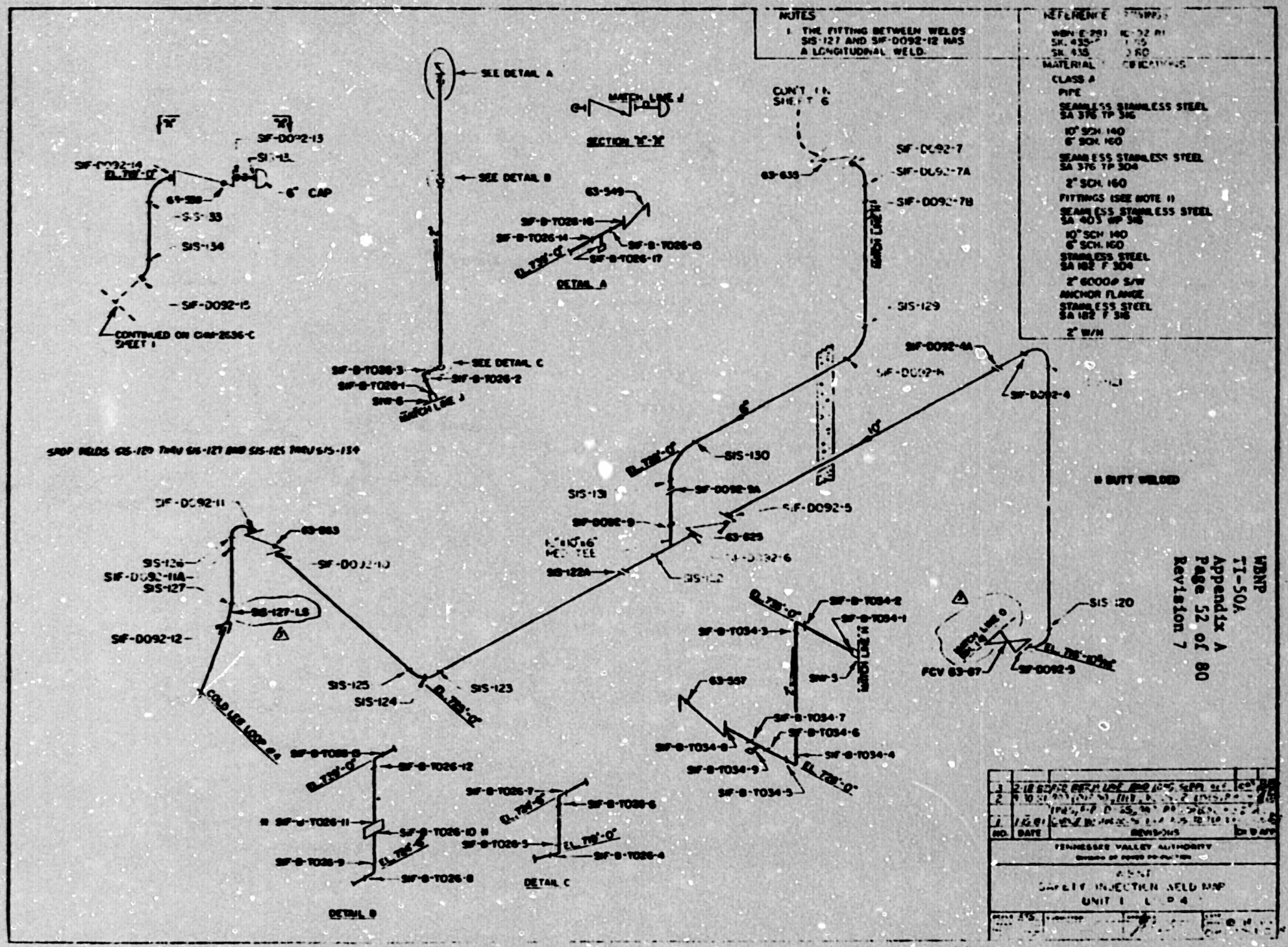
NOTES
1. THE FITTING BETWEEN WELDS SIS-127 AND SIF-D092-12 HAS A LONGITUDINAL WELD.
MATERIAL
CLASS A
PIPE
SEAMLESS STAINLESS STEEL SA 376 TP 316
10" SCH 140
6" SCH 160
SEAMLESS STAINLESS STEEL SA 376 TP 304
2" SCH 160
FITTINGS (SEE NOTE 1)
SEAMLESS STAINLESS STEEL SA 403 WP 316
10" SCH 140
6" SCH 160
STAINLESS STEEL SA 182 F 304
2" 6000# S/W
ANCHOR FLANGE
STAINLESS STEEL SA 182 F 316
2" W/N
SEE DETAIL A
SEE DETAIL B
SEE DETAIL C
SECTION "X-X"
DETAIL A
DETAIL B
DETAIL C
MATCH LINE J
CONTINUED ON DWG 2836-C SHEET 1
CONT'D FR. SHEET 6
SIF-D092-7
SIF-D092-7A
SIF-D092-7B
SIF-D092-4A
SIF-D092-4
SIF-D092-5
SIF-D092-6
SIF-D092-9A
SIF-D092-9
SIF-D092-10
SIF-D092-11
SIF-D092-11A
SIF-D092-12
SIF-D092-13
SIF-D092-14
SIF-D092-15
SIS-120
SIS-121
SIS-122A
SIS-123
SIS-124
SIS-125
SIS-126
SIS-127
SIS-128
SIS-129
SIS-130
SIS-131
SIS-132
SIS-133
SIS-134
63-549
63-557
63-623
63-625
63-639
63-883
63-888
6" CAP
FCV 63-67
SIF-B-T026-1
SIF-B-T026-2
SIF-B-T026-3
SIF-B-T026-4
SIF-B-T026-5
SIF-B-T026-6
SIF-B-T026-7
SIF-B-T026-8
SIF-B-T026-9
SIF-B-T026-10
SIF-B-T026-11
SIF-B-T026-12
SIF-B-T026-14
SIF-B-T026-15
SIF-B-T026-16
SIF-B-T026-17
SIF-B-T034-1
SIF-B-T034-2
SIF-B-T034-3
SIF-B-T034-4
SIF-B-T034-5
SIF-B-T034-6
SIF-B-T034-7
SIF-B-T034-8
SIF-B-T034-9
SIF-B-T034-10
SIS-127-LS
SWP-3
EL. 736'-0"
EL. 736'-6"
EL. 736'-10 3/4"
COLD LEG LOOP #4
6" BUTT WELDED
STOP WELDS SIS-120 THRU SIS-127 AND SIS-125 THRU SIS-134
WBNP
TI-50A
Appendix A
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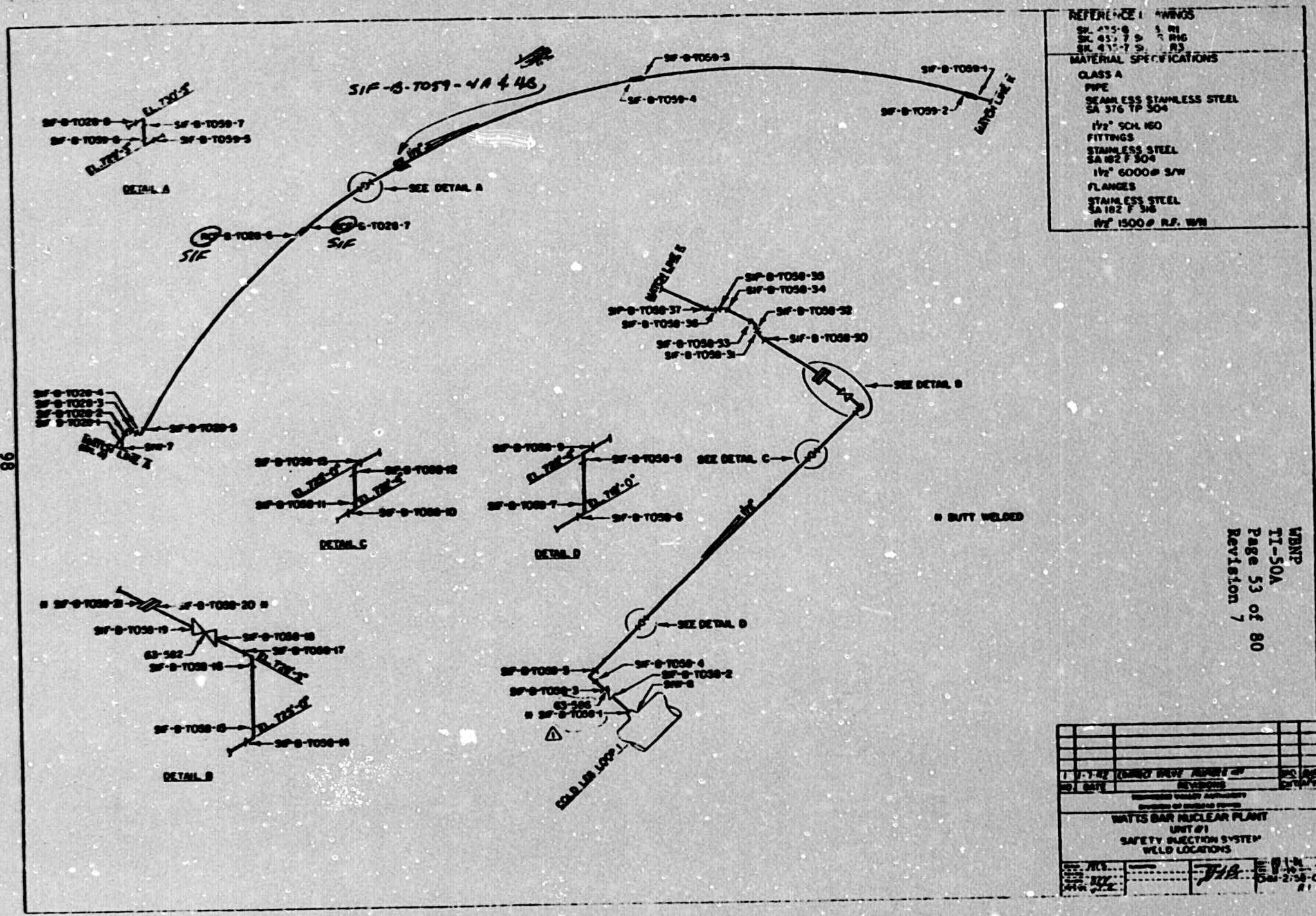
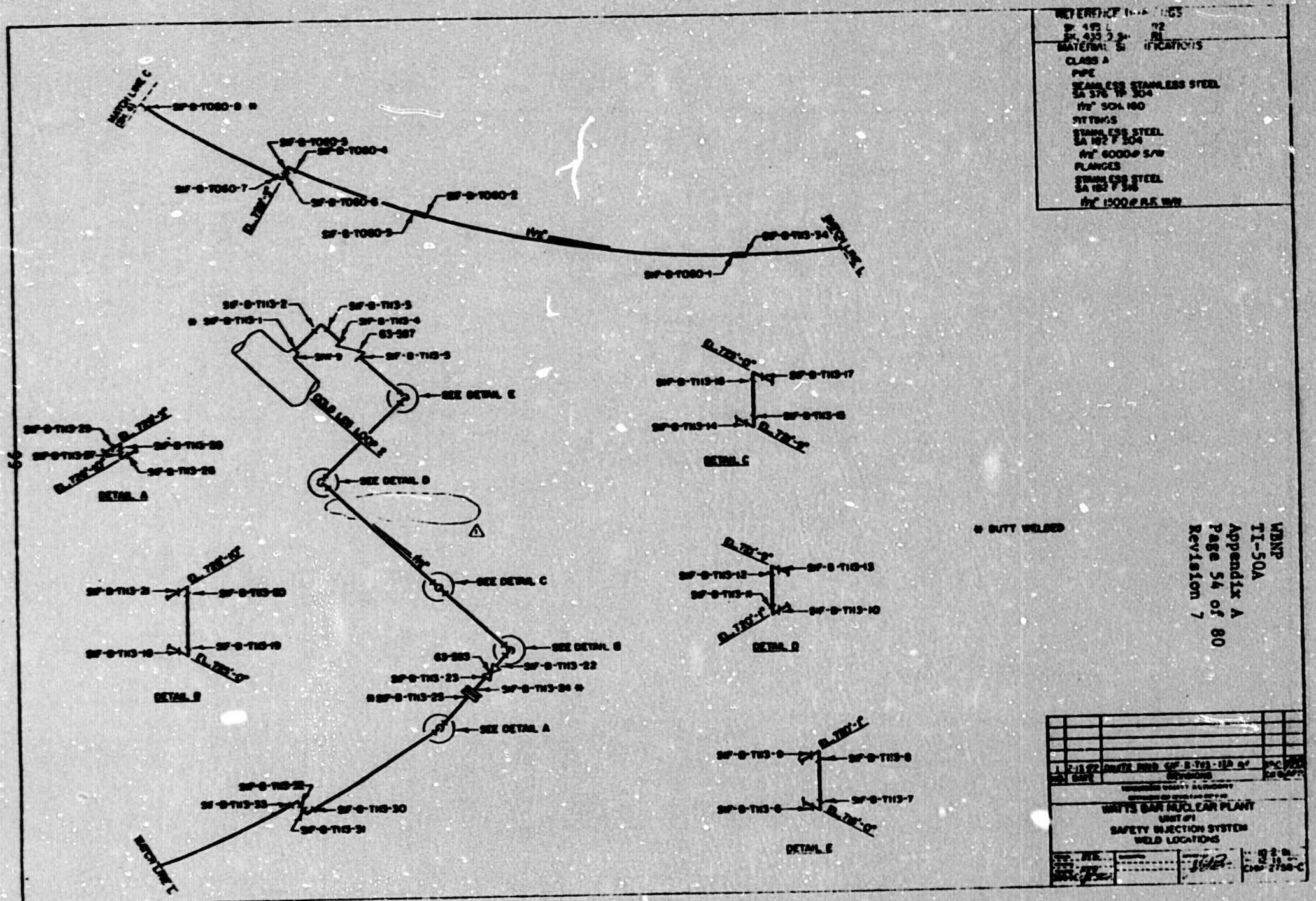
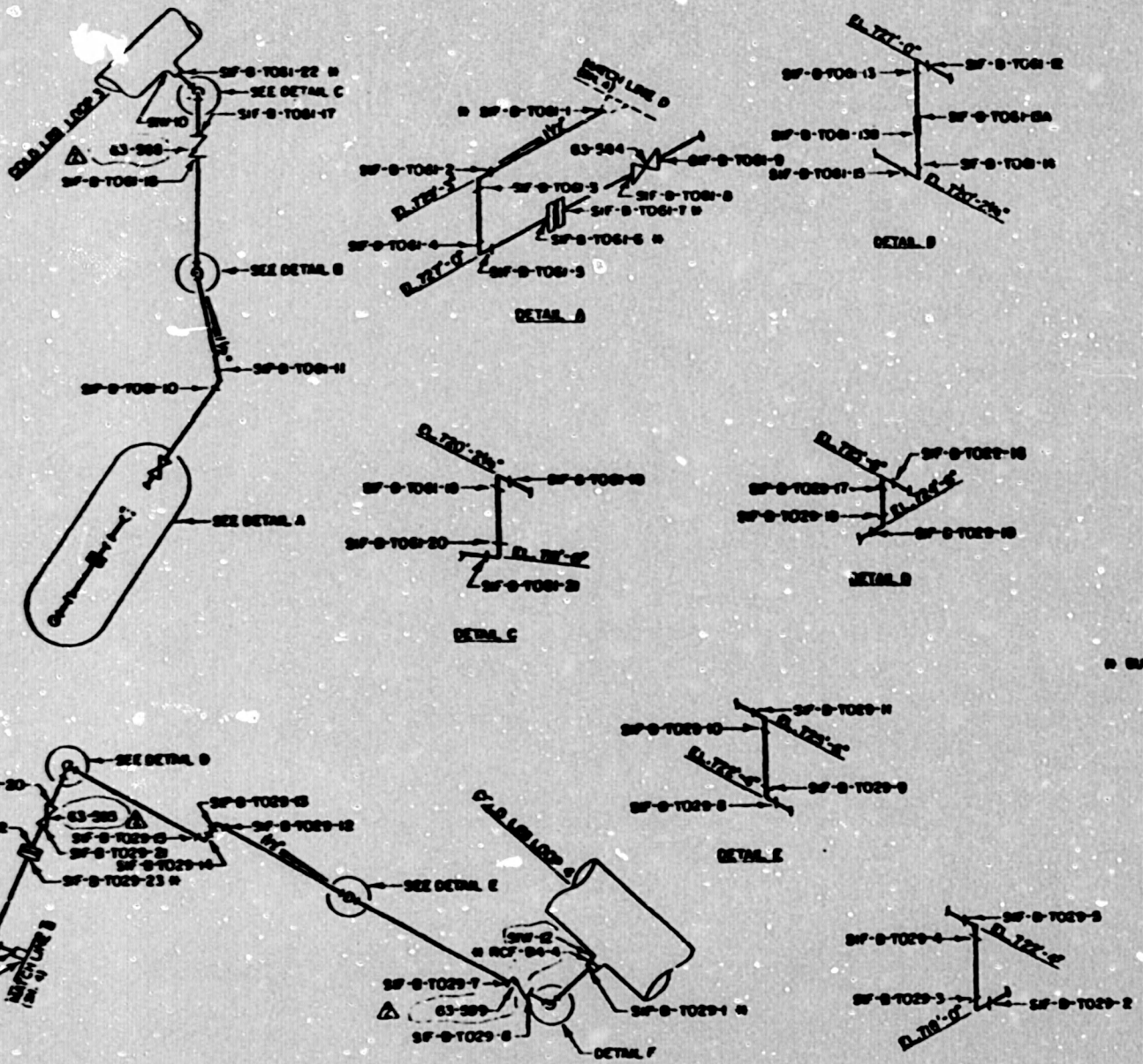
Revision 7
NO. DATE REVISIONS
TENNESSEE VALLEY AUTHORITY
UNIT 1 L P 4


REFERENCE DRAWINGS
MATERIAL SPECIFICATIONS
CLASS A
PIPE
SEAMLESS STAINLESS STEEL
SA 376 TP 304
1½" SCH 160
FITTINGS
STAINLESS STEEL
SA 182 F 304
1½" 6000# S/W
FLANGES
STAINLESS STEEL
SA 182 F 316
1½" 1500# R.F. W/N
SIF-S-T059-4A & 4B
SEE DETAIL A
SEE DETAIL B
SEE DETAIL C
SEE DETAIL D
DETAIL A
DETAIL B
DETAIL C
DETAIL D
BUTT WELDED
COLD LEG LOOP 1
WATTS BAR NUCLEAR PLANT
UNIT #1
SAFETY INJECTION SYSTEM
WELD LOCATIONS


MATERIAL SPECIFICATIONS
CLASS A
PIPE
SEAMLESS STAINLESS STEEL
SA 376 TP 304
1½" SCH. 160
FITTINGS
STAINLESS STEEL
SA 182 F 304
1½" 6000# S/W
FLANGES
STAINLESS STEEL
SA 182 F 316
1½" 1500# R.F. W/N
* BUTT WELDED
MATCH LINE C
MATCH LINE L
SIF-B-T060-8 *
SIF-B-T060-5
SIF-B-T060-4
SIF-B-T060-7
SIF-B-T060-6
SIF-B-T060-2
SIF-B-T060-3
SIF-B-T113-34
SIF-B-T060-1
SIF-B-T113-2
SIF-B-T113-3
SIF-B-T113-1
SIF-B-T113-4
63-587
SIF-B-T113-5
SEE DETAIL E
COLD LEG LOOP 2
SEE DETAIL D
SEE DETAIL C
SEE DETAIL B
63-583
SIF-B-T113-22
SIF-B-T113-23
SIF-B-T113-24 *
SIF-B-T113-25
SEE DETAIL A
SIF-B-T113-32
SIF-B-T113-33
SIF-B-T113-30
SIF-B-T113-31
DETAIL A
DETAIL B
DETAIL C
DETAIL D
DETAIL E
SIF-B-T113-17
SIF-B-T113-16
SIF-B-T113-15
SIF-B-T113-14
SIF-B-T113-13
SIF-B-T113-12
SIF-B-T113-11
SIF-B-T113-10
SIF-B-T113-9
SIF-B-T113-8
SIF-B-T113-7
SIF-B-T113-6
WATTS BAR NUCLEAR PLANT
UNIT #1
SAFETY INJECTION SYSTEM
WELD LOCATIONS



REFERENCE DRAWINGS
SK. 433-6 SH. 4 RI3
SK. 433-9 SH. 2 RII

MATERIAL SPECIFICATIONS
CLASS A
PIPE
SEAMLESS STAINLESS STEEL
SA 376 TP 304
1½" SCH. 160
FITTINGS
STAINLESS STEEL
SA 182 F 304
1½" 6000# S/W
FLANGES
STAINLESS STEEL
SA 182 F 316
1½" 1500# R.F. W/B

* Drawing Revision

B BUTT WELDED

WBNP
TI-50A
Appendix A
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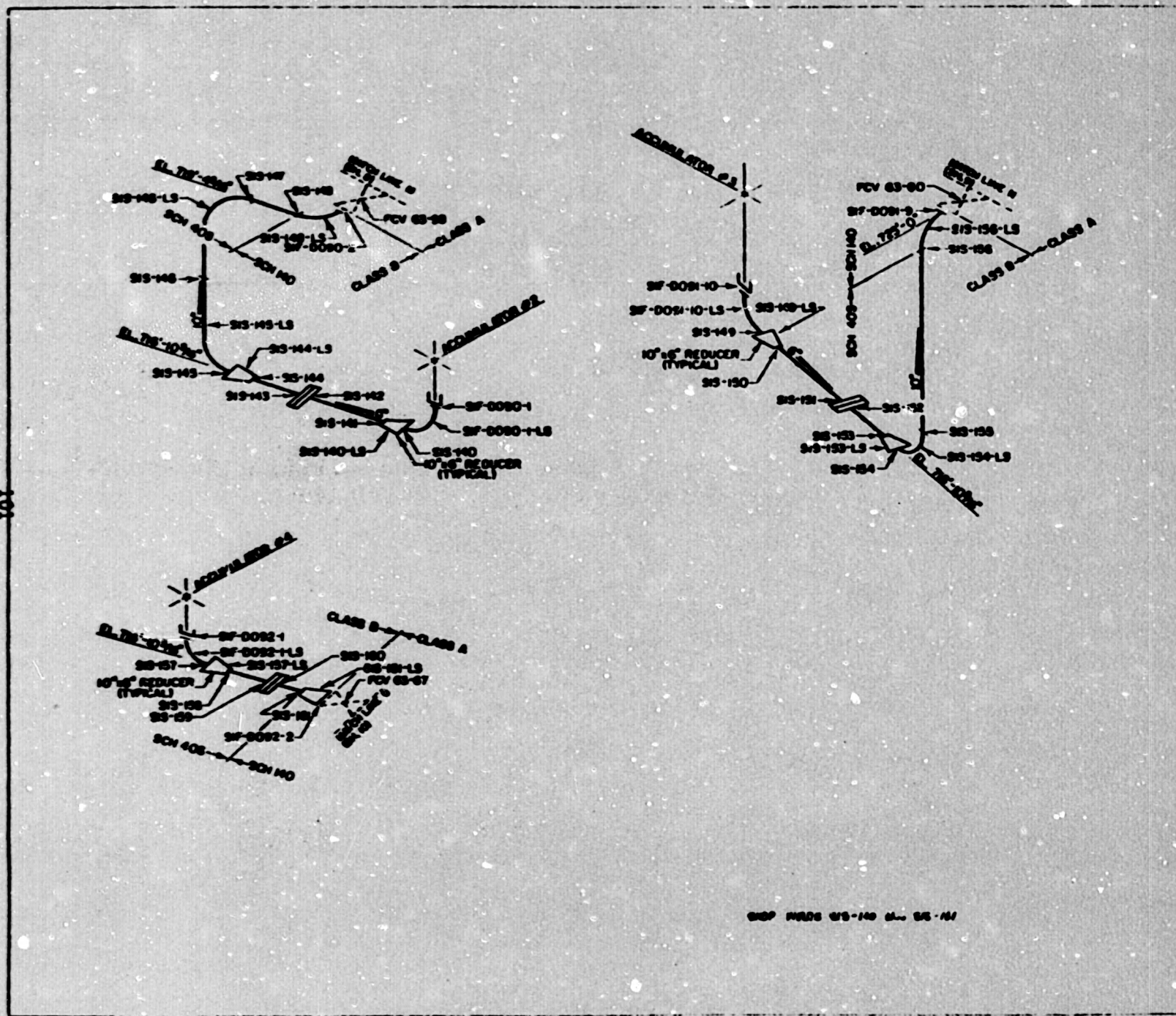
Revision 8

NO.	DATE	REVISIONS	BY	CHK'D	APP'D
2	2-2-82	CORRECT WELD AND GRADE MTL OF			
1	2-1-82	ADD WELD SF-S-T029-11			
		ADD WELD REF SK 4 REV			

TENNESSEE VALLEY AUTHORITY
DIVISION OF NUCLEAR POWER

WATTS BAR NUCLEAR PLANT
UNIT 01
SAFETY INJECTION SYSTEM
WELD LOCATIONS

SCALE: NTS
DATE: 10-8-81



REFERENCE [illegible]
WBN E-23[illegible]
WBN E-287 [illegible]-91
WBN E-2879 [illegible]-92

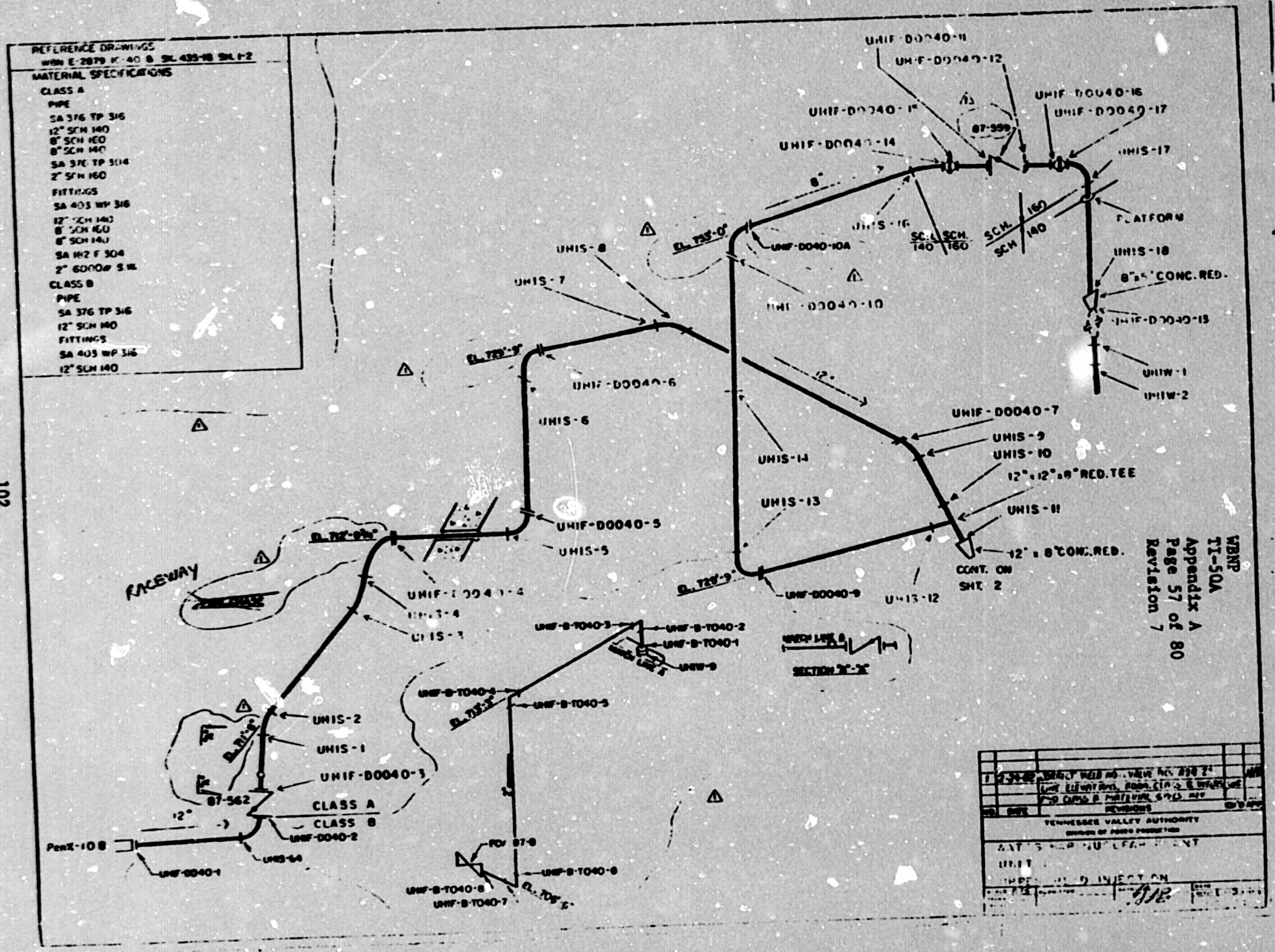
MATERIAL SPECIFICATIONS
CLASS B
PIPE
SA 312 TP 304
10" SCH 40S
6" SCH 40S
FITTINGS
SA 403 WP 304 WWO/S
10" SCH 140
10" SCH 40S
6" SCH 40S
FLANGES
SA 182 F 304
6" SCH 40S

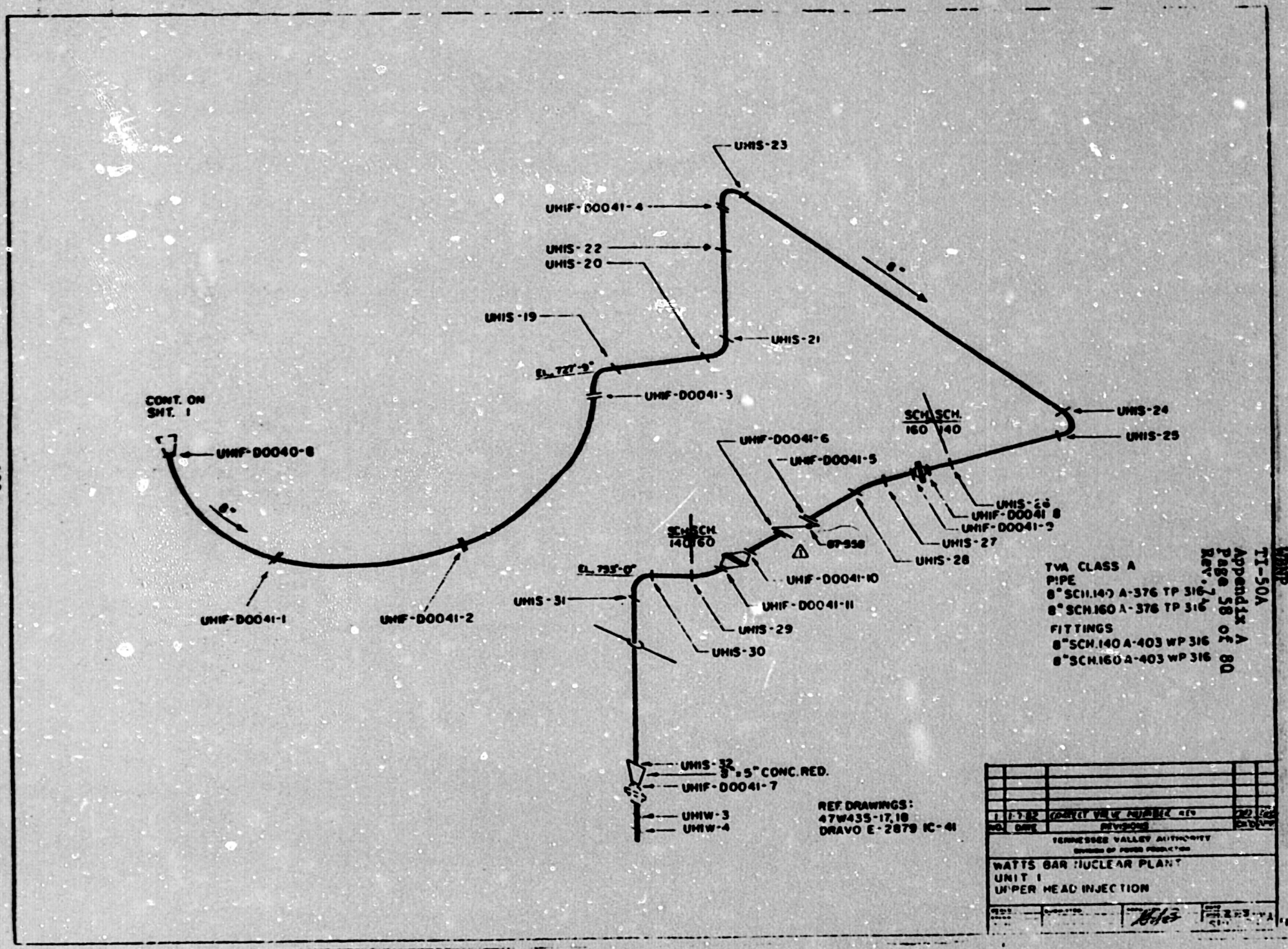
NO.	DATE	REVISIONS	CK'D	APP

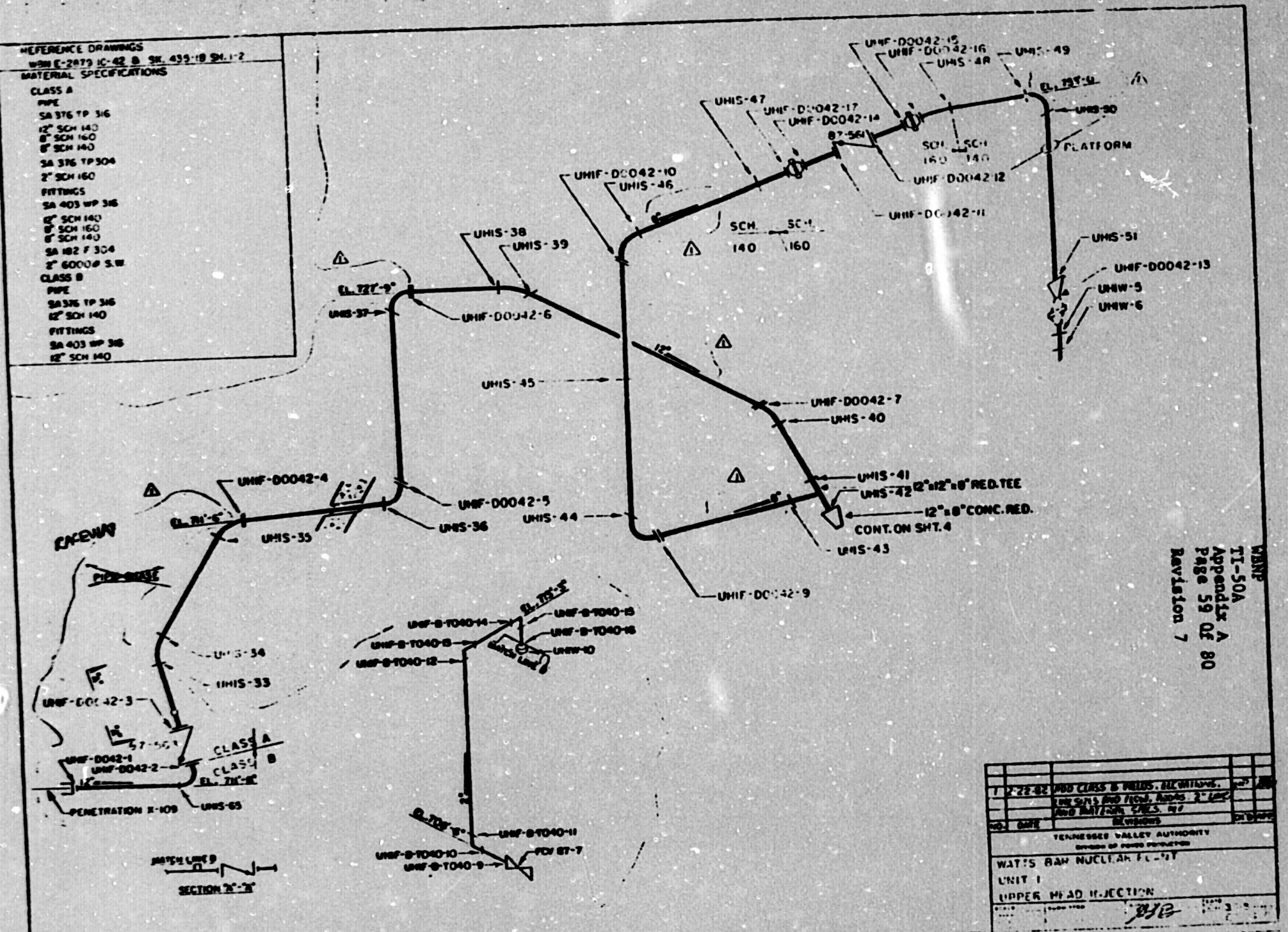
TENNESSEE VALLEY AUTHORITY
DIVISION OF NUCLEAR POWER

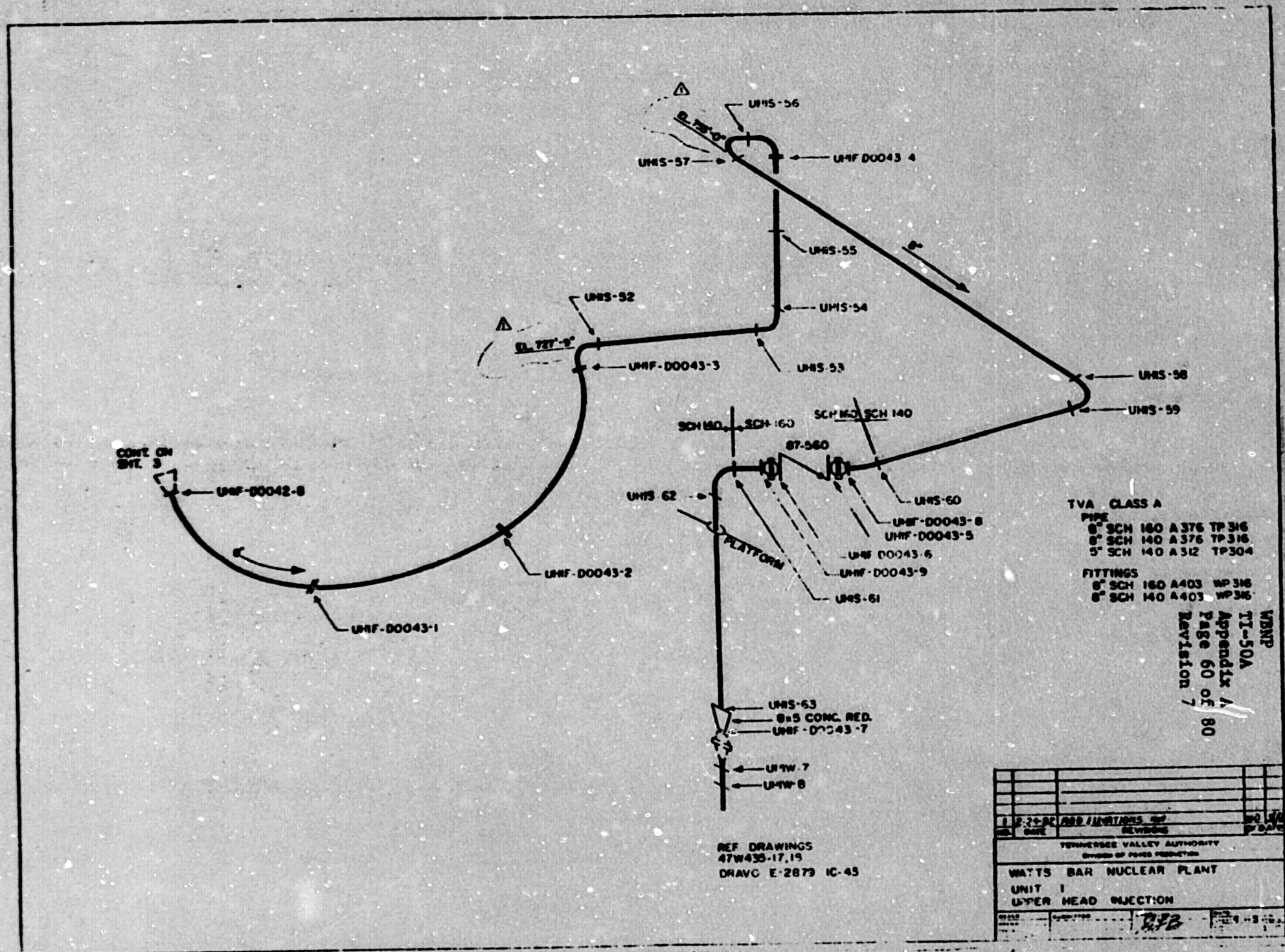
WATTS BAR NUCLEAR PLANT
UNIT #1
SAFETY INJECTION SYSTEM
WELD LOCATIONS

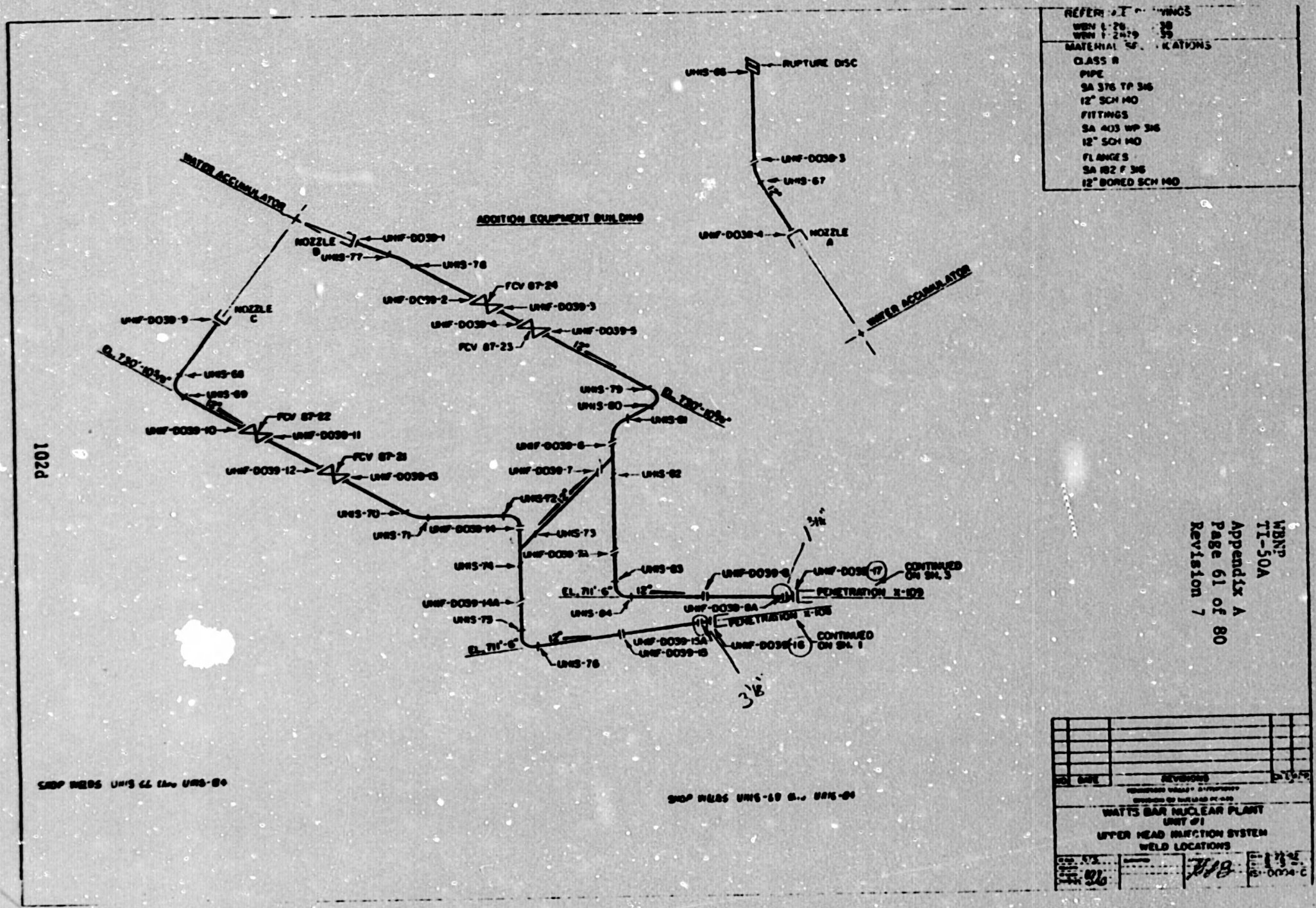
DWG 2750-C

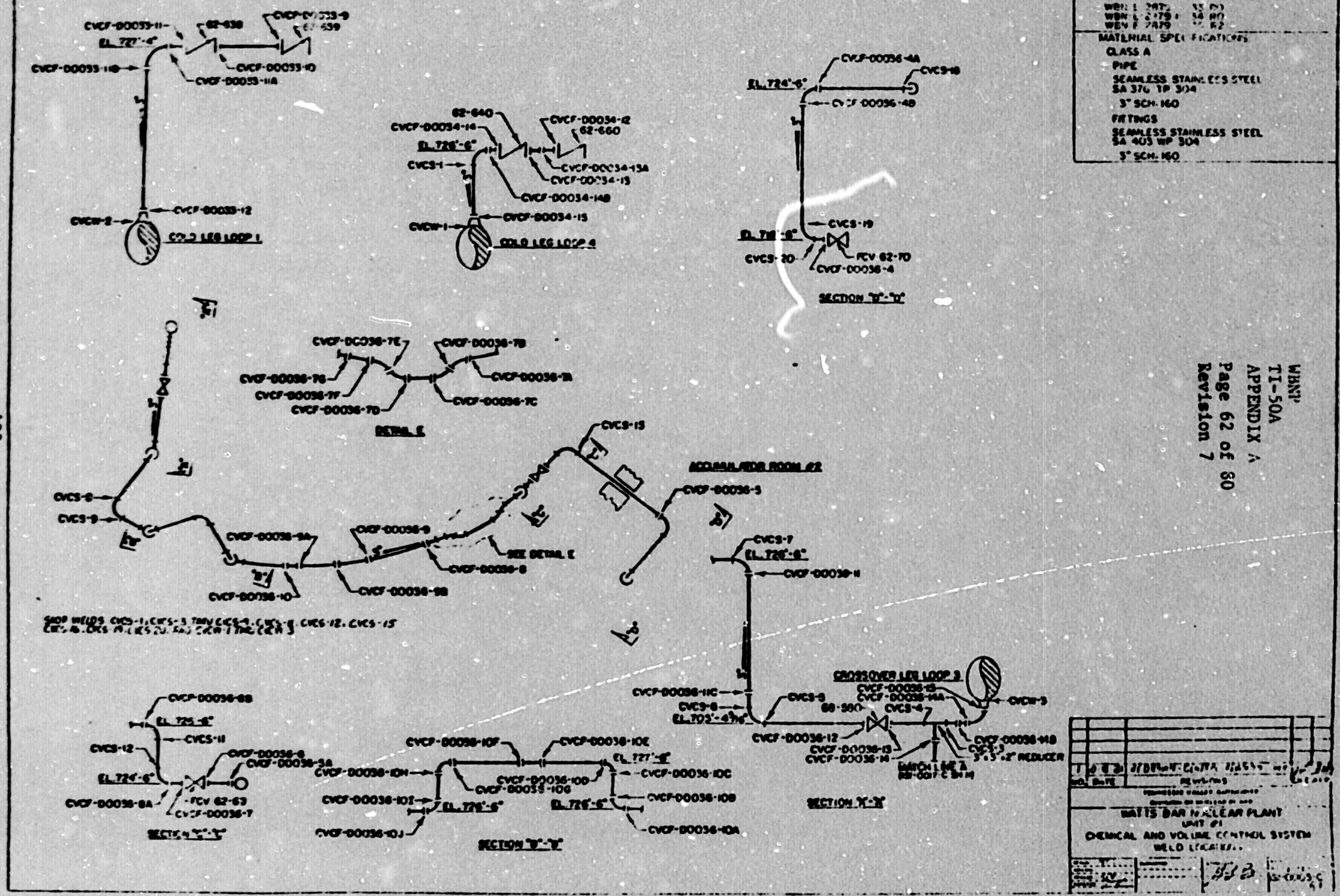

REFERENCE DRAWINGS
WBN E-2879 IC-40 & SK 435-18 SH 1-2
MATERIAL SPECIFICATIONS
CLASS A
PIPE
SA 376 TP 316
12" SCH 140
8" SCH 160
8" SCH 140
SA 376 TP 304
2" SCH 160
FITTINGS
SA 403 WP 316
12" SCH 140
8" SCH 160
8" SCH 140
SA 182 F 304
2" 6000# S.W.
CLASS B
PIPE
SA 376 TP 316
12" SCH 140
FITTINGS
SA 403 WP 316
12" SCH 140
UHIF-D0040-11
UHIF-D0040-12
UHIF-D0040-16
UHIF-D0040-17
UHIF-D0040-15
UHIF-D0040-14
87-559
UHIS-17
PLATFORM
UHIS-16
SCH. 140
SCH. 160
SCH. 160
SCH 140
UHIF-D040-10A
UHIS-18
8"x5" CONC. RED.
UHIF-D0040-13
UHIW-1
UHIW-2
UHIS-8
UHIS-7
UHIF-D0040-10
EL. 733'-0"
EL. 729'-9"
UHIF-D0040-6
UHIS-6
UHIF-D0040-7
UHIS-9
UHIS-10
12"x12"x8" RED. TEE
UHIS-14
UHIS-13
UHIS-11
12" x 8" CONC. RED.
CONT. ON SHT. 2
UHIF-D0040-5
UHIS-5
EL. 712'-0"
RACEWAY
UHIF-D0040-4
UHIS-4
UHIS-3
EL. 729'-9"
UHIF-D0040-9
UHIS-12
UHIF-B-T040-3
UHIF-B-T040-2
UHIF-B-T040-1
UHIW-9
MATCH LINE A
SECTION "A"-"A"
UHIF-B-T040-4
UHIF-B-T040-5
EL. 713'-3"
UHIS-2
UHIS-1
UHIF-D0040-3
87-562
CLASS A
CLASS B
12"
PenX-108
UHIF-D040-2
UHIS-64
UHIF-D040-1
FOV 87-8
UHIF-B-T040-6
UHIF-B-T040-8
UHIF-B-T040-7
EL. 705'-6"
REVISIONS
TENNESSEE VALLEY AUTHORITY
DIVISION OF POWER PRODUCTION


UHIS-23
UHIF-D0041-4
UHIS-22
UHIS-20
UHIS-19
UHIS-21
EL. 727'-9"
UHIF-D0041-3
8"
CONT. ON SHT. 1
UHIF-D0040-8
8"
UHIF-D0041-1
UHIF-D0041-2
UHIS-24
UHIS-25
SCH. 160
SCH. 140
UHIF-D0041-6
UHIF-D0041-5
UHIS-26
UHIF-D0041-8
UHIF-D0041-9
UHIS-27
UHIS-28
87-558
SCH. 140
SCH. 160
EL. 795'-0"
UHIF-D0041-10
UHIF-D0041-11
UHIS-31
UHIS-29
UHIS-30
UHIS-32
8" x 5" CONC. RED.
UHIF-D0041-7
UHIW-3
UHIW-4
TVA CLASS A
PIPE
8" SCH.140 A-376 TP 316
8" SCH.160 A-376 TP 316
FITTINGS
8" SCH.140 A-403 WP 316
8" SCH.160 A-403 WP 316
REF. DRAWINGS:
47W435-17,18
DRAVO E-2879 IC-41
1 1-7-82 CORRECT VALVE NUMBER KEY
NO. DATE REVISIONS
TENNESSEE VALLEY AUTHORITY
DIVISION OF POWER PRODUCTION
WATTS BAR NUCLEAR PLANT
UNIT 1
UPPER HEAD INJECTION


REFERENCE DRAWINGS
WBN E-2879 IC-42 & SK. 435-18 SH. 1-2
MATERIAL SPECIFICATIONS
CLASS A
PIPE
SA 376 TP 316
12" SCH 140
8" SCH 160
8" SCH 140
SA 376 TP 304
2" SCH 160
FITTINGS
SA 403 WP 316
12" SCH 140
8" SCH 160
8" SCH 140
SA 182 F 304
2" 6000# S.W.
CLASS B
PIPE
SA 376 TP 316
12" SCH 140
FITTINGS
SA 403 WP 316
12" SCH 140
UHIF-D0042-15
UHIF-D0042-16
UHIS-48
UHIS-49
UHIS-47
UHIF-D0042-17
UHIF-D0042-14
87-561
SCH. 160
SCH. 140
UHIS-50
PLATFORM
UHIF-D0042-12
UHIF-D0042-11
UHIF-D0042-10
UHIS-46
SCH. 140
SCH. 160
UHIS-51
UHIF-D0042-13
UHIW-5
UHIW-6
UHIS-38
UHIS-39
EL. 727'-9"
UHIS-37
UHIF-D0042-6
UHIS-45
UHIF-D0042-7
UHIS-40
UHIS-41
UHIS-42
12"x12"x8" RED. TEE
12"x8" CONC. RED.
CONT. ON SHT. 4
UHIS-43
UHIF-D0042-9
UHIS-44
UHIF-D0042-4
UHIF-D0042-5
UHIS-36
UHIS-35
RACEWAY
PIPE CHASE
UHIS-34
UHIS-33
UHIF-D0042-3
UHIF-D0042-1
UHIF-D0042-2
CLASS A
CLASS B
EL. 711'-8"
PENETRATION X-109
UHIS-65
MATCH LINE B
SECTION "A"-"A"
UHIF-B-T040-14
UHIF-B-T040-15
UHIF-B-T040-16
UHIF-B-T040-13
UHIF-B-T040-12
UHIW-10
UHIF-B-T040-11
UHIF-B-T040-10
UHIF-B-T040-9
FCV 87-7
1 2-22-82 ADD CLASS B FIELDS, ELEVATIONS, LINE SIZES AND FLOW, ADDS. 2" LINE AND MATERIAL SPECS. NO
NO. DATE REVISIONS
TENNESSEE VALLEY AUTHORITY
DIVISION OF POWER PRODUCTION
WATTS BAR NUCLEAR PLANT
UNIT 1
UPPER HEAD INJECTION

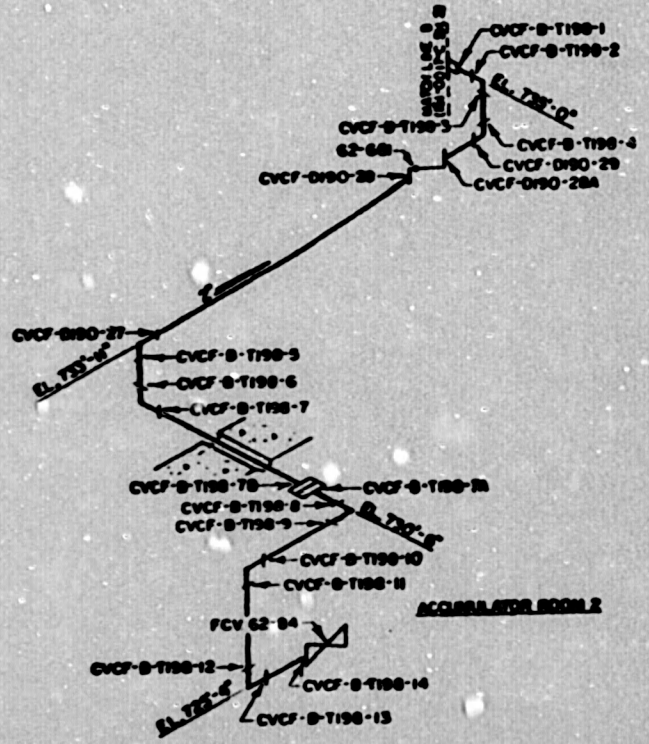

UHIS-56
EL. 735'-0"
UHIS-57
UHIF D0043 4
UHIS-55
8"
UHIS-52
UHIS-54
EL. 727'-9"
UHIF-D0043-3
UHIS-53
UHIS-58
UHIS-59
SCH 160 SCH 140
SCH 140
SCH 160
87-560
CONT. ON SHT. 3
UHIF-D0042-8
UHIS 62
UHIS-60
UHIF-D0043-8
UHIF-D0043-5
PLATFORM
UHIF D0043-6
UHIF-D0043-9
UHIF-D0043-2
UHIS-61
UHIF-D0043-1
UHIS-63
8x5 CONC. RED.
UHIF-D0043-7
UHW-7
UHW-8
TVA CLASS A
PIPE
8" SCH 160 A376 TP316
8" SCH 140 A376 TP316
5" SCH 140 A312 TP304
FITTINGS
8" SCH 160 A403 WP316
8" SCH 140 A403 WP316
REF DRAWINGS
47W435-17,19
DRAVC E-2879 IC-43
1 2-24-82 ADD FLUORATIONS
NO. DATE REVISIONS
TENNESSEE VALLEY AUTHORITY
DIVISION OF POWER PRODUCTION
WATTS BAR NUCLEAR PLANT
UNIT 1
UPPER HEAD INJECTION


REFERENCE DRAWINGS
MATERIAL SPECIFICATIONS
CLASS B
PIPE
SA 376 TP 316
12" SCH 140
FITTINGS
SA 403 WP 316
12" SCH 140
FLANGES
SA 182 F 316
12" BORED SCH 140
ADDITION EQUIPMENT BUILDING
WATER ACCUMULATOR
NOZZLE B
NOZZLE C
NOZZLE A
RUPTURE DISC
UHIS-66
UHIF-D039-3
UHIS-67
UHIF-D039-4
UHIF-D039-1
UHIS-77
UHIS-78
FCV 87-24
UHIF-D039-2
UHIF-D039-3
UHIF-D039-4
UHIF-D039-5
FCV 87-23
UHIF-D039-9
UHIS-68
UHIS-69
FCV 87-22
UHIF-D039-10
UHIF-D039-11
FCV 87-21
UHIF-D039-12
UHIF-D039-13
UHIS-70
UHIS-71
UHIF-D039-14
UHIS-72
UHIS-73
UHIF-D039-7A
UHIS-74
UHIF-D039-14A
UHIS-75
EL. 711'-6"
UHIS-76
UHIS-79
UHIS-80
UHIS-81
UHIF-D039-6
UHIF-D039-7
UHIS-82
UHIS-83
UHIS-84
UHIF-D039-8
UHIF-D039-8A
UHIF-D039-17
CONTINUED ON SH. 3
PENETRATION X-109
PENETRATION X-108
UHIF-D039-15A
UHIF-D039-15
UHIF-D039-16
CONTINUED ON SH. 1
3'1/8"
SHOP WELDS UHIS-66 thru UHIS-84
SHOP WELDS UHIS-68 thru UHIS-84
REVISIONS
WATTS BAR NUCLEAR PLANT
UNIT #1
UPPER HEAD INJECTION SYSTEM
WELD LOCATIONS
1S1-0004-C


REFERENCE DRAWINGS
MATERIAL SPECIFICATIONS
CLASS A
PIPE
SEAMLESS STAINLESS STEEL SA 376 TP 304
3" SCH. 160
FITTINGS
SEAMLESS STAINLESS STEEL SA 403 WP 304
3" SCH. 160
CVCF-00033-11
62-638
CVCF-00033-9
62-639
CVCF-00033-10
CVCF-00033-11A
CVCF-00033-11B
CVCF-00033-12
CVCW-2
COLD LEG LOOP 1
62-640
CVCF-00034-12
62-660
CVCF-00034-14
CVCF-00034-13A
CVCF-00034-13
CVCF-00034-14B
CVCF-00034-15
CVCW-1
COLD LEG LOOP 4
CVCF-00036-4A
CVCS-18
CVCF-00036-4B
CVCS-19
FCV 62-70
CVCF-00036-4
CVCS-20
SECTION "B"-"B"
CVCF-00036-7E
CVCF-00036-7B
CVCF-00036-7A
CVCF-00036-7C
CVCF-00036-7F
CVCF-00036-7D
DETAIL E
CVCS-15
ACCUMULATOR ROOM #2
CVCF-00036-5
CVCS-6
CVCS-9
CVCF-00036-9A
CVCF-00036-9
SEE DETAIL E
CVCF-00036-9B
CVCF-00036-10
CVCS-7
EL. 726'-6"
CVCF-00036-11
CVCF-00036-11C
CVCS-8
EL. 703'-4 7/16"
CROSSOVER LEG LOOP 3
CVCF-00036-15
CVCF-00036-14A
CVCW-3
CVCS-4
CVCF-00036-12
CVCF-00036-13
CVCF-00036-14
CVCF-00036-14B
CVCS-5
3"x3"x2" REDUCER
CVCF-00036-8B
CVCS-11
CVCS-12
CVCF-00036-8
CVCF-00036-8A
FCV 62-63
CVCF-00036-7
SECTION "C"-"C"
CVCF-00036-10F
CVCF-00036-10E
CVCF-00036-10H
CVCF-00036-10C
CVCF-00036-10G
CVCF-00036-10D
CVCF-00036-10I
CVCF-00036-10A
CVCF-00036-10J
SECTION "D"-"D"
SECTION "A"-"A"
WATTS BAR NUCLEAR PLANT
UNIT 01
CHEMICAL AND VOLUME CONTROL SYSTEM
WELD LOCATIONS

REFERENCE DRAWINGS
SK. 406 2 SH 1

MATERIAL SPECIFICATIONS
CLASS A
PIPE
SA 376 TP 304
2" SCH 160
FITTINGS
SA 182 F 304
2" BORED SCH 160
FLANGES
SA 182 F 304
2" BORED SCH 160



NO.	DATE	REVISIONS	CK'D	APP

TENNESSEE VALLEY AUTHORITY
DIVISION OF NUCLEAR POWER

WATTS BAR NUCLEAR PLANT
UNIT #1
CHEMICAL AND VOLUME CONTROL SYSTEM
WELD LOCATIONS

ISI-0005-C

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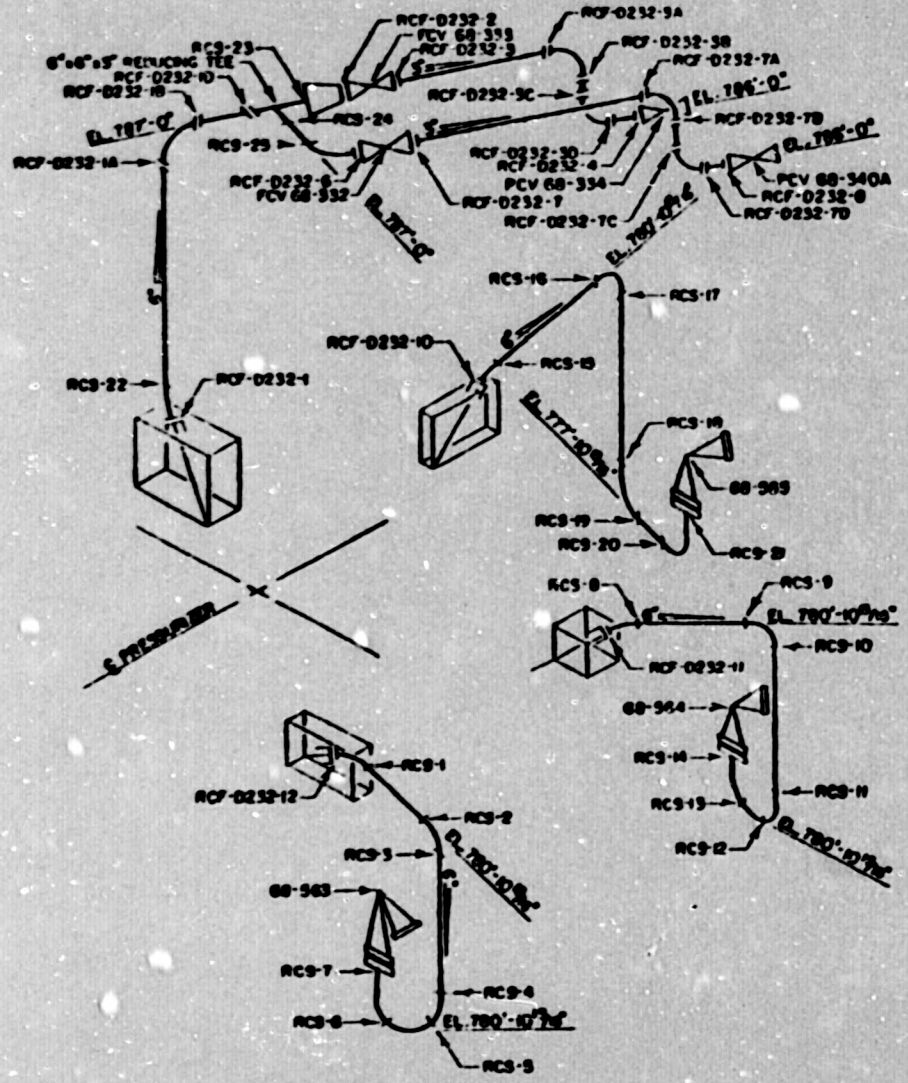


SHOP WELD NUMBERS RCS-1 THRU RCS-25

REFERENCE [illegible]

[illegible]

MATERIAL SPECIFICATIONS

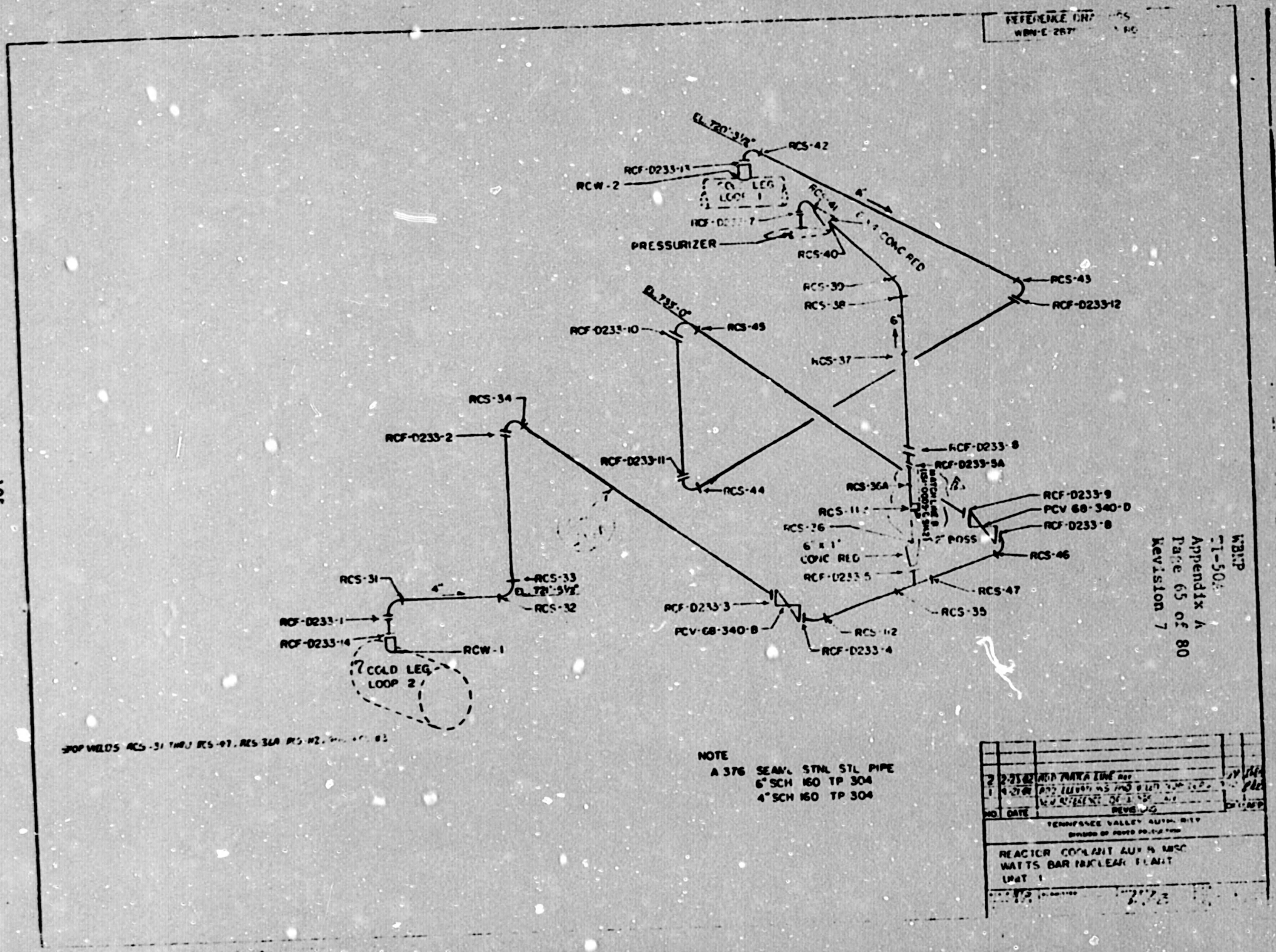
CLASS A
PIPE
SEAMLESS STAINLESS STEEL
SA 376 TP 304
6" SCH 160
3" SCH 160

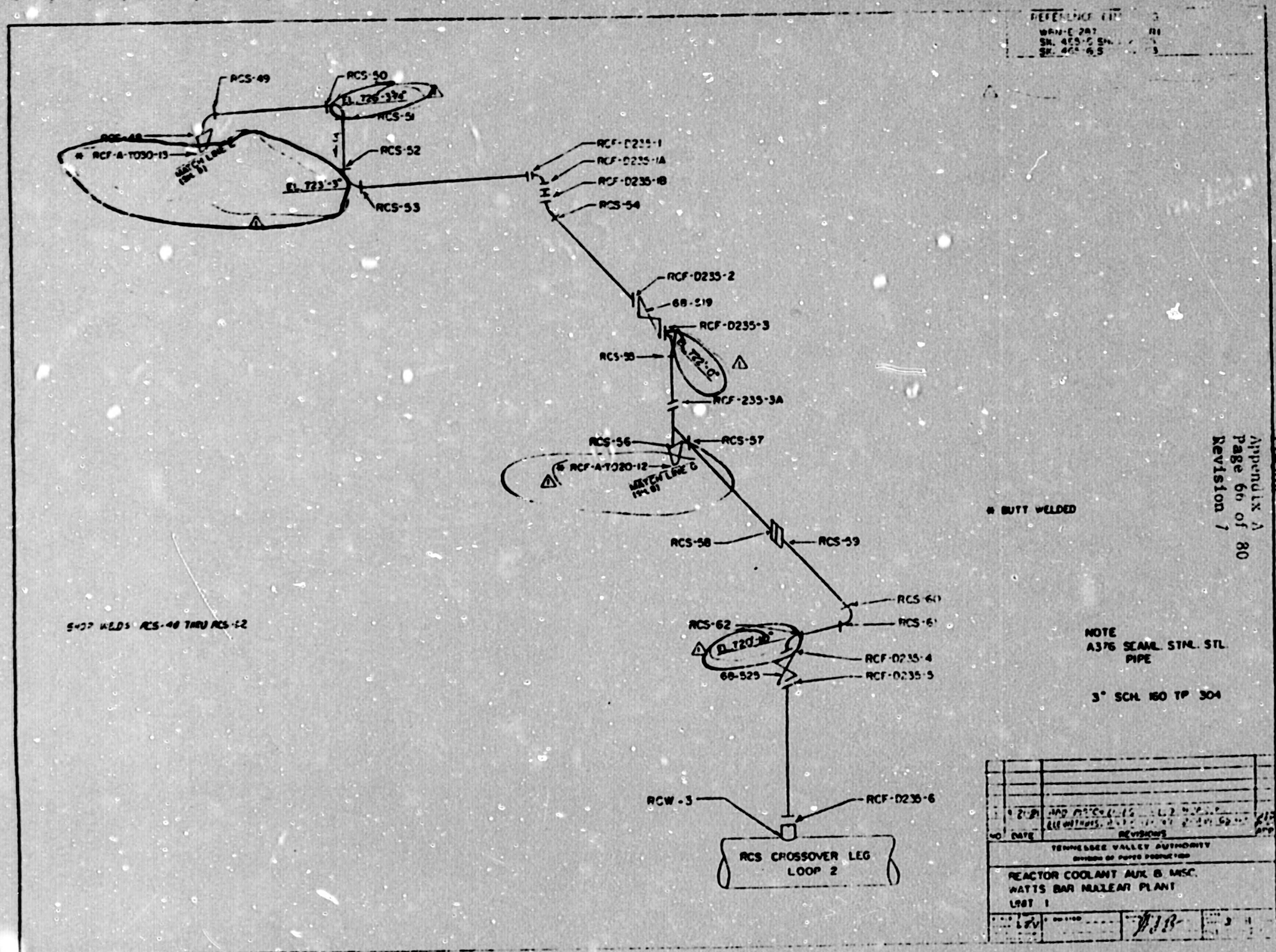
FITTINGS
SEAMLESS STAINLESS STEEL
SA 403 WP 304
6" SCH 160
3" SCH 160

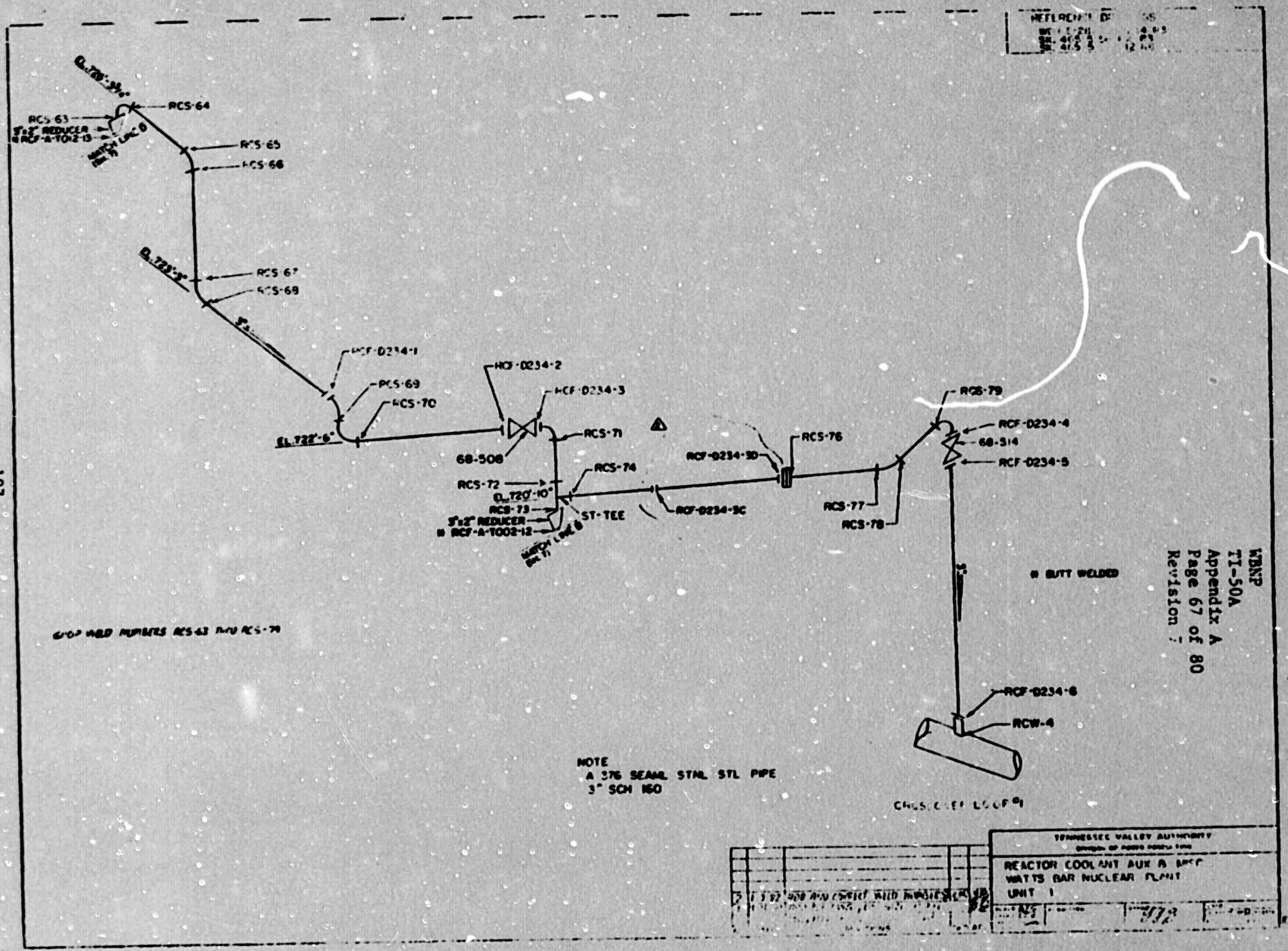
FLANGES
SA 182 F 316
6" SCH 160

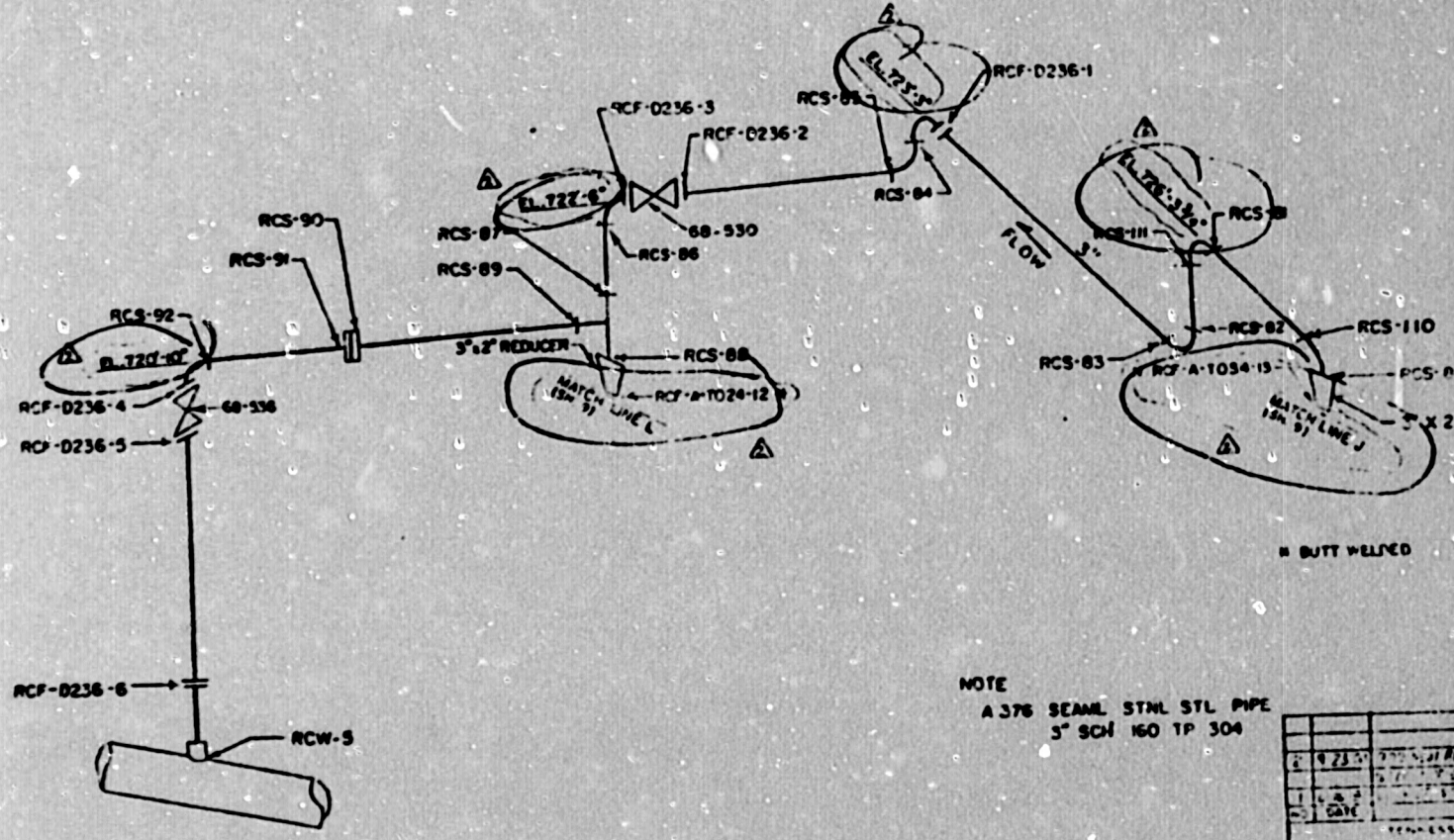
NO.	DATE	REVISIONS	APP.
1	9 15 81	[illegible]	[illegible]

WATTS BAR NUCLEAR PLANT
UNIT #1
REACTOR COOLANT SYSTEM
WELD LOCATIONS


REFERENCE DRAWINGS
WBN-E-287
EL 720'-3½"
RCS-42
RCF-D233-13
RCW-2
COLD LEG LOOP 1
RCS-41
4"
PRESSURIZER
RCS-40
CONC RED
RCS-43
RCF-D233-12
RCS-39
RCS-38
6"
EL 735'-0"
RCF-D233-10
RCS-45
RCS-37
RCS-34
RCF-D233-2
RCF-D233-11
RCS-44
RCF-D233-8
RCF-D233-5A
RCS-36A
RCS-11
RCS-36
6" x 1" CONC RED
RCF-D233-5
RCF-D233-9
PCV 68-340-D
RCF-D233-8
RCS-46
RCS-47
RCS-35
RCS-31
4"
RCS-33
EL 721'-5½"
RCS-32
RCF-D233-1
RCF-D233-14
RCW-1
COLD LEG LOOP 2
RCF-D233-3
PCV-68-340-B
RCS-112
RCF-D233-4
NOTE
A 376 SEAML STNL STL PIPE
6" SCH 160 TP 304
4" SCH 160 TP 304
NO DATE REVISIONS
TENNESSEE VALLEY AUTHORITY
REACTOR COOLANT AUX & MISC
WATTS BAR NUCLEAR PLANT
UNIT 1


RCS-49
RCS-50
RCS-51
RCS-52
RCS-53
RCS-54
RCF-D235-1
RCF-D235-1A
RCF-D235-1B
RCF-D235-2
68-519
RCF-D235-3
RCS-55
RCF-235-3A
RCS-56
RCS-57
RCS-58
RCS-59
RCS-60
RCS-61
RCS-62
RCF-D235-4
RCF-D235-5
68-525
RCW-3
RCF-D235-6
RCS CROSSOVER LEG
LOOP 2
* BUTT WELDED
NOTE
A376 SEAML. STNL. STL.
PIPE
3" SCH. 160 TP 304
TENNESSEE VALLEY AUTHORITY
REACTOR COOLANT AUX. & MISC.
WATTS BAR NUCLEAR PLANT
UNIT 1


RCS-63
3"x2" REDUCER
RCF-A-T012-13
MATCH LINE B
RCS-64
RCS-65
RCS-66
RCS-67
RCS-68
RCF-D234-1
RCS-69
RCS-70
EL.722'-6"
RCF-D234-2
RCF-D234-3
68-508
RCS-71
RCS-72
EL.720'-10"
RCS-73
3"x2" REDUCER
RCF-A-T002-12
MATCH LINE B
RCS-74
ST-TEE
RCF-D234-3C
RCF-D234-3D
RCS-76
RCS-77
RCS-78
RCS-79
RCF-D234-4
68-514
RCF-D234-5
RCF-D234-6
RCW-4
BUTT WELDED
GROUP WELD NUMBERS RCS-63 THRU RCS-79
NOTE
A 376 SEAML STNL STL PIPE
3" SCH 160
TENNESSEE VALLEY AUTHORITY
REACTOR COOLANT AUX & MISC
WATTS BAR NUCLEAR PLANT
UNIT 1

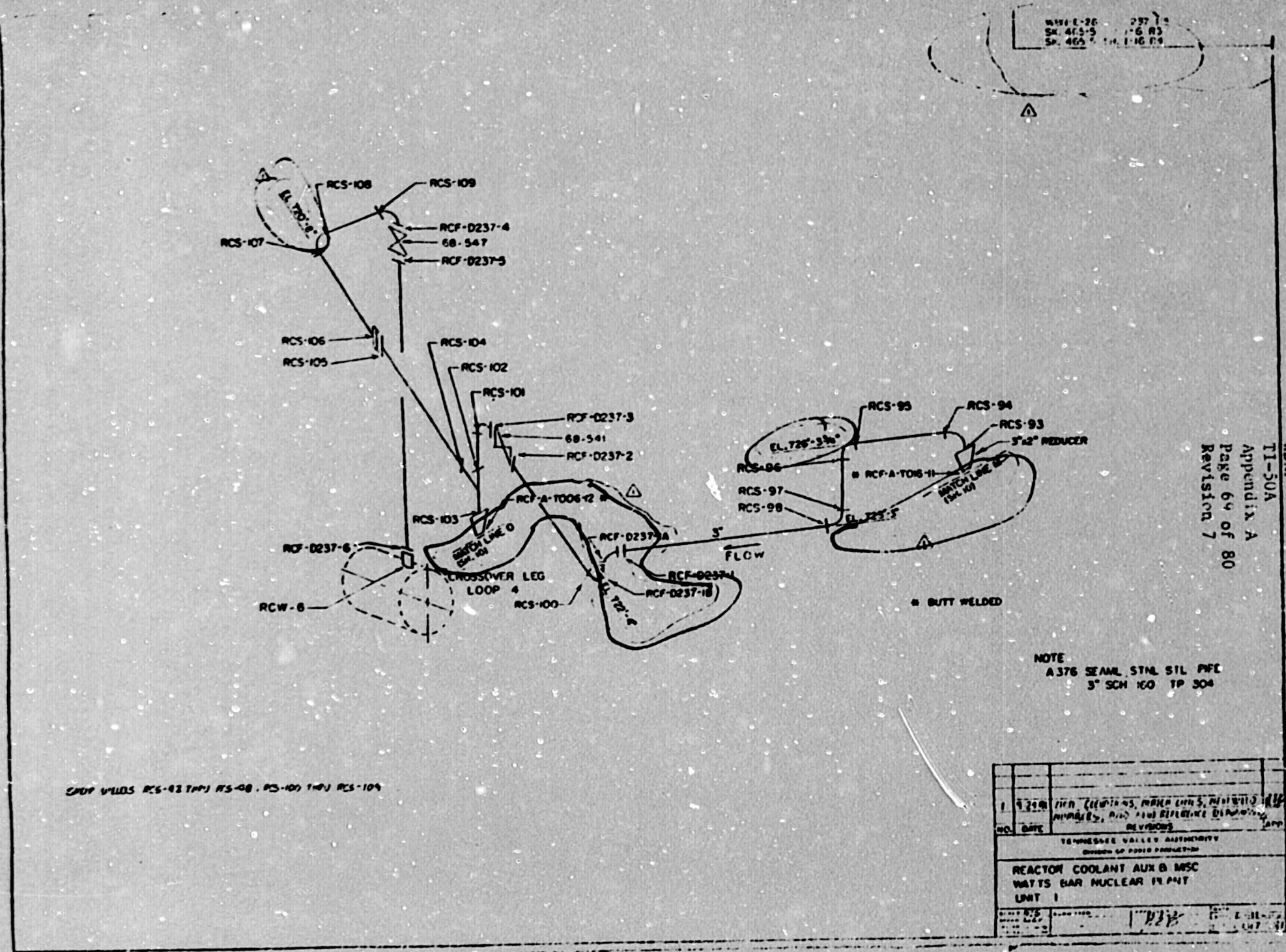


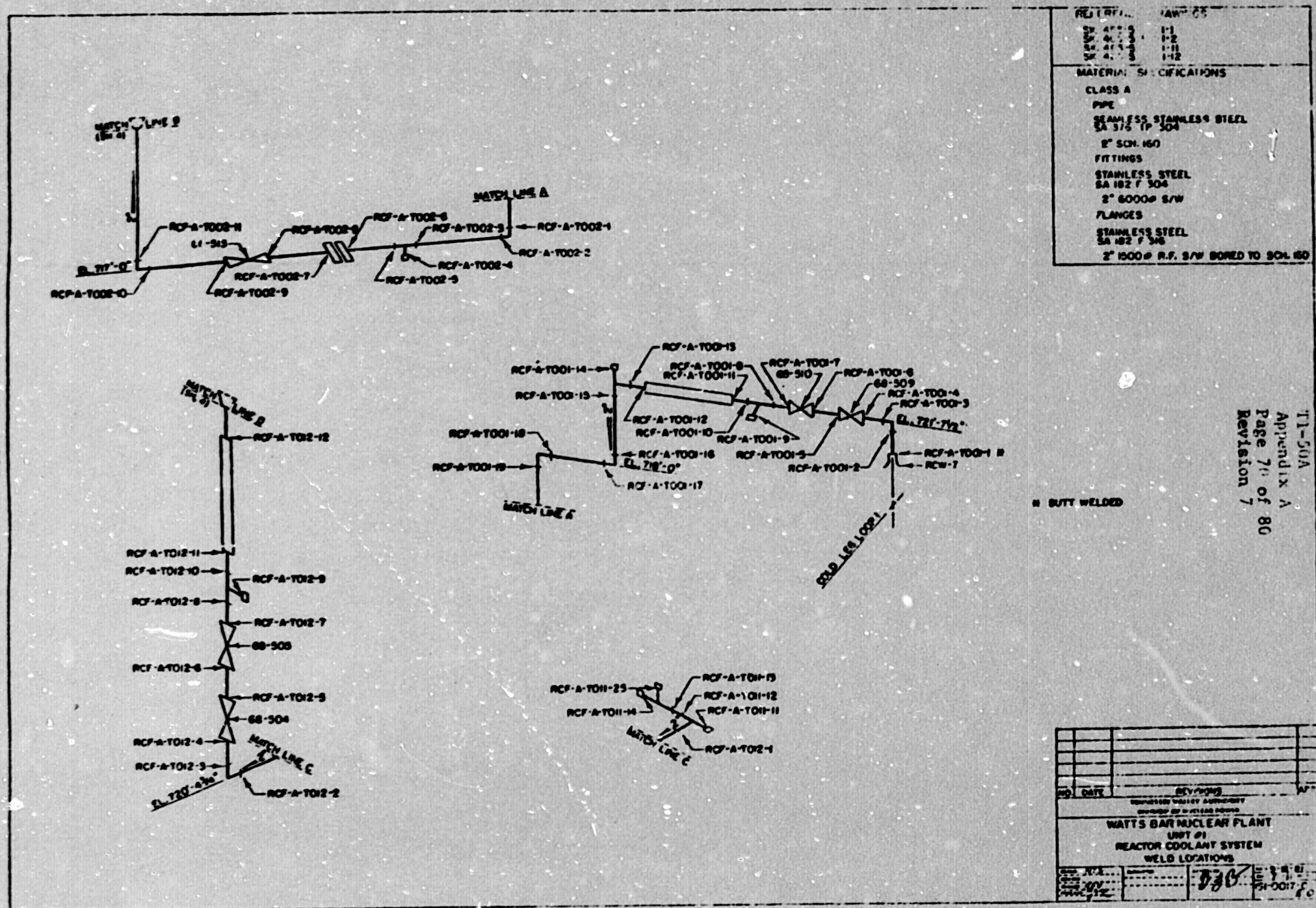
NOTE
A 376 SEAML STNL STL PIPE
3" SCH 160 TP 304

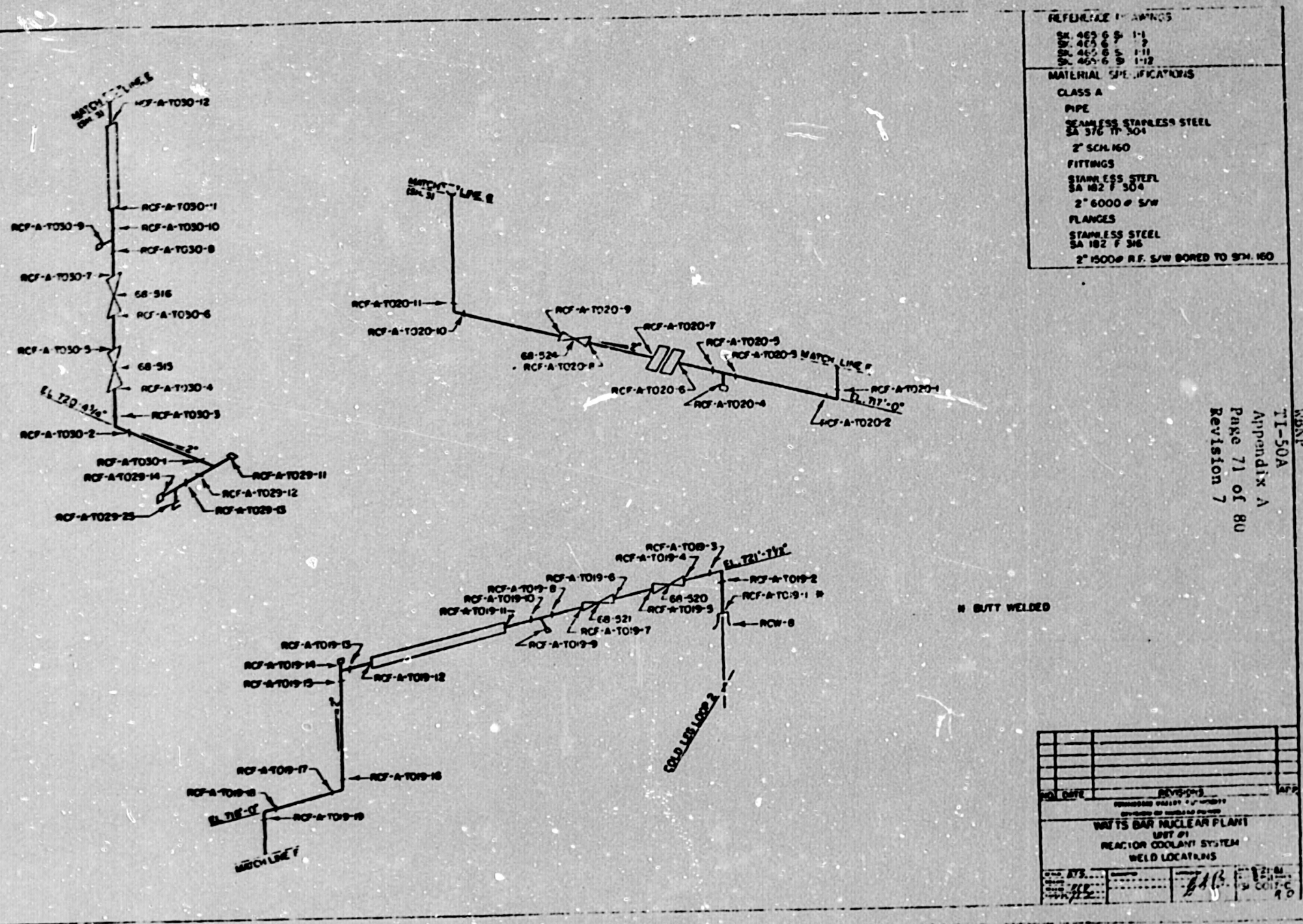
GROUP WELDS RCS-80 THRU RCS-92, RCS-110, AND RCS-111

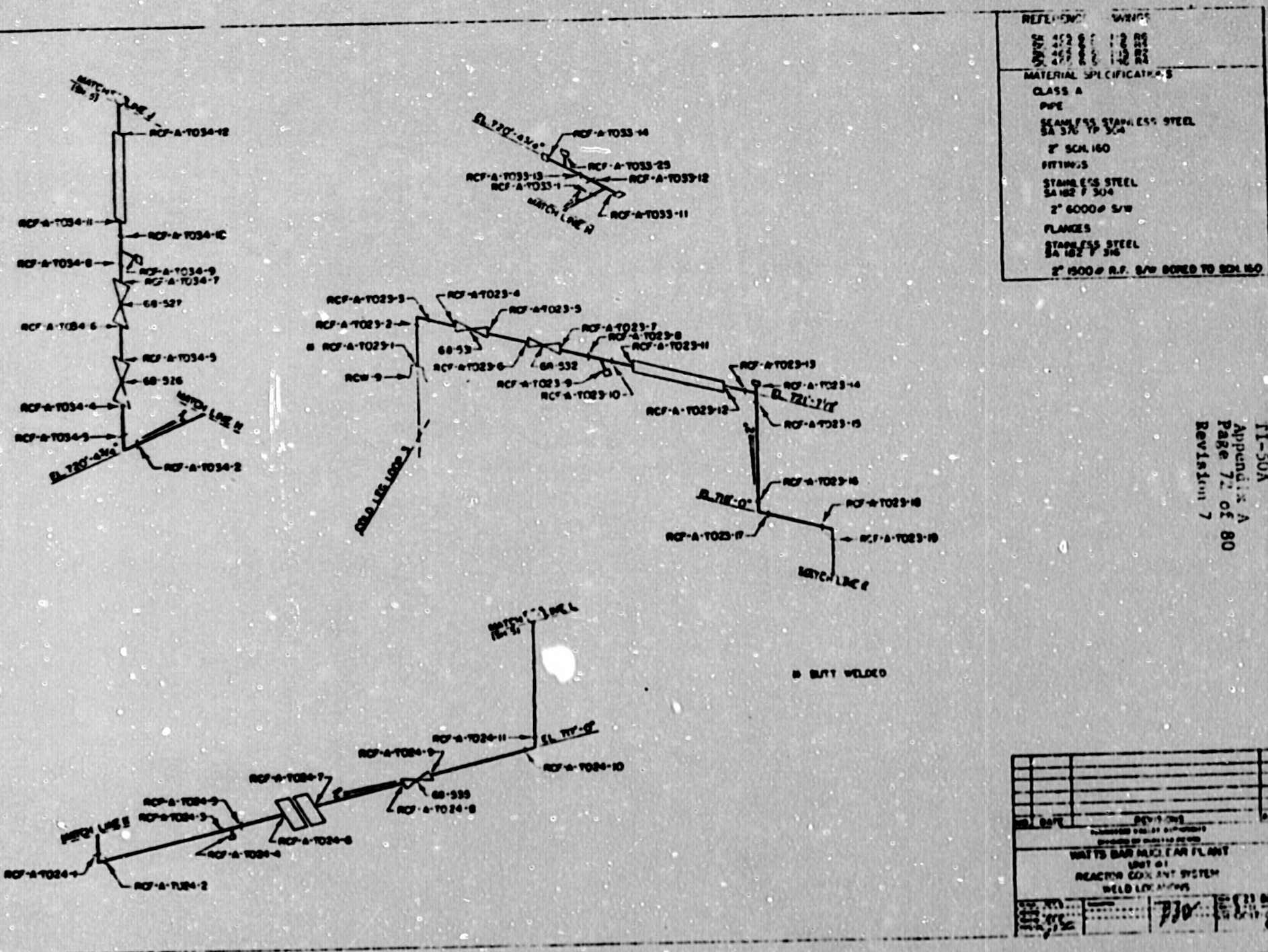
REACTOR COOLANT AUX & MISC
WATTS BAR NUCLEAR PLANT
UNIT 1

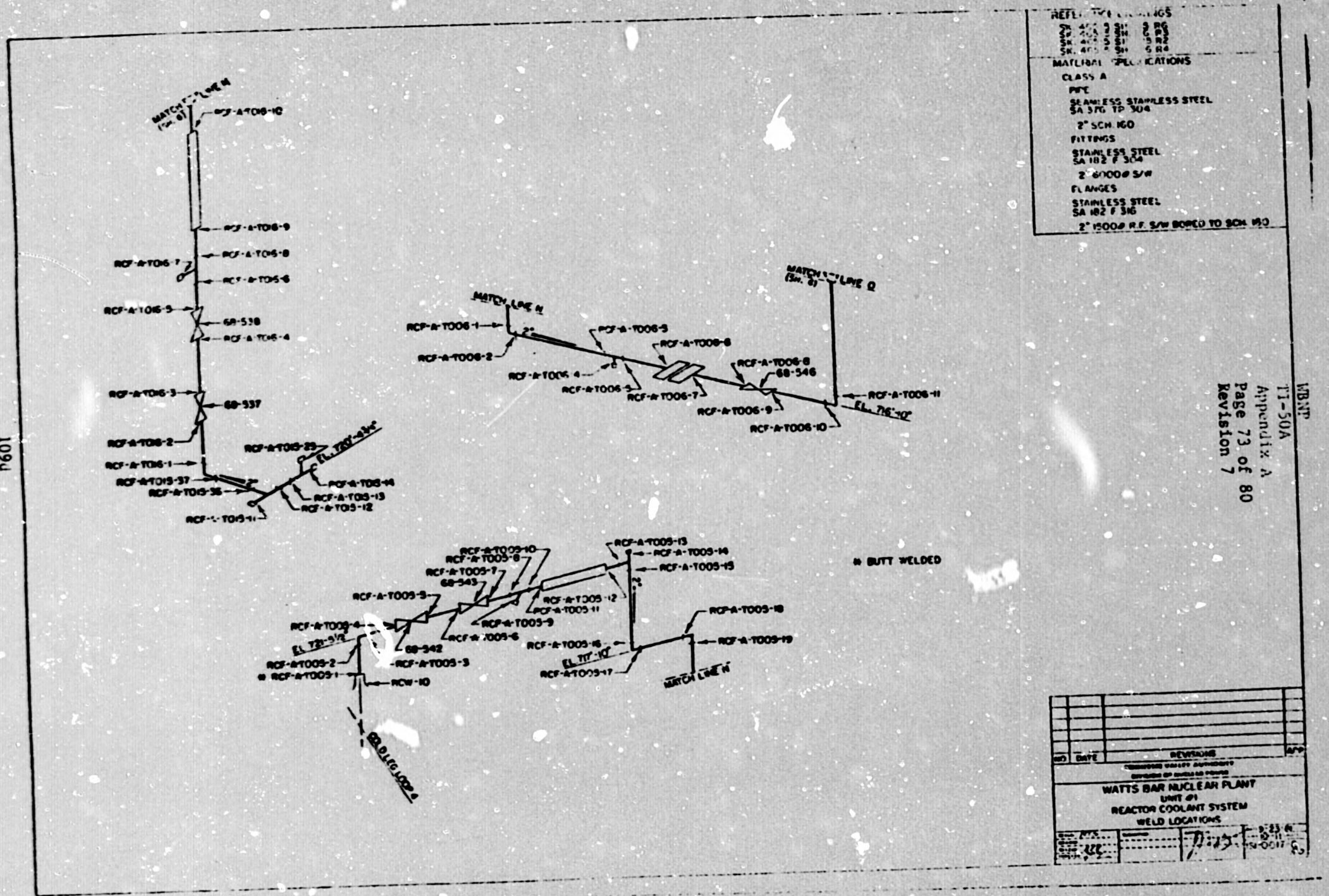
TENNESSEE VALLEY AUTHORITY

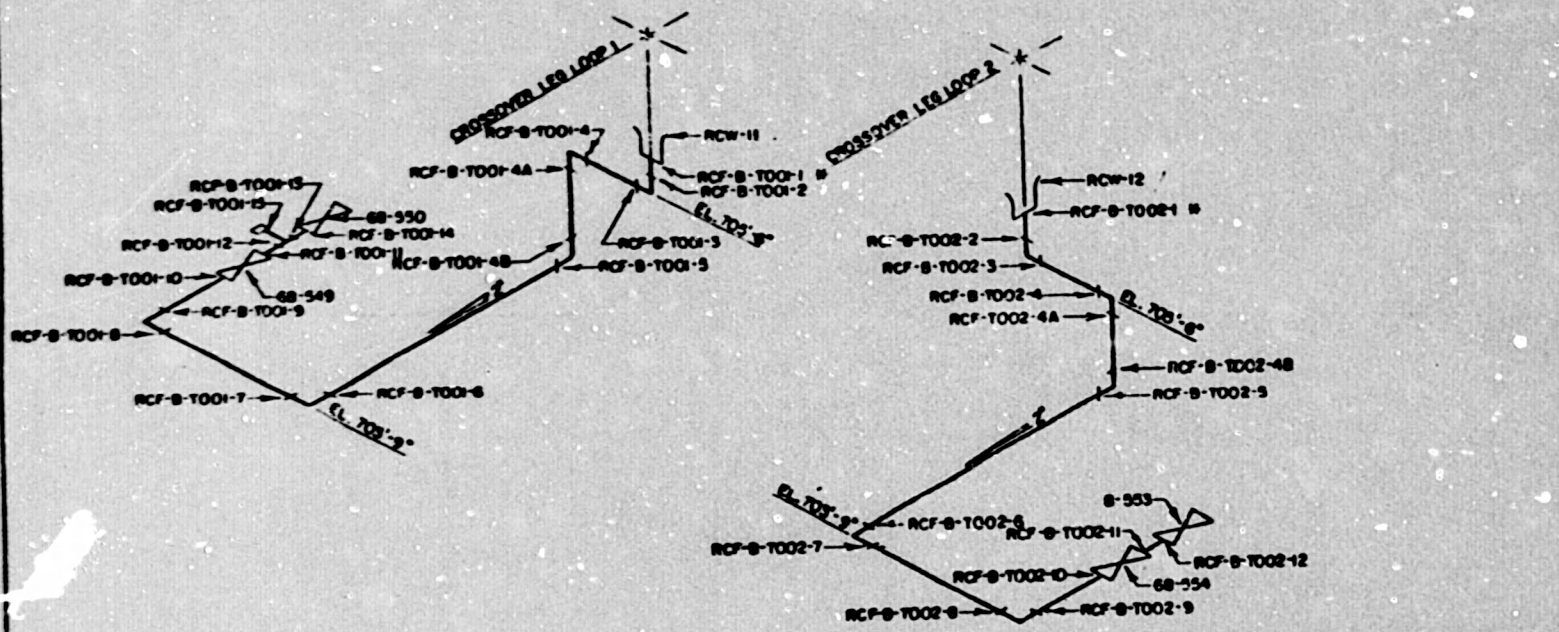

RCS-108
RCS-109
RCS-107
RCF-D237-4
68-547
RCF-D237-5
RCS-106
RCS-105
RCS-104
RCS-102
RCS-101
RCF-D237-3
68-541
RCF-D237-2
RCS-103
RCF-A-T006-12
RCF-D237-6
RCW-6
CROSSOVER LEG
LOOP 4
RCS-100
RCF-D237-1
RCF-D237-18
3"
FLOW
RCS-95
RCS-94
RCS-93
3"x2" REDUCER
RCS-96
RCF-A-T016-11
RCS-97
RCS-98
* BUTT WELDED
NOTE
A376 SEAML STNL STL PIPE
3" SCH 160 TP 304
REVISIONS
TENNESSEE VALLEY AUTHORITY
REACTOR COOLANT AUX & MISC
WATTS BAR NUCLEAR PLANT
UNIT 1


MATCH LINE B
MATCH LINE A
MATCH LINE C
RCF-A-T002-1
RCF-A-T002-2
RCF-A-T002-3
RCF-A-T002-4
RCF-A-T002-5
RCF-A-T002-6
RCF-A-T002-7
RCF-A-T002-8
RCF-A-T002-9
RCF-A-T002-10
RCF-A-T002-11
EL. 717'-0"
RCF-A-T001-1 *
RCW-7
RCF-A-T001-2
RCF-A-T001-3
RCF-A-T001-4
RCF-A-T001-5
RCF-A-T001-6
RCF-A-T001-7
RCF-A-T001-8
RCF-A-T001-9
RCF-A-T001-10
RCF-A-T001-11
RCF-A-T001-12
RCF-A-T001-13
RCF-A-T001-14
RCF-A-T001-15
RCF-A-T001-16
RCF-A-T001-17
RCF-A-T001-18
RCF-A-T001-19
EL. 718'-0"
EL. 721'-7½"
COLD LEG LOOP 1
RCF-A-T012-1
RCF-A-T012-2
RCF-A-T012-3
RCF-A-T012-4
RCF-A-T012-5
RCF-A-T012-6
RCF-A-T012-7
RCF-A-T012-8
RCF-A-T012-9
RCF-A-T012-10
RCF-A-T012-11
RCF-A-T012-12
RCF-A-T011-11
RCF-A-T011-12
RCF-A-T011-13
RCF-A-T011-14
RCF-A-T011-25
EL. 720'-4¾"
68-504
68-505
68-509
68-510
* BUTT WELDED
MATERIAL SPECIFICATIONS
CLASS A
PIPE
SEAMLESS STAINLESS STEEL
SA 376 TP 304
2" SCH. 160
FITTINGS
STAINLESS STEEL
SA 182 F 304
2" 6000# S/W
FLANGES
STAINLESS STEEL
SA 182 F 316
2" 1500# R.F. S/W BORED TO SCH. 160
NO. DATE REVISIONS
WATTS BAR NUCLEAR PLANT
UNIT #1
REACTOR COOLANT SYSTEM
WELD LOCATIONS


REFERENCE DRAWINGS
MATERIAL SPECIFICATIONS
CLASS A
PIPE
SEAMLESS STAINLESS STEEL
SA 376 TP 304
2" SCH. 160
FITTINGS
STAINLESS STEEL
SA 182 F 304
2" 6000# S/W
FLANGES
STAINLESS STEEL
SA 182 F 316
2" 1500# R.F. S/W BORED TO SCH. 160
N BUTT WELDED
WATTS BAR NUCLEAR PLANT
UNIT #1
REACTOR COOLANT SYSTEM
WELD LOCATIONS
MATCH LINE E
MATCH LINE F
MATCH LINE G
RCF-A-T030-12
RCF-A-T030-11
RCF-A-T030-10
RCF-A-T030-9
RCF-A-T030-8
RCF-A-T030-7
68-516
RCF-A-T030-6
RCF-A-T030-5
68-515
RCF-A-T030-4
RCF-A-T030-3
RCF-A-T030-2
RCF-A-T030-1
RCF-A-T029-14
RCF-A-T029-25
RCF-A-T029-11
RCF-A-T029-12
RCF-A-T029-13
EL. 720'-4 1/16"
2"
RCF-A-T020-11
RCF-A-T020-10
RCF-A-T020-9
RCF-A-T020-7
RCF-A-T020-5
RCF-A-T020-3
RCF-A-T020-1
RCF-A-T020-8
68-524
RCF-A-T020-6
RCF-A-T020-4
RCF-A-T020-2
EL. 717'-0"
RCF-A-T019-3
RCF-A-T019-4
EL. 721'-7 1/2"
RCF-A-T019-6
RCF-A-T019-8
RCF-A-T019-10
RCF-A-T019-11
68-520
RCF-A-T019-5
RCF-A-T019-2
RCF-A-T019-1
RCW-8
68-521
RCF-A-T019-7
RCF-A-T019-9
RCF-A-T019-13
RCF-A-T019-14
RCF-A-T019-15
RCF-A-T019-12
RCF-A-T019-17
RCF-A-T019-16
RCF-A-T019-18
EL. 716'-0"
RCF-A-T019-19
COLD LEG LOOP 2


MATERIAL SPECIFICATIONS
CLASS A
PIPE
SEAMLESS STAINLESS STEEL
SA 376 TP 304
2" SCH. 160
FITTINGS
STAINLESS STEEL
SA 182 F 304
2" 6000# S/W
FLANGES
STAINLESS STEEL
SA 182 F 316
2" 1500# R.F. S/W BORED TO SCH. 160
RCF-A-T034-12
RCF-A-T034-11
RCF-A-T034-10
RCF-A-T034-8
RCF-A-T034-9
RCF-A-T034-7
68-527
RCF-A-T034-6
RCF-A-T034-5
68-526
RCF-A-T034-4
RCF-A-T034-3
RCF-A-T034-2
MATCH LINE H
RCF-A-T033-14
RCF-A-T033-25
RCF-A-T033-13
RCF-A-T033-12
RCF-A-T033-1
RCF-A-T033-11
RCF-A-T023-3
RCF-A-T023-4
RCF-A-T023-5
RCF-A-T023-2
RCF-A-T023-1
RCW-9
68-531
RCF-A-T023-6
68-532
RCF-A-T023-7
RCF-A-T023-8
RCF-A-T023-11
RCF-A-T023-9
RCF-A-T023-10
RCF-A-T023-13
RCF-A-T023-14
RCF-A-T023-12
RCF-A-T023-15
RCF-A-T023-16
RCF-A-T023-18
RCF-A-T023-17
RCF-A-T023-19
MATCH LINE E
COLD LEG LOOP 3
BUTT WELDED
RCF-A-T024-11
RCF-A-T024-10
RCF-A-T024-9
RCF-A-T024-7
68-535
RCF-A-T024-8
RCF-A-T024-5
RCF-A-T024-3
RCF-A-T024-6
RCF-A-T024-4
RCF-A-T024-1
RCF-A-T024-2
WATTS BAR NUCLEAR PLANT
UNIT #1
REACTOR COOLANT SYSTEM
WELD LOCATIONS


REFERENCE DRAWINGS
MATERIAL SPECIFICATIONS
CLASS A
PIPE
SEAMLESS STAINLESS STEEL
SA 376 TP 304
2" SCH. 160
FITTINGS
STAINLESS STEEL
SA 182 F 304
2" 6000# S/W
FLANGES
STAINLESS STEEL
SA 182 F 316
2" 1500# R.F. S/W BORED TO SCH. 160
MATCH LINE N
MATCH LINE O
RCF-A-T016-10
RCF-A-T016-9
RCF-A-T016-8
RCF-A-T016-7
RCF-A-T016-6
RCF-A-T016-5
68-538
RCF-A-T016-4
RCF-A-T016-3
68-537
RCF-A-T016-2
RCF-A-T016-1
RCF-A-T015-37
RCF-A-T015-36
RCF-A-T015-25
RCF-A-T015-14
RCF-A-T015-13
RCF-A-T015-12
RCF-A-T006-1
RCF-A-T006-2
RCF-A-T006-3
RCF-A-T006-4
RCF-A-T006-5
RCF-A-T006-6
RCF-A-T006-7
RCF-A-T006-8
68-546
RCF-A-T006-9
RCF-A-T006-10
RCF-A-T006-11
EL. 716'-10"
RCF-A-T005-13
RCF-A-T005-14
RCF-A-T005-15
RCF-A-T005-10
RCF-A-T005-8
RCF-A-T005-7
68-543
RCF-A-T005-5
RCF-A-T005-12
RCF-A-T005-11
RCF-A-T005-9
RCF-A-T005-6
RCF-A-T005-4
EL. 721'-5 1/2"
68-542
RCF-A-T005-3
RCF-A-T005-2
RCF-A-T005-1
RCW-10
COLD LEG LOOP 4
RCF-A-T005-18
RCF-A-T005-19
RCF-A-T005-16
EL. 717'-10"
RCF-A-T005-17
MATCH LINE N
* BUTT WELDED
NO
DATE
REVISIONS
APP
WATTS BAR NUCLEAR PLANT
UNIT #1
REACTOR COOLANT SYSTEM
WELD LOCATIONS



REFERENCE DRAWINGS

MATERIAL SPECIFICATIONS
CLASS A
PIPE
SEAMLESS STAINLESS STEEL
SA 376 TP 304
2" SCH. 160
FITTINGS
STAINLESS STEEL
SA 182 F 304
2" 6000# S/W

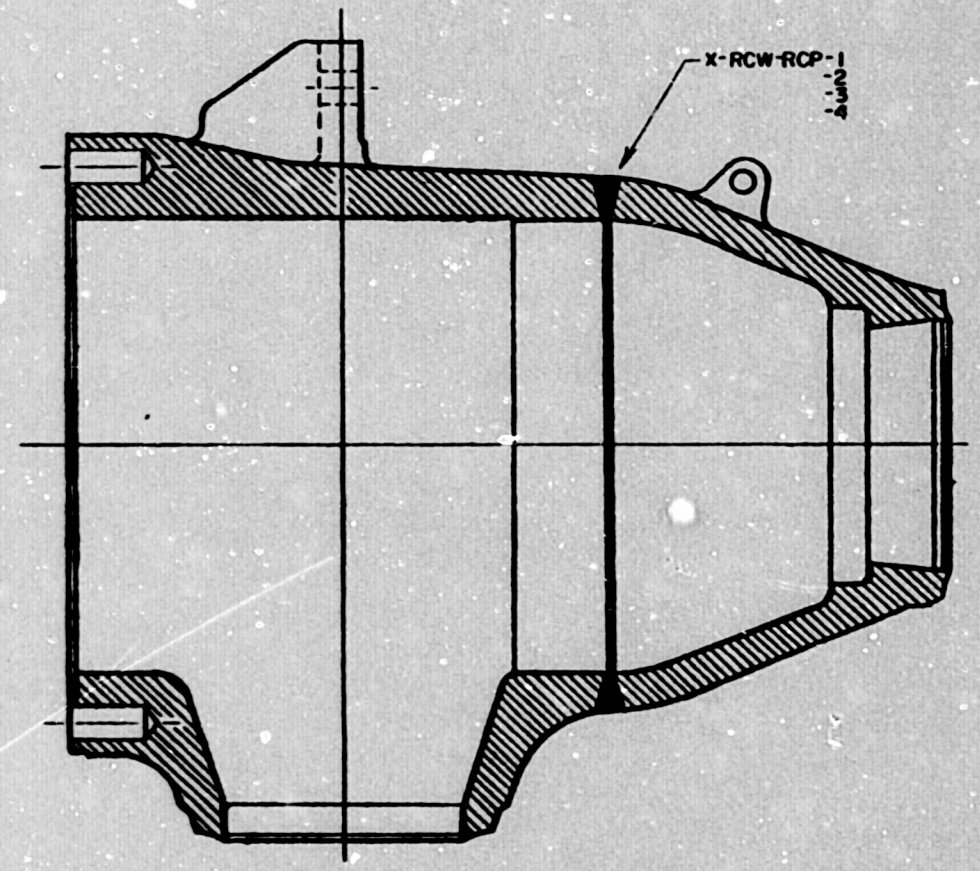
NO.	DATE	REVISIONS	APP.

TENNESSEE VALLEY AUTHORITY
DIVISION OF POWER

WATTS BAR NUCLEAR PLANT
UNIT #1
REACTOR COOLANT SYSTEM
WELD LOCATIONS

NOTES

1. REPLACE THE X IN THE WELD NUMBER WITH THE APPROPRIATE UNIT NUMBER.



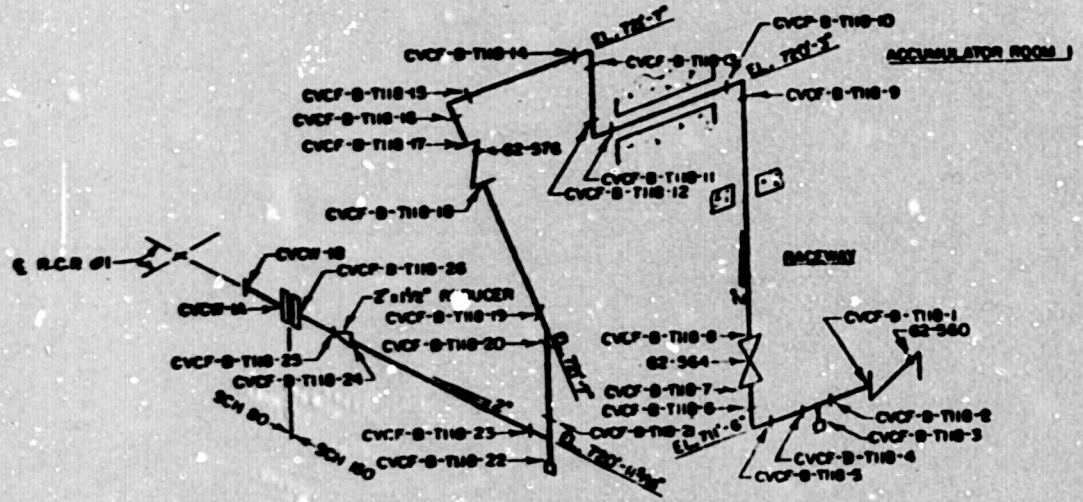
TENNESSEE VALLEY AUTHORITY
DIVISION OF NUCLEAR POWER

WATTS BAR NUCLEAR PLANT
UNITS #1 & #2
REACTOR COOLANT PUMP CASING
WELD LOCATIONS

SCALE NTS | DATE 1/8/82 | ISI-0048-8 | R0

REFERENCE [illegible]
SK. 40[illegible] R4

MATERIAL SPECIFICATIONS
CLASS A
PIPE
SA 376 TP 30
2" SCH 160
1½" SCH 160
1½" SCH 80
FITTINGS
SA 182 F 304
2" BORE SCH 160
FLANGES
SA 182 F 316
1½" BORE SCH 160



NO.	DATE	REVISIONS	CK'D	APR

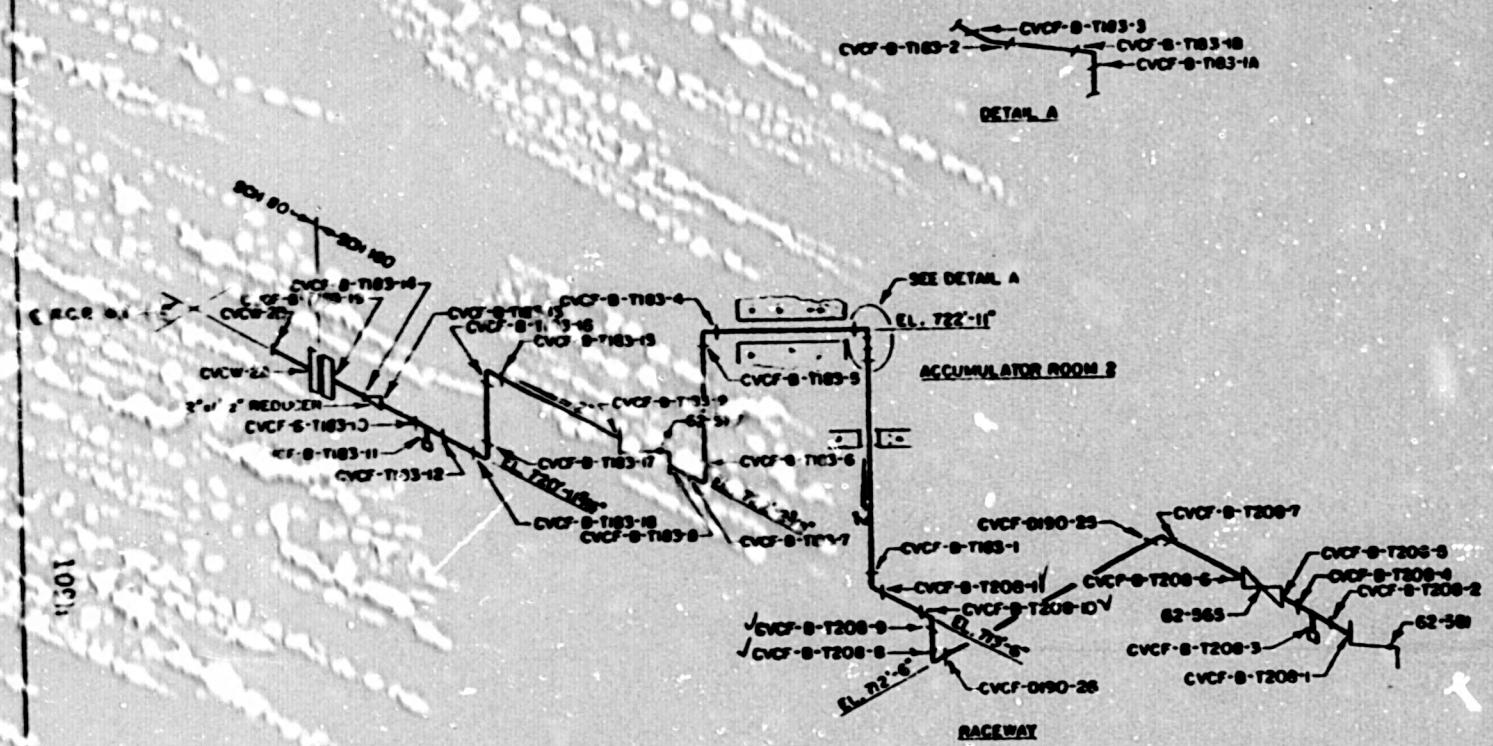
TENNESSEE VALLEY AUTHORITY
DIVISION OF NUCLEAR POWER

WATTS BAR NUCLEAR PLANT
UNIT #1
CHEMICAL AND VOLUME CONTROL SYSTEM
SEAL WATER INJECTION
(WELD LOCATIONS)

1-26-82
1-4-82
SI-0030-C
R0

REFERENCE DRAWINGS
SK. 406-7 ... 12 R6
SK. 406-9 ... R3

MATERIAL SPECIFICATIONS
CLASS A
PIPE
SA 376 TP 304
2" SCH 160
1½" SCH 160
1½" SCH 80
FITTINGS
SA 182 F 304
2" BORE SCH 160
FLANGES
SA 182 F 316
1½" BORE SCH 160



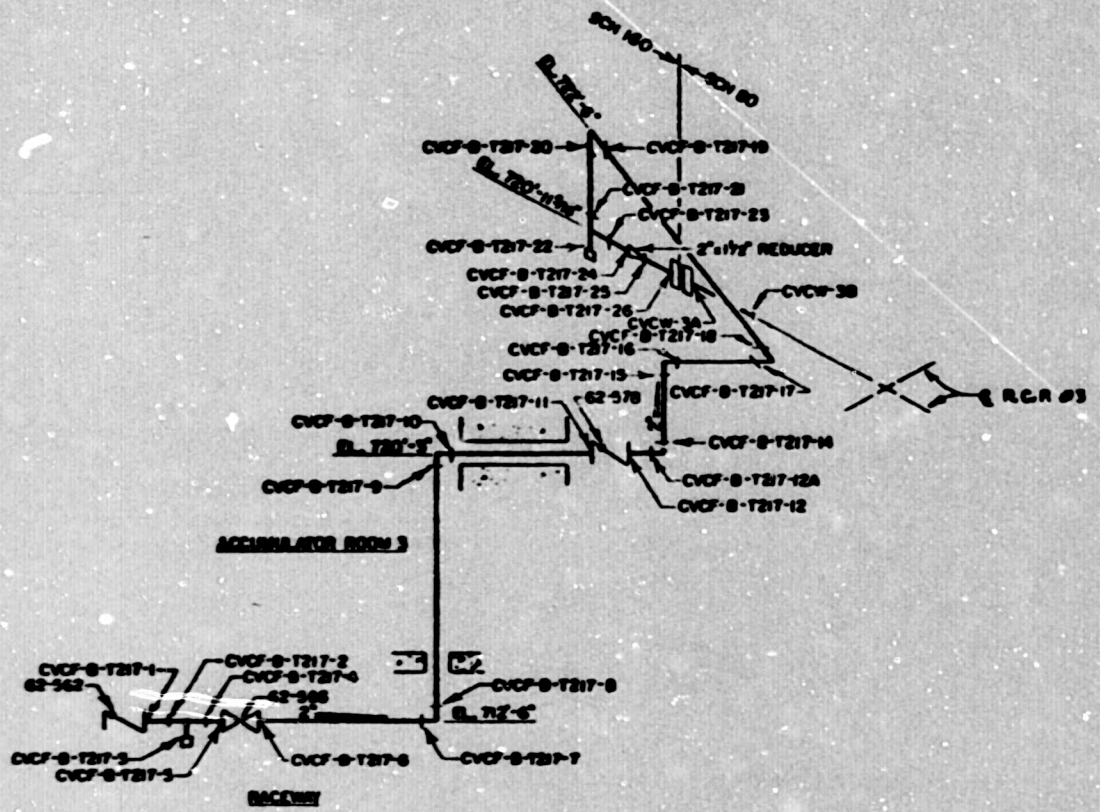
NO.	DATE	REVISIONS	CK'D	APR

TENNESSEE VALLEY AUTHORITY
DIVISION OF NUCLEAR POWER

WATTS BAR NUCLEAR PLANT
UNIT #1
CHEMICAL AND VOLUME CONTROL SYSTEM
SEAL WATER INJECTION
WELD LOCATIONS

1-27-82
SI-0050-C
AO

1031



REFERENCE DRAWINGS

MATERIAL SPECIFICATIONS

CLASS A
PIPE
SA 376 TP 304
2" SCH 160
1½" SCH 160
1½" SCH 80
FITTINGS
SA 182 F 304
2" BORE SCH 160
FLANGES
SA 182 F 316
1½" BORE SCH 160

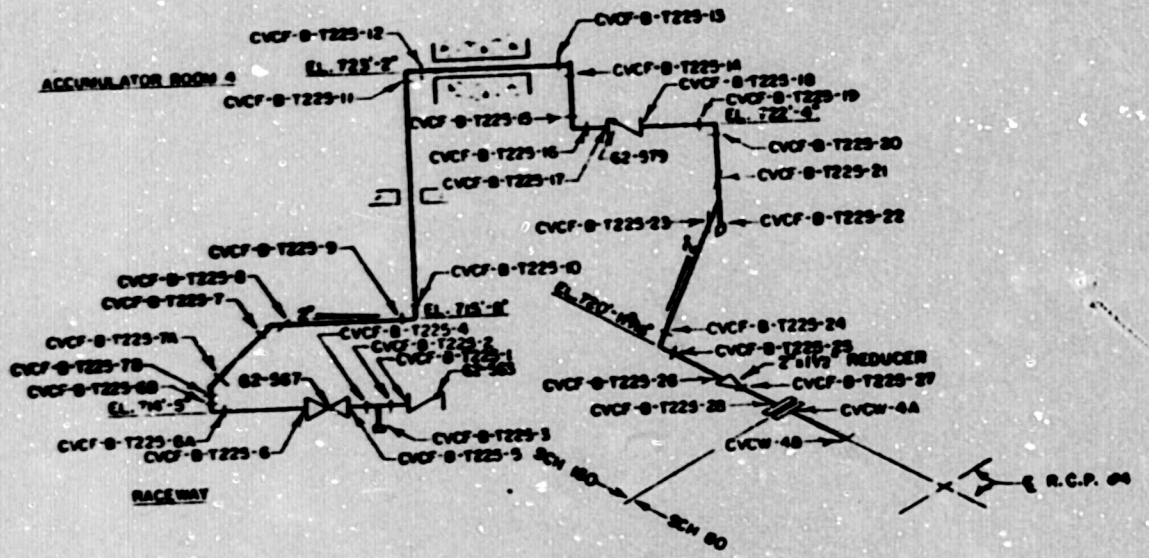
NO.	DATE	REVISIONS	CK'D	APR

TENNESSEE VALLEY AUTHORITY
DIVISION OF NUCLEAR POWER

WATTS BAR NUCLEAR PLANT
UNIT #1
CHEMICAL AND VOLUME CONTROL SYSTEM
SEAL WATER INJECTION
WELD LOCATIONS

REFERENCE DRAWINGS
SK 405 ? SI RS

MATERIAL SPECIFICATIONS
CLASS A
PIPE
SA 376 TP 304
2" SCH 160
1½" SCH 160
1½" SCH 80
FITTINGS
SA 182 F 304
2" BORE SCH 160
FLANGES
1½" BORE SCH 160



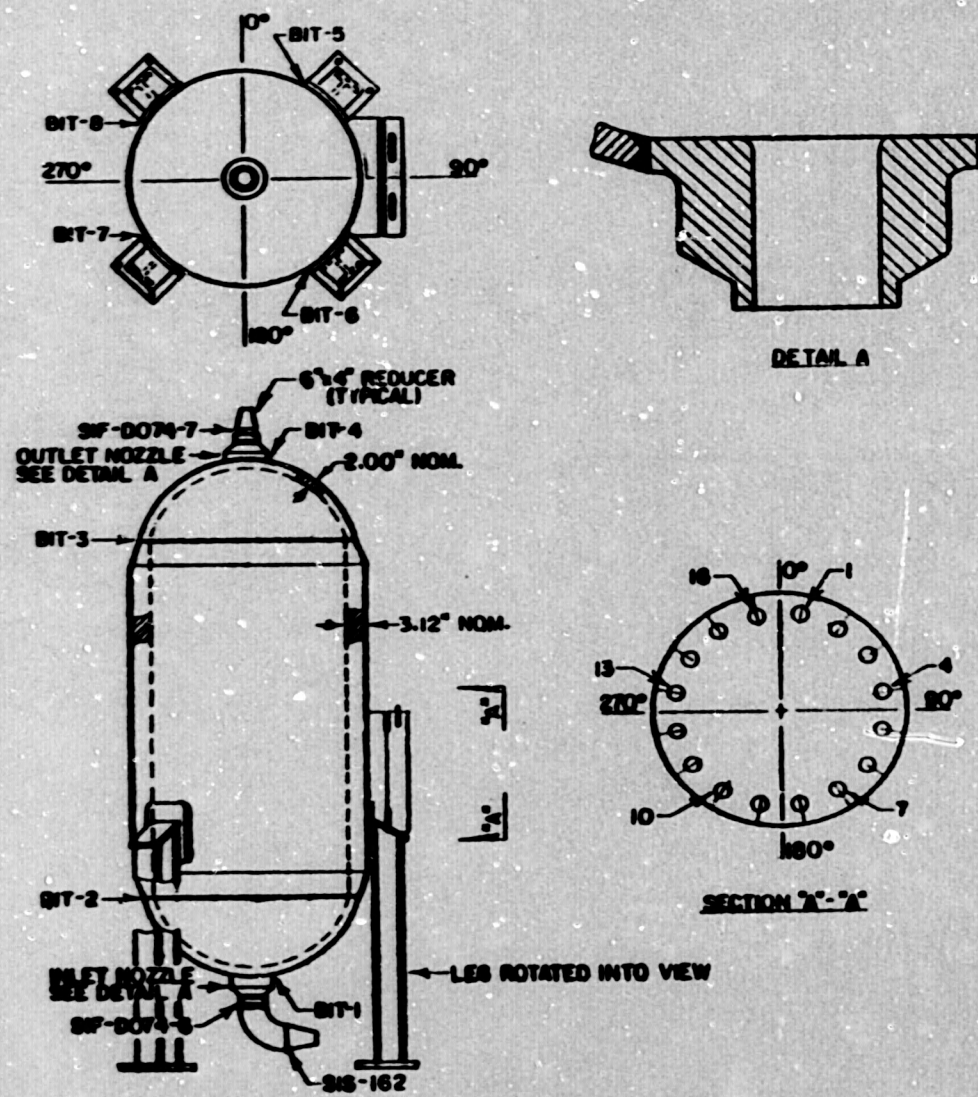
NO.	DATE	REVISIONS	BY	APPD

TENNESSEE VALLEY AUTHORITY
DIVISION OF RADIOLOGICAL POWER

WATTS BAR NUCLEAR PLANT
UNIT #1
CHEMICAL AND VOLUME CONTROL SYSTEM
SEAL WATER INJECTION
WELD LOCATIONS

DES.	RCS		47B 232-4
DRN.	BBF		47B 232-4
PATH	2AA2		47B 232-4

WBNP
TI-50A
Appendix A
Page 79 of 80
Revision 7



REFERENCE DRAWINGS
WESTINGHOUSE 1100E48
WBN E-2879 IC-74

MATERIAL SPECIFICATIONS
CLASS B
TANK
SHELL
SA-351 CF8A
3.12" NOM.
HEADS
SA 240 TP 304
2.00 NOM.
NOZZLES
SA 182 F 304
BOLTING
STUDS
SA 193 GR. B7
2.50-8UN-2A x 13.50
NUTS
SA 193 GR. 2H
2.50-8UN-2B HVY.
FITTINGS
SA 403 WP 304
6" SCH 160

NO.	DATE	REVISIONS	CK'D	APP

TENNESSEE VALLEY AUTHORITY
DIVISION OF NUCLEAR POWER

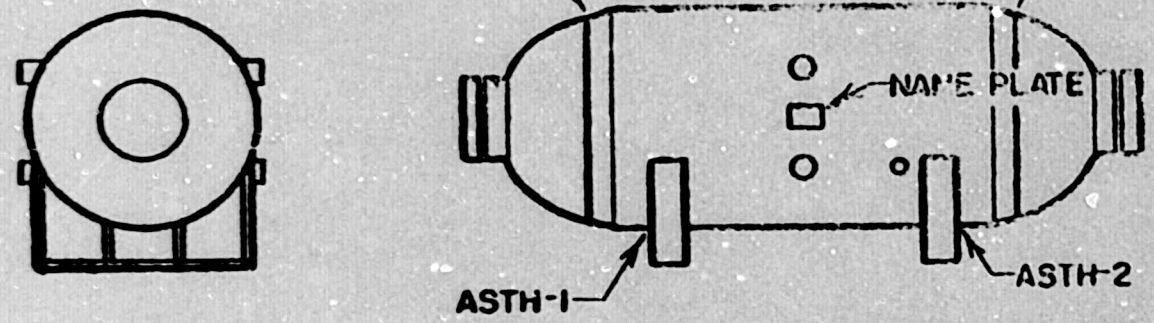
WATTS BAR NUCLEAR PLANT
UNIT #1
BORON INJECTION TANK
WELD LOCATIONS

SCALE: NTS
DATE: 2-19-82
SI-0053-B
R0

109k

REFERENCE DRAWINGS
NW 5751

MATERIAL SPECIFICATIONS
CLASS B
SHELL
SA 240 TP 304
1 7/8" THK
HEADS
SA 240 TP 304
1" THK.



ADDITIONAL EQUIPMENT BUILDING

WBNP
T1-50A
Appendix A
* Page 60A of 80
Revision 8

NO.	DATE	REVISIONS	CK'D	APP.

TENNESSEE VALLEY AUTHORITY
DIVISION OF NUCLEAR POWER

WATTS BAR NUCLEAR PLANT
UNITS #1 & #2
ACCUMULATOR SURGE TANK

SCALE NTS | SUBMITTED | APPROVED | DATE 7-15-82 | SHEET 1 OF 1 SHEETS
ISI-0072-A R0

1091

REFERENCE DRAWINGS

C-4149-1
D-4054-6

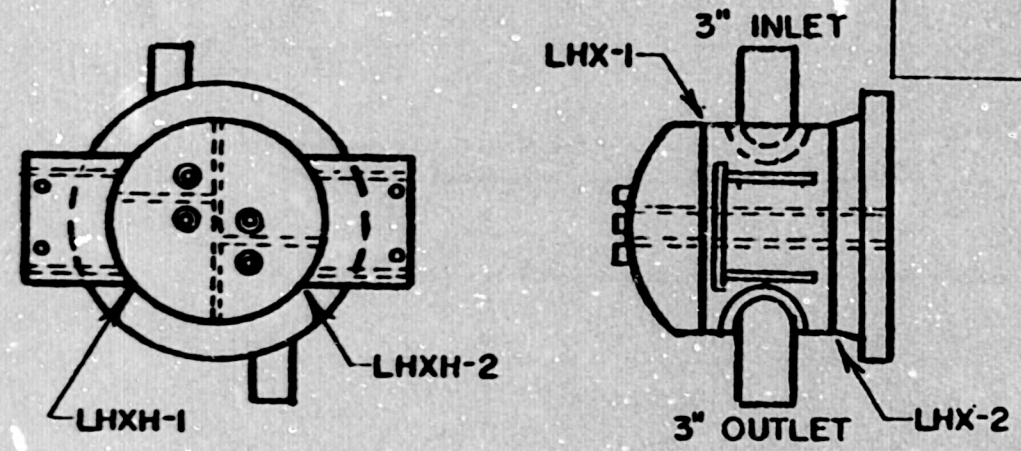
MATERIAL SPECIFICATIONS

CLASS B

HEAD
SA 240 TP 304
.375" THK.

SHELL
SA 240 TP 304
.375" THK.

FLANGE
SA 182 F 304



LETDOWN HEAT EXCHANGER
ROOM 1A

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TENNESSEE VALLEY AUTHORITY
DIVISION OF NUCLEAR POWER

WATTS BAR NUCLEAR PLANT
UNITS #1 & #2
LETDOWN HEAT EXCHANGER

SCALE NTS	SUBMITTED DAD	APPROVED	DATE 8-4-82
DRAWN			SHEET 1 OF 1
TRACED REV			ISI 007
CHECKED			

109M

REFERENCE DRAWINGS

D-4060-6

MATERIAL SPECIFICATIONS

CLASS B

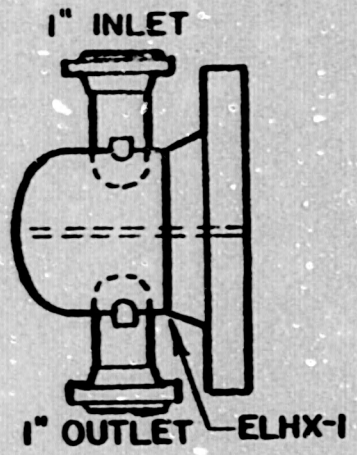
HEAD

SA 240 TP 304

.750" THK.

FLANGE

SA 105 II



REGENERATIVE AND EXCESS LETDOWN

HEAT EXCHANGER ROOM

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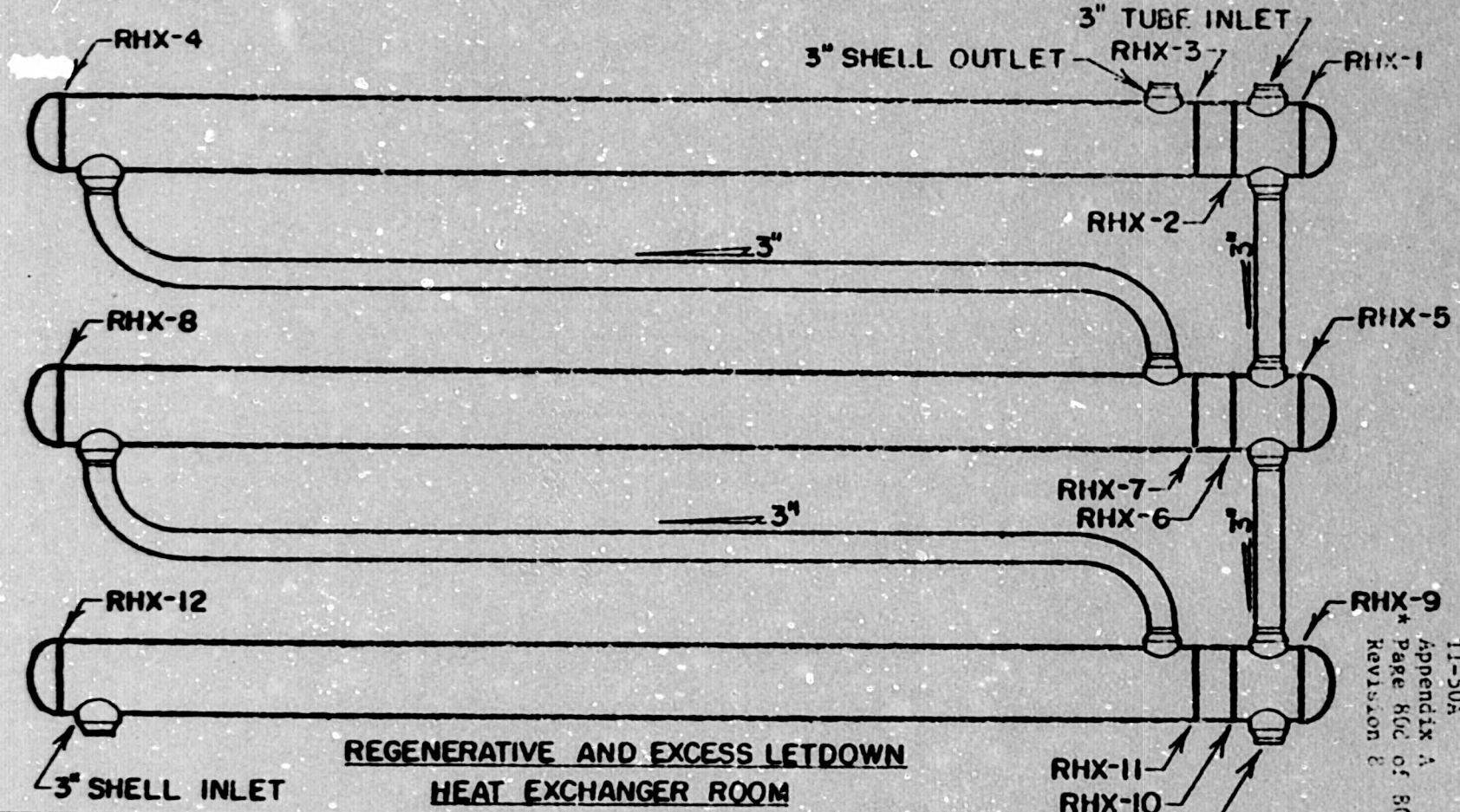
TENNESSEE VALLEY AUTHORITY
DIVISION OF NUCLEAR POWER

WATTS BAR NUCLEAR PLANT
UNITS #1 & #2
EXCESS LETDOWN HEAT EXCHANGER

SCALE: NTS DRAWN TRACED KEV CHECKED [illegible]	SUBMITTED DAD	APPROVED [illegible]	DATE 8-4-82 SHEET 1 OF 1 SHEETS ISI-0076-A

109N



REGENERATIVE AND EXCESS LETDOWN
HEAT EXCHANGER ROOM

109-0

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REFERENCE DRAWINGS

5578
5579
5580

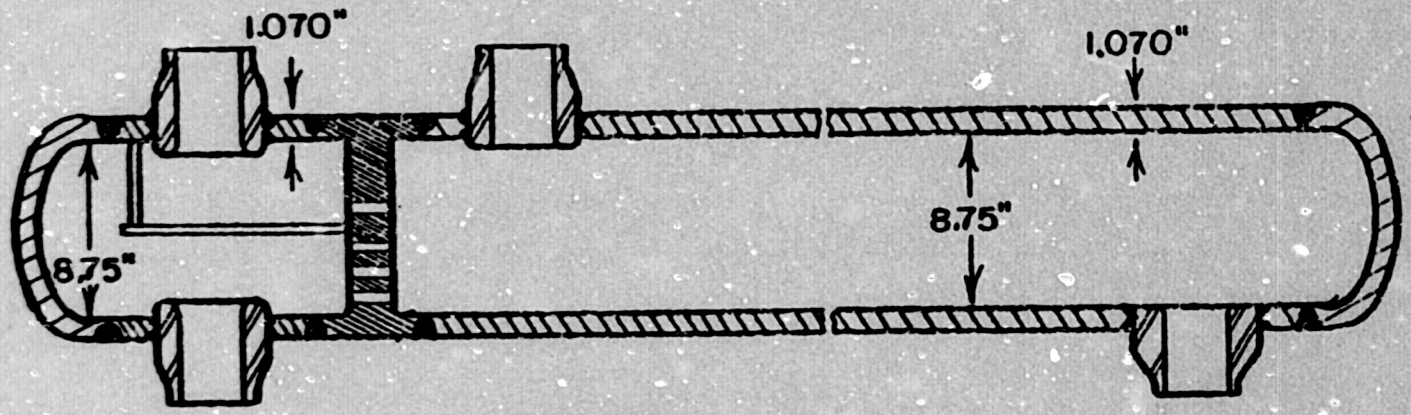
MATERIAL SPECIFICATIONS

CLASS B
SHELL
SA 351 CF 8
HEADS
SA 240 TP 304L
TUBE SHEET
SA 182 F 304

TENNESSEE VALLEY AUTHORITY
DIVISION OF NUCLEAR POWER

WATTS BAR NUCLEAR PLANT
UNITS #1 & #2
REGENERATIVE HEAT EXCHANGER

SCALE NTS	SUBMITTED DAD	APPROVED WAB	DATE 5-5-82
DRAWN TRACED KEY CHECKED JWM			SHEET 1 OF 3
			ISI-0077-A



SECTIONAL VIEW

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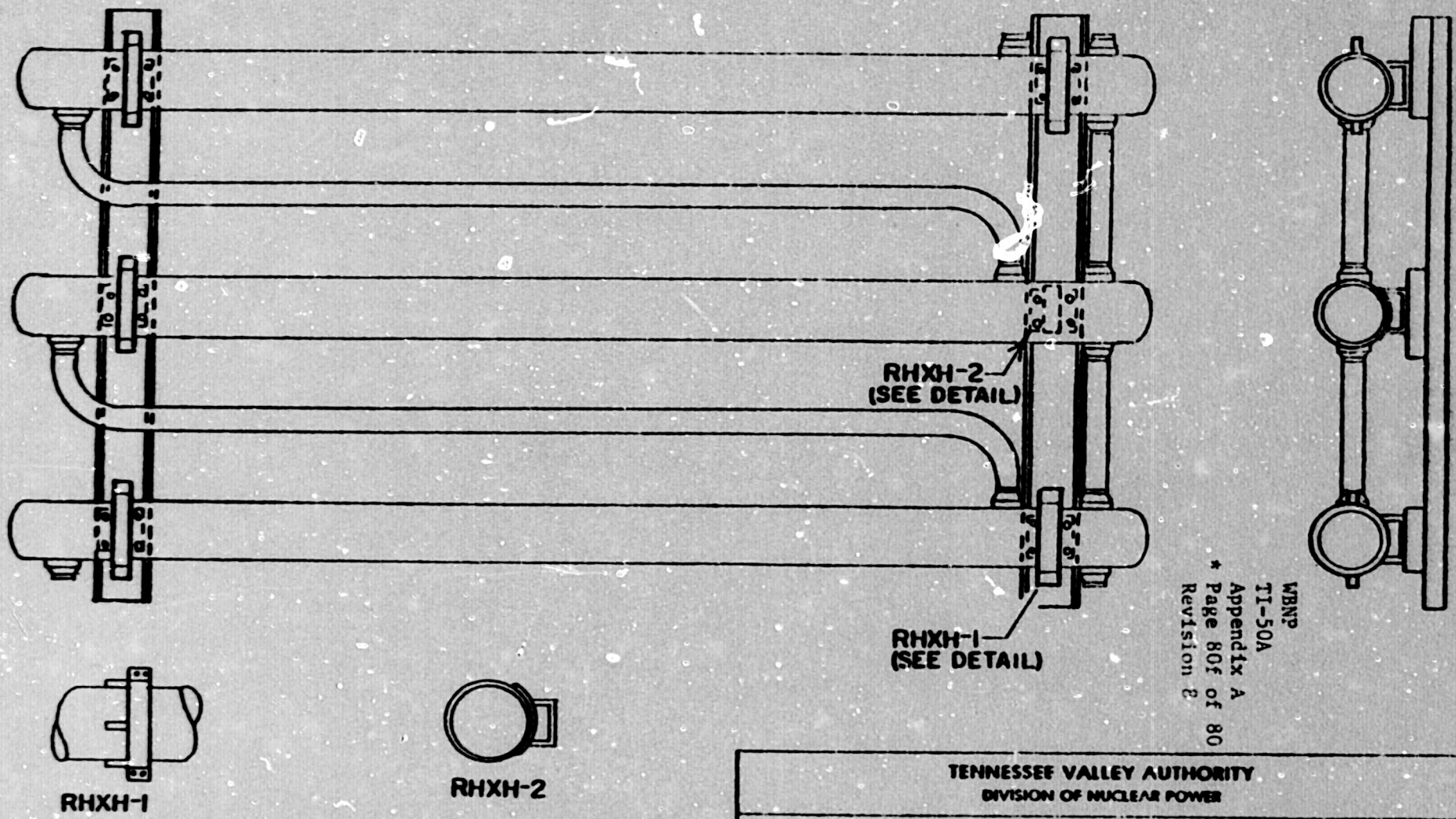
TENNESSEE VALLEY AUTHORITY
DIVISION OF NUCLEAR POWER

WATTS BAR NUCLEAR PLANT
UNITS #1 & #2
REGENERATIVE HEAT EXCHANGER

SCALE NTS	SUBMITTED DAD	APPROVED JJB	DATE 8-5-82
DRAWN REX			SHEET 2 OF 3 SHEETS
TRACED			ISI-0077-A
CHECKED			



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DIVISION OF NUCLEAR POWER

WATTS BAR NUCLEAR PLANT
UNITS #1 & #2
REGENERATIVE HEAT EXCHANGER

SCALE NTS DRAWN TRACED KEY CHECKED DAD	SUBMITTED DAD	APPROVED [illegible]	DATE 8-5-82 SHEET 3 OF 3 SHEETS ISI-0077-A

RO

1090