

50-305

RESPONSE TO NUREG-0737 ITEM II.D.1

Docket # *50-305*

Control # *8403280048*

Date *3/23/84* of Document:
REGULATORY DOCKET FILE

.0050	237.	-416.	217.	22.	-159.	-28.	-.0001	.0004	-.0023	.0002	.0013	.0001	230.
.0060	305.	-565.	242.	96.	-232.	-75.	-.0002	.0008	-.0036	-.0000	.0019	.0002	370.
.0070	375.	-805.	210.	168.	-350.	-127.	-.0004	.0014	-.0055	-.0004	.0026	.0003	576.
.0080	513.	-1159.	106.	230.	-630.	-190.	-.0003	.0021	-.0084	-.0009	.0037	.0005	984.
.0090	748.	-1656.	-152.	351.	-1179.	-310.	.0003	.0032	-.0126	-.0020	.0053	.0008	1792.
.0100	1127.	-2011.	-497.	617.	-2001.	-528.	.0017	.0052	-.0180	-.0044	.0073	.0015	3049.
.0110	1657.	-2194.	-752.	1004.	-3009.	-824.	.0041	.0079	-.0244	-.0084	.0099	.0026	4629.
.0120	2225.	-2269.	-936.	1427.	-4028.	-1118.	.0075	.0111	-.0314	-.0141	.0129	.0040	6252.
.0130	2583.	-2273.	-1215.	1797.	-4893.	-1320.	.0117	.0147	-.0384	-.0214	.0156	.0054	7597.
.0140	2500.	-2074.	-1801.	2117.	-5417.	-1422.	.0166	.0184	-.0447	-.0306	.0173	.0069	8457.
.0150	1860.	-1311.	-2815.	2424.	-5914.	-1419.	.0221	.0225	-.0494	-.0421	.0174	.0086	8741.

ADLPIPE PAGE 831

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.46.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	13	MEMBER	1	SEQUENCE	807	LOCATION	BEG	TYPE	RU					STRESS
TIME	FX	FY	FZ	MX	MY	MZ				DZ	RX	RY	RZ	(PSI)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	
.0160	648.	-14.	-4363.	2699.	-5204.	-1318.	.0282	.0267	-.0519	-.0555	.0157	.0101	.0101	8487.
.0170	-785.	1626.	-5879.	2824.	-4574.	-1039.	.0354	.0306	-.0522	-.0692	.0133	.0111	.0111	7748.
.0180	-1800.	3180.	-6196.	2656.	-3705.	-704.	.0440	.0337	-.0509	-.0810	.0121	.0114	.0114	6516.
.0190	-1857.	4233.	-4618.	2144.	-2802.	-165.	.0544	.0360	-.0494	-.0891	.0143	.0110	.0110	4939.
.0200	-264.	4253.	-641.	1302.	-2412.	498.	.0672	.0377	-.0504	-.0921	.0224	.0103	.0103	3934.
.0210	2748.	3426.	4503.	441.	-3020.	1113.	.0830	.0403	-.0553	-.0907	.0365	.0104	.0104	4589.
.0220	5406.	2797.	9153.	-23.	-3252.	1532.	.0986	.0447	-.0604	-.0883	.0531	.0117	.0117	5078.
.0230	6735.	2594.	12777.	-319.	-2226.	1939.	.1112	.0498	-.0631	-.0856	.0680	.0125	.0125	4194.
.0240	5458.	2361.	12508.	-909.	-251.	2685.	.1195	.0530	-.0621	-.0796	.0759	.0109	.0109	4020.
.0250	2498.	1248.	10212.	-2129.	2395.	3780.	.1240	.0520	-.0578	-.0668	.0778	.0051	.0051	6999.
.0260	70.	-704.	11675.	-3697.	6540.	4713.	.1247	.0481	-.0514	-.0488	.0806	-.0052	-.0052	12528.
.0270	-2922.	-1482.	14384.	-4395.	12758.	4945.	.1184	.0453	-.0409	-.0334	.0834	-.0175	-.0175	20300.
.0280	-6531.	230.	12506.	-3571.	17461.	4351.	.1078	.0455	-.0277	-.0144	.0787	-.0278	-.0278	25913.
.0290	-8224.	2711.	9041.	-2400.	18154.	3142.	.0979	.0460	-.0155	-.0174	.0677	-.0366	-.0366	26243.
.0300	-9387.	3180.	6754.	-2559.	18017.	1788.	.0847	.0424	-.0050	-.0056	.0582	-.0484	-.0484	25827.
.0310	-9013.	1243.	5884.	-3712.	17251.	861.	.0675	.0347	.0045	.0115	.0523	-.0629	-.0629	24954.
.0320	-4379.	-1040.	8650.	-4219.	14208.	282.	.0494	.0272	.0132	.0298	.0455	-.0743	-.0743	20938.
.0330	296.	-995.	9888.	-3177.	9623.	-685.	.0291	.0230	.0234	.0429	.0305	-.0781	-.0781	14347.
.0340	907.	676.	5662.	-1730.	5512.	-1933.	.0047	.0198	.0366	.0492	.0068	-.0777	-.0777	8605.
.0350	1007.	647.	1091.	-1633.	1841.	-2267.	-.0213	.0122	.0499	.0532	-.0175	-.0807	-.0807	4726.
.0360	3422.	-1803.	-500.	-2792.	-2014.	-1340.	-.0455	-.0009	.0607	.0590	-.0367	-.0883	-.0883	5218.
.0370	4366.	-3589.	-3468.	-3276.	-4989.	-430.	-.0669	-.0146	.0695	.0648	-.0528	-.0935	-.0935	8452.
.0380	2159.	-2475.	-8390.	-1825.	-5952.	-530.	-.0928	-.0239	.0779	.0647	-.0672	-.0905	-.0905	8826.
.0390	1197.	-36.	-9607.	500.	-5973.	-1085.	-.1144	-.0291	.0847	.0548	-.0767	-.0820	-.0820	8604.
.0400	3069.	697.	-7948.	1635.	-7484.	-1296.	-.1294	-.0354	.0857	.0415	-.0798	-.0746	-.0746	10974.
.0410	3225.	-389.	-9351.	1350.	-8813.	-1180.	-.1412	-.0458	.0815	.0365	-.0771	-.0684	-.0684	12704.
.0420	2736.	-3216.	-11260.	1020.	-9952.	-1203.	-.1494	-.0575	.0741	.0418	-.0716	-.0577	-.0577	14232.
.0430	5753.	-4474.	-7882.	1419.	-11942.	-1782.	-.1496	-.0653	.0637	.0440	-.0593	-.0410	-.0410	17172.
.0440	8749.	-3562.	-5259.	2310.	-14354.	-3127.	-.1446	-.0675	.0534	.0324	-.0487	-.0214	-.0214	21005.
.0450	8984.	-1594.	-5177.	3058.	-14848.	-4722.	-.1390	-.0685	.0464	.0157	-.0420	-.0023	-.0023	22427.
.0460	8547.	-417.	-3475.	3067.	-13117.	-5616.	-.1326	-.0736	.0427	.0077	-.0370	.0140	.0140	20615.
.0470	7965.	-80.	-2040.	2219.	-11387.	-5596.	-.1229	-.0830	.0408	.0083	-.0380	.0259	.0259	18194.
.0480	5239.	871.	-4492.	1264.	-9944.	-5348.	-.1107	-.0924	.0409	.0093	-.0478	.0348	.0348	16047.
.0490	1909.	3062.	-5959.	1135.	-7142.	-5275.	-.0971	-.0980	.0426	.0087	-.0577	.0440	.0440	12644.
.0500	1104.	5462.	-2593.	1661.	-3885.	-4950.	-.0806	-.0999	.0437	.0090	-.0526	.0537	.0537	9193.
.0510	1800.	6415.	1132.	1677.	-2004.	-3810.	-.0598	-.1012	.0420	.0138	-.0550	.0601	.0601	6526.
.0520	1680.	5063.	2403.	579.	-1151.	-1785.	-.0361	-.1051	.0381	.0298	-.0666	.0614	.0614	3109.
.0530	1316.	2033.	4399.	-1059.	-27.	816.	-.0114	-.1114	.0339	.0594	-.0660	.0591	.0591	1888.

ADLPIPE PAGE 832

DIS/ADLPIPE

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83/12/02.

18.26.46.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
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INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.0430	5753.	-4474.	7882.	1419.	-11942.	-1732.	-1496.	-0653.	.0637.	.0418.	-0593.	-0410.	14232.
.0440	8749.	-3562.	-5259.	2710.	-14354.	-3127.	-1446.	-0675.	.0534.	.0324.	-0487.	-0214.	21005.
.0450	8984.	-1594.	-5177.	5050.	-14848.	-4722.	-1390.	-0685.	.0464.	.0157.	-0420.	-0023.	22427.
.0460	2547.	-417.	-3475.	3067.	-13117.	-5616.	-1326.	-0736.	.0427.	.0077.	-0370.	.0140.	20615.
.0470	7965.	-80.	-2040.	2219.	-11787.	-5996.	-1229.	-0830.	.0408.	.0063.	-0380.	.0259.	18194.
.0480	5239.	371.	-4492.	1264.	-9944.	-5348.	-1107.	-0924.	.0409.	.0093.	-0478.	.0348.	16047.
.0490	1909.	3062.	-5959.	1135.	-7142.	-5275.	-0971.	-0980.	.0426.	.0087.	-0577.	.0440.	12644.
.0500	1104.	5462.	-2593.	1661.	-3885.	-4950.	-0306.	-0999.	.0437.	.0090.	-0526.	.0537.	9193.
.0510	1800.	6415.	1132.	1677.	-2004.	-3810.	-0598.	-1012.	.0420.	.0138.	-0550.	.0601.	6526.
.0520	1660.	5063.	2403.	579.	-1151.	-1735.	-0361.	-1051.	.0381.	.0298.	-0666.	.0614.	3109.
.0530	1210.	2033.	4399.	-1059.	-27.	816.	-0114.	-1114.	.0339.	.0594.	-0560.	.0591.	1888.

ADLPIPE PAGE 832 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.26.46.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
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INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	18	MEMBER	1	SEQUENCE	807	LOCATION	BEG	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.0540	1115.	-716.	6627.	-2410.	1288.	3505.	.0134	-.1171	.0313	.0924	-.0546	.0534	6278.		
.0550	-280.	-1974.	5388.	-3127.	2274.	5737.	.0374	-.1201	.0311	.1184	-.0654	.0428	9772.		
.0560	-2846.	-2021.	2649.	-3259.	3629.	7240.	.0598	-.1223	.0326	.1420	-.0659	.0281	12330.		
.0570	-5583.	-2177.	1856.	-3154.	6083.	8192.	.0799	-.1268	.0342	.1721	-.0509	.0105	15085.		
.0580	-8216.	-3071.	1054.	-3260.	8705.	8859.	.0978	-.1335	.0341	.2050	-.0494	-.0109	18089.		
.0590	-10058.	-4047.	-842.	-3473.	10186.	8847.	.1144	-.1395	.0314	.2302	-.0324	-.0348	19678.		
.0600	-10071.	-4031.	-542.	-3055.	10781.	7840.	.1295	-.1417	.0264	.2453	-.0100	-.0560	17316.		
.0610	-8803.	-2882.	1831.	-1719.	10631.	5870.	.1427	-.1402	.0200	.2545	.0155	-.0701	17324.		
.0620	-7424.	-1775.	2323.	-274.	9067.	3804.	.1537	-.1376	.0121	.2608	.0408	-.0785	13894.		
.0630	-5488.	-2044.	1227.	232.	6105.	2498.	.1625	-.1368	.0031	.2645	.0550	-.0833	9323.		
.0640	-3136.	-3486.	1084.	-326.	3186.	1991.	.1674	-.1374	-.0051	.2633	.0871	-.0835	5326.		
.0650	-2255.	-4430.	130.	-1176.	1177.	1783.	.1668	-.1372	-.0106	.2521	.1032	-.0771	3445.		
.0660	-2834.	-4030.	-3030.	-1561.	-389.	1649.	.1616	-.1348	-.0137	.2290	.1125	-.0648	3255.		
.0670	-2614.	-2795.	-5173.	-1367.	-1052.	1688.	.1536	-.1315	-.0165	.1995	.1195	-.0489	4032.		
.0680	-1446.	-1812.	-4652.	-1014.	-2670.	1839.	.1433	-.1291	-.0201	.1697	.1277	-.0317	4799.		
.0690	-1004.	-1179.	-4243.	-843.	-2910.	1876.	.1308	-.1272	-.0246	.1388	.1351	-.0151	5033.		
.0700	-727.	-461.	-4783.	-667.	-3570.	1730.	.1175	-.1236	-.0300	.1042	.1395	.0006	5682.		
.0710	659.	457.	-4094.	-31.	-4493.	1449.	.1036	-.1174	-.0354	.0694	.1414	.0163	6669.		
.0720	1922.	1300.	-2192.	1095.	-4275.	1039.	.0876	-.1095	-.0393	.0406	.1415	.0324	6404.		
.0730	1811.	1656.	-855.	2139.	-2774.	626.	.0690	-.1015	-.0406	.0199	.1376	.0466	5027.		
.0740	1153.	1309.	-487.	2553.	-1261.	415.	.0494	-.0943	-.0394	.0052	.1273	.0568	4064.		
.0750	111.	645.	-1400.	2404.	-32.	307.	.0293	-.0879	-.0354	-.0058	.1100	.0627	3424.		
.0760	-1983.	409.	-3830.	2184.	1476.	-96.	.0080	-.0813	-.0285	-.0141	.0878	.0654	3726.		
.0770	-3915.	371.	-5726.	2240.	2968.	-975.	-.0127	-.0737	-.0204	-.0202	.0544	.0656	5429.		
.0780	-3886.	1594.	-5021.	2517.	3647.	-2102.	-.0310	-.0649	-.0126	-.0242	.0425	.0638	6928.		
.0790	-2572.	2044.	-3028.	2679.	3589.	-3133.	-.0468	-.0553	-.0053	-.0258	.0225	.0606	7720.		
.0800	-1460.	1972.	-1749.	2339.	3259.	-3785.	-.0609	-.0452	.0024	-.0256	.0035	.0562	7790.		
.0810	-217.	1244.	-567.	1301.	2419.	-3835.	-.0723	-.0348	.0108	-.0244	-.0153	.0506	6662.		
.0820	1567.	16.	1070.	-194.	1030.	-3239.	-.0803	-.0240	.0203	-.0219	-.0338	.0439	4808.		
.0830	2685.	-1089.	1849.	-1611.	-141.	-2192.	-.0862	-.0130	.0316	-.0169	-.0518	.0365	3847.		
.0840	2697.	-1591.	1330.	-2707.	-816.	-931.	-.0904	-.0021	.0446	-.0103	-.0591	.0282	4204.		
.0850	2500.	-1702.	409.	-3773.	-1620.	389.	-.0917	.0082	.0572	-.0055	-.0847	.0174	5826.		
.0860	2717.	-1307.	-675.	-4999.	-2607.	1565.	-.0904	.0172	.0679	-.0042	-.0964	.0024	8265.		
.0870	2111.	-1301.	-1309.	-5959.	-3128.	2317.	-.0872	.0251	.0755	-.0046	-.1011	-.0161	10054.		
.0880	2853.	-1318.	112.	-6048.	-3240.	2426.	-.0820	.0324	.0792	-.0041	-.0974	-.0362	10279.		
.0890	4820.	-279.	3264.	-5213.	-3659.	1842.	-.0743	.0400	.0788	-.0035	-.0877	-.0568	9365.		
.0900	6712.	987.	5759.	-3983.	-4503.	730.	-.0648	.0475	.0755	-.0038	-.0765	-.0781	8536.		
.0910	7727.	1922.	6701.	-2844.	-5321.	-459.	-.0550	.0534	.0708	-.0036	-.0666	-.0996	8548.		

ADLPIPE PAGE 837 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.26.46.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.0810	-217.	1244.	-567.	1301.	2419.	-3835.	-1723.	-0348.	.0108.	-0244.	-0153.	.0506.	6682.
.0820	1567.	16.	1070.	-194.	1030.	-3239.	-1803.	-0240.	.0203.	-0219.	-0338.	.0439.	4808.
.0830	2685.	-1089.	1849.	-1610.	-141.	-2192.	-0862.	-0130.	.0316.	-0169.	-0518.	.0365.	3847.
.0840	2197.	-1591.	1330.	-1707.	-216.	-931.	-0904.	-0021.	.0446.	-0103.	-0591.	.0282.	4204.
.0850	2500.	-1702.	409.	-3773.	-1620.	389.	-0917.	.0082.	.0572.	-0055.	-0847.	.0174.	5826.
.0860	2713.	-1807.	-675.	-4999.	-2607.	1585.	-0904.	.0172.	.0679.	-0042.	-0964.	.0024.	8265.
.0870	2111.	-1301.	-1309.	-5959.	-3128.	2317.	-0872.	.0251.	.0755.	-0046.	-1011.	-0161.	10054.
.0880	2853.	-1318.	112.	-6048.	-3240.	2426.	-0820.	.0324.	.0792.	-0041.	-0974.	-0362.	10279.
.0890	4820.	-279.	3264.	-5213.	-3659.	1842.	-0743.	.0400.	.0789.	-0035.	-0877.	-0568.	9365.
.0900	6712.	287.	5759.	-3983.	-4503.	738.	-0648.	.0475.	.0755.	-0038.	-0765.	-0781.	8536.
.0910	7727.	1922.	6701.	-2844.	-5321.	-469.	-0550.	.0539.	.0708.	-0036.	-0666.	-0996.	8548.

ADLPIPE PAGE 833 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.26.46.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

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LOADS
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FORCES AND MOMENTS ACT ON THE PIPING

SECTION	18	MEMBER	1	SEQUENCE	807	LOCATION	BEG	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.0920	8192.	2068.	6776.	-2105.	-5937.	-1343.	-0456.	.0580.	.0656.	-0004.	-0596.	-1203.	9098.		
.0930	8003.	1506.	5844.	-1645.	-6369.	-1763.	-0368.	.0602.	.0602.	.0055.	-0571.	-1384.	9619.		
.0940	6817.	801.	3824.	-1185.	-6440.	-1906.	-0292.	.0612.	.0547.	.0110.	-0596.	-1518.	9633.		
.0950	5175.	318.	1779.	-600.	-6148.	-1912.	-0226.	.0616.	.0485.	.0152.	-0562.	-1595.	9131.		
.0960	3725.	-140.	63.	-61.	-5865.	-1744.	-0166.	.0610.	.0404.	.0144.	-0754.	-1620.	8643.		
.0970	2380.	-831.	-1912.	320.	-5815.	-1378.	-0111.	.0590.	.0297.	.0093.	-0865.	-1602.	8453.		
.0980	1064.	-1592.	-3520.	717.	-5697.	-928.	-0062.	.0557.	.0167.	.0024.	-0986.	-1532.	8226.		
.0990	-105.	-2099.	-3760.	1600.	-5050.	-509.	-0024.	.0518.	.0022.	-0051.	-1103.	-1402.	7517.		
.1000	-1464.	-2286.	-3334.	2717.	-3692.	-121.	.0001.	.0486.	-0125.	-0150.	-1210.	-1222.	6477.		
.1010	-3122.	-2298.	-3191.	3806.	-1637.	267.	.0014.	.0463.	-0264.	-0292.	-1296.	-1011.	5863.		
.1020	-5077.	-2219.	-2896.	4687.	1030.	591.	.0019.	.0447.	-0390.	-0460.	-1343.	-0781.	6830.		
.1030	-7078.	-1985.	-2273.	5416.	3986.	696.	.0026.	.0436.	-0501.	-0624.	-1336.	-0539.	9550.		
.1040	-8989.	-1391.	-2024.	6133.	6712.	432.	.0040.	.0429.	-0600.	-0781.	-1260.	-0293.	12856.		
.1050	-10114.	-209.	-1844.	6929.	8699.	-280.	.0070.	.0434.	-0693.	-0948.	-1101.	-0050.	15714.		
.1060	-9821.	1566.	-688.	7740.	9745.	-1413.	.0119.	.0454.	-0781.	-1132.	-0852.	.0192.	17691.		
.1070	-8680.	3566.	766.	8308.	9941.	-2750.	.0181.	.0483.	-0863.	-1321.	-0530.	.0430.	18706.		
.1080	-6692.	4877.	2039.	8241.	8852.	-3876.	.0260.	.0510.	-0951.	-1477.	-0148.	.0654.	17939.		
.1090	-2893.	4433.	4071.	7353.	5782.	-4458.	.0375.	.0528.	-1075.	-1557.	.0298.	.0857.	14636.		
.1100	-106.	4033.	4823.	6657.	3558.	-4573.	.0462.	.0566.	-1157.	-1607.	.0725.	.1057.	12466.		
.1110	2134.	4391.	5113.	6065.	1573.	-4300.	.0534.	.0632.	-1182.	-1662.	.1073.	.1237.	10734.		
.1120	3296.	4703.	4003.	4850.	-651.	-3509.	.0599.	.0698.	-1162.	-1692.	.1316.	.1357.	8506.		
.1130	2549.	3758.	744.	2890.	-2214.	-2045.	.0643.	.0741.	-1101.	-1622.	.1471.	.1405.	5898.		
.1140	1401.	1708.	-2507.	720.	-3082.	-122.	.0670.	.0766.	-1015.	-1451.	.1574.	.1393.	4474.		
.1150	1310.	-22.	-4178.	-1111.	-4179.	1546.	.0698.	.0806.	-0926.	-1274.	.1638.	.1332.	6487.		
.1160	1594.	-760.	-4784.	-2321.	-5310.	2345.	.0720.	.0876.	-0844.	-1150.	.1660.	.1227.	8830.		
.1170	2499.	-1064.	-3207.	-2783.	-5869.	2345.	.0729.	.0959.	-0766.	-1034.	.1655.	.1088.	9754.		
.1180	2639.	-1143.	-1301.	-2703.	-4660.	2081.	.0689.	.1028.	-0668.	-0879.	.1608.	.0915.	8158.		
.1190	3402.	-1550.	1336.	-2895.	-3538.	1848.	.0633.	.1064.	-0560.	-0697.	.1501.	.0689.	6965.		
.1200	3123.	-2127.	2175.	-3620.	-2674.	1341.	.0567.	.1071.	-0441.	-0530.	.1333.	.0408.	6634.		
.1210	237.	-2197.	-198.	-4163.	-703.	324.	.0467.	.1075.	-0318.	-0392.	.1141.	.0112.	5982.		
.1220	-729.	-1316.	-251.	-3614.	1133.	-964.	.0365.	.1104.	-0206.	-0305.	.0967.	-0150.	5521.		
.1230	-760.	199.	343.	-2279.	2719.	-2211.	.0254.	.1158.	-0110.	-0287.	.0805.	-0371.	5904.		
.1240	-1077.	1193.	496.	-1077.	4077.	-212.	.0139.	.1210.	-0037.	-0303.	.0648.	-0559.	7487.		
.1250	-1879.	1067.	985.	-360.	5778.	-3650.	.0016.	.1236.	.0015.	-0302.	.0509.	-0706.	9667.		
.1260	-3012.	201.	674.	48.	7769.	-3259.	-0129.	.1239.	.0050.	-0302.	.0378.	-0806.	11901.		
.1270	-1801.	-975.	1208.	402.	7502.	-2383.	-0245.	.1241.	.0047.	-0362.	.0244.	-0857.	11133.		
.1280	-916.	-1463.	617.	1145.	6183.	-1830.	-0350.	.1260.	.0017.	-0498.	.0097.	-0847.	9250.		
.1290	-100.	-722.	1241.	2685.	4980.	-1100.	-0449.	.1297.	-0036.	-0679.	-0048.	-0763.	8390.		

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2 SAFETY COLD FKW24F--2 PSV

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LOADS
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.1190	2402.	-1550.	1336.	-2895.	-3538.	1848.	.633	.1064	-.0560	-.0697	.1501	.0689	8158.
.1200	3123.	-2127.	2175.	-3620.	-2674.	1341.	.567	.1071	-.0441	-.0530	.1333	.0408	6634.
.1210	237.	-2197.	-198.	-4163.	-703.	324.	.0467	.1075	-.0318	-.0392	.1141	.0112	5982.
.1220	-789.	-1316.	-251.	-3614.	1133.	-964.	.0365	.1104	-.0206	-.0305	.0967	-.0150	5521.
.1230	-760.	199.	343.	-2279.	2719.	-2211.	.0254	.1158	-.0110	-.0287	.0805	-.0371	5904.
.1240	-1077.	1193.	496.	-1077.	4077.	-712.	.0179	.1210	-.0037	-.0303	.0548	-.0559	7487.
.1250	-1879.	1067.	985.	-360.	5778.	-3650.	.0016	.1236	.0015	-.0302	.0509	-.0706	9667.
.1260	-3012.	201.	674.	48.	7769.	-2259.	-.0129	.1239	.0050	-.0302	.0378	-.0806	11901.
.1270	-1801.	-975.	1208.	402.	7502.	-2383.	-.0245	.1241	.0047	-.0362	.0244	-.0857	11133.
.1280	-918.	-1463.	617.	1145.	6183.	-1870.	-.0350	.1260	.0012	-.0498	.0097	-.0847	9250.
.1290	-100.	-722.	1241.	2685.	4980.	-1810.	-.0449	.1297	-.0036	-.0679	-.0048	-.0763	8390.

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INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	1E	MEMBER	1	SEQUENCE	807	LOCATION	BEG	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.1300	1814.	588.	3395.	4442.	3498.	-1729.	-.0535	.1335	-.0087	-.0886	-.0195	-.0630	8352.		
.1310	2468.	1344.	2603.	5252.	2109.	-1174.	-.0631	.1349	-.0121	-.1118	-.0387	-.0499	8164.		
.1320	2477.	1148.	1973.	4833.	661.	-472.	-.0718	.1333	-.0138	-.1337	-.0622	-.0381	6922.		
.1330	1146.	1132.	1369.	4161.	271.	-214.	-.0811	.1307	-.0134	-.1517	-.0878	-.0256	5897.		
.1340	390.	2314.	1431.	4258.	-173.	-618.	-.0893	.1299	-.0119	-.1681	-.1123	-.0118	6082.		
.1350	1051.	4411.	1792.	5022.	-1589.	-1622.	-.0945	.1311	-.0106	-.1845	-.1336	.0016	7784.		
.1360	1260.	6302.	1972.	5575.	-2583.	-3028.	-.0991	.1323	-.0096	-.1970	-.1502	.0132	9676.		
.1370	2197.	6877.	4563.	5332.	-3277.	-4360.	-.1021	.1314	-.0070	-.2013	-.1606	.0227	10774.		
.1380	2603.	6265.	6066.	4369.	-3490.	-5114.	-.1054	.1284	-.0077	-.1983	-.1669	.0299	10703.		
.1390	3116.	5243.	6414.	3233.	-3710.	-5243.	-.1082	.1244	-.0048	-.1904	-.1697	.0354	10157.		
.1400	3516.	4565.	7041.	2343.	-3388.	-5120.	-.1103	.1204	.0007	-.1778	-.1689	.0405	9282.		
.1410	1939.	4234.	5913.	1552.	-1830.	-4810.	-.1137	.1159	.0089	-.1604	-.1658	.0448	7592.		
.1420	683.	3351.	3910.	476.	-940.	-3904.	-.1150	.1098	.0180	-.1391	-.1603	.0466	5711.		
.1430	-339.	1571.	555.	-989.	-631.	-2302.	-.1151	.1015	.0264	-.1136	-.1514	.0449	3649.		
.1440	-736.	-651.	-1514.	-2395.	-240.	-560.	-.1134	.0921	.0335	-.0842	-.1361	.0415	3490.		
.1450	-506.	-2386.	-1424.	-3159.	519.	726.	-.1096	.0835	.0391	-.0551	-.1138	.0379	4637.		
.1460	-136.	-3058.	-1149.	-3122.	1453.	1496.	-.1046	.0768	.0433	-.0310	-.0870	.0339	5303.		
.1470	2046.	-3118.	762.	-2632.	1368.	1966.	-.0960	.0705	.0457	-.0116	-.0580	.0285	5027.		
.1480	3201.	-2929.	1686.	-2185.	1545.	2160.	-.0869	.0626	.0475	.0068	-.0302	.0219	4857.		
.1490	2878.	-2644.	1326.	-1970.	1973.	2068.	-.0769	.0526	.0492	.0246	-.0055	.0146	4904.		
.1500	2441.	-1970.	600.	-1756.	1978.	1785.	-.0652	.0419	.0500	.0390	.0163	.0083	4507.		
.1510	1417.	-604.	-1049.	-1271.	2254.	1342.	-.0539	.0320	.0500	.0480	.0356	.0048	4117.		
.1520	831.	866.	-1488.	-631.	2510.	718.	-.0418	.0231	.0479	.0534	.0542	.0056	3793.		
.1530	-372.	1801.	-2084.	-226.	2969.	21.	-.0301	.0143	.0428	.0571	.0719	.0103	4206.		
.1540	-649.	1764.	-1927.	-213.	2549.	-523.	-.0172	.0054	.0337	.0605	.0857	.0177	3688.		
.1550	249.	1092.	-1079.	-325.	1252.	-921.	-.0030	-.0033	.0214	.0638	.1081	.0276	2243.		
.1560	296.	530.	-1490.	-239.	337.	-1389.	.0094	-.0110	.0082	.0663	.1252	.0397	2047.		
.1570	1140.	191.	-862.	78.	-1112.	-1952.	.0224	-.0171	-.0056	.0665	.1396	.0538	3175.		
.1580	1544.	76.	-1021.	431.	-2473.	-2388.	.0341	-.0222	-.0184	.0641	.1493	.0684	4893.		
.1590	639.	-169.	-2677.	596.	-2811.	-2413.	.0424	-.0276	-.0289	.0611	.1541	.0817	5300.		
.1600	219.	-932.	-3117.	482.	-2555.	-1974.	.0488	-.0339	-.0372	.0589	.1551	.0926	4611.		
.1610	-201.	-1569.	-3162.	317.	-2134.	-1421.	.0542	-.0401	-.0438	.0553	.1519	.1010	3649.		
.1620	-2003.	-1400.	-5085.	457.	-1156.	-1044.	.0575	-.0450	-.0488	.0489	.1446	.1068	2293.		
.1630	-2345.	-751.	-4904.	1194.	-427.	-784.	.0609	-.0481	-.0530	.0408	.1355	.1105	2016.		
.1640	-1934.	118.	-3313.	2069.	474.	-533.	.0633	-.0501	-.0557	.0323	.1244	.1116	3092.		
.1650	-2653.	1052.	-2733.	2908.	2044.	-217.	.0634	-.0515	-.0565	.0244	.1098	.1093	5030.		
.1660	-3056.	1531.	-1020.	3436.	3723.	326.	.0627	-.0529	-.0554	.0191	.0929	.1045	7161.		
.1670	-3396.	1598.	822.	3683.	6132.	1151.	.0595	-.0541	-.0513	.0171	.0738	.0978	10233.		

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2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
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INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.1550	1140.	191.	-862.	78.	-1112.	-1952.	.224	-.0171	-.0050	.0665	.1396	.0538	2047.
.1580	1544.	76.	-1021.	431.	-2473.	-2388.	.341	-.0222	-.0184	.0641	.1493	.0684	4893.
.1590	689.	-169.	-2677.	596.	-2811.	-2413.	.0424	-.0276	-.0289	.0611	.1541	.0817	5300.
.1600	219.	-932.	-3117.	482.	-2555.	-1974.	.0488	-.0339	-.0372	.0589	.1551	.0926	4611.
.1610	-201.	-1569.	-3162.	317.	-2134.	-1421.	.0542	-.0401	-.0438	.0553	.1519	.1010	3649.
.1620	-2007.	-1400.	-5085.	457.	-1156.	-1044.	.0575	-.0450	-.0488	.0489	.1446	.1068	2293.
.1630	-2345.	-751.	-4904.	1114.	-427.	-784.	.0609	-.0481	-.0530	.0408	.1355	.1105	2016.
.1640	-1934.	118.	-3313.	2069.	474.	-533.	.0633	-.0501	-.0557	.0323	.1244	.1116	3092.
.1650	-2653.	1052.	-2733.	2908.	2044.	-217.	.0634	-.0515	-.0565	.0244	.1398	.1093	5030.
.1660	-3056.	1571.	-1020.	3426.	3723.	328.	.0627	-.0529	-.0554	.0191	.0929	.1045	7161.
.1670	-3896.	1598.	822.	3683.	6132.	1151.	.0595	-.0541	-.0513	.0171	.0738	.0978	10233.

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INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	18	MEMBER	1	SEQUENCE	807	LOCATION	BEG	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.1680	-4048.	1734.	2299.	3796.	8544.	2053.	.0551	-.0541	-.0444	.0163	.0532	.0902	13520.		
.1690	-6709.	2167.	1970.	3692.	10787.	2820.	.0491	-.0530	-.0352	.0161	.0312	.0818	16590.		
.1700	-8237.	2208.	1672.	3218.	12340.	3470.	.0424	-.0516	-.0251	.0195	.0098	.0731	18668.		
.1710	-7856.	1474.	2911.	2384.	12306.	4006.	.0371	-.0505	-.0155	.0278	-.0083	.0644	18588.		
.1720	-8212.	669.	1566.	1307.	11624.	4248.	.0305	-.0494	-.0060	.0383	-.0232	.0552	17579.		
.1730	-7382.	-99.	552.	122.	9638.	4086.	.0250	-.0476	.0023	.0489	-.0328	.0458	14787.		
.1740	-5211.	-1013.	1051.	-1074.	6870.	3553.	.0200	-.0453	.0096	.0594	-.0373	.0361	11029.		
.1750	-3151.	-1906.	1238.	-2149.	4110.	2754.	.0138	-.0428	.0168	.0698	-.0383	.0256	7619.		
.1760	-671.	-2518.	1544.	-2968.	1015.	1814.	.0079	-.0403	.0240	.0797	-.0369	.0137	5118.		
.1770	1006.	-2683.	944.	-3517.	-1548.	821.	.0007	-.0384	.0321	.0886	-.0347	-.0001	5550.		
.1780	2735.	-2556.	972.	-3804.	-3820.	-165.	-.0063	-.0369	.0408	.0954	-.0320	-.0155	7618.		
.1790	3484.	-1963.	181.	-3801.	-5310.	-1061.	-.0142	-.0355	.0503	.0986	-.0300	-.0321	9345.		
.1800	3675.	-1024.	-888.	-3477.	-6055.	-1712.	-.0231	-.0344	.0595	.0987	-.0287	-.0486	10155.		
.1810	5132.	-203.	349.	-2861.	-6326.	-2046.	-.0307	-.0336	.0674	.0971	-.0270	-.0634	10846.		
.1820	5670.	589.	1042.	-2092.	-5776.	-2138.	-.0391	-.0334	.0742	.0941	-.0261	-.0760	10462.		
.1830	6033.	1307.	1685.	-1355.	-6509.	-1979.	-.0469	-.0338	.0796	.0894	-.0258	-.0859	9799.		
.1840	6607.	1696.	2512.	-834.	-6245.	-1500.	-.0541	-.0350	.0835	.0836	-.0268	-.0933	9148.		
.1850	6834.	1659.	2833.	-544.	-5836.	-806.	-.0611	-.0371	.0863	.0781	-.0304	-.0976	8356.		
.1860	6756.	1505.	2848.	-326.	-5428.	-136.	-.0670	-.0396	.0882	.0737	-.0362	-.0982	7684.		
.1870	5391.	1530.	1500.	-149.	-4320.	400.	-.0732	-.0423	.0896	.0706	-.0436	-.0956	6132.		
.1880	4344.	1268.	726.	-175.	-3125.	852.	-.0782	-.0455	.0899	.0686	-.0506	-.0906	4582.		
.1890	3113.	536.	-283.	-516.	-1792.	1157.	-.0819	-.0491	.0888	.0674	-.0568	-.0841	3100.		
.1900	1230.	-308.	-2024.	-997.	-277.	1140.	-.0846	-.0529	.0859	.0672	-.0517	-.0759	2175.		
.1910	280.	-1092.	-2416.	-1341.	704.	748.	-.0842	-.0565	.0803	.0682	-.0534	-.0658	2386.		
.1920	-254.	-1723.	-2417.	-1439.	1392.	49.	-.0813	-.0599	.0724	.0695	-.0518	-.0545	2829.		
.1930	-424.	-2135.	-2327.	-1352.	1648.	-837.	-.0757	-.0630	.0627	.0694	-.0573	-.0426	3234.		
.1940	-300.	-2248.	-1985.	-1207.	1466.	-1738.	-.0673	-.0660	.0519	.0676	-.0507	-.0304	3636.		
.1950	-317.	-2167.	-1783.	-1113.	1111.	-2425.	-.0565	-.0695	.0409	.0645	-.0430	-.0183	4082.		
.1960	-648.	-2085.	-2017.	-1088.	794.	-2687.	-.0440	-.0735	.0304	.0607	-.0347	-.0069	4246.		
.1970	-970.	-1896.	-2199.	-1032.	527.	-2488.	-.0301	-.0778	.0208	.0561	-.0258	.0036	3877.		
.1980	-1220.	-1346.	-2069.	-828.	297.	-1966.	-.0149	-.0818	.0121	.0503	-.0165	.0133	3042.		
.1990	-1628.	-489.	-2081.	-479.	70.	-1238.	.0012	-.0851	.0045	.0437	-.0072	.0219	1878.		
.2000	-1977.	341.	-2317.	-104.	-338.	-309.	.0178	-.0881	-.0025	.0378	.0023	.0289	664.		
.2010	-1864.	890.	-2281.	180.	-1005.	792.	.0347	-.0912	-.0092	.0344	.0125	.0336	1825.		
.2020	-1436.	1072.	-1832.	329.	-1698.	1909.	.0512	-.0943	-.0156	.0344	.0236	.0362	3638.		
.2030	-993.	954.	-1191.	386.	-2189.	2857.	.0666	-.0970	-.0212	.0374	.0350	.0366	5113.		
.2040	-496.	751.	-492.	418.	-2509.	3531.	.0804	-.0991	-.0257	.0427	.0357	.0347	6147.		
.2050	-111.	594.	-99.	402.	-2654.	3891.	.0924	-.1007	-.0287	.0502	.0549	.0301	6677.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.46.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK
PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.1940	-101.	-248.	-155.	-1207.	1406.	-1738.	-1073.	-0.0660	.0519	.0676	-0.0507	-0.0304	3636.
.1950	-317.	-2167.	-1783.	-1113.	1111.	-2425.	-10565	-0.0695	.0409	.0645	-0.0430	-0.0183	4082.
.1960	-648.	-2085.	-2017.	-1088.	794.	-2687.	-10440	-0.0735	.0304	.0607	-0.0347	-0.0069	4246.
.1970	-970.	-1396.	-2199.	-1032.	527.	-2438.	-10301	-0.0778	.0208	.0561	-0.0258	.0036	3877.
.1980	-1220.	-1346.	-2069.	-828.	297.	-1968.	-10149	-0.0818	.0121	.0503	-0.0165	.0133	3042.
.1990	-1622.	-439.	-2081.	-479.	70.	-1238.	-10012	-0.0851	.0045	.0437	-0.0072	.0219	1878.
.2000	-1977.	341.	-2317.	-104.	-138.	-309.	-0.0178	-0.0881	-0.0025	.0378	.0023	.0289	664.
.2010	-1864.	390.	-2281.	180.	-1005.	792.	-0.0347	-0.0912	-0.0092	.0344	.0125	.0336	1825.
.2020	-1436.	1072.	-1832.	329.	-1698.	1909.	-0.0512	-0.0943	-0.0156	.0344	.0236	.0362	3638.
.2030	-993.	954.	-1191.	386.	-2189.	2857.	-0.0666	-0.0970	-0.0212	.0374	.0350	.0366	5113.
.2040	-496.	751.	-492.	418.	-2509.	3531.	-0.0804	-0.0991	-0.0257	.0427	.0457	.0347	6147.
.2050	-111.	594.	-99.	402.	-2654.	3891.	-0.0924	-0.1007	-0.0287	.0502	.0549	.0301	6677.

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CONDITION 24

LOADS

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ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	18	MEMBER	1	SEQUENCE	807	LOCATION	BEG	TYPE	RU					
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.2060	-263.	330.	-389.	231.	-2446.	3925.	.1022	-0.1024	-0.0301	.0608	.0520	.0223	6542.	
.2070	-949.	-179.	-1129.	-111.	-1824.	3655.	.1096	-0.1044	-0.0300	.0744	.0572	.0113	5772.	
.2080	-1737.	-723.	-1816.	-450.	-951.	3110.	.1150	-0.1062	-0.0289	.0896	.0778	-0.0022	4637.	
.2090	-2476.	-1010.	-2361.	-574.	71.	2316.	.1185	-0.1070	-0.0271	.1042	.0729	-0.0170	3372.	
.2100	-3241.	-1086.	-2705.	-450.	1284.	1364.	.1201	-0.1065	-0.0250	.1172	.0741	-0.0319	2722.	
.2110	-3813.	-1229.	-2445.	-216.	2582.	463.	.1201	-0.1051	-0.0229	.1284	.0745	-0.0462	3717.	
.2120	-4054.	-1578.	-1664.	-9.	3739.	-157.	.1186	-0.1033	-0.0211	.1377	.0740	-0.0593	5287.	
.2130	-4181.	-2047.	-989.	152.	4617.	-392.	.1157	-0.1011	-0.0193	.1443	.0716	-0.0703	6549.	
.2140	-4359.	-2426.	-666.	370.	5176.	-272.	.1114	-0.0983	-0.0170	.1469	.0566	-0.0782	7337.	
.2150	-4531.	-2524.	-549.	552.	5400.	122.	.1055	-0.0946	-0.0141	.1448	.0592	-0.0825	7669.	
.2160	-4621.	-2351.	-648.	754.	5279.	744.	.0984	-0.0901	-0.0108	.1379	.0499	-0.0830	7605.	
.2170	-4584.	-2116.	-950.	841.	4861.	1546.	.0898	-0.0854	-0.0073	.1272	.0399	-0.0802	7302.	
.2180	-4283.	-1933.	-1140.	779.	4164.	2386.	.0801	-0.0805	-0.0038	.1139	.0300	-0.0744	6868.	
.2190	-3656.	-1080.	-1070.	628.	3173.	3050.	.0695	-0.0753	-0.0006	.0985	.0210	-0.0658	6279.	
.2200	-2727.	-1215.	-866.	485.	1915.	3357.	.0581	-0.0693	.0022	.0811	.0132	-0.0551	5502.	
.2210	-1450.	-558.	-453.	410.	473.	3237.	.0462	-0.0626	.0046	.0627	.0069	-0.0431	4657.	
.2220	90.	172.	214.	375.	-1050.	2717.	.0338	-0.0556	.0069	.0452	.0019	-0.0305	4148.	
.2230	1506.	837.	725.	273.	-2509.	1894.	.0211	-0.0486	.0092	.0297	-0.0026	-0.0180	4458.	
.2240	2524.	1278.	772.	13.	-3743.	921.	.0078	-0.0420	.0117	.0168	-0.0074	-0.0065	5445.	
.2250	3212.	1445.	591.	-376.	-4608.	-63.	-0.0059	-0.0358	.0147	.0063	-0.0127	.0036	6531.	
.2260	3591.	1462.	369.	-768.	-5019.	-988.	-0.0198	-0.0298	.0181	-0.0019	-0.0189	.0119	7306.	
.2270	3552.	1432.	-36.	-1059.	-5011.	-1810.	-0.0336	-0.0242	.0217	-0.0078	-0.0262	.0184	7673.	
.2280	3196.	1284.	-590.	-1233.	-4736.	-2455.	-0.0472	-0.0189	.0253	-0.0112	-0.0347	.0224	7733.	
.2290	2773.	940.	-1064.	-1315.	-4324.	-2846.	-0.0596	-0.0141	.0287	-0.0126	-0.0440	.0237	7543.	
.2300	2345.	471.	-1423.	-1299.	-3814.	-2978.	-0.0709	-0.0097	.0316	-0.0126	-0.0536	.0222	7076.	
.2310	1908.	7.	-1664.	-1143.	-3233.	-2902.	-0.0808	-0.0052	.0342	-0.0124	-0.0633	.0182	6345.	
.2320	1574.	-372.	-1644.	-816.	-2649.	-2663.	-0.0889	-0.0004	.0366	-0.0122	-0.0727	.0122	5430.	
.2330	1358.	-631.	-1442.	-360.	-2107.	-2289.	-0.0951	.0045	.0387	-0.0122	-0.0814	.0047	4424.	
.2340	1135.	-781.	-1373.	107.	-1641.	-1815.	-0.0993	.0094	.0407	-0.0127	-0.0890	-0.0041	3460.	
.2350	907.	-860.	-1514.	472.	-1332.	-1310.	-0.1013	.0142	.0422	-0.0142	-0.0949	-0.0137	2722.	
.2360	761.	-827.	-1724.	737.	-1244.	-875.	-0.1008	.0169	.0430	-0.0168	-0.0986	-0.0236	2387.	
.2370	734.	-559.	-1932.	997.	-1333.	-608.	-0.0978	.0238	.0428	-0.0206	-0.0991	-0.0328	2503.	
.2380	854.	-49.	-1993.	1299.	-1502.	-552.	-0.0925	.0290	.0411	-0.0255	-0.0958	-0.0407	2912.	
.2390	1189.	526.	-1651.	1371.	-1675.	-682.	-0.0850	.0343	.0379	-0.0310	-0.0883	-0.0469	3384.	
.2400	1645.	990.	-941.	1710.	-1781.	-932.	-0.0755	.0397	.0330	-0.0368	-0.0770	-0.0514	3727.	
.2410	1996.	1299.	-197.	1702.	-1760.	-1238.	-0.0646	.0451	.0268	-0.0424	-0.0528	-0.0541	3875.	
.2420	2159.	1477.	404.	1607.	-1621.	-1543.	-0.0527	.0508	.0195	-0.0473	-0.0471	-0.0547	3891.	
.2430	2145.	1571.	884.	1478.	-1384.	-1804.	-0.0400	.0560	.0117	-0.0510	-0.0310	-0.0532	3831.	

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S/RV PIPING KEWAUNEE GKM08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

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ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.2330	1358.	-831.	-1442.	-260.	-2107.	-2289.	-1951.	.0045	.0387	-.0122	-.0814	.0047	4424.
.2340	1135.	-781.	-1373.	107.	-1641.	-1815.	-1093	.0094	.0407	-.0127	-.0890	-.0041	3460.
.2350	907.	-860.	-1514.	472.	-1332.	-1310.	-.1013	.0142	.0422	-.0142	-.0949	-.0137	2722.
.2360	761.	-827.	-1724.	737.	-1244.	-875.	-.1008	.0109	.0430	-.0168	-.0986	-.0236	2387.
.2370	734.	-559.	-1932.	997.	-1333.	-608.	-.0978	.0238	.0428	-.0206	-.0991	-.0328	2503.
.2380	354.	-49.	-1990.	1299.	-1502.	-552.	-.0925	.0290	.0411	-.0255	-.0958	-.0407	2912.
.2390	1189.	526.	-1621.	1571.	-1675.	-682.	-.0850	.0343	.0379	-.0310	-.0883	-.0469	3384.
.2400	1645.	990.	-941.	1710.	-1781.	-932.	-.0755	.0397	.0330	-.0368	-.0770	-.0514	3727.
.2410	1996.	1299.	-197.	1702.	-1760.	-1238.	-.0646	.0451	.0268	-.0424	-.0628	-.0541	3875.
.2420	2159.	1477.	404.	1607.	-1621.	-1543.	-.0527	.0506	.0195	-.0473	-.0471	-.0547	3891.
.2430	2145.	1536.	884.	1478.	-1384.	-1604.	-.0400	.0560	.0117	-.0510	-.0310	-.0532	3831.

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S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
LOADS
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INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	RU	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
.2440	18	1	207				.2440	1911.	1475.	1207.	1312.	-1027.	-1985.	-.0271	.0614	.0035	-.0538	-.0154	-.0498	3661.
.2450							.2450	1476.	1277.	1321.	1087.	-593.	-2047.	-.0143	.0665	-.0048	-.0559	-.0011	-.0449	3380.
.2460							.2460	973.	938.	1276.	812.	-208.	-1969.	-.0020	.0712	-.0133	-.0576	.0113	-.0387	3023.
.2470							.2470	474.	534.	1064.	544.	16.	-1781.	.0097	.0755	-.0217	-.0592	.0210	-.0315	2631.
.2480							.2480	-17.	183.	735.	364.	112.	-1537.	.0204	.0793	-.0300	-.0610	.0279	-.0236	2236.
.2490							.2490	-772.	-56.	571.	327.	168.	-1268.	.0298	.0827	-.0380	-.0635	.0323	-.0153	1864.
.2500							.2500	-511.	-173.	706.	443.	197.	-983.	.0378	.0860	-.0456	-.0671	.0343	-.0068	1548.
.2510							.2510	-625.	-139.	876.	689.	246.	-692.	.0443	.0891	-.0526	-.0718	.0340	.0017	1422.
.2520							.2520	-916.	31.	887.	1011.	432.	-390.	.0491	.0922	-.0586	-.0777	.0317	.0101	1648.
.2530							.2530	-1325.	235.	928.	1352.	852.	-57.	.0522	.0951	-.0637	-.0643	.0282	.0183	2259.
.2540							.2540	-1759.	412.	1126.	1684.	1514.	305.	.0537	.0981	-.0678	-.0915	.0244	.0262	3228.
.2550							.2550	-2272.	623.	1310.	2015.	2352.	641.	.0537	.1012	-.0709	-.0993	.0208	.0342	4467.
.2560							.2560	-2876.	900.	1374.	2323.	3261.	896.	.0524	.1045	-.0734	-.1076	.0180	.0423	5795.
.2570							.2570	-3420.	1152.	1422.	2533.	4130.	1054.	.0500	.1079	-.0754	-.1164	.0165	.0504	7003.
.2580							.2580	-3777.	1280.	1512.	2574.	4870.	1114.	.0467	.1113	-.0770	-.1254	.0171	.0579	7938.
.2590							.2590	-3919.	1304.	1618.	2460.	5410.	1044.	.0426	.1145	-.0783	-.1342	.0197	.0646	8523.
.2600							.2600	-3834.	1308.	1734.	2268.	5667.	805.	.0377	.1178	-.0791	-.1425	.0239	.0703	8696.
.2610							.2610	-3560.	1358.	1739.	2057.	5585.	396.	.0322	.1212	-.0794	-.1502	.0288	.0748	8425.
.2620							.2620	-3170.	1437.	1495.	1826.	5181.	-129.	.0259	.1249	-.0788	-.1573	.0337	.0776	7761.
.2630							.2630	-2678.	1442.	1087.	1541.	4520.	-685.	.0189	.1286	-.0772	-.1633	.0381	.0785	8815.
.2640							.2640	-2090.	1296.	637.	1217.	3653.	-1206.	.0112	.1322	-.0747	-.1676	.0413	.0771	5698.
.2650							.2650	-1471.	1064.	90.	928.	2599.	-1665.	.0029	.1357	-.0714	-.1702	.0428	.0739	4552.
.2660							.2660	-818.	865.	-519.	745.	1406.	-2057.	-.0058	.1392	-.0672	-.1716	.0422	.0690	3673.
.2670							.2670	-38.	731.	-930.	675.	151.	-2368.	-.0148	.1428	-.0625	-.1726	.0399	.0626	3485.
.2680							.2680	859.	628.	-1019.	681.	-1069.	-2578.	-.0238	.1462	-.0573	-.1733	.0360	.0550	4058.
.2690							.2690	1731.	556.	-947.	727.	-2184.	-2670.	-.0326	.1492	-.0518	-.1737	.0304	.0466	4980.
.2700							.2700	2477.	544.	-842.	799.	-3132.	-2635.	-.0412	.1518	-.0458	-.1735	.0232	.0380	5890.
.2710							.2710	3054.	601.	-676.	876.	-3813.	-2481.	-.0495	.1539	-.0394	-.1729	.0144	.0295	6543.
.2720							.2720	3385.	707.	-469.	925.	-4121.	-2231.	-.0575	.1556	-.0325	-.1720	.0045	.0218	6747.
.2730							.2730	3428.	830.	-286.	908.	-4033.	-1917.	-.0650	.1569	-.0253	-.1706	-.0064	.0151	6436.
.2740							.2740	3273.	909.	-95.	800.	-3642.	-1580.	-.0720	.1577	-.0181	-.1684	-.0176	.0095	5720.
.2750							.2750	3008.	924.	146.	618.	-3038.	-1280.	-.0781	.1581	-.0112	-.1652	-.0287	.0052	4738.
.2760							.2760	2704.	913.	466.	403.	-2298.	-1082.	-.0832	.1580	-.0049	-.1612	-.0390	.0025	3633.
.2770							.2770	2486.	909.	964.	187.	-1523.	-1018.	-.0873	.1577	.0004	-.1568	-.0482	.0013	2600.
.2780							.2780	2407.	898.	1630.	-23.	-803.	-1078.	-.0902	.1569	.0047	-.1518	-.0562	.0014	1899.
.2790							.2790	2371.	870.	2271.	-223.	-177.	-1225.	-.0919	.1553	.0078	-.1463	-.0632	.0028	1777.
.2800							.2800	2280.	842.	2755.	-399.	354.	-1404.	-.0926	.1529	.0101	-.1401	-.0693	.0053	2121.
.2810							.2810	2132.	810.	3105.	-550.	798.	-1551.	-.0921	.1497	.0115	-.1335	-.0745	.0087	2583.

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S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
LOADS
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INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.2710	3034.	601.	-876.	876.	-3813.	-2481.	-.0495	.1539	-.0394	-.1729	.0144	.0295	6543.
.2720	3385.	707.	-469.	925.	-4121.	-2231.	-.0575	.1556	-.0325	-.1720	.0045	.0218	6747.
.2730	3428.	830.	-288.	908.	-4033.	-1917.	-.0650	.1569	-.0253	-.1706	-.0064	.0151	6436.
.2740	3273.	909.	-95.	800.	-3642.	-1580.	-.0720	.1577	-.0181	-.1684	-.0176	.0095	5720.
.2750	3008.	924.	146.	618.	-3638.	-1280.	-.0781	.1581	-.0112	-.1652	-.0287	.0052	4738.
.2760	2704.	913.	466.	403.	-2298.	-1082.	-.0832	.1580	-.0049	-.1612	-.0390	.0025	3633.
.2770	2486.	909.	964.	187.	-1523.	-1018.	-.0873	.1577	.0004	-.1568	-.0482	.0013	2600.
.2780	2407.	898.	1630.	-23.	-803.	-1078.	-.0902	.1569	.0047	-.1518	-.0562	.0014	1899.
.2790	2371.	870.	2271.	-223.	-177.	-1225.	-.0919	.1553	.0078	-.1463	-.0632	.0028	1777.
.2800	2280.	842.	2755.	-399.	354.	-1404.	-.0926	.1529	.0101	-.1401	-.0593	.0053	2121.
.2810	2132.	810.	2105.	-550.	798.	-1551.	-.0921	.1497	.0115	-.1335	-.0745	.0087	2583.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.46.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	18	MEMBER	1	SEQUENCE	807	LOCATION	BEG	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.2820	1913.	754.	3310.	-678.	1167.	-1619.	-.0906	.1456	.0122	-.1268	-.0789	.0126	2977.		
.2830	1589.	702.	3303.	-761.	1456.	-1596.	-.0880	.1406	.0122	-.1201	-.0821	.0167	3235.		
.2840	1213.	699.	3150.	-754.	1630.	-1488.	-.0843	.1350	.0116	-.1135	-.0840	.0208	3295.		
.2850	884.	728.	3003.	-645.	1673.	-1299.	-.0794	.1287	.0102	-.1070	-.0840	.0249	3127.		
.2860	648.	723.	2928.	-471.	1608.	-1033.	-.0734	.1218	.0082	-.1006	-.0818	.0288	2780.		
.2870	508.	670.	2921.	-272.	1462.	-713.	-.0665	.1143	.0055	-.0943	-.0772	.0322	2329.		
.2880	452.	618.	2952.	-57.	1250.	-376.	-.0589	.1061	.0024	-.0883	-.0704	.0352	1846.		
.2890	429.	608.	2952.	170.	1006.	-63.	-.0509	.0974	-.0009	-.0822	-.0618	.0378	1444.		
.2900	383.	635.	2847.	379.	781.	200.	-.0427	.0881	-.0040	-.0761	-.0517	.0399	1259.		
.2910	314.	671.	2624.	520.	596.	398.	-.0347	.0782	-.0067	-.0696	-.0403	.0416	1251.		
.2920	240.	705.	2276.	571.	431.	513.	-.0269	.0678	-.0090	-.0627	-.0282	.0426	1243.		
.2930	162.	744.	1790.	549.	263.	525.	-.0194	.0570	-.0108	-.0552	-.0155	.0432	1136.		
.2940	116.	788.	1239.	487.	86.	433.	-.0122	.0459	-.0122	-.0468	-.0027	.0434	928.		
.2950	168.	813.	763.	411.	-93.	261.	-.0053	.0349	-.0132	-.0375	.0103	.0433	700.		
.2960	311.	784.	410.	328.	-247.	57.	.0013	.0239	-.0136	-.0270	.0230	.0430	586.		
.2970	458.	677.	125.	238.	-335.	-122.	.0075	.0129	-.0141	-.0155	.0351	.0426	606.		
.2980	516.	499.	-154.	141.	-314.	-227.	.0133	.0020	-.0140	-.0031	.0461	.0421	583.		
.2990	422.	272.	-457.	45.	-141.	-222.	.0187	-.0089	-.0135	.0101	.0557	.0415	378.		
.3000	136.	30.	-793.	-31.	219.	-94.	.0236	-.0197	-.0126	.0237	.0637	.0410	339.		
.3010	-336.	-193.	-1138.	-74.	763.	149.	.0279	-.0301	-.0112	.0372	.0702	.0407	1103.		
.3020	-949.	-400.	-1470.	-98.	1435.	486.	.0319	-.0403	-.0096	.0504	.0754	.0406	2145.		
.3030	-1531.	-619.	-1787.	-130.	2141.	884.	.0354	-.0501	-.0078	.0633	.0794	.0409	3277.		
.3040	-2273.	-862.	-2048.	-175.	2785.	1296.	.0385	-.0594	-.0062	.0755	.0825	.0414	4346.		
.3050	-2763.	-1099.	-2158.	-221.	3287.	1664.	.0413	-.0681	-.0046	.0868	.0850	.0426	5213.		
.3060	-3026.	-1298.	-2092.	-266.	3583.	1941.	.0437	-.0759	-.0032	.0971	.0869	.0443	5768.		
.3070	-3065.	-1454.	-1936.	-337.	3626.	2103.	.0456	-.0830	-.0018	.1061	.0881	.0464	5940.		
.3080	-2903.	-1572.	-1773.	-465.	3399.	2151.	.0470	-.0895	-.0002	.1138	.0882	.0487	5719.		
.3090	-2573.	-1629.	-1632.	-660.	2926.	2092.	.0477	-.0954	.0016	.1198	.0871	.0510	5165.		
.3100	-2132.	-1596.	-1544.	-911.	2262.	1948.	.0477	-.1007	.0039	.1242	.0844	.0531	4408.		
.3110	-1636.	-1471.	-1533.	-1196.	1465.	1748.	.0469	-.1055	.0066	.1269	.0799	.0547	3638.		
.3120	-1122.	-1274.	-1577.	-1486.	597.	1536.	.0453	-.1099	.0097	.1283	.0735	.0554	3134.		
.3130	-626.	-1045.	-1625.	-1759.	-263.	1351.	.0429	-.1139	.0132	.1286	.0652	.0551	3155.		
.3140	-198.	-834.	-1644.	-1994.	-1025.	1231.	.0397	-.1176	.0171	.1282	.0553	.0533	3613.		
.3150	138.	-679.	-1594.	-2166.	-1622.	1195.	.0358	-.1210	.0211	.1275	.0438	.0498	4179.		
.3160	359.	-586.	-1453.	-2239.	-1997.	1247.	.0313	-.1241	.0252	.1268	.0312	.0444	4589.		
.3170	427.	-551.	-1241.	-2192.	-2109.	1367.	.0261	-.1268	.0295	.1265	.0178	.0370	4711.		
.3180	330.	-568.	-1005.	-2077.	-1961.	1530.	.0206	-.1292	.0339	.1268	.0039	.0277	4540.		
.3190	81.	-626.	-809.	-1798.	-1600.	1678.	.0147	-.1313	.0384	.1277	-.0098	.0164	4160.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.47.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.3090	-2573.	-1629.	-1632.	-660.	2926.	2092.	.477	-.0954	.0016	.1198	.0871	.0510	5165.
.3100	-2132.	-1596.	-1544.	-911.	2262.	1948.	.477	-.1007	.0039	.1242	.0844	.0531	4408.
.3110	-1636.	-1471.	-1533.	-1196.	1465.	1748.	.0469	-.1055	.0066	.1269	.0799	.0547	3638.
.3120	-1122.	-1274.	-1577.	-1486.	597.	1536.	.0453	-.1099	.0097	.1283	.0735	.0554	3134.
.3130	-626.	-1045.	-1625.	-1759.	-263.	1351.	.0429	-.1139	.0132	.1286	.0652	.0551	3155.
.3140	-198.	-834.	-1644.	-1994.	-1025.	1271.	.0397	-.1176	.0171	.1282	.0553	.0533	3613.
.3150	138.	-679.	-1594.	-2166.	-1622.	1195.	.0358	-.1210	.0211	.1275	.0438	.0498	4179.
.3160	359.	-586.	-1453.	-2239.	-1997.	1247.	.0313	-.1241	.0252	.1268	.0312	.0444	4589.
.3170	427.	-551.	-1241.	-2192.	-2109.	1367.	.0261	-.1268	.0295	.1265	.0178	.0370	4711.
.3180	330.	-568.	-1005.	-2037.	-1961.	1530.	.0206	-.1292	.0339	.1268	.0039	.0277	4540.
.3190	81.	-626.	-809.	-1798.	-1600.	1698.	.0147	-.1313	.0384	.1277	-.0098	.0164	4160.

ADLPIPE PAGE 839 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.26.47.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
LOADS
SHOCK
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ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	18	MEMBER	1	SEQUENCE	807	LOCATION	BEG	TYPE	RU	DX	DY	DZ	RX	RY	RZ	STRESS
TIME	FX	FY	FZ	MX	MY	MZ				(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)										
.3200	-271.	-706.	-699.	-1497.	-1112.	1832.	.0087	-.1332	.0429	.1292	-.0231	.0037				3692.
.3210	-673.	-783.	-706.	-1155.	-586.	1894.	.0028	-.1348	.0473	.1313	-.0353	-.0101				3241.
.3220	-1041.	-855.	-809.	-806.	-114.	1859.	-.0029	-.1362	.0514	.1339	-.0459	-.0244				2867.
.3230	-1279.	-933.	-956.	-492.	209.	1722.	-.0079	-.1374	.0551	.1366	-.0546	-.0386				2547.
.3240	-1329.	-1019.	-1112.	-245.	328.	1492.	-.0122	-.1382	.0582	.1392	-.0611	-.0520				2185.
.3250	-1192.	-1114.	-1269.	-83.	228.	1198.	-.0157	-.1387	.0608	.1415	-.0654	-.0640				1726.
.3260	-880.	-1225.	-1402.	-26.	-83.	881.	-.0182	-.1387	.0627	.1432	-.0676	-.0742				1251.
.3270	-437.	-1355.	-1495.	-91.	-561.	590.	-.0196	-.1384	.0641	.1442	-.0679	-.0824				1157.
.3280	61.	-1482.	-1557.	-272.	-1126.	363.	-.0260	-.1379	.0651	.1442	-.0667	-.0884				1715.
.3290	547.	-1574.	-1586.	-542.	-1708.	227.	-.0195	-.1370	.0656	.1430	-.0644	-.0921				2551.
.3300	975.	-1609.	-1575.	-877.	-2256.	200.	-.0179	-.1358	.0658	.1405	-.0614	-.0936				3430.
.3310	1300.	-1588.	-1543.	-1259.	-2730.	283.	-.0155	-.1345	.0656	.1369	-.0579	-.0930				4265.
.3320	1518.	-1526.	-1479.	-1666.	-3106.	464.	-.0123	-.1331	.0648	.1324	-.0542	-.0908				5021.
.3330	1666.	-1429.	-1342.	-2063.	-3391.	713.	-.0084	-.1318	.0635	.1272	-.0502	-.0873				5696.
.3340	1769.	-1297.	-1141.	-2412.	-3608.	988.	-.0038	-.1304	.0616	.1216	-.0461	-.0826				6287.
.3350	1816.	-1136.	-945.	-2686.	-3771.	1252.	.0014	-.1290	.0589	.1159	-.0417	-.0772				6774.
.3360	1808.	-981.	-792.	-2881.	-3884.	1481.	.0070	-.1275	.0554	.1105	-.0372	-.0714				7143.
.3370	1749.	-879.	-694.	-3004.	-3937.	1665.	.0128	-.1260	.0513	.1058	-.0324	-.0656				7379.
.3380	1617.	-855.	-689.	-3060.	-3911.	1798.	.0188	-.1246	.0465	.1019	-.0274	-.0598				7460.
.3390	1388.	-906.	-605.	-3047.	-3783.	1875.	.0247	-.1231	.0411	.0987	-.0220	-.0543				7355.
.3400	1067.	-1010.	-1028.	-2961.	-3544.	1898.	.0306	-.1214	.0352	.0961	-.0164	-.0490				7052.
.3410	672.	-1160.	-1319.	-2813.	-3193.	1877.	.0363	-.1196	.0289	.0937	-.0104	-.0441				6570.
.3420	222.	-1358.	-1637.	-2625.	-2736.	1831.	.0419	-.1177	.0222	.0913	-.0041	-.0396				5948.
.3430	-249.	-1595.	-1923.	-2417.	-2192.	1775.	.0472	-.1156	.0151	.0887	.0025	-.0355				5247.
.3440	-711.	-1828.	-2144.	-2191.	-1600.	1719.	.0524	-.1133	.0080	.0853	.0092	-.0318				4536.
.3450	-1153.	-2006.	-2303.	-1946.	-994.	1665.	.0574	-.1106	.0008	.0809	.0158	-.0285				3881.
.3460	-1570.	-2095.	-2393.	-1690.	-398.	1617.	.0623	-.1077	-.0060	.0752	.0220	-.0258				3352.
.3470	-1945.	-2094.	-2390.	-1437.	170.	1583.	.0668	-.1043	-.0125	.0684	.0277	-.0237				3029.
.3480	-2271.	-2002.	-2309.	-1195.	681.	1562.	.0711	-.1006	-.0183	.0605	.0325	-.0224				2939.
.3490	-2549.	-1810.	-2196.	-959.	1101.	1544.	.0749	-.0965	-.0233	.0518	.0363	-.0220				3002.
.3500	-2762.	-1517.	-2055.	-723.	1403.	1516.	.0782	-.0919	-.0276	.0425	.0391	-.0224				3091.
.3510	-2871.	-1149.	-1859.	-486.	1567.	1466.	.0809	-.0870	-.0310	.0330	.0409	-.0236				3108.
.3520	-2951.	-757.	-1608.	-260.	1574.	1393.	.0829	-.0816	-.0337	.0238	.0418	-.0256				2992.
.3530	-2696.	-387.	-1335.	-56.	1411.	1298.	.0843	-.0759	-.0357	.0154	.0420	-.0284				2709.
.3540	-2419.	-74.	-1073.	115.	1080.	1187.	.0848	-.0698	-.0370	.0080	.0414	-.0316				2272.
.3550	-2054.	151.	-862.	237.	609.	1072.	.0844	-.0635	-.0377	.0019	.0402	-.0351				1773.
.3560	-1644.	257.	-734.	293.	52.	969.	.0832	-.0569	-.0377	-.0027	.0384	-.0388				1431.
.3570	-1227.	229.	-690.	272.	-531.	893.	.0809	-.0500	-.0371	-.0060	.0359	-.0424				1517.

ADLPIPE PAGE 840 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.26.47.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.3470	-1945.	-2094.	-2390.	-1437.	170.	1583.	.668	-1.1077	-.0125	.0684	.0277	-.0237	3352.
.3480	-2071.	-2002.	-2309.	-1195.	681.	1562.	.711	-1.1006	-.0183	.0605	.0325	-.0224	2939.
.3490	-2549.	-1310.	-2196.	-959.	1101.	1544.	.0749	-.0965	-.0233	.0518	.0363	-.0220	3002.
.3500	-2767.	-1517.	-2055.	-723.	1403.	1516.	.0782	-.0919	-.0276	.0425	.0391	-.0224	3091.
.3510	-2871.	-1149.	-1859.	-486.	1567.	1466.	.0809	-.0870	-.0310	.0330	.0409	-.0236	3108.
.3520	-2851.	-757.	-1608.	-260.	1574.	1393.	.0829	-.0816	-.0337	.0238	.0418	-.0256	2992.
.3530	-2696.	-387.	-1335.	-56.	1411.	1290.	.0843	-.0759	-.0357	.0154	.0420	-.0284	2709.
.3540	-2419.	-74.	-1073.	115.	1080.	1187.	.0848	-.0698	-.0370	.0080	.0414	-.0316	2272.
.3550	-2054.	151.	-862.	237.	609.	1072.	.0844	-.0635	-.0377	.0019	.0402	-.0351	1773.
.3560	-1644.	257.	-734.	293.	52.	969.	.0832	-.0569	-.0377	-.0027	.0384	-.0388	1431.
.3570	-1227.	229.	-690.	272.	-531.	893.	.0809	-.0500	-.0371	-.0060	.0359	-.0424	1517.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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S/RV PIPING KEWAUNEE GKM08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	10	MEMBER	1	SEQUENCE	807	LOCATION	BEG	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.3580	-842.	81.	-716.	179.	-1077.	851.	.0777	-.0430	-.0358	-.0079	.0327	-.0456	1956.		
.3590	-527.	-159.	-800.	25.	-1530.	841.	.0735	-.0358	-.0338	-.0088	.0288	-.0484	2466.		
.3600	-292.	-452.	-899.	-176.	-1846.	855.	.0684	-.0285	-.0312	-.0091	.0243	-.0505	2884.		
.3610	-117.	-756.	-937.	-406.	-1999.	879.	.0623	-.0210	-.0281	-.0092	.0191	-.0518	3137.		
.3620	11.	-1021.	-861.	-637.	-1978.	897.	.0555	-.0135	-.0245	-.0097	.0134	-.0523	3196.		
.3630	96.	-1195.	-658.	-845.	-1793.	859.	.0479	-.0059	-.0207	-.0108	.0071	-.0519	3069.		
.3640	151.	-1248.	-340.	-1013.	-1476.	849.	.0397	.0016	-.0165	-.0129	.0002	-.0506	2799.		
.3650	186.	-1175.	75.	-1137.	-1065.	776.	.0310	.0091	-.0122	-.0161	-.0072	-.0484	2458.		
.3660	206.	-993.	546.	-1220.	-595.	678.	.0218	.0164	-.0078	-.0203	-.0151	-.0454	2143.		
.3670	218.	-730.	1031.	-1262.	-117.	563.	.0123	.0234	-.0034	-.0255	-.0232	-.0416	1959.		
.3680	244.	-413.	1492.	-1261.	312.	433.	.0026	.0301	.0008	-.0313	-.0312	-.0372	1934.		
.3690	304.	-68.	1900.	-1212.	646.	289.	-.0070	.0365	.0046	-.0375	-.0389	-.0323	1982.		
.3700	412.	275.	2232.	-1114.	854.	127.	-.0165	.0426	.0080	-.0438	-.0458	-.0272	1991.		
.3710	581.	595.	2486.	-976.	922.	-49.	-.0256	.0482	.0108	-.0499	-.0515	-.0219	1897.		
.3720	810.	835.	2654.	-806.	848.	-239.	-.0342	.0534	.0130	-.0556	-.0558	-.0167	1686.		
.3730	1074.	1010.	2712.	-612.	650.	-439.	-.0422	.0580	.0145	-.0606	-.0585	-.0118	1406.		
.3740	1341.	1111.	2643.	-404.	363.	-648.	-.0495	.0622	.0154	-.0648	-.0594	-.0072	1194.		
.3750	1586.	1147.	2455.	-191.	24.	-860.	-.0561	.0658	.0157	-.0682	-.0588	-.0030	1245.		
.3760	1790.	1119.	2162.	11.	-328.	-1066.	-.0617	.0690	.0156	-.0707	-.0566	.0000	1575.		
.3770	1938.	1030.	1780.	186.	-665.	-1256.	-.0664	.0716	.0151	-.0725	-.0532	.0042	2025.		
.3780	2030.	894.	1347.	326.	-965.	-1430.	-.0702	.0738	.0143	-.0735	-.0485	.0073	2480.		
.3790	2087.	746.	919.	432.	-1216.	-1589.	-.0729	.0756	.0132	-.0741	-.0430	.0102	2891.		
.3800	2124.	623.	550.	512.	-1405.	-1733.	-.0745	.0771	.0119	-.0745	-.0368	.0131	3233.		
.3810	2152.	540.	277.	564.	-1516.	-1853.	-.0750	.0784	.0105	-.0748	-.0302	.0162	3475.		
.3820	2170.	495.	113.	579.	-1546.	-1933.	-.0745	.0794	.0090	-.0753	-.0233	.0195	3590.		
.3830	2164.	479.	39.	549.	-1492.	-1954.	-.0730	.0802	.0073	-.0757	-.0165	.0233	3558.		
.3840	2111.	488.	18.	468.	-1358.	-1902.	-.0705	.0807	.0056	-.0711	-.0099	.0275	3367.		
.3850	1998.	524.	21.	346.	-1147.	-1774.	-.0671	.0810	.0039	-.0766	-.0038	.0324	3023.		
.3860	1824.	581.	37.	194.	-865.	-1570.	-.0630	.0811	.0021	-.0770	.0019	.0379	2546.		
.3870	1591.	630.	58.	20.	-524.	-1297.	-.0581	.0810	.0000	-.0772	.0072	.0440	1976.		
.3880	1308.	647.	85.	-167.	-127.	-969.	-.0526	.0808	-.0023	-.0770	.0121	.0506	1402.		
.3890	992.	621.	135.	-350.	286.	-610.	-.0466	.0804	-.0049	-.0763	.0168	.0574	1072.		
.3900	660.	561.	227.	-500.	739.	-246.	-.0402	.0800	-.0079	-.0750	.0214	.0645	1307.		
.3910	317.	470.	366.	-594.	1221.	99.	-.0336	.0795	-.0113	-.0731	.0260	.0717	1924.		
.3920	-39.	351.	538.	-628.	1725.	404.	-.0270	.0788	-.0149	-.0704	.0305	.0787	2656.		
.3930	-415.	220.	713.	-605.	2238.	647.	-.0204	.0781	-.0188	-.0671	.0349	.0852	3400.		
.3940	-810.	115.	859.	-519.	2743.	810.	-.0142	.0772	-.0226	-.0634	.0389	.0912	4106.		
.3950	-1212.	68.	970.	-368.	3225.	882.	-.0084	.0763	-.0263	-.0596	.0426	.0966	4751.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.47.

S/RV PIPING KEWAUNEE GKM08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.3850	1998.	524.	21.	346.	-1147.	-1774.	-.0671	.0810	.0039	-.0766	-.0038	.0324	3023.
.3860	1824.	581.	37.	194.	-865.	-1570.	-.0630	.0811	.0021	-.0770	.0019	.0379	2546.
.3870	1591.	630.	58.	20.	-524.	-1297.	-.0581	.0810	.0000	-.0772	.0072	.0440	1976.
.3880	1308.	647.	85.	-167.	-127.	-969.	-.0526	.0808	-.0023	-.0770	.0121	.0506	1402.
.3890	992.	621.	135.	-350.	286.	-610.	-.0466	.0804	-.0049	-.0763	.0168	.0574	1072.
.3900	660.	561.	227.	-500.	729.	-246.	-.0402	.0800	-.0079	-.0750	.0214	.0645	1307.
.3910	317.	470.	366.	-594.	1221.	99.	-.0336	.0795	-.0113	-.0731	.0260	.0717	1924.
.3920	-39.	351.	538.	-628.	1725.	404.	-.0270	.0788	-.0149	-.0704	.0305	.0787	2656.
.3930	-415.	220.	713.	-605.	2238.	647.	-.0204	.0781	-.0188	-.0671	.0349	.0852	3400.
.3940	-810.	115.	859.	-519.	2743.	810.	-.0142	.0772	-.0226	-.0634	.0389	.0912	4106.
.3950	-1212.	68.	970.	-368.	3225.	882.	-.0084	.0763	-.0263	-.0596	.0426	.0966	4751.

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ADLPIPE STRESS ANALYSIS

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S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSVCONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITSINTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	18	MEMBER	1	SEQUENCE	807	LOCATION	BEG	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.3960	-1594.	87.	1057.	-162.	3659.	568.	-.0031	.0753	-.0297	-.0559	.0459	.1012	5317.		
.3970	-1924.	150.	1129.	73.	4017.	783.	.0014	.0744	-.0327	-.0524	.0486	.1049	5782.		
.3980	-2176.	238.	1182.	312.	4266.	649.	.0052	.0734	-.0353	-.0491	.0508	.1078	6111.		
.3990	-2331.	346.	1219.	548.	4384.	484.	.0081	.0724	-.0373	-.0463	.0524	.1098	6278.		
.4000	-2383.	477.	1240.	775.	4372.	306.	.0102	.0715	-.0387	-.0440	.0534	.1109	6287.		

MAXIMUM VALUE OF STRESS OCCURS AT

TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
.0290	8224.	-2711.	-9041.	2400.	-18154.	-3142.	.0979	.0460	-.0155	-.0174	.0677	-.0366	26243.

SECTION	18	MEMBER	1	SEQUENCE	34	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
0.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.		
.0010	-4.	8.	-6.	-2.	1.	1.	-.0000	.0000	-.0000	.0000	.0000	-.0000	3.		
.0020	-29.	55.	-36.	-16.	7.	10.	-.0000	.0000	-.0002	.0001	.0002	-.0000	29.		
.0030	-80.	155.	-90.	-57.	23.	36.	-.0001	.0001	-.0006	.0001	.0007	.0000	101.		
.0040	-154.	285.	-155.	-136.	53.	84.	-.0002	.0002	-.0012	-.0001	.0013	.0003	238.		
.0050	-237.	416.	-217.	-255.	93.	154.	-.0003	.0005	-.0022	-.0007	.0022	.0007	440.		
.0060	-305.	565.	-242.	-412.	135.	246.	-.0006	.0009	-.0034	-.0018	.0032	.0014	704.		
.0070	-375.	805.	-210.	-618.	204.	371.	-.0009	.0014	-.0053	-.0031	.0046	.0021	1057.		
.0080	-513.	1199.	-106.	-899.	375.	553.	-.0011	.0020	-.0080	-.0048	.0072	.0032	1583.		
.0090	-748.	1656.	152.	-1276.	715.	812.	-.0010	.0030	-.0120	-.0076	.0119	.0049	2363.		
.0100	-1122.	2011.	493.	-1736.	1225.	1138.	-.0002	.0045	-.0170	-.0124	.0186	.0077	3404.		
.0110	-1657.	2194.	752.	-2230.	1855.	1489.	.0014	.0065	-.0229	-.0195	.0269	.0112	4606.		
.0120	-2225.	2269.	936.	-2695.	2512.	1806.	.0040	.0088	-.0295	-.0283	.0358	.0147	5795.		
.0130	-2583.	2273.	1215.	-3066.	3083.	2015.	.0074	.0112	-.0361	-.0381	.0435	.0176	6769.		
.0140	-2500.	2034.	1801.	-3253.	3475.	2039.	.0119	.0136	-.0422	-.0491	.0485	.0195	7314.		
.0150	-1860.	1311.	2815.	-3156.	3622.	1816.	.0174	.0160	-.0468	-.0615	.0494	.0201	7254.		
.0160	-648.	14.	4363.	-2707.	3520.	1322.	.0240	.0182	-.0494	-.0745	.0463	.0191	6543.		
.0170	785.	-1626.	5879.	-1916.	3231.	596.	.0318	.0202	-.0499	-.0862	.0406	.0163	5372.		
.0180	1800.	-3180.	6196.	-881.	2831.	-260.	.0411	.0217	-.0489	-.0940	.0350	.0118	4204.		
.0190	1857.	-4233.	4618.	220.	2439.	-1118.	.0516	.0232	-.0476	-.0968	.0326	.0060	3802.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.47.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSVCONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITSINTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.0090	-748.	1656.	152.	-1276.	715.	812.	-.010	.0030	-.0120	-.0076	.0119	.0049	2363.
.0100	-1122.	2011.	493.	-1736.	1225.	1136.	-.002	.0045	-.0170	-.0124	.0186	.0077	3404.
.0110	-1657.	2194.	752.	-2230.	1855.	1489.	.0014	.0065	-.0229	-.0195	.0269	.0112	4606.
.0120	-2225.	2269.	936.	-2695.	2512.	1826.	.0040	.0088	-.0295	-.0283	.0358	.0147	5795.
.0130	-2583.	2273.	1215.	-3066.	3083.	2015.	.0074	.0112	-.0361	-.0381	.0435	.0176	6769.
.0140	-2500.	2034.	1801.	-3253.	3475.	2039.	.0119	.0136	-.0422	-.0491	.0485	.0195	7314.
.0150	-1860.	1311.	2815.	-3156.	3622.	1816.	.0174	.0160	-.0468	-.0615	.0494	.0201	7254.
.0160	-648.	14.	4363.	-2707.	3520.	1322.	.0240	.0182	-.0494	-.0745	.0463	.0191	6543.
.0170	785.	-1626.	5879.	-1916.	3231.	596.	.0318	.0202	-.0499	-.0862	.0406	.0163	5372.
.0180	1800.	-3180.	6196.	-681.	2831.	-260.	.0411	.0217	-.0489	-.0940	.0350	.0118	4204.
.0190	1857.	-4233.	4618.	220.	2439.	-1118.	.0516	.0232	-.0476	-.0968	.0326	.0060	3802.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.47.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	18	MEMBER	1	SEQUENCE	34	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.0200	264.	-4253.	641.	1073.	2365.	-1787.	.0636	.0252	-.0484	-.0940	.0391	.0003	4453.		
.0210	-2748.	-3426.	-4503.	1472.	2852.	-2152.	.0773	.0285	-.0525	-.0883	.0571	-.0033	5458.		
.0220	-5406.	-2797.	-9153.	1585.	3009.	-2380.	.0907	.0335	-.0568	-.0840	.0750	-.0045	5863.		
.0230	-6735.	-2594.	-12777.	1768.	2340.	-2725.	.1020	.0392	-.0590	-.0799	.0839	-.0067	5655.		
.0240	-5458.	-2361.	-12508.	2228.	995.	-3401.	.1104	.0435	-.0579	-.0706	.0802	-.0140	5913.		
.0250	-2498.	-1248.	-10212.	2826.	-694.	-4158.	.1160	.0454	-.0541	-.0518	.0669	-.0270	7168.		
.0260	-70.	704.	-11675.	3304.	-3040.	-4500.	.1186	.0455	-.0487	-.0267	.0470	-.0419	8979.		
.0270	2922.	1482.	-14384.	3568.	-6765.	-4485.	.1150	.0456	-.0397	-.0077	.0151	-.0547	12531.		
.0280	6531.	-230.	-12506.	3699.	-10022.	-4420.	.1072	.0468	-.0279	-.0010	-.0175	-.0625	16330.		
.0290	8224.	-2711.	-9041.	3914.	-10820.	-3964.	.0990	.0475	-.0164	.0031	-.0338	-.0645	17190.		
.0300	9387.	-3180.	-6754.	4334.	-10727.	-2752.	.0869	.0457	-.0063	.0182	-.0425	-.0650	16798.		
.0310	9013.	-1243.	-5884.	4406.	-10434.	-1238.	.0701	.0416	.0030	.0410	-.0447	-.0684	16094.		
.0320	4379.	1040.	-8650.	3638.	-9140.	33.	.0509	.0374	.0170	.0591	-.0362	-.0719	13896.		
.0330	-296.	995.	-9888.	2621.	-6790.	986.	.0299	.0343	.0225	.0653	-.0269	-.0683	10375.		
.0340	-907.	-676.	-5662.	2107.	-4302.	1728.	.0063	.0306	.0354	.0651	-.0276	-.0603	7193.		
.0350	-1007.	-647.	-1091.	1994.	-2072.	2070.	-.0186	.0236	.0404	.0687	-.0312	-.0604	5006.		
.0360	-3422.	1803.	500.	1785.	-49.	1887.	-.0426	.0128	.0590	.0775	-.0298	-.0723	3670.		
.0370	-4366.	3589.	3468.	1272.	1500.	1519.	-.0656	.0007	.0678	.0827	-.0301	-.0831	3509.		
.0380	-2159.	2475.	8390.	443.	2202.	1280.	-.0880	-.0096	.0757	.0740	-.0387	-.0817	3652.		
.0390	-1197.	36.	9607.	-520.	2392.	1096.	-.1085	-.0179	.0820	.0519	-.0474	-.0730	3788.		
.0400	-3069.	-697.	7948.	-1246.	3360.	1084.	-.1240	-.0268	.0830	.0318	-.0419	-.0656	5288.		
.0410	-3225.	889.	9351.	-1846.	4178.	1450.	-.1367	-.0378	.0795	.0257	-.0316	-.0584	6769.		
.0420	-2736.	3216.	11260.	-2816.	5010.	2178.	-.1460	-.0491	.0728	.0290	-.0193	-.0448	8681.		
.0430	-5753.	4474.	7882.	-3917.	6339.	3138.	-.1487	-.0578	.0635	.0263	.0047	-.0221	11421.		
.0440	-8749.	3562.	5259.	-4299.	7874.	4207.	-.1463	-.0634	.0543	.0109	.0292	.0073	13995.		
.0450	-8984.	1594.	5177.	-3948.	8261.	5205.	-.1417	-.0686	.0478	-.0061	.0389	.0375	14877.		
.0460	-8547.	417.	3475.	-3300.	7291.	5742.	-.1350	-.0760	.0439	-.0111	.0345	.0602	13913.		
.0470	-7965.	80.	2040.	-2263.	6321.	5620.	-.1243	-.0858	.0415	-.0036	.0240	.0723	12368.		
.0480	-5239.	-871.	4492.	-777.	5656.	5084.	-.1101	-.0954	.0407	.0062	.0068	.0789	10798.		
.0490	-1909.	-3062.	5959.	575.	4269.	4347.	-.0939	-.1020	.0411	.0109	-.0177	.0853	8644.		
.0500	-1104.	-5462.	2593.	1389.	2482.	3294.	-.0752	-.1049	.0408	.0117	-.0403	.0892	6148.		
.0510	-1800.	-6415.	-1132.	1905.	1342.	1865.	-.0532	-.1060	.0383	.0171	-.0533	.0847	4216.		
.0520	-1680.	-5063.	-2403.	2248.	941.	250.	-.0289	-.1070	.0340	.0370	-.0593	.0710	3460.		
.0530	-1316.	-2083.	-4399.	2222.	622.	-1447.	-.0036	-.1079	.0294	.0707	-.0638	.0508	3847.		
.0540	-1115.	716.	-6627.	2011.	98.	-3288.	.0216	-.1078	.0265	.1059	-.0588	.0260	5445.		
.0550	260.	1974.	-5388.	2025.	-495.	-5139.	.0462	-.1061	.0260	.1328	-.0751	-.0019	7833.		
.0560	2846.	7021.	-2649.	2130.	-1236.	-6627.	.0695	-.1042	.0273	.1560	-.0829	-.0293	9987.		
.0570	5583.	1172.	-1856.	1939.	-2402.	-7532.	.0904	-.1038	.0285	.1843	-.0906	-.0551	11497.		

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ADLPIPE STRESS ANALYSIS

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S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.0470	-7965.	80.	2040.	-2263.	6321.	5620.	-1243	-.0858	.0415	-.0036	.0240	.0723	12368.
.0480	-5239.	-871.	4492.	-777.	5656.	5084.	-.1101	-.0954	.0407	.0062	.0068	.0789	10798.
.0490	-1909.	-3062.	5959.	575.	4269.	4347.	-.0939	-.1020	.0411	.0109	-.0177	.0853	8644.
.0500	-1104.	-5462.	2593.	1389.	2482.	3294.	-.0752	-.1049	.0408	.0117	-.0403	.0892	6148.
.0510	-1800.	-6415.	-1132.	1905.	1342.	1865.	-.0532	-.1060	.0383	.0171	-.0533	.0847	4216.
.0520	-1680.	-5063.	-2403.	2248.	941.	250.	-.0289	-.1070	.0340	.0370	-.0593	.0710	3460.
.0530	-1316.	-2083.	-4399.	2222.	622.	-1447.	-.0036	-.1079	.0294	.0707	-.0638	.0508	3847.
.0540	-1115.	716.	-6627.	2011.	98.	-3288.	.0216	-.1078	.0265	.1059	-.0588	.0260	5445.
.0550	260.	1974.	-5388.	2025.	-495.	-5139.	.0462	-.1061	.0260	.1328	-.0751	-.0019	7833.
.0560	2846.	2021.	-2649.	2170.	-1236.	-6627.	.0695	-.1042	.0273	.1560	-.0829	-.0293	9987.
.0570	5583.	2177.	-1856.	1939.	-2402.	-7532.	.0904	-.1038	.0285	.1843	-.0906	-.0551	11497.

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S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	18	MEMBER	1	SEQUENCE	34	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ									
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.0580	8216.	3071.	-1054.	1545.	-3798.	-7878.	.1083	-.1051	.0286	.2156	-.0932	-.0808	12544.		
.0590	10058.	4047.	842.	1214.	-4824.	-7620.	.1237	-.1063	.0266	.2405	-.0350	-.1038	12854.		
.0600	10071.	4031.	542.	804.	-5321.	-6618.	.1365	-.1058	.0230	.2534	-.0564	-.1166	12048.		
.0610	8803.	2882.	-1831.	109.	-5160.	-4996.	.1466	-.1034	.0180	.2565	-.0397	-.1162	10146.		
.0620	7424.	1775.	-2323.	-717.	-4218.	-3266.	.1538	-.1009	.0121	.2560	-.0057	-.1092	7603.		
.0630	5488.	2044.	-1227.	-1373.	-2669.	-1879.	.1582	-.0998	.0055	.2565	.0342	-.1029	5001.		
.0640	3136.	3486.	-1084.	-1621.	-1106.	-934.	.1590	-.1002	-.0005	.2571	.0721	-.0966	3069.		
.0650	2255.	4480.	-130.	-1326.	122.	-425.	.1556	-.1012	-.0044	.2505	.0995	-.0867	1974.		
.0660	2834.	4030.	3030.	-689.	1052.	-428.	.1485	-.1022	-.0064	.2313	.1175	-.0734	1877.		
.0670	2614.	2795.	5173.	-193.	1743.	-841.	.1390	-.1037	-.0082	.2028	.1321	-.0593	2747.		
.0680	1446.	1812.	4652.	3.	2067.	-1290.	.1273	-.1061	-.0111	.1722	.1443	-.0448	3442.		
.0690	1004.	1179.	4243.	185.	2184.	-1518.	.1138	-.1090	-.0151	.1411	.1529	-.0293	3766.		
.0700	727.	461.	4783.	410.	2526.	-1591.	.0996	-.1107	-.0200	.1067	.1608	-.0133	4255.		
.0710	-659.	-457.	4094.	287.	2884.	-1587.	.0850	-.1101	-.0251	.0692	.1673	.0034	4667.		
.0720	-1922.	-1300.	2192.	-369.	2537.	-1433.	.0689	-.1072	-.0291	.0341	.1653	.0210	4149.		
.0730	-1811.	-1656.	855.	-1214.	1504.	-1128.	.0514	-.1031	-.0311	.0066	.1526	.0375	3161.		
.0740	-1153.	-1309.	487.	-1822.	469.	-812.	.0338	-.0985	-.0309	-.0117	.1334	.0496	2894.		
.0750	-111.	-645.	1400.	-2044.	-455.	-503.	.0163	-.0936	-.0283	-.0228	.1085	.0573	3042.		
.0760	1983.	-409.	3830.	-1955.	-1530.	-28.	-.0015	-.0880	-.0231	-.0296	.0773	.0639	3507.		
.0770	3915.	-871.	5726.	-1753.	-2518.	711.	-.0188	-.0815	-.0167	-.0344	.0452	.0711	4449.		
.0780	3886.	-1594.	5021.	-1627.	-3000.	1619.	-.0342	-.0735	-.0105	-.0380	.0192	.0780	5335.		
.0790	2572.	-2044.	3028.	-1538.	-3071.	2513.	-.0478	-.0643	-.0046	-.0391	-.0008	.0831	6011.		
.0800	1480.	-1972.	1749.	-1238.	-2963.	3187.	-.0598	-.0539	.0020	-.0359	-.0183	.0847	6390.		
.0810	217.	-1244.	567.	-606.	-2470.	3458.	-.0695	-.0425	.0094	-.0283	-.0324	.0812	6062.		
.0820	-1567.	-16.	-1070.	203.	-1581.	3234.	-.0761	-.0300	.0179	-.0175	-.0429	.0720	5092.		
.0830	-2685.	1089.	-1849.	1001.	-798.	2523.	-.0805	-.0170	.0283	-.0050	-.0541	.0580	3996.		
.0840	-2697.	1591.	-1330.	1818.	-287.	1413.	-.0829	-.0039	.0404	.0077	-.0573	.0403	3278.		
.0850	-2500.	1702.	-409.	2823.	348.	127.	-.0828	.0083	.0523	.0191	-.0778	.0192	4021.		
.0860	-2313.	1807.	675.	3990.	1111.	-1017.	-.0805	.0193	.0625	.0283	-.0834	-.0047	6024.		
.0870	-2111.	1801.	1309.	4953.	1553.	-1771.	-.0770	.0288	.0700	.0344	-.0847	-.0289	7747.		
.0880	-2853.	1318.	-112.	5311.	1680.	-2026.	-.0724	.0375	.0739	.0364	-.0801	-.0504	8373.		
.0890	-4820.	279.	-3264.	5057.	1957.	-1757.	-.0660	.0458	.0741	.0333	-.0681	-.0678	8051.		
.0900	-6712.	-987.	-5759.	4514.	2501.	-1037.	-.0584	.0536	.0716	.0271	-.0520	-.0820	7435.		
.0910	-7727.	-1922.	-6701.	3918.	3038.	-113.	-.0501	.0605	.0676	.0218	-.0373	-.0951	7004.		
.0920	-8192.	-2068.	-6776.	3260.	3417.	716.	-.0419	.0658	.0630	.0205	-.0268	-.1091	6747.		
.0930	-8003.	-1506.	-5844.	2486.	3672.	1306.	-.0336	.0696	.0579	.0223	-.0219	-.1233	6530.		
.0940	-6817.	-801.	-3824.	1632.	3792.	1663.	-.0256	.0721	.0524	.0237	-.0238	-.1352	6287.		
.0950	-5175.	-318.	-1779.	778.	3796.	1816.	-.0180	.0733	.0458	.0220	-.0314	-.1428	6044.		

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CONDITION 24

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INTERNAL FORCES IN THE PIPING
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.0840	-2897.	1791.	-409.	2823.	348.	127.	-.0828	.0083	.0523	.0191	-.0778	.0192	4021.
.0850	-2500.	1702.	-409.	2823.	348.	127.	-.0828	.0083	.0523	.0191	-.0778	.0192	4021.
.0860	-2313.	1807.	675.	3990.	1111.	-1017.	-.0805	.0193	.0625	.0283	-.0834	-.0047	6024.
.0870	-2111.	1801.	1309.	4953.	1553.	-1771.	-.0770	.0288	.0700	.0344	-.0847	-.0289	7747.
.0880	-2853.	1318.	-112.	5311.	1680.	-2026.	-.0724	.0375	.0739	.0364	-.0801	-.0504	8373.
.0890	-4020.	279.	-3264.	5057.	1957.	-1757.	-.0660	.0458	.0741	.0333	-.0681	-.0678	8051.
.0900	-6712.	-987.	-5759.	4514.	2501.	-1037.	-.0584	.0536	.0716	.0271	-.0520	-.0820	7435.
.0910	-7727.	-1922.	-6701.	3918.	3038.	-113.	-.0501	.0605	.0676	.0218	-.0373	-.0951	7004.
.0920	-8192.	-2068.	-6776.	3260.	3417.	716.	-.0419	.0658	.0630	.0205	-.0268	-.1091	6747.
.0930	-8003.	-1506.	-5844.	2486.	3672.	1306.	-.0336	.0696	.0579	.0223	-.0219	-.1233	6530.
.0940	-6817.	-801.	-3824.	1672.	3792.	1663.	-.0256	.0721	.0524	.0237	-.0238	-.1352	6287.
.0950	-5175.	-318.	-1779.	778.	3796.	1816.	-.0180	.0733	.0458	.0220	-.0314	-.1428	6044.

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CONDITION 24
LOADS
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ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	18	MEMBER	1	SEQUENCE	34	LOCATION	END	TYPE	RU						
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)		
.0960	-3725.	140.	-63.	-18.	3804.	1786.	-.0108	.0727	.0371	.0161	-.0415	-.1468	5936.		
.0970	-2380.	831.	1912.	-784.	3906.	1630.	-.0038	.0700	.0258	-.0065	-.0525	-.1477	6080.		
.0980	-1064.	1592.	3520.	-1666.	4035.	1411.	.0026	.0654	.0120	-.0057	-.0545	-.1442	6480.		
.0990	105.	2099.	3760.	-2772.	3969.	1145.	.0083	.0597	-.0034	-.0207	-.0788	-.1350	7027.		
.1000	1404.	2286.	3334.	-3993.	3464.	814.	.0128	.0538	-.0192	-.0397	-.0960	-.1211	7556.		
.1010	3122.	2298.	3191.	-5089.	2413.	430.	.0162	.0482	-.0342	-.0624	-.1154	-.1043	7978.		
.1020	5077.	2219.	2896.	-5926.	926.	82.	.0186	.0429	-.0477	-.0859	-.1347	-.0850	8473.		
.1030	7078.	1985.	2273.	-6524.	-723.	-94.	.0207	.0380	-.0596	-.1074	-.1501	-.0625	9273.		
.1040	8989.	1391.	2024.	-6909.	-2306.	-10.	.0227	.0334	-.0698	-.1271	-.1576	-.0370	10289.		
.1050	10114.	209.	1844.	-7046.	-3610.	344.	.0247	.0298	-.0786	-.1468	-.1532	-.0085	11193.		
.1060	9821.	-1566.	688.	-6865.	-4470.	938.	.0272	.0272	-.0861	-.1668	-.1349	.0229	11647.		
.1070	8680.	-3566.	-766.	-6317.	-4861.	1669.	.0296	.0255	-.0924	-.1848	-.1048	.0556	11502.		
.1080	6692.	-4877.	-2039.	-5518.	-4497.	2397.	.0324	.0245	-.0985	-.1964	-.0516	.0864	10610.		
.1090	2893.	-4433.	-4071.	-4878.	-2932.	3114.	.0370	.0244	-.1074	-.1981	-.0007	.1130	9163.		
.1100	106.	-4033.	-4823.	-4405.	-2036.	3350.	.0395	.0267	-.1122	-.1986	.0529	.1350	8329.		
.1110	-2134.	-4391.	-5113.	-3613.	-1215.	2968.	.0415	.0317	-.1120	-.1992	.0975	.1507	6824.		
.1120	-3296.	-4703.	-4003.	-2224.	24.	2084.	.0440	.0379	-.1079	-.1932	.1340	.1567	4305.		
.1130	-2549.	-3758.	-744.	-792.	1016.	906.	.0458	.0439	-.1002	-.1746	.1584	.1516	2224.		
.1140	-1401.	-1708.	2507.	234.	1540.	-396.	.0470	.0502	-.0906	-.1470	.1736	.1380	2269.		
.1150	-1310.	22.	4178.	1099.	2181.	-1539.	.0485	.0580	-.0809	-.1205	.1860	.1209	4078.		
.1160	-1594.	760.	4784.	1897.	2969.	-2114.	.0500	.0679	-.0723	-.1012	.1949	.1053	5804.		
.1170	-2499.	1064.	3207.	2189.	3501.	-2022.	.0507	.0788	-.0644	-.0867	.1984	.0921	6494.		
.1180	-2639.	1143.	1301.	2065.	2792.	-1734.	.0478	.0885	-.0554	-.0717	.1869	.0772	5483.		
.1190	-3402.	1550.	-1336.	2029.	2044.	-1378.	.0439	.0957	-.0456	-.0527	.1597	.0572	4510.		
.1200	-3123.	2127.	-2175.	2432.	1590.	-696.	.0397	.1005	-.0350	-.0312	.1483	.0347	4221.		
.1210	-237.	2197.	198.	2936.	510.	342.	.0330	.1044	-.0244	-.0126	.1184	.0144	4238.		
.1220	789.	1316.	251.	2879.	-768.	1363.	.0257	.1093	-.0147	-.0052	.0901	-.0021	4629.		
.1230	760.	-199.	-343.	2390.	-2190.	2151.	.0172	.1152	-.0066	-.0093	.0633	-.0163	5495.		
.1240	1077.	-1193.	-496.	1743.	-3325.	2850.	.0082	.1205	-.0006	-.0171	.0388	-.0286	6658.		
.1250	1879.	-1067.	-985.	956.	-4430.	3326.	-.0017	.1237	.0033	-.0222	.0151	-.0399	7941.		
.1260	3012.	-201.	-674.	65.	-5883.	3198.	-.0137	.1247	.0054	-.0272	-.0100	-.0527	9459.		
.1270	1801.	975.	-1208.	-946.	-6130.	2679.	-.0240	.1248	.0044	-.0390	-.0233	-.0644	9544.		
.1280	916.	1463.	-617.	-1962.	-5484.	2273.	-.0334	.1249	.0004	-.0596	-.0311	-.0684	8832.		
.1290	100.	722.	-1241.	-3088.	-4548.	2029.	-.0422	.1252	-.0052	-.0878	-.0381	-.0623	8277.		
.1300	-1814.	-568.	-3395.	-4125.	-3482.	1557.	-.0499	.1248	-.0109	-.1192	-.0440	-.0526	7936.		
.1310	-2468.	-1344.	-2803.	-4502.	-2637.	766.	-.0579	.1223	-.0152	-.1474	-.0554	-.0458	7448.		
.1320	-2477.	-1148.	-1973.	-4192.	-1446.	125.	-.0645	.1179	-.0179	-.1672	-.0696	-.0395	6266.		
.1330	-1144.	-1132.	-1369.	-3529.	-496.	-129.	-.0709	.1127	-.0191	-.1804	-.0904	-.0287	5036.		

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2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
LOADS
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INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.1230	760.	-199.	-45.	2390.	-2190.	2151.	.0172	.1152	-.0066	-.0093	.0533	-.0163	5495.
.1240	1077.	-1193.	-496.	1743.	-3325.	2850.	.0082	.1205	-.0006	-.0171	.0388	-.0286	6658.
.1250	1879.	-1067.	-985.	956.	-4430.	3326.	-.0017	.1237	.0033	-.0222	.0151	-.0399	7941.
.1260	3012.	-201.	-674.	65.	-5883.	3198.	-.0137	.1247	.0054	-.0272	-.0100	-.0527	9459.
.1270	1801.	975.	-1208.	-946.	-6130.	2679.	-.0240	.1248	.0044	-.0390	-.0233	-.0644	9544.
.1280	916.	1463.	-617.	-1962.	-5484.	2273.	-.0334	.1249	.0004	-.0596	-.0311	-.0684	8832.
.1290	100.	722.	-1241.	-3088.	-4548.	2029.	-.0422	.1252	-.0052	-.0878	-.0381	-.0623	8277.
.1300	-1814.	-568.	-3395.	-4125.	-3482.	1557.	-.0499	.1248	-.0109	-.1192	-.0440	-.0526	7936.
.1310	-2468.	-1344.	-2803.	-4502.	-2637.	766.	-.0579	.1223	-.0152	-.1474	-.0554	-.0458	7448.
.1320	-2477.	-1145.	-1973.	-4192.	-1446.	125.	-.0645	.1179	-.0179	-.1672	-.0596	-.0395	6266.
.1330	-1146.	-1131.	-1369.	-3529.	-496.	-129.	-.0709	.1127	-.0191	-.1804	-.0904	-.0287	5036.

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INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	10	MEMBER	1	SEQUENCE	34	LOCATION	END	TYPE	RU						
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)		
.1340	-390.	-2314.	-1431.	-2966.	389.	-84.	-.0762	.1087	-.0191	-.1949	-.1103	-.0127	4227.		
.1350	-1051.	-4411.	-1792.	-2559.	1545.	284.	-.0796	.1063	-.0189	-.2121	-.1226	.0065	4241.		
.1360	-1260.	-6302.	-1972.	-2056.	2477.	1117.	-.0827	.1044	-.0187	-.2238	-.1324	.0277	4813.		
.1370	-2197.	-6877.	-4563.	-1492.	3433.	2275.	-.0848	.1021	-.0187	-.2239	-.1371	.0484	6188.		
.1380	-2603.	-6265.	-6066.	-870.	3876.	3214.	-.0874	.0993	-.0179	-.2142	-.1411	.0635	7217.		
.1390	-3116.	-5243.	-6414.	-305.	3914.	3654.	-.0900	.0965	-.0151	-.1997	-.1430	.0722	7575.		
.1400	-3516.	-4565.	-7041.	206.	3560.	3736.	-.0921	.0942	-.0096	-.1819	-.1446	.0778	7295.		
.1410	-1939.	-4234.	-5913.	812.	2540.	3526.	-.0950	.0919	-.0016	-.1595	-.1505	.0805	6245.		
.1420	-683.	-3351.	-3910.	1395.	1745.	2888.	-.0966	.0890	.0077	-.1327	-.1509	.0763	5157.		
.1430	339.	-1571.	-555.	1866.	989.	1825.	-.0976	.0850	.0169	-.1011	-.1457	.0640	3943.		
.1440	736.	651.	1514.	2031.	192.	757.	-.0976	.0805	.0250	-.0671	-.1346	.0491	3074.		
.1450	506.	2386.	1424.	1827.	-668.	-2.	-.0961	.0765	.0318	-.0367	-.1179	.0369	2748.		
.1460	136.	3058.	1149.	1414.	-1726.	-569.	-.0938	.0731	.0375	-.0149	-.0981	.0268	3252.		
.1470	-2046.	3118.	-762.	891.	-2280.	-1021.	-.0889	.0694	.0417	.0003	-.0707	.0172	3746.		
.1480	-3201.	2929.	-1686.	549.	-2821.	-1272.	-.0831	.0639	.0453	.0155	-.0455	.0083	4439.		
.1490	-2873.	2644.	-1326.	494.	-3178.	-1266.	-.0758	.0563	.0484	.0324	-.0235	.0013	4882.		
.1500	-2441.	1970.	-600.	656.	-3159.	-1187.	-.0667	.0474	.0507	.0467	-.0017	-.0035	4856.		
.1510	-1417.	604.	1049.	933.	-3363.	-1159.	-.0574	.0382	.0519	.0552	.0159	-.0050	5194.		
.1520	-831.	-866.	1488.	1115.	-3425.	-980.	-.0473	.0292	.0509	.0592	.0334	-.0009	5273.		
.1530	372.	-1801.	2084.	1232.	-3394.	-567.	-.0374	.0202	.0468	.0623	.0496	.0084	5162.		
.1540	649.	-1764.	1927.	1198.	-2771.	-12.	-.0266	.0110	.0390	.0660	.0710	.0206	4264.		
.1550	-249.	-1092.	1079.	935.	-1719.	590.	-.0153	.0021	.0281	.0692	.0977	.0347	2887.		
.1560	-296.	-530.	1490.	535.	-954.	1228.	-.0052	-.0061	.0162	.0704	.1207	.0513	2323.		
.1570	-1140.	-191.	862.	28.	214.	1895.	.0055	-.0133	.0036	.0681	.1443	.0704	2693.		
.1580	-1544.	-76.	1021.	-389.	1701.	2365.	.0154	-.0198	-.0082	.0672	.1525	.0885	3852.		
.1590	-689.	169.	2677.	-690.	1615.	2464.	.0230	-.0264	-.0182	.0585	.1696	.1021	4274.		
.1600	-219.	932.	3117.	-1002.	1487.	2257.	.0294	-.0334	-.0265	.0552	.1692	.1102	4072.		
.1610	201.	1569.	3162.	-1193.	1287.	1897.	.0355	-.0402	-.0334	.0512	.1539	.1147	3650.		
.1620	2003.	1400.	5085.	-1238.	733.	1469.	.0402	-.0462	-.0391	.0436	.1512	.1169	2904.		
.1630	2345.	751.	4904.	-1534.	249.	1011.	.0449	-.0509	-.0440	.0317	.1379	.1171	2619.		
.1640	1934.	-118.	3313.	-2004.	-398.	498.	.0491	-.0544	-.0478	.0175	.1213	.1142	2970.		
.1650	2653.	-1052.	2733.	-2320.	-1391.	-102.	.0516	-.0570	-.0499	.0049	.0978	.1075	3824.		
.1660	3056.	-1531.	1020.	-2571.	-2326.	-793.	.0538	-.0589	-.0504	-.0038	.0717	.0970	5023.		
.1670	3896.	-1598.	-822.	-2791.	-3707.	-1636.	.0540	-.0598	-.0483	-.0083	.0393	.0830	6949.		
.1680	4848.	-1734.	-2299.	-2828.	-5140.	-2578.	.0531	-.0593	-.0433	-.0105	.0052	.0673	9051.		
.1690	6709.	-2167.	-1970.	-2482.	-6444.	-3477.	.0509	-.0575	-.0381	-.0097	-.0291	.0519	10921.		
.1700	8237.	-2208.	-1672.	-1985.	-7233.	-4140.	.0475	-.0549	-.0278	-.0033	-.0587	.0380	12101.		
.1710	7856.	-1474.	-2911.	-1561.	-7037.	-4453.	.0443	-.0516	-.0194	.0093	-.0761	.0262	11968.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.47.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.1610	201.	1569.	3162.	-1193.	1287.	1897.	.0355	-.0402	-.0334	.0512	.1639	.1147	3650.
.1620	2003.	1400.	5085.	-1238.	733.	1469.	.0402	-.0462	-.0391	.0436	.1512	.1169	2904.
.1630	2345.	751.	4904.	-1534.	249.	1011.	.0449	-.0509	-.0440	.0317	.1379	.1171	2619.
.1640	1934.	-118.	3313.	-2004.	-398.	498.	.0491	-.0544	-.0478	.0175	.1213	.1142	2970.
.1650	2653.	-1052.	2733.	-2320.	-1391.	-102.	.0516	-.0570	-.0499	.0049	.0978	.1075	3824.
.1660	3056.	-1531.	1020.	-2571.	-2326.	-793.	.0538	-.0589	-.0504	-.0038	.0717	.0970	5023.
.1670	3896.	-1598.	-822.	-2791.	-3707.	-1636.	.0540	-.0598	-.0483	-.0083	.0393	.0830	6949.
.1680	4048.	-1734.	-2299.	-2828.	-5140.	-2578.	.0531	-.0593	-.0433	-.0105	.0052	.0673	9051.
.1690	6709.	-2167.	-1970.	-2482.	-6444.	-3477.	.0509	-.0575	-.0361	-.0097	-.0291	.0519	10921.
.1700	8237.	-2208.	-1672.	-1985.	-7233.	-4140.	.0475	-.0549	-.0278	-.0033	-.0587	.0380	12101.
.1710	7856.	-1474.	-2911.	-1561.	-7037.	-4453.	.0443	-.0516	-.0194	.0093	-.0761	.0262	11968.

ADLPIPE PAGE 846 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.26.47.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	18	MEMBER	1	SEQUENCE	34	LOCATION	END	TYPE	RU					
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
.1720	8212.	-669.	-1566.	-933.	-6564.	-4451.	.0392	-.0481	-.0106	.0260	-.0869	.0167	11279.	
.1730	7382.	99.	-552.	-177.	-5348.	-4056.	.0339	-.0439	-.0023	.0442	-.0853	.0105	9484.	
.1740	5211.	1013.	-1051.	508.	-3641.	-3246.	.0279	-.0393	.0054	.0623	-.0741	.0075	6928.	
.1750	3151.	1906.	-1238.	1085.	-1975.	-2176.	.0205	-.0344	.0132	.0797	-.0597	.0058	4425.	
.1760	671.	2518.	-1544.	1562.	-172.	-1050.	.0128	-.0299	.0213	.0954	-.0411	.0034	2670.	
.1770	-1006.	2683.	-944.	2019.	1272.	-7.	.0041	-.0260	.0302	.1089	-.0248	-.0012	3370.	
.1780	-2735.	2556.	-972.	2377.	2587.	939.	-.0044	-.0228	.0397	.1190	-.0096	-.0081	5137.	
.1790	-3484.	1963.	-181.	2705.	3419.	1656.	-.0134	-.0203	.0497	.1242	.0006	-.0175	6587.	
.1800	-3675.	1024.	888.	2905.	3734.	2023.	-.0228	-.0186	.0593	.1242	.0056	-.0296	7268.	
.1810	-5132.	203.	-349.	2748.	4066.	2108.	-.0311	-.0175	.0674	.1200	.0111	-.0430	7544.	
.1820	-5670.	-589.	-1042.	2420.	3926.	1960.	-.0396	-.0173	.0743	.1128	.0114	-.0563	7078.	
.1830	-6033.	-1307.	-1685.	2085.	3652.	1582.	-.0474	-.0180	.0796	.1038	.0098	-.0691	6346.	
.1840	-6607.	-1696.	-2512.	1752.	3317.	986.	-.0543	-.0196	.0833	.0945	.0067	-.0814	5498.	
.1850	-6834.	-1659.	-2833.	1470.	2878.	303.	-.0607	-.0220	.0858	.0862	.0001	-.0919	4585.	
.1860	-6756.	-1505.	-2848.	1167.	2520.	-321.	-.0658	-.0249	.0872	.0792	-.0084	-.0984	3948.	
.1870	-5391.	-1530.	-1500.	1003.	1765.	-864.	-.0706	-.0281	.0879	.0743	-.0223	-.1005	3116.	
.1880	-4344.	-1268.	-726.	883.	919.	-1237.	-.0741	-.0316	.0876	.0716	-.0364	-.0991	2509.	
.1890	-3113.	-536.	283.	816.	-32.	-1320.	-.0765	-.0355	.0858	.0713	-.0507	-.0942	2192.	
.1900	-1230.	308.	2024.	825.	-1023.	-1047.	-.0778	-.0395	.0823	.0731	-.0643	-.0846	2374.	
.1910	-280.	1092.	2416.	731.	-1592.	-417.	-.0766	-.0435	.0763	.0754	-.0715	-.0700	2544.	
.1920	254.	1723.	2417.	477.	-1983.	473.	-.0736	-.0474	.0683	.0768	-.0736	-.0518	2957.	
.1930	424.	2135.	2327.	159.	-2116.	1484.	-.0684	-.0514	.0589	.0761	-.0705	-.0319	3658.	
.1940	300.	2248.	1985.	-48.	-1900.	2419.	-.0608	-.0557	.0485	.0737	-.0625	-.0120	4346.	
.1950	317.	2167.	1783.	-97.	-1474.	3082.	-.0510	-.0605	.0380	.0707	-.0521	.0058	4827.	
.1960	648.	2085.	2017.	-76.	-1044.	3319.	-.0397	-.0658	.0281	.0671	-.0411	.0194	4916.	
.1970	970.	1896.	2199.	-27.	-652.	3063.	-.0268	-.0713	.0191	.0623	-.0299	.0280	4423.	
.1980	1220.	1346.	2069.	76.	-243.	2374.	-.0128	-.0766	.0111	.0556	-.0184	.0324	3373.	
.1990	1628.	489.	2081.	206.	208.	1387.	.0022	-.0814	.0041	.0474	-.0067	.0335	2002.	
.2000	1977.	-341.	2317.	295.	740.	205.	.0175	-.0856	-.0022	.0396	.0061	.0312	1161.	
.2010	1864.	-890.	2281.	317.	1354.	-1062.	.0330	-.0894	-.0081	.0341	.0208	.0257	2472.	
.2020	1436.	-1072.	1832.	269.	1944.	-2234.	.0479	-.0925	-.0136	.0323	.0364	.0183	4200.	
.2030	993.	-954.	1191.	147.	2382.	-3146.	.0617	-.0947	-.0185	.0338	.0510	.0106	5578.	
.2040	496.	-751.	492.	2.	2637.	-3759.	.0741	-.0958	-.0222	.0379	.0637	.0031	6486.	
.2050	111.	-594.	99.	-70.	2686.	-4072.	.0849	-.0961	-.0247	.0450	.0736	-.0044	6890.	
.2060	263.	-330.	389.	-47.	2475.	-4026.	.0939	-.0960	-.0256	.0562	.0793	-.0121	6675.	
.2070	949.	179.	1129.	11.	2011.	-3601.	.1011	-.0955	-.0253	.0717	.0807	-.0199	5826.	
.2080	1737.	723.	1816.	46.	1370.	-2891.	.1065	-.0946	-.0241	.0888	.0789	-.0279	4519.	
.2090	2476.	1010.	2361.	10.	596.	-2009.	.1102	-.0928	-.0224	.1045	.0748	-.0354	2961.	

ADLPIPE PAGE 847 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.26.47.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.1980	1220.	1348.	2081.	76.	-243.	2374.	-.0128	-.0766	.0111	.0556	-.0184	.0324	3373.
.1990	1628.	489.	2081.	206.	208.	1387.	.0022	-.0814	.0041	.0474	-.0067	.0335	2002.
.2000	1977.	-341.	2317.	295.	740.	205.	.0175	-.0856	-.0022	.0396	.0061	.0312	1161.
.2010	1864.	-890.	2281.	317.	1354.	-1062.	.0330	-.0894	-.0081	.0341	.0208	.0257	2472.
.2020	1436.	-1072.	1832.	269.	1944.	-2234.	.0479	-.0925	-.0136	.0323	.0364	.0183	4200.
.2030	993.	-954.	1191.	147.	2382.	-3146.	.0617	-.0947	-.0185	.0338	.0510	.0106	5578.
.2040	496.	-751.	492.	2.	2637.	-3759.	.0741	-.0958	-.0222	.0379	.0537	.0031	6486.
.2050	111.	-594.	99.	-70.	2686.	-4072.	.0849	-.0961	-.0247	.0450	.0736	-.0044	6890.
.2060	263.	-330.	389.	-47.	2475.	-4026.	.0939	-.0960	-.0256	.0562	.0793	-.0121	6675.
.2070	949.	179.	1129.	11.	2011.	-3001.	.1011	-.0955	-.0253	.0717	.0807	-.0199	5826.
.2080	1737.	723.	1816.	48.	1370.	-2891.	.1065	-.0946	-.0241	.0888	.0789	-.0279	4519.
.2090	2476.	1010.	2361.	10.	596.	-2009.	.1102	-.0928	-.0224	.1045	.0748	-.0354	2961.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.47.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK

2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	18	MEMBER	1	SEQUENCE	34	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.2100	3241.	1086.	2705.	-157.	-294.	-1035.	.1123	-.0901	-.0205	.1172	.0685	-.0421	1536.		
.2110	3813.	1229.	2445.	-470.	-1194.	-90.	.1128	-.0868	-.0188	.1272	.0513	-.0487	1816.		
.2120	4054.	1578.	1664.	-872.	-1980.	637.	.1120	-.0832	-.0173	.1349	.0540	-.0562	3186.		
.2130	4181.	2047.	989.	-1295.	-2582.	1012.	.1098	-.0796	-.0159	.1395	.0464	-.0649	4324.		
.2140	4359.	2426.	666.	-1685.	-2944.	1007.	.1063	-.0759	-.0141	.1400	.0382	-.0736	4998.		
.2150	4531.	2524.	549.	-1961.	-3036.	644.	.1014	-.0722	-.0118	.1357	.0296	-.0813	5186.		
.2160	4621.	2351.	648.	-2067.	-2895.	-31.	.0953	-.0685	-.0090	.1270	.0213	-.0876	5025.		
.2170	4584.	2116.	950.	-2022.	-2590.	-904.	.0877	-.0651	-.0060	.1154	.0138	-.0921	4813.		
.2180	4283.	1933.	1140.	-1858.	-2118.	-1800.	.0788	-.0619	-.0029	.1022	.0080	-.0936	4723.		
.2190	3656.	1680.	1070.	-1567.	-1456.	-2540.	.0688	-.0589	-.0001	.0878	.0048	-.0908	4690.		
.2200	2727.	1215.	866.	-1163.	-655.	-2989.	.0577	-.0556	.0025	.0721	.0042	-.0832	4623.		
.2210	1450.	558.	453.	-721.	199.	-3068.	.0458	-.0519	.0049	.0557	.0060	-.0708	4461.		
.2220	-90.	-172.	-214.	-279.	1065.	-2769.	.0332	-.0479	.0072	.0403	.0093	-.0544	4209.		
.2230	-1506.	-837.	-725.	194.	1888.	-2148.	.0202	-.0438	.0096	.0277	.0128	-.0355	4049.		
.2240	-2524.	-1278.	-772.	700.	2568.	-1308.	.0068	-.0396	.0122	.0184	.0147	-.0158	4189.		
.2250	-3212.	-1445.	-591.	1183.	2994.	-375.	-.0067	-.0354	.0150	.0120	.0139	.0029	4578.		
.2260	-3591.	-1462.	-369.	1585.	3125.	544.	-.0202	-.0310	.0181	.0076	.0096	.0196	5008.		
.2270	-3552.	-1432.	36.	1858.	3017.	1376.	-.0332	-.0264	.0214	.0045	.0019	.0334	5369.		
.2280	-3196.	-1284.	590.	1950.	2772.	2066.	-.0455	-.0219	.0244	.0027	-.0084	.0433	5606.		
.2290	-2773.	-940.	1064.	1840.	2452.	2561.	-.0567	-.0173	.0271	.0016	-.0202	.0484	5643.		
.2300	-2345.	-471.	1423.	1562.	2073.	2835.	-.0666	-.0128	.0293	.0006	-.0330	.0485	5429.		
.2310	-1908.	-7.	1664.	1147.	1663.	2899.	-.0751	-.0079	.0311	-.0012	-.0462	.0442	4991.		
.2320	-1574.	372.	1644.	609.	1272.	2776.	-.0818	-.0028	.0328	-.0044	-.0590	.0363	4398.		
.2330	-1358.	631.	1442.	8.	912.	2481.	-.0867	.0025	.0342	-.0087	-.0708	.0254	3733.		
.2340	-1135.	781.	1373.	-543.	591.	2052.	-.0898	.0079	.0356	-.0135	-.0812	.0123	3112.		
.2350	-903.	860.	1514.	-952.	369.	1571.	-.0909	.0131	.0367	-.0183	-.0890	-.0019	2646.		
.2360	-761.	827.	1724.	-1198.	296.	1125.	-.0899	.0181	.0372	-.0232	-.0932	-.0158	2359.		
.2370	-734.	559.	1932.	-1309.	337.	777.	-.0869	.0230	.0370	-.0287	-.0933	-.0278	2203.		
.2380	-854.	49.	1993.	-1327.	421.	567.	-.0821	.0279	.0356	-.0348	-.0891	-.0370	2123.		
.2399	-1189.	-526.	1651.	-1277.	511.	522.	-.0756	.0328	.0328	-.0411	-.0806	-.0430	2078.		
.2400	-1645.	-990.	941.	-1157.	577.	632.	-.0675	.0376	.0287	-.0469	-.0687	-.0459	2033.		
.2410	-1996.	-1299.	197.	-976.	585.	844.	-.0583	.0424	.0233	-.0515	-.0546	-.0463	2001.		
.2420	-2159.	-1477.	-404.	-783.	538.	1095.	-.0481	.0473	.0170	-.0550	-.0396	-.0444	2048.		
.2430	-2145.	-1536.	-884.	-620.	455.	1339.	-.0372	.0522	.0101	-.0575	-.0246	-.0406	2181.		
.2440	-1911.	-1475.	-1207.	-488.	326.	1538.	-.0259	.0570	.0027	-.0590	-.0107	-.0354	2326.		
.2450	-1476.	-1277.	-1321.	-374.	170.	1660.	-.0146	.0617	-.0048	-.0598	.0016	-.0295	2416.		
.2460	-973.	-938.	-1276.	-288.	52.	1685.	-.0034	.0660	-.0125	-.0601	.0122	-.0234	2416.		
.2470	-474.	-534.	-1064.	-246.	42.	1619.	.0073	.0698	-.0204	-.0607	.0211	-.0172	2314.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.47.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK

2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.2370	-734.	559.	1932.	-1309.	337.	777.	-.869	.0230	.0370	-.0287	-.0933	-.0278	2203.
.2380	-854.	49.	1993.	-1327.	421.	567.	-.821	.0279	.0356	-.0348	-.0891	-.0370	2123.
.2390	-1189.	-526.	1651.	-1277.	511.	522.	-.0756	.0328	.0328	-.0411	-.0806	-.0430	2078.
.2400	-1645.	-990.	941.	-1157.	577.	632.	-.0675	.0376	.0287	-.0469	-.0687	-.0459	2033.
.2410	-1996.	-1299.	197.	-976.	585.	844.	-.0583	.0424	.0233	-.0515	-.0546	-.0463	2001.
.2420	-2159.	-1477.	-404.	-783.	538.	1095.	-.0481	.0473	.0170	-.0550	-.0396	-.0444	2048.
.2430	-2145.	-1536.	-884.	-620.	455.	1339.	-.0372	.0522	.0101	-.0575	-.0246	-.0406	2181.
.2440	-1911.	-1475.	-1207.	-488.	326.	1538.	-.0259	.0570	.0027	-.0590	-.0107	-.0354	2326.
.2450	-1476.	-1277.	-1321.	-374.	170.	1660.	-.0146	.0617	-.0048	-.0598	.0016	-.0295	2416.
.2460	-973.	-938.	-1276.	-288.	52.	1685.	-.0034	.0660	-.0125	-.0601	.0122	-.0234	2416.
.2470	-474.	-534.	-1064.	-246.	42.	1619.	.0073	.0698	-.0204	-.0607	.0211	-.0172	2314.

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S/RV PIPING KEWAUNEE GKW03F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	18	MEMBER	1	SEQUENCE	34	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.2480	17.	-183.	-735.	-262.	120.	1481.	.0172	.0731	-.0283	-.0621	.0279	-.0108	2131.		
.2490	372.	56.	-571.	-350.	213.	1285.	.0262	.0759	-.0360	-.0650	.0324	-.0045	1908.		
.2500	511.	173.	-706.	-540.	303.	1036.	.0340	.0782	-.0436	-.0698	.0347	.0015	1704.		
.2510	625.	139.	-876.	-766.	368.	734.	.0406	.0802	-.0506	-.0766	.0344	.0072	1586.		
.2520	916.	-31.	-887.	-994.	348.	381.	.0458	.0819	-.0568	-.0848	.0314	.0125	1582.		
.2530	1325.	-235.	-928.	-1221.	169.	-14.	.0495	.0835	-.0622	-.0939	.0258	.0173	1741.		
.2540	1759.	-412.	-1126.	-1454.	-191.	-430.	.0518	.0850	-.0667	-.1035	.0184	.0217	2159.		
.2550	2272.	-623.	-1310.	-1667.	-686.	-830.	.0526	.0866	-.0704	-.1137	.0102	.0262	2803.		
.2560	2876.	-900.	-1374.	-1821.	-1239.	-1169.	.0521	.0883	-.0733	-.1240	.0022	.0316	3521.		
.2570	3420.	-1152.	-1422.	-1890.	-1789.	-1403.	.0503	.0901	-.0755	-.1340	-.0042	.0379	4176.		
.2580	3777.	-1280.	-1512.	-1859.	-2303.	-1502.	.0473	.0919	-.0773	-.1431	-.0080	.0447	4688.		
.2590	3919.	-1304.	-1618.	-1732.	-2731.	-1439.	.0431	.0937	-.0785	-.1510	-.0088	.0521	4999.		
.2600	3834.	-1308.	-1734.	-1537.	-3000.	-1201.	.0379	.0957	-.0792	-.1576	-.0065	.0600	5055.		
.2610	3560.	-1358.	-1739.	-1299.	-3070.	-807.	.0317	.0979	-.0791	-.1633	-.0015	.0681	4844.		
.2620	3170.	-1437.	-1495.	-1023.	-2957.	-307.	.0246	.1005	-.0780	-.1681	.0052	.0756	4441.		
.2630	2678.	-1442.	-1087.	-736.	-2696.	248.	.0167	.1035	-.0760	-.1715	.0128	.0815	3963.		
.2640	2090.	-1296.	-637.	-493.	-2292.	813.	.0082	.1067	-.0731	-.1732	.0205	.0851	3505.		
.2650	1471.	-1064.	-90.	-334.	-1750.	1342.	-.0008	.1101	-.0693	-.1736	.0275	.0863	3151.		
.2660	818.	-865.	519.	-262.	-1106.	1795.	-.0101	.1138	-.0649	-.1737	.0334	.0851	3001.		
.2670	38.	-731.	930.	-267.	-412.	2147.	-.0194	.1177	-.0599	-.1742	.0380	.0816	3110.		
.2680	-859.	-628.	1018.	-330.	281.	2388.	-.0286	.1215	-.0547	-.1749	.0407	.0760	3428.		
.2690	-1731.	-556.	947.	-417.	930.	2502.	-.0374	.1250	-.0492	-.1757	.0413	.0684	3816.		
.2700	-2477.	-544.	842.	-495.	1493.	2470.	-.0456	.1281	-.0435	-.1761	.0394	.0594	4136.		
.2710	-3054.	-601.	676.	-541.	1902.	2298.	-.0532	.1308	-.0375	-.1761	.0345	.0495	4283.		
.2720	-3385.	-707.	469.	-530.	2089.	2016.	-.0602	.1331	-.0311	-.1756	.0262	.0395	4168.		
.2730	-3428.	-830.	286.	-445.	2032.	1665.	-.0664	.1351	-.0246	-.1741	.0149	.0300	3763.		
.2740	-3273.	-909.	95.	-293.	1785.	1304.	-.0719	.1366	-.0182	-.1713	.0014	.0215	3150.		
.2750	-3008.	-924.	-146.	-102.	1403.	1000.	-.0764	.1377	-.0122	-.1669	-.0131	.0148	2437.		
.2760	-2704.	-913.	-466.	107.	930.	805.	-.0800	.1385	-.0068	-.1615	-.0277	.0105	1744.		
.2770	-2486.	-909.	-964.	320.	427.	742.	-.0826	.1388	-.0023	-.1555	-.0414	.0089	1291.		
.2780	-2407.	-898.	-1630.	524.	-47.	806.	-.0842	.1386	.0013	-.1490	-.0536	.0098	1360.		
.2790	-2371.	-870.	-2271.	709.	-458.	962.	-.0849	.1377	.0038	-.1419	-.0542	.0127	1807.		
.2800	-2280.	-842.	-2755.	869.	-792.	1149.	-.0845	.1359	.0055	-.1343	-.0733	.0169	2322.		
.2810	-2132.	-810.	-3105.	1002.	-1047.	1305.	-.0833	.1333	.0064	-.1264	-.0810	.0217	2755.		
.2820	-1913.	-754.	-3310.	1099.	-1232.	1391.	-.0810	.1297	.0067	-.1188	-.0873	.0264	3049.		
.2830	-1589.	-702.	-3303.	1153.	-1341.	1383.	-.0779	.1254	.0065	-.1116	-.0919	.0304	3172.		
.2840	-1213.	-699.	-3150.	1145.	-1352.	1276.	-.0738	.1202	.0057	-.1052	-.0944	.0336	3084.		
.2850	-884.	-728.	-3003.	1052.	-1256.	1078.	-.0688	.1145	.0044	-.0996	-.0943	.0359	2770.		

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S/RV PIPING KEWAUNEE GKW03F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.2750	-3008.	-924.	-146.	-102.	1403.	1000.	-.0764	.1377	-.0122	-.1669	-.0131	.0148	2437.
.2760	-2704.	-913.	-466.	107.	930.	805.	-.0800	.1385	-.0068	-.1615	-.0277	.0105	1744.
.2770	-2486.	-909.	-964.	320.	427.	742.	-.0826	.1388	-.0023	-.1555	-.0414	.0089	1291.
.2780	-2407.	-898.	-1630.	524.	-47.	806.	-.0842	.1386	.0013	-.1490	-.0536	.0098	1360.
.2790	-2371.	-870.	-2271.	709.	-458.	962.	-.0849	.1377	.0038	-.1419	-.0542	.0127	1807.
.2800	-2280.	-842.	-2755.	869.	-792.	1149.	-.0845	.1359	.0055	-.1343	-.0733	.0169	2322.
.2810	-2132.	-810.	-3105.	1002.	-1047.	1305.	-.0833	.1333	.0064	-.1264	-.0910	.0217	2755.
.2820	-1913.	-754.	-3310.	1153.	-1232.	1391.	-.0810	.1297	.0067	-.1188	-.0873	.0264	3049.
.2830	-1589.	-702.	-3303.	1153.	-1341.	1383.	-.0779	.1254	.0065	-.1116	-.0919	.0304	3172.
.2840	-1213.	-699.	-3150.	1145.	-1352.	1276.	-.0738	.1202	.0057	-.1052	-.0944	.0336	3084.
.2850	-.884.	-728.	-3003.	1052.	-1256.	1078.	-.0688	.1145	.0044	-.0996	-.0943	.0359	2770.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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18.26.47.

S/RV PIPING KEWAUNEE GKW00F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU								
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	HX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
.2860	-648.	-723.	-2928.	875.	-1082.	814.	-.0631	.1081	.0024	-.0947	-.0912	.0374	2276.	
.2870	-508.	-670.	-2921.	646.	-860.	510.	-.0568	.1010	.0000	-.0903	-.0353	.0379	1681.	
.2880	-452.	-618.	-2952.	402.	-607.	189.	-.0500	.0934	-.0026	-.0863	-.0769	.0378	1063.	
.2890	-429.	-608.	-2952.	170.	-351.	-121.	-.0431	.0852	-.0052	-.0823	-.0665	.0375	576.	
.2900	-383.	-635.	-2847.	-24.	-132.	-392.	-.0363	.0765	-.0076	-.0779	-.0549	.0372	586.	
.2910	-314.	-671.	-2624.	-146.	24.	-601.	-.0297	.0672	-.0096	-.0726	-.0423	.0370	875.	
.2920	-240.	-705.	-2276.	-178.	125.	-727.	-.0234	.0575	-.0110	-.0660	-.0292	.0370	1071.	
.2930	-162.	-744.	-1790.	-134.	189.	-751.	-.0174	.0475	-.0120	-.0583	-.0158	.0374	1110.	
.2940	-116.	-788.	-1239.	-47.	225.	-672.	-.0118	.0375	-.0124	-.0493	-.0022	.0384	1003.	
.2950	-168.	-813.	-763.	43.	230.	-507.	-.0065	.0275	-.0125	-.0392	.0114	.0398	789.	
.2960	-311.	-784.	-410.	110.	198.	-295.	-.0015	.0177	-.0123	-.0280	.0246	.0414	525.	
.2970	-458.	-677.	-125.	140.	117.	-83.	.0032	.0081	-.0118	-.0159	.0367	.0427	283.	
.2980	-516.	-499.	154.	137.	-21.	76.	.0077	-.0013	-.0110	-.0029	.0471	.0434	224.	
.2990	-422.	-272.	457.	106.	-233.	140.	.0121	-.0105	-.0099	.0105	.0554	.0431	412.	
.3000	-136.	-30.	793.	48.	-535.	85.	.0162	-.0195	-.0085	.0240	.0611	.0418	768.	
.3010	336.	193.	1138.	-34.	-921.	-90.	.0200	-.0283	-.0068	.0372	.0543	.0397	1307.	
.3020	949.	400.	1470.	-125.	-1351.	-365.	.0237	-.0368	-.0050	.0500	.0656	.0369	1984.	
.3030	1631.	619.	1787.	-216.	-1772.	-697.	.0271	-.0449	-.0032	.0623	.0657	.0340	2707.	
.3040	2275.	862.	2048.	-306.	-2135.	-1035.	.0302	-.0527	-.0015	.0740	.0653	.0313	3379.	
.3050	2763.	1099.	2158.	-392.	-2398.	-1331.	.0330	-.0600	.0001	.0849	.0651	.0296	3913.	
.3060	3026.	1296.	2092.	-458.	-2528.	-1547.	.0353	-.0666	.0016	.0949	.0655	.0291	4236.	
.3070	3065.	1454.	1936.	-475.	-2502.	-1663.	.0371	-.0727	.0030	.1040	.0666	.0301	4296.	
.3080	2903.	1572.	1773.	-413.	-2315.	-1674.	.0384	-.0784	.0046	.1123	.0682	.0322	4077.	
.3090	2573.	1629.	1632.	-250.	-1984.	-1598.	.0390	-.0836	.0065	.1197	.0699	.0353	3615.	
.3100	2132.	1596.	1544.	20.	-1539.	-1464.	.0390	-.0884	.0087	.1262	.0711	.0388	3000.	
.3110	1636.	1471.	1533.	375.	-1016.	-1302.	.0383	-.0930	.0114	.1315	.0712	.0422	2393.	
.3120	1122.	1274.	1577.	775.	-448.	-1149.	.0370	-.0972	.0143	.1356	.0698	.0449	2058.	
.3130	626.	1045.	1625.	1175.	120.	-1035.	.0351	-.1012	.0175	.1385	.0666	.0461	2218.	
.3140	198.	834.	1644.	1528.	637.	-978.	.0328	-.1048	.0209	.1404	.0611	.0453	2716.	
.3150	-138.	679.	1594.	1787.	1061.	-990.	.0299	-.1080	.0243	.1413	.0532	.0421	3252.	
.3160	-359.	586.	1453.	1911.	1356.	-1069.	.0267	-.1107	.0278	.1413	.0429	.0362	3638.	
.3170	-427.	551.	1241.	1885.	1494.	-1201.	.0231	-.1130	.0312	.1406	.0304	.0277	3797.	
.3180	-330.	568.	1005.	1719.	1472.	-1357.	.0192	-.1148	.0347	.1396	.0160	.0169	3728.	
.3190	-81.	628.	809.	1447.	1310.	-1507.	.0151	-.1162	.0382	.1385	.0004	.0040	3483.	
.3200	271.	706.	699.	1103.	1052.	-1617.	.0109	-.1172	.0417	.1375	-.0155	-.0101	3139.	
.3210	673.	783.	706.	718.	747.	-1656.	.0067	-.1178	.0452	.1368	-.0306	-.0246	2760.	
.3220	1041.	855.	809.	328.	450.	-1600.	.0026	-.1181	.0485	.1366	-.0439	-.0388	2393.	
.3230	1279.	933.	956.	-29.	215.	-1439.	-.0013	-.1182	.0516	.1369	-.0546	-.0520	2055.	

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S/RV PIPING KEWAUNEE GKW00F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.3130	626.	1045.	1825.	1175.	120.	-1035.	.0351	-.1012	.0175	.1385	.0566	.0461	2218.
.3140	198.	834.	1644.	1528.	637.	-978.	.0328	-.1048	.0209	.1404	.0611	.0453	2716.
.3150	-138.	679.	1594.	1787.	1061.	-990.	.0299	-.1080	.0243	.1413	.0532	.0421	3252.
.3160	-359.	586.	1453.	1911.	1356.	-1069.	.0267	-.1107	.0278	.1413	.0429	.0362	3638.
.3170	-427.	551.	1241.	1885.	1494.	-1201.	.0231	-.1130	.0312	.1406	.0304	.0277	3797.
.3180	-330.	568.	1005.	1719.	1472.	-1357.	.0192	-.1148	.0347	.1396	.0160	.0169	3728.
.3190	-81.	628.	809.	1447.	1310.	-1507.	.0151	-.1162	.0382	.1385	.0304	.0040	3483.
.3200	271.	706.	699.	1103.	1052.	-1617.	.0109	-.1172	.0417	.1375	-.0155	-.0101	3139.
.3210	673.	783.	706.	718.	747.	-1656.	.0067	-.1178	.0452	.1368	-.0306	-.0246	2760.
.3220	1041.	855.	809.	328.	450.	-1600.	.0026	-.1181	.0485	.1366	-.0439	-.0388	2393.
.3230	1279.	933.	956.	-29.	215.	-1439.	-.0013	-.1182	.0516	.1369	-.0546	-.0520	2055.

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S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	18	MEMBER	1	SEQUENCE	34	LOCATION	END	TYPE	RU					
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
.3240	1329.	1019.	1112.	-324.	77.	-1183.	-.0048	-.1180	.0543	.1378	-.0520	-.0635	1736.	
.3250	1192.	1114.	1269.	-539.	53.	-860.	-.0079	-.1175	.0566	.1389	-.0660	-.0731	1436.	
.3260	880.	1225.	1402.	-658.	150.	-510.	-.0103	-.1168	.0585	.1403	-.0668	-.0805	1195.	
.3270	437.	1355.	1495.	-665.	352.	-179.	-.0119	-.1160	.0600	.1417	-.0647	-.0860	1093.	
.3280	-61.	1482.	1557.	-556.	620.	87.	-.0128	-.1149	.0612	.1430	-.0506	-.0897	1183.	
.3290	-547.	1574.	1586.	-337.	921.	250.	-.0128	-.1138	.0621	.1437	-.0552	-.0919	1430.	
.3300	-975.	1609.	1575.	-21.	1234.	288.	-.0119	-.1127	.0626	.1437	-.0492	-.0928	1790.	
.3310	-1300.	1588.	1543.	373.	1536.	198.	-.0101	-.1117	.0627	.1430	-.0430	-.0927	2250.	
.3320	-1518.	1526.	1479.	814.	1810.	-1.	-.0075	-.1109	.0623	.1414	-.0370	-.0917	2803.	
.3330	-1666.	1429.	1342.	1265.	2053.	-279.	-.0042	-.1101	.0613	.1392	-.0312	-.0901	3430.	
.3340	-1769.	1297.	1141.	1688.	2274.	-595.	-.0002	-.1095	.0596	.1362	-.0255	-.0876	4087.	
.3350	-1816.	1136.	945.	2052.	2470.	-907.	.0044	-.1089	.0572	.1327	-.0199	-.0845	4713.	
.3360	-1808.	981.	792.	2333.	2634.	-1183.	.0094	-.1084	.0541	.1289	-.0144	-.0806	5243.	
.3370	-1749.	879.	694.	2513.	2750.	-1398.	.0147	-.1078	.0502	.1251	-.0090	-.0763	5620.	
.3380	-1617.	855.	689.	2583.	2799.	-1539.	.0201	-.1071	.0458	.1215	-.0039	-.0717	5802.	
.3390	-1388.	906.	805.	2542.	2764.	-1601.	.0255	-.1063	.0407	.1181	.0009	-.0668	5765.	
.3400	-1067.	1010.	1028.	2397.	2637.	-1592.	.0309	-.1053	.0351	.1146	.0053	-.0617	5512.	
.3410	-672.	1160.	1319.	2165.	2418.	-1525.	.0361	-.1041	.0291	.1108	.0092	-.0566	5066.	
.3420	-222.	1358.	1637.	1867.	2116.	-1419.	.0411	-.1028	.0227	.1067	.0129	-.0516	4461.	
.3430	249.	1595.	1923.	1526.	1749.	-1291.	.0460	-.1013	.0159	.1021	.0163	-.0470	3752.	
.3440	711.	1828.	2144.	1170.	1347.	-1165.	.0507	-.0997	.0091	.0966	.0195	-.0428	3009.	
.3450	1153.	2006.	2303.	826.	940.	-1057.	.0552	-.0979	.0022	.0900	.0226	-.0391	2314.	
.3460	1570.	2095.	2393.	520.	549.	-982.	.0596	-.0958	-.0044	.0823	.0254	-.0360	1751.	
.3470	1945.	2094.	2390.	268.	192.	-948.	.0638	-.0935	-.0107	.0736	.0277	-.0339	1417.	
.3480	2271.	2002.	2309.	77.	-113.	-955.	.0678	-.0909	-.0163	.0641	.0297	-.0327	1362.	
.3490	2549.	1810.	2196.	-52.	-343.	-995.	.0713	-.0880	-.0212	.0540	.0313	-.0325	1489.	
.3500	2762.	1517.	2055.	-124.	-484.	-1056.	.0745	-.0847	-.0254	.0436	.0325	-.0332	1650.	
.3510	2871.	1149.	1859.	-155.	-527.	-1117.	.0771	-.0809	-.0288	.0331	.0335	-.0346	1759.	
.3520	2851.	757.	1608.	-162.	-470.	-1163.	.0790	-.0766	-.0314	.0231	.0346	-.0366	1787.	
.3530	2696.	387.	1335.	-160.	-310.	-1181.	.0802	-.0719	-.0334	.0139	.0359	-.0391	1739.	
.3540	2419.	74.	1073.	-156.	-54.	-1165.	.0807	-.0667	-.0347	.0060	.0375	-.0419	1662.	
.3550	2054.	-151.	862.	-153.	276.	-1117.	.0802	-.0609	-.0353	-.0005	.0391	-.0448	1640.	
.3560	1644.	-257.	734.	-149.	643.	-1047.	.0789	-.0547	-.0353	-.0053	.0404	-.0477	1748.	
.3570	1227.	-229.	690.	-144.	1007.	-963.	.0767	-.0480	-.0347	-.0083	.0412	-.0506	1978.	
.3580	842.	-81.	716.	-134.	1330.	-876.	.0735	-.0409	-.0334	-.0098	.0411	-.0532	2258.	
.3590	527.	159.	800.	-114.	1582.	-793.	.0696	-.0336	-.0316	-.0100	.0397	-.0555	2504.	
.3600	292.	452.	899.	-76.	1737.	-718.	.0648	-.0260	-.0292	-.0094	.0368	-.0572	2657.	
.3610	117.	756.	937.	-17.	1780.	-650.	.0593	-.0183	-.0264	-.0085	.0324	-.0582	2677.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.47.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.3500	2762.	1517.	015.	-124.	-484.	-1056.	.0745	-.0847	-.0254	.0436	.0325	-.0332	1650.
.3510	2871.	1149.	1859.	-155.	-527.	-1117.	.0771	-.0809	-.0288	.0331	.0335	-.0346	1759.
.3520	2851.	757.	1608.	-162.	-470.	-1163.	.0790	-.0766	-.0314	.0231	.0346	-.0366	1787.
.3530	2696.	387.	1335.	-160.	-310.	-1181.	.0802	-.0719	-.0334	.0139	.0359	-.0391	1739.
.3540	2419.	74.	1073.	-156.	-54.	-1165.	.0807	-.0667	-.0347	.0060	.0375	-.0419	1662.
.3550	2054.	-151.	262.	-153.	276.	-1117.	.0802	-.0609	-.0353	-.0005	.0391	-.0448	1640.
.3560	1644.	-257.	734.	-149.	643.	-1047.	.0789	-.0547	-.0353	-.0053	.0404	-.0477	1748.
.3570	1227.	-229.	690.	-144.	1007.	-963.	.0767	-.0480	-.0347	-.0083	.0412	-.0506	1978.
.3580	842.	-81.	716.	-134.	1330.	-876.	.0735	-.0409	-.0334	-.0098	.0411	-.0532	2258.
.3590	527.	159.	800.	-114.	1582.	-793.	.0696	-.0336	-.0316	-.0100	.0397	-.0555	2504.
.3600	297.	452.	899.	-76.	1737.	-718.	.0648	-.0260	-.0292	-.0094	.0368	-.0572	2657.
.3610	117.	756.	937.	-17.	1780.	-650.	.0593	-.0183	-.0264	-.0085	.0324	-.0582	2677.

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DIS/ADLPIPE

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2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	18	MEMBER	1	SEQUENCE	34	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.3620	-11.	1021.	861.	67.	1711.	-587.		.0531	-.0107	-.0232	-.0077	.0263	-.0584	2557.	
.3630	-96.	1195.	658.	178.	1540.	-527.		.0463	-.0031	-.0198	-.0076	.0188	-.0576	2312.	
.3640	-151.	1248.	340.	316.	1289.	-470.		.0391	.0041	-.0161	-.0085	.0099	-.0557	1989.	
.3650	-186.	1175.	-75.	481.	983.	-420.		.0314	.0111	-.0124	-.0105	-.0001	-.0528	1656.	
.3660	-206.	993.	-546.	665.	646.	-377.		.0233	.0177	-.0087	-.0137	-.0107	-.0491	1414.	
.3670	-218.	730.	-1031.	855.	308.	-341.		.0150	.0238	-.0050	-.0180	-.0217	-.0446	1371.	
.3680	-244.	413.	-1492.	1030.	4.	-308.		.0065	.0295	-.0014	-.0230	-.0323	-.0394	1519.	
.3690	-304.	68.	-1900.	1173.	-240.	-268.		-.0021	.0348	.0019	-.0288	-.0420	-.0337	1733.	
.3700	-412.	-275.	-2232.	1268.	-407.	-211.		-.0107	.0396	.0048	-.0350	-.0502	-.0276	1904.	
.3710	-581.	-585.	-2486.	1303.	-492.	-128.		-.0192	.0440	.0072	-.0414	-.0565	-.0212	1975.	
.3720	-810.	-835.	-2654.	1272.	-495.	-14.		-.0273	.0481	.0091	-.0477	-.0605	-.0148	1928.	
.3730	-1074.	-1010.	-2712.	1176.	-428.	133.		-.0352	.0517	.0105	-.0536	-.0622	-.0085	1777.	
.3740	-1341.	-1111.	-2643.	1024.	-310.	312.		-.0425	.0549	.0114	-.0590	-.0618	-.0024	1574.	
.3750	-1586.	-1147.	-2455.	832.	-166.	513.		-.0493	.0577	.0119	-.0637	-.0595	.0034	1399.	
.3760	-1790.	-1119.	-2162.	614.	-16.	726.		-.0554	.0602	.0120	-.0677	-.0555	.0088	1344.	
.3770	-1938.	-1030.	-1780.	389.	122.	944.		-.0607	.0623	.0118	-.0707	-.0504	.0138	1453.	
.3780	-2030.	-894.	-1347.	174.	240.	1159.		-.0651	.0641	.0114	-.0729	-.0443	.0184	1689.	
.3790	-2087.	-746.	-919.	-15.	330.	1362.		-.0686	.0656	.0108	-.0745	-.0376	.0228	1980.	
.3800	-2124.	-623.	-550.	-164.	385.	1544.		-.0710	.0669	.0100	-.0755	-.0306	.0270	2260.	
.3810	-2152.	-540.	-277.	-262.	399.	1690.		-.0724	.0679	.0090	-.0764	-.0235	.0311	2480.	
.3820	-2170.	-495.	-113.	-303.	368.	1783.		-.0727	.0686	.0079	-.0769	-.0166	.0351	2607.	
.3830	-2164.	-479.	-39.	-281.	296.	1809.		-.0720	.0691	.0067	-.0771	-.0102	.0391	2619.	
.3840	-2111.	-488.	-18.	-196.	185.	1754.		-.0702	.0693	.0054	-.0770	-.0045	.0430	2507.	
.3850	-1998.	-524.	-21.	-53.	38.	1615.		-.0675	.0693	.0040	-.0766	-.0004	.0469	2283.	
.3860	-1824.	-581.	-37.	130.	-142.	1394.		-.0638	.0691	.0025	-.0759	.0044	.0507	1988.	
.3870	-1591.	-630.	-58.	332.	-347.	1106.		-.0594	.0688	.0007	-.0750	.0078	.0545	1702.	
.3880	-1308.	-647.	-85.	528.	-567.	773.		-.0543	.0683	-.0014	-.0736	.0106	.0584	1546.	
.3890	-992.	-621.	-135.	697.	-799.	421.		-.0486	.0678	-.0038	-.0719	.0130	.0623	1611.	
.3900	-660.	-561.	-227.	813.	-1039.	76.		-.0425	.0672	-.0067	-.0700	.0152	.0665	1866.	
.3910	-317.	-470.	-366.	856.	-1288.	-242.		-.0362	.0666	-.0099	-.0678	.0172	.0708	2211.	
.3920	39.	-351.	-538.	824.	-1540.	-510.		-.0298	.0659	-.0134	-.0654	.0191	.0753	2571.	
.3930	415.	-220.	-713.	728.	-1790.	-714.		-.0235	.0652	-.0171	-.0627	.0208	.0799	2910.	
.3940	810.	-115.	-859.	583.	-2030.	-845.		-.0175	.0644	-.0208	-.0600	.0222	.0846	3214.	
.3950	1212.	-68.	-970.	406.	-2254.	-903.		-.0118	.0635	-.0244	-.0575	.0235	.0892	3477.	
.3960	1594.	-87.	-1057.	210.	-2449.	-894.		-.0067	.0626	-.0277	-.0553	.0245	.0937	3694.	
.3970	1924.	-150.	-1129.	11.	-2601.	-829.		-.0023	.0617	-.0307	-.0533	.0255	.0979	3855.	
.3980	2176.	-238.	-1182.	-180.	-2692.	-721.		.0014	.0608	-.0332	-.0516	.0265	.1017	3945.	
.3990	2331.	-346.	-1219.	-354.	-2713.	-589.		.0042	.0598	-.0352	-.0501	.0276	.1047	3954.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

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ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.3880	-1301.	-647.	-85.	578.	-567.	773.	-0543	.0683	-.0014	-.0736	.0106	.0584	1546.
.3890	-992.	-621.	-135.	697.	-799.	421.	-.0486	.0678	-.0038	-.0719	.0130	.0623	1611.
.3900	-660.	-561.	-227.	813.	-1039.	76.	-.0425	.0672	-.0067	-.0700	.0152	.0665	1866.
.3910	-317.	-470.	-366.	856.	-1288.	-242.	-.0362	.0666	-.0099	-.0678	.0172	.0708	2211.
.3920	39.	-351.	-530.	824.	-1540.	-510.	-.0298	.0659	-.0134	-.0654	.0191	.0753	2571.
.3930	415.	-220.	-713.	728.	-1790.	-714.	-.0235	.0652	-.0171	-.0627	.0208	.0799	2910.
.3940	810.	-115.	-859.	583.	-2030.	-845.	-.0175	.0644	-.0208	-.0600	.0222	.0846	3214.
.3950	1212.	-68.	-970.	406.	-2254.	-903.	-.0118	.0635	-.0244	-.0575	.0235	.0892	3477.
.3960	1594.	-87.	-1057.	210.	-2449.	-894.	-.0067	.0626	-.0277	-.0553	.0245	.0937	3694.
.3970	1924.	-150.	-1129.	11.	-2601.	-829.	-.0023	.0617	-.0307	-.0533	.0255	.0979	3855.
.3980	2176.	-238.	-1182.	-180.	-2692.	-721.	.0014	.0608	-.0332	-.0516	.0265	.1017	3945.
.3990	2331.	-346.	-1219.	-354.	-2713.	-589.	.0042	.0598	-.0352	-.0501	.0276	.1047	3954.

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ADLPIPE STRESS ANALYSIS

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18.26.47.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSVCONDITION 24
LOADS
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ENGLISH UNITSINTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	18	MEMBER	1	SEQUENCE	34	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.4000	2383.	-477.	-1240.	-509.	-2666.	-451.	.0061	.0589	-.0365	-.0492	.0288	.1070	3886.		

MAXIMUM VALUE OF STRESS OCCURS AT

TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
.0290	8224.	-2711.	-9041.	3914.	-10820.	-3964.	.0990	.0475	-.0164	.0031	-.0338	-.0645	17190.

SECTION	18	MEMBER	2	SEQUENCE	35	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
0.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.		
.0010	-4.	8.	-6.	-4.	0.	3.	-.0000	.0000	-.0000	.0000	.0000	-.0000	2.		
.0020	-29.	55.	-36.	-35.	4.	20.	-.0000	.0000	-.0002	.0001	.0002	.0000	19.		
.0030	-80.	155.	-90.	-110.	12.	64.	-.0001	.0001	-.0005	.0000	.0007	.0001	60.		
.0040	-154.	285.	-155.	-233.	29.	136.	-.0003	.0002	-.0012	-.0003	.0014	.0004	127.		
.0050	-237.	416.	-217.	-395.	53.	231.	-.0005	.0004	-.0021	-.0012	.0023	.0010	216.		
.0060	-305.	565.	-242.	-603.	76.	350.	-.0008	.0007	-.0033	-.0025	.0033	.0018	329.		
.0070	-375.	805.	-210.	-890.	116.	519.	-.0012	.0010	-.0051	-.0042	.0048	.0028	486.		
.0080	-513.	1199.	-106.	-1306.	221.	774.	-.0016	.0015	-.0077	-.0065	.0077	.0042	719.		
.0090	-748.	1656.	152.	-1837.	434.	1117.	-.0019	.0023	-.0115	-.0099	.0128	.0064	1028.		
.0100	-1122.	2011.	493.	-2417.	755.	1507.	-.0016	.0033	-.0162	-.0155	.0201	.0097	1381.		
.0110	-1657.	2194.	752.	-2973.	1156.	1893.	-.0007	.0046	-.0218	-.0233	.0292	.0138	1738.		
.0120	-2225.	2269.	936.	-3463.	1586.	2223.	.0012	.0061	-.0280	-.0328	.0388	.0179	2067.		
.0130	-2583.	2273.	1215.	-3835.	1985.	2433.	.0041	.0076	-.0343	-.0432	.0473	.0211	2323.		
.0140	-2500.	2034.	1801.	-3942.	2297.	2413.	.0082	.0092	-.0402	-.0544	.0528	.0229	2419.		
.0150	-1860.	1311.	2815.	-3600.	2474.	2057.	.0136	.0106	-.0447	-.0665	.0539	.0230	2263.		
.0160	-648.	14.	4363.	-2711.	2498.	1324.	.0204	.0120	-.0474	-.0786	.0508	.0210	1836.		
.0170	785.	-1626.	5879.	-1365.	2416.	297.	.0287	.0133	-.0482	-.0887	.0448	.0168	1308.		
.0180	1800.	-3180.	6196.	196.	2301.	-844.	.0384	.0145	-.0474	-.0947	.0388	.0107	1152.		
.0190	1857.	-4233.	4618.	1653.	2219.	-1896.	.0491	.0160	-.0462	-.0955	.0361	.0034	1572.		
.0200	264.	-4253.	641.	2514.	2337.	-2569.	.0607	.0185	-.0468	-.0915	.0426	-.0033	2009.		
.0210	-2748.	-3426.	-4503.	2633.	2749.	-2782.	.0731	.0224	-.0502	-.0855	.0613	-.0074	2209.		
.0220	-5406.	-2797.	-9153.	2533.	2861.	-2894.	.0852	.0278	-.0538	-.0813	.0794	-.0089	2246.		
.0230	-6735.	-2594.	-12777.	2646.	2408.	-3202.	.0959	.0338	-.0558	-.0769	.0875	-.0117	2250.		

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ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.48.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSVCONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITSINTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.0130	-2583.	2273.	1215.	-3835.	1985.	2433.	.0041	.0076	-.0343	-.0432	.0473	.0211	2323.
.0140	-2500.	2034.	1801.	-3942.	2297.	2413.	.0082	.0092	-.0402	-.0544	.0528	.0229	2419.
.0150	-1860.	1311.	2815.	-3600.	2474.	2057.	.0136	.0106	-.0447	-.0665	.0539	.0230	2263.
.0160	-648.	14.	4363.	-2711.	2498.	1324.	.0204	.0120	-.0474	-.0786	.0508	.0210	1836.
.0170	785.	-1626.	5379.	-1365.	2416.	297.	.0287	.0133	-.0482	-.0887	.0448	.0168	1308.
.0180	1800.	-3180.	6196.	196.	2301.	-844.	.0384	.0145	-.0474	-.0947	.0388	.0107	1152.
.0190	1857.	-4233.	4618.	1653.	2219.	-1896.	.0491	.0160	-.0462	-.0955	.0361	.0034	1572.
.0200	264.	-4253.	641.	2514.	2337.	-2569.	.0607	.0185	-.0468	-.0915	.0426	-.0033	2009.
.0210	-2748.	-3426.	-4503.	2633.	2749.	-2782.	.0731	.0224	-.0502	-.0855	.0613	-.0074	2209.
.0220	-5406.	-2797.	-9153.	2533.	2861.	-2894.	.0852	.0278	-.0538	-.0813	.0794	-.0089	2246.
.0230	-6735.	-2594.	-12777.	2646.	2408.	-3202.	.0959	.0338	-.0558	-.0769	.0875	-.0117	2250.

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S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK

2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	1c	MEMBER	2	SEQUENCE	35	LOCATION	END	TYPE	RU					STRESS
TIME	FX	FY	FZ	MX	MY	MZ				DZ	RX	RY	RZ	(PSI)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)		
.0240	-5458.	-2361.	-12508.	3027.	1447.	-3836.	.1046	.0392	-.0549	-.0671	.0320	-.0201	2388.	
.0250	-2498.	-1248.	-10212.	3248.	338.	-4388.	.1114	.0430	-.0517	-.0478	.0567	-.0342	2563.	
.0260	-70.	704.	-11675.	3066.	-916.	-4371.	.1155	.0455	-.0471	-.0225	.0441	-.0494	2538.	
.0270	2922.	1482.	-14384.	3066.	-3130.	-4223.	.1145	.0476	-.0395	-.0033	.0077	-.0621	2852.	
.0280	6531.	-230.	-12506.	3777.	-5510.	-4462.	.1093	.0494	-.0291	.0041	-.0291	-.0699	3765.	
.0290	8224.	-2711.	-9041.	4832.	-6372.	-4463.	.1023	.0504	-.0182	.0093	-.0466	-.0714	4292.	
.0300	9387.	-3180.	-6754.	5411.	-6306.	-3337.	.0908	.0497	-.0084	.0253	-.0551	-.0696	4196.	
.0310	9013.	-1243.	-5884.	4827.	-6300.	-1466.	.0741	.0473	.0008	.0481	-.0572	-.0700	3782.	
.0320	4379.	1040.	-8650.	3286.	-6067.	225.	.0542	.0446	.0102	.0646	-.0476	-.0710	3235.	
.0330	-296.	995.	-9888.	2284.	-5072.	1169.	.0323	.0417	.0211	.0695	-.0358	-.0659	2664.	
.0340	-907.	-676.	-5662.	2336.	-3568.	1604.	.0085	.0376	.0341	.0690	-.0334	-.0568	2135.	
.0350	-1007.	-647.	-1091.	2214.	-2213.	1951.	-.0163	.0308	.0471	.0724	-.0344	-.0563	1728.	
.0360	-3422.	1803.	500.	1175.	-1300.	2219.	-.0405	.0212	.0579	.0803	-.0308	-.0683	1325.	
.0370	-4366.	3589.	3468.	56.	-617.	2179.	-.0637	.0099	.0668	.0841	-.0295	-.0795	1061.	
.0380	-2159.	2475.	8390.	-395.	-72.	1735.	-.0856	-.0011	.0744	.0743	-.0371	-.0789	835.	
.0390	-1197.	36.	9607.	-532.	219.	1103.	-.1054	-.0115	.0804	.0513	-.0454	-.0711	583.	
.0400	-3069.	-697.	7948.	-1009.	859.	956.	-.1213	-.0222	.0816	.0302	-.0387	-.0639	766.	
.0410	-3225.	889.	9351.	-2147.	1366.	1613.	-.1348	-.0339	.0785	.0228	-.0275	-.0560	1412.	
.0420	-2736.	3216.	11260.	-3906.	2013.	2770.	-.1451	-.0454	.0724	.0241	-.0140	-.0409	2434.	
.0430	-5753.	4474.	7882.	-5432.	2941.	3961.	-.1497	-.0552	.0641	.0195	.0116	-.0165	3439.	
.0440	-8749.	3562.	5259.	-5505.	3943.	4862.	-.1491	-.0631	.0558	.0040	.0380	.0147	3907.	
.0450	-8984.	1594.	5177.	-4488.	4266.	5498.	-.1452	-.0708	.0497	-.0119	.0482	.0465	3881.	
.0460	-8547.	417.	3475.	-3441.	3757.	5819.	-.1381	-.0794	.0456	-.0154	.0427	.0702	3624.	
.0470	-7965.	80.	2040.	-2290.	3248.	5635.	-.1266	-.0891	.0427	-.0061	.0312	.0822	3231.	
.0480	-5239.	-871.	4492.	-482.	3055.	4923.	-.1111	-.0982	.0412	.0061	.0133	.0879	2725.	
.0490	-1909.	-3062.	5959.	1612.	2527.	3784.	-.0929	-.1047	.0407	.0134	-.0127	.0929	2262.	
.0500	-1104.	-5462.	2593.	3239.	1632.	2290.	-.0725	-.1078	.0394	.0159	-.0373	.0947	2010.	
.0510	-1800.	-6415.	-1132.	4078.	941.	686.	-.0496	-.1082	.0363	.0222	-.0516	.0876	1987.	
.0520	-1680.	-5063.	-2403.	3962.	814.	-681.	-.0248	-.1071	.0317	.0419	-.0580	.0711	1922.	
.0530	-1316.	-2083.	-4399.	2928.	985.	-1830.	.0009	-.1048	.0269	.0745	-.0526	.0483	1683.	
.0540	-1115.	716.	-6627.	1768.	939.	-3156.	.0265	-.1010	.0237	.1083	-.0580	.0205	1752.	
.0550	260.	1974.	-5388.	1356.	584.	-4776.	.0517	-.0963	.0231	.1346	-.0750	-.0107	2343.	
.0560	2846.	2021.	-2649.	1446.	215.	-6256.	.0756	-.0917	.0240	.1577	-.0837	-.0408	3011.	
.0570	5583.	2177.	-1856.	1201.	-170.	-7131.	.0971	-.0882	.0249	.1854	-.0926	-.0683	3390.	
.0580	8216.	3071.	-1054.	505.	-821.	-7313.	.1154	-.0862	.0248	.2158	-.0966	-.0945	3457.	
.0590	10058.	4047.	842.	-157.	-1572.	-6876.	.1303	-.0849	.0231	.2400	-.0897	-.1170	3306.	
.0600	10071.	4031.	542.	-561.	-2010.	-5876.	.1418	-.0830	.0202	.2524	-.0718	-.1281	2922.	
.0610	8803.	2882.	-1831.	-867.	-1842.	-4466.	.1499	-.0805	.0162	.2551	-.0450	-.1250	2300.	

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ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
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.0500	-1104.	-5482.	-1793.	3239.	1632.	1290.	-.0725	-.1078	.0394	.0159	-.0373	.0947	2010.
.0510	-1800.	-6415.	-1132.	4078.	941.	686.	-.0496	-.1082	.0363	.0222	-.0516	.0876	1987.
.0520	-1680.	-5063.	-2403.	3962.	814.	-681.	-.248	-.1071	.0317	.0419	-.0530	.0711	1922.
.0530	-1316.	-2033.	-4399.	2928.	985.	-1830.	.0009	-.1048	.0269	.0745	-.0526	.0483	1683.
.0540	-1115.	716.	-6627.	1768.	939.	-3156.	.0265	-.1010	.0237	.1083	-.0580	.0205	1752.
.0550	260.	1974.	-5388.	1356.	584.	-4776.	.0517	-.0963	.0231	.1346	-.0750	-.0107	2343.
.0560	2846.	2021.	-2649.	1446.	215.	-6256.	.0756	-.0917	.0240	.1577	-.0837	-.0408	3011.
.0570	5583.	2177.	-1856.	1201.	-170.	-7131.	.0971	-.0882	.0249	.1854	-.0926	-.0683	3390.
.0580	8216.	3071.	-1054.	505.	-821.	-7313.	.1154	-.0862	.0248	.2158	-.0966	-.0945	3457.
.0590	10058.	4047.	842.	-157.	-1572.	-6876.	.1303	-.0849	.0231	.2400	-.0897	-.1170	3306.
.0600	10071.	4031.	542.	-561.	-2010.	-5876.	.1418	-.0830	.0202	.2524	-.0718	-.1281	2922.
.0610	8803.	2882.	-1831.	-867.	-1842.	-4466.	.1499	-.0805	.0162	.2551	-.0450	-.1250	2300.

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INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	18	MEMBER	2	SEQUENCE	35	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.0620	7424.	1775.	-2323.	-1319.	-1276.	-2939.	.1547	-.0784	.0117	.2538	-.0098	-.1151	1624.		
.0630	5488.	2044.	-1227.	-2065.	-584.	-1503.	.1561	-.0775	.0067	.2535	.0318	-.1063	1228.		
.0640	3136.	3486.	-1084.	-2801.	155.	-292.	.1541	-.0781	.0022	.2535	.0714	-.0982	1322.		
.0650	2255.	4480.	-130.	-2843.	909.	399.	.1486	-.0800	-.0006	.2472	.1002	-.0871	1411.		
.0660	2834.	4030.	3030.	-2054.	1455.	314.	.1402	-.0828	-.0018	.2291	.1194	-.0738	1189.		
.0670	2614.	2795.	5173.	-1140.	1677.	-327.	.1295	-.0869	-.0030	.2016	.1347	-.0605	962.		
.0680	1446.	1812.	4652.	-611.	1702.	-957.	.1169	-.0921	-.0054	.1715	.1471	-.0469	959.		
.0690	1004.	1179.	4243.	-214.	1744.	-1302.	.1028	-.0978	-.0091	.1409	.1559	-.0319	1025.		
.0700	727.	461.	4783.	254.	1892.	-1506.	.0880	-.1026	-.0136	.1070	.1641	-.0161	1139.		
.0710	-659.	-457.	4094.	442.	1908.	-1671.	.0729	-.1053	-.0185	.0695	.1708	.0005	1206.		
.0720	-1922.	-1300.	2192.	71.	1484.	-1672.	.0570	-.1057	-.0226	.0335	.1683	.0182	1048.		
.0730	-1811.	-1656.	855.	-653.	733.	-1433.	.0405	-.1042	-.0251	.0049	.1543	.0350	814.		
.0740	-1153.	-1309.	487.	-1379.	-11.	-1053.	.0243	-.1013	-.0257	-.0144	.1337	.0476	813.		
.0750	-111.	-645.	1400.	-1825.	-750.	-622.	.0086	-.0975	-.0241	-.0260	.1076	.0559	970.		
.0760	1983.	-409.	3830.	-1817.	-1563.	-104.	-.0069	-.0927	-.0201	-.0326	.0750	.0634	1124.		
.0770	3915.	-871.	5726.	-1458.	-2245.	551.	-.0218	-.0868	-.0150	-.0368	.0416	.0720	1281.		
.0780	3886.	-1594.	5021.	-1087.	-2607.	1326.	-.0353	-.0794	-.0098	-.0399	.0151	.0805	1462.		
.0790	2572.	-2044.	3028.	-845.	-2757.	2137.	-.0475	-.0705	-.0047	-.0405	-.0051	.0871	1682.		
.0800	1480.	-1972.	1749.	-570.	-2783.	2824.	-.0584	-.0599	.0012	-.0368	-.0226	.0900	1877.		
.0810	217.	-1244.	567.	-185.	-2500.	3229.	-.0671	-.0478	.0080	-.0283	-.0361	.0873	1916.		
.0820	-1567.	-16.	-1070.	209.	-1915.	3231.	-.0730	-.0341	.0162	-.0166	-.0455	.0779	1763.		
.0830	-2685.	1089.	-1849.	632.	-1368.	2723.	-.0767	-.0195	.0262	-.0032	-.0558	.0629	1458.		
.0840	-2697.	1591.	-1330.	1279.	-956.	1706.	-.0782	-.0048	.0378	.0104	-.0682	.0435	1095.		
.0850	-2500.	1702.	-409.	2246.	-424.	440.	-.0774	.0092	.0494	.0232	-.0779	.0202	1091.		
.0860	-2313.	1807.	675.	3378.	203.	-635.	-.0747	.0218	.0594	.0340	-.0824	-.0056	1618.		
.0870	-2111.	1801.	1309.	4343.	597.	-1439.	-.0711	.0327	.0668	.0415	-.0831	-.0310	2162.		
.0880	-2853.	1318.	-112.	4865.	735.	-1784.	-.0668	.0424	.0709	.0441	-.0783	-.0529	2453.		
.0890	-4820.	279.	-3264.	4962.	925.	-1706.	-.0614	.0511	.0715	.0410	-.0659	-.0701	2497.		
.0900	-6712.	-987.	-5759.	4848.	1287.	-1219.	-.0549	.0590	.0696	.0343	-.0492	-.0832	2419.		
.0910	-7727.	-1922.	-6701.	4569.	1653.	-467.	-.0478	.0659	.0663	.0285	-.0338	-.0948	2287.		
.0920	-8192.	-2068.	-6776.	3960.	1889.	336.	-.0403	.0716	.0620	.0264	-.0229	-.1074	2062.		
.0930	-8003.	-1506.	-5844.	2996.	2036.	1029.	-.0324	.0760	.0572	.0269	-.0176	-.1207	1765.		
.0940	-6817.	-801.	-3824.	1904.	2187.	1516.	-.0243	.0790	.0516	.0268	-.0193	-.1319	1533.		
.0950	-5175.	-318.	-1779.	886.	2370.	1757.	-.0161	.0803	.0447	.0237	-.0268	-.1393	1444.		
.0960	-3725.	140.	-63.	-65.	2554.	1812.	-.0081	.0794	.0356	.0164	-.0368	-.1435	1468.		
.0970	-2380.	831.	1912.	-1065.	2749.	1783.	-.0004	.0761	.0239	.0053	-.0475	-.1448	1614.		
.0980	-1064.	1592.	3520.	-2205.	3027.	1704.	.0069	.0705	.0097	-.0085	-.0592	-.1417	1928.		
.0990	105.	2099.	3760.	-3483.	3313.	1531.	.0136	.0634	-.0063	-.0254	-.0733	-.1331	2364.		

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CONDITION 24

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INTERNAL FORCES IN THE PIPING
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.0870	-4820.	279.	-1264.	4962.	925.	-1706.	-.0814	.0511	.0715	.0410	-.0659	-.0701	2497.
.0900	-6712.	-987.	-5759.	4848.	1287.	-1219.	-.0549	.0590	.0696	.0343	-.0492	-.0832	2419.
.0910	-7727.	-1922.	-6701.	4569.	1653.	-467.	-.0478	.0659	.0663	.0285	-.0338	-.0948	2287.
.0920	-8192.	-2068.	-6776.	3960.	1889.	336.	-.0403	.0716	.0620	.0264	-.0229	-.1074	2062.
.0930	-8003.	-1506.	-5844.	2996.	2036.	1029.	-.0324	.0760	.0572	.0269	-.0176	-.1207	1765.
.0940	-6817.	-801.	-3824.	1904.	2187.	1516.	-.0243	.0790	.0516	.0268	-.0193	-.1319	1533.
.0950	-5175.	-318.	-1779.	886.	2370.	1757.	-.0161	.0803	.0447	.0237	-.0268	-.1393	1444.
.0960	-3725.	140.	-63.	-65.	2554.	1812.	-.0081	.0794	.0356	.0164	-.0368	-.1435	1468.
.0970	-2380.	831.	1912.	-1065.	2749.	1783.	-.0004	.0761	.0239	.0053	-.0475	-.1448	1614.
.0980	-1064.	1592.	3520.	-2205.	3027.	1704.	.0069	.0705	.0097	-.0085	-.0592	-.1417	1928.
.0990	105.	2099.	3760.	-3483.	3312.	1531.	.0136	.0634	-.0063	-.0254	-.0733	-.1331	2364.

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INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	18	MEMBER	2	SEQUENCE	35	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.1000	1404.	2286.	3334.	-4768.	3327.	1234.	.0194	.0555	-.0227	-.0465	-.0909	-.1200	2785.		
.1010	3122.	2298.	3191.	-5867.	2883.	853.	.0243	.0476	-.0385	-.0710	-.1115	-.1042	3090.		
.1020	5077.	2219.	2896.	-6678.	2113.	490.	.0283	.0398	-.0529	-.0959	-.1324	-.0856	3290.		
.1030	7078.	1985.	2273.	-7196.	1256.	271.	.0316	.0325	-.0655	-.1183	-.1497	-.0637	3426.		
.1040	8989.	1391.	2024.	-7380.	366.	246.	.0342	.0255	-.0760	-.1384	-.1590	-.0381	3465.		
.1050	10114.	209.	1844.	-7117.	-524.	332.	.0361	.0193	-.0846	-.1580	-.1563	-.0091	3349.		
.1060	9821.	-1566.	688.	-6335.	-1270.	650.	.0372	.0140	-.0915	-.1771	-.1392	.0231	3043.		
.1070	8680.	-3566.	-766.	-5109.	-1780.	1013.	.0375	.0098	-.0966	-.1937	-.1097	.0570	2579.		
.1080	6692.	-4877.	-2039.	-3866.	-1856.	1500.	.0372	.0067	-.1011	-.2035	-.0563	.0891	2129.		
.1090	2893.	-4433.	-4071.	-3376.	-1204.	2299.	.0373	.0055	-.1076	-.2042	-.0038	.1172	1996.		
.1100	106.	-4033.	-4823.	-3039.	-1113.	2608.	.0359	.0070	-.1103	-.2039	.0505	.1398	1948.		
.1110	-2134.	-4391.	-5113.	-2126.	-997.	2161.	.0346	.0114	-.1084	-.2033	.0959	.1549	1495.		
.1120	-3296.	-4703.	-4003.	-632.	-356.	1219.	.0344	.0178	-.1027	-.1951	.1337	.1595	665.		
.1130	-2549.	-3758.	-744.	481.	289.	215.	.0345	.0255	-.0941	-.1748	.1594	.1526	282.		
.1140	-1401.	-1708.	2507.	812.	604.	-710.	.0345	.0344	-.0838	-.1463	.1752	.1370	579.		
.1150	-1310.	22.	4178.	1092.	969.	-1535.	.0351	.0449	-.0736	-.1190	.1884	.1183	993.		
.1160	-1594.	760.	4784.	1639.	1550.	-1974.	.0359	.0569	-.0646	-.0987	.1983	.1019	1405.		
.1170	-2499.	1064.	3207.	1828.	2065.	-1827.	.0363	.0693	-.0566	-.0838	.2025	.0890	1550.		
.1180	-2639.	1143.	1301.	1678.	1659.	-1524.	.0343	.0806	-.0480	-.0691	.1902	.0745	1316.		
.1190	-3402.	1550.	-1336.	1504.	1138.	-1093.	.0317	.0900	-.0390	-.0502	.1721	.0552	1021.		
.1200	-3123.	2127.	-2175.	1712.	932.	-305.	.0290	.0972	-.0293	-.0280	.1502	-.0342	925.		
.1210	-237.	2197.	198.	2192.	394.	747.	.0246	.1031	-.0198	-.0084	.1190	.0159	1101.		
.1220	789.	1316.	251.	2434.	-547.	1606.	.0194	.1092	-.0113	-.0007	.0891	.0011	1390.		
.1230	760.	-199.	-343.	2457.	-1869.	2114.	.0129	.1152	-.0042	-.0051	.0602	-.0119	1754.		
.1240	1077.	-1193.	-496.	2147.	-2869.	2631.	.0057	.1204	.0008	-.0135	.0342	-.0232	2083.		
.1250	1879.	-1067.	-985.	1317.	-3613.	3130.	-.0025	.1236	.0037	-.0198	.0091	-.0338	2324.		
.1260	3012.	-201.	-674.	137.	-4739.	3161.	-.0126	.1247	.0048	-.0265	-.0180	-.0469	2670.		
.1270	1801.	975.	-1208.	-1277.	-5298.	2858.	-.0220	.1244	.0033	-.0402	-.0318	-.0596	2884.		
.1280	916.	1463.	-617.	-2458.	-5061.	2542.	-.0309	.1232	-.0010	-.0627	-.0390	-.0644	2893.		
.1290	100.	722.	-1241.	-3333.	-4286.	2162.	-.0392	.1212	-.0068	-.0925	-.0447	-.0590	2738.		
.1300	-1814.	-568.	-3395.	-3933.	-3473.	1452.	-.0466	.1181	-.0127	-.1254	-.0492	-.0506	2551.		
.1310	-2468.	-1344.	-2803.	-4046.	-2958.	519.	-.0539	.1133	-.0174	-.1541	-.0595	-.0455	2361.		
.1320	-2477.	-1148.	-1973.	-3804.	-1922.	-86.	-.0595	.1073	-.0206	-.1735	-.0721	-.0402	1997.		
.1330	-1146.	-1132.	-1369.	-3145.	-633.	-338.	-.0644	.1008	-.0226	-.1858	-.0913	-.0297	1512.		
.1340	-390.	-2314.	-1431.	-2182.	520.	-509.	-.0684	.0951	-.0234	-.1991	-.1097	-.0137	1078.		
.1350	-1051.	-4411.	-1792.	-1065.	1519.	-527.	-.0710	.0907	-.0236	-.2150	-.1203	.0059	904.		
.1360	-1260.	-6302.	-1972.	79.	2413.	-42.	-.0735	.0871	-.0237	-.2252	-.1288	.0285	1132.		
.1370	-2197.	-6877.	-4563.	837.	3528.	1011.	-.0752	.0840	-.0239	-.2241	-.1319	.0513	1764.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.48.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.1270	1801.	975.	-1208.	-1277.	-5298.	2858.	-.0220	.1244	.0033	-.0402	-.0318	-.0596	2884.
.1280	916.	1463.	-617.	-2458.	-5061.	2542.	-.0309	.1232	-.0010	-.0627	-.0390	-.0644	2893.
.1290	100.	722.	-1241.	-3333.	-4286.	2162.	-.0392	.1212	-.0068	-.0925	-.0447	-.0590	2738.
.1300	-1814.	-568.	-3395.	-3933.	-3473.	1452.	-.0416	.1181	-.0127	-.1254	-.0492	-.0506	2551.
.1310	-2468.	-1344.	-2803.	-4046.	-2958.	519.	-.0539	.1133	-.0174	-.1541	-.0595	-.0455	2361.
.1320	-2477.	-1148.	-1973.	-3804.	-1922.	-86.	-.0595	.1073	-.0206	-.1735	-.0721	-.0402	1997.
.1330	-1146.	-1132.	-1369.	-3145.	-633.	-338.	-.0644	.1008	-.0226	-.1858	-.0913	-.0297	1512.
.1340	-390.	-2314.	-1431.	-2182.	520.	-509.	-.0684	.0951	-.0234	-.1991	-.1097	-.0137	1078.
.1350	-1051.	-4411.	-1792.	-1065.	1519.	-527.	-.0710	.0907	-.0236	-.2150	-.1203	.0059	904.
.1360	-1260.	-6302.	-1972.	79.	2413.	-42.	-.0735	.0871	-.0237	-.2252	-.1288	.0285	1132.
.1370	-2197.	-6877.	-4563.	837.	3528.	1011.	-.0752	.0840	-.0239	-.2241	-.1319	.0513	1764.

ADLPIPE PAGE 856

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.48.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	18	MEMBER	2	SEQUENCE	35	LOCATION	END	TYPE	RU						
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)		DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
.1380	-2603.	-6265.	-6066.	1252.	4110.	2062.		-.0776	.0813	-.0232	-.2134	-.1351	.0684	2233.	
.1390	-3116.	-5243.	-6414.	1470.	4038.	2690.		-.0801	.0793	-.0205	-.1982	-.1371	.0781	2376.	
.1400	-3516.	-4565.	-7041.	1752.	3664.	2896.		-.0821	.0781	-.0152	-.1797	-.1392	.0841	2338.	
.1410	-1939.	-4234.	-5913.	2246.	2971.	2748.		-.0845	.0773	-.0073	-.1565	-.1464	.0865	2169.	
.1420	-683.	-3351.	-3910.	2530.	2232.	2271.		-.0859	.0765	.0019	-.1291	-.1479	.0814	1906.	
.1430	339.	-1571.	-555.	2398.	1206.	1537.		-.0873	.0754	.0113	-.0974	-.1441	.0675	1449.	
.1440	736.	651.	1514.	1811.	163.	877.		-.0880	.0740	.0198	-.0639	-.1344	.0510	946.	
.1450	506.	2386.	1424.	1019.	-759.	436.		-.0877	.0727	.0273	-.0344	-.1190	.0376	629.	
.1460	136.	3058.	1149.	379.	-1891.	-6.		-.0868	.0712	.0337	-.0136	-.1008	.0265	904.	
.1470	-2046.	3118.	-762.	-165.	-2833.	-447.		-.0838	.0690	.0389	.0007	-.0745	.0159	1346.	
.1480	-3201.	2929.	-1686.	-443.	-3595.	-733.		-.0798	.0649	.0435	.0154	-.0503	.0064	1732.	
.1490	-2378.	2644.	-1326.	-402.	-3909.	-780.		-.0741	.0587	.0474	.0323	-.0288	-.0006	1878.	
.1500	-2441.	1970.	-600.	-11.	-3875.	-825.		-.0664	.0510	.0505	.0471	-.0069	-.0053	1857.	
.1510	-1417.	604.	1049.	728.	-4035.	-1048.		-.0584	.0424	.0525	.0563	.0104	-.0069	1983.	
.1520	-831.	-866.	1488.	1408.	-3980.	-1140.		-.0495	.0335	.0521	.0610	.0279	-.0026	2049.	
.1530	372.	-1801.	2084.	1841.	-3651.	-898.		-.0407	.0243	.0487	.0646	.0443	.0073	1962.	
.1540	649.	-1764.	1927.	1796.	-2905.	-336.		-.0315	.0149	.0416	.0683	.0568	.0205	1608.	
.1550	-249.	-1092.	1079.	1305.	-2001.	389.		-.0221	.0057	.0319	.0711	.0949	.0358	1135.	
.1560	-296.	-530.	1490.	715.	-1328.	1131.		-.0137	-.0031	.0208	.0716	.1190	.0536	883.	
.1570	-1140.	-191.	862.	93.	-331.	1859.		-.0048	-.0112	.0092	.0685	.1442	.0739	886.	
.1580	-1544.	-76.	1021.	-363.	591.	2351.		.0037	-.0188	-.0019	.0630	.1540	.0928	1149.	
.1590	-689.	169.	2677.	-748.	889.	2495.		.0108	-.0263	-.0116	.0578	.1715	.1065	1290.	
.1600	-219.	932.	3117.	-1318.	840.	2428.		.0173	-.0338	-.0199	.0538	.1710	.1143	1353.	
.1610	201.	1569.	3162.	-1724.	774.	2185.		.0238	-.0411	-.0271	.0492	.1654	.1181	1354.	
.1620	2003.	1400.	5085.	-1712.	476.	1726.		.0294	-.0477	-.0332	.0416	.1522	.1196	1161.	
.1630	2345.	751.	4904.	-1788.	142.	1150.		.0352	-.0532	-.0386	.0292	.1382	.1188	999.	
.1640	1934.	-118.	3313.	-1964.	-352.	476.		.0405	-.0576	-.0431	.0145	.1208	.1148	961.	
.1650	2653.	-1052.	2733.	-1964.	-996.	-295.		.0448	-.0610	-.0462	.0014	.0960	.1067	1041.	
.1660	3056.	-1531.	1020.	-2052.	-1479.	-1074.		.0489	-.0631	-.0477	-.0076	.0589	.0948	1288.	
.1670	3896.	-1598.	-822.	-2250.	-2236.	-1929.		.0515	-.0638	-.0469	-.0127	.0349	.0792	1740.	
.1680	4848.	-1734.	-2299.	-2241.	-3075.	-2897.		.0532	-.0628	-.0434	-.0150	-.0009	.0618	2241.	
.1690	6709.	-2167.	-1970.	-1748.	-3809.	-3876.		.0535	-.0603	-.0375	-.0138	-.0368	.0447	2675.	
.1700	8237.	-2208.	-1672.	-1237.	-4136.	-4546.		.0523	-.0566	-.0304	-.0067	-.0572	.0297	2938.	
.1710	7856.	-1474.	-2911.	-1062.	-3841.	-4724.		.0504	-.0520	-.0226	.0063	-.0842	.0175	2896.	
.1720	8212.	-669.	-1566.	-707.	-3495.	-4574.		.0460	-.0468	-.0143	.0239	-.0944	.0083	2718.	
.1730	7382.	99.	-552.	-211.	-2746.	-4038.		.0404	-.0411	-.0059	.0431	-.0913	.0031	2291.	
.1740	5211.	1013.	-1051.	165.	-1683.	-3060.		.0335	-.0350	.0023	.0623	-.0781	.0018	1638.	
.1750	3151.	1906.	-1238.	439.	-680.	-1825.		.0249	-.0288	.0108	.0806	-.0616	.0023	936.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.48.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.1660	3056.	-1531.	1020.	-2052.	-1479.	-1074.	.489	-.0631	-.0477	-.0076	.0689	.0948	1288.
.1670	3896.	-1598.	-822.	-2250.	-2236.	-1929.	.0515	-.0638	-.0469	-.0127	.0349	.0792	1740.
.1680	4948.	-1734.	-2299.	-2241.	-3075.	-2897.	.0532	-.0628	-.0434	-.0150	-.0009	.0618	2241.
.1690	6709.	-2167.	-1970.	-1748.	-3809.	-3876.	.0535	-.0603	-.0375	-.0138	-.0368	.0447	2675.
.1700	8237.	-2208.	-1672.	-1237.	-4136.	-4546.	.0523	-.0566	-.0304	-.0067	-.0572	.0297	2938.
.1710	7856.	-1474.	-2911.	-1062.	-3841.	-4724.	.0504	-.0520	-.0226	.0063	-.0842	.0175	2896.
.1720	8212.	-669.	-1566.	-707.	-3495.	-4574.	.0460	-.0468	-.0143	.0239	-.0944	.0083	2718.
.1730	7382.	99.	-552.	-211.	-2746.	-4038.	.0404	-.0411	-.0059	.0431	-.0913	.0031	2291.
.1740	5211.	1012.	-1051.	165.	-1683.	-3660.	.0335	-.0350	.0023	.0623	-.0781	.0018	1638.
.1750	3151.	1906.	-1238.	439.	-680.	-1825.	.0249	-.0288	.0108	.0806	-.0616	.0023	936.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.48.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK

2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	18	MEMBER	2	SEQUENCE	35	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.1760	671.	2518.	-1544.	709.	339.	-587.	.0158	-.0230	.0197	.0970	-.0409	.0021	460.		
.1770	-1006.	2683.	-944.	1110.	1105.	486.	.0057	-.0180	.0293	.1115	-.0230	-.0005	768.		
.1780	-2735.	2556.	-972.	1511.	1839.	1409.	-.0039	-.0138	.0394	.1223	-.0063	-.0055	1296.		
.1790	-3484.	1963.	-181.	2040.	2272.	2017.	-.0137	-.0107	.0498	.1283	.0048	-.0137	1715.		
.1800	-3675.	1024.	888.	2559.	2326.	2211.	-.0235	-.0085	.0597	.1290	.0101	-.0252	1923.		
.1810	-5132.	203.	-349.	2679.	2392.	2145.	-.0322	-.0072	.0680	.1247	.0159	-.0386	1960.		
.1820	-5670.	-589.	-1042.	2620.	2197.	1851.	-.0408	-.0071	.0749	.1172	.0160	-.0524	1822.		
.1830	-6033.	-1307.	-1685.	2528.	1918.	1342.	-.0484	-.0079	.0801	.1078	.0140	-.0660	1615.		
.1840	-6607.	-1696.	-2512.	2356.	1541.	674.	-.0551	-.0097	.0837	.0980	.0103	-.0795	1357.		
.1850	-6834.	-1659.	-2833.	2032.	1085.	-2.	-.0610	-.0123	.0859	.0890	.0031	-.0913	1080.		
.1860	-6756.	-1505.	-2848.	1676.	755.	-598.	-.0655	-.0154	.0870	.0814	-.0059	-.0989	906.		
.1870	-5391.	-1530.	-1500.	1521.	215.	-1145.	-.0693	-.0189	.0872	.0761	-.0208	-.1021	898.		
.1880	-4344.	-1268.	-726.	1312.	-418.	-1470.	-.0717	-.0227	.0862	.0731	-.0361	-.1014	944.		
.1890	-3113.	-536.	283.	997.	-1139.	-1418.	-.0730	-.0267	.0839	.0725	-.0515	-.0965	972.		
.1900	-1230.	308.	2024.	721.	-1812.	-990.	-.0732	-.0310	.0798	.0741	-.0564	-.0863	1025.		
.1910	-280.	1092.	2416.	361.	-2131.	-216.	-.0715	-.0354	.0735	.0762	-.0742	-.0704	1018.		
.1920	254.	1723.	2417.	-107.	-2341.	790.	-.0683	-.0399	.0655	.0772	-.0769	-.0506	1159.		
.1930	424.	2135.	2327.	-564.	-2401.	1877.	-.0633	-.0448	.0561	.0761	-.0738	-.0289	1452.		
.1940	300.	2248.	1985.	-809.	-2164.	2833.	-.0563	-.0500	.0461	.0735	-.0655	-.0073	1713.		
.1950	317.	2167.	1783.	-631.	-1694.	3480.	-.0473	-.0557	.0360	.0706	-.0544	.0118	1855.		
.1960	648.	2085.	2017.	-782.	-1196.	3702.	-.0367	-.0618	.0265	.0671	-.0428	.0258	1860.		
.1970	970.	1896.	2199.	-669.	-728.	3412.	-.0247	-.0680	.0180	.0624	-.0309	.0339	1665.		
.1980	1220.	1346.	2069.	-380.	-211.	2622.	-.0114	-.0739	.0104	.0558	-.0187	.0370	1245.		
.1990	1628.	489.	2081.	40.	377.	1477.	.0026	-.0793	.0039	.0479	-.0062	.0362	714.		
.2000	1977.	-341.	2317.	410.	983.	143.	.0171	-.0840	-.0019	.0402	.0073	.0316	504.		
.2010	1864.	-890.	2281.	619.	1566.	-1226.	.0314	-.0879	-.0072	.0347	.0229	.0237	976.		
.2020	1436.	-1072.	1832.	633.	2094.	-2431.	.0452	-.0909	-.0121	.0326	.0394	.0141	1532.		
.2030	993.	-954.	1191.	470.	2500.	-3322.	.0579	-.0926	-.0164	.0337	.0546	.0047	1960.		
.2040	496.	-751.	492.	256.	2715.	-3897.	.0694	-.0932	-.0197	.0374	.0677	-.0039	2229.		
.2050	111.	-594.	99.	131.	2705.	-4181.	.0796	-.0927	-.0218	.0442	.0776	-.0120	2334.		
.2060	263.	-330.	389.	65.	2493.	-4086.	.0882	-.0914	-.0225	.0555	.0830	-.0195	2243.		
.2070	949.	179.	1129.	-50.	2125.	-3568.	.0953	-.0896	-.0221	.0710	.0838	-.0265	1946.		
.2080	1737.	723.	1816.	-198.	1625.	-2758.	.1009	-.0871	-.0211	.0882	.0811	-.0331	1503.		
.2090	2476.	1010.	2361.	-332.	1001.	-1824.	.1049	-.0840	-.0195	.1039	.0760	-.0389	987.		
.2100	3241.	1086.	2705.	-525.	306.	-835.	.1075	-.0801	-.0179	.1165	.0686	-.0439	484.		
.2110	3813.	1229.	2445.	-886.	-352.	136.	.1086	-.0759	-.0165	.1262	.0602	-.0488	451.		
.2120	4054.	1578.	1664.	-1407.	-913.	928.	.1064	-.0715	-.0153	.1332	.0518	-.0550	898.		
.2130	4181.	2047.	989.	-1988.	-1348.	1389.	.1067	-.0672	-.0142	.1371	.0435	-.0630	1300.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.48.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK

2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.2030	493.	-254.	1191.	470.	2500.	-3322.	.0579	-.0926	-.0164	.0337	.0546	.0047	1960.
.2040	496.	-751.	492.	256.	2715.	-3697.	.0694	-.0932	-.0197	.0374	.0677	-.0039	2229.
.2050	111.	-594.	99.	131.	2705.	-4181.	.0796	-.0927	-.0218	.0442	.0776	-.0120	2334.
.2060	263.	-330.	389.	65.	2493.	-4086.	.0882	-.0914	-.0225	.0555	.0930	-.0195	2243.
.2070	949.	179.	1129.	-50.	2125.	-3568.	.0953	-.0896	-.0221	.0710	.0838	-.0265	1946.
.2080	1737.	723.	1816.	-198.	1625.	-2758.	.1009	-.0871	-.0211	.0882	.0811	-.0331	1503.
.2090	2476.	1010.	2361.	-332.	1001.	-1824.	.1049	-.0840	-.0195	.1039	.0760	-.0389	987.
.2100	3241.	1086.	2705.	-525.	306.	-835.	.1075	-.0801	-.0179	.1165	.0686	-.0439	484.
.2110	3813.	1229.	2445.	-886.	-352.	136.	.1086	-.0759	-.0165	.1262	.0602	-.0488	451.
.2120	4054.	1578.	1664.	-1407.	-913.	928.	.1084	-.0715	-.0153	.1332	.0518	-.0550	898.
.2130	4181.	2047.	989.	-1988.	-1348.	1389.	.1067	-.0672	-.0142	.1371	.0435	-.0630	1300.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.48.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	10	MEMBER	2	SEQUENCE	35	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.2140	4359.	2426.	666.	-2506.	-1590.	1453.		.1038	-.0632	-.0127	.1369	.0348	-.0717	1549.	
.2150	4531.	2524.	549.	-2816.	-1603.	1108.		.0996	-.0595	-.0108	.1320	.0262	-.0801	1605.	
.2160	4621.	2351.	648.	-2864.	-1449.	401.		.0941	-.0561	-.0083	.1231	.0181	-.0877	1516.	
.2170	4584.	2116.	950.	-2738.	-1212.	-515.		.0870	-.0534	-.0055	.1115	.0109	-.0938	1424.	
.2180	4283.	1933.	1140.	-2513.	-877.	-1445.		.0785	-.0511	-.0027	.0984	.0058	-.0970	1419.	
.2190	3656.	1680.	1070.	-2136.	-414.	-2231.		.0686	-.0491	.0000	.0844	.0034	-.0956	1460.	
.2200	2727.	1215.	866.	-1574.	109.	-2765.		.0575	-.0472	.0026	.0694	.0038	-.0887	1492.	
.2210	1450.	558.	453.	-910.	607.	-2966.		.0454	-.0452	.0052	.0538	.0066	-.0765	1481.	
.2220	-90.	-172.	-214.	-221.	1073.	-2801.		.0325	-.0429	.0076	.0394	.0109	-.0596	1409.	
.2230	-1506.	-837.	-725.	477.	1512.	-2302.		.0191	-.0404	.0101	.0278	.0154	-.0395	1310.	
.2240	-2524.	-1278.	-772.	1133.	1855.	-1543.		.0056	-.0377	.0128	.0196	.0180	-.0182	1249.	
.2250	-3212.	-1445.	-591.	1673.	2015.	-641.		-.0079	-.0346	.0157	.0142	.0176	.0022	1263.	
.2260	-3591.	-1462.	-369.	2080.	1976.	275.		-.0211	-.0312	.0186	.0106	.0134	.0207	1351.	
.2270	-3552.	-1432.	36.	2343.	1807.	1113.		-.0336	-.0274	.0216	.0081	.0055	.0361	1482.	
.2280	-3196.	-1284.	590.	2385.	1581.	1830.		-.0452	-.0234	.0242	.0065	-.0051	.0473	1592.	
.2290	-2773.	-940.	1064.	2159.	1317.	2388.		-.0555	-.0191	.0264	.0053	-.0174	.0534	1630.	
.2300	-2345.	-471.	1423.	1722.	1017.	2748.		-.0645	-.0146	.0281	.0038	-.0307	.0540	1593.	
.2310	-1908.	-7.	1664.	1149.	711.	2898.		-.0719	-.0098	.0295	.0011	-.0444	.0497	1499.	
.2320	-1574.	372.	1644.	483.	436.	2845.		-.0777	-.0046	.0306	-.0030	-.0577	.0415	1368.	
.2330	-1358.	631.	1442.	-206.	186.	2597.		-.0818	.0009	.0315	-.0084	-.0700	.0301	1224.	
.2340	-1135.	781.	1373.	-807.	-46.	2195.		-.0841	.0064	.0325	-.0141	-.0808	.0161	1096.	
.2350	-903.	860.	1514.	-1243.	-215.	1729.		-.0847	.0118	.0333	-.0197	-.0889	.0009	1003.	
.2360	-761.	927.	1724.	-1478.	-279.	1277.		-.0834	.0170	.0337	-.0251	-.0932	-.0139	925.	
.2370	-734.	559.	1932.	-1499.	-267.	880.		-.0804	.0220	.0334	-.0307	-.0932	-.0266	824.	
.2380	-854.	49.	1993.	-1344.	-235.	576.		-.0759	.0268	.0322	-.0368	-.0889	-.0362	694.	
.2390	-1189.	-526.	1651.	-1099.	-196.	425.		-.0699	.0314	.0298	-.0429	-.0804	-.0423	560.	
.2400	-1645.	-990.	941.	-822.	-153.	450.		-.0627	.0360	.0261	-.0483	-.0684	-.0451	445.	
.2410	-1996.	-1299.	197.	-536.	-127.	605.		-.0545	.0404	.0212	-.0526	-.0543	-.0451	383.	
.2420	-2159.	-1477.	-404.	-283.	-119.	824.		-.0454	.0449	.0155	-.0557	-.0392	-.0427	412.	
.2430	-2145.	-1536.	-884.	-100.	-109.	1056.		-.0355	.0495	.0091	-.0578	-.0243	-.0384	500.	
.2440	-1911.	-1475.	-1207.	11.	-99.	1267.		-.0252	.0541	.0023	-.0591	-.0105	-.0329	596.	
.2450	-1476.	-1277.	-1321.	58.	-87.	1425.		-.0147	.0585	-.0048	-.0597	.0017	-.0267	670.	
.2460	-973.	-938.	-1276.	30.	-43.	1513.		-.0043	.0626	-.0121	-.0600	.0122	-.0205	709.	
.2470	-474.	-534.	-1064.	-66.	78.	1521.		.0058	.0661	-.0196	-.0606	.0212	-.0143	714.	
.2480	17.	-183.	-735.	-200.	260.	1448.		.0152	.0690	-.0272	-.0622	.0282	-.0082	696.	
.2490	372.	56.	-571.	-377.	444.	1295.		.0239	.0714	-.0348	-.0653	.0329	-.0023	666.	
.2500	511.	173.	-706.	-598.	605.	1067.		.0315	.0731	-.0422	-.0706	.0354	.0033	640.	
.2510	625.	139.	-876.	-813.	741.	759.		.0381	.0744	-.0492	-.0777	.0353	.0084	627.	

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S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

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ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.2410	-1996.	-1299.	197.	-536.	-127.	-1299.	605.	-.0545	.0404	.0212	-.0526	-.0543	-.0451	383.
.2420	-2159.	-1477.	-404.	-283.	-119.	824.	-.0454	.0449	.0155	-.0557	-.0392	-.0427	412.	
.2430	-2145.	-1536.	-884.	-100.	-109.	1056.	-.0355	.0495	.0091	-.0578	-.0243	-.0384	500.	
.2440	-1911.	-1475.	-1207.	11.	-99.	1267.	-.0252	.0541	.0023	-.0591	-.0105	-.0329	596.	
.2450	-1476.	-1277.	-1321.	58.	-87.	1425.	-.0147	.0585	-.0048	-.0597	.0017	-.0267	670.	
.2460	-973.	-938.	-1276.	30.	-43.	1513.	-.0043	.0626	-.0121	-.0600	.0122	-.0205	709.	
.2470	-474.	-534.	-1064.	-66.	78.	1521.	.0058	.0661	-.0196	-.0606	.0212	-.0143	714.	
.2480	17.	-183.	-735.	-200.	260.	1448.	.0152	.0690	-.0272	-.0622	.0282	-.0082	696.	
.2490	372.	56.	-571.	-377.	444.	1295.	.0239	.0714	-.0348	-.0653	.0329	-.0023	666.	
.2500	511.	173.	-706.	-598.	605.	1067.	.0315	.0731	-.0422	-.0706	.0354	.0033	640.	
.2510	625.	139.	-876.	-813.	741.	759.	.0381	.0744	-.0492	-.0777	.0353	.0084	627.	

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S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
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INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	18	MEMBER	2	SEQUENCE	35	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.2520	916.	-31.	-887.	-983.	821.	375.	.0435	.0754	-.0556	-.0863	.0323	.0130	626.		
.2530	1325.	-235.	-928.	-1141.	789.	-57.	.0477	.0761	-.0612	-.0958	.0265	.0170	651.		
.2540	1759.	-412.	-1126.	-1314.	612.	-506.	.0505	.0768	-.0661	-.1058	.0187	.0206	720.		
.2550	2272.	-623.	-1310.	-1456.	324.	-944.	.0520	.0774	-.0700	-.1163	.0099	.0243	827.		
.2560	2876.	-900.	-1374.	-1516.	-12.	-1334.	.0521	.0782	-.0733	-.1269	.0013	.0290	946.		
.2570	3420.	-1152.	-1422.	-1500.	-369.	-1615.	.0508	.0791	-.0758	-.1370	-.0058	.0348	1047.		
.2580	3777.	-1280.	-1512.	-1426.	-745.	-1737.	.0481	.0799	-.0777	-.1461	-.0103	.0414	1110.		
.2590	3919.	-1304.	-1618.	-1290.	-1106.	-1679.	.0440	.0809	-.0790	-.1537	-.0117	.0489	1119.		
.2600	3834.	-1308.	-1734.	-1094.	-1383.	-1442.	.0386	.0821	-.0796	-.1599	-.0097	.0573	1067.		
.2610	3560.	-1358.	-1739.	-839.	-1544.	-1057.	.0321	.0836	-.0793	-.1652	-.0049	.0662	961.		
.2620	3170.	-1437.	-1495.	-537.	-1608.	-571.	.0245	.0856	-.0780	-.1694	.0018	.0747	838.		
.2630	2678.	-1442.	-1087.	-248.	-1589.	-17.	.0160	.0881	-.0757	-.1722	.0096	.0816	754.		
.2640	2090.	-1296.	-637.	-54.	-1467.	574.	.0069	.0910	-.0724	-.1735	.0177	.0863	739.		
.2650	1471.	-1064.	-90.	26.	-1236.	1147.	-.0027	.0944	-.0683	-.1736	.0253	.0886	790.		
.2660	818.	-865.	519.	31.	-925.	1635.	-.0124	.0981	-.0636	-.1736	.0319	.0882	881.		
.2670	38.	-731.	930.	-20.	-970.	2012.	-.0221	.1021	-.0585	-.1740	.0372	.0854	980.		
.2680	-859.	-628.	1018.	-117.	-197.	2272.	-.0315	.1060	-.0531	-.1749	.0408	.0802	1070.		
.2690	-1731.	-556.	947.	-229.	170.	2399.	-.0404	.1098	-.0475	-.1757	.0421	.0729	1132.		
.2700	-2477.	-544.	842.	-310.	499.	2370.	-.0486	.1132	-.0419	-.1763	.0409	.0638	1144.		
.2710	-3054.	-601.	676.	-337.	744.	2188.	-.0559	.1163	-.0360	-.1764	.0364	.0536	1094.		
.2720	-3385.	-707.	469.	-291.	856.	1886.	-.0623	.1190	-.0300	-.1758	.0284	.0430	980.		
.2730	-3428.	-830.	286.	-164.	818.	1512.	-.0677	.1214	-.0240	-.1743	.0170	.0328	809.		
.2740	-3273.	-909.	95.	15.	659.	1137.	-.0722	.1235	-.0181	-.1712	.0032	.0237	616.		
.2750	-3008.	-924.	-146.	211.	411.	830.	-.0756	.1253	-.0126	-.1667	-.0118	.0164	445.		
.2760	-2704.	-913.	-466.	416.	100.	637.	-.0781	.1266	-.0078	-.1610	-.0269	.0110	360.		
.2770	-2486.	-909.	-964.	628.	-238.	575.	-.0797	.1274	-.0038	-.1546	-.0412	.0102	414.		
.2780	-2407.	-898.	-1630.	828.	-563.	641.	-.0805	.1277	-.0008	-.1478	-.0540	.0113	557.		
.2790	-2371.	-870.	-2271.	1003.	-843.	802.	-.0803	.1271	.0013	-.1403	-.0652	.0144	720.		
.2800	-2280.	-842.	-2755.	1154.	-1057.	994.	-.0793	.1257	.0026	-.1324	-.0747	.0190	869.		
.2810	-2132.	-810.	-3105.	1276.	-1198.	1156.	-.0775	.1235	.0033	-.1244	-.0827	.0242	983.		
.2820	-1913.	-754.	-3310.	1355.	-1271.	1252.	-.0748	.1203	.0033	-.1166	-.0891	.0290	1050.		
.2830	-1589.	-702.	-3303.	1391.	-1272.	1254.	-.0713	.1163	.0029	-.1093	-.0939	.0330	1061.		
.2840	-1213.	-699.	-3150.	1382.	-1184.	1147.	-.0671	.1115	.0020	-.1029	-.0963	.0360	1008.		
.2850	-884.	-728.	-3003.	1298.	-1003.	944.	-.0621	.1060	.0007	-.0975	-.0959	.0380	887.		
.2860	-648.	-723.	-2928.	1120.	-762.	681.	-.0566	.0999	-.0012	-.0930	-.0926	.0389	711.		
.2870	-508.	-670.	-2921.	873.	-495.	386.	-.0506	.0932	-.0033	-.0890	-.0863	.0389	504.		
.2880	-452.	-618.	-2952.	612.	-217.	75.	-.0445	.0858	-.0056	-.0855	-.0775	.0382	306.		
.2890	-429.	-608.	-2952.	376.	47.	-233.	-.0384	.0779	-.0078	-.0819	-.0668	.0372	208.		

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S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
LOADS
SHOCK
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INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.2790	-2371.	-370.	-2271.	1003.	-843.	802.	-.0803	.1271	.0013	-.1403	-.0552	.0144	720.
.2800	-2280.	-342.	-2755.	1154.	-1057.	994.	-.0793	.1257	.0026	-.1324	-.0747	.0190	869.
.2810	-2132.	-310.	-3105.	1276.	-1198.	1156.	-.0775	.1235	.0033	-.1244	-.0827	.0242	983.
.2820	-1913.	-754.	-3310.	1355.	-1271.	1252.	-.0748	.1203	.0033	-.1166	-.0891	.0290	1050.
.2830	-1589.	-702.	-3303.	1391.	-1272.	1254.	-.0713	.1163	.0029	-.1093	-.0939	.0330	1061.
.2840	-1213.	-699.	-3150.	1382.	-1184.	1147.	-.0671	.1115	.0020	-.1029	-.0963	.0360	1008.
.2850	-884.	-728.	-3003.	1298.	-1003.	944.	-.0621	.1060	.0007	-.0975	-.0959	.0380	887.
.2860	-648.	-723.	-2928.	1120.	-762.	681.	-.0566	.0999	-.0012	-.0930	-.0926	.0389	711.
.2870	-508.	-670.	-2921.	873.	-495.	386.	-.0506	.0932	-.0033	-.0890	-.0863	.0389	504.
.2880	-452.	-618.	-2952.	612.	-217.	75.	-.0445	.0858	-.0056	-.0855	-.0775	.0382	306.
.2890	-429.	-608.	-2952.	376.	47.	-233.	-.0384	.0779	-.0078	-.0819	-.0668	.0372	208.

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2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

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INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	18	MEMBER	2	SEQUENCE	35	LOCATION	END	TYPE	RU	DZ	RX	RY	RZ	STRESS
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.2900	-383.	-635.	-2847.	191.	261.	-509.	-.0324	.0695	-.0098	-.0778	-.0548	.0364	283.	
.2910	-314.	-671.	-2624.	82.	400.	-725.	-.0267	.0606	-.0112	-.0727	-.0420	.0358	390.	
.2920	-240.	-705.	-2276.	61.	463.	-856.	-.0213	.0514	-.0122	-.0663	-.0288	.0355	457.	
.2930	-162.	-744.	-1790.	118.	464.	-888.	-.0163	.0419	-.0126	-.0584	-.0153	.0359	473.	
.2940	-116.	-788.	-1239.	219.	413.	-816.	-.0117	.0325	-.0125	-.0493	-.0017	.0370	441.	
.2950	-168.	-813.	-763.	319.	314.	-657.	-.0073	.0232	-.0121	-.0390	.0118	.0388	372.	
.2960	-311.	-784.	-410.	375.	168.	-439.	-.0033	.0141	-.0114	-.0277	.0249	.0408	282.	
.2970	-458.	-677.	-125.	369.	-15.	-207.	.0006	.0054	-.0104	-.0155	.0368	.0425	199.	
.2980	-516.	-499.	154.	306.	-224.	-15.	.0044	-.0032	-.0092	-.0026	.0469	.0435	178.	
.2990	-422.	-272.	457.	198.	-459.	90.	.0081	-.0114	-.0078	.0108	.0548	.0433	238.	
.3000	-136.	-30.	793.	58.	-757.	80.	.0118	-.0194	-.0061	.0241	.0601	.0420	344.	
.3010	336.	193.	1138.	-99.	-1016.	-55.	.0155	-.0272	-.0044	.0371	.0529	.0395	479.	
.3020	949.	400.	1470.	-260.	-1299.	-291.	.0191	-.0346	-.0025	.0496	.0637	.0363	636.	
.3030	1631.	619.	1787.	-426.	-1549.	-583.	.0226	-.0418	-.0007	.0616	.0632	.0328	801.	
.3040	2275.	362.	2048.	-598.	-1741.	-876.	.0257	-.0486	.0010	.0731	.0524	.0295	956.	
.3050	2763.	1099.	2158.	-764.	-1859.	-1129.	.0285	-.0550	.0025	.0837	.0619	.0272	1080.	
.3060	3026.	1296.	2092.	-897.	-1888.	-1309.	.0309	-.0610	.0040	.0935	.0522	.0264	1156.	
.3070	3065.	1454.	1936.	-967.	-1820.	-1395.	.0326	-.0664	.0055	.1025	.0534	.0271	1166.	
.3080	2903.	1572.	1773.	-946.	-1658.	-1385.	.0337	-.0716	.0072	.1109	.0653	.0293	1105.	
.3090	2573.	1629.	1632.	-801.	-1412.	-1299.	.0342	-.0764	.0091	.1186	.0674	.0325	974.	
.3100	2132.	1596.	1544.	-520.	-1101.	-1170.	.0341	-.0809	.0114	.1255	.0591	.0363	791.	
.3110	1636.	1471.	1533.	-123.	-744.	-1032.	.0333	-.0852	.0141	.1314	.0699	.0401	599.	
.3120	1122.	1274.	1577.	343.	-359.	-915.	.0321	-.0892	.0170	.1363	.0692	.0431	488.	
.3130	626.	1045.	1625.	821.	33.	-842.	.0304	-.0930	.0201	.1399	.0667	.0446	551.	
.3140	198.	834.	1644.	1246.	402.	-825.	.0284	-.0964	.0233	.1425	.0619	.0439	725.	
.3150	-138.	679.	1594.	1557.	721.	-865.	.0261	-.0994	.0264	.1438	.0546	.0407	901.	
.3160	-359.	586.	1453.	1713.	967.	-961.	.0235	-.1020	.0295	.1440	.0447	.0347	1026.	
.3170	-427.	551.	1241.	1698.	1121.	-1099.	.0208	-.1040	.0324	.1433	.0323	.0260	1084.	
.3180	-330.	568.	1005.	1527.	1175.	-1253.	.0180	-.1054	.0354	.1419	.0179	.0148	1077.	
.3190	-81.	628.	809.	1234.	1134.	-1392.	.0150	-.1064	.0383	.1403	.0022	.0016	1021.	
.3200	271.	706.	699.	863.	1015.	-1488.	.0120	-.1069	.0411	.1387	-.0139	-.0127	936.	
.3210	673.	783.	706.	453.	845.	-1512.	.0088	-.1070	.0440	.1374	-.0294	-.0274	839.	
.3220	1041.	855.	809.	39.	654.	-1443.	.0057	-.1069	.0468	.1366	-.0431	-.0416	743.	
.3230	1279.	933.	956.	-345.	472.	-1267.	.0026	-.1064	.0495	.1364	-.0541	-.0545	654.	
.3240	1329.	1019.	1112.	-670.	323.	-995.	-.0004	-.1057	.0519	.1368	-.0617	-.0656	582.	
.3250	1192.	1114.	1269.	-917.	223.	-655.	-.0032	-.1048	.0541	.1376	-.0658	-.0746	538.	
.3260	880.	1225.	1402.	-1073.	190.	-285.	-.0055	-.1038	.0560	.1388	-.0665	-.0814	528.	
.3270	437.	1355.	1495.	-1124.	225.	70.	-.0074	-.1026	.0576	.1403	-.0643	-.0863	538.	

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S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.3170	-427.	551.	1241.	1698.	1121.	-1099.	.0208	-1.040	.0324	.1433	.0323	.0260	1084.
.3180	-330.	568.	1005.	1527.	1175.	-1253.	.1180	-1.054	.0354	.1419	.0179	.0148	1077.
.3190	-81.	628.	809.	1234.	1134.	-1322.	.0150	-1.064	.0383	.1403	.0022	.0016	1021.
.3200	271.	706.	699.	863.	1015.	-1488.	.0120	-1.069	.0411	.1387	-.0139	-.0127	936.
.3210	673.	783.	706.	453.	845.	-1512.	.0088	-1.070	.0440	.1374	-.0294	-.0274	839.
.3220	1041.	855.	809.	79.	654.	-1443.	.0057	-1.069	.0468	.1366	-.0431	-.0416	743.
.3230	1279.	933.	956.	-345.	472.	-1267.	.0026	-1.064	.0495	.1364	-.0541	-.0545	654.
.3240	1329.	1019.	1112.	-670.	323.	-995.	-.0004	-1.057	.0519	.1368	-.0617	-.0656	582.
.3250	1192.	1114.	1269.	-917.	223.	-655.	-.0032	-1.048	.0541	.1376	-.0558	-.0746	538.
.3260	880.	1225.	1402.	-1073.	190.	-285.	-.0055	-1.038	.0560	.1388	-.0665	-.0814	528.
.3270	437.	1355.	1495.	-1124.	225.	70.	-.0074	-1.026	.0576	.1403	-.0643	-.0863	538.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKM24F--2 PSV

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	18	MEMBER	2	SEQUENCE	35	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.3280	-61.	1482.	1557.	-1058.	313.	359.	-.0085	-.1013	.0589	.1417	-.0599	-.0895	544.		
.3290	-547.	1574.	1586.	-870.	444.	539.	-.0090	-.1001	.0600	.1428	-.0542	-.0913	523.		
.3300	-975.	1609.	1575.	-566.	614.	584.	-.0085	-.0989	.0607	.1434	-.0478	-.0921	477.		
.3310	-1300.	1588.	1543.	-165.	812.	490.	-.0072	-.0980	.0611	.1432	-.0412	-.0920	451.		
.3320	-1518.	1526.	1479.	298.	1023.	279.	-.0051	-.0972	.0609	.1423	-.0349	-.0914	516.		
.3330	-1666.	1429.	1342.	781.	1242.	-17.	-.0021	-.0967	.0602	.1408	-.0287	-.0902	688.		
.3340	-1769.	1297.	1141.	1248.	1465.	-357.	.0015	-.0963	.0587	.1385	-.0227	-.0882	917.		
.3350	-1816.	1136.	945.	1667.	1681.	-699.	.0056	-.0961	.0565	.1355	-.0168	-.0856	1157.		
.3360	-1808.	981.	792.	2000.	1876.	-1003.	.0103	-.0959	.0536	.1321	-.0110	-.0822	1368.		
.3370	-1749.	879.	694.	2216.	2030.	-1237.	.0151	-.0957	.0500	.1286	-.0055	-.0783	1523.		
.3380	-1617.	855.	689.	2293.	2125.	-1381.	.0202	-.0955	.0457	.1251	-.0002	-.0739	1602.		
.3390	-1388.	906.	805.	2235.	2146.	-1434.	.0253	-.0951	.0408	.1216	.0045	-.0691	1600.		
.3400	-1067.	1010.	1028.	2055.	2086.	-1406.	.0303	-.0946	.0354	.1178	.0388	-.0641	1522.		
.3410	-672.	1160.	1319.	1772.	1948.	-1312.	.0353	-.0939	.0295	.1137	.0125	-.0588	1379.		
.3420	-222.	1358.	1637.	1407.	1740.	-1169.	.0401	-.0930	.0232	.1091	.0158	-.0537	1183.		
.3430	249.	1595.	1923.	986.	1479.	-998.	.0447	-.0921	.0166	.1038	.0187	-.0488	955.		
.3440	711.	1828.	2144.	550.	1193.	-828.	.0492	-.0910	.0099	.0978	.0214	-.0444	728.		
.3450	1153.	2006.	2303.	147.	907.	-688.	.0536	-.0898	.0031	.0907	.0240	-.0406	538.		
.3460	1570.	2095.	2393.	-189.	641.	-597.	.0578	-.0885	-.0034	.0825	.0262	-.0375	420.		
.3470	1945.	2094.	2390.	-441.	411.	-563.	.0619	-.0869	-.0096	.0733	.0282	-.0353	387.		
.3480	2271.	2002.	2309.	-601.	232.	-587.	.0657	-.0850	-.0151	.0636	.0298	-.0342	408.		
.3490	2549.	1810.	2196.	-665.	116.	-663.	.0692	-.0828	-.0200	.0533	.0311	-.0341	443.		
.3500	2762.	1517.	2055.	-638.	74.	-777.	.0723	-.0802	-.0241	.0428	.0322	-.0349	472.		
.3510	2871.	1149.	1859.	-545.	104.	-906.	.0748	-.0771	-.0275	.0324	.0332	-.0365	498.		
.3520	2851.	757.	1608.	-419.	200.	-1024.	.0767	-.0735	-.0301	.0224	.0344	-.0387	527.		
.3530	2696.	387.	1335.	-291.	357.	-1110.	.0778	-.0694	-.0320	.0133	.0360	-.0412	563.		
.3540	2419.	74.	1073.	-181.	568.	-1151.	.0781	-.0646	-.0332	.0055	.0378	-.0440	608.		
.3550	2054.	-151.	862.	-102.	814.	-1145.	.0775	-.0592	-.0338	-.0009	.0399	-.0469	660.		
.3560	1644.	-257.	734.	-62.	1065.	-1094.	.0760	-.0532	-.0338	-.0056	.0417	-.0497	716.		
.3570	1227.	-229.	690.	-66.	1295.	-1005.	.0737	-.0466	-.0331	-.0087	.0430	-.0524	769.		
.3580	842.	-81.	716.	-107.	1484.	-891.	.0706	-.0396	-.0318	-.0102	.0432	-.0549	813.		
.3590	527.	159.	800.	-168.	1613.	-764.	.0667	-.0321	-.0300	-.0104	.0421	-.0569	840.		
.3600	292.	452.	899.	-229.	1670.	-635.	.0621	-.0244	-.0277	-.0098	.0394	-.0585	844.		
.3610	117.	756.	937.	-273.	1648.	-511.	.0569	-.0166	-.0250	-.0088	.0349	-.0593	819.		
.3620	-11.	1021.	861.	-279.	1549.	-399.	.0511	-.0089	-.0221	-.0080	.0288	-.0593	761.		
.3630	-96.	1195.	658.	-227.	1386.	-307.	.0449	-.0014	-.0190	-.0077	.0210	-.0583	674.		
.3640	-151.	1248.	340.	-106.	1176.	-241.	.0383	.0058	-.0157	-.0084	.0117	-.0563	565.		
.3650	-186.	1175.	-75.	83.	934.	-204.	.0313	.0125	-.0124	-.0102	.0014	-.0534	450.		

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S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKM24F--2 PSV

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.3540	2419.	74.	1073.	-181.	568.	-1151.	.0781	-.0646	-.0322	.0055	.0378	-.0440	608.
.3550	2054.	-151.	862.	-102.	814.	-1145.	.0775	-.0592	-.0338	-.0009	.0399	-.0469	660.
.3560	1644.	-257.	734.	-62.	1065.	-1094.	.0760	-.0532	-.0338	-.0056	.0417	-.0497	716.
.3570	1227.	-229.	690.	-66.	1295.	-1005.	.0737	-.0466	-.0331	-.0087	.0430	-.0524	769.
.3580	842.	-81.	716.	-107.	1484.	-891.	.0706	-.0396	-.0318	-.0102	.0432	-.0549	813.
.3590	517.	159.	800.	-168.	1613.	-764.	.0667	-.0321	-.0300	-.0104	.0421	-.0569	840.
.3600	257.	452.	899.	-229.	1670.	-635.	.0621	-.0244	-.0277	-.0098	.0394	-.0585	844.
.3610	117.	756.	937.	-273.	1648.	-511.	.0569	-.0166	-.0250	-.0088	.0349	-.0593	819.
.3620	-11.	1021.	861.	-279.	1549.	-399.	.0511	-.0089	-.0221	-.0080	.0288	-.0593	761.
.3630	-56.	1195.	658.	-227.	1386.	-307.	.0449	-.0014	-.0190	-.0077	.0210	-.0583	674.
.3640	-151.	1248.	340.	-166.	1176.	-241.	.0383	.0058	-.0157	-.0084	.0117	-.0563	565.
.3650	-166.	1175.	-75.	83.	934.	-204.	.0313	.0125	-.0124	-.0102	.0014	-.0534	450.

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S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKM24F--2 PSV

CONDITION 24
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INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
.3660	-206.	993.	-546.	329.	677.	-194.	.0240	.0187	-.0091	-.0130	-.0097	-.0495	364.							
.3670	-218.	730.	-1031.	607.	424.	-207.	.0165	.0243	-.0058	-.0169	-.0211	-.0449	360.							
.3680	-244.	413.	-1492.	891.	196.	-232.	.0088	.0295	-.0027	-.0216	-.0322	-.0397	441.							
.3690	-304.	68.	-1900.	1150.	7.	-255.	.0009	.0341	.0002	-.0270	-.0422	-.0339	552.							
.3700	-412.	-275.	-2232.	1361.	-136.	-261.	-.0071	.0383	.0028	-.0329	-.0506	-.0278	653.							
.3710	-581.	-585.	-2486.	1501.	-232.	-236.	-.0151	.0420	.0050	-.0392	-.0570	-.0213	720.							
.3720	-810.	-835.	-2654.	1555.	-281.	-168.	-.0230	.0453	.0067	-.0455	-.0511	-.0147	744.							
.3730	-1074.	-1010.	-2712.	1518.	-293.	-52.	-.0307	.0482	.0081	-.0515	-.0628	-.0082	725.							
.3740	-1341.	-1111.	-2643.	1400.	-278.	107.	-.0381	.0508	.0090	-.0570	-.0622	-.0018	671.							
.3750	-1586.	-1147.	-2455.	1220.	-251.	302.	-.0451	.0531	.0096	-.0620	-.0598	.0043	601.							
.3760	-1790.	-1119.	-2162.	993.	-225.	520.	-.0514	.0550	.0098	-.0663	-.0557	.0101	536.							
.3770	-1938.	-1030.	-1780.	738.	-207.	755.	-.0571	.0567	.0099	-.0697	-.0505	.0155	504.							
.3780	-2030.	-894.	-1347.	477.	-200.	994.	-.0620	.0582	.0097	-.0722	-.0443	.0205	525.							
.3790	-2087.	-746.	-919.	237.	-208.	1225.	-.0660	.0594	.0093	-.0740	-.0375	.0252	593.							
.3800	-2124.	-623.	-550.	46.	-233.	1429.	-.0689	.0604	.0088	-.0754	-.0304	.0297	679.							
.3810	-2152.	-540.	-277.	-80.	-279.	1590.	-.0708	.0612	.0081	-.0763	-.0234	.0341	758.							
.3820	-2170.	-495.	-113.	-135.	-346.	1692.	-.0716	.0617	.0073	-.0769	-.0166	.0383	812.							
.3830	-2164.	-479.	-39.	-119.	-429.	1720.	-.0713	.0620	.0064	-.0771	-.0103	.0423	833.							
.3840	-2111.	-488.	-18.	-31.	-526.	1665.	-.0699	.0621	.0053	-.0768	-.0048	.0461	818.							
.3850	-1998.	-524.	-21.	125.	-635.	1519.	-.0675	.0620	.0040	-.0762	-.0001	.0497	774.							
.3860	-1824.	-581.	-37.	327.	-753.	1287.	-.0642	.0618	.0026	-.0753	.0038	.0532	715.							
.3870	-1591.	-630.	-58.	545.	-875.	990.	-.0600	.0614	.0010	-.0741	.0069	.0565	670.							
.3880	-1308.	-647.	-85.	747.	-995.	654.	-.0550	.0609	-.0010	-.0725	.0094	.0598	659.							
.3890	-992.	-621.	-135.	907.	-1110.	307.	-.0495	.0603	-.0034	-.0706	.0116	.0632	687.							
.3900	-660.	-561.	-227.	1003.	-1221.	-27.	-.0436	.0597	-.0061	-.0685	.0135	.0667	740.							
.3910	-317.	-470.	-366.	1016.	-1328.	-328.	-.0374	.0591	-.0093	-.0664	.0153	.0705	798.							
.3920	39.	-351.	-538.	943.	-1428.	-575.	-.0311	.0584	-.0127	-.0641	.0169	.0745	846.							
.3930	415.	-220.	-713.	807.	-1519.	-755.	-.0249	.0577	-.0164	-.0617	.0183	.0787	879.							
.3940	810.	-115.	-859.	622.	-1598.	-866.	-.0189	.0569	-.0201	-.0592	.0195	.0831	900.							
.3950	1212.	-68.	-970.	429.	-1665.	-915.	-.0133	.0560	-.0236	-.0570	.0205	.0876	913.							
.3960	1594.	-87.	-1057.	240.	-1715.	-910.	-.0083	.0551	-.0269	-.0551	.0214	.0921	917.							
.3970	1924.	-150.	-1129.	62.	-1742.	-856.	-.0039	.0542	-.0298	-.0534	.0222	.0964	910.							
.3980	2176.	-238.	-1182.	-99.	-1738.	-765.	-.0003	.0532	-.0323	-.0519	.0232	.1003	891.							
.3990	2331.	-346.	-1219.	-237.	-1700.	-652.	.0025	.0522	-.0342	-.0507	.0243	.1035	860.							
.4000	2383.	-477.	-1240.	-347.	-1631.	-539.	.0043	.0513	-.0356	-.0499	.0256	.1060	821.							

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S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKM24F--2 PSV

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.3930	415.	-220.	-713.	802.	-1519.	-755.	-.0249	.0577	-.0164	-.0617	.0183	.0787	879.
.3940	810.	-115.	-859.	622.	-1598.	-866.	-.0189	.0569	-.0201	-.0592	.0195	.0831	900.
.3950	1212.	-68.	-970.	429.	-1665.	-915.	-.0133	.0560	-.0236	-.0570	.0205	.0876	913.
.3960	1594.	-27.	-1057.	240.	-1715.	-910.	-.0083	.0551	-.0269	-.0551	.0214	.0921	917.
.3970	1924.	-150.	-1129.	62.	-1742.	-856.	-.0039	.0542	-.0298	-.0534	.0222	.0964	910.
.3980	2176.	-238.	-1182.	-99.	-1738.	-765.	-.0003	.0532	-.0323	-.0519	.0232	.1003	891.
.3990	2331.	-346.	-1219.	-237.	-1700.	-652.	.0025	.0522	-.0342	-.0507	.0243	.1035	860.
.4000	2383.	-477.	-1240.	-347.	-1631.	-539.	.0043	.0513	-.0356	-.0499	.0256	.1060	821.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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S/RV PIPING KEWAUNEE GKW02F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

MAXIMUM VALUE OF STRESS OCCURS AT

TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
.0290	8224.	-2711.	-9041.	4832.	-6372.	-4463.	.1023	.0504	-.0182	.0093	-.0466	-.0714	4292.

SECTION	MEMBER	SEQUENCE	LOCATION	TYPE	VA	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
19	1	35	BEG			0.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.
						.0010	4.	-8.	4.	4.	-0.	-3.	-.0000	.0000	-.0000	.0000	.0000	-.0000	2.
						.0020	26.	-59.	24.	35.	-4.	-20.	-.0000	.0000	-.0002	.0001	.0002	.0000	19.
						.0030	72.	-164.	59.	110.	-12.	-64.	-.0001	.0001	-.0005	.0000	.0007	.0001	60.
						.0040	138.	-295.	98.	233.	-29.	-136.	-.0003	.0002	-.0012	-.0003	.0014	.0004	127.
						.0050	213.	-423.	132.	395.	-53.	-231.	-.0005	.0004	-.0021	-.0012	.0023	.0010	216.
						.0060	267.	-569.	126.	603.	-76.	-350.	-.0008	.0007	-.0033	-.0025	.0033	.0018	329.
						.0070	318.	-814.	48.	890.	-116.	-519.	-.0012	.0010	-.0051	-.0042	.0048	.0028	486.
						.0080	447.	-1226.	-135.	1306.	-221.	-774.	-.0016	.0015	-.0077	-.0065	.0077	.0042	719.
						.0090	679.	-1700.	-492.	1837.	-434.	-1117.	-.0019	.0023	-.0115	-.0099	.0128	.0064	1028.
						.0100	1054.	-2054.	-930.	2417.	-755.	-1507.	-.0016	.0033	-.0162	-.0155	.0201	.0097	1381.
						.0110	1598.	-2216.	-1285.	2973.	-1156.	-1893.	-.0007	.0046	-.0218	-.0233	.0292	.0138	1738.
						.0120	2178.	-2269.	-1554.	3463.	-1586.	-2223.	.0012	.0061	-.0280	-.0328	.0388	.0179	2067.
						.0130	2541.	-2267.	-1883.	3835.	-1985.	-2433.	.0041	.0076	-.0343	-.0432	.0473	.0211	2323.
						.0140	2457.	-2035.	-2435.	3942.	-2297.	-2413.	.0082	.0092	-.0402	-.0544	.0528	.0229	2419.
						.0150	1821.	-1320.	-3297.	3600.	-2474.	-2057.	.0136	.0106	-.0447	-.0665	.0539	.0230	2263.
						.0160	614.	-38.	-4558.	2711.	-2498.	-1324.	.0204	.0120	-.0474	-.0786	.0508	.0210	1836.
						.0170	-773.	1566.	-5735.	1365.	-2416.	-297.	.0287	.0133	-.0482	-.0887	.0448	.0168	1308.
						.0180	-1664.	3054.	-5815.	-196.	-2301.	844.	.0384	.0145	-.0474	-.0947	.0388	.0107	1152.
						.0190	-1513.	4023.	-219.	-1653.	-2219.	1896.	.0491	.0160	-.0462	-.0955	.0361	-.0034	1572.
						.0200	379.	3965.	-593.	-2514.	-2337.	2569.	.0607	.0185	-.0468	-.0915	.0426	-.0033	2009.
						.0210	3699.	3137.	3985.	-2633.	-2749.	2782.	.0731	.0224	-.0502	-.0855	.0513	-.0074	2209.
						.0220	6369.	2686.	8320.	-2533.	-2861.	2894.	.0852	.0278	-.0538	-.0813	.0794	-.0089	2246.
						.0230	7515.	2768.	11880.	-2646.	-2408.	3202.	.0959	.0338	-.0558	-.0769	.0875	-.0117	2250.
						.0240	5995.	2710.	11850.	-3027.	-1447.	3836.	.1046	.0392	-.0549	-.0671	.0820	-.0201	2388.
						.0250	2981.	1549.	9816.	-3248.	-338.	4388.	.1114	.0430	-.0517	-.0478	.0667	-.0342	2563.
						.0260	717.	-564.	11184.	-3066.	916.	4371.	.1155	.0455	-.0471	-.0225	.0441	-.0494	2538.
						.0270	-2557.	-1417.	14051.	-3066.	3130.	4223.	.1145	.0476	-.0395	-.0033	.0077	-.0621	2852.
						.0280	-6619.	412.	12865.	-3777.	5510.	4462.	.1093	.0494	-.0291	.0041	-.0291	-.0699	3765.
						.0290	-8062.	3106.	9848.	-4832.	6372.	4463.	.1023	.0504	-.0182	.0093	-.0466	-.0714	4292.
						.0300	-9156.	3520.	7633.	-5411.	6306.	3337.	.0908	.0497	-.0084	.0253	-.0551	-.0696	4196.
						.0310	-9245.	1299.	6677.	-4827.	6300.	1466.	.0741	.0473	.0008	.0481	-.0572	-.0700	3782.
						.0320	-4747.	-1070.	8979.	-3286.	6067.	-225.	.0542	.0446	.0102	.0646	-.0476	-.0710	3235.

.0330	114.	-766.	9938.	-2284.	5072.	-1169.	.0323	.0417	.0211	.0695	-.0358	-.0659	2664.
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.0180	-1664.	3054.	5815.	-196.	-2301.	844.	.0384	.0145	-.0474	-.0947	.0388	.0107	1152.
.0190	-1513.	4023.	-4219.	-1653.	-2219.	1896.	.0491	.0160	-.0462	-.0955	.0361	.0034	1572.
.0200	379.	3965.	-593.	-2514.	-2337.	2569.	.0607	.0185	-.0468	-.0915	.0426	-.0033	2009.
.0210	3699.	7137.	3985.	-2633.	-2749.	2782.	.0731	.0224	-.0502	-.0855	.0513	-.0074	2209.
.0220	6369.	2636.	8320.	-2533.	-2861.	2894.	.0852	.0278	-.0538	-.0813	.0794	-.0089	2246.
.0230	7515.	2768.	11880.	-2646.	-2408.	3202.	.0959	.0338	-.0558	-.0769	.0875	-.0117	2250.
.0240	5995.	2710.	11850.	-3027.	-1447.	3836.	.1046	.0392	-.0549	-.0671	.0320	-.0201	2388.
.0250	2981.	1549.	9816.	-3248.	-338.	4388.	.1114	.0430	-.0517	-.0478	.0567	-.0342	2563.
.0260	717.	-564.	11184.	-3066.	916.	4371.	.1155	.0455	-.0471	-.0225	.0441	-.0494	2538.
.0270	-2557.	-1417.	14051.	-3066.	3130.	4223.	.1145	.0476	-.0395	-.0033	.0077	-.0621	2852.
.0280	-6619.	412.	12885.	-3777.	5510.	4462.	.1093	.0494	-.0291	.0041	-.0291	-.0699	3765.
.0290	-8062.	3106.	9848.	-4822.	6372.	4463.	.1023	.0504	-.0182	.0093	-.0466	-.0714	4292.
.0300	-9156.	3520.	7633.	-5411.	6306.	3337.	.0908	.0497	-.0084	.0253	-.0551	-.0696	4196.
.0310	-9245.	1299.	6677.	-4827.	6300.	1466.	.0741	.0473	.0008	.0481	-.0572	-.0700	3782.
.0320	-4747.	-1070.	8979.	-3286.	6067.	-225.	.0542	.0446	.0102	.0646	-.0476	-.0710	3235.

.0330 114. -766. 9938. -2284. 5072. -1159. .0323 .0417 .0211 .0695 -.0358 -.0659 2664.

CONDITION 24
 LOADS
 SHOCK
 PRESSURE
 ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
 FORCES AND MOMENTS ACT ON THE PIPING

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	19	MEMBER	1	SEQUENCE	35	LOCATION	BEG	TYPE	VA					
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.0340	664.	1223.	6064.	-2336.	3568.	-1604.	.0085	.0376	.0341	.0690	-.0334	-.0568	2135.	
.0350	630.	1249.	1794.	-2214.	2213.	-1951.	-.0163	.0308	.0471	.0724	-.0344	-.0563	1728.	
.0360	3104.	-1469.	-6.	-1175.	1300.	-2219.	-.0405	.0212	.0579	.0803	-.0308	-.0683	1325.	
.0370	3925.	-3629.	-3051.	-56.	617.	-2179.	-.0637	.0099	.0668	.0841	-.0295	-.0795	1061.	
.0380	1347.	-2647.	-7548.	395.	72.	-1735.	-.0856	-.0011	.0744	.0743	-.0371	-.0789	835.	
.0390	426.	25.	-8512.	532.	-219.	-1103.	-.1054	-.0115	.0804	.0513	-.0454	-.0711	583.	
.0400	2937.	949.	-7284.	1009.	-859.	-956.	-.1213	-.0222	.0816	.0302	-.0387	-.0639	766.	
.0410	3001.	-878.	-8991.	2147.	-1366.	-1613.	-.1348	-.0339	.0785	.0228	-.0275	-.0560	1412.	
.0420	2004.	-3577.	-11049.	3906.	-2013.	-2770.	-.1451	-.0454	.0724	.0241	-.0140	-.0409	2434.	
.0430	5125.	-4853.	-8285.	5432.	-2941.	-3961.	-.1497	-.0552	.0641	.0195	.0116	-.0165	3439.	
.0440	8571.	-3622.	-6148.	5505.	-3943.	-4862.	-.1491	-.0631	.0558	.0040	.0380	.0147	3907.	
.0450	8750.	-1350.	-5926.	4488.	-4266.	-5498.	-.1452	-.0708	.0497	-.0119	.0482	.0465	3881.	
.0460	7927.	-168.	-3990.	3441.	-3757.	-5819.	-.1381	-.0794	.0456	-.0154	.0427	.0702	3624.	
.0470	7391.	-158.	-2613.	2290.	-3248.	-5635.	-.1266	-.0891	.0427	-.0061	.0312	.0822	3231.	
.0480	4994.	364.	-4985.	482.	-3055.	-4923.	-.1111	-.0982	.0412	.0061	.0133	.0879	2725.	
.0490	1680.	2368.	-6062.	-1612.	-2527.	-3784.	-.0929	-.1047	.0407	.0134	-.0127	.0929	2262.	
.0500	771.	4931.	-2418.	-3239.	-1632.	-2290.	-.0725	-.1078	.0394	.0159	-.0373	.0947	2010.	
.0510	1554.	6119.	1283.	-4078.	-941.	-686.	-.0496	-.1082	.0363	.0222	-.0516	.0876	1987.	
.0520	1608.	4818.	2334.	-3962.	-814.	681.	-.0248	-.1071	.0317	.0419	-.0580	.0711	1922.	
.0530	1371.	1791.	3987.	-2928.	-985.	1830.	.0009	-.1048	.0269	.0745	-.0626	.0483	1683.	
.0540	1252.	-939.	6014.	-1768.	-939.	3156.	.0265	-.1010	.0237	.1083	-.0680	.0205	1752.	
.0550	-3.	-1973.	4971.	-1356.	-584.	4776.	.0517	-.0963	.0231	.1346	-.0750	-.0107	2343.	
.0560	-2350.	-1777.	2589.	-1446.	-215.	6256.	.0756	-.0917	.0240	.1577	-.0837	-.0408	3011.	
.0570	-4872.	-1863.	2002.	-1201.	170.	7131.	.0971	-.0882	.0249	.1854	-.0926	-.0683	3390.	
.0580	-7514.	-2939.	1317.	-505.	821.	7313.	.1154	-.0862	.0248	.2158	-.0966	-.0945	3457.	
.0590	-9451.	-4161.	-513.	157.	1572.	6876.	.1303	-.0849	.0231	.2400	-.0897	-.1170	3306.	
.0600	-9463.	-4177.	-273.	561.	2010.	5876.	.1418	-.0830	.0202	.2524	-.0718	-.1281	2922.	
.0610	-8143.	-2824.	2002.	867.	1842.	4466.	.1499	-.0805	.0162	.2551	-.0450	-.1250	2300.	
.0620	-6821.	-1518.	2494.	1319.	1276.	2939.	.1547	-.0784	.0117	.2538	-.0098	-.1151	1624.	
.0630	-4974.	-1749.	1320.	2065.	584.	1503.	.1561	-.0775	.0067	.2535	.0318	-.1063	1228.	
.0640	-2669.	-3249.	970.	2801.	-155.	292.	.1541	-.0781	.0022	.2535	.0714	-.0982	1322.	
.0650	-1867.	-4273.	14.	2843.	-909.	-399.	.1486	-.0800	-.0006	.2472	.1002	-.0871	1411.	
.0660	-2537.	-3794.	-2872.	2054.	-1455.	-314.	.1402	-.0828	-.0018	.2291	.1194	-.0738	1189.	
.0670	-2295.	-2543.	-4842.	1140.	-1677.	327.	.1295	-.0869	-.0030	.2016	.1347	-.0605	962.	
.0680	-1120.	-1687.	-4395.	611.	-1702.	957.	.1169	-.0921	-.0054	.1715	.1471	-.0469	959.	
.0690	-806.	-1336.	-4106.	214.	-1744.	1302.	.1028	-.0978	-.0091	.1409	.1559	-.0319	1025.	
.0700	-550.	-871.	-4816.	-254.	-1892.	1506.	.0880	-.1026	-.0136	.1070	.1541	-.0161	1139.	
.0710	986.	-7.	-4398.	-442.	-1908.	1671.	.0729	-.1053	-.0185	.0695	.1708	.0005	1206.	

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.0600	-5463.	-4177.	771.	561.	2010.	5276.	4418.	-.0130	.0202	.2524	-.0718	-.1281	2922.
.0610	-8143.	-2824.	1002.	867.	1842.	4466.	4499.	-.0805	.0162	.2551	-.0450	-.1250	2300.
.0620	-6821.	-1518.	2494.	1319.	1276.	2939.	2494.	-.0784	.0117	.2538	-.0098	-.1151	1624.
.0630	-4974.	-1749.	1320.	2065.	584.	1503.	1561.	-.0775	.0067	.2535	.0318	-.1063	1228.
.0640	-2669.	-3249.	970.	2801.	-155.	292.	1541.	-.0781	.0022	.2535	.0714	-.0982	1322.
.0650	-1867.	-4273.	14.	2843.	-909.	-399.	1486.	-.0800	-.0006	.2472	.1002	-.0871	1411.
.0660	-2537.	-3794.	-2872.	2054.	-1455.	-314.	1402.	-.0828	-.0018	.2291	.1124	-.0738	1189.
.0670	-2295.	-2543.	-4842.	1140.	-1677.	327.	1295.	-.0869	-.0030	.2016	.1347	-.0605	962.
.0680	-1120.	-1687.	-4395.	611.	-1702.	957.	1169.	-.0921	-.0054	.1715	.1471	-.0469	959.
.0690	-806.	-1336.	-4106.	214.	-1744.	1302.	1028.	-.0978	-.0091	.1409	.1559	-.0319	1025.
.0700	-550.	-871.	-4016.	-254.	-1892.	1506.	0880.	-.1026	-.0136	.1070	.1541	-.0161	1139.
.0710	986.	-7.	-4398.	-442.	-1908.	1671.	0729.	-.1053	-.0185	.0695	.1708	.0005	1206.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.48.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	19	MEMBER	1	SEQUENCE	35	LOCATION	BEG	TYPE	VA					
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.0720	2210.	929.	-2655.	-71.	-1484.	1672.	.0570	-.1057	-.0226	.0335	.1583	.0182	1048.	
.0730	1844.	1392.	-1311.	653.	-733.	1433.	.0405	-.1042	-.0251	.0049	.1543	.0350	814.	
.0740	1094.	1112.	-965.	1379.	11.	1053.	.0243	-.1013	-.0257	-.0144	.1337	.0476	813.	
.0750	80.	463.	-1839.	1825.	750.	622.	.0086	-.0975	-.0241	-.0260	.1076	.0559	970.	
.0760	-2175.	177.	-3984.	1817.	1563.	104.	-.0069	-.0927	-.0201	-.0326	.0750	.0634	1124.	
.0770	-4304.	576.	-5600.	1458.	2245.	-551.	-.0218	-.0868	-.0150	-.0368	.0416	.0720	1281.	
.0780	-4237.	1277.	-4926.	1087.	2607.	-1326.	-.0353	-.0794	-.0098	-.0399	.0151	.0805	1462.	
.0790	-2881.	1721.	-3100.	845.	2757.	-2137.	-.0475	-.0705	-.0047	-.0405	-.0051	.0871	1682.	
.0800	-1980.	1630.	-1876.	570.	2783.	-2824.	-.0584	-.0599	.0012	-.0368	-.0226	.0900	1877.	
.0810	-841.	927.	-780.	185.	2500.	-3229.	-.0671	-.0478	.0080	-.0283	-.0361	.0873	1916.	
.0820	1069.	-191.	688.	-209.	1915.	-3231.	-.0730	-.0341	.0162	-.0166	-.0455	.0779	1763.	
.0830	2260.	-1134.	1508.	-632.	1368.	-2723.	-.0767	-.0195	.0262	-.0032	-.0558	.0629	1458.	
.0840	2203.	-1464.	1303.	-1279.	956.	-1706.	-.0782	-.0048	.0378	.0104	-.0682	.0435	1095.	
.0850	2098.	-1431.	693.	-2246.	424.	-440.	-.0774	.0092	.0494	.0232	-.0779	.0202	1091.	
.0860	2138.	-1483.	-182.	-3378.	-203.	685.	-.0747	.0218	.0594	.0340	-.0824	-.0056	1618.	
.0870	1981.	-1535.	-647.	-4343.	-597.	1439.	-.0711	.0327	.0668	.0415	-.0831	-.0310	2162.	
.0880	2630.	-1137.	790.	-4865.	-735.	1784.	-.0668	.0424	.0709	.0441	-.0783	-.0529	2453.	
.0890	4625.	-121.	3744.	-4962.	-925.	1706.	-.0614	.0511	.0715	.0410	-.0559	-.0701	2497.	
.0900	6620.	1178.	6034.	-4848.	-1287.	1219.	-.0549	.0590	.0696	.0343	-.0492	-.0832	2419.	
.0910	7636.	2152.	6908.	-4569.	-1653.	467.	-.0478	.0659	.0663	.0285	-.0338	-.0948	2287.	
.0920	8032.	2323.	6989.	-3960.	-1889.	-336.	-.0403	.0716	.0620	.0264	-.0229	-.1074	2062.	
.0930	7827.	1784.	6104.	-2996.	-2036.	-1029.	-.0324	.0760	.0572	.0269	-.0176	-.1207	1765.	
.0940	6692.	1136.	4203.	-1904.	-2187.	-1516.	-.0243	.0790	.0516	.0268	-.0193	-.1319	1533.	
.0950	5127.	752.	2288.	-886.	-2370.	-1757.	-.0161	.0803	.0447	.0237	-.0268	-.1393	1444.	
.0960	3733.	368.	645.	65.	-2554.	-1812.	-.0081	.0794	.0356	.0164	-.0368	-.1435	1468.	
.0970	2403.	-357.	-1333.	1065.	-2749.	-1783.	-.0004	.0761	.0239	.0053	-.0475	-.1448	1614.	
.0980	1133.	-1261.	-3095.	2205.	-3027.	-1704.	.0069	.0705	.0097	-.0085	-.0592	-.1417	1928.	
.0990	76.	-1934.	-3645.	3483.	-3313.	-1531.	.0136	.0634	-.0063	-.0254	-.0733	-.1331	2364.	
.1000	-1140.	-2246.	-3515.	4768.	-3327.	-1234.	.0194	.0555	-.0227	-.0465	-.0909	-.1200	2785.	
.1010	-2883.	-2324.	-3523.	5867.	-2083.	-853.	.0243	.0476	-.0385	-.0710	-.1115	-.1042	3090.	
.1020	-4886.	-2266.	-3300.	6678.	-2113.	-490.	.0283	.0398	-.0529	-.0959	-.1324	-.0856	3290.	
.1030	-6880.	-2051.	-2732.	7196.	-1256.	-271.	.0316	.0325	-.0655	-.1183	-.1497	-.0637	3426.	
.1040	-8781.	-1508.	-2472.	7380.	-366.	-246.	.0342	.0255	-.0760	-.1384	-.1590	-.0381	3465.	
.1050	-9903.	-383.	-2245.	7117.	524.	-382.	.0361	.0193	-.0846	-.1580	-.1563	-.0091	3349.	
.1060	-9563.	1374.	-1097.	6335.	1270.	-650.	.0372	.0140	-.0915	-.1771	-.1392	.0231	3043.	
.1070	-8401.	3361.	330.	5109.	1780.	-1013.	.0375	.0098	-.0966	-.1937	-.1397	.0570	2579.	
.1080	-6370.	4570.	1427.	3866.	1856.	-1500.	.0372	.0067	-.1011	-.2035	-.0863	.0891	2129.	
.1090	-2428.	3899.	2880.	3376.	1204.	-2299.	.0373	.0055	-.1076	-.2042	-.0038	.1172	1996.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.48.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.0990	76.	-1934.	-845.	3483.	-3313.	-1531.	.0136	.0634	-.0063	-.0254	-.0733	-.1331	2364.
.1000	-1140.	-2246.	-3515.	4768.	-3327.	-1234.	.0194	.0555	-.0227	-.0465	-.0909	-.1200	2785.
.1010	-2883.	-2324.	-3523.	5867.	-2883.	-853.	.0243	.0476	-.0385	-.0710	-.1115	-.1042	3090.
.1020	-4886.	-2266.	-3300.	6678.	-2113.	-490.	.0283	.0398	-.0529	-.0959	-.1324	-.0856	3290.
.1030	-6880.	-2051.	-2737.	7196.	-1256.	-271.	.0316	.0325	-.0655	-.1183	-.1497	-.0637	3426.
.1040	-8781.	-1508.	-2472.	7380.	-366.	-246.	.0342	.0255	-.0760	-.1384	-.1590	-.0381	3465.
.1050	-9903.	-383.	-2245.	7117.	524.	-382.	.0361	.0193	-.0846	-.1580	-.1563	-.0091	3349.
.1060	-9563.	1374.	-1097.	6335.	1270.	-650.	.0372	.0140	-.0915	-.1771	-.1392	.0231	3043.
.1070	-8401.	3361.	330.	5109.	1780.	-1013.	.0375	.0098	-.0966	-.1937	-.1097	.0570	2579.
.1080	-6370.	4570.	1427.	3866.	1856.	-1500.	.0372	.0067	-.1011	-.2035	-.0663	.0891	2129.
.1090	-2428.	3899.	2880.	3376.	1204.	-2299.	.0373	.0055	-.1076	-.2042	-.0038	.1172	1996.

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ADLPIPE STRESS ANALYSIS

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S/RV PIPING KEWAUNEE GKW00F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	19	MEMBER	1	SEQUENCE	35	LOCATION	BEG	TYPE	VA					
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.1100	-35.	3436.	3609.	3039.	1113.	-2608.	.0359	.0070	-.1103	-.2039	.0505	.1398	1948.	
.1110	1998.	3977.	4092.	2126.	997.	-2161.	.0346	.0114	-.1084	-.2033	.0959	.1549	1495.	
.1120	3431.	4475.	3080.	632.	356.	-1219.	.0344	.0178	-.1027	-.1951	.1337	.1595	665.	
.1130	2830.	3524.	95.	-481.	-289.	-215.	.0345	.0255	-.0941	-.1748	.1594	.1526	282.	
.1140	1519.	1380.	-2737.	-812.	-604.	710.	.0345	.0344	-.0838	-.1463	.1752	.1370	579.	
.1150	1379.	-323.	-4172.	-1092.	-969.	1535.	.0351	.0449	-.0736	-.1190	.1884	.1183	993.	
.1160	1763.	-871.	-4696.	-1639.	-1550.	1974.	.0359	.0569	-.0646	-.0987	.1983	.1019	1405.	
.1170	2767.	-886.	-3110.	-1828.	-2065.	1827.	.0363	.0693	-.0566	-.0838	.2025	.0890	1550.	
.1180	2534.	-751.	-1005.	-1678.	-1659.	1524.	.0343	.0806	-.0480	-.0691	.1902	.0745	1316.	
.1190	3316.	-1112.	1499.	-1504.	-1138.	1093.	.0317	.0900	-.0390	-.0502	.1721	.0552	1021.	
.1200	3441.	-1861.	2089.	-1712.	-932.	305.	.0290	.0972	-.0293	-.0280	.1502	.0342	925.	
.1210	437.	-2224.	-96.	-2192.	-394.	-747.	.0246	.1031	-.0198	-.0084	.1190	.0159	1101.	
.1220	-707.	-1356.	96.	-2434.	547.	-1606.	.0194	.1092	-.0113	-.0007	.0891	.0011	1390.	
.1230	-749.	379.	935.	-2457.	1869.	-2114.	.0129	.1152	-.0042	-.0051	.0602	-.0119	1754.	
.1240	-926.	1576.	1176.	-2147.	2869.	-2631.	.0057	.1204	.0008	-.0135	.0342	-.0232	2083.	
.1250	-1659.	1484.	1623.	-1317.	3613.	-3130.	-.0025	.1236	.0037	-.0198	.0091	-.0338	2324.	
.1260	-3208.	491.	1371.	-132.	4739.	-3161.	-.0126	.1247	.0048	-.0265	-.0180	-.0469	2670.	
.1270	-1990.	-773.	1652.	1277.	5298.	-2858.	-.0220	.1244	.0033	-.0402	-.0318	-.0596	2884.	
.1280	-1030.	-1309.	832.	2458.	5061.	-2542.	-.0309	.1232	-.0010	-.0627	-.0390	-.0644	2893.	
.1290	-240.	-504.	1314.	3333.	4286.	-2162.	-.0392	.1212	-.0068	-.0925	-.0447	-.0590	2738.	
.1300	1637.	912.	3310.	3933.	3473.	-1452.	-.0466	.1181	-.0127	-.1254	-.0492	-.0506	2551.	
.1310	2045.	1642.	2757.	4046.	2958.	-519.	-.0539	.1133	-.0174	-.1541	-.0595	-.0455	2361.	
.1320	2167.	1243.	1825.	3804.	1922.	86.	-.0595	.1073	-.0206	-.1735	-.0721	-.0402	1997.	
.1330	903.	975.	1185.	3145.	633.	338.	-.0644	.1008	-.0226	-.1858	-.0913	-.0297	1512.	
.1340	178.	2065.	1323.	2182.	-520.	509.	-.0684	.0951	-.0234	-.1991	-.1097	-.0137	1078.	
.1350	955.	4250.	1793.	1065.	-1519.	527.	-.0710	.0907	-.0236	-.2150	-.1203	.0059	904.	
.1360	1085.	6211.	2105.	-79.	-2413.	42.	-.0735	.0871	-.0237	-.2252	-.1288	.0285	1132.	
.1370	2156.	6808.	4489.	-837.	-3528.	-1011.	-.0752	.0840	-.0239	-.2241	-.1319	.0513	1764.	
.1380	2538.	6129.	5793.	-1252.	-4110.	-2062.	-.0776	.0813	-.0232	-.2134	-.1351	.0684	2233.	
.1390	3022.	5071.	6016.	-1470.	-4038.	-2690.	-.0801	.0793	-.0205	-.1982	-.1371	.0781	2376.	
.1400	3483.	4471.	6604.	-1752.	-3664.	-2896.	-.0821	.0781	-.0152	-.1797	-.1392	.0841	2338.	
.1410	1712.	4228.	5744.	-2246.	-2971.	-2748.	-.0845	.0773	-.0073	-.1565	-.1464	.0865	2169.	
.1420	490.	3426.	3976.	-2530.	-2232.	-2271.	-.0859	.0765	.0019	-.1291	-.1479	.0814	1906.	
.1430	-520.	1619.	814.	-2398.	-1206.	-1537.	-.0873	.0754	.0113	-.0974	-.1441	.0675	1449.	
.1440	-925.	-669.	-1217.	-1811.	-163.	-877.	-.0880	.0740	.0198	-.0639	-.1344	.0510	946.	
.1450	-721.	-2375.	-1178.	-1019.	759.	-436.	-.0877	.0727	.0273	-.0344	-.1190	.0376	629.	
.1460	-567.	-2906.	-842.	-379.	1891.	6.	-.0868	.0712	.0337	-.0136	-.1008	.0265	904.	
.1470	1699.	-2750.	941.	165.	2833.	447.	-.0838	.0690	.0389	.0007	-.0745	.0159	1346.	

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2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.1360	1085.	6211.	109.	-79.	-2413.	42.	-.0735	.0871	-.0237	-.2252	-.1288	.0285	1132.
.1370	2156.	6808.	4489.	-837.	-3528.	-1011.	-.0752	.0840	-.0239	-.2241	-.1319	.0513	1764.
.1380	2538.	6129.	5793.	-1252.	-4110.	-2062.	-.0776	.0813	-.0232	-.2134	-.1351	.0684	2233.
.1390	3022.	5071.	6016.	-1470.	-4038.	-2690.	-.0801	.0793	-.0205	-.1982	-.1371	.0781	2376.
.1400	3483.	4471.	6604.	-1757.	-3664.	-2896.	-.0821	.0781	-.0152	-.1797	-.1392	.0841	2338.
.1410	1712.	4228.	5744.	-2246.	-2971.	-2748.	-.0845	.0773	-.0073	-.1565	-.1464	.0865	2169.
.1420	490.	3426.	3976.	-2570.	-2232.	-2271.	-.0859	.0765	.0019	-.1291	-.1479	.0814	1906.
.1430	-520.	1619.	814.	-2398.	-1206.	-1537.	-.0873	.0754	.0113	-.0974	-.1441	.0675	1449.
.1440	-925.	-669.	-1217.	-1811.	-163.	-877.	-.0880	.0740	.0198	-.0639	-.1344	.0510	946.
.1450	-721.	-2175.	-1173.	-1019.	759.	-436.	-.0877	.0727	.0273	-.0344	-.1190	.0376	629.
.1460	-567.	-206.	-842.	-379.	1891.	6.	-.0868	.0712	.0337	-.0136	-.1008	.0265	904.
.1470	1699.	-2750.	941.	165.	2833.	447.	-.0838	.0690	.0389	.0007	-.0745	.0159	1346.

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ADLPIPE STRESS ANALYSIS

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S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	19	MEMBER	1	SEQUENCE	35	LOCATION	BEG	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.1480	2828.	-2498.	1838.	443.	3595.	733.	-.0798	.0649	.0435	.0154	-.0503	.0064	1732.		
.1490	2504.	-2322.	1533.	402.	3909.	780.	-.0741	.0587	.0474	.0323	-.0288	-.0006	1878.		
.1500	2278.	-1787.	841.	11.	3875.	825.	-.0664	.0510	.0505	.0471	-.0069	-.0053	1857.		
.1510	1262.	-523.	-582.	-728.	4035.	1048.	-.0584	.0424	.0525	.0563	.0104	-.0069	1983.		
.1520	733.	934.	-841.	-1408.	3980.	1140.	-.0495	.0335	.0521	.0610	.0279	-.0026	2049.		
.1530	-520.	1839.	-1294.	-1841.	3651.	898.	-.0407	.0243	.0487	.0646	.0443	.0073	1962.		
.1540	-673.	1753.	-1285.	-1796.	2905.	336.	-.0315	.0149	.0416	.0683	.0568	.0205	1608.		
.1550	386.	1023.	-764.	-1305.	2001.	-389.	-.0221	.0057	.0319	.0711	.0949	.0358	1135.		
.1560	197.	386.	-1280.	-715.	1328.	-1131.	-.0137	-.0031	.0208	.0716	.1190	.0536	883.		
.1570	1122.	89.	-885.	-93.	331.	-1859.	-.0048	-.0112	.0092	.0685	.1442	.0739	886.		
.1580	1701.	66.	-1227.	363.	-591.	-2351.	.0037	-.0188	-.0019	.0630	.1640	.0928	1149.		
.1590	735.	-159.	-2837.	748.	-889.	-2495.	.0108	-.0263	-.0116	.0578	.1715	.1065	1290.		
.1600	225.	-965.	-3310.	1318.	-840.	-2428.	.0173	-.0338	-.0199	.0538	.1710	.1143	1353.		
.1610	-58.	-1675.	-3465.	1724.	-774.	-2185.	.0238	-.0411	-.0271	.0492	.1654	.1181	1354.		
.1620	-1981.	-1612.	-5285.	1712.	-476.	-1726.	.0294	-.0477	-.0332	.0416	.1522	.1196	1161.		
.1630	-2289.	-974.	-5109.	1788.	-142.	-1150.	.0352	-.0532	-.0386	.0292	.1382	.1188	999.		
.1640	-1825.	-82.	-3573.	1964.	352.	-476.	.0405	-.0576	-.0431	.0145	.1208	.1148	961.		
.1650	-2624.	809.	-2985.	1964.	996.	295.	.0448	-.0610	-.0462	.0014	.0960	.1067	1041.		
.1660	-2852.	1243.	-1449.	2052.	1479.	1074.	.0489	-.0631	-.0477	-.0076	.0589	.0948	1288.		
.1670	-3655.	1268.	319.	2250.	2236.	1929.	.0515	-.0638	-.0469	-.0127	.0349	.0792	1740.		
.1680	-4597.	1429.	1856.	2241.	3075.	2897.	.0532	-.0628	-.0434	-.0150	-.0009	.0618	2241.		
.1690	-6559.	1914.	1767.	1748.	3809.	3876.	.0535	-.0603	-.0375	-.0138	-.0368	.0447	2675.		
.1700	-8099.	2015.	1646.	1237.	4136.	4546.	.0523	-.0566	-.0304	-.0067	-.0672	.0297	2938.		
.1710	-7429.	1363.	2820.	1062.	3841.	4724.	.0504	-.0520	-.0226	.0063	-.0342	.0175	2896.		
.1720	-7921.	550.	1635.	707.	3495.	4574.	.0460	-.0468	-.0143	.0239	-.0944	.0083	2718.		
.1730	-7170.	-196.	667.	211.	2746.	4038.	.0404	-.0411	-.0059	.0431	-.0913	.0031	2291.		
.1740	-4966.	-1028.	1058.	-165.	1683.	3060.	.0335	-.0350	.0023	.0623	-.0781	.0018	1638.		
.1750	-3031.	-1841.	1217.	-439.	680.	1825.	.0249	-.0288	.0108	.0806	-.0616	.0023	936.		
.1760	-570.	-2370.	1456.	-709.	-339.	587.	.0158	-.0230	.0197	.0970	-.0409	.0021	460.		
.1770	964.	-2511.	906.	-1110.	-1105.	-486.	.0057	-.0180	.0293	.1115	-.0230	-.0005	768.		
.1780	2718.	-2361.	965.	-1511.	-1839.	-1409.	-.0039	-.0138	.0394	.1223	-.0063	-.0055	1296.		
.1790	3397.	-1769.	350.	-2040.	-2272.	-2017.	-.0137	-.0107	.0498	.1283	.0048	-.0137	1715.		
.1800	3422.	-844.	-493.	-2559.	-2326.	-2211.	-.0235	-.0085	.0597	.1290	.0101	-.0252	1923.		
.1810	5029.	14.	708.	-2679.	-2392.	-2145.	-.0322	-.0072	.0680	.1247	.0159	-.0386	1960.		
.1820	5518.	803.	1446.	-2620.	-2197.	-1851.	-.0408	-.0071	.0749	.1172	.0160	-.0524	1822.		
.1830	5804.	1502.	2101.	-2528.	-1918.	-1342.	-.0484	-.0079	.0801	.1078	.0140	-.0660	1615.		
.1840	6330.	1857.	2864.	-2356.	-1541.	-674.	-.0551	-.0097	.0837	.0980	.0103	-.0795	1357.		
.1850	6516.	1768.	3139.	-2032.	-1085.	2.	-.0610	-.0123	.0859	.0890	.0031	-.0913	1080.		

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18.26.48.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.1750	-3031.	-1841.	1217.	-439.	680.	1825.	.0249	-.0288	.0108	.0806	-.0616	.0023	936.
.1760	-570.	-2370.	1456.	-709.	-339.	537.	.0158	-.0230	.0197	.0970	-.0409	-.0021	460.
.1770	964.	-2511.	906.	-1110.	-1105.	-486.	.0057	-.0180	.0293	.1115	-.0230	-.0005	768.
.1780	2718.	-2361.	965.	-1511.	-1839.	-1409.	-.0079	-.0138	.0394	.1223	-.0063	-.0055	1296.
.1790	3397.	-1769.	350.	-2040.	-2272.	-2017.	-.0137	-.0107	.0498	.1283	.0048	-.0137	1715.
.1800	3422.	-844.	-493.	-2559.	-2326.	-2211.	-.0235	-.0085	.0597	.1290	.0101	-.0252	1923.
.1810	5029.	14.	708.	-2679.	-2392.	-2145.	-.0322	-.0072	.0680	.1247	.0159	-.0386	1960.
.1820	5518.	803.	1446.	-2620.	-2197.	-1851.	-.0408	-.0071	.0749	.1172	.0160	-.0524	1822.
.1830	5804.	1502.	2101.	-2528.	-1918.	-1342.	-.0484	-.0079	.0801	.1078	.0140	-.0660	1615.
.1840	6330.	1857.	2864.	-2356.	-1541.	-674.	-.0551	-.0097	.0837	.0980	.0103	-.0795	1357.
.1850	6516.	1768.	2139.	-2032.	-1085.	2.	-.0610	-.0123	.0859	.0890	.0031	-.0913	1080.

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S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
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CONDITION 24
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ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	19	MEMBER	1	SEQUENCE	35	LOCATION	BEG	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.1860	6551.	1590.	3094.	-1676.	-755.	598.	-.0655	-.0154	.0870	.0814	-.0059	-.0989	906.		
.1870	5120.	1584.	1839.	-1521.	-215.	1145.	-.0693	-.0189	.0872	.0761	-.0208	-.1021	898.		
.1880	4082.	1325.	1105.	-1312.	418.	1470.	-.0717	-.0227	.0862	.0731	-.0361	-.1014	944.		
.1890	2824.	590.	161.	-997.	1139.	1418.	-.0730	-.0267	.0839	.0725	-.0515	-.0965	972.		
.1900	813.	-279.	-1477.	-721.	1812.	990.	-.0732	-.0310	.0798	.0741	-.0664	-.0863	1025.		
.1910	-73.	-1050.	-1975.	-361.	2131.	216.	-.0715	-.0354	.0735	.0762	-.0742	-.0704	1018.		
.1920	-614.	-1664.	-2098.	107.	2341.	-790.	-.0683	-.0399	.0655	.0772	-.0769	-.0506	1159.		
.1930	-841.	-2053.	-2107.	564.	2401.	-1877.	-.0633	-.0448	.0561	.0761	-.0738	-.0289	1452.		
.1940	-699.	-2142.	-1908.	809.	2164.	-2833.	-.0563	-.0500	.0461	.0735	-.0655	-.0073	1713.		
.1950	-657.	-2071.	-1849.	831.	1894.	-3480.	-.0473	-.0557	.0360	.0706	-.0544	.0118	1855.		
.1960	-965.	-2051.	-2146.	782.	1196.	-3702.	-.0367	-.0618	.0265	.0671	-.0428	.0258	1860.		
.1970	-1260.	-1942.	-2348.	669.	728.	-3412.	-.0247	-.0680	.0180	.0624	-.0309	.0339	1665.		
.1980	-1432.	-1445.	-2228.	380.	211.	-2622.	-.0114	-.0739	.0104	.0558	-.0187	.0370	1245.		
.1990	-1750.	-613.	-2189.	-40.	-377.	-1477.	.0026	-.0793	.0039	.0479	-.0062	.0362	714.		
.2000	-2016.	193.	-2343.	-410.	-983.	-143.	.0171	-.0840	-.0019	.0402	.0073	.0316	504.		
.2010	-1802.	703.	-2296.	-619.	-1566.	1226.	.0314	-.0879	-.0072	.0347	.0229	.0237	976.		
.2020	-1283.	843.	-1917.	-633.	-2094.	2431.	.0452	-.0909	-.0121	.0326	.0394	.0141	1532.		
.2030	-792.	708.	-1350.	-470.	-2500.	3322.	.0579	-.0926	-.0164	.0337	.0546	.0047	1960.		
.2040	-257.	539.	-705.	-256.	-2715.	3897.	.0694	-.0932	-.0197	.0374	.0677	-.0039	2229.		
.2050	167.	447.	-336.	-131.	-2705.	4181.	.0796	-.0927	-.0218	.0442	.0776	-.0120	2334.		
.2060	18.	221.	-591.	-65.	-2493.	4086.	.0882	-.0914	-.0225	.0555	.0830	-.0195	2243.		
.2070	-682.	-299.	-1259.	50.	-2125.	3568.	.0953	-.0896	-.0221	.0710	.0838	-.0265	1946.		
.2080	-1455.	-868.	-1894.	198.	-1625.	2758.	.1009	-.0871	-.0211	.0882	.0811	-.0331	1503.		
.2090	-2166.	-1149.	-2392.	332.	-1001.	1824.	.1049	-.0840	-.0195	.1039	.0760	-.0389	987.		
.2100	-2939.	-1177.	-2671.	525.	-306.	835.	.1075	-.0801	-.0179	.1165	.0586	-.0439	484.		
.2110	-3528.	-1253.	-2389.	836.	352.	-136.	.1086	-.0759	-.0165	.1262	.0602	-.0488	451.		
.2120	-3771.	-1554.	-1670.	1407.	913.	-928.	.1084	-.0715	-.0153	.1332	.0518	-.0550	898.		
.2130	-3906.	-2003.	-1079.	1988.	1348.	-1389.	.1067	-.0672	-.0142	.1371	.0435	-.0630	1300.		
.2140	-4087.	-2368.	-799.	2506.	1590.	-1453.	.1038	-.0632	-.0127	.1369	.0348	-.0717	1549.		
.2150	-4233.	-2438.	-681.	2816.	1603.	-1108.	.0996	-.0595	-.0108	.1320	.0262	-.0801	1605.		
.2160	-4294.	-2239.	-744.	2864.	1449.	-401.	.0941	-.0561	-.0083	.1231	.0181	-.0877	1516.		
.2170	-4269.	-2007.	-981.	2738.	1212.	515.	.0870	-.0534	-.0055	.1115	.0109	-.0938	1424.		
.2180	-4062.	-1862.	-1120.	2513.	877.	1445.	.0785	-.0511	-.0027	.0984	.0058	-.0970	1419.		
.2190	-3398.	-1662.	-1042.	2136.	414.	2231.	.0686	-.0491	.0000	.0844	.0034	-.0956	1460.		
.2200	-2504.	-1238.	-844.	1574.	-109.	2765.	.0575	-.0472	.0026	.0694	.0038	-.0887	1492.		
.2210	-1290.	-600.	-433.	910.	-607.	2966.	.0454	-.0452	.0052	.0538	.0066	-.0765	1481.		
.2220	190.	130.	218.	221.	-1073.	2801.	.0325	-.0429	.0076	.0394	.0109	-.0596	1409.		
.2230	1559.	791.	701.	-477.	-1512.	2302.	.0191	-.0404	.0101	.0278	.0154	-.0395	1310.		

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S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
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.2120	-3771.	-1554.	-170.	1407.	912.	-928.	1054.	-0715	-0153	.1332	.0518	-0550	898.
.2130	-2906.	-2003.	-1079.	1988.	1248.	-1329.	1067	-0672	-0142	.1371	.0435	-0630	1300.
.2140	-4087.	-2368.	-799.	2506.	1590.	-1453.	1038	-0632	-0127	.1369	.0348	-0717	1549.
.2150	-4233.	-2438.	-681.	2816.	1607.	-1108.	0996	-0595	-0108	.1320	.0262	-0801	1605.
.2160	-4294.	-2239.	-744.	2864.	1449.	-401.	0941	-0561	-0083	.1231	.0181	-0877	1516.
.2170	-4269.	-2007.	-981.	2738.	1212.	515.	0870	-0534	-0055	.1115	.0109	-0938	1424.
.2180	-4062.	-1862.	-1120.	2513.	877.	1445.	0785	-0511	-0027	.0984	.0058	-0970	1419.
.2190	-3398.	-1662.	-1042.	2136.	414.	2231.	0686	-0491	.0000	.0844	.0034	-0956	1460.
.2200	-2504.	-1238.	-844.	1574.	-109.	2765.	0575	-0472	.0026	.0694	.0038	-0887	1492.
.2210	-1290.	-600.	-433.	910.	-607.	2966.	0454	-0452	.0052	.0538	.0066	-0765	1481.
.2220	190.	130.	218.	221.	-1073.	2801.	0325	-0429	.0076	.0394	.0109	-0596	1409.
.2230	1559.	791.	701.	-477.	-1512.	2302.	0191	-0404	.0101	.0278	.0154	-0395	1310.

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INTERNAL FORCES IN THE PIPING
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SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	VA								
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
.2240	2531.	1218.	737.	-1133.	-1855.	1543.	.0056	-0377	.0128	.0196	.0180	-0182	1249.	
.2250	3161.	1372.	569.	-1673.	-2015.	641.	-0079	-0346	.0157	.0142	.0176	.0022	1263.	
.2260	3473.	1394.	378.	-2080.	-1976.	-275.	-0211	-0312	.0186	.0106	.0134	.0207	1351.	
.2270	3365.	1381.	20.	-2343.	-1807.	-1113.	-0336	-0274	.0216	.0081	.0055	.0361	1482.	
.2280	2963.	1243.	-495.	-2385.	-1581.	-1830.	-0452	-0234	.0242	.0065	-0051	.0473	1592.	
.2290	2512.	893.	-964.	-2159.	-1317.	-2388.	-0555	-0191	.0264	.0053	-0174	.0534	1630.	
.2300	2051.	406.	-1342.	-1722.	-1017.	-2748.	-0645	-0146	.0281	.0038	-0307	.0540	1593.	
.2310	1578.	-67.	-1610.	-1149.	-711.	-2898.	-0719	-0098	.0295	.0011	-0444	.0497	1499.	
.2320	1231.	-429.	-1622.	-483.	-436.	-2845.	-0777	-0046	.0306	-0030	-0577	.0415	1368.	
.2330	1017.	-648.	-1439.	206.	-186.	-2597.	-0818	.0009	.0315	-0084	-0700	.0301	1224.	
.2340	782.	-759.	-1351.	807.	46.	-2195.	-0841	.0064	.0325	-0141	-0808	.0161	1096.	
.2350	540.	-819.	-1445.	1243.	215.	-1729.	-0847	.0118	.0333	-0197	-0889	.0009	1003.	
.2360	420.	-784.	-1602.	1478.	279.	-1277.	-0834	.0170	.0337	-0251	-0932	-0139	925.	
.2370	428.	-522.	-1750.	1499.	267.	-880.	-0804	.0220	.0334	-0307	-0932	-0266	824.	
.2380	572.	-20.	-1753.	1344.	235.	-576.	-0759	.0268	.0322	-0368	-0889	-0362	694.	
.2390	936.	549.	-1392.	1099.	196.	-425.	-0699	.0314	.0298	-0429	-0804	-0423	560.	
.2400	1431.	1000.	-713.	822.	153.	-450.	-0627	.0360	.0261	-0483	-0684	-0451	445.	
.2410	1815.	1291.	-20.	536.	127.	-605.	-0545	.0404	.0212	-0526	-0543	-0451	383.	
.2420	2010.	1460.	533.	283.	119.	-824.	-0454	.0449	.0155	-0557	-0392	-0427	412.	
.2430	2046.	1531.	974.	100.	109.	-1056.	-0355	.0495	.0091	-0578	-0243	-0384	500.	
.2440	1867.	1501.	1275.	-11.	99.	-1267.	-0252	.0541	.0023	-0591	-0105	-0329	596.	
.2450	1477.	1341.	1381.	-58.	87.	-1425.	-0147	.0585	-0048	-0597	.0017	-0267	670.	
.2460	1024.	1036.	1328.	-30.	43.	-1513.	-0043	.0626	-0121	-0600	.0122	-0205	709.	
.2470	590.	653.	1095.	66.	-78.	-1521.	.0058	.0661	-0196	-0606	.0212	-0143	714.	
.2480	154.	306.	740.	200.	-260.	-1448.	.0152	.0690	-0272	-0622	.0282	-0082	696.	
.2490	-178.	54.	542.	377.	-444.	-1295.	.0239	.0714	-0348	-0653	.0329	-0023	666.	
.2500	-298.	-81.	623.	598.	-605.	-1067.	.0315	.0731	-0422	-0706	.0354	.0033	640.	
.2510	-385.	-69.	739.	813.	-741.	-759.	.0381	.0744	-0492	-0777	.0353	.0084	627.	
.2520	-650.	74.	716.	983.	-821.	-375.	.0435	.0754	-0556	-0863	.0323	.0130	626.	
.2530	-1044.	250.	738.	1141.	-789.	57.	.0477	.0761	-0612	-0958	.0265	.0170	651.	
.2540	-1471.	404.	928.	1314.	-612.	506.	.0505	.0768	-0661	-1058	.0187	.0206	720.	
.2550	-1981.	603.	1124.	1456.	-324.	944.	.0520	.0774	-0700	-1163	.0099	.0243	827.	
.2560	-2577.	882.	1212.	1516.	12.	1334.	.0521	.0782	-0733	-1269	.0013	.0290	946.	
.2570	-3111.	1139.	1280.	1500.	369.	1615.	.0508	.0791	-0758	-1370	-0058	.0348	1047.	
.2580	-3472.	1260.	1375.	1426.	745.	1737.	.0481	.0799	-0777	-1461	-0103	.0414	1110.	
.2590	-3641.	1257.	1465.	1290.	1106.	1679.	.0440	.0809	-0790	-1537	-0117	.0489	1119.	
.2600	-3586.	1228.	1547.	1094.	1383.	1442.	.0386	.0821	-0796	-1599	-0097	.0573	1067.	
.2610	-3333.	1253.	1526.	839.	1544.	1057.	.0321	.0836	-0793	-1652	-0049	.0662	961.	

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.2510	-365.	-69.	739.	813.	-741.	-759.	.0381	.0744	-.0492	-.0777	.0353	.0084	627.
.2520	-650.	74.	716.	983.	-821.	-375.	.0435	.0754	-.0556	-.0863	.0323	.0130	626.
.2530	-1044.	250.	738.	1141.	-789.	57.	.0477	.0761	-.0612	-.0958	.0265	.0170	651.
.2540	-1471.	404.	928.	1314.	-612.	506.	.0505	.0768	-.0661	-.1058	.0187	.0206	720.
.2550	-1981.	603.	1124.	1456.	-324.	944.	.0520	.0774	-.0700	-.1163	.0099	.0243	827.
.2560	-2577.	822.	1212.	1516.	12.	1334.	.0521	.0782	-.0733	-.1269	.0013	.0290	946.
.2570	-3111.	1139.	1280.	1500.	369.	1615.	.0508	.0791	-.0758	-.1370	-.0058	.0348	1047.
.2580	-3472.	1260.	1375.	1426.	745.	1737.	.0481	.0799	-.0777	-.1461	-.0103	.0414	1110.
.2590	-3641.	1257.	1465.	1290.	1106.	1679.	.0440	.0809	-.0790	-.1537	-.0117	.0489	1119.
.2600	-3586.	1228.	1547.	1094.	1383.	1442.	.0386	.0821	-.0796	-.1599	-.0097	.0573	1067.
.2610	-3333.	1253.	1526.	839.	1544.	1057.	.0321	.0836	-.0793	-.1652	-.0049	.0662	961.

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INTERNAL FORCES IN THE PIPING
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SECTION	19	MEMBER	1	SEQUENCE	35	LOCATION	BEG	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.2620	-2974.	1325.	1281.	537.	1608.	571.	.0245	.0856	-.0780	-.1694	.0018	.0747	838.		
.2630	-2528.	1334.	892.	248.	1589.	17.	.0160	.0881	-.0757	-.1722	.0096	.0816	754.		
.2640	-1988.	1195.	466.	54.	1467.	-574.	.0069	.0910	-.0724	-.1735	.0177	.0863	739.		
.2650	-1414.	977.	-49.	-26.	1236.	-1147.	-.0027	.0944	-.0683	-.1736	.0253	.0886	790.		
.2660	-810.	805.	-615.	-31.	925.	-1635.	-.0124	.0981	-.0636	-.1736	.0319	.0882	881.		
.2670	-80.	713.	-988.	20.	570.	-2012.	-.0221	.1021	-.0585	-.1740	.0372	.0854	980.		
.2680	771.	655.	-1056.	117.	197.	-2272.	-.0315	.1060	-.0531	-.1749	.0408	.0802	1070.		
.2690	1600.	610.	-981.	229.	-170.	-2399.	-.0404	.1098	-.0475	-.1757	.0421	.0729	1132.		
.2700	2317.	603.	-832.	310.	-499.	-2370.	-.0486	.1132	-.0419	-.1763	.0409	.0638	1144.		
.2710	2881.	654.	-719.	337.	-744.	-2188.	-.0559	.1163	-.0360	-.1764	.0364	.0536	1094.		
.2720	3203.	761.	-490.	291.	-856.	-1886.	-.0623	.1190	-.0300	-.1758	.0284	.0430	980.		
.2730	3234.	891.	-260.	164.	-818.	-1512.	-.0677	.1214	-.0240	-.1743	.0170	.0328	809.		
.2740	3081.	978.	-18.	-15.	-659.	-1137.	-.0722	.1235	-.0181	-.1712	.0032	.0237	616.		
.2750	2827.	996.	266.	-211.	-411.	-830.	-.0756	.1253	-.0126	-.1667	-.0118	.0164	445.		
.2760	2529.	998.	625.	-416.	-100.	-637.	-.0781	.1266	-.0078	-.1610	-.0269	.0118	360.		
.2770	2314.	1024.	1145.	-628.	238.	-575.	-.0797	.1274	-.0038	-.1546	-.0412	.0102	414.		
.2780	2241.	1048.	1807.	-828.	563.	-641.	-.0805	.1277	-.0008	-.1478	-.0540	.0113	557.		
.2790	2206.	1041.	2430.	-1003.	843.	-602.	-.0803	.1271	-.0013	-.1403	-.0552	.0144	720.		
.2800	2113.	1019.	2890.	-1154.	1057.	-994.	-.0793	.1257	.0026	-.1324	-.0747	.0190	869.		
.2810	1968.	986.	3216.	-1276.	1198.	-1156.	-.0775	.1235	.0033	-.1244	-.0827	.0242	983.		
.2820	1753.	924.	3405.	-1355.	1271.	-1252.	-.0748	.1203	.0033	-.1166	-.0891	.0290	1050.		
.2830	1430.	857.	3399.	-1391.	1272.	-1254.	-.0713	.1163	.0029	-.1093	-.0939	.0330	1061.		
.2840	1065.	837.	3250.	-1382.	1184.	-1147.	-.0671	.1115	.0020	-.1029	-.0963	.0360	1008.		
.2850	768.	857.	3095.	-1298.	1003.	-944.	-.0621	.1060	.0007	-.0975	-.0959	.0380	887.		
.2860	569.	850.	3001.	-1120.	762.	-681.	-.0566	.0999	-.0012	-.0930	-.0926	.0389	711.		
.2870	460.	793.	2960.	-873.	495.	-386.	-.0506	.0932	-.0033	-.0890	-.0863	.0389	504.		
.2880	437.	734.	2945.	-612.	217.	-75.	-.0445	.0858	-.0056	-.0855	-.0775	.0382	306.		
.2890	452.	717.	2897.	-376.	-47.	233.	-.0384	.0779	-.0078	-.0819	-.0668	.0372	208.		
.2900	435.	732.	2760.	-191.	-261.	509.	-.0324	.0695	-.0098	-.0778	-.0548	.0364	283.		
.2910	381.	747.	2520.	-82.	-400.	725.	-.0267	.0606	-.0112	-.0727	-.0420	.0358	390.		
.2920	311.	749.	2169.	-61.	-463.	856.	-.0213	.0514	-.0122	-.0663	-.0288	.0355	457.		
.2930	232.	752.	1694.	-118.	-464.	888.	-.0163	.0419	-.0126	-.0584	-.0153	.0359	473.		
.2940	179.	764.	1164.	-219.	-413.	816.	-.0117	.0325	-.0125	-.0493	-.0017	.0370	441.		
.2950	218.	769.	705.	-319.	-314.	657.	-.0073	.0232	-.0121	-.0390	.0118	.0388	372.		
.2960	347.	731.	362.	-375.	-168.	439.	-.0033	.0141	-.0114	-.0277	.0249	.0408	282.		
.2970	477.	626.	81.	-369.	15.	207.	.0006	.0054	-.0104	-.0155	.0368	.0425	199.		
.2980	523.	450.	-198.	-306.	224.	15.	.0044	-.0032	-.0092	-.0026	.0469	.0435	178.		
.2990	424.	222.	-501.	-198.	459.	-90.	.0081	-.0114	-.0078	.0108	.0548	.0433	238.		

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S/RV PIPING KEVAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

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INTERNAL FORCES IN THE PIPING
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.2890	452.	717.	2097.	-376.	-47.	233.	-.0384	.0779	-.0078	-.0819	-.0568	.0372	208.
.2900	435.	732.	2760.	-191.	-261.	509.	-.0324	.0695	-.0098	-.0778	-.0548	.0364	283.
.2910	381.	747.	2520.	-82.	-400.	725.	-.0267	.0606	-.0112	-.0727	-.0420	.0358	390.
.2920	311.	749.	2169.	-61.	-463.	656.	-.0213	.0514	-.0122	-.0663	-.0288	.0355	457.
.2930	232.	752.	1694.	-118.	-464.	888.	-.0163	.0419	-.0126	-.0584	-.0153	.0359	473.
.2940	179.	764.	1164.	-219.	-413.	816.	-.0117	.0325	-.0125	-.0493	-.0017	.0370	441.
.2950	918.	769.	705.	-319.	-314.	657.	-.0073	.0232	-.0121	-.0390	.0118	.0388	372.
.2960	347.	731.	362.	-375.	-168.	439.	-.0033	.0141	-.0114	-.0277	.0249	.0408	282.
.2970	477.	626.	81.	-369.	15.	297.	.0006	.0054	-.0104	-.0155	.0368	.0425	199.
.2980	523.	450.	-198.	-306.	224.	15.	.0044	-.0032	-.0092	-.0026	.0469	.0435	178.
.2990	424.	222.	-501.	-198.	459.	-30.	.0021	-.0114	-.0078	.0108	.0548	.0433	238.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.49.

S/RV PIPING KEWAUNEE GKWOBF 2 RUP DISK

2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	19	MEMBER	1	SEQUENCE	35	LOCATION	BEG	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.3000	141.	-20.	-827.	-58.	727.	-80.	.0118	-.0194	-.0061	.0241	.0501	.0420	344.		
.3010	-323.	-245.	-1153.	99.	1016.	55.	.0155	-.0272	-.0044	.0371	.0529	.0395	479.		
.3020	-921.	-456.	-1463.	260.	1299.	291.	.0191	-.0346	-.0025	.0496	.0637	.0363	636.		
.3030	-1581.	-689.	-1766.	426.	1549.	583.	.0226	-.0418	-.0007	.0616	.0632	.0328	801.		
.3040	-2202.	-948.	-2072.	598.	1741.	876.	.0257	-.0486	.0010	.0731	.0524	.0295	956.		
.3050	-2669.	-1193.	-2142.	764.	1859.	1129.	.0285	-.0550	.0025	.0837	.0519	.0272	1080.		
.3060	-2913.	-1386.	-2097.	897.	1888.	1309.	.0309	-.0610	.0040	.0935	.0622	.0264	1156.		
.3070	-2940.	-1531.	-1967.	967.	1820.	1395.	.0326	-.0664	.0055	.1025	.0634	.0271	1166.		
.3080	-2774.	-1637.	-1828.	946.	1658.	1385.	.0337	-.0716	.0072	.1109	.0653	.0293	1105.		
.3090	-2446.	-1684.	-1705.	801.	1412.	1299.	.0342	-.0764	.0091	.1186	.0674	.0325	974.		
.3100	-2013.	-1645.	-1619.	520.	1101.	1170.	.0341	-.0809	.0114	.1255	.0691	.0363	791.		
.3110	-1532.	-1519.	-1595.	123.	744.	1032.	.0333	-.0852	.0141	.1314	.0699	.0401	599.		
.3120	-1033.	-1329.	-1616.	-343.	359.	915.	.0321	-.0892	.0170	.1363	.0692	.0431	488.		
.3130	-551.	-1114.	-1641.	-821.	-33.	842.	.0304	-.0930	.0201	.1399	.0667	.0446	551.		
.3140	-137.	-919.	-1640.	-1246.	-402.	825.	.0284	-.0964	.0233	.1425	.0619	.0439	725.		
.3150	186.	-780.	-1580.	-1557.	-721.	865.	.0261	-.0994	.0264	.1438	.0546	.0407	901.		
.3160	398.	-697.	-1439.	-1713.	-967.	961.	.0235	-.1020	.0295	.1440	.0447	.0347	1026.		
.3170	460.	-661.	-1233.	-1698.	-1121.	1099.	.0208	-.1040	.0324	.1433	.0323	.0260	1084.		
.3180	356.	-671.	-1005.	-1527.	-1175.	1253.	.0180	-.1054	.0354	.1419	.0179	.0148	1077.		
.3190	102.	-720.	-812.	-1234.	-1134.	1392.	.0150	-.1064	.0383	.1403	.0022	.0016	1021.		
.3200	-254.	-787.	-700.	-863.	-1015.	1488.	.0120	-.1069	.0411	.1387	-.0139	-.0127	936.		
.3210	-662.	-851.	-695.	-453.	-845.	1512.	.0088	-.1070	.0440	.1374	-.0294	-.0274	839.		
.3220	-1042.	-914.	-782.	-39.	-654.	1443.	.0057	-.1069	.0468	.1366	-.0431	-.0416	743.		
.3230	-1297.	-987.	-916.	345.	-472.	1267.	.0026	-.1064	.0495	.1364	-.0541	-.0545	654.		
.3240	-1370.	-1070.	-1065.	670.	-323.	995.	-.0004	-.1057	.0519	.1368	-.0617	-.0656	582.		
.3250	-1263.	-1157.	-1217.	917.	-223.	655.	-.0032	-.1048	.0541	.1376	-.0658	-.0746	538.		
.3260	-982.	-1256.	-1348.	1073.	-190.	285.	-.0055	-.1038	.0560	.1388	-.0665	-.0814	528.		
.3270	-565.	-1373.	-1444.	1124.	-225.	-70.	-.0074	-.1026	.0576	.1403	-.0643	-.0863	538.		
.3280	-90.	-1488.	-1507.	1058.	-313.	-359.	-.0085	-.1013	.0589	.1417	-.0599	-.0895	544.		
.3290	378.	-1565.	-1527.	870.	-444.	-539.	-.0090	-.1001	.0600	.1428	-.0542	-.0913	523.		
.3300	801.	-1582.	-1500.	566.	-614.	-584.	-.0085	-.0989	.0607	.1434	-.0478	-.0921	477.		
.3310	1131.	-1548.	-1446.	165.	-812.	-490.	-.0072	-.0980	.0611	.1432	-.0412	-.0920	451.		
.3320	1360.	-1485.	-1359.	-298.	-1023.	-279.	-.0051	-.0972	.0609	.1423	-.0349	-.0914	516.		
.3330	1525.	-1398.	-1206.	-781.	-1242.	17.	-.0021	-.0967	.0602	.1408	-.0287	-.0902	688.		
.3340	1652.	-1278.	-997.	-1248.	-1465.	357.	.0015	-.0963	.0587	.1385	-.0227	-.0882	917.		
.3350	1726.	-1131.	-798.	-1667.	-1681.	699.	.0056	-.0961	.0565	.1355	-.0168	-.0856	1157.		
.3360	1744.	-989.	-640.	-2000.	-1876.	1003.	.0103	-.0959	.0536	.1321	-.0110	-.0822	1368.		
.3370	1713.	-898.	-559.	-2216.	-2030.	1237.	.0151	-.0957	.0500	.1286	-.0055	-.0783	1523.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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18.26.49.

S/RV PIPING KEWAUNEE GKWOBF 2 RUP DISK

2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.3270	-565.	-1373.	-1444.	1124.	-227.	-70.	-.0074	-.1026	.0576	.1403	-.0643	-.0863	538.
.3280	-90.	-1488.	-1507.	1058.	-313.	-359.	-.0055	-.1013	.0589	.1417	-.0599	-.0895	544.
.3290	378.	-1565.	-1527.	870.	-444.	-539.	-.0093	-.1001	.0600	.1428	-.0542	-.0913	523.
.3300	801.	-1582.	-1500.	566.	-614.	-584.	-.0085	-.0989	.0607	.1434	-.0478	-.0921	477.
.3310	1131.	-1548.	-1446.	165.	-812.	-496.	-.0072	-.0980	.0611	.1432	-.0412	-.0920	451.
.3320	1360.	-1485.	-1359.	-298.	-1023.	-279.	-.0051	-.0972	.0609	.1423	-.0349	-.0914	516.
.3330	1525.	-1398.	-1206.	-781.	-1242.	17.	-.0021	-.0967	.0602	.1408	-.0287	-.0902	688.
.3340	1652.	-1278.	-997.	-1248.	-1465.	357.	.0015	-.0963	.0587	.1385	-.0227	-.0882	917.
.3350	1726.	-1131.	-798.	-1667.	-1681.	699.	.0056	-.0961	.0565	.1355	-.0168	-.0856	1157.
.3360	1744.	-989.	-648.	-2000.	-1876.	1003.	.0103	-.0959	.0536	.1321	-.0110	-.0822	1368.
.3370	1713.	-898.	-559.	-2216.	-2030.	1237.	.0151	-.0957	.0500	.1286	-.0055	-.0783	1523.

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ADLPIPE STRESS ANALYSIS

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S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
LOADS
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ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	19	MEMBER	1	SEQUENCE	35	LOCATION	BEG	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.3380	1605.	-886.	-568.	-2293.	-2125.	1381.	.0202	-.0955	.0457	.1251	-.0002	-.0739	1602.		
.3390	1393.	-943.	-697.	-2235.	-2146.	1434.	.0253	-.0951	.0408	.1216	.0045	-.0691	1600.		
.3400	1084.	-1048.	-930.	-2055.	-2086.	1406.	.0303	-.0946	.0354	.1178	.0088	-.0641	1522.		
.3410	697.	-1193.	-1234.	-1772.	-1948.	1312.	.0353	-.0939	.0295	.1137	.0125	-.0588	1379.		
.3420	250.	-1387.	-1569.	-1407.	-1740.	1169.	.0401	-.0930	.0232	.1091	.0158	-.0537	1183.		
.3430	-225.	-1624.	-1882.	-986.	-1479.	998.	.0447	-.0921	.0166	.1038	.0187	-.0488	955.		
.3440	-689.	-1863.	-2140.	-550.	-1193.	828.	.0492	-.0910	.0099	.0978	.0214	-.0444	728.		
.3450	-1129.	-2047.	-2339.	-147.	-907.	688.	.0536	-.0898	.0031	.0907	.0240	-.0406	538.		
.3460	-1539.	-2144.	-2467.	189.	-641.	597.	.0578	-.0885	-.0034	.0825	.0262	-.0375	420.		
.3470	-1903.	-2153.	-2498.	441.	-411.	563.	.0619	-.0869	-.0096	.0733	.0282	-.0353	387.		
.3480	-2212.	-2074.	-2444.	601.	-232.	587.	.0657	-.0850	-.0151	.0636	.0298	-.0342	408.		
.3490	-2469.	-1898.	-2346.	665.	-116.	663.	.0692	-.0828	-.0200	.0533	.0311	-.0341	443.		
.3500	-2658.	-1619.	-2208.	638.	-74.	777.	.0723	-.0802	-.0241	.0428	.0322	-.0349	472.		
.3510	-2743.	-1262.	-2007.	545.	-104.	906.	.0748	-.0771	-.0275	.0324	.0332	-.0365	498.		
.3520	-2702.	-878.	-1748.	419.	-200.	1024.	.0767	-.0735	-.0301	.0224	.0344	-.0387	527.		
.3530	-2534.	-515.	-1469.	291.	-357.	1110.	.0778	-.0694	-.0320	.0133	.0360	-.0412	563.		
.3540	-2248.	-207.	-1205.	181.	-568.	1151.	.0781	-.0646	-.0332	.0055	.0378	-.0440	608.		
.3550	-1878.	18.	-993.	102.	-814.	1145.	.0775	-.0592	-.0338	-.0009	.0399	-.0469	660.		
.3560	-1469.	131.	-862.	62.	-1065.	1094.	.0760	-.0532	-.0338	-.0056	.0417	-.0497	716.		
.3570	-1060.	118.	-811.	66.	-1295.	1005.	.0737	-.0466	-.0331	-.0087	.0430	-.0524	769.		
.3580	-687.	-10.	-828.	107.	-1484.	891.	.0706	-.0396	-.0318	-.0102	.0432	-.0549	813.		
.3590	-386.	-223.	-898.	168.	-1613.	764.	.0667	-.0321	-.0300	-.0104	.0421	-.0569	840.		
.3600	-165.	-485.	-978.	229.	-1670.	635.	.0621	-.0244	-.0277	-.0098	.0394	-.0585	844.		
.3610	-6.	-756.	-998.	273.	-1648.	511.	.0569	-.0166	-.0250	-.0088	.0349	-.0593	819.		
.3620	108.	-989.	-905.	279.	-1549.	399.	.0511	-.0089	-.0221	-.0080	.0288	-.0593	761.		
.3630	181.	-1138.	-689.	227.	-1386.	307.	.0449	-.0014	-.0190	-.0077	.0210	-.0583	674.		
.3640	225.	-1170.	-359.	106.	-1176.	241.	.0383	.0058	-.0157	-.0084	.0117	-.0563	565.		
.3650	253.	-1084.	68.	-83.	-934.	204.	.0313	.0125	-.0124	-.0102	.0014	-.0534	450.		
.3660	264.	-895.	554.	-329.	-677.	194.	.0240	.0187	-.0091	-.0130	-.0097	-.0495	364.		
.3670	265.	-631.	1055.	-607.	-424.	207.	.0165	.0243	-.0058	-.0169	-.0211	-.0449	360.		
.3680	280.	-318.	1535.	-891.	-196.	232.	.0088	.0295	-.0027	-.0216	-.0322	-.0397	441.		
.3690	328.	19.	1959.	-1150.	-7.	255.	.0009	.0341	.0002	-.0270	-.0422	-.0339	552.		
.3700	420.	356.	2306.	-1361.	136.	261.	-.0071	.0383	.0028	-.0329	-.0506	-.0278	653.		
.3710	570.	661.	2570.	-1501.	252.	236.	-.0151	.0420	.0050	-.0392	-.0570	-.0213	720.		
.3720	777.	906.	2739.	-1555.	281.	168.	-.0230	.0453	.0067	-.0455	-.0611	-.0147	744.		
.3730	1018.	1074.	2791.	-1518.	293.	52.	-.0307	.0482	.0081	-.0515	-.0628	-.0082	725.		
.3740	1260.	1168.	2711.	-1400.	278.	-107.	-.0381	.0508	.0090	-.0570	-.0622	-.0018	671.		
.3750	1479.	1199.	2512.	-1220.	251.	-302.	-.0451	.0531	.0096	-.0620	-.0598	.0043	601.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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18.26.49.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.3650	253.	-1084.	68.	-83.	-934.	204.	.0313	.0125	-.0124	-.0102	.0014	-.0534	450.
.3660	264.	-895.	554.	-329.	-677.	174.	.0240	.0187	-.0091	-.0130	-.0097	-.0495	364.
.3670	265.	-631.	1055.	-607.	-424.	207.	.0165	.0243	-.0058	-.0169	-.0211	-.0449	360.
.3680	280.	-318.	1535.	-891.	-196.	232.	.0088	.0295	-.0027	-.0216	-.0322	-.0397	441.
.3690	328.	19.	1959.	-1150.	-7.	255.	.0009	.0341	.0002	-.0270	-.0422	-.0339	552.
.3700	420.	356.	2306.	-1361.	136.	261.	-.0071	.0383	.0028	-.0329	-.0506	-.0278	653.
.3710	570.	661.	2570.	-1501.	232.	236.	-.0151	.0420	.0050	-.0392	-.0570	-.0213	720.
.3720	777.	906.	2739.	-1555.	291.	168.	-.0230	.0453	.0067	-.0455	-.0511	-.0147	744.
.3730	1018.	1074.	2791.	-1518.	293.	52.	-.0307	.0482	.0081	-.0515	-.0528	-.0082	725.
.3740	1260.	1168.	2711.	-1400.	278.	-107.	-.0381	.0508	.0090	-.0570	-.0522	-.0018	671.
.3750	1479.	1199.	2512.	-1220.	251.	-302.	-.0451	.0531	.0096	-.0620	-.0598	.0043	601.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
LOADS
SHOCK
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ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	19	MEMBER	1	SEQUENCE	35	LOCATION	BEG	TYPE	VA					
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
.3760	1658.	1170.	2211.	-993.	225.	-520.	-.0514	.0550	.0098	-.0663	-.0557	.0101	536.	
.3770	1781.	1079.	1823.	-738.	207.	-755.	-.0571	.0567	.0099	-.0697	-.0505	.0155	504.	
.3780	1851.	940.	1385.	-477.	200.	-994.	-.0620	.0582	.0097	-.0722	-.0443	.0205	525.	
.3790	1890.	788.	952.	-237.	208.	-1225.	-.0660	.0594	.0093	-.0740	-.0375	.0252	593.	
.3800	1915.	664.	580.	-46.	233.	-1429.	-.0689	.0604	.0088	-.0754	-.0304	.0297	679.	
.3810	1935.	583.	305.	80.	279.	-1590.	-.0708	.0612	.0081	-.0763	-.0234	.0341	758.	
.3820	1949.	541.	140.	135.	346.	-1692.	-.0716	.0617	.0073	-.0769	-.0166	.0383	812.	
.3830	1946.	524.	65.	119.	429.	-1720.	-.0713	.0620	.0064	-.0771	-.0103	.0423	833.	
.3840	1902.	528.	45.	31.	526.	-1665.	-.0699	.0621	.0053	-.0768	-.0048	.0461	818.	
.3850	1803.	557.	56.	-125.	635.	-1519.	-.0675	.0620	.0040	-.0762	-.0001	.0497	774.	
.3860	1648.	608.	86.	-327.	753.	-1287.	-.0642	.0618	.0026	-.0753	.0038	.0532	715.	
.3870	1439.	653.	124.	-545.	875.	-990.	-.0600	.0614	.0010	-.0741	.0069	.0565	670.	
.3880	1184.	662.	164.	-747.	995.	-654.	-.0550	.0609	-.0010	-.0725	.0094	.0598	659.	
.3890	900.	628.	218.	-907.	1110.	-307.	-.0495	.0603	-.0034	-.0706	.0116	.0632	687.	
.3900	600.	565.	306.	-1003.	1221.	27.	-.0436	.0597	-.0061	-.0685	.0135	.0667	740.	
.3910	291.	478.	432.	-1016.	1328.	328.	-.0374	.0591	-.0093	-.0664	.0153	.0705	798.	
.3920	-32.	365.	581.	-943.	1428.	575.	-.0311	.0584	-.0127	-.0641	.0169	.0745	846.	
.3930	-375.	236.	725.	-802.	1519.	755.	-.0249	.0577	-.0164	-.0617	.0183	.0787	879.	
.3940	-739.	128.	838.	-622.	1598.	866.	-.0189	.0569	-.0201	-.0592	.0195	.0831	900.	
.3950	-1111.	81.	922.	-429.	1665.	915.	-.0133	.0560	-.0236	-.0570	.0205	.0876	913.	
.3960	-1467.	99.	989.	-240.	1715.	910.	-.0083	.0551	-.0269	-.0551	.0214	.0921	917.	
.3970	-1775.	160.	1043.	-62.	1742.	856.	-.0039	.0542	-.0298	-.0534	.0222	.0964	910.	
.3980	-2011.	239.	1080.	99.	1738.	765.	-.0003	.0532	-.0323	-.0519	.0232	.1003	891.	
.3990	-2152.	337.	1100.	237.	1700.	652.	.0025	.0522	-.0342	-.0507	.0243	.1035	860.	
.4000	-2195.	459.	1109.	347.	1631.	539.	.0043	.0513	-.0356	-.0499	.0256	.1060	821.	

MAXIMUM VALUE OF STRESS OCCURS AT

TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
.0290	8062.	-3106.	-9848.	4832.	-6372.	-4463.	.1023	.0504	-.0182	.0093	-.0466	-.0714	4292.

SECTION	19	MEMBER	1	SEQUENCE	36	LOCATION	DIS	TYPE	VA					
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	

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TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
.0290	8062.	-3106.	-9046.	4372.	-6072.	-4463.	.1023	.0004	-.0182	.0093	-.0466	-.0714	4292.

SECTION TIME (SEC)	19	MEMBER	1	SEQUENCE	36	LOCATION	DIS	TYPE	VA	DZ	RX	RY	RZ	STRESS (PSI)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(DEG)	(PSI)

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SECTION TIME (SEC)	19	MEMBER	1	SEQUENCE	36	LOCATION	DIS	TYPE	VA	DZ	RX	RY	RZ	STRESS (PSI)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(DEG)	(PSI)
.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.
.0010	0.	0.	0.	0.	0.	0.	-.0000	.0000	-.0000	-.0000	.0000	.0000	.0000	0.
.0020	0.	0.	0.	0.	0.	0.	-.0001	.0000	-.0002	-.0002	.0002	.0002	.0001	0.
.0030	0.	0.	0.	0.	0.	0.	-.0003	.0000	-.0005	-.0006	.0007	.0005	.0005	0.
.0040	0.	0.	0.	0.	0.	0.	-.0005	-.0000	-.0010	-.0016	.0014	.0012	.0012	0.
.0050	0.	0.	0.	0.	0.	0.	-.0009	-.0001	-.0019	-.0033	.0023	.0022	.0022	0.
.0060	0.	0.	0.	0.	0.	0.	-.0014	-.0002	-.0030	-.0056	.0033	.0036	.0036	0.
.0070	0.	0.	0.	0.	0.	0.	-.0021	-.0003	-.0046	-.0087	.0048	.0054	.0054	0.
.0080	0.	0.	0.	0.	0.	0.	-.0030	-.0005	-.0070	-.0130	.0077	.0080	.0080	0.
.0090	0.	0.	0.	0.	0.	0.	-.0042	-.0008	-.0102	-.0191	.0129	.0119	.0119	0.
.0100	0.	0.	0.	0.	0.	0.	-.0053	-.0013	-.0142	-.0272	.0205	.0170	.0170	0.
.0110	0.	0.	0.	0.	0.	0.	-.0060	-.0020	-.0189	-.0373	.0300	.0227	.0227	0.
.0120	0.	0.	0.	0.	0.	0.	-.0060	-.0027	-.0241	-.0486	.0401	.0281	.0281	0.
.0130	0.	0.	0.	0.	0.	0.	-.0046	-.0034	-.0296	-.0603	.0492	.0320	.0320	0.
.0140	0.	0.	0.	0.	0.	0.	-.0016	-.0040	-.0348	-.0716	.0555	.0335	.0335	0.
.0150	0.	0.	0.	0.	0.	0.	.0036	-.0045	-.0392	-.0815	.0575	.0316	.0316	0.
.0160	0.	0.	0.	0.	0.	0.	.0110	-.0046	-.0422	-.0886	.0552	.0257	.0257	0.
.0170	0.	0.	0.	0.	0.	0.	.0203	-.0041	-.0435	-.0915	.0501	.0163	.0163	0.
.0180	0.	0.	0.	0.	0.	0.	.0311	-.0026	-.0432	-.0897	.0449	.0045	.0045	0.
.0190	0.	0.	0.	0.	0.	0.	.0423	.0001	-.0424	-.0840	.0430	-.0076	-.0076	0.
.0200	0.	0.	0.	0.	0.	0.	.0526	.0043	-.0424	-.0770	.0501	-.0169	-.0169	0.
.0210	0.	0.	0.	0.	0.	0.	.0617	.0097	-.0441	-.0718	.0689	-.0212	-.0212	0.
.0220	0.	0.	0.	0.	0.	0.	.0705	.0159	-.0461	-.0688	.0870	-.0229	-.0229	0.
.0230	0.	0.	0.	0.	0.	0.	.0799	.0231	-.0474	-.0640	.0946	-.0270	-.0270	0.
.0240	0.	0.	0.	0.	0.	0.	.0899	.0311	-.0472	-.0531	.0879	-.0381	-.0381	0.
.0250	0.	0.	0.	0.	0.	0.	.0997	.0397	-.0455	-.0349	.0714	-.0536	-.0536	0.
.0260	0.	0.	0.	0.	0.	0.	.1080	.0479	-.0433	-.0134	.0488	-.0671	-.0671	0.
.0270	0.	0.	0.	0.	0.	0.	.1140	.0545	-.0395	.0046	.0115	-.0784	-.0784	0.
.0280	0.	0.	0.	0.	0.	0.	.1159	.0586	-.0328	.0173	-.0287	-.0885	-.0885	0.
.0290	0.	0.	0.	0.	0.	0.	.1122	.0610	-.0236	.0306	-.0497	-.0917	-.0917	0.
.0300	0.	0.	0.	0.	0.	0.	.1022	.0629	-.0146	.0500	-.0581	-.0849	-.0849	0.
.0310	0.	0.	0.	0.	0.	0.	.0858	.0640	-.0055	.0680	-.0608	-.0754	-.0754	0.
.0320	0.	0.	0.	0.	0.	0.	.0641	.0634	.0046	.0759	-.0552	-.0676	-.0676	0.
.0330	0.	0.	0.	0.	0.	0.	.0399	.0604	.0168	.0777	-.0463	-.0590	-.0590	0.
.0340	0.	0.	0.	0.	0.	0.	.0153	.0553	.0303	.0806	-.0424	-.0495	-.0495	0.
.0350	0.	0.	0.	0.	0.	0.	-.0097	.0490	.0435	.0837	-.0419	-.0476	-.0476	0.
.0360	0.	0.	0.	0.	0.	0.	-.0348	.0414	.0548	.0836	-.0402	-.0566	-.0566	0.
.0370	0.	0.	0.	0.	0.	0.	-.0584	.0315	.0639	.0799	-.0400	-.0668	-.0668	0.

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.0270	0.	0.	0.	0.	0.	0.	0.	0.	1140	.0545	-.0325	.0046	.0115	-.0784	0.
.0280	0.	0.	0.	0.	0.	0.	0.	0.	.1159	.0586	-.0328	.0173	-.0287	-.0885	0.
.0290	0.	0.	0.	0.	0.	0.	0.	0.	.1122	.0610	-.0236	.0306	-.0497	-.0917	0.
.0300	0.	0.	0.	0.	0.	0.	0.	0.	.1022	.0629	-.0146	.0500	-.0581	-.0849	0.
.0310	0.	0.	0.	0.	0.	0.	0.	0.	.0858	.0640	-.0055	.0680	-.0608	-.0754	0.
.0320	0.	0.	0.	0.	0.	0.	0.	0.	.0641	.0634	.0046	.0759	-.0552	-.0676	0.
.0330	0.	0.	0.	0.	0.	0.	0.	0.	.0399	.0604	.0160	.0777	-.0463	-.0590	0.
.0340	0.	0.	0.	0.	0.	0.	0.	0.	.0153	.0553	.0303	.0806	-.0424	-.0495	0.
.0350	0.	0.	0.	0.	0.	0.	0.	0.	-.0097	.0490	.0435	.0837	-.0419	-.0476	0.
.0360	0.	0.	0.	0.	0.	0.	0.	0.	-.0348	.0414	.0548	.0836	-.0402	-.0566	0.
.0370	0.	0.	0.	0.	0.	0.	0.	0.	-.0584	.0315	.0639	.0799	-.0400	-.0668	0.

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SECTION	19	MEMBER	1	SEQUENCE	36	LOCATION	DIS	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	PX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.0380	0.	0.	0.	0.	0.	0.	-.0790	.0186	.0710	.0696	-.0455	-.0692	0.		
.0390	0.	0.	0.	0.	0.	0.	-.0975	.0037	.0763	.0498	-.0522	-.0664	0.		
.0400	0.	0.	0.	0.	0.	0.	-.1148	-.0115	.0787	.0281	-.0459	-.0609	0.		
.0410	0.	0.	0.	0.	0.	0.	-.1304	-.0256	.0762	.0139	-.0343	-.0491	0.		
.0420	0.	0.	0.	0.	0.	0.	-.1432	-.0392	.0715	.0049	-.0187	-.0274	0.		
.0430	0.	0.	0.	0.	0.	0.	-.1524	-.0527	.0657	-.0070	-.0079	.0027	0.		
.0440	0.	0.	0.	0.	0.	0.	-.1567	-.0664	.0600	-.0205	.0345	.0369	0.		
.0450	0.	0.	0.	0.	0.	0.	-.1547	-.0795	.0549	-.0287	.0458	.0701	0.		
.0460	0.	0.	0.	0.	0.	0.	-.1466	-.0907	.0502	-.0263	.0413	.0947	0.		
.0470	0.	0.	0.	0.	0.	0.	-.1329	-.0995	.0461	-.0127	.0298	.1065	0.		
.0480	0.	0.	0.	0.	0.	0.	-.1142	-.1063	.0430	.0071	.0129	.1094	0.		
.0490	0.	0.	0.	0.	0.	0.	-.0915	-.1112	.0400	.0249	-.0109	.1067	0.		
.0500	0.	0.	0.	0.	0.	0.	-.0665	-.1132	.0362	.0368	-.0345	.1024	0.		
.0510	0.	0.	0.	0.	0.	0.	-.0410	-.1114	.0316	.0474	-.0495	.0876	0.		
.0520	0.	0.	0.	0.	0.	0.	-.0150	-.1052	.0264	.0641	-.0556	.0660	0.		
.0530	0.	0.	0.	0.	0.	0.	.0113	-.0952	.0212	.0877	-.0578	.0400	0.		
.0540	0.	0.	0.	0.	0.	0.	.0379	-.0832	.0174	.1123	-.0516	.0079	0.		
.0550	0.	0.	0.	0.	0.	0.	.0643	-.0709	.0161	.1347	-.0688	-.0298	0.		
.0560	0.	0.	0.	0.	0.	0.	.0899	-.0591	.0162	.1578	-.0773	-.0667	0.		
.0570	0.	0.	0.	0.	0.	0.	.1131	-.0483	.0162	.1840	-.0843	-.0981	0.		
.0580	0.	0.	0.	0.	0.	0.	.1323	-.0388	.0156	.2101	-.0873	-.1246	0.		
.0590	0.	0.	0.	0.	0.	0.	.1462	-.0314	.0146	.2300	-.0817	-.1444	0.		
.0600	0.	0.	0.	0.	0.	0.	.1548	-.0267	.0132	.2413	-.0652	-.1512	0.		
.0610	0.	0.	0.	0.	0.	0.	.1582	-.0244	.0118	.2454	-.0379	-.1430	0.		
.0620	0.	0.	0.	0.	0.	0.	.1567	-.0230	.0106	.2451	-.0023	-.1276	0.		
.0630	0.	0.	0.	0.	0.	0.	.1507	-.0243	.0096	.2422	.0382	-.1126	0.		
.0640	0.	0.	0.	0.	0.	0.	.1417	-.0261	.0089	.2377	.0767	-.0981	0.		
.0650	0.	0.	0.	0.	0.	0.	.1310	-.0301	.0090	.2300	.1063	-.0831	0.		
.0660	0.	0.	0.	0.	0.	0.	.1191	-.0371	.0097	.2156	.1261	-.0702	0.		
.0670	0.	0.	0.	0.	0.	0.	.1058	-.0468	.0100	.1932	.1403	-.0604	0.		
.0680	0.	0.	0.	0.	0.	0.	.0911	-.0582	.0087	.1662	.1514	-.0501	0.		
.0690	0.	0.	0.	0.	0.	0.	.0754	-.0703	.0059	.1374	.1501	-.0367	0.		
.0700	0.	0.	0.	0.	0.	0.	.0592	-.0823	.0021	.1060	.1679	-.0220	0.		
.0710	0.	0.	0.	0.	0.	0.	.0429	-.0929	-.0022	.0704	.1727	-.0068	0.		
.0720	0.	0.	0.	0.	0.	0.	.0275	-.1013	-.0066	.0344	.1682	.0100	0.		
.0730	0.	0.	0.	0.	0.	0.	.0136	-.1066	-.0103	.0038	.1531	.0272	0.		
.0740	0.	0.	0.	0.	0.	0.	.0013	-.1085	-.0132	-.0186	.1312	.0413	0.		
.0750	0.	0.	0.	0.	0.	0.	-.0097	-.1077	-.0141	-.0327	.1033	.0519	0.		

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.0660	0.	0.	0.	0.	0.	0.	0.	0.	.0191	-.0371	.0097	.2156	.1261	-.0702	0.
.0670	0.	0.	0.	0.	0.	0.	0.	0.	.0558	-.0468	.0100	.1932	.1403	-.0604	0.
.0680	0.	0.	0.	0.	0.	0.	0.	0.	.0211	-.0582	.0087	.1662	.1514	-.0501	0.
.0690	0.	0.	0.	0.	0.	0.	0.	0.	.0714	-.0702	.0059	.1374	.1501	-.0367	0.
.0700	0.	0.	0.	0.	0.	0.	0.	0.	.0192	-.0823	.0021	.1060	.1679	-.0220	0.
.0710	0.	0.	0.	0.	0.	0.	0.	0.	.0429	-.0929	-.0022	.0704	.1727	-.0068	0.
.0720	0.	0.	0.	0.	0.	0.	0.	0.	.0275	-.1013	-.0066	.0344	.1582	.0100	0.
.0730	0.	0.	0.	0.	0.	0.	0.	0.	.0136	-.1066	-.0105	.0038	.1531	.0272	0.
.0740	0.	0.	0.	0.	0.	0.	0.	0.	.0013	-.1085	-.0132	-.0186	.1312	.0413	0.
.0750	0.	0.	0.	0.	0.	0.	0.	0.	-.0097	-.1077	-.0141	-.0327	.1033	.0519	0.

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SECTION	19	MEMBER	1	SEQUENCE	36	LOCATION	DIS	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.0760	0.	0.	0.	0.	0.	0.	-.0193	-.1048	-.0133	-.0394	.0593	.0619	0.		
.0770	0.	0.	0.	0.	0.	0.	-.0282	-.1004	-.0114	-.0414	.0354	.0733	0.		
.0780	0.	0.	0.	0.	0.	0.	-.0371	-.0944	-.0088	-.0416	.0079	.0849	0.		
.0790	0.	0.	0.	0.	0.	0.	-.0457	-.0862	-.0055	-.0402	-.0133	.0949	0.		
.0800	0.	0.	0.	0.	0.	0.	-.0536	-.0754	-.0013	-.0353	-.0312	.1011	0.		
.0810	0.	0.	0.	0.	0.	0.	-.0600	-.0614	.0043	-.0262	-.0445	.1009	0.		
.0820	0.	0.	0.	0.	0.	0.	-.0646	-.0448	.0116	-.0146	-.0535	.0926	0.		
.0830	0.	0.	0.	0.	0.	0.	-.0666	-.0263	.0207	-.0012	-.0629	.0763	0.		
.0840	0.	0.	0.	0.	0.	0.	-.0661	-.0070	.0312	.0140	-.0739	.0529	0.		
.0850	0.	0.	0.	0.	0.	0.	-.0638	.0119	.0420	.0299	-.0820	.0243	0.		
.0860	0.	0.	0.	0.	0.	0.	-.0606	.0293	.0517	.0445	-.0850	-.0059	0.		
.0870	0.	0.	0.	0.	0.	0.	-.0570	.0444	.0591	.0534	-.0844	-.0342	0.		
.0880	0.	0.	0.	0.	0.	0.	-.0536	.0568	.0636	.0605	-.0790	-.0577	0.		
.0890	0.	0.	0.	0.	0.	0.	-.0504	.0666	.0654	.0593	-.0664	-.0753	0.		
.0900	0.	0.	0.	0.	0.	0.	-.0469	.0744	.0651	.0543	-.0495	-.0874	0.		
.0910	0.	0.	0.	0.	0.	0.	-.0425	.0812	.0632	.0492	-.0336	-.0964	0.		
.0920	0.	0.	0.	0.	0.	0.	-.0370	.0874	.0600	.0453	-.0223	-.1060	0.		
.0930	0.	0.	0.	0.	0.	0.	-.0300	.0927	.0557	.0416	-.0170	-.1162	0.		
.0940	0.	0.	0.	0.	0.	0.	-.0217	.0964	.0501	.0366	-.0180	-.1252	0.		
.0950	0.	0.	0.	0.	0.	0.	-.0123	.0974	.0425	.0290	-.0240	-.1317	0.		
.0960	0.	0.	0.	0.	0.	0.	-.0026	.0954	.0325	.0175	-.0326	-.1357	0.		
.0970	0.	0.	0.	0.	0.	0.	.0070	.0899	.0199	.0015	-.0422	-.1370	0.		
.0980	0.	0.	0.	0.	0.	0.	.0162	.0813	.0047	-.0181	-.0524	-.1341	0.		
.0990	0.	0.	0.	0.	0.	0.	.0253	.0701	-.0125	-.0411	-.0644	-.1263	0.		
.1000	0.	0.	0.	0.	0.	0.	.0341	.0570	-.0306	-.0677	-.0800	-.1149	0.		
.1010	0.	0.	0.	0.	0.	0.	.0426	.0431	-.0484	-.0968	-.0996	-.1011	0.		
.1020	0.	0.	0.	0.	0.	0.	.0505	.0291	-.0649	-.1249	-.1201	-.0847	0.		
.1030	0.	0.	0.	0.	0.	0.	.0570	.0157	-.0792	-.1491	-.1371	-.0641	0.		
.1040	0.	0.	0.	0.	0.	0.	.0615	.0028	-.0907	-.1692	-.1466	-.0391	0.		
.1050	0.	0.	0.	0.	0.	0.	.0632	-.0094	-.0992	-.1859	-.1452	-.0104	0.		
.1060	0.	0.	0.	0.	0.	0.	.0616	-.0208	-.1046	-.1993	-.1304	.0220	0.		
.1070	0.	0.	0.	0.	0.	0.	.0570	-.0307	-.1071	-.2080	-.1034	.0565	0.		
.1080	0.	0.	0.	0.	0.	0.	.0492	-.0382	-.1075	-.2110	-.0624	.0903	0.		
.1090	0.	0.	0.	0.	0.	0.	.0383	-.0421	-.1082	-.2104	-.0022	.1227	0.		
.1100	0.	0.	0.	0.	0.	0.	.0275	-.0427	-.1058	-.2094	.0495	.1472	0.		
.1110	0.	0.	0.	0.	0.	0.	.0183	-.0392	-.0996	-.2046	.0926	.1604	0.		
.1120	0.	0.	0.	0.	0.	0.	.0114	-.0312	-.0903	-.1903	.1298	.1610	0.		
.1130	0.	0.	0.	0.	0.	0.	.0069	-.0188	-.0791	-.1676	.1563	.1510	0.		

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83/12/02.

18.26.49.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
LOADS
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ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

.1120	0.	0.	0.	0.	0.	0.	0.	.0555	.0291	-.0647	-.1249	-.1201	-.0847	0.
.1030	0.	0.	0.	0.	0.	0.	0.	.0570	.0157	-.0792	-.1491	-.1371	-.0641	0.
.1040	0.	0.	0.	0.	0.	0.	0.	.0615	.0028	-.0907	-.1692	-.1466	-.0391	0.
.1050	0.	0.	0.	0.	0.	0.	0.	.0632	-.0094	-.0992	-.1859	-.1452	-.0104	0.
.1060	0.	0.	0.	0.	0.	0.	0.	.0616	-.0202	-.1046	-.1993	-.1304	.0220	0.
.1070	0.	0.	0.	0.	0.	0.	0.	.0570	-.0307	-.1071	-.2080	-.1034	.0565	0.
.1080	0.	0.	0.	0.	0.	0.	0.	.0492	-.0382	-.1075	-.2110	-.0624	.0903	0.
.1090	0.	0.	0.	0.	0.	0.	0.	.0383	-.0421	-.1082	-.2104	-.0022	.1227	0.
.1100	0.	0.	0.	0.	0.	0.	0.	.0275	-.0427	-.1058	-.2094	.0495	.1472	0.
.1110	0.	0.	0.	0.	0.	0.	0.	.0183	-.0392	-.0996	-.2046	.0926	.1604	0.
.1120	0.	0.	0.	0.	0.	0.	0.	.0114	-.0312	-.0903	-.1903	.1298	.1610	0.
.1130	0.	0.	0.	0.	0.	0.	0.	.0069	-.0198	-.0791	-.1676	.1563	.1510	0.

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18.26.49.

S/RV PIPING KEWAUNEE GKW02F 2 RUP DICK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	19	MEMBER	1	SEQUENCE	36	LOCATION	DIS	TYPE	VA					
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.1140	0.	0.	0.	0.	0.	0.	.0041	-.0033	-.0672	-.1414	.1729	.1331	0.	
.1150	0.	0.	0.	0.	0.	0.	.0024	.0139	-.0558	-.1160	.1365	.1122	0.	
.1160	0.	0.	0.	0.	0.	0.	.0013	.0311	-.0457	-.0946	.1975	.0945	0.	
.1170	0.	0.	0.	0.	0.	0.	.0008	.0473	-.0373	-.0789	.2033	.0824	0.	
.1180	0.	0.	0.	0.	0.	0.	.0010	.0625	-.0300	-.0644	.1916	.0691	0.	
.1190	0.	0.	0.	0.	0.	0.	.0015	.0768	-.0227	-.0465	.1724	.0519	0.	
.1200	0.	0.	0.	0.	0.	0.	.0028	.0897	-.0151	-.0243	.1501	.0351	0.	
.1210	0.	0.	0.	0.	0.	0.	.0039	.1007	-.0086	-.0029	.1197	.0220	0.	
.1220	0.	0.	0.	0.	0.	0.	.0042	.1094	-.0030	.0075	.0882	.0105	0.	
.1230	0.	0.	0.	0.	0.	0.	.0030	.1159	.0011	.0060	.0553	-.0017	0.	
.1240	0.	0.	0.	0.	0.	0.	.0006	.1204	.0035	-.0016	.0262	-.0117	0.	
.1250	0.	0.	0.	0.	0.	0.	-.0029	.1232	.0039	-.0111	-.0002	-.0204	0.	
.1260	0.	0.	0.	0.	0.	0.	-.0080	.1241	.0024	-.0238	-.0292	-.0331	0.	
.1270	0.	0.	0.	0.	0.	0.	-.0148	.1222	-.0006	-.0450	-.0467	-.0467	0.	
.1280	0.	0.	0.	0.	0.	0.	-.0226	.1172	-.0055	-.0730	-.0551	-.0531	0.	
.1290	0.	0.	0.	0.	0.	0.	-.0302	.1093	-.0117	-.1052	-.0588	-.0505	0.	
.1300	0.	0.	0.	0.	0.	0.	-.0371	.0997	-.0180	-.1386	-.0615	-.0466	0.	
.1310	0.	0.	0.	0.	0.	0.	-.0427	.0897	-.0235	-.1671	-.0711	-.0463	0.	
.1320	0.	0.	0.	0.	0.	0.	-.0465	.0799	-.0278	-.1864	-.0308	-.0433	0.	
.1330	0.	0.	0.	0.	0.	0.	-.0485	.0706	-.0313	-.1967	-.0940	-.0334	0.	
.1340	0.	0.	0.	0.	0.	0.	-.0496	.0615	-.0336	-.2047	-.1070	-.0187	0.	
.1350	0.	0.	0.	0.	0.	0.	-.0507	.0528	-.0346	-.2130	-.1148	-.0003	0.	
.1360	0.	0.	0.	0.	0.	0.	-.0520	.0457	-.0354	-.2157	-.1199	.0233	0.	
.1370	0.	0.	0.	0.	0.	0.	-.0536	.0407	-.0358	-.2102	-.1187	.0507	0.	
.1380	0.	0.	0.	0.	0.	0.	-.0556	.0382	-.0352	-.1984	-.1193	.0732	0.	
.1390	0.	0.	0.	0.	0.	0.	-.0577	.0378	-.0328	-.1837	-.1221	.0867	0.	
.1400	0.	0.	0.	0.	0.	0.	-.0593	.0393	-.0277	-.1649	-.1258	.0942	0.	
.1410	0.	0.	0.	0.	0.	0.	-.0602	.0425	-.0206	-.1402	-.1335	.0964	0.	
.1420	0.	0.	0.	0.	0.	0.	-.0612	.0471	-.0116	-.1131	-.1373	.0899	0.	
.1430	0.	0.	0.	0.	0.	0.	-.0628	.0527	-.0020	-.0850	-.1383	.0741	0.	
.1440	0.	0.	0.	0.	0.	0.	-.0649	.0586	.0073	-.0575	-.1334	.0563	0.	
.1450	0.	0.	0.	0.	0.	0.	-.0669	.0634	.0160	-.0338	-.1216	.0419	0.	
.1460	0.	0.	0.	0.	0.	0.	-.0688	.0665	.0240	-.0164	-.1075	.0290	0.	
.1470	0.	0.	0.	0.	0.	0.	-.0701	.0676	.0314	-.0042	-.0866	.0161	0.	
.1480	0.	0.	0.	0.	0.	0.	-.0700	.0669	.0381	.0096	-.0661	.0050	0.	
.1490	0.	0.	0.	0.	0.	0.	-.0679	.0643	.0440	.0269	-.0455	-.0024	0.	
.1500	0.	0.	0.	0.	0.	0.	-.0640	.0597	.0492	.0440	-.0237	-.0075	0.	
.1510	0.	0.	0.	0.	0.	0.	-.0589	.0532	.0528	.0579	-.0066	-.0108	0.	

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ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.49.

S/RV PIPING KEWAUNEE GKW02F 2 RUP DICK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING