



KANSAS GAS AND ELECTRIC COMPANY

GLENN L. KOESTER
VICE PRESIDENT-OPERATIONS

May 11, 1979

Mr. Karl V. Seyfrit, Director
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

Re: RIV Docket No. STN 50-482/IE Bulletin No. 79-03
Ref: Letter of 3/12/79 from Office of Inspection and
Enforcement, NRC to KG&E

Dear Mr. Seyfrit:

Your letter (Reference) forwarded for review and follow-up action IE Bulletin No. 79-03 concerning ASME SA-312 type 304 fusion welded stainless steel pipe spools manufactured by Youngstown Welding and Engineering Company. The following data concerning the use or potential use of fusion welded pipe spools manufactured by Youngstown has been developed and is forwarded as an interim response to the subject Bulletin. This data has been developed generically to all five (5) SNUPPS Units. The need for additional actions applicable specifically to Wolf Creek will be indicated in the follow-up response. The items below are numbered to coincide with action items listed in the NRC Bulletin.

1. A survey of current SNUPPS suppliers of pipe spools and pre-assembled pipe formations indicates that only Dravo Corporation, Marietta, Ohio has supplied pipe spools containing fusion welded SA-312 type 304 pipe (without filler material) manufactured by Youngstown Welding and Engineering Company. To date, the total number of Dravo supplied pipe spools shipped to Callaway and Wolf Creek sites containing Youngstown-manufactured materials is 65 and 70, respectively. To date there have been no pipe spools of any type fabricated for or shipped to Sterling or Tyrone sites. Dravo is currently in the process of identifying other spools in fabrication which they plan to ship to SNUPPS job-sites and which contain the referenced fusion welded pipe. This review process can be expected to continue over the next several months until sufficient data has been obtained concerning the quality and acceptability of the Youngstown pipe being furnished for SNUPPS.

The Wolf Creek Constructor is presently in the process of identifying any pipe spools of the referenced fusion welded pipe which its

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purchasing department has ordered outside of SNUPPS scope specifications. The results of this investigation will be forwarded to the Region IV Office of Inspection and Enforcement as an additional interim report.

2. As indicated in Item 1 above, a total of 65 and 70 pipe spools containing SNUPPS specified fusion welded SA-312 type 304 pipe manufactured by Youngstown have to date been shipped to Callaway and Wolf Creek sites, respectively. A listing of pipe spools indicating system application, spool/line numbers, size and design pressure/temperature has been prepared for each of the two SNUPPS sites and is enclosed with this letter report. A supplemental listing indicating pipe spools currently in fabrication and subsequently shipped to either jobsite will be furnished in a follow-up to this interim report.
3. Each longitudinal weld seam of fusion welded SA-312 type 304 pipe manufactured by Youngstown and presently on site at Callaway and Wolf Creek plants will be ultrasonically examined. This examination will be limited only by accessibility considerations which according to preliminary site data will impact fewer than 10 percent of the total number of spools previously installed. The examination procedure, reference standards and acceptance criteria shall be performed in accordance with Paragraph NC-2552 of the 1977 edition of ASME Section III Code. Any repairs requiring welding shall be in accordance with paragraph NC-2559 of the 1977 edition of ASME Section III Code. The preceding on-site examinations will be performed over the next 60 days and the results tabulated for transmittal to NRC in a follow-on report.

Ultrasonic examinations will also be performed on all pipe spools presently in fabrication at Dravo containing fusion welded SA-312 type 304 pipe. Acceptance criteria and repair provisions will be the same as indicated above. The results of these additional examinations will be included in a follow-up to this interim report.

4. This item is applicable to holders of Operating Licenses only.
5. The ultrasonic examinations being performed at Callaway and Wolf Creek sites are scheduled for completion within the next 60 days and will be referenced into a follow-up to this interim report. The results of ultrasonic examinations of pipe currently in fabrication at Dravo will also be referenced in this follow-up report which is presently scheduled for transmittal to NRC by August 10, 1979. The need for further corrective actions will be indicated in the follow-up response.

Yours very truly,

Glen L. Kaestle

GLK:bb

Attach (1) Callaway Pipe Spool List (2) Wolf Creek Pipe List

cc: Mr. John G. Davis, Acting Director

Office of Inspection and Enforcement, Washington, D.C.

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ENCLOSURE 1
 YOUNGSTOWN SA-312 TYPE 304 WELDED (WITHOUT FILLER METAL) PIPING
 PROJECT CALLAWAY

ITEM NO.	SPOOL NUMBER	LINE NUMBER	SYSTEM/SERVICE	NOMINAL DIAMETER INCHES	DESIGN		DRAWN'S SKETCH NO.	MATERIAL ITEM OR SKETCH	RECORD SEQUENCE NO.
					PRESSURE PSIG	TEMPERATURE OF			
1	EJ01-S007	02-ECB-12"	EJ/Shutdown suction Line Train A.	12"	600	400	E-7	1A, 1B	M-201A-1245
2	EJ01-S008	01-ECB-12"	EJ/Shutdown Suction Line Train A.	12"	600	400	E-8	1	M-201A-1246
3	EJ01-S009	02-ECB-12"	EJ/Shutdown Suction Line Train A.	12"	600	400	E-9	1A, 1B	M-201A-088
4	EJ01-S010	15-ECB-10"	EJ/Pump A to Heat Exchanger A	10"	600	400	E-10	1	M-201A-1247
5	EJ01-S011	15-ECB-10"	EJ/Pump A to Heat Exchanger A	10"	600	400	E-11	1A, 1B, 1C	M-201A 46
6	EJ01-S012	15-ECB-10"	EJ/Pump A to Heat Exchanger A	10"	600	400	E-12	1	M-201A-1249
7	EJ01-S013	15-ECB-10"	EJ/Pump A to Heat Exchanger A	10"	600	400	E-13	1	M-201A-092
8	EJ01-S014	15-ECB-10"	EJ/Pump A to Heat Exchanger A	10"	600	400	E-14	1A, 1B, 1C	M-201A-1150
9	EJ01-S017	17-ECB-10"	EJ/Heat Exchanger A to Valve HV8809A	10"	600	400	E-17	1A, 1B, 1C	M-201A-1253
10	EJ01-S018	17-ECB-10"	EJ/Heat Exchanger A to Valve HV8809A	10"	600	400	E-18	1A, 1B	M-201A-1254
11	EJ01-S021	15-ECB-10"	EJ/Pump A to Heat Exchanger A	10"	600	400	E-21	1A, 1B, 1C, 1D, 1E	M-201A-1255
12	EJ01-S022	17-ECB-10"	EJ/Heat Exchanger A to Valve HV8809A	10"	600	400	E-22	1, 2A, 2B, 2C	M-201A-1256
13	EJ01-S013	17-ECB-10"	EJ/Heat Exchanger A to Valve HV8809A	10"	600	400	E-23	1A, 1B	M-201A-1257
14	EJ01-S024	40-ECB-10"	EJ/Discharge to RCS Hot legs & West	10"	600	400	E-24	1A, 1B, 1C	M-201A-1258
15	EJ01-S027	17-ECB-10"	EJ/Heat Exchanger A to Valve HV8809A	10"	600	400	E-27	1A, 1B	M-201A-1261

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ENCLOSURE 1
YOUNGSTOWN SA-312 TYPE 304 WELDED (WITHOUT FILLER METAL) PIPING
PROJECT CALLAWAY

ITEM NO.	SPOOL NUMBER	LINE NUMBER	SYSTEM/SERVICE	NOMINAL DIAMETER INCHES	DESIGN PRESSURE PSIG	TEMPERATURE OF	DRAWING SKETCH NO.	MATERIAL ITEM ON SKETCH	RECHTIL SEQUENCE NO.
16	EJ01-S028	17-ECB-10"	EJ/Heat Exchanger A to Valve HV8809A	10"	600	400	E-28	1	M-201A-1262
17	EJ01-S029	17-ECB-10"	EJ/Heat Exchanger A to Valve HV8809A	10"	600	400	E-29	1A, 1B	M-201A-1263
18	EJ01-S030	17-ECB-10"	EJ/Heat Exchanger A to Valve HV8809A	10"	600	400	E-30	1	M-201A-1264
19	EJ01-S031	17-ECB-10"	EJ/Heat Exchanger A to Valve HV8809A	10"	600	400	E-31	1A, 1B	M-201A-1265
20	EJ01-S032	17-ECB-10"	EJ/Heat Exchanger A to Valve HV8809A	10"	600	400	E-32	1, 1A	M-201A-1266
21	EJ01-S033	17-ECB-10"	EJ/Heat Exchanger A to Valve HV8809A	10"	600	400	E-33	1A, 1B	M-201A-1112
22	EJ01-S034	17-ECB-10"	EJ/Heat Exchanger A to Valve HV8809A	10"	600	400	E-34	1	M-201A-1267
23	EJ01-S037	04-ECB-14"	EJ/Heat Exchanger A to Valve HV8809A	14"	240	200	E-788	1A	M-201A-1059
24	EJ01-S038	15-ECB-10"	EJ/Pump A to Heat Exchanger A	10"	600	400	E-466	1	M-201A-643
25	EJ02-S001	09-ECB-12"	EJ/Shutdown Suction Line Train B	12"	600	400	E-38	1A, 1B, 1C, 1D	M-201A-1208
26	EJ02-S002	09-ECB-12"	EJ/Shutdown Suction Line Train B	12"	600	400	E-39	1A, 1B	M-201A-1209
27	EJ02-S003	09-ECB-12"	EJ/Shutdown Suction Line Train B	12"	600	400	E-40	1	M-201A-1210
28	EJ02-S012	16-ECB-10"	EJ/Pump B to Heat Exchanger B	10"	600	400	E-49	1A, 1B	M-201A-1215
29	EJ02-S013	16-ECB-10"	EJ/Pump B to Heat Exchanger B	10"	600	400	E-50	1A, 1B	M-201A-1216
30	EJ02-S014	16-ECB-10"	EJ/Pump B to Heat Exchanger B	10"	600	400	E-51	1	M-201A-130

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ENCLOSURE 1
YOUNGSTOWN SA-312 TYPE 304 WELDED (WITHOUT FILLER METAL) PIPING
PROJECT CALLAWAY

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ITEM NO.	SPOOL NUMBER	LINE NUMBER	SYSTEM/SERVICE	NOMINAL DIAMETER INCHES	DESIGN		DRAWING'S SKETCH NO.	MATERIAL ITEM ON SKETCH	EACHTEL SEQUENCE NO.
					PRESSURE PSIG	TEMPERATURE OF			
31	EJ02-S015	16-ECB-10"	EJ/Pump B to Heat Exchanger B	10"	600	400	E-52	1	M-201A-131
32	EJ02-S019	16-ECB-10"	EJ/Pump B to Heat Exchanger B	10"	600	400	E-56	1A, 1B, 1C 1D, 2	M-201A-1220
33	EJ02-S020	23-ECB-10"	EJ/Heat Exchanger B Discharge to Valve	10"	600	400	E-57	1	M-201A-1221
34	EJ02-S021	23-ECB-10"	Discharge to Valve HV8809B	10"	600	400	E-58	1A, 1B, 1C 1D	M-201A-1222
35	EJ02-S022	23-ECB-10"	Discharge to Valve HV8809B	10"	600	400	E-59	1A, 1B, 1C	M-201A-1223
36	EJ02-S023	60-ECB-10"	E Discharge to RCS Legs & RWST	10"	600	400	E-60	1A, 1B, 1C	M-201A-1224
37	EJ02-S024	60-ECB-10"	Discharge to RCS Legs & RWST	10"	600	400	E-61	1A, 1B	M-201A-1225
38	EJ02-S025	60-ECB-10"	EJ/Discharge to RCS Hot Legs & RWST	10"	600	400	E-62	1A, 1B	M-201A-1226
39	EJ02-S026	23-ECB-10"	EJ/Heat Exchanger B discharge to Valve HV8809B	10"	600	400	E-63	1A, 1B, 1C	M-201A-1227
40	EJ02-S027	23-ECB-10"	EJ/Heat Exchanger B discharge to Valve HV8809B	10"	600	400	E-64	1A, 1B	M-201A-1228
41	EJ02-S028	23-ECB-10"	EJ/Heat Exchanger B discharge to Valve HV8809B	10"	600	400	E-65	1	M-201A-144
42	EJ02-S029	23-ECB-10"	EJ/Heat Exchanger B discharge to Valve HV8809B	10"	600	400	E-66	1	M-201A-1229
43	EJ02-S030	23-ECB-10"	EJ/Heat Exchanger B discharge to Valve HV8809B	10"	600	400	E-67	1, 1A	M-201A-146

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POOR ORIGINAL

ENCLOSURE 1
YOUNGSTOWN SA-312 TYPE 304 WELDED (WITHOUT FILLER METAL) PIPING
PROJECT CALLAWAY

ITEM NO.	SPOOL NUMBER	LINE NUMBER	SYSTEM/SERVICE	NOMINAL DIAMETER INCHES	DESIGN		DRAWING SKETCH NO.	MATERIAL ITEM ON SKETCH	RECHTEL SEQUENCE NO.
					PRESSURE PSIG	TEMPERATURE OF			
44	EJ02-S031	23-ECB-10"	EJ/Heat Exchanger B discharge to Valve HV8809B	10"	600	400	E-68	1A, 1B	M-201A-1230
45	EJ02-S032	23-ECB-10"	EJ/Heat Exchanger B discharge to Valve HV8809B	10"	600	400	E-69	1	M-201A-1231
46	EJ02-S033	23-ECB-10"	EJ/Heat Exchanger B discharge to Valve HV8809B	10"	600	400	E-70	1A	M-201A-1232
47	EJ02-S034	23-ECB-10"	EJ/Heat Exchanger B discharge to Valve HV8809B	10"	600	400	E-71	1	M-201A-1233
48	EJ02-S036	40-ECB-10"	EJ/discharge to RCS Hot legs and RWST	10"	600	400	E-73	1A, 1B	M-201A-1235
49	EJ02-S037	40-ECB-10"	EJ/discharge to RCS Hot legs and RWST	10"	600	400	E-74	1A, 1B	M-201A-1236
50	EJ02-S039	40-ECB-10"	EJ/discharge to RCS Hot legs and RWST	10"	600	400	E-76	1A, 1B	M-201A-1237
51	EJ02-S041	40-ECB-10"	EJ/discharge to RCS Hot legs and RWST	10"	600	400	E-78	1A, 1B	M-201A-1239
52	EJ02-S042	40-ECB-10"	EJ/discharge to RCS Hot legs and RWST	10"	600	400	E-79	1	M-201A-1258
53	EJ02-S043	40-ECB-10"	EJ/discharge to RCS Hot legs and RWST	10"	600	400	E-80	1A, 1B	M-201A-1259
54	EJ02-S044	40-ECB-10"	EJ/discharge to RCS Hot legs and RWST	10"	600	400	E-81	1A, 1B	M-201A-1260
55	EJ02-S046	41-BCB-10"	EJ/CTMT Penet. Line to RCS Hot legs	10"	2485	650	E-83	1A, 1B	M-201A-1262
56	EJ02-S047	11-RCB-14"	EJ/RWST Section Line Train B to HV8958B	14"	240	200	E-84	1A, 1B	M-201A-1263

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ENCLOSURE 1
YOUNGSTOWN SA-312 TYPE 304 WELDED (WITHOUT FILLER METAL) PIPING
PROJECT CALLAWAY

ITEM NO.	SPOOL NUMBER	LINE NUMBER	SYSTEM/SERVICE	NOMINAL DIAMETER INCHES	DESIGN		DRAWING SKETCH NO.	MATERIAL ITEM ON SKETCH	RECHTEL SEQUENCE NO.
					PRESSURE PSIG	TEMPERATURE OF			
57	EN01-S019	12-HCB-14"	BN/Line off 07-HCB to EJ-11-HCB for RIR pump suction	14"	50	125	E-117	1	M-201A-200
58	EN01-S020	12-HCB-14"	BN/Line off 07-HCB to EJ-11-HCB for RIR pump suction	14"	50	125	E-118	1A, 1E	M-201A-201
59	EN01-S021	10-HCB-12"	BN/Line off 07-HCB to EN-06-HCB for CWT Spray pump suction	12"	50	125	E-119	1A, 1B, 1C, 1D	M-201A-202
60	EN01-S024	13-HCB-14"	BN/Line off 07-HCB to EJ-04-HCB for RIR pump suction	14"	50	125	E-122	1	M-201A-203
61	EN01-S025	13-HCB-14"	BN/Line off 07-HCB to EJ-04-HCB for RIR pump suction	14"	50	125	E-123	1A, 1B	M-201A-206
62	EN01-S026	15-HCB-12"	BN/Line off 14-HCB to EN02-HCB, for CWT spray additive eductor	12"	50	125	E-124	1A, 1B, 1C 1D	M-201A-207
63	EN01-S047	01-HCB-8"	EN/Line WEST to PENOLA Suction line	8"	240	200	E-171	1	M-201A-274
64	EC01-S009	100-HCC-10"	EC/Refuelling Pool LOCA Drain.	10"	150	325	E-378	1A	M-201A-499
65	EC01-S010	101-HCC-10"	EC/Refuelling Pool LOCA Drain.	10"	150	325	E-379	1A	M-201A-500

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POOR ORIGINAL

ENCLOSURE 2
YOUNGS DOWN SA-312 TYPE 304 WELDED (WITHOUT FILLER METAL) PIPING
PROJECT MOLECREEK

ITEM NO.	SPOOL NUMBER	LINE NUMBER	SYSTEM/SERVICE	NOMINAL DIAMETER INCHES	DESIGN		DRAWING SKETCH NO.	MATERIAL ITEM ON SKETCH	RECHTEL SEQUENCE NO.
					PRESSURE PSIG	TEMPERATURE OF			
1	EJ01-S008	02-ECB-12"	EJ/Shutdown Suction Line Train A	12"	600	400	E-8	1A	M-201A-1246
2	EJ01-S009	02-ECB-12"	EJ/Shutdown Suction Line Train A	12"	600	400	E-9	1A, 1B	M-201A-088
3	EJ01-S010	15-ECB-10"	EJ/Pump A to Heat Exchanger A	10"	600	400	E-10	2	M-201A-1247
4	EJ01-S014	15-ECB-10"	EJ/Pump A to Heat Exchanger A	10"	600	400	E-14	2	M-201A-1250
5	EJ01-S015	22-ECB-8"	EJ/Heat Exchanger A Bypass Line	8"	600	400	E-15	1A, 1B, 1C	M-201A-1251
6	EJ01-S016	22-ECB-8"	EJ/Heat Exchanger A Bypass Line	8"	600	400	E-16	1A, 1B, 1C	M-201A-1252
7	EJ01-S018	17-ECB-10"	EJ/Heat Exchanger A to Valve HV8809A	10"	600	400	E-18	2	M-201A-1254
8	EJ01-S019	37-ECB-8"	EJ/Intertie Train A to SI and CC Pumps Header	8"	240	200	E-19	1	M-201A-098
9	EJ01-S020	37-ECB-8"	EJ/Intertie Train A to SI and CC Pumps Header	8"	240	200	E-20	1A, 1B, 1C	M-201A-099
10	EJ01-S021	15-ECB-10"	EJ/Pump A to Heat Exchanger A	10"	600	400	E-21	2	M-201A-1255
11	EJ01-S022	17-ECB-10"	EJ/Heat Exchanger A to Valve HV8809A	10"	600	400	E-22	1	M-201A-1256
12	EJ01-S026	61-ECB-5"	EJ/EHR Return to EHSY	8"	600	400	E-26	1A, 1B, 1C	M-201A-1260
13	32-S001	09-ECB-12"	EJ/Shutdown Suction Line Train B	12"	600	400	E-38	1A, 1B, 1C	M-201A-1208
14	5002	09-ECB-12"	EJ/Shutdown Suction Line Train B	12"	600	400	E-39	1	M-201A-1309
15	7003	09-ECB-12"	EJ/Shutdown Suction Line Train B	12"	600	400	E-40	1	M-201A-1310

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ENCLOSURE 2
YOUNGSTON SA-312 TYPE 304 WELDED (WITHOUT FILLER METAL) PIPING
PROJECT WOLF CREEK

ITEM NO.	SPOOL NUMBER	LINE NUMBER	SYSTEM/SERVICE	NOMINAL DIAMETER INCHES	DESIGN PRESSURE PSIG	TEMPERATURE OF	DRAWN SKETCH NO.	MATERIAL ITEM ON SKETCH	BECHTEL SEQUENCE NO.
16	EJ02-S011	16-ECB-10"	EJ/Pump B to Heat Exchanger B.	10"	600	400	E-48	1	M-201A-1214
17	EJ02-S016	28-ECB-8"	EJ/Heat Exchanger B Bypass line.	8"	600	400	E-53	2	M-201A-1217
18	EJ02-S017	28-ECB-8"	EJ/Heat Exchanger B Bypass line	8"	600	400	E-54	1A, 1B, 1C	M-201A-1218
19	EJ02-S018	28-ECB-8"	EJ/Heat Exchanger B Bypass line	8"	600	400	E-55	1A, 1B, 1C	M-201A-1219
20	EJ02-S019	16-ECB-10"	EJ/Pump to Heat Exchanger B.	10"	600	400	E-56	2	M-201A-1220
21	EJ02-S020	23-ECB-10"	EJ/Heat Exchanger B Discharge.	10"	600	400	E-57	1	M-201A-1221
22	EJ03-S001	58-ECB-8"	EJ/Intertie Train B to SI Pumps.	8"	600	400	E-85	1A, 1B	M-201A-1294
23	EJ03-S002	58-ECB-8"	EJ/Intertie Train B to SI Pumps.	8"	600	400	E-86	1A, 1B	M-201A-1295
24	EJ03-S003	58-ECB-8"	EJ/Intertie Train B to SI Pumps.	8"	600	400	E-87	1A, 1B	M-201A-1296
25	EJ03-S004	59-ECB-8"	Intertie Train B to SI Pumps	8"	240	20.	E-88	1	M-201A-1297
26	BN01-S005	07-RCB-24"	BN/Supply Header from R&ST Pump Suction	24"	50	125	E-103	1A, 1B	M-201A-603
27	BN01-S006	07-RCB-24"	BN/Supply Header from R&ST Pump Suction	24"	50	125	E-104	1A, 1B	A-201A-605
28	BN01-S007	07-RCB-24"	BN/Supply Header from R&ST Pump Suction	24"	50	125	E-105	1	M-201A-607
29	BN01-S008	07-RCB-24"	BN/Supply Header from R&ST Pump Suction	24"	50	125	E-106	1	M-201A-609
30	BN01-S009	07-RCB-24"	BN/Supply Header from R&ST Pump Suction	24"	50	125	E-107	1	M-201A-611

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ENCLOSURE 2
YOUNGSTOWN SA-312 TYPE 304 WELDED (WITHOUT FILLER METAL) PIPING
PROJECT H&LPCB&K

ITEM NO.	SPOOL NUMBER	LINE NUMBER	SYSTEM/SERVICE	NOMINAL DIAMETER INCHES	PRESSURE PSIG	DESIGN TEMPERATURE OF	DRAWN SKETCH NO.	MATERIAL ITEM ON SKETCH	BECHTEL SEQUENCE NO.
31	BN01-S010	07-HCB-24"	BN/Supply Header from RWST Pump Suction	24"	50	125	E-108	1	M-201A-613
32	BN01-S011	07-HCB-24"	BN/Supply Header from RWST Pump Suction	24"	50	125	E-109	1A, 1B	M-201A-615
33	BN01-S012	17-HCB-8"	BN/Supply Header from RWST Pump Suction	8"	50	125	E-110	2A, 2B	M-201A-617
34	BN01-S013	17-HCB-8"	BN/RWST Supply Line to Centrifugal charging pump	8"	50	125	E-111	1A, 1B	M-201A-194
35	BN01-S014	19-HCB-6"	Bypass from RWST off 07-HCB to line 10-HCB	6"	50	150	E-112	1A, 1B, 1C	M-201A-195
36	BN01-S015	19-HCB-6"	Bypass from RWST off 07-HCB to Line 20-HCB	6"	50	150	E-113	1	M-201A-196
37	BN01-S017	08-HCB-8"	BN/Line off 07-HCB to BC-265-HCB for Cent. charging pump.	8"	50	125	E-115	1A, 1B	M-201A-198
38	BN01-S018	09-HCB-8"	BN/Line off 07-HCB to BN-01-HCB for SI pump suction	8"	50	125	E-116	1A, 1B 1C, 1D	M-201A-199
39	BN01-S021	10-HCB-12"	BN/Line off 07-HCB to BN-06-HCB for CTMT spray pump suction	12"	50	125	E-119	1A, 1B 1C, 1D	M-201A-202
40	BN01-S022	18-HCB-8"	BN/Line EJ-61 ECB, RHR pump discharge to RWST for refuelling pool draining	8"	50	150	E-120	1A, 1B	M-201A-203
41	BN01-S023	18-HCB-8"	BN/Line EJ-61 ECB, RHR pump discharge to RWST for refuelling pool draining	8"	50	150	E-121	1A, 1B	M-201A-204

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ENCLOSURE 2
YOUNGSTOWN SA-312 TYPE 304 WELDED (WITHOUT FILLER METAL) PIPING
PROJECT WOLF CREEK

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ITEM NO.	SPOOL NUMBER	LINE NUMBER	SYSTEM/SERVICE	NOMINAL DIAMETER INCHES	DESIGN		DRAWING SKETCH NO.	MATERIAL ITEM ON SKETCH	BECHTEL SEQUENCE NO.
					PRESSURE PSIG	TEMPERATURE OF			
42	EN01-S026	15-HCB-12"	FW/Line off 14-HCB to EN02 -HCB, for CHT spray additive educator	12"	50	125	E-124	1A, 1B, 1C, 1D	M-201A-207
43	EN01-S027	33-HCB-8"	BN/Suction from RWST Supply Header 17-HCB to SI pump suction	8"	50	125	E-126	1A, 1B, 1C, 1D	M-201A-497
44	EN01-S022	22-HCB-6"	EM/RHR Heat Exchanger A to Pw - A & B	6"	240	200	E-146	1A, 1B, 1C, 1D, 1E	M-201A-249
45	EN01-S023	22-HCB-6"	EM/RHR Heat Exchanger A to Pump A & B	6"	240	200	E-147	1A, 1B, 1C	M-201A-25
46	EN01-S024	22-HCB-6"	EM/RHR Heat Exchanger A to Pump A & B	6"	240	200	E-148	1A, 1B	M-201A-251
47	EN01-S025	22-HCB-6"	EM/RHR Heat Exchanger A to Pump A & B	6"	240	200	E-149	1	M-201A-252
48	EN01-S026	22-HCB-6"	EM/RHR Heat Exchanger A to Pump A & B	6"	240	200	E-150	1A, 1B	M-201A-253
49	EN01-S027	22-HCB-6"	EM/RHR Heat Exchanger A to Pump A & B	6"	240	200	E-151	1A, 1B, 1C, 1D	M-201A-254
50	EN01-S028	22-HCB-6"	EM/RHR Heat Exchanger A to Pump A & B	6"	240	200	E-152	1A, 1B	M-201A-255
51	EN01-S029	23-HCB-6"	EM/RHR Heat Exchanger A to Pump A & B	6"	240	200	E-153	1A, 1B	M-201A-256
52	EN01-S030	23-HCB-6"	EM/RHR Heat Exchanger A to Pump A & B	6"	240	200	E-154	1A, 1B	M-201A-257
53	EN01-S031	23-HCB-6"	EM/RHR Heat Exchanger A to Pump A & B	6"	240	200	E-155	1A, 1B	M-201A-258
54	EN01-S032	23-HCB-6"	EM/RHR Heat Exchanger A to Pump A & B	6"	240	200	E-156	1	M-201A-259
55	EN01-S033	23-HCB-6"	EM/RHR Heat Exchanger A to Pump A & B	6"	240	200	E-157	1A, 1B	M-201A-260

POOR ORIGINAL

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ENCLOSURE 2
YOUNGSTOWN SA-312 TYPE 304 WELDED (WITHOUT FILLER METAL) PIPING
PROJECT WOLPCREK

ITEM NO.	SPOOL NUMBER	LINE NUMBER	SYSTEM/SERVICE	NOMINAL DIAMETER INCHES	DESIGN		DRAWING SKETCH NO.	MATERIAL ITEM ON SKETCH	SHEET SEQUENCE NO.
					PRESSURE PSIG	TEMPERATURE OF			
56	EM01-S034	23-HCB-6"	EM/HR Heat Exchanger B to pump B	6"	240	200	E-158	1A, 1B	M-201A-261
57	EM01-S035	04-HCB-6"	EM/SI pump suction cross over	6"	240	200	E-159	1A, 1B	M-201A-262
58	EM01-S036	04-HCB-6"	EM/SI pump suction cross over	6"	240	200	E-160	1	M-201A-263
59	EM01-S037	04-HCB-6"	EM/SI pump suction cross over	6"	240	200	E-161	1	M-201A-264
60	EM01-S038	04-HCB-6"	EM/SI pump suction cross over	6"	240	200	E-162	1	M-201A-265
61	EM01-S039	04-HCB-6"	EM/SI pump suction cross over	6"	240	200	E-163	1A, 1B	M-201A-266
62	EM01-S040	01-HCB-8"	EM/Proc RWST to pump A suction line	8"	240	200	E-164	1A, 1B, 2A, 2B, 2C	M-201A-267
		02-HCB-6"	EM/Pump A suction line	6"	240	200			
		04-HCB-6"	EM/SI Pump suction cross over	6"	240	200			
63	EM01-S041	02-HCB-6"	EM/Pump A suction line	6"	240	200	E-165	1A, 1B, 1C	M-201A-268
64	EM01-S042	02-HCB-6"	EM/Pump A suction line	6"	240	200	E-166	1	M-201A-269
65	EM01-S043	03-HCB-8"	EM/Proc RWST to pump B suction line	8"	240	200	E-167	1	M-201A-270
66	EM01-S044	05-HCB-6"	EM/Pump B Suction Line	6"	240	200	E-168	2A, 2B, 2C	M-201A-271
		04-HCB-6"	EM/SI pump suction cross over	6"	240	200			
67	EM01-S045	24-HCB-8"	EM/HR Heat Exchanger B to pump B	8"	240	200	E-169	1, 2	M-201A-272
		05-HCB-6"	EM/Pump B Suction Line	6"	240	200			
68	EM01-S046	05-HCB-6"	EM/Pump B Suction Line	6"	240	200	E-170	1	M-201A-273

POOR ORIGINAL

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ENCLOSURE 2
YOUNGSTOWN SA-312 TYPE 304 WELDED (WITHOUT FILLER METAL) PIPING
PROJECT WOLF CREEK

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ITEM NO.	SPOOL NUMBER	LINE NUMBER	SYSTEM/SERVICE	NOMINAL DIAMETER INCHES	DESIGN		DRAWING SKETCH NO.	MATERIAL ITEM ON SKETCH	BECHTEL SEQUENCE NO.
					PRESSURE PSIG	TEMPERATURE OF			
69	EW01-S047	01-HCB-8"	EH/From RWST to pump A suction line	8"	240	200	E-171	1	M-201A-274
70	LP10-S012	642-HCB-6"	LP/Pump discharge	6"	50	175	E-527	1A, 1B, 1C	M-201A-729

POOR ORIGINAL

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