

50-305

RESPONSE TO NUREG-0737 ITEM II.D.1

Docket # *50-305*

Control # *8403280048*

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

.2790	3779.	2475.	-905.	-671.	-1921.	-1471.	-.551	.0457	.0847	-.1418	.0013	-.0397	3532.
.2800	4042.	2753.	-928.	-662.	-2037.	-1447.	-.0522	.0457	.0937	-.1415	.0093	-.0493	3651.
.2810	4185.	2956.	-808.	-677.	-2059.	-1361.	-.0488	.0464	.1005	-.1407	.0174	-.0582	3615.
.2820	4231.	3040.	-577.	-694.	-2001.	-1105.	-.0451	.0478	.1050	-.1390	.0255	-.0656	3435.
.2830	4136.	3023.	-227.	-697.	-1866.	-979.	-.0411	.0498	.1070	-.1361	.0329	-.0710	3135.
.2840	3928.	2943.	52.	-666.	-1700.	-756.	-.0369	.0525	.1064	-.1318	.0389	-.0742	2791.
.2850	3674.	2804.	266.	-614.	-1561.	-543.	-.0325	.0555	.1034	-.1261	.0430	-.0746	2491.
.2860	3387.	2591.	354.	-573.	-1466.	-337.	-.0280	.0588	.0978	-.1196	.0451	-.0713	2274.
.2870	3071.	2312.	295.	-552.	-1414.	-143.	-.0236	.0622	.0900	-.1125	.0453	-.0638	2157.
.2880	2761.	2001.	138.	-557.	-1404.	-2.	-.0195	.0655	.0800	-.1048	.0443	-.0520	2134.
.2890	2465.	1682.	-79.	-552.	-1410.	73.	-.0160	.0688	.0682	-.0965	.0426	-.0365	2141.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.13.

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	10	MEMBER	3	SEQUENCE	230	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)	
.2900	2173.	1361.	-309.	-536.	-1392.	76.	-.0131	.0720	.0550	-.0874	.0412	-.0176	2110.	
.2910	1908.	1032.	-463.	-517.	-1333.	20.	-.0112	.0748	.0404	-.0776	.0406	.0043	2019.	
.2920	1663.	686.	-507.	-495.	-1210.	-77.	-.0102	.0773	.0250	-.0671	.0409	.0286	1860.	
.2930	1366.	327.	-501.	-462.	-1020.	-211.	-.0100	.0794	.0088	-.0559	.0418	.0544	1610.	
.2940	989.	-24.	-474.	-400.	-739.	-381.	-.0104	.0811	-.0079	-.0438	.0424	.0803	1303.	
.2950	571.	-361.	-390.	-303.	-408.	-573.	-.0113	.0824	-.0247	-.0310	.0423	.1051	1082.	
.2960	122.	-703.	-261.	-178.	-48.	-754.	-.0125	.0832	-.0413	-.0178	.0409	.1282	1097.	
.2970	-395.	-1049.	-133.	-27.	341.	-903.	-.0140	.0837	-.0574	-.0044	.0373	.1486	1363.	
.2980	-979.	-1371.	-7.	157.	748.	-1014.	-.0157	.0837	-.0727	.0087	.0313	.1655	1793.	
.2990	-1592.	-1656.	145.	375.	1150.	-1077.	-.0174	.0834	-.0867	.0210	.0229	.1782	2288.	
.3000	-2196.	-1915.	324.	614.	1528.	-1072.	-.0190	.0827	-.0991	.0322	.0123	.1866	2775.	
.3010	-2758.	-2142.	528.	860.	1862.	-992.	-.0205	.0817	-.1096	.0417	.0001	.1905	3218.	
.3020	-3258.	-2308.	740.	1108.	2136.	-854.	-.0216	.0803	-.1178	.0492	-.0133	.1900	3607.	
.3030	-3704.	-2396.	898.	1349.	2347.	-669.	-.0220	.0785	-.1237	.0544	-.0272	.1851	3939.	
.3040	-4085.	-2418.	962.	1565.	2490.	-440.	-.0215	.0762	-.1272	.0574	-.0407	.1766	4200.	
.3050	-4353.	-2379.	964.	1740.	2554.	-179.	-.0201	.0733	-.1281	.0581	-.0527	.1649	4372.	
.3060	-4485.	-2272.	932.	1876.	2544.	88.	-.0179	.0698	-.1264	.0571	-.0620	.1505	4467.	
.3070	-4502.	-2099.	856.	1982.	2407.	342.	-.0148	.0656	-.1222	.0551	-.0679	.1338	4518.	
.3080	-4413.	-1880.	752.	2052.	2404.	577.	-.0110	.0606	-.1157	.0525	-.0696	.1156	4539.	
.3090	-4206.	-1640.	679.	2074.	2305.	794.	-.0069	.0549	-.1069	.0498	-.0667	.0968	4521.	
.3100	-3885.	-1397.	664.	2044.	2197.	986.	-.0026	.0482	-.0961	.0476	-.0593	.0780	4462.	
.3110	-3476.	-1154.	687.	1976.	2085.	1140.	.0016	.0407	-.0836	.0464	-.0482	.0597	4365.	
.3120	-2988.	-903.	733.	1881.	1954.	1239.	.0056	.0323	-.0696	.0466	-.0344	.0422	4211.	
.3130	-2439.	-648.	789.	1756.	1792.	1279.	.0092	.0230	-.0546	.0482	-.0190	.0260	3978.	
.3140	-1862.	-403.	821.	1596.	1595.	1268.	.0123	.0130	-.0388	.0512	-.0034	.0115	3656.	
.3150	-1267.	-174.	813.	1402.	1351.	1209.	.0148	.0023	-.0225	.0557	.0114	-.0011	3237.	
.3160	-663.	52.	766.	1196.	1055.	1093.	.0165	-.0091	-.0061	.0616	.0246	-.0120	2731.	
.3170	-67.	286.	683.	994.	716.	914.	.0176	-.0209	.0103	.0691	.0357	-.0214	2159.	
.3180	514.	515.	576.	802.	343.	689.	.0178	-.0331	.0263	.0780	.0447	-.0294	1570.	
.3190	1075.	715.	462.	615.	-52.	440.	.0174	-.0454	.0418	.0882	.0517	-.0359	1071.	
.3200	1607.	879.	343.	436.	-458.	183.	.0164	-.0578	.0565	.0994	.0568	-.0412	930.	
.3210	2084.	1017.	197.	277.	-854.	-84.	.0150	-.0701	.0703	.1114	.0604	-.0458	1273.	
.3220	2509.	1131.	26.	146.	-1232.	-357.	.0135	-.0822	.0829	.1240	.0628	-.0499	1824.	
.3230	2909.	1213.	-155.	40.	-1601.	-618.	.0121	-.0939	.0943	.1368	.0645	-.0538	2424.	
.3240	3273.	1255.	-354.	-52.	-1947.	-854.	.0110	-.1051	.1043	.1492	.0658	-.0576	3004.	
.3250	3565.	1268.	-591.	-137.	-2246.	-1062.	.0104	-.1157	.1129	.1606	.0667	-.0614	3515.	
.3260	3792.	1270.	-845.	-211.	-2495.	-1243.	.0102	-.1256	.1199	.1705	.0675	-.0656	3948.	
.3270	3976.	1269.	-1078.	-270.	-2693.	-1391.	.0107	-.1346	.1253	.1785	.0681	-.0704	4298.	

ADLPIPE PAGE 513

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.13.

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

.3170	-67.	286.	683.	994.	716.	914.	.0176	-.0209	.0103	.0691	.0357	-.0214	2159.
.3180	514.	515.	576.	802.	343.	639.	.0178	-.0331	.0263	.0780	.0447	-.0294	1570.
.3190	1075.	715.	462.	615.	-52.	440.	.0174	-.0454	.0418	.0882	.0517	-.0359	1071.
.3200	1607.	379.	343.	476.	-458.	133.	.0164	-.0578	.0565	.0994	.0568	-.0412	930.
.3210	2064.	1017.	197.	277.	-354.	-84.	.0150	-.0701	.0703	.1114	.0604	-.0458	1273.
.3220	2509.	1131.	26.	146.	-1232.	-357.	.0135	-.0822	.0829	.1240	.0628	-.0499	1824.
.3230	2909.	1213.	-155.	40.	-1601.	-618.	.0121	-.0939	.0943	.1368	.0645	-.0538	2424.
.3240	3273.	1255.	-354.	-52.	-1947.	-854.	.0110	-.1051	.1043	.1492	.0658	-.0576	3004.
.3250	3565.	1268.	-591.	-137.	-2246.	-1062.	.0104	-.1157	.1129	.1606	.0667	-.0614	3515.
.3260	3792.	1270.	-845.	-211.	-2495.	-1243.	.0102	-.1256	.1199	.1705	.0675	-.0656	3948.
.3270	3976.	1269.	-1078.	-270.	-2693.	-1391.	.0107	-.1346	.1253	.1785	.0681	-.0704	4298.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.13.

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	3	SEQUENCE	230	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)	
.3280	4107.	1269.	-1268.	-317.	-2827.	-1497.	.0116	-.1426	.1292	.1840	.0686	-.0757	4541.	
.3290	4178.	1274.	-1392.	-363.	-2887.	-1553.	.0130	-.1495	.1315	.1866	.0689	-.0816	4659.	
.3300	4185.	1286.	-1434.	-410.	-2872.	-1552.	.0148	-.1552	.1323	.1859	.0686	-.0881	4647.	
.3310	4110.	1309.	-1413.	-450.	-2779.	-1490.	.0169	-.1596	.1314	.1820	.0673	-.0951	4499.	
.3320	3952.	1344.	-1332.	-478.	-2615.	-1366.	.0193	-.1628	.1290	.1750	.0648	-.1027	4222.	
.3330	3735.	1380.	-1181.	-492.	-2402.	-1179.	.0220	-.1646	.1249	.1654	.0607	-.1107	3843.	
.3340	3452.	1403.	-984.	-493.	-2149.	-926.	.0248	-.1653	.1194	.1537	.0548	-.1189	3378.	
.3350	3071.	1402.	-791.	-475.	-1849.	-616.	.0279	-.1647	.1122	.1405	.0472	-.1272	2833.	
.3360	2600.	1374.	-600.	-431.	-1507.	-263.	.0310	-.1630	.1036	.1267	.0379	-.1355	2245.	
.3370	2083.	1308.	-380.	-354.	-1144.	122.	.0341	-.1604	.0937	.1132	.0275	-.1435	1701.	
.3380	1537.	1190.	-137.	-247.	-767.	528.	.0370	-.1569	.0827	.1006	.0165	-.1507	1360.	
.3390	956.	1025.	109.	-113.	-374.	934.	.0398	-.1528	.0706	.0895	.0051	-.1569	1429.	
.3400	356.	821.	353.	37.	21.	1318.	.0424	-.1481	.0578	.0801	-.0062	-.1615	1862.	
.3410	-234.	578.	579.	187.	397.	1668.	.0447	-.1432	.0444	.0725	-.0172	-.1642	2436.	
.3420	-794.	302.	761.	322.	733.	1972.	.0467	-.1381	.0306	.0666	-.0276	-.1642	3007.	
.3430	-1303.	12.	887.	431.	1010.	2214.	.0486	-.1329	.0166	.0622	-.0375	-.1612	3491.	
.3440	-1752.	-274.	943.	501.	1216.	2380.	.0504	-.1278	.0027	.0590	-.0465	-.1552	3842.	
.3450	-2151.	-554.	909.	519.	1355.	2473.	.0520	-.1229	-.0109	.0567	-.0545	-.1460	4049.	
.3460	-2495.	-830.	800.	477.	1433.	2496.	.0535	-.1183	-.0241	.0552	-.0612	-.1336	4120.	
.3470	-2758.	-1093.	670.	381.	1454.	2452.	.0549	-.1139	-.0365	.0543	-.0658	-.1184	4062.	
.3480	-2939.	-1337.	549.	244.	1434.	2347.	.0561	-.1097	-.0479	.0541	-.0680	-.1011	3901.	
.3490	-3066.	-1568.	435.	75.	1400.	2194.	.0572	-.1058	-.0582	.0547	-.0676	-.0822	3678.	
.3500	-3156.	-1788.	341.	-118.	1372.	2008.	.0581	-.1021	-.0672	.0561	-.0643	-.0626	3439.	
.3510	-3201.	-2001.	293.	-326.	1351.	1804.	.0589	-.0986	-.0747	.0582	-.0583	-.0431	3216.	
.3520	-3198.	-2205.	286.	-534.	1338.	1594.	.0595	-.0953	-.0805	.0609	-.0498	-.0245	3034.	
.3530	-3157.	-2390.	295.	-726.	1324.	1385.	.0600	-.0921	-.0846	.0642	-.0394	-.0076	2898.	
.3540	-3082.	-2543.	306.	-891.	1316.	1181.	.0603	-.0889	-.0869	.0678	-.0280	.0069	2796.	
.3550	-2977.	-2655.	306.	-1029.	1291.	989.	.0605	-.0859	-.0872	.0713	-.0164	.0184	2718.	
.3560	-2836.	-2727.	285.	-1141.	1243.	820.	.0603	-.0829	-.0856	.0743	-.0052	.0267	2650.	
.3570	-2638.	-2749.	252.	-1222.	1156.	673.	.0597	-.0800	-.0820	.0766	.0047	.0315	2559.	
.3580	-2375.	-2701.	209.	-1265.	1018.	542.	.0587	-.0771	-.0765	.0777	.0127	.0326	2418.	
.3590	-2066.	-2576.	140.	-1273.	835.	424.	.0571	-.0741	-.0691	.0775	.0186	.0300	2232.	
.3600	-1723.	-2385.	33.	-1260.	612.	328.	.0550	-.0712	-.0601	.0754	.0219	.0242	2032.	
.3610	-1346.	-2141.	-95.	-1237.	352.	261.	.0524	-.0682	-.0497	.0714	.0229	.0157	1854.	
.3620	-940.	-1849.	-228.	-1208.	68.	219.	.0493	-.0653	-.0381	.0654	.0219	.0049	1737.	
.3630	-528.	-1513.	-363.	-1168.	-217.	196.	.0457	-.0622	-.0256	.0576	.0194	-.0077	1701.	
.3640	-125.	-1144.	-481.	-1121.	-481.	190.	.0416	-.0590	-.0125	.0483	.0161	-.0216	1744.	
.3650	262.	-764.	-553.	-1073.	-706.	204.	.0371	-.0558	.0008	.0375	.0129	-.0360	1837.	

ADLPIPE PAGE 514

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.13.

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

.3550	-2977.	-2635.	206.	-1029.	1291.	989.	.0605	-.0859	-.0872	.0713	-.0164	.0184	2718.
.3560	-2036.	-2727.	285.	-1141.	1243.	820.	.0603	-.0829	-.0856	.0743	-.0052	.0267	2650.
.3570	-2638.	-2749.	252.	-1022.	1156.	673.	.0597	-.0800	-.0820	.0766	.0047	.0315	2559.
.3580	-2375.	-2701.	209.	-1265.	1018.	542.	.0587	-.0771	-.0765	.0777	.0127	.0326	2418.
.3590	-2066.	-2576.	140.	-1273.	835.	424.	.0571	-.0741	-.0691	.0775	.0186	.0300	2232.
.3600	-1723.	-2385.	33.	-1260.	612.	328.	.0550	-.0712	-.0601	.0754	.0219	.0242	2032.
.3610	-1346.	-2141.	-95.	-1237.	352.	261.	.0524	-.0682	-.0497	.0714	.0229	.0157	1854.
.3620	-940.	-1849.	-228.	-1208.	68.	219.	.0493	-.0653	-.0381	.0654	.0219	.0049	1737.
.3630	-528.	-1513.	-363.	-1168.	-217.	196.	.0457	-.0622	-.0256	.0576	.0194	-.0077	1701.
.3640	-125.	-1144.	-481.	-1121.	-451.	170.	.0416	-.0590	-.0125	.0483	.0161	-.0216	1744.
.3650	262.	-764.	-553.	-1073.	-706.	204.	.0371	-.0558	.0008	.0375	.0129	-.0360	1837.

ADLPIPE PAGE 514

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.13.

S/RV PIPING KEWAUNEE GKWOBF 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	10	MEMBER	3	SEQUENCE	230	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	622.	-387.	-561.	-1030.	-873.	236.	.0323	-.0524	.0142	.0256	.0102	-.0504	1935.	
.3670	953.	-18.	-499.	-984.	-976.	275.	.0270	-.0488	.0272	.0130	.0086	-.0642	1996.	
.3680	1259.	346.	-371.	-929.	-1022.	308.	.0216	-.0449	.0396	-.0001	.0082	-.0770	1999.	
.3690	1535.	703.	-204.	-863.	-1021.	326.	.0159	-.0408	.0512	-.0133	.0090	-.0884	1944.	
.3700	1771.	1042.	-33.	-795.	-985.	328.	.0101	-.0365	.0616	-.0266	.0104	-.0978	1848.	
.3710	1975.	1354.	117.	-731.	-937.	315.	.0043	-.0318	.0706	-.0397	.0120	-.1048	1736.	
.3720	2156.	1639.	223.	-665.	-898.	279.	-.0015	-.0268	.0781	-.0523	.0134	-.1092	1627.	
.3730	2311.	1900.	261.	-589.	-883.	216.	-.0072	-.0215	.0840	-.0641	.0139	-.1110	1530.	
.3740	2437.	2130.	225.	-503.	-898.	125.	-.0129	-.0158	.0880	-.0748	.0132	-.1100	1464.	
.3750	2538.	2313.	129.	-413.	-946.	17.	-.0186	-.0097	.0902	-.0842	.0111	-.1063	1458.	
.3760	2611.	2435.	-14.	-321.	-1023.	-101.	-.0242	-.0032	.0906	-.0919	.0076	-.0999	1521.	
.3770	2646.	2498.	-197.	-222.	-1118.	-229.	-.0297	.0038	.0891	-.0979	.0027	-.0909	1642.	
.3780	2633.	2508.	-404.	-112.	-1218.	-366.	-.0350	.0111	.0858	-.1019	-.0033	-.0798	1804.	
.3790	2568.	2458.	-616.	2.	-1310.	-505.	-.0401	.0189	.0807	-.1040	-.0101	-.0667	1983.	
.3800	2441.	2341.	-816.	107.	-1373.	-634.	-.0448	.0271	.0739	-.1046	-.0171	-.0516	2141.	
.3810	2246.	2165.	-985.	198.	-1389.	-750.	-.0491	.0356	.0656	-.1038	-.0238	-.0350	2247.	
.3820	1991.	1948.	-1098.	277.	-1348.	-856.	-.0527	.0446	.0561	-.1021	-.0296	-.0171	2290.	
.3830	1687.	1707.	-1138.	348.	-1245.	-952.	-.0558	.0540	.0454	-.0997	-.0341	.0017	2267.	
.3840	1342.	1451.	-1099.	405.	-1075.	-1034.	-.0582	.0637	.0339	-.0970	-.0368	.0210	2183.	
.3850	967.	1188.	-977.	444.	-842.	-1097.	-.0599	.0738	.0218	-.0945	-.0377	.0405	2052.	
.3860	583.	925.	-779.	463.	-560.	-1139.	-.0608	.0841	.0093	-.0924	-.0366	.0599	1908.	
.3870	205.	675.	-530.	471.	-249.	-1160.	-.0609	.0947	-.0034	-.0909	-.0337	.0788	1803.	
.3880	-151.	446.	-261.	476.	70.	-1161.	-.0602	.1054	-.0160	-.0900	-.0296	.0968	1776.	
.3890	-476.	235.	3.	479.	376.	-1137.	-.0587	.1163	-.0283	-.0896	-.0245	.1136	1823.	
.3900	-769.	31.	235.	478.	656.	-1082.	-.0565	.1271	-.0402	-.0897	-.0188	.1289	1911.	
.3910	-1030.	-169.	418.	479.	901.	-994.	-.0536	.1377	-.0515	-.0901	-.0130	.1426	2012.	
.3920	-1252.	-362.	553.	493.	1104.	-881.	-.0502	.1480	-.0621	-.0904	-.0074	.1543	2112.	
.3930	-1432.	-547.	653.	527.	1261.	-745.	-.0466	.1579	-.0719	-.0903	-.0020	.1641	2199.	
.3940	-1582.	-736.	722.	576.	1381.	-587.	-.0427	.1673	-.0808	-.0898	.0029	.1720	2270.	
.3950	-1716.	-933.	767.	626.	1474.	-408.	-.0390	.1758	-.0886	-.0889	.0073	.1785	2334.	
.3960	-1836.	-1130.	799.	676.	1543.	-223.	-.0354	.1834	-.0954	-.0876	.0110	.1835	2401.	
.3970	-1939.	-1308.	825.	726.	1588.	-50.	-.0322	.1900	-.1011	-.0860	.0140	.1873	2467.	
.3980	-2023.	-1457.	840.	775.	1607.	96.	-.0294	.1953	-.1056	-.0841	.0161	.1902	2523.	
.3990	-2099.	-1570.	835.	809.	1605.	206.	-.0271	.1993	-.1090	-.0822	.0175	.1925	2555.	
.4000	-2173.	-1646.	807.	816.	1589.	274.	-.0254	.2019	-.1111	-.0805	.0182	.1945	2552.	

ADLPIPE PAGE 515

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.13.

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

.3930	-1432.	-547.	657.	527.	1261.	-745.	-466.	.1579	-.0719	-.0903	-.0374	.1543	2112.
.3940	-1562.	-736.	722.	576.	1381.	-587.	-427.	.1673	-.0808	-.0898	.0029	.1720	2270.
.3950	-1716.	-933.	767.	626.	1474.	-408.	-.0390	.1758	-.0886	-.0859	.0073	.1785	2334.
.3960	-1836.	-1170.	799.	676.	1543.	-223.	-.0354	.1834	-.0954	-.0876	.0110	.1835	2401.
.3970	-1939.	-1308.	825.	726.	1588.	-50.	-.0322	.1900	-.1011	-.0860	.0140	.1873	2467.
.3980	-2023.	-1457.	840.	775.	1607.	96.	-.0294	.1953	-.1056	-.0841	.0161	.1902	2523.
.3990	-2099.	-1570.	835.	809.	1605.	206.	-.0271	.1993	-.1090	-.0822	.0175	.1925	2555.
.4000	-2173.	-1646.	807.	816.	1589.	274.	-.0254	.2019	-.1111	-.0805	.0182	.1945	2552.

ADLPIPE PAGE 515

DIC/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.13.

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

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)
.1180	-10753.	-2450.	2096.	1589.	7030.	3537.	.0074	.0958	-.1961	-.1665	-.1906	-.0306	11340.

SECTION	10	MEMBER	4	SEQUENCE	841	LOCATION	END	TYPE	TE	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)	
.0000	0.	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.	
.0010	2.	-0.	-1.	-1.	-2.	0.	0.0000	-0.0000	-0.0000	-0.0000	0.0000	0.0001	-0.0000	0.0001	0.0001	0.0001	0.0000	-0.0000	-0.0000	0.0000	0.0001	0.0001	0.0001	3.
.0020	8.	-3.	-7.	-5.	-6.	1.	0.0000	-0.0000	-0.0001	-0.0000	0.0000	0.0001	-0.0000	0.0001	0.0001	0.0001	0.0000	-0.0000	-0.0001	0.0001	0.0001	0.0001	0.0001	11.
.0030	3.	-17.	-29.	-13.	-1.	-0.	0.0001	0.0000	-0.0004	0.0001	0.0004	0.0004	0.0001	0.0004	0.0004	0.0004	0.0001	0.0000	0.0004	0.0001	0.0004	0.0004	0.0004	19.
.0040	-20.	-42.	-64.	-24.	23.	-7.	0.0002	0.0001	-0.0010	0.0004	0.0009	0.0012	0.0004	0.0009	0.0012	0.0004	0.0001	-0.0010	0.0004	0.0009	0.0009	0.0012	0.0012	47.
.0050	-55.	-76.	-104.	-33.	61.	-24.	0.0003	0.0003	-0.0019	0.0010	0.0018	0.0022	0.0003	0.0003	0.0022	0.0003	0.0003	-0.0019	0.0010	0.0018	0.0018	0.0022	0.0022	104.
.0060	-113.	-122.	-156.	-47.	131.	-49.	0.0004	0.0006	-0.0032	0.0018	0.0033	0.0038	0.0004	0.0006	0.0038	0.0004	0.0006	-0.0032	0.0018	0.0033	0.0033	0.0038	0.0038	209.
.0070	-206.	-196.	-242.	-74.	242.	-78.	0.0005	0.0011	-0.0052	0.0028	0.0053	0.0063	0.0005	0.0011	0.0063	0.0005	0.0011	-0.0052	0.0028	0.0053	0.0053	0.0063	0.0063	374.
.0080	-367.	-308.	-438.	-119.	410.	-117.	0.0010	0.0019	-0.0082	0.0040	0.0079	0.0107	0.0010	0.0019	0.0107	0.0010	0.0019	-0.0082	0.0040	0.0079	0.0079	0.0107	0.0107	625.
.0090	-711.	-440.	-871.	-170.	737.	-183.	0.0021	0.0032	-0.0128	0.0054	0.0109	0.0169	0.0021	0.0032	0.0169	0.0021	0.0032	-0.0128	0.0054	0.0109	0.0109	0.0169	0.0169	1099.
.0100	-1191.	-584.	-1464.	-238.	1177.	-281.	0.0041	0.0048	-0.0188	0.0065	0.0149	0.0249	0.0041	0.0048	0.0249	0.0041	0.0048	-0.0188	0.0065	0.0149	0.0149	0.0249	0.0249	1742.
.0110	-1600.	-769.	-2000.	-358.	1531.	-383.	0.0070	0.0070	-0.0260	0.0067	0.0202	0.0349	0.0070	0.0070	0.0349	0.0070	0.0070	-0.0260	0.0067	0.0202	0.0202	0.0349	0.0349	2286.
.0120	-1845.	-1001.	-2373.	-537.	1725.	-461.	0.0108	0.0096	-0.0339	0.0058	0.0267	0.0469	0.0108	0.0096	0.0469	0.0108	0.0096	-0.0339	0.0058	0.0267	0.0267	0.0469	0.0469	2634.
.0130	-2037.	-1222.	-2616.	-737.	1885.	-528.	0.0153	0.0126	-0.0423	0.0035	0.0348	0.0597	0.0153	0.0126	0.0597	0.0153	0.0126	-0.0423	0.0035	0.0348	0.0348	0.0597	0.0597	2954.
.0140	-2338.	-1388.	-2763.	-943.	2191.	-593.	0.0202	0.0159	-0.0511	-0.0008	0.0450	0.0723	0.0202	0.0159	0.0723	0.0202	0.0159	-0.0511	-0.0008	0.0450	0.0450	0.0723	0.0723	3472.
.0150	-2817.	-1541.	-2820.	-1190.	2736.	-632.	0.0253	0.0194	-0.0601	-0.0070	0.0578	0.0852	0.0253	0.0194	0.0852	0.0253	0.0194	-0.0601	-0.0070	0.0578	0.0578	0.0852	0.0852	4309.
.0160	-3595.	-1716.	-2943.	-1489.	3651.	-629.	0.0304	0.0230	-0.0695	-0.0147	0.0730	0.0986	0.0304	0.0230	0.0986	0.0304	0.0230	-0.0695	-0.0147	0.0730	0.0730	0.0986	0.0986	5640.
.0170	-4374.	-1915.	-2892.	-1798.	4602.	-595.	0.0353	0.0268	-0.0792	-0.0226	0.0893	0.1124	0.0353	0.0268	0.1124	0.0353	0.0268	-0.0792	-0.0226	0.0893	0.0893	0.1124	0.1124	7028.
.0180	-4437.	-2175.	-2093.	-2087.	4818.	-521.	0.0401	0.0309	-0.0886	-0.0290	0.1047	0.1267	0.0401	0.0309	0.1267	0.0401	0.0309	-0.0886	-0.0290	0.1047	0.1047	0.1267	0.1267	7453.
.0190	-3480.	-2518.	-613.	-2339.	3950.	-394.	0.0454	0.0351	-0.0970	-0.0329	0.1167	0.1411	0.0454	0.0351	0.1411	0.0454	0.0351	-0.0970	-0.0329	0.1167	0.1167	0.1411	0.1411	6508.
.0200	-1421.	-2860.	1035.	-2529.	1773.	-239.	0.0526	0.0390	-0.1045	-0.0349	0.1195	0.1533	0.0526	0.0390	0.1533	0.0526	0.0390	-0.1045	-0.0349	0.1195	0.1195	0.1533	0.1533	4375.
.0210	461.	-2945.	1437.	-2615.	-558.	-167.	0.0632	0.0417	-0.1124	-0.0379	0.1090	0.1591	0.0632	0.0417	0.1591	0.0632	0.0417	-0.1124	-0.0379	0.1090	0.1090	0.1591	0.1591	3785.
.0220	1007.	-2720.	635.	-2720.	-1692.	-188.	0.0746	0.0420	-0.1191	-0.0451	0.0926	0.1565	0.0746	0.0420	0.1565	0.0746	0.0420	-0.1191	-0.0451	0.0926	0.0926	0.1565	0.1565	4532.
.0230	1337.	-2585.	23.	-3048.	-2515.	-41.	0.0843	0.0399	-0.1211	-0.0548	0.0748	0.1483	0.0843	0.0399	0.1483	0.0843	0.0399	-0.1211	-0.0548	0.0748	0.0748	0.1483	0.1483	5582.
.0240	371.	-2391.	-1783.	-3261.	-1786.	225.	0.0914	0.0354	-0.1198	-0.0612	0.0571	0.1301	0.0914	0.0354	0.1301	0.0914	0.0354	-0.1198	-0.0612	0.0571	0.0571	0.1301	0.1301	5261.
.0250	-707.	-1919.	-3020.	-3027.	-825.	430.	0.0950	0.0288	-0.1152	-0.0595	0.0389	0.1006	0.0950	0.0288	0.1006	0.0950	0.0288	-0.1152	-0.0595	0.0389	0.0389	0.1006	0.1006	4473.
.0260	1747.	-1725.	385.	-2717.	-3373.	781.	0.0936	0.0204	-0.1026	-0.0485	0.0189	0.0689	0.0936	0.0204	0.0689	0.0936	0.0204	-0.1026	-0.0485	0.0189	0.0189	0.0689	0.0689	6216.
.0270	4845.	-1985.	4841.	-2559.	-6223.	1361.	0.0858	0.0097	-0.0834	-0.0309	0.0001	0.0335	0.0858	0.0097	0.0335	0.0858	0.0097	-0.0834	-0.0309	0.0001	0.0001	0.0335	0.0335	9696.
.0280	3830.	-1851.	4355.	-2137.	-4835.	1743.	0.0756	-0.0042	-0.0663	-0.0117	-0.0256	0.0171	0.0756	-0.0042	0.0171	0.0756	-0.0042	-0.0663	-0.0117	-0.0256	-0.0256	-0.0171	-0.0171	7862.
.0290	1008.	-1114.	2011.	-1515.	-2139.	1778.	0.0660	-0.0209	-0.0522	0.0039	-0.0559	0.0748	0.0660	-0.0209	0.0748	0.0660	-0.0209	-0.0522	0.0039	-0.0559	-0.0559	-0.0748	-0.0748	4474.
.0300	-1872.	-392.	443.	-1477.	441.	2046.	0.0541	-0.0391	-0.0369	0.0153	-0.1088	0.1152	0.0541	-0.0391	0.1152	0.0541	-0.0391	-0.0369	0.0153	-0.1088	-0.1088	-0.1152	-0.1152	3619.
.0310	-3803.	-1453.	-982.	-1913.	2395.	2695.	0.0392	-0.0574	-0.0200	0.0290	-0.1453	0.1426	0.0392	-0.0574	0.1426	0.0392	-0.0574	-0.0200	0.0290	-0.1453	-0.1453	-0.1426	-0.1426	5765.
.0320	-2121.	-1843.	385.	-1717.	929.	3045.	0.0228	-0.0745	0.0005	0.0543	-0.1742	0.1766	0.0228	-0.0745	0.1766	0.0228	-0.0745	0.0005	0.0543	-0.1742	-0.1742	-0.1766	-0.1766	5109.

.0330	-1211.	-1172.	1976.	-376.	210.	2491.	.0061	-.0897	.0208	.0879	-.1900	-.2217	3577.
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.0180	-4437.	-2175.	2093.	-2087.	4218.	-521.	.0401	.0309	-.0816	-.0290	.1047	.1267	7453.
.0190	-3480.	-2518.	-813.	-2339.	3050.	-394.	.0454	.0351	-.0970	-.0329	.1167	.1411	6508.
.0200	-1421.	-2860.	1035.	-2529.	1773.	-239.	.0526	.0390	-.1045	-.0349	.1195	.1533	4375.
.0210	461.	-2945.	1437.	-2615.	-558.	-167.	.0632	.0417	-.1124	-.0379	.1090	.1591	3785.
.0220	1007.	-2720.	635.	-2720.	-1692.	-188.	.0746	.0420	-.1191	-.0451	.0926	.1565	4532.
.0230	1737.	-2585.	23.	-2648.	-2515.	-41.	.0843	.0399	-.1211	-.0548	.0748	.1483	5582.
.0240	371.	-2391.	-1783.	-3261.	-1786.	225.	.0914	.0354	-.1198	-.0612	.0571	.1301	5261.
.0250	-707.	-1919.	-3020.	-3027.	-825.	430.	.0950	.0288	-.1152	-.0595	.0389	.1006	4473.
.0260	1747.	-1725.	385.	-2717.	-3373.	781.	.0936	.0204	-.1026	-.0485	.0189	.0689	6216.
.0270	4845.	-1985.	4241.	-2559.	-6223.	1361.	.0858	.0097	-.0834	-.0309	.0001	.0335	9696.
.0280	3830.	-1851.	4355.	-2137.	-4835.	1743.	.0756	-.0042	-.0563	-.0117	-.0256	-.0171	7862.
.0290	1008.	-1114.	2011.	-1515.	-2139.	1778.	.0660	-.0209	-.0522	.0039	-.0559	-.0748	4474.
.0300	-1872.	-892.	443.	-1477.	441.	2046.	.0541	-.0391	-.0369	.0153	-.1088	-.1152	3619.
.0310	-3803.	-1452.	-932.	-1913.	2395.	2695.	.0392	-.0574	-.0200	.0290	-.1453	-.1426	5765.
.0320	-2121.	-1843.	385.	-1717.	929.	3045.	.0228	-.0745	.0005	.0543	-.1742	-.1766	5109.

.0330 -1211. -1172. 1976. -336. 310. 2491. .0061 -.0897 .0208 .0879 -.1900 -.2217 3577.

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	10	MEMBER	4	SEQUENCE	241	LOCATION	END	TYPE	TE						
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)		
.0340	-4157.	-92.	1040.	1062.	3818.	1626.	-.0111	-.1037	.0384	.1109	-.1869	-.2603	6051.		
.0350	-5835.	151.	1179.	1143.	6316.	1460.	-.0289	-.1172	.0574	.1101	-.1696	-.2736	9298.		
.0360	-3276.	-290.	4446.	520.	4555.	1844.	-.0460	-.1276	.0802	.0964	-.1482	-.2633	6979.		
.0370	-1546.	235.	6251.	1041.	3465.	1597.	-.0612	-.1329	.1017	.0861	-.1271	-.2552	5586.		
.0380	-2955.	2471.	4862.	2965.	5387.	318.	-.0752	-.1352	.1197	.0749	-.1055	-.2686	8697.		
.0390	-2376.	4515.	4668.	4216.	5108.	-753.	-.0889	-.1366	.1381	.0470	-.0884	-.2789	9416.		
.0400	1850.	4470.	5609.	3499.	700.	-544.	-.0989	-.1354	.1564	.0051	-.0892	-.2488	5099.		
.0410	3381.	4139.	2863.	2781.	-1395.	-203.	-.1049	-.1310	.1690	-.0340	-.1025	-.2064	4404.		
.0420	2961.	5910.	-1190.	3908.	-1904.	-994.	-.1077	-.1253	.1765	-.0609	-.1209	-.2018	6299.		
.0430	5470.	7731.	-3143.	5287.	-5630.	-1888.	-.1059	-.1187	.1823	-.0773	-.1456	-.2115	11231.		
.0440	7835.	7051.	-6092.	4868.	-9064.	-1592.	-.0996	-.1102	.1846	-.0886	-.1673	-.1875	14705.		
.0450	7321.	5562.	-9528.	3696.	-9256.	-909.	-.0914	-.1015	.1826	-.0975	-.1591	-.1520	14136.		
.0460	6916.	5443.	-9381.	3519.	-9206.	-840.	-.0826	-.0936	.1795	-.0993	-.1460	-.1441	13971.		
.0470	8145.	5289.	-7137.	3774.	-10369.	-704.	-.0714	-.0837	.1760	-.0861	-.1085	-.1408	15618.		
.0480	8136.	3964.	-6476.	3524.	-9882.	-47.	-.0571	-.0708	.1691	-.0622	-.0623	-.1154	14820.		
.0490	6417.	3185.	-5355.	3209.	-7575.	272.	-.0415	-.0587	.1590	-.0450	-.0062	-.0930	11627.		
.0500	5499.	3392.	-1941.	2834.	-6185.	137.	-.0248	-.0493	.1469	-.0421	.0516	-.0839	9612.		
.0510	5137.	2828.	-86.	1772.	-5416.	410.	-.0057	-.0393	.1321	-.0405	.0963	-.0576	8070.		
.0520	3940.	1938.	-967.	830.	-3952.	739.	.0153	-.0273	.1138	-.0283	.1249	-.0178	5798.		
.0530	2885.	2639.	-686.	1102.	-2925.	145.	.0350	-.0168	.0941	-.0090	.1454	-.0003	4420.		
.0540	2539.	3658.	784.	1388.	-2669.	-652.	.0521	-.0093	.0739	.0114	.1622	.0082	4348.		
.0550	2042.	2553.	549.	180.	-2019.	-454.	.0670	-.0030	.0526	.0374	.1746	.0453	2934.		
.0560	1791.	570.	393.	-1275.	-1505.	5.	.0792	.0021	.0313	.0779	.1858	.0905	2786.		
.0570	2193.	2.	2439.	-1237.	-1712.	-413.	.0884	.0048	.0106	.1352	.1998	.1044	3040.		
.0580	2038.	-397.	3715.	-723.	-1300.	-956.	.0960	.0055	-.0112	.2031	.2127	.1085	2498.		
.0590	1196.	-2549.	2772.	-1451.	-137.	-588.	.1032	.0050	-.0347	.2698	.2195	.1386	2220.		
.0600	787.	-5171.	2647.	-2838.	429.	15.	.1090	.0021	-.0582	.3256	.2220	.1749	4054.		
.0610	422.	-6566.	3623.	-3529.	732.	-32.	.1129	-.0032	-.0813	.3717	.2206	.1890	5091.		
.0620	-1022.	-7379.	2745.	-3607.	2065.	-360.	.1154	-.0080	-.1048	.4127	.2106	.1946	5892.		
.0630	-2446.	-8289.	1048.	-3678.	3320.	-512.	.1162	-.0113	-.1270	.4428	.1909	.2086	7036.		
.0640	-2984.	-8605.	1420.	-3767.	3581.	-718.	.1132	-.0151	-.1455	.4486	.1685	.2205	7431.		
.0650	-4126.	-8296.	2392.	-4006.	4508.	-984.	.1055	-.0195	-.1611	.4280	.1471	.2268	8631.		
.0660	-6158.	-8083.	2008.	-4365.	6457.	-1047.	.0944	-.0224	-.1738	.3921	.1220	.2372	11108.		
.0670	-7005.	-7574.	2162.	-4254.	7143.	-1162.	.0809	-.0228	-.1819	.3502	.0893	.2441	11856.		
.0680	-6592.	-6106.	3487.	-3376.	6377.	-1587.	.0654	-.0223	-.1855	.3005	.0505	.2348	10436.		
.0690	-6969.	-4541.	3253.	-2622.	6311.	-1817.	.0495	-.0219	-.1872	.2385	.0069	.2220	9989.		
.0700	-7966.	-3906.	1047.	-2690.	6779.	-1408.	.0346	-.0214	-.1872	.1679	-.0417	.2209	10493.		
.0710	-8073.	-3571.	-804.	-2817.	6281.	-831.	.0205	-.0207	-.1833	.0996	-.0897	.2166	9794.		

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

.0610	422.	-6566.	3223.	-3529.	732.	-32.	.1129	-.0032	-.0813	.3717	.2206	.1890	5091.
.0620	-1022.	-7379.	2745.	-3607.	2065.	-360.	.1154	-.0080	-.1048	.4127	.2106	.1946	5892.
.0630	-2446.	-8289.	1048.	-3678.	3320.	-512.	.1162	-.0113	-.1270	.4428	.1909	.2086	7036.
.0640	-2984.	-8665.	1420.	-3707.	3581.	-718.	.1172	-.0151	-.1455	.4486	.1585	.2205	7431.
.0650	-4126.	-8296.	2392.	-4006.	4508.	-984.	.1055	-.0195	-.1611	.4280	.1471	.2268	8631.
.0660	-6158.	-8093.	2008.	-4365.	6457.	-1047.	.0944	-.0224	-.1738	.3921	.1220	.2372	11108.
.0670	-7005.	-7574.	2162.	-4254.	7143.	-1162.	.0809	-.0228	-.1819	.3502	.0893	.2441	11856.
.0680	-8592.	-6106.	3487.	-3376.	6377.	-1587.	.0654	-.0223	-.1855	.3005	.0505	.2348	10436.
.0690	-8969.	-4541.	3253.	-2622.	6311.	-1817.	.0495	-.0219	-.1872	.2385	.0069	.2220	9989.
.0700	-7966.	-2906.	1047.	-2690.	6779.	-1408.	.0746	-.0214	-.1872	.1679	-.0417	.2209	10493.
.0710	-8077.	-3571.	-204.	-2317.	6281.	-831.	.0205	-.0207	-.1833	.0996	-.0897	.2166	9794.

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DIS/ADLPIPE

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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	10	MEMBER	4	SEQUENCE	841	LOCATION	END	TYPE	TE						
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)		
.0720	-7549.	-2624.	-1879.	-2033.	5335.	-623.	.0061	-.0200	-.1747	.0440	-.1275	.1887	8112.		
.0730	-6737.	-1554.	-2833.	-643.	4480.	-512.	-.0084	-.0190	-.1614	.0035	-.1512	.1454	6434.		
.0740	-5037.	-1143.	-2932.	501.	3008.	-43.	-.0216	-.0177	-.1432	-.0281	-.1625	.1056	4307.		
.0750	-3419.	-1065.	-2313.	1274.	1799.	669.	-.0334	-.0172	-.1217	-.0587	-.1609	.0692	3255.		
.0760	-3160.	-692.	-2224.	2032.	2184.	1312.	-.0435	-.0177	-.0980	-.0899	-.1465	.0267	4603.		
.0770	-2827.	-94.	-2026.	2885.	2651.	1855.	-.0518	-.0185	-.0716	-.1180	-.1257	-.0205	6124.		
.0780	-908.	532.	-571.	3763.	1467.	2329.	-.0575	-.0189	-.0419	-.1408	-.1064	-.0655	6585.		
.0790	865.	1473.	732.	4649.	269.	2600.	-.0605	-.0198	-.0114	-.1628	-.0913	-.1097	7533.		
.0800	736.	2870.	443.	5338.	840.	2658.	-.0613	-.0229	.0174	-.1900	-.0798	-.1550	8506.		
.0810	287.	4168.	-47.	5462.	1559.	2750.	-.0606	-.0282	.0454	-.2203	-.0737	-.1943	8914.		
.0820	1003.	4991.	495.	5154.	934.	2927.	-.0590	-.0346	.0737	-.2425	-.0741	-.2240	8475.		
.0830	1778.	5834.	1172.	5116.	172.	2825.	-.0571	-.0420	.1012	-.2469	-.0776	-.2556	8258.		
.0840	1916.	7007.	1581.	5526.	-12.	2303.	-.0551	-.0508	.1266	-.2336	-.0815	-.2957	8456.		
.0850	2228.	7681.	2225.	5539.	-514.	1865.	-.0520	-.0615	.1492	-.2093	-.0866	-.3290	8287.		
.0860	2564.	7122.	2490.	4543.	-1178.	1918.	-.0470	-.0733	.1685	-.1777	-.0929	-.3399	7161.		
.0870	2328.	5975.	1859.	3169.	-1342.	2100.	-.0402	-.0856	.1835	-.1368	-.0974	-.3388	5695.		
.0880	2340.	5140.	1232.	2277.	-1843.	1903.	-.0317	-.0975	.1950	-.0838	-.0991	-.3412	4935.		
.0890	3157.	4373.	760.	1693.	-3236.	1461.	-.0210	-.1079	.2029	-.0224	-.0985	-.3405	5556.		
.0900	3752.	3161.	-551.	761.	-4387.	1131.	-.0085	-.1166	.2064	.0368	-.0933	-.3235	6489.		
.0910	3657.	1851.	-2273.	-535.	-4746.	844.	.0046	-.1239	.2054	.0847	-.0789	-.2932	6851.		
.0920	3765.	917.	-3076.	-1730.	-5164.	375.	.0169	-.1293	.2015	.1216	-.0537	-.2577	7710.		
.0930	4454.	274.	-3104.	-2524.	-5941.	-280.	.0281	-.1311	.1953	.1542	-.0197	-.2174	9126.		
.0940	5283.	-87.	-2960.	-2849.	-6619.	-1117.	.0378	-.1288	.1867	.1830	.0208	-.1740	10300.		
.0950	6120.	-9.	-2326.	-2902.	-7095.	-2121.	.0459	-.1237	.1750	.2006	.0552	-.1317	11234.		
.0960	6426.	118.	-1467.	-3179.	-7251.	-2998.	.0527	-.1165	.1599	.2019	.1090	-.0841	11958.		
.0970	6203.	-181.	-1331.	-3865.	-6799.	-3484.	.0588	-.1068	.1409	.1905	.1473	-.0262	12093.		
.0980	5786.	-519.	-1538.	-4378.	-6171.	-3813.	.0634	-.0945	.1191	.1748	.1786	.0298	11967.		
.0990	5678.	-385.	-1106.	-4208.	-5878.	-4278.	.0658	-.0799	.0959	.1595	.2034	.0701	11865.		
.1000	5449.	-226.	-428.	-3750.	-5453.	-4632.	.0657	-.0635	.0716	.1436	.2217	.1006	11410.		
.1010	4705.	-656.	-94.	-3635.	-4463.	-4495.	.0632	-.0459	.0463	.1230	.2328	.1318	10316.		
.1020	3910.	-1384.	479.	-3743.	-3426.	-3969.	.0583	-.0276	.0210	.0961	.2358	.1583	9099.		
.1030	3318.	-1848.	1453.	-3550.	-2672.	-3366.	.0515	-.0086	-.0037	.0665	.2287	.1711	7873.		
.1040	2525.	-2066.	1911.	-2964.	-1836.	-2722.	.0438	.0116	-.0277	.0372	.2085	.1734	6248.		
.1050	1620.	-2259.	1705.	-2321.	-1056.	-1924.	.0360	.0326	-.0509	.0048	.1743	.1712	4513.		
.1060	1006.	-2396.	1471.	-1919.	-768.	-959.	.0286	.0528	-.0729	-.0367	.1282	.1655	3218.		
.1070	122.	-2444.	789.	-1785.	-342.	119.	.0219	.0717	-.0938	-.0868	.0741	.1575	2572.		
.1080	-895.	-2455.	-635.	-1703.	99.	1232.	.0170	.0897	-.1138	-.1376	.0128	.1496	2972.		
.1090	-1303.	-2234.	-2491.	-1368.	-301.	2183.	.0163	.1063	-.1333	-.1825	-.0562	.1387	3664.		

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DIS/ADLPIPE

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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

.0990	5678.	-385.	1106.	-4208.	-5878.	-4278.	.0658	-.0799	.0959	.1595	.2034	.0701	11865.
.1000	5449.	-226.	-428.	-3750.	-5453.	-4632.	.0657	-.0635	.0716	.1436	.2217	.1006	11410.
.1010	4705.	-656.	-94.	-3635.	-4463.	-4495.	.0632	-.0459	.0463	.1230	.2328	.1318	10316.
.1020	3910.	-1384.	479.	-3747.	-3426.	-3969.	.0583	-.0276	.0210	.0961	.2358	.1583	9099.
.1030	3318.	-1848.	1453.	-3550.	-2672.	-3366.	.0515	-.0086	-.0037	.0665	.2287	.1711	7873.
.1040	2325.	-2066.	1911.	-2964.	-1836.	-2722.	.0438	.0116	-.0277	.0372	.2085	.1734	6248.
.1050	1620.	-2259.	1705.	-2321.	-1056.	-1924.	.0360	.0326	-.0509	.0048	.1743	.1712	4513.
.1060	1006.	-2396.	1471.	-1919.	-768.	-959.	.0286	.0528	-.0729	-.0367	.1282	.1655	3218.
.1070	122.	-2444.	789.	-1785.	-342.	119.	.0219	.0717	-.0938	-.0868	.0741	.1575	2572.
.1080	-895.	-2455.	-635.	-1703.	99.	1232.	.0170	.0297	-.1138	-.1376	.0128	.1496	2972.
.1090	-1303.	-2234.	-2491.	-1368.	-301.	2183.	.0163	.1063	-.1333	-.1825	-.0562	.1387	3664.

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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

PRESSURE

ENGLISH UNITS

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

SECTION	10	MEMBER	4	SEQUENCE	841	LOCATION	END	TYPE	TE						
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	-3540.	-1340.	-4645.	-686.	1428.	2655.		.0147	.1194	-.1515	-.2234	-.1103	.1139	4368.	
.1110	-4861.	-819.	-4808.	-395.	2599.	3150.		.0118	.1287	-.1657	-.2583	-.1475	.0894	5795.	
.1120	-4582.	-1276.	-3238.	-622.	2512.	3935.		.0087	.1354	-.1759	-.2790	-.1707	.0771	6653.	
.1130	-5140.	-1547.	-1916.	-386.	3548.	4378.		.0051	.1394	-.1841	-.2812	-.1792	.0614	7978.	
.1140	-6682.	-949.	-555.	589.	5664.	4143.		.0014	.1396	-.1913	-.2691	-.1761	.0315	9947.	
.1150	-7656.	-736.	969.	1138.	7171.	3907.		-.0013	.1361	-.1968	-.2504	-.1694	.0078	11646.	
.1160	-8467.	-1699.	1502.	651.	8489.	4066.		-.0033	.1299	-.2007	-.2275	-.1628	.0053	13327.	
.1170	-9115.	-2607.	1924.	146.	9516.	3987.		-.0055	.1215	-.2024	-.1987	-.1559	.0051	14575.	
.1180	-10753.	-2450.	2096.	488.	11584.	3211.		-.0104	.1113	-.2011	-.1624	-.1425	-.0088	16993.	
.1190	-10050.	-2329.	3751.	925.	11242.	2432.		-.0169	.1009	-.1944	-.1214	-.1308	-.0182	16298.	
.1200	-8264.	-2981.	5048.	756.	9741.	2097.		-.0242	.0911	-.1837	-.0823	-.1239	-.0075	14114.	
.1210	-9021.	-3312.	3833.	483.	10701.	1640.		-.0322	.0807	-.1723	-.0523	-.1168	.0071	15307.	
.1220	-8707.	-2736.	4039.	465.	10266.	743.		-.0399	.0692	-.1574	-.0332	-.1118	.0100	14553.	
.1230	-7515.	-2377.	3956.	245.	8887.	-28.		-.0468	.0586	-.1390	-.0184	-.1090	.0163	12558.	
.1240	-5598.	-2543.	3039.	-153.	6769.	-495.		-.0522	.0503	-.1175	-.0031	-.1085	.0312	9590.	
.1250	-3670.	-1993.	2537.	-21.	4522.	-1237.		-.0561	.0430	-.0936	.0092	-.1049	.0358	6621.	
.1260	-3140.	-783.	1607.	372.	3661.	-2154.		-.0588	.0360	-.0688	.0130	-.0937	.0303	6023.	
.1270	-1003.	-479.	1061.	-16.	1069.	-2433.		-.0576	.0303	-.0425	.0093	-.0851	.0364	3754.	
.1280	402.	-837.	-1115.	-828.	-761.	-2292.		-.0528	.0266	-.0169	.0026	-.0754	.0500	3606.	
.1290	1364.	-275.	-2581.	-920.	-2180.	-2592.		-.0460	.0237	.0086	-.0055	-.0589	.0440	4957.	
.1300	2958.	813.	-2494.	-593.	-4195.	-3059.		-.0378	.0220	.0346	-.0162	-.0358	.0251	7382.	
.1310	3411.	964.	-3750.	-891.	-4697.	-2850.		-.0291	.0224	.0596	-.0310	-.0051	.0206	7861.	
.1320	4744.	620.	-3805.	-1570.	-5906.	-2189.		-.0206	.0244	.0848	-.0508	.0299	.0241	9168.	
.1330	5600.	1145.	-2740.	-1645.	-6533.	-1886.		-.0135	.0270	.1091	-.0740	.0701	.0136	9882.	
.1340	6391.	2116.	-1470.	-1294.	-7078.	-1819.		-.0070	.0308	.1315	-.0968	.1070	-.0055	10483.	
.1350	7430.	2543.	-1174.	-1220.	-7896.	-1487.		-.0003	.0360	.1510	-.1188	.1326	-.0163	11479.	
.1360	7317.	2937.	-2020.	-1267.	-7638.	-1114.		.0051	.0413	.1666	-.1435	.1502	-.0243	11049.	
.1370	8142.	3820.	-1278.	-1127.	-8421.	-967.		.0089	.0456	.1795	-.1704	.1592	-.0388	12078.	
.1380	7985.	4470.	-1537.	-1014.	-8203.	-757.		.0102	.0497	.1886	-.1915	.1513	-.0495	11724.	
.1390	7890.	4556.	-2273.	-923.	-7935.	-406.		.0088	.0542	.1944	-.2002	.1563	-.0542	11299.	
.1400	8617.	4837.	-1502.	-410.	-8457.	-334.		.0041	.0578	.1978	-.1973	.1476	-.0672	11969.	
.1410	8159.	5337.	-745.	364.	-7682.	-516.		-.0045	.0599	.1971	-.1870	.1390	-.0868	10887.	
.1420	8102.	5132.	241.	713.	-7346.	-422.		-.0146	.0613	.1924	-.1711	.1235	-.0961	10441.	
.1430	7407.	4743.	243.	787.	-6401.	-100.		-.0256	.0626	.1829	-.1492	.1011	-.0944	9110.	
.1440	6624.	3952.	544.	1256.	-5513.	-64.		-.0371	.0635	.1692	-.1226	.0735	-.0979	7987.	
.1450	5862.	3880.	1100.	1978.	-4778.	-230.		-.0486	.0642	.1516	-.0942	.0417	-.1055	7315.	
.1460	4133.	3290.	325.	2280.	-3068.	-294.		-.0596	.0656	.1299	-.0675	.0075	-.1010	5415.	
.1470	3532.	2309.	394.	2181.	-2653.	-108.		-.0689	.0677	.1059	-.0452	-.0303	-.0849	4854.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.14.

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

.1370	8142.	3820.	278.	-1127.	-8421.	-967.	.089	.0456	.1795	-.1704	.1592	-.0388	12078.
.1380	7985.	4470.	-1537.	-1014.	-8203.	-757.	.102	.0497	.1886	-.1915	.1513	-.0495	11724.
.1390	7890.	4556.	-2273.	-923.	-7935.	-406.	.0088	.0542	.1944	-.2002	.1563	-.0542	11299.
.1400	8617.	4317.	-1507.	-410.	-1457.	-334.	.0041	.0578	.1978	-.1973	.1476	-.0672	11969.
.1410	8159.	5317.	-745.	364.	-7682.	-516.	-.0045	.0599	.1971	-.1870	.1390	-.0868	10887.
.1420	8102.	5132.	241.	713.	-7346.	-422.	-.0146	.0613	.1924	-.1711	.1235	-.0961	10441.
.1430	7407.	4343.	243.	787.	-6401.	-100.	-.0256	.0626	.1829	-.1492	.1011	-.0944	9110.
.1440	6624.	3952.	544.	1256.	-5513.	-64.	-.0371	.0635	.1692	-.1226	.0735	-.0979	7987.
.1450	5862.	3830.	1100.	1978.	-4772.	-230.	-.0456	.0642	.1516	-.0942	.0417	-.1055	7315.
.1460	4133.	3290.	325.	2889.	-3068.	-294.	-.0596	.0656	.1299	-.0675	.0075	-.1010	5415.
.1470	3532.	2309.	304.	2101.	-2653.	-108.	-.0689	.0677	.1059	-.0452	-.0303	-.0849	4854.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.14.

S/RV PIPING KEWAUNEE GKWOBF 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	TO	MEMBER	4	SEQUENCE	841	LOCATION	END	TYPE	TF						
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)		
.1480	1969.	1771.	222.	2270.	-1287.	-108.	-.0773	.0702	.0791	-.0280	-.0535	-.0688	3689.		
.1490	3.	1544.	54.	2516.	526.	-222.	-.0847	.0736	.0506	-.0149	-.0904	-.0517	3644.		
.1500	-986.	988.	562.	2513.	1406.	-163.	-.0901	.0781	.0222	-.0045	-.1120	-.0248	4074.		
.1510	-2366.	311.	810.	2374.	2806.	-83.	-.0940	.0834	-.0064	.0028	-.1239	.0078	5193.		
.1520	-3156.	-5.	1878.	2376.	3589.	-223.	-.0955	.0887	-.0342	.0066	-.1280	.0362	6088.		
.1530	-4508.	-185.	2145.	2382.	4978.	-448.	-.0944	.0938	-.0618	.0077	-.1246	.0638	7821.		
.1540	-5027.	-685.	2223.	2134.	5453.	-519.	-.0897	.0992	-.0879	.0078	-.1194	.0973	8303.		
.1550	-4935.	-1223.	2189.	1847.	5195.	-589.	-.0818	.1046	-.1123	.0081	-.1130	.1313	7832.		
.1560	-6282.	-1397.	784.	1772.	6423.	-859.	-.0724	.1094	-.1356	.0083	-.1003	.1580	9490.		
.1570	-6241.	-1617.	401.	1618.	6205.	-1093.	-.0614	.1136	-.1551	.0085	-.0858	.1808	9188.		
.1580	-5898.	-2230.	-66.	1213.	5786.	-1095.	-.0500	.1177	-.1710	.0099	-.0679	.2060	8493.		
.1590	-6392.	-2766.	-1002.	918.	6384.	-1071.	-.0397	.1216	-.1832	.0129	-.0444	.2273	9235.		
.1600	-5786.	-2889.	-280.	917.	5898.	-1143.	-.0308	.1251	-.1904	.0158	-.0190	.2384	8584.		
.1610	-4445.	-3075.	911.	840.	4658.	-1052.	-.0225	.1282	-.1933	.0173	.0028	.2477	6848.		
.1620	-4819.	-3448.	-23.	528.	5168.	-752.	-.0148	.1310	-.1944	.0154	.0198	.2595	7414.		
.1630	-4449.	-3465.	-74.	254.	4718.	-518.	-.0075	.1325	-.1921	.0082	.0289	.2637	6713.		
.1640	-3867.	-3166.	273.	55.	3940.	-346.	-.0010	.1325	-.1866	-.0022	.0322	.2604	5587.		
.1650	-4218.	-3069.	-599.	-265.	4181.	-12.	.0042	.1315	-.1787	-.0114	.0325	.2581	5917.		
.1660	-3509.	-3011.	-463.	-546.	3347.	363.	.0084	.1292	-.1669	-.0171	.0299	.2521	4817.		
.1670	-3113.	-2570.	137.	-531.	2913.	522.	.0108	.1247	-.1520	-.0191	.0304	.2355	4247.		
.1680	-2728.	-2128.	1000.	-500.	2563.	629.	.0121	.1179	-.1346	-.0172	.0332	.2138	3794.		
.1690	-2998.	-2066.	1037.	-690.	3004.	849.	.0127	.1091	-.1156	-.0108	.0385	.1942	4516.		
.1700	-2745.	-2008.	1582.	-822.	2931.	984.	.0130	.0982	-.0943	.0004	.0452	.1709	4520.		
.1710	-922.	-1663.	3420.	-673.	1136.	892.	.0139	.0853	-.0709	.0162	.0498	.1398	2251.		
.1720	-1105.	-1277.	2748.	-428.	1412.	700.	.0153	.0710	-.0486	.0349	.0552	.1086	2307.		
.1730	-900.	-1040.	1864.	-362.	1200.	538.	.0178	.0555	-.0262	.0522	.0585	.0807	1927.		
.1740	180.	-803.	1762.	-426.	33.	355.	.0205	.0387	-.0030	.0659	.0618	.0538	784.		
.1750	734.	-492.	1018.	-431.	-533.	111.	.0226	.0216	.0196	.0782	.0573	.0274	981.		
.1760	1771.	-106.	495.	-259.	-1576.	-190.	.0244	.0049	.0421	.0908	.0723	.0016	2272.		
.1770	2245.	435.	-280.	82.	-1978.	-563.	.0247	-.0112	.0635	.1019	.0790	-.0235	2908.		
.1780	3361.	964.	-92.	334.	-3047.	-874.	.0235	-.0271	.0842	.1077	.0847	-.0459	4502.		
.1790	3756.	1285.	-435.	355.	-3335.	-1022.	.0207	-.0423	.1028	.1083	.0890	-.0621	4953.		
.1800	3584.	1542.	-1142.	361.	-3043.	-1114.	.0160	-.0565	.1190	.1065	.0901	-.0752	4605.		
.1810	4808.	1937.	-400.	574.	-4322.	-1279.	.0101	-.0695	.1339	.1047	.0832	-.0903	6418.		
.1820	4889.	2388.	-740.	917.	-4466.	-1474.	.0029	-.0814	.1453	.1026	.0712	-.1052	6768.		
.1830	4684.	2683.	-1431.	1122.	-4401.	-1561.	-.0052	-.0923	.1536	.0978	.0528	-.1171	6783.		
.1840	4599.	2818.	-1789.	1143.	-4540.	-1530.	-.0138	-.1024	.1591	.0898	.0299	-.1256	6957.		
.1850	4289.	2675.	-2105.	1148.	-4449.	-1455.	-.0230	-.1113	.1620	.0815	.0054	-.1327	6808.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.14.

S/RV PIPING KEWAUNEE GKWOBF 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

.1750	724.	-492.	1118.	-431.	-533.	-492.	111.	.0226	.0216	.0196	.0782	.0573	.0274	981.
.1760	1771.	-106.	495.	-219.	-1576.	-190.	.0244	.0049	.0421	.0908	.0723	.0016	2272.	
.1770	2245.	435.	-280.	82.	-1978.	-563.	.0247	-.0112	.0635	.1019	.0790	-.0235	2908.	
.1780	3761.	964.	-92.	324.	-3047.	-874.	.0235	-.0271	.0842	.1077	.0847	-.0459	4502.	
.1790	3756.	1285.	-433.	355.	-3335.	-1022.	.0207	-.0423	.1028	.1083	.0890	-.0621	4953.	
.1800	3584.	1542.	-1142.	361.	-3043.	-1114.	.0160	-.0565	.1190	.1065	.0901	-.0752	4605.	
.1810	4808.	1937.	-400.	574.	-4322.	-1279.	.0101	-.0695	.1339	.1047	.0832	-.0903	6418.	
.1820	4889.	2388.	-740.	917.	-4466.	-1474.	.0029	-.0814	.1453	.1026	.0712	-.1052	6768.	
.1830	4684.	2683.	-1431.	1122.	-4401.	-1561.	-.0052	-.0923	.1536	.0978	.0528	-.1171	6783.	
.1840	4599.	2818.	-1789.	1142.	-4540.	-1530.	-.0138	-.1024	.1591	.0898	.0299	-.1256	6957.	
.1850	4789.	2875.	-2105.	1140.	-4449.	-1455.	-.0230	-.1113	.1620	.0815	.0054	-.1327	6808.	

ADLPIPE PAGE 520 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.26.14.

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	4	SEQUENCE	841	LOCATION	END	TYPE	TL						
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	4317.	2940.	-2039.	1319.	-4666.	-1409.	-.0320	-.1184	.1630	.0758	-.0193	-.1414	7132.		
.1870	3604.	3121.	-2346.	1709.	-3985.	-1442.	-.0409	-.1239	.1617	.0724	-.0393	-.1530	6454.		
.1880	3620.	3292.	-1573.	2096.	-3981.	-1448.	-.0489	-.1277	.1593	.0681	-.0553	-.1644	6676.		
.1890	3495.	3259.	-806.	2273.	-3748.	-1298.	-.0552	-.1298	.1552	.0611	-.0564	-.1708	6457.		
.1900	2639.	3153.	-806.	2361.	-2690.	-1067.	-.0593	-.1299	.1489	.0520	-.0728	-.1741	5276.		
.1910	2636.	3235.	-129.	2595.	-2557.	-904.	-.0604	-.1279	.1414	.0421	-.0778	-.1794	5302.		
.1920	2477.	3439.	187.	2927.	-2290.	-778.	-.0586	-.1240	.1322	.0318	-.0807	-.1846	5363.		
.1930	2141.	3489.	3.	3081.	-1875.	-531.	-.0538	-.1182	.1210	.0196	-.0821	-.1850	5149.		
.1940	1984.	3361.	-117.	2978.	-1691.	-142.	-.0464	-.1113	.1084	.0047	-.0318	-.1806	4841.		
.1950	1750.	3174.	-204.	2768.	-1451.	302.	-.0370	-.1035	.0944	-.0105	-.0788	-.1737	4435.		
.1960	1233.	2939.	-452.	2578.	-899.	757.	-.0262	-.0948	.0791	-.0221	-.0724	-.1651	4002.		
.1970	874.	2591.	-414.	2385.	-476.	1221.	-.0146	-.0855	.0631	-.0289	-.0530	-.1548	3843.		
.1980	792.	2096.	123.	2092.	-327.	1690.	-.0026	-.0764	.0467	-.0316	-.0513	-.1423	3826.		
.1990	430.	1460.	597.	1649.	83.	2146.	.0096	-.0679	.0292	-.0312	-.0386	-.1266	3824.		
.2000	-352.	749.	712.	1110.	868.	2545.	.0218	-.0603	.0107	-.0275	-.0265	-.1080	4110.		
.2010	-1117.	53.	786.	575.	1565.	2831.	.0338	-.0536	-.0083	-.0196	-.0163	-.0876	4641.		
.2020	-1777.	-592.	891.	87.	2104.	2969.	.0450	-.0480	-.0271	-.0075	-.0079	-.0660	5141.		
.2030	-2505.	-1193.	889.	-371.	2692.	2955.	.0547	-.0436	-.0455	.0083	-.0008	-.0429	5670.		
.2040	-3164.	-1742.	929.	-813.	3204.	2795.	.0627	-.0406	-.0630	.0266	.0056	-.0187	6114.		
.2050	-3687.	-2235.	1043.	-1232.	3588.	2509.	.0687	-.0389	-.0792	.0470	.0115	.0062	6424.		
.2060	-4208.	-2673.	1068.	-1590.	3999.	2118.	.0726	-.0384	-.0937	.0696	.0172	.0317	6775.		
.2070	-4590.	-3045.	1110.	-1849.	4297.	1637.	.0743	-.0388	-.1061	.0944	.0227	.0571	7000.		
.2080	-4576.	-3360.	1323.	-2017.	4201.	1090.	.0742	-.0401	-.1162	.1208	.0273	.0812	6760.		
.2090	-4373.	-3668.	1397.	-2151.	3914.	520.	.0729	-.0422	-.1240	.1475	.0308	.1036	6351.		
.2100	-4283.	-3978.	1075.	-2282.	3740.	-44.	.0707	-.0449	-.1296	.1730	.0334	.1241	6189.		
.2110	-4061.	-4258.	677.	-2395.	3422.	-580.	.0679	-.0480	-.1328	.1963	.0355	.1415	5957.		
.2120	-3537.	-4499.	372.	-2463.	2805.	-1052.	.0651	-.0512	-.1332	.2167	.0375	.1552	5478.		
.2130	-3001.	-4682.	-57.	-2471.	2216.	-1440.	.0623	-.0542	-.1311	.2333	.0403	.1646	5110.		
.2140	-2605.	-4748.	-509.	-2419.	1826.	-1751.	.0595	-.0569	-.1264	.2440	.0451	.1687	4944.		
.2150	-2189.	-4693.	-649.	-2353.	1482.	-1961.	.0569	-.0592	-.1189	.2472	.0525	.1673	4807.		
.2160	-1712.	-4563.	-501.	-2306.	1158.	-2027.	.0543	-.0609	-.1085	.2422	.0520	.1615	4635.		
.2170	-1318.	-4303.	-262.	-2213.	990.	-1967.	.0518	-.0616	-.0957	.2295	.0726	.1506	4410.		
.2180	-998.	-3800.	104.	-1995.	918.	-1845.	.0493	-.0616	-.0806	.2093	.0824	.1334	4051.		
.2190	-724.	-3097.	532.	-1705.	867.	-1652.	.0467	-.0608	-.0636	.1818	.0892	.1108	3570.		
.2200	-567.	-2342.	753.	-1455.	887.	-1337.	.0439	-.0594	-.0452	.1479	.0913	.0850	3060.		
.2210	-443.	-1556.	784.	-1223.	873.	-929.	.0405	-.0576	-.0258	.1098	.0872	.0563	2495.		
.2220	-195.	-671.	800.	-895.	638.	-511.	.0362	-.0555	-.0056	.0706	.0764	.0234	1712.		
.2230	91.	265.	661.	-452.	280.	-101.	.0307	-.0532	.0148	.0330	.0592	-.0128	765.		

ADLPIPE PAGE 521 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.26.14.

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

.2120	-3537.	-4499.	-77.	-2463.	2005.	-1052.	.0651	-.0512	-.1332	.2167	.0375	.1552	5478.
.2130	-3001.	-4682.	-57.	-2471.	2216.	-1440.	.0623	-.0542	-.1311	.2332	.0403	.1646	5110.
.2140	-2605.	-4748.	-509.	-2419.	1826.	-1751.	.0595	-.0569	-.1264	.2440	.0451	.1687	4944.
.2150	-2189.	-4692.	-649.	-2353.	1432.	-1961.	.0569	-.0592	-.1185	.2472	.0525	.1673	4807.
.2160	-1712.	-4583.	-501.	-2306.	1158.	-2027.	.0543	-.0609	-.1085	.2422	.0520	.1615	4635.
.2170	-1218.	-4383.	-262.	-2213.	990.	-1967.	.0518	-.0616	-.0957	.2295	.0726	.1506	4410.
.2180	-992.	-4390.	104.	-1995.	918.	-1845.	.0493	-.0616	-.0806	.2092	.0824	.1334	4051.
.2190	-724.	-3097.	532.	-1705.	867.	-1652.	.0467	-.0600	-.0676	.1818	.0892	.1108	3570.
.2200	-567.	-2342.	753.	-1455.	827.	-1337.	.0429	-.0594	-.0452	.1479	.0913	.0850	3060.
.2210	-447.	-1556.	784.	-1223.	873.	-929.	.0405	-.0576	-.0258	.1098	.0872	.0563	2495.
.2220	-195.	-671.	700.	-895.	638.	-511.	.0362	-.0555	-.0056	.0706	.0764	.0234	1712.
.2230	91.	265.	661.	-452.	280.	-101.	.0307	-.0532	.0146	.0330	.0592	-.0128	765.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.14.

S/RV PIPING KEMAUWEE GKW0FF 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	4	SEQUENCE	841	LOCATION	END	TYPE	TE						
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)		
.2240	314.	1121.	14.	21.	-66.	334.	.0240	-.0511	.0349	-.0012	.0367	-.0497	482.		
.2250	613.	1840.	-151.	466.	-549.	788.	.0160	-.0493	.0546	-.0313	.0109	-.0859	1487.		
.2260	1071.	2424.	-386.	893.	-1137.	1219.	.0067	-.0480	.0734	-.0561	-.0161	-.1208	2672.		
.2270	1567.	2883.	-622.	1337.	-1773.	1587.	-.0034	-.0470	.0908	-.0742	-.0426	-.1535	3855.		
.2280	2041.	3251.	-911.	1811.	-2357.	1860.	-.0135	-.0463	.1064	-.0856	-.0571	-.1827	4953.		
.2290	2501.	3550.	-1123.	2260.	-2897.	2030.	-.0233	-.0458	.1198	-.0921	-.0878	-.2069	5930.		
.2300	2854.	3739.	-1276.	2581.	-3276.	2125.	-.0322	-.0457	.1307	-.0956	-.1028	-.2241	6612.		
.2310	3068.	3803.	-1388.	2746.	-3435.	2149.	-.0398	-.0456	.1390	-.0967	-.1108	-.2332	6914.		
.2320	3264.	3832.	-1290.	2845.	-3493.	2049.	-.0460	-.0455	.1447	-.0951	-.1111	-.2356	6990.		
.2330	3441.	3907.	-925.	2947.	-3455.	1789.	-.0506	-.0451	.1479	-.0911	-.1036	-.2327	6894.		
.2340	3480.	3974.	-448.	2983.	-3215.	1423.	-.0535	-.0444	.1485	-.0855	-.0892	-.2236	6513.		
.2350	3424.	3933.	88.	2849.	-2852.	1032.	-.0548	-.0435	.1465	-.0798	-.0697	-.2075	5878.		
.2360	3364.	3780.	681.	2550.	-2513.	632.	-.0543	-.0423	.1418	-.0737	-.0478	-.1853	5135.		
.2370	3227.	3571.	1139.	2183.	-2167.	196.	-.0523	-.0407	.1346	-.0662	-.0259	-.1596	4354.		
.2380	2992.	3316.	1313.	1802.	-1823.	-273.	-.0488	-.0387	.1248	-.0565	-.0062	-.1324	3642.		
.2390	2803.	2957.	1281.	1366.	-1651.	-719.	-.0440	-.0362	.1129	-.0449	.0093	-.1040	3193.		
.2400	2672.	2444.	1069.	829.	-1668.	-1089.	-.0383	-.0331	.0991	-.0323	.0197	-.0745	3048.		
.2410	2444.	1811.	577.	229.	-1703.	-1378.	-.0319	-.0294	.0836	-.0190	.0250	-.0449	3111.		
.2420	2129.	1143.	-118.	-336.	-1735.	-1617.	-.0252	-.0248	.0669	-.0051	.0258	-.0175	3383.		
.2430	1872.	494.	-785.	-810.	-1873.	-1815.	-.0183	-.0191	.0493	.0089	.0230	.0066	3858.		
.2440	1677.	-135.	-1329.	-1211.	-2073.	-1948.	-.0115	-.0122	.0315	.0214	.0184	.0280	4367.		
.2450	1445.	-733.	-1760.	-1567.	-2199.	-1993.	-.0048	-.0040	.0135	.0307	.0132	.0472	4741.		
.2460	1129.	-1249.	-2065.	-1872.	-2182.	-1955.	.0018	.0054	-.0044	.0353	.0088	.0642	4911.		
.2470	704.	-1646.	-2247.	-2103.	-1971.	-1847.	.0083	.0161	-.0219	.0346	.0062	.0789	4836.		
.2480	170.	-1926.	-2285.	-2254.	-1541.	-1675.	.0146	.0279	-.0388	.0290	.0065	.0916	4524.		
.2490	-344.	-2107.	-2046.	-2335.	-1004.	-1441.	.0205	.0406	-.0547	.0188	.0101	.1023	4127.		
.2500	-763.	-2218.	-1495.	-2361.	-446.	-1149.	.0259	.0540	-.0694	.0048	.0170	.1112	3762.		
.2510	-1248.	-2282.	-854.	-2347.	281.	-811.	.0305	.0675	-.0828	-.0119	.0263	.1185	3530.		
.2520	-1889.	-2313.	-248.	-2299.	1246.	-446.	.0340	.0807	-.0950	-.0302	.0372	.1240	3748.		
.2530	-2476.	-2337.	466.	-2226.	2210.	-66.	.0362	.0932	-.1056	-.0489	.0483	.1275	4431.		
.2540	-2827.	-2389.	1323.	-2132.	2951.	318.	.0369	.1047	-.1143	-.0664	.0578	.1293	5163.		
.2550	-3036.	-2460.	2092.	-2003.	3518.	675.	.0359	.1149	-.1214	-.0819	.0635	.1291	5797.		
.2560	-3231.	-2494.	2594.	-1829.	3989.	987.	.0334	.1235	-.1270	-.0956	.0641	.1265	6346.		
.2570	-3383.	-2492.	2831.	-1658.	4297.	1198.	.0295	.1303	-.1310	-.1082	.0584	.1223	6722.		
.2580	-3434.	-2513.	2800.	-1556.	4378.	1406.	.0243	.1351	-.1336	-.1204	.0463	.1181	6856.		
.2590	-3384.	-2536.	2512.	-1494.	4241.	1573.	.0182	.1382	-.1346	-.1317	.0286	.1139	6729.		
.2600	-3261.	-2451.	2068.	-1380.	3928.	1639.	.0114	.1397	-.1341	-.1418	.0066	.1084	6320.		
.2610	-3156.	-2237.	1507.	-1213.	3562.	1597.	.0041	.1395	-.1321	-.1510	-.0173	.1011	5774.		

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ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.14.

S/RV PIPING KEMAUWEE GKW0FF 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

.2510	-1248.	-2282.	154.	-2347.	281.	-811.	.0305	.0675	-.0828	-.0119	.0263	.1185	3530.
.2520	-1889.	-2313.	-240.	-2299.	1248.	-448.	.0340	.0807	-.0950	-.0302	.0372	.1240	3748.
.2530	-2476.	-2337.	466.	-2226.	2210.	-86.	.0362	.0932	-.1056	-.0489	.0483	.1275	4431.
.2540	-2827.	-2395.	1723.	-2172.	2951.	318.	.0369	.1047	-.1143	-.0664	.0578	.1293	5163.
.2550	-3036.	-2460.	2092.	-2003.	3518.	675.	.0359	.1149	-.1214	-.0819	.0535	.1291	5797.
.2560	-3231.	-2494.	2594.	-1829.	3989.	987.	.0374	.1235	-.1270	-.0956	.0541	.1265	6346.
.2570	-3383.	-2492.	2871.	-1658.	4297.	1190.	.0295	.1303	-.1310	-.1082	.0584	.1223	6722.
.2580	-3434.	-2513.	2800.	-1556.	4770.	1406.	.0243	.1351	-.1336	-.1204	.0463	.1181	6856.
.2590	-3384.	-2536.	2512.	-1494.	4241.	1573.	.0182	.1382	-.1346	-.1317	.0286	.1139	6729.
.2600	-3261.	-2451.	2060.	-1350.	3528.	1639.	.0114	.1397	-.1341	-.1418	.0366	.1084	6320.
.2610	-3156.	-2337.	1507.	-1210.	2560.	1577.	.0041	.1395	-.1321	-.1510	-.0173	.1011	5774.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.14.

S/RV PIPING KEWAUNEE GKW00F 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	10	MEMBER	4	SEQUENCE	041	LOCATION	END	TYPE	TE					
TIME	FX	FY	FZ	HX	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	-3129.	-1996.	861.	-1084.	3259.	1506.		-.0034	.1379	-.1285	-.1599	-.0408	.0941	5297.
.2630	-3100.	-1769.	319.	-1019.	2978.	1395.		-.0110	.1349	-.1234	-.1682	-.0516	.0878	4863.
.2640	-3002.	-1494.	29.	-932.	2677.	1231.		-.0184	.1308	-.1165	-.1750	-.0780	.0811	4365.
.2650	-2912.	-1139.	-120.	-761.	2457.	991.		-.0254	.1260	-.1081	-.1792	-.0893	.0729	3894.
.2660	-2896.	-763.	-240.	-552.	2371.	711.		-.0318	.1204	-.0984	-.1810	-.0954	.0639	3582.
.2670	-2830.	-440.	-258.	-396.	2298.	441.		-.0374	.1143	-.0874	-.1812	-.0967	.0555	3352.
.2680	-2656.	-194.	-178.	-320.	2157.	206.		-.0424	.1078	-.0752	-.1804	-.0941	.0480	3094.
.2690	-2419.	10.	-157.	-264.	1982.	-10.		-.0466	.1011	-.0620	-.1778	-.0887	.0408	2825.
.2700	-2115.	227.	-240.	-168.	1755.	-231.		-.0501	.0945	-.0480	-.1733	-.0817	.0330	2512.
.2710	-1675.	455.	-327.	-50.	1400.	-450.		-.0531	.0882	-.0331	-.1675	-.0736	.0245	2078.
.2720	-1094.	647.	-383.	20.	914.	-630.		-.0557	.0822	-.0175	-.1617	-.0649	.0163	1568.
.2730	-402.	802.	-431.	39.	328.	-763.		-.0579	.0767	-.0014	-.1564	-.0558	.0085	1175.
.2740	403.	997.	-456.	87.	-377.	-886.		-.0595	.0720	.0149	-.1512	-.0471	-.0000	1365.
.2750	1234.	1284.	-505.	207.	-1124.	-1019.		-.0605	.0681	.0310	-.1465	-.0393	-.0099	2164.
.2760	1989.	1612.	-632.	375.	-1815.	-1132.		-.0605	.0650	.0463	-.1431	-.0321	-.0202	3058.
.2770	2684.	1912.	-768.	400.	-2462.	-1183.		-.0596	.0628	.0606	-.1416	-.0255	-.0298	3899.
.2780	3314.	2188.	-846.	426.	-3061.	-1177.		-.0577	.0613	.0736	-.1415	-.0192	-.0390	4671.
.2790	3779.	2475.	-905.	481.	-3499.	-1142.		-.0549	.0608	.0847	-.1416	-.0127	-.0483	5243.
.2800	4042.	2753.	-928.	575.	-3730.	-1081.		-.0512	.0611	.0939	-.1412	-.0056	-.0576	5545.
.2810	4185.	2956.	-808.	652.	-3832.	-968.		-.0471	.0620	.1009	-.1403	.0022	-.0659	5658.
.2820	4231.	3040.	-537.	672.	-3831.	-791.		-.0426	.0635	.1056	-.1387	.0105	-.0721	5606.
.2830	4136.	3023.	-227.	662.	-3694.	-576.		-.0379	.0654	.1079	-.1359	.0186	-.0761	5363.
.2840	3928.	2943.	52.	657.	-3472.	-364.		-.0331	.0676	.1075	-.1316	.0255	-.0779	5017.
.2850	3674.	2804.	266.	646.	-3248.	-170.		-.0283	.0701	.1046	-.1259	.0306	-.0770	4683.
.2860	3387.	2591.	354.	592.	-3036.	8.		-.0236	.0726	.0991	-.1194	.0335	-.0724	4368.
.2870	3071.	2312.	295.	482.	-2834.	162.		-.0192	.0750	.0912	-.1127	.0344	-.0637	4066.
.2880	2761.	2001.	138.	342.	-2663.	265.		-.0153	.0773	.0812	-.1055	.0337	-.0511	3811.
.2890	2465.	1682.	-79.	204.	-2507.	297.		-.0119	.0793	.0694	-.0975	.0325	-.0352	3577.
.2900	2173.	1361.	-309.	75.	-2327.	257.		-.0093	.0810	.0561	-.0887	.0316	-.0164	3309.
.2910	1908.	1032.	-463.	-53.	-2129.	158.		-.0075	.0823	.0415	-.0792	.0316	-.0050	3016.
.2920	1663.	686.	-507.	-187.	-1897.	14.		-.0064	.0831	.0261	-.0689	.0329	-.0286	2693.
.2930	1366.	327.	-501.	-315.	-1567.	-167.		-.0061	.0824	.0099	-.0579	.0351	-.0533	2270.
.2940	989.	-24.	-474.	-410.	-1121.	-384.		-.0064	.0831	-.0067	-.0458	.0376	-.0779	1771.
.2950	571.	-361.	-390.	-465.	-613.	-621.		-.0073	.0825	-.0235	-.0328	.0397	.1013	1397.
.2960	122.	-703.	-261.	-494.	-68.	-848.		-.0087	.0813	-.0402	-.0192	.0406	.1230	1390.
.2970	-395.	-1049.	-133.	-499.	536.	-1042.		-.0105	.0799	-.0564	-.0054	.0396	.1423	1799.
.2980	-979.	-1371.	-7.	-459.	1189.	-1196.		-.0127	.0781	-.0718	.0083	.0363	.1583	2469.
.2990	-1592.	-1656.	145.	-369.	1846.	-1277.		-.0152	.0762	-.0861	.0215	.0306	.1704	3230.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.14.

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

.2890	2465.	1682.	-79.	204.	-2507.	297.	-.119	.0797	.0694	-.1055	.0337	-.0352	3577.
.2900	2173.	1361.	-309.	75.	-2327.	257.	-.093	.0810	.0561	-.0887	.0316	-.0164	3309.
.2910	1908.	1032.	-463.	-53.	-2129.	158.	-.0075	.0823	.0415	-.0792	.0316	.0050	3016.
.2920	1667.	676.	-507.	-107.	-1897.	14.	-.0064	.0831	.0261	-.0689	.0329	.0286	2693.
.2930	1766.	327.	-501.	-311.	-1567.	-167.	-.0061	.0824	.0099	-.0579	.0351	.0533	2270.
.2940	989.	-24.	-474.	-410.	-1121.	-384.	-.0064	.0831	-.0067	-.0458	.0376	.0779	1771.
.2950	571.	-361.	-390.	-465.	-613.	-621.	-.0073	.0825	-.0235	-.0328	.0397	.1013	1397.
.2960	122.	-703.	-261.	-494.	-68.	-848.	-.0087	.0813	-.0402	-.0192	.0406	.1230	1390.
.2970	-395.	-1049.	-133.	-499.	536.	-1042.	-.0105	.0799	-.0564	-.0054	.0396	.1423	1799.
.2980	-979.	-1371.	-7.	-459.	1189.	-1196.	-.0127	.0781	-.0718	.0083	.0363	.1583	2469.
.2990	-1592.	-1656.	145.	-369.	1846.	-1297.	-.0152	.0762	-.0861	.0215	.0306	.1704	3230.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.14.

S/RV PIPING KEWAUNEE GKW00F 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	10	MEMBER	4	SEQUENCE	841	LOCATION	END	TYPE	TE					
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)	
.3000	-2196.	-1915.	324.	-246.	2472.	-1326.	-.0178	.0741	-.0987	.0336	.0227	.1786	3977.	
.3010	-2758.	-2142.	528.	-103.	3031.	-1277.	-.0204	.0720	-.1095	.0442	.0127	.1829	4648.	
.3020	-3258.	-2308.	740.	71.	3502.	-1161.	-.0228	.0698	-.1181	.0528	.0013	.1831	5212.	
.3030	-3704.	-2396.	898.	273.	3892.	-988.	-.0245	.0675	-.1244	.0591	-.0110	.1793	5685.	
.3040	-4085.	-2418.	962.	478.	4198.	-762.	-.0253	.0651	-.1282	.0630	-.0234	.1722	6064.	
.3050	-4353.	-2379.	964.	671.	4382.	-495.	-.0251	.0625	-.1295	.0646	-.0348	.1622	6300.	
.3060	-4485.	-2272.	932.	855.	4435.	-214.	-.0237	.0594	-.1280	.0644	-.0440	.1495	6387.	
.3070	-4502.	-2099.	856.	1039.	4396.	63.	-.0212	.0559	-.1240	.0630	-.0501	.1345	6381.	
.3080	-4413.	-1830.	752.	1207.	4287.	327.	-.0176	.0517	-.1175	.0609	-.0523	.1179	6309.	
.3090	-4206.	-1640.	679.	1337.	4105.	576.	-.0132	.0467	-.1087	.0586	-.0501	.1006	6152.	
.3100	-3885.	-1397.	664.	1417.	3855.	800.	-.0082	.0407	-.0977	.0564	-.0437	.0832	5910.	
.3110	-3476.	-1154.	687.	1458.	3555.	986.	-.0029	.0339	-.0848	.0550	-.0337	.0660	5603.	
.3120	-2988.	-903.	733.	1475.	3199.	1118.	.0025	.0260	-.0705	.0550	-.0211	.0493	5221.	
.3130	-2439.	-648.	789.	1465.	2783.	1192.	.0075	.0172	-.0550	.0562	-.0072	.0335	4751.	
.3140	-1862.	-403.	821.	1415.	2323.	1214.	.0121	.0073	-.0388	.0586	.0067	.0190	4207.	
.3150	-1267.	-174.	813.	1324.	1812.	1186.	.0160	-.0034	-.0221	.0624	.0195	.0062	3586.	
.3160	-663.	52.	766.	1219.	1251.	1100.	.0190	-.0149	-.0053	.0675	.0305	-.0052	2916.	
.3170	-67.	286.	683.	1123.	656.	952.	.0211	-.0271	.0114	.0743	.0393	-.0157	2276.	
.3180	514.	515.	576.	1033.	36.	757.	.0222	-.0398	.0276	.0826	.0457	-.0250	1810.	
.3190	1075.	715.	462.	937.	-597.	536.	.0224	-.0528	.0433	.0921	.0500	-.0330	1742.	
.3200	1607.	879.	343.	831.	-1226.	300.	.0218	-.0660	.0581	.1026	.0524	-.0399	2135.	
.3210	2084.	1017.	197.	733.	-1817.	51.	.0208	-.0793	.0720	.1141	.0535	-.0461	2768.	
.3220	2509.	1131.	26.	654.	-2364.	-206.	.0195	-.0923	.0846	.1262	.0535	-.0520	3476.	
.3230	2909.	1213.	-155.	586.	-2887.	-456.	.0182	-.1051	.0961	.1386	.0529	-.0575	4211.	
.3240	3273.	1255.	-354.	512.	-3371.	-687.	.0172	-.1173	.1061	.1507	.0520	-.0627	4913.	
.3250	3565.	1268.	-591.	433.	-3770.	-993.	.0166	-.1288	.1147	.1618	.0512	-.0679	5506.	
.3260	3792.	1270.	-845.	360.	-4086.	-1074.	.0165	-.1395	.1217	.1714	.0505	-.0733	5990.	
.3270	3976.	1269.	-1078.	300.	-4337.	-1222.	.0170	-.1491	.1271	.1791	.0500	-.0790	6378.	
.3280	4107.	1269.	-1268.	253.	-4504.	-1329.	.0180	-.1574	.1310	.1844	.0497	-.0850	6643.	
.3290	4178.	1274.	-1392.	209.	-4579.	-1384.	.0194	-.1643	.1373	.1868	.0496	-.0913	6763.	
.3300	4185.	1286.	-1434.	168.	-4561.	-1381.	.0211	-.1698	.1347	.1859	.0494	-.0977	6736.	
.3310	4110.	1309.	-1413.	138.	-4437.	-1316.	.0231	-.1737	.1332	.1818	.0487	-.1043	6540.	
.3320	3952.	1344.	-1332.	125.	-4214.	-1187.	.0253	-.1760	.1307	.1747	.0471	-.1110	6187.	
.3330	3735.	1380.	-1181.	120.	-3924.	-975.	.0276	-.1767	.1265	.1649	.0443	-.1178	5720.	
.3340	3452.	1403.	-984.	138.	-3570.	-739.	.0299	-.1760	.1208	.1531	.0401	-.1243	5153.	
.3350	3071.	1402.	-791.	155.	-3123.	-430.	.0323	-.1740	.1135	.1399	.0343	-.1306	4459.	
.3360	2600.	1374.	-600.	107.	-2595.	-80.	.0345	-.1708	.1046	.1262	.0273	-.1366	3677.	
.3370	2083.	1308.	-380.	233.	-2030.	296.	.0367	-.1660	.0944	.1120	.0193	-.1421	2916.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.14.

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

.3270	3976.	1269.	-1078.	300.	-4337.	-1222.	.0170	-.1491	.1271	.1791	.0500	-.0790	6378.
.3280	4107.	1269.	-1268.	253.	-4504.	-1329.	.0180	-.1574	.1310	.1844	.0497	-.0850	6643.
.3290	4178.	1274.	-1392.	209.	-4579.	-1384.	.0194	-.1643	.1333	.1868	.0496	-.0913	6763.
.3300	4189.	1286.	-1424.	168.	-4561.	-1381.	.0211	-.1698	.1341	.1859	.0494	-.0977	6736.
.3310	4110.	1309.	-1413.	150.	-4477.	-1318.	.0231	-.1737	.1332	.1818	.0487	-.1043	6540.
.3320	3952.	1344.	-1332.	125.	-4214.	-1187.	.0253	-.1760	.1307	.1747	.0471	-.1110	6187.
.3330	3735.	1380.	-1181.	120.	-3924.	-995.	.0276	-.1767	.1265	.1649	.0443	-.1178	5720.
.3340	3452.	1403.	-984.	138.	-3570.	-739.	.0299	-.1760	.1208	.1531	.0401	-.1243	5153.
.3350	3071.	1402.	-791.	155.	-3123.	-430.	.0323	-.1740	.1135	.1399	.0343	-.1306	4459.
.3360	2600.	1374.	-600.	107.	-2595.	-00.	.0345	-.1708	.1046	.1262	.0273	-.1366	3677.
.3370	2083.	1308.	-380.	230.	-2030.	296.	.0367	-.1668	.0944	.1120	.0193	-.1421	2916.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.14.

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	4	SEQUENCE	841	LOCATION	END	TYPE	TE						
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	1537.	1190.	-137.	288.	-1439.	686.	.0386	-.1620	.0831	.1005	.0108	-.1467	2289.		
.3390	956.	1025.	109.	348.	-818.	1070.	.0404	-.1567	.0708	.0897	.0020	-.1503	1965.		
.3400	356.	821.	353.	406.	-186.	1427.	.0419	-.1512	.0577	.0807	-.0066	-.1526	2112.		
.3410	-234.	578.	579.	447.	426.	1744.	.0431	-.1455	.0440	.0735	-.0150	-.1530	2614.		
.3420	-794.	303.	761.	458.	909.	2012.	.0442	-.1399	.0299	.0678	-.0232	-.1512	3232.		
.3430	-1303.	12.	287.	436.	1478.	2215.	.0452	-.1345	.0157	.0636	-.0310	-.1468	3812.		
.3440	-1752.	-274.	943.	378.	1878.	2344.	.0460	-.1294	.0015	.0603	-.0385	-.1398	4276.		
.3450	-2151.	-554.	909.	270.	2201.	2399.	.0469	-.1246	-.0124	.0578	-.0454	-.1301	4614.		
.3460	-2495.	-830.	800.	104.	2447.	2385.	.0478	-.1202	-.0257	.0557	-.0511	-.1176	4829.		
.3470	-2758.	-1093.	670.	-110.	2604.	2307.	.0487	-.1161	-.0383	.0540	-.0553	-.1027	4916.		
.3480	-2939.	-1337.	549.	-357.	2682.	2169.	.0497	-.1125	-.0498	.0529	-.0570	-.0861	4898.		
.3490	-3066.	-1568.	435.	-629.	2721.	1986.	.0508	-.1091	-.0601	.0524	-.0570	-.0683	4840.		
.3500	-3156.	-1788.	341.	-921.	2745.	1770.	.0520	-.1061	-.0690	.0526	-.0537	-.0500	4793.		
.3510	-3201.	-2001.	293.	-1225.	2750.	1537.	.0533	-.1033	-.0763	.0533	-.0437	-.0318	4775.		
.3520	-3198.	-2205.	286.	-1525.	2737.	1300.	.0547	-.1007	-.0819	.0548	-.0323	-.0145	4791.		
.3530	-3157.	-2390.	295.	-1800.	2708.	1067.	.0562	-.0982	-.0857	.0570	-.0290	.0010	4834.		
.3540	-3082.	-2543.	306.	-2033.	2660.	843.	.0576	-.0958	-.0876	.0596	-.0178	.0142	4877.		
.3550	-2977.	-2655.	306.	-2222.	2588.	636.	.0588	-.0934	-.0877	.0623	-.0063	.0245	4901.		
.3560	-2836.	-2727.	285.	-2367.	2480.	457.	.0597	-.0909	-.0857	.0648	.0044	.0317	4884.		
.3570	-2638.	-2749.	252.	-2457.	2308.	308.	.0601	-.0883	-.0819	.0666	.0136	.0355	4781.		
.3580	-2375.	-2701.	209.	-2478.	2058.	183.	.0598	-.0854	-.0761	.0677	.0207	.0357	4558.		
.3590	-2066.	-2576.	140.	-2430.	1745.	82.	.0588	-.0824	-.0686	.0676	.0252	.0324	4227.		
.3600	-1723.	-2385.	33.	-2331.	1382.	11.	.0570	-.0790	-.0595	.0658	.0270	.0261	3828.		
.3610	-1346.	-2141.	-95.	-2200.	970.	-24.	.0544	-.0754	-.0491	.0622	.0263	.0172	3396.		
.3620	-940.	-1849.	-228.	-2039.	521.	-27.	.0512	-.0716	-.0375	.0568	.0234	.0062	2973.		
.3630	-528.	-1513.	-363.	-1848.	69.	-5.	.0473	-.0674	-.0251	.0496	.0190	-.0065	2612.		
.3640	-125.	-1144.	-481.	-1635.	-361.	38.	.0430	-.0629	-.0121	.0410	.0140	-.0203	2366.		
.3650	262.	-764.	-553.	-1417.	-750.	102.	.0382	-.0582	.0011	.0309	.0091	-.0345	2268.		
.3660	622.	-387.	-561.	-1204.	-1077.	184.	.0331	-.0532	.0144	.0196	.0052	-.0486	2297.		
.3670	953.	-18.	-494.	-992.	-1338.	273.	.0277	-.0480	.0274	.0076	.0026	-.0620	2384.		
.3680	1259.	346.	-371.	-773.	-1539.	354.	.0223	-.0425	.0398	-.0047	.0016	-.0745	2483.		
.3690	1535.	703.	-204.	-547.	-1684.	420.	.0167	-.0368	.0514	-.0177	.0020	-.0856	2570.		
.3700	1771.	1042.	-33.	-327.	-1777.	467.	.0111	-.0309	.0619	-.0297	.0032	-.0949	2636.		
.3710	1975.	1354.	117.	-122.	-1840.	495.	.0055	-.0248	.0710	-.0421	.0049	-.1019	2696.		
.3720	2156.	1639.	223.	72.	-1897.	498.	-.0001	-.0185	.0785	-.0541	.0062	-.1065	2772.		
.3730	2311.	1900.	261.	265.	-1957.	469.	-.0058	-.0119	.0844	-.0651	.0066	-.1086	2867.		
.3740	2437.	2130.	225.	454.	-2023.	409.	-.0115	-.0052	.0884	-.0751	.0057	-.1082	2985.		
.3750	2538.	2313.	129.	627.	-2103.	324.	-.0174	.0017	.0906	-.0837	.0033	-.1052	3134.		

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83/12/02.

18.26.14.

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

.3650	262.	-764.	-553.	-1417.	-750.	102.	.382	-.0582	.0011	.0309	.0091	-.0345	2268.
.3660	622.	-387.	-561.	-1204.	-1077.	184.	.0371	-.0532	.0144	.0196	.0052	-.0486	2297.
.3670	953.	-18.	-499.	-992.	-1378.	273.	.0277	-.0480	.0274	.0076	.0026	-.0620	2384.
.3680	1259.	346.	-371.	-773.	-1139.	354.	.0223	-.0425	.0398	-.0047	.0016	-.0745	2483.
.3690	1535.	703.	-204.	-547.	-1684.	420.	.0167	-.0368	.0514	-.0172	.0020	-.0856	2570.
.3700	1771.	1042.	-37.	-327.	-1777.	467.	.0111	-.0309	.0619	-.0297	.0032	-.0949	2636.
.3710	1975.	1354.	117.	-122.	-1840.	495.	.0055	-.0248	.0710	-.0421	.0049	-.1019	2696.
.3720	2156.	1639.	223.	72.	-1897.	498.	-.0001	-.0185	.0785	-.0541	.0062	-.1065	2772.
.3730	2311.	1900.	261.	265.	-1957.	469.	-.0058	-.0119	.0844	-.0651	.0066	-.1086	2867.
.3740	2437.	2130.	225.	454.	-2023.	409.	-.0115	-.0052	.0884	-.0751	.0057	-.1082	2985.
.3750	2538.	2313.	129.	627.	-2103.	324.	-.0174	.0017	.0906	-.0837	.0033	-.1052	3134.

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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	10	MEMBER	4	SEQUENCE	841	LOCATION	END	TYPE	TE					
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)	
.3760	2611.	2435.	-14.	773.	-2195.	223.	-.0233	.0087	.0908	-.0907	-.0007	-.0995	3302.	
.3770	2646.	2498.	-197.	901.	-2281.	104.	-.0293	.0160	.0892	-.0960	-.0061	-.0915	3467.	
.3780	2633.	2508.	-404.	1015.	-2348.	-33.	-.0353	.0234	.0856	-.0994	-.0125	-.0813	3613.	
.3790	2568.	2458.	-616.	1106.	-2382.	-178.	-.0410	.0310	.0803	-.1010	-.0196	-.0692	3718.	
.3800	2441.	2341.	-816.	1159.	-2361.	-323.	-.0464	.0387	.0734	-.1010	-.0268	-.0550	3743.	
.3810	2246.	2165.	-985.	1170.	-2267.	-462.	-.0513	.0467	.0649	-.1000	-.0333	-.0392	3663.	
.3820	1991.	1948.	-1098.	1153.	-2097.	-596.	-.0556	.0550	.0552	-.0980	-.0385	-.0222	3484.	
.3830	1687.	1707.	-1138.	1115.	-1852.	-725.	-.0591	.0636	.0444	-.0954	-.0421	-.0042	3220.	
.3840	1342.	1451.	-1099.	1058.	-1532.	-841.	-.0618	.0725	.0328	-.0927	-.0436	.0145	2885.	
.3850	967.	1188.	-977.	978.	-1147.	-939.	-.0635	.0817	.0206	-.0903	-.0428	.0335	2508.	
.3860	583.	925.	-779.	879.	-718.	-1016.	-.0643	.0913	.0082	-.0884	-.0399	.0526	2152.	
.3870	205.	675.	-530.	775.	-270.	-1070.	-.0641	.1011	-.0044	-.0871	-.0351	.0712	1905.	
.3880	-151.	446.	-261.	677.	172.	-1102.	-.0630	.1113	-.0168	-.0865	-.0290	.0891	1843.	
.3890	-476.	235.	3.	585.	589.	-1106.	-.0610	.1215	-.0289	-.0863	-.0220	.1059	1954.	
.3900	-769.	31.	235.	493.	970.	-1078.	-.0582	.1319	-.0407	-.0867	-.0146	.1216	2163.	
.3910	-1030.	-169.	418.	403.	1309.	-1017.	-.0548	.1421	-.0518	-.0873	-.0073	.1357	2409.	
.3920	-1252.	-362.	553.	330.	1593.	-929.	-.0508	.1521	-.0623	-.0878	-.0004	.1482	2646.	
.3930	-1432.	-547.	653.	281.	1818.	-818.	-.0466	.1617	-.0719	-.0878	.0060	.1587	2843.	
.3940	-1582.	-736.	722.	245.	1996.	-685.	-.0423	.1707	-.0806	-.0873	.0117	.1677	3000.	
.3950	-1716.	-933.	767.	207.	2143.	-533.	-.0381	.1789	-.0883	-.0865	.0166	.1752	3133.	
.3960	-1836.	-1130.	799.	168.	2262.	-374.	-.0342	.1862	-.0950	-.0853	.0208	.1813	3248.	
.3970	-1939.	-1308.	825.	138.	2349.	-224.	-.0307	.1925	-.1006	-.0837	.0241	.1862	3339.	
.3980	-2023.	-1457.	840.	120.	2404.	-98.	-.0277	.1975	-.1051	-.0818	.0265	.1900	3403.	
.3990	-2099.	-1570.	835.	103.	2437.	-3.	-.0253	.2012	-.1084	-.0799	.0280	.1930	3446.	
.4000	-2173.	-1646.	807.	77.	2458.	54.	-.0236	.2036	-.1105	-.0782	.0286	.1954	3474.	

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)
.1180	-10753.	-2450.	2096.	488.	11584.	3211.	-.0104	.1113	-.2011	-.1624	-.1425	-.0088	16993.

SECTION	11	MEMBER	1	SEQUENCE	841	LOCATION	BEG	TYPE	TE					
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)	

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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
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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)
.1180	-10753.	-2450.	2096.	488.	11584.	3211.	-.0104	.1113	-.2011	-.1624	-.1425	-.0088	16993.

SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	TE	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)
11	1	841																		

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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

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ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	TE	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)
11	1	841					0.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.
							.0010	-1.	-1.	-2.	1.	-1.	0.	.0000	-.0000	-.0000	-.0000	.0000	-.0000	3.
							.0020	-9.	-8.	-8.	7.	-9.	2.	.0000	-.0000	-.0001	-.0000	.0001	.0001	17.
							.0030	-35.	-15.	1.	13.	-30.	4.	.0001	.0000	-.0004	.0001	.0004	.0004	46.
							.0040	-83.	-8.	30.	7.	-62.	2.	.0002	.0001	-.0010	.0004	.0009	.0012	89.
							.0050	-150.	18.	71.	-15.	-110.	-4.	.0003	.0003	-.0019	.0010	.0018	.0022	156.
							.0060	-253.	54.	137.	-46.	-181.	-14.	.0004	.0006	-.0032	.0018	.0033	.0038	264.
							.0070	-404.	91.	254.	-78.	-279.	-23.	.0005	.0011	-.0052	.0028	.0053	.0063	411.
							.0080	-626.	133.	498.	-113.	-406.	-33.	.0010	.0019	-.0082	.0040	.0079	.0107	598.
							.0090	-998.	203.	1057.	-172.	-581.	-51.	.0021	.0032	-.0128	.0054	.0109	.0169	859.
							.0100	-1483.	299.	1833.	-253.	-798.	-75.	.0041	.0048	-.0188	.0065	.0149	.0249	1188.
							.0110	-1937.	382.	2498.	-324.	-1017.	-96.	.0070	.0070	-.0260	.0067	.0202	.0349	1513.
							.0120	-2296.	425.	2913.	-361.	-1217.	-107.	.0108	.0096	-.0339	.0058	.0267	.0469	1799.
							.0130	-2626.	432.	3205.	-367.	-1424.	-109.	.0153	.0126	-.0423	.0035	.0348	.0597	2082.
							.0140	-3012.	406.	3558.	-345.	-1663.	-102.	.0202	.0159	-.0511	-.0008	.0450	.0723	2403.
							.0150	-3483.	327.	4064.	-277.	-1935.	-82.	.0253	.0194	-.0601	-.0070	.0578	.0852	2763.
							.0160	-4116.	192.	4962.	-163.	-2246.	-48.	.0304	.0230	-.0695	-.0147	.0730	.0986	3182.
							.0170	-4655.	31.	5793.	-27.	-2495.	-8.	.0353	.0268	-.0792	-.0226	.0893	.1124	3525.
							.0180	-4569.	-126.	5473.	107.	-2503.	32.	.0401	.0309	-.0886	-.0290	.1047	.1267	3538.
							.0190	-3719.	-263.	3746.	223.	-2216.	66.	.0454	.0351	-.0970	-.0329	.1167	.1411	3147.
							.0200	-2090.	-405.	805.	344.	-1572.	102.	.0526	.0390	-.1045	-.0349	.1195	.1533	2278.
							.0210	-542.	-590.	-1333.	501.	-795.	148.	.0632	.0417	-.1124	-.0379	.1090	.1591	1344.
							.0220	114.	-938.	-1699.	796.	-330.	236.	.0746	.0420	-.1191	-.0451	.0926	.1565	1262.
							.0230	599.	-1558.	-2032.	1322.	-3.	392.	.0843	.0399	-.1211	-.0548	.0748	.1483	1948.
							.0240	43.	-2121.	-137.	1800.	2.	533.	.0914	.0354	-.1198	-.0612	.0571	.1301	2652.
							.0250	-388.	-2324.	1551.	1973.	60.	584.	.0950	.0288	-.1152	-.0595	.0389	.1006	2907.
							.0260	2049.	-2330.	-3272.	1978.	917.	586.	.0936	.0204	-.1026	-.0485	.0189	.0689	3188.
							.0270	4687.	-2115.	-9323.	1795.	1635.	532.	.0858	.0097	-.0834	-.0309	.0001	.0335	3511.
							.0280	4235.	-1385.	-8039.	1176.	1574.	348.	.0756	-.0042	-.0663	-.0117	-.0256	-.0171	2819.
							.0290	3295.	-569.	-4030.	483.	1784.	143.	.0660	-.0209	-.0522	.0039	-.0559	-.0748	2619.
							.0300	2575.	-559.	-820.	475.	1980.	141.	.0541	-.0391	-.0369	.0153	-.1088	-.1152	2882.
							.0310	1794.	-1042.	1580.	804.	1920.	262.	.0392	-.0574	-.0200	.0290	-.1453	-.1426	3009.
							.0320	3208.	-516.	-880.	438.	2502.	130.	.0228	-.0745	.0005	.0543	-.1742	-.1766	3592.
							.0330	4192.	1613.	-2593.	-1369.	2907.	-406.	.0061	-.0897	.0208	.0879	-.1900	-.2217	4575.
							.0340	2203.	3600.	1047.	-3056.	2133.	-905.	-.0111	-.1037	.0384	.1109	-.1869	-.2603	5417.
							.0350	551.	3522.	2908.	-2990.	1198.	-885.	-.0289	-.1172	.0574	.1101	-.1596	-.2736	4718.
							.0360	1578.	2169.	-1091.	-1841.	1025.	-545.	-.0460	-.1276	.0502	.0964	-.1482	-.2633	3101.
							.0370	1900.	1905.	-3243.	-1617.	798.	-479.	-.0612	-.1329	.1017	.0861	-.1271	-.2552	2635.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.14.

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

CONDITION 24
LOADS

SHOCK
PRESSURE

ENGLISH UNITS

.0270	4687.	-2115.	-9323.	1795.	1635.	532.	.858	.0097	-.0834	-.0309	.0001	.0335	3511.
.0280	4235.	-1335.	-8039.	1176.	1574.	348.	.0756	-.0042	-.0663	-.0117	-.0256	-.0171	2819.
.0290	3295.	-569.	-4030.	483.	1784.	143.	.0660	-.0209	-.0522	.0039	-.0559	-.0748	2619.
.0300	2575.	-559.	-820.	475.	1990.	141.	.0541	-.0391	-.0369	.0153	-.1088	-.1152	2882.
.0310	1794.	-1042.	1580.	884.	1920.	262.	.0392	-.0574	-.0200	.0290	-.1453	-.1426	3009.
.0320	3208.	-516.	-880.	478.	2502.	130.	.0228	-.0745	.0005	.0543	-.1742	-.1766	3592.
.0330	4192.	1613.	-2593.	-1369.	2907.	-406.	.0061	-.0897	.0208	.0879	-.1900	-.2217	4575.
.0340	2203.	3600.	1047.	-3056.	2133.	-905.	-.0111	-.1037	.0384	.1109	-.1869	-.2603	5417.
.0350	551.	3522.	2908.	-2990.	1198.	-885.	-.0289	-.1172	.0574	.1101	-.1596	-.2736	4718.
.0360	1578.	2169.	-1091.	-1841.	1065.	-545.	-.0460	-.1276	.0802	.0964	-.1482	-.2633	3101.
.0370	1900.	1905.	-3243.	-1617.	798.	-479.	-.0612	-.1329	.1017	.0861	-.1271	-.2552	2635.

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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	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	TE	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)
11	1	841					.0380	-108.	3016.	-497.	-2560.	-217.	-758.	-.0752	-.1352	.1197	.0749	-.1055	-.2686	3784.
							.0390	-679.	3289.	-528.	-2792.	-709.	-827.	-.0889	-.1366	.1381	.0470	-.0884	-.2789	4233.
							.0400	1539.	1575.	-4440.	-1337.	191.	-396.	-.0969	-.1354	.1564	.0051	-.0892	-.2488	1988.
							.0410	1895.	-308.	-3547.	261.	717.	77.	-.1049	-.1310	.1690	-.0340	-.1025	-.2064	1084.
							.0420	1203.	-598.	-576.	508.	876.	150.	-.1077	-.1253	.1765	-.0609	-.1209	-.2018	1446.
							.0430	2789.	-97.	-1857.	82.	1901.	24.	-.1059	-.1187	.1823	-.0773	-.1456	-.2115	2688.
							.0440	4131.	-219.	-1756.	186.	3065.	55.	-.0996	-.1102	.1846	-.0886	-.1673	-.1875	4338.
							.0450	3377.	-717.	1187.	609.	3165.	180.	-.0914	-.1015	.1826	-.0975	-.1691	-.1520	4560.
							.0460	2764.	-674.	962.	572.	2588.	169.	-.0826	-.0936	.1795	-.0993	-.1460	-.1441	3752.
							.0470	3119.	-96.	-1772.	81.	2202.	24.	-.0714	-.0837	.1760	-.0861	-.1085	-.1408	3113.
							.0480	2379.	531.	-1470.	-451.	1650.	-134.	-.0571	-.0708	.1691	-.0622	-.0623	-.1154	2424.
							.0490	633.	879.	-331.	-746.	454.	-221.	-.0415	-.0587	.1590	-.0450	-.0062	-.0930	1272.
							.0500	-252.	534.	-2193.	-453.	-765.	-134.	-.0248	-.0493	.1469	-.0421	.0516	-.0839	1270.
							.0510	-864.	-522.	-3106.	443.	-1514.	131.	-.0057	-.0393	.1321	-.0405	.0963	-.0576	2237.
							.0520	-1996.	-1398.	-930.	1187.	-1928.	351.	.0153	-.0273	.1138	-.0283	.1249	-.0178	3236.
							.0530	-2413.	-1578.	-174.	1339.	-2092.	397.	.0350	-.0168	.0941	-.0090	.1454	-.0003	3553.
							.0540	-2030.	-1913.	-1118.	1624.	-2005.	481.	.0521	-.0093	.0739	.0114	.1622	.0082	3707.
							.0550	-2008.	-2955.	-77.	2508.	-1724.	743.	.0670	-.0030	.0526	.0374	.1746	.0453	4425.
							.0560	-1789.	-3554.	939.	3017.	-1283.	893.	.0792	.0021	.0313	.0779	.1858	.0905	4799.
							.0570	-887.	-2648.	-743.	2248.	-940.	666.	.0884	.0048	.0106	.1352	.1998	.1044	3568.
							.0580	-691.	-1118.	-1604.	949.	-990.	281.	.0960	.0055	-.0112	.2031	.2127	.1085	1977.
							.0590	-1416.	-320.	-82.	272.	-1223.	81.	.1032	.0050	-.0347	.2698	.2195	.1386	1773.
							.0600	-1680.	-49.	133.	42.	-1393.	12.	.1090	.0021	-.0582	.3256	.2220	.1749	1968.
							.0610	-1583.	638.	-1013.	-584.	-1598.	-173.	.1129	-.0032	-.0813	.3717	.2206	.1890	2415.
							.0620	-2298.	1970.	193.	-1672.	-1902.	-495.	.1154	-.0080	-.1048	.4127	.2106	.1946	3645.
							.0630	-2947.	3037.	2163.	-2578.	-1958.	-764.	.1162	-.0113	-.1270	.4428	.1909	.2086	4698.
							.0640	-2549.	3314.	1594.	-2913.	-1763.	-833.	.1132	-.0151	-.1455	.4486	.1685	.2205	4835.
							.0650	-2335.	2826.	991.	-2399.	-1733.	-710.	.1055	-.0195	-.1611	.4280	.1471	.2268	4298.
							.0660	-2796.	2142.	2500.	-1818.	-1745.	-538.	.0944	-.0224	-.1738	.3921	.1220	.2372	3640.
							.0670	-2302.	1887.	2769.	-1601.	-1258.	-474.	.0809	-.0228	-.1819	.3502	.0893	.2441	2953.
							.0680	-779.	1912.	864.	-1623.	-444.	-481.	.0654	-.0223	-.1855	.3005	.0505	.2348	2472.
							.0690	0.	1360.	700.	-1155.	176.	-342.	.0495	-.0219	-.1872	.2385	.0069	.2220	1719.
							.0700	147.	-26.	2718.	22.	808.	7.	.0346	-.0214	-.1872	.1679	-.0417	.2209	1142.
							.0710	854.	-1301.	3811.	1105.	1683.	327.	.0205	-.0207	-.1833	.0996	-.0897	.2166	2881.
							.0720	1625.	-1518.	3861.	1288.	2350.	382.	.0061	-.0200	-.1747	.0440	-.1275	.1887	3823.
							.0730	1961.	-909.	3891.	772.	2643.	229.	-.0084	-.0190	-.1614	.0035	-.1512	.1454	3903.
							.0740	2587.	-361.	2930.	307.	2933.	91.	-.0216	-.0177	-.1432	-.0281	-.1625	.1056	4168.
							.0750	3042.	-271.	1608.	270.	3007.	68.	-.0234	-.0172	-.1217	-.0587	-.1509	.0692	4261.

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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

.0650	-2335.	2826.	491.	-2399.	-1733.	-710.	.1055	-.0195	-.1611	.4280	.1471	.2268	4298.
.0660	-2796.	2142.	2500.	-1818.	-1745.	-538.	.944	-.0224	-.1738	.3921	.1220	.2372	3640.
.0670	-2300.	1837.	2769.	-1601.	-1258.	-474.	.0809	-.0228	-.1819	.3502	.0893	.2441	2953.
.0680	-770.	1912.	864.	-1623.	-444.	-481.	.0654	-.0223	-.1855	.3005	.0505	.2348	2472.
.0690	0.	1360.	700.	-1155.	176.	-342.	.0495	-.0219	-.1872	.2385	.0369	.2220	1719.
.0700	147.	-26.	2718.	22.	808.	7.	.0346	-.0214	-.1872	.1679	-.0417	.2209	1142.
.0710	854.	-1301.	3811.	1105.	1683.	327.	.0205	-.0207	-.1837	.0996	-.0897	.2166	2881.
.0720	1625.	-1518.	3061.	1288.	2350.	382.	.0061	-.0200	-.1747	.0440	-.1275	.1887	3823.
.0730	1961.	-909.	3891.	772.	2643.	229.	-.0084	-.0190	-.1614	.0035	-.1512	.1454	3903.
.0740	2587.	-361.	2930.	307.	2933.	91.	-.0216	-.0177	-.1432	-.0281	-.1625	.1056	4168.
.0750	3042.	-271.	1608.	200.	3007.	68.	-.0334	-.0172	-.1217	-.0587	-.1509	.0692	4261.

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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
PRESSURE
ENGLISH UNITS

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

SECTION	11	MEMBER	1	SEQUENCE	841	LOCATION	BEG	TYPE	TE						
TITLE	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	2251.	-411.	2033.	349.	2421.	103.	-.0435	-.0177	-.0980	-.0899	-.1465	.0267	3459.		
.0770	1224.	-475.	2316.	403.	1621.	119.	-.0518	-.0185	-.0716	-.1180	-.1257	-.0205	2366.		
.0780	1334.	-387.	363.	328.	1224.	97.	-.0575	-.0189	-.0419	-.1408	-.1064	-.0655	1795.		
.0790	1479.	-360.	-1493.	306.	880.	91.	-.0605	-.0198	-.0114	-.1628	-.0913	-.1097	1322.		
.0800	400.	-814.	-813.	691.	135.	205.	-.0613	-.0229	.0174	-.1900	-.0798	-.1550	1036.		
.0810	-612.	-1916.	143.	1627.	-484.	482.	-.0606	-.0282	.0454	-.2203	-.0737	-.1943	2492.		
.0820	-397.	-3081.	-607.	2616.	-490.	775.	-.0590	-.0346	.0737	-.2425	-.0741	-.2240	3915.		
.0830	119.	-3404.	-1452.	2889.	-264.	856.	-.0571	-.0420	.1012	-.2469	-.0776	-.2556	4273.		
.0840	369.	-2784.	-1641.	2363.	-99.	700.	-.0551	-.0508	.1266	-.2336	-.0815	-.2957	3484.		
.0850	957.	-2086.	-2245.	1771.	248.	524.	-.0520	-.0615	.1492	-.2093	-.0366	-.3290	2632.		
.0860	1591.	-1885.	-2640.	1601.	687.	474.	-.0470	-.0733	.1685	-.1777	-.0929	-.3399	2550.		
.0870	1595.	-1661.	-2067.	1410.	834.	418.	-.0402	-.0856	.1835	-.1368	-.0974	-.3388	2388.		
.0880	1526.	-675.	-1984.	573.	797.	170.	-.0317	-.0975	.1950	-.0838	-.0991	-.3412	1407.		
.0890	1822.	872.	-2762.	-740.	853.	-219.	-.0210	-.1079	.2029	-.0224	-.0985	-.3405	1624.		
.0900	1723.	2108.	-2592.	-1790.	811.	-530.	-.0085	-.1166	.2064	.0368	-.0933	-.3235	2875.		
.0910	972.	2570.	-1483.	-2181.	452.	-646.	.0046	-.1239	.2054	.0847	-.0789	-.2932	3276.		
.0920	311.	2370.	-1173.	-2182.	-31.	-646.	.0169	-.1293	.2015	.1216	-.0537	-.2577	3215.		
.0930	-32.	2687.	-1609.	-2281.	-431.	-675.	.0281	-.1311	.1953	.1542	-.0197	-.2174	3415.		
.0940	-373.	3122.	-1917.	-2650.	-799.	-785.	.0378	-.1288	.1867	.1830	.0208	-.1740	4063.		
.0950	-683.	3484.	-2435.	-2957.	-1192.	-876.	.0459	-.1237	.1750	.2006	.0652	-.1317	4671.		
.0960	-1009.	3206.	-2914.	-2722.	-1580.	-806.	.0527	-.1165	.1599	.2019	.1090	-.0841	4595.		
.0970	-1629.	2305.	-2288.	-1956.	-1950.	-579.	.0588	-.1068	.1409	.1905	.1473	-.0262	3994.		
.0980	-2227.	1503.	-1221.	-1276.	-2191.	-378.	.0634	-.0945	.1191	.1748	.1786	.0298	3629.		
.0990	-2355.	1360.	-1003.	-1154.	-2251.	-342.	.0658	-.0799	.0959	.1595	.2034	.0701	3606.		
.1000	-2348.	1583.	-947.	-1344.	-2231.	-398.	.0657	-.0635	.0716	.1436	.2217	.1006	3722.		
.1010	-2562.	1556.	-233.	-1321.	-2234.	-391.	.0632	-.0459	.0463	.1230	.2328	.1318	3707.		
.1020	-2612.	1212.	187.	-1029.	-2171.	-305.	.0583	-.0276	.0210	.0961	.2358	.1583	3420.		
.1030	-2262.	988.	-98.	-839.	-1945.	-248.	.0515	-.0086	-.0037	.0665	.2287	.1711	3012.		
.1040	-1864.	1080.	8.	-917.	-1580.	-271.	.0438	.0116	-.0277	.0372	.2085	.1734	2608.		
.1050	-1394.	1135.	503.	-964.	-1057.	-285.	.0360	.0326	-.0509	.0048	.1743	.1712	2060.		
.1060	-568.	689.	435.	-585.	-373.	-173.	.0286	.0528	-.0729	-.0367	.1282	.1655	1010.		
.1070	107.	-305.	641.	259.	252.	77.	.0219	.0717	-.0938	-.0868	.0741	.1575	522.		
.1080	629.	-1464.	1383.	1243.	881.	368.	.0170	.0897	-.1138	-.1376	.0128	.1496	2214.		
.1090	1483.	-2413.	1766.	2049.	1703.	607.	.0163	.1063	-.1333	-.1825	-.0562	.1387	3860.		
.1100	783.	-3017.	3830.	2562.	1628.	759.	.0147	.1194	-.1515	-.2234	-.1103	.1139	4419.		
.1110	615.	-3658.	3953.	3105.	1515.	920.	.0118	.1287	-.1657	-.2583	-.1475	.0894	5050.		
.1120	1431.	-4249.	2104.	3607.	1744.	1068.	.0087	.1354	-.1759	-.2790	-.1707	.0771	5857.		
.1130	1464.	-4146.	1411.	3520.	1597.	1042.	.0051	.1394	-.1841	-.2812	-.1792	.0614	5655.		

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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
PRESSURE
ENGLISH UNITS

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

.1020	-2412.	1212.	177.	-1029.	-2171.	-305.	.0503	-.0276	.0210	.0961	.2358	.1583	3420.
.1030	-2262.	988.	-98.	-839.	-1945.	-248.	.0515	-.0086	-.0037	.0665	.2287	.1711	3012.
.1040	-1864.	1080.	8.	-917.	-1580.	-271.	.0438	.0116	-.0277	.0372	.2085	.1734	2608.
.1050	-1394.	1135.	503.	-964.	-1057.	-285.	.0360	.0326	-.0509	.0048	.1743	.1712	2060.
.1060	-568.	639.	435.	-585.	-733.	-173.	.0286	.0527	-.0729	-.0767	.1282	.1655	1010.
.1070	107.	-305.	641.	259.	252.	77.	.0219	.0717	-.0938	-.0868	.0741	.1575	522.
.1080	629.	-1464.	1383.	1243.	881.	368.	.0170	.0297	-.1138	-.1376	.0128	.1496	2214.
.1090	1483.	-2413.	1766.	2049.	1703.	607.	.0163	.1063	-.1333	-.1825	-.0562	.1387	3860.
.1100	783.	-3017.	3830.	2562.	1628.	759.	.0147	.1194	-.1515	-.2234	-.1103	.1139	4419.
.1110	615.	-3658.	3953.	3105.	1515.	920.	.0118	.1287	-.1657	-.2583	-.1475	.0894	5050.
.1120	1431.	-4249.	2104.	3607.	1744.	1068.	.0087	.1354	-.1759	-.2790	-.1707	.0771	5857.
.1130	1464.	-4146.	1411.	3520.	1597.	1042.	.0051	.1394	-.1841	-.2812	-.1792	.0614	5655.

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

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.14.

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	11	MEMBER	1	SEQUENCE	841	LOCATION	BEG	TYPE	TE						
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	721.	-3338.	1498.	2833.	989.	839.	.0014	.1396	-.1913	-.2691	-.1761	.0315	4401.		
.1150	301.	-2669.	1075.	2265.	526.	671.	-.0013	.1061	-.1968	-.2504	-.1694	.0078	3419.		
.1160	-199.	-2485.	1542.	2109.	219.	625.	-.0033	.1299	-.2007	-.2275	-.1628	.0053	3123.		
.1170	-577.	-2091.	1960.	1775.	3.	526.	-.0055	.1215	-.2024	-.1987	-.1559	.0051	2615.		
.1180	-1742.	-979.	3298.	831.	-650.	246.	-.0104	.1113	-.2011	-.1624	-.1425	-.0088	1530.		
.1190	-1173.	187.	1828.	-158.	-536.	-47.	-.0169	.1009	-.1944	-.1214	-.1308	-.0182	793.		
.1200	166.	743.	152.	-631.	179.	-187.	-.0242	.0911	-.1837	-.0823	-.1239	-.0075	963.		
.1210	-418.	882.	2409.	-749.	251.	-222.	-.0322	.0807	-.1723	-.0523	-.1168	.0071	1159.		
.1220	-8.	952.	2286.	-808.	568.	-239.	-.0399	.0692	-.1574	-.0332	-.1118	.0100	1435.		
.1230	736.	1004.	1720.	-853.	1057.	-252.	-.0468	.0586	-.1390	-.0184	-.1090	.0163	1951.		
.1240	1608.	1145.	1441.	-972.	1727.	-288.	-.0522	.0503	-.1175	-.0031	-.1085	.0312	2829.		
.1250	2404.	1533.	589.	-1301.	2189.	-385.	-.0561	.0430	-.0936	.0092	-.1049	.0358	3637.		
.1260	2000.	1781.	867.	-1512.	1916.	-448.	-.0588	.0360	-.0688	.0130	-.0937	.0303	3505.		
.1270	2590.	1391.	-379.	-1181.	2103.	-350.	-.0576	.0303	-.0425	.0093	-.0851	.0364	3443.		
.1280	2325.	926.	414.	-786.	2078.	-233.	-.0520	.0266	-.0169	.0026	-.0754	.0500	3155.		
.1290	1779.	1183.	788.	-1004.	1709.	-297.	-.0460	.0237	.0086	-.0055	-.0589	.0440	2831.		
.1300	1728.	1777.	-682.	-1509.	1295.	-447.	-.0378	.0220	.0346	-.0162	-.0358	.0251	2879.		
.1310	467.	1786.	215.	-1516.	450.	-449.	-.0291	.0224	.0596	-.0310	-.0051	.0206	2323.		
.1320	-85.	1201.	-262.	-1020.	-138.	-302.	-.0206	.0244	.0848	-.0508	.0299	.0241	1515.		
.1330	-720.	792.	-1314.	-672.	-942.	-199.	-.0135	.0270	.1091	-.0740	.0701	.0136	1658.		
.1340	-1208.	723.	-2490.	-614.	-1652.	-182.	-.0070	.0308	.1315	-.0968	.1070	-.0055	2502.		
.1350	-1455.	542.	-2967.	-460.	-1981.	-136.	-.0003	.0360	.1510	-.1188	.1326	-.0163	2880.		
.1360	-2366.	30.	-1803.	-25.	-2462.	-7.	.0051	.0413	.1666	-.1435	.1502	-.0243	3478.		
.1370	-2174.	-754.	-2948.	640.	-2587.	190.	.0089	.0456	.1795	-.1704	.1592	-.0388	3774.		
.1380	-2564.	-1574.	-2593.	1336.	-2828.	396.	.0102	.0497	.1886	-.1915	.1513	-.0495	4454.		
.1390	-2834.	-2033.	-1749.	1726.	-2845.	511.	.0088	.0542	.1944	-.2002	.1563	-.0542	4756.		
.1400	-2150.	-1839.	-2800.	1561.	-2529.	462.	.0041	.0578	.1978	-.1973	.1476	-.0672	4249.		
.1410	-2067.	-1312.	-2987.	1114.	-2505.	330.	-.0045	.0599	.1971	-.1870	.1390	-.0868	3901.		
.1420	-1388.	-1034.	-3631.	870.	-2091.	260.	-.0146	.0613	.1924	-.1711	.1235	-.0961	3224.		
.1430	-1022.	-897.	-2992.	762.	-1620.	226.	-.0256	.0626	.1829	-.1492	.1011	-.0944	2549.		
.1440	-464.	-435.	-2815.	369.	-1101.	109.	-.0371	.0635	.1692	-.1226	.0735	-.0979	1648.		
.1450	271.	288.	-3140.	-245.	-730.	-73.	-.0486	.0642	.1516	-.0942	.0417	-.1055	869.		
.1460	217.	802.	-1673.	-681.	-236.	-202.	-.0596	.0656	.1299	-.0675	.0075	-.1010	1057.		
.1470	1189.	946.	-1824.	-803.	551.	-238.	-.0689	.0677	.1059	-.0452	-.0303	-.0849	1416.		
.1480	1566.	976.	-1085.	-829.	1057.	-245.	-.0773	.0702	.0791	-.0280	-.0635	-.0688	1929.		
.1490	1651.	918.	49.	-779.	1413.	-231.	-.0847	.0736	.0506	-.0149	-.0904	-.0517	2303.		
.1500	2342.	673.	92.	-572.	2011.	-169.	-.0901	.0781	.0222	-.0045	-.1120	-.0248	2963.		
.1510	2473.	424.	790.	-360.	2298.	-106.	-.0940	.0834	-.0064	.0028	-.1239	.0078	3288.		

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.1410	-2067.	-1312.	-2987.	1114.	-2505.	330.	-.0045	.0599	.1971	-.1870	.1390	-.0868	3901.
.1420	-1388.	-1074.	-3631.	870.	-2091.	260.	-.0146	.0613	.1924	-.1711	.1235	-.0961	3224.
.1430	-1022.	-377.	-2992.	762.	-1620.	226.	-.0256	.0626	.1829	-.1492	.1011	-.0944	2549.
.1440	-464.	-435.	-2815.	369.	-1101.	109.	-.0371	.0635	.1692	-.1226	.0735	-.0979	1648.
.1450	271.	288.	-3140.	-245.	-560.	-73.	-.0486	.0642	.1516	-.0942	.0417	-.1055	869.
.1460	217.	802.	-1673.	-681.	-236.	-202.	-.0596	.0656	.1299	-.0675	.0075	-.1010	1057.
.1470	1189.	946.	-1824.	-803.	551.	-238.	-.0689	.0677	.1059	-.0452	-.0303	-.0849	1416.
.1480	1566.	976.	-1085.	-829.	1057.	-245.	-.0773	.0702	.0791	-.0280	-.0635	-.0688	1929.
.1490	1651.	918.	49.	-779.	1413.	-231.	-.0847	.0736	.0506	-.0149	-.0904	-.0517	2303.
.1500	2342.	673.	92.	-572.	2011.	-169.	-.0901	.0781	.0222	-.0045	-.1120	-.0248	2963.
.1510	2473.	424.	790.	-360.	2298.	-106.	-.0940	.0834	-.0064	.0028	-.1239	.0078	3288.

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

SECTION	11	MEMBER	1	SEQUENCE	841	LOCATION	BEG	TYPE	TE						
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)	
.1520	2868.	309.	304.	-262.	2511.	-78.		-.0955	.0087	-.0342	.0066	-.1280	.0362	3567.	
.1530	2459.	202.	890.	-172.	2311.	-51.		-.0944	.0938	-.0618	.0077	-.1246	.0638	3274.	
.1540	2322.	-53.	985.	45.	2219.	13.		-.0897	.0992	-.0879	.0078	-.1194	.0973	3135.	
.1550	2389.	-274.	620.	233.	2184.	69.		-.0818	.1046	-.1123	.0081	-.1130	.1313	3104.	
.1560	1086.	-271.	2419.	230.	1530.	68.		-.0724	.1094	-.1356	.0083	-.1003	.1580	2187.	
.1570	714.	-224.	2360.	190.	1200.	56.		-.0614	.1136	-.1551	.0085	-.0858	.1808	1718.	
.1580	366.	-215.	2363.	183.	905.	54.		-.0500	.1177	-.1710	.0099	-.0679	.2060	1306.	
.1590	-769.	-81.	3556.	68.	241.	20.		-.0397	.1216	-.1832	.0129	-.0444	.2273	355.	
.1600	-997.	166.	2565.	-141.	-201.	-42.		-.0308	.1251	-.1904	.0158	-.0190	.2384	352.	
.1610	-594.	273.	742.	-232.	-318.	-69.		-.0225	.1282	-.1933	.0173	.0028	.2477	564.	
.1620	-1474.	127.	2099.	-108.	-723.	-32.		-.0148	.1310	-.1944	.0154	.0198	.2595	1034.	
.1630	-1444.	-202.	2016.	171.	-719.	51.		-.0075	.1325	-.1921	.0082	.0289	.2637	1046.	
.1640	-1017.	-646.	1349.	549.	-524.	162.		-.0010	.1325	-.1866	-.0022	.0322	.2604	1096.	
.1650	-1325.	-1177.	2542.	999.	-486.	296.		.0042	.1315	-.1787	-.0114	.0325	.2581	1624.	
.1660	-732.	-1640.	2176.	1392.	-74.	412.		.0084	.1292	-.1669	-.0171	.0299	.2521	2054.	
.1670	-321.	-1849.	1669.	1570.	147.	465.		.0108	.1247	-.1520	-.0191	.0304	.2355	2322.	
.1680	76.	-1911.	1015.	1622.	320.	480.		.0121	.1179	-.1346	-.0172	.0332	.2138	2432.	
.1690	-186.	-1930.	1689.	1638.	266.	485.		.0127	.1091	-.1156	-.0108	.0385	.1942	2442.	
.1700	-138.	-1785.	1534.	1515.	269.	449.		.0130	.0982	-.0943	.0004	.0452	.1709	2264.	
.1710	1099.	-1359.	-1039.	1154.	672.	342.		.0139	.0853	-.0709	.0162	.0498	.1398	1947.	
.1720	520.	-773.	-79.	656.	421.	194.		.0153	.0710	-.0486	.0349	.0552	.1086	1135.	
.1730	88.	-345.	589.	293.	223.	87.		.0178	.0555	-.0262	.0522	.0585	.0807	534.	
.1740	207.	-143.	-211.	121.	122.	36.		.0205	.0387	-.0030	.0659	.0618	.0538	249.	
.1750	-291.	56.	-155.	-47.	-286.	-14.		.0226	.0216	.0196	.0782	.0673	.0274	410.	
.1760	-493.	413.	-645.	-351.	-580.	-104.		.0244	.0049	.0421	.0908	.0723	.0016	969.	
.1770	-1120.	828.	-476.	-703.	-1070.	-208.		.0247	-.0112	.0635	.1019	.0790	-.0235	1832.	
.1780	-1083.	980.	-1599.	-832.	-1322.	-246.		.0235	-.0271	.0842	.1077	.0847	-.0459	2233.	
.1790	-1482.	816.	-1685.	-693.	-1681.	-205.		.0207	-.0423	.1028	.1083	.0890	-.0621	2585.	
.1800	-2132.	630.	-1014.	-535.	-2065.	-158.		.0160	-.0565	.1190	.1065	.0901	-.0752	3021.	
.1810	-1353.	664.	-2676.	-564.	-1821.	-167.		.0101	-.0695	.1339	.1047	.0832	-.0903	2703.	
.1820	-1247.	864.	-2576.	-733.	-1707.	-217.		.0029	-.0814	.1453	.1026	.0712	-.1052	2641.	
.1830	-1112.	932.	-1998.	-791.	-1446.	-234.		-.0052	-.0923	.1536	.0978	.0528	-.1171	2352.	
.1840	-601.	781.	-1820.	-663.	-968.	-196.		-.0138	-.1024	.1591	.0898	.0299	-.1256	1681.	
.1850	-70.	636.	-1443.	-540.	-422.	-160.		-.0230	-.1113	.1620	.0815	.0054	-.1327	994.	
.1860	819.	756.	-1517.	-641.	314.	-190.		-.0320	-.1184	.1630	.0758	-.0193	-.1414	1043.	
.1870	1066.	1150.	-607.	-976.	752.	-289.		-.0409	-.1239	.1617	.0724	-.0393	-.1530	1788.	
.1880	1828.	1489.	-1131.	-1264.	1268.	-374.		-.0489	-.1277	.1593	.0681	-.0553	-.1644	2583.	
.1890	2330.	1540.	-1512.	-1307.	1598.	-387.		-.0552	-.1298	.1552	.0611	-.0664	-.1708	2967.	

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.1790	-1482.	816.	-1685.	-693.	-1681.	-205.	.0207	-.0423	.1028	.1083	.0890	-.0459	2233.
.1800	-2132.	630.	-1014.	-535.	-2065.	-158.	.0160	-.0565	.1190	.1065	.0901	-.0752	3021.
.1810	-1353.	664.	-2676.	-564.	-1821.	-167.	.0101	-.0695	.1339	.1047	.0832	-.0903	2703.
.1820	-1247.	864.	-2576.	-733.	-1707.	-217.	.0029	-.0814	.1453	.1026	.0712	-.1052	2641.
.1830	-1112.	932.	-1998.	-791.	-1446.	-234.	-.0052	-.0923	.1536	.0978	.0528	-.1171	2352.
.1840	-601.	781.	-1820.	-663.	-968.	-196.	-.0138	-.1024	.1591	.0898	.0299	-.1256	1681.
.1850	-70.	636.	-1443.	-540.	-422.	-160.	-.0230	-.1113	.1620	.0815	.0054	-.1327	974.
.1860	819.	756.	-1517.	-641.	314.	-190.	-.0320	-.1184	.1630	.0758	-.0193	-.1414	1043.
.1870	1066.	1150.	-607.	-976.	752.	-289.	-.0409	-.1239	.1617	.0724	-.0393	-.1530	1788.
.1880	1828.	1489.	-1131.	-1264.	1268.	-374.	-.0489	-.1277	.1593	.0681	-.0553	-.1644	2583.
.1890	2330.	1540.	-1512.	-1307.	1598.	-387.	-.0552	-.1298	.1552	.0611	-.0664	-.1708	2967.

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SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	TE	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)
11	1	841					.1900	2053.	1425.	-691.	-1209.	1569.	-358.	-.0593	-.1299	.1489	.0520	-.0728	-.1741	2843.
							.1910	2316.	1365.	-1184.	-1159.	1669.	-343.	-.0604	-.1279	.1414	.0421	-.0778	-.1794	2911.
							.1920	2292.	1357.	-1351.	-1152.	1606.	-341.	-.0586	-.1240	.1322	.0318	-.0807	-.1846	2833.
							.1930	1988.	1161.	-1027.	-986.	1429.	-292.	-.0538	-.1182	.1210	.0196	-.0821	-.1850	2486.
							.1940	1770.	681.	-951.	-578.	1264.	-171.	-.0464	-.1113	.1084	.0047	-.0818	-.1806	1978.
							.1950	1490.	100.	-870.	-85.	1047.	-25.	-.0370	-.1035	.0944	-.0105	-.0788	-.1737	1484.
							.1960	970.	-355.	-405.	301.	722.	89.	-.0262	-.0948	.0791	-.0221	-.0724	-.1651	1112.
							.1970	559.	-632.	-255.	537.	410.	159.	-.0146	-.0855	.0631	-.0289	-.0630	-.1548	980.
							.1980	409.	-822.	-712.	697.	168.	207.	-.0026	-.0764	.0467	-.0316	-.0513	-.1423	1055.
							.1990	146.	-1003.	-896.	851.	-102.	252.	.0096	-.0679	.0292	-.0312	-.0386	-.1266	1263.
							.2000	-328.	-1173.	-483.	995.	-400.	295.	.0218	-.0603	.0107	-.0275	-.0265	-.1080	1572.
							.2010	-698.	-1281.	-104.	1087.	-619.	322.	.0338	-.0536	-.0083	-.0196	-.0163	-.0876	1824.
							.2020	-933.	-1301.	121.	1104.	-762.	327.	.0450	-.0480	-.0271	-.0075	-.0079	-.0660	1950.
							.2030	-1187.	-1250.	477.	1061.	-888.	314.	.0547	-.0436	-.0455	.0083	-.0008	-.0429	2004.
							.2040	-1348.	-1161.	764.	986.	-952.	292.	.0627	-.0406	-.0630	.0266	.0056	-.0187	1980.
							.2050	-1378.	-1057.	933.	899.	-935.	266.	.0687	-.0389	-.0792	.0470	.0115	.0062	1870.
							.2060	-1404.	-942.	1250.	800.	-878.	237.	.0726	-.0384	-.0937	.0696	.0172	.0317	1711.
							.2070	-1343.	-756.	1523.	667.	-757.	198.	.0743	-.0388	-.1061	.0944	.0227	.0571	1452.
							.2080	-1017.	-546.	1401.	480.	-511.	142.	.0742	-.0401	-.1162	.1208	.0273	.0812	1011.
							.2090	-619.	-286.	1276.	243.	-204.	72.	.0729	-.0422	-.1240	.1475	.0308	.1036	460.
							.2100	-400.	24.	1573.	-20.	56.	-6.	.0707	-.0449	-.1296	.1730	.0334	.1241	85.
							.2110	-179.	341.	1810.	-289.	303.	-86.	.0679	-.0480	-.1328	.1963	.0355	.1415	604.
							.2120	149.	664.	1732.	-564.	562.	-167.	.0651	-.0512	-.1332	.2167	.0375	.1552	1149.
							.2130	358.	1005.	1782.	-853.	752.	-253.	.0623	-.0542	-.1311	.2333	.0403	.1646	1645.
							.2140	374.	1333.	2013.	-1132.	823.	-335.	.0595	-.0569	-.1264	.2440	.0451	.1687	2033.
							.2150	342.	1576.	2020.	-1338.	798.	-396.	.0569	-.0592	-.1189	.2472	.0525	.1673	2270.
							.2160	260.	1684.	1786.	-1430.	669.	-423.	.0543	-.0609	-.1085	.2422	.0520	.1615	2308.
							.2170	13.	1685.	1551.	-1431.	401.	-424.	.0518	-.0616	-.0957	.2295	.0726	.1506	2182.
							.2180	-328.	1608.	1218.	-1365.	28.	-404.	.0493	-.0616	-.0806	.2093	.0824	.1334	2011.
							.2190	-686.	1401.	781.	-1189.	-386.	-352.	.0467	-.0608	-.0636	.1818	.0892	.1108	1835.
							.2200	-1100.	1008.	513.	-856.	-805.	-253.	.0439	-.0594	-.0452	.1479	.0913	.0850	1697.
							.2210	-1463.	493.	329.	-419.	-1159.	-124.	.0405	-.0576	-.0258	.1098	.0872	.0563	1750.
							.2220	-1595.	2.	-36.	-2.	-1363.	-0.	.0362	-.0555	-.0056	.0706	.0764	.0234	1925.
							.2230	-1546.	-392.	-355.	333.	-1401.	98.	.0307	-.0532	.0148	.0330	.0592	-.0128	2039.
							.2240	-1410.	-717.	-408.	608.	-1299.	180.	.0240	-.0511	.0349	-.0012	.0367	-.0497	2043.
							.2250	-1093.	-995.	-507.	845.	-1055.	250.	.0160	-.0493	.0546	-.0313	.0109	-.0859	1942.
							.2260	-560.	-1170.	-834.	993.	-685.	294.	.0067	-.0480	.0734	-.0561	-.0161	-.1208	1754.
							.2270	46.	-1164.	-1116.	988.	-242.	293.	-.0034	-.0470	.0908	-.0742	-.0426	-.1535	1495.

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83/12/02.

18.26.14.

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

.2170	13.	1685.	1551.	-1431.	401.	-424.	.518	-.0616	-.0957	.2295	.0726	.1506	2182.
.2180	-723.	1608.	1213.	-1365.	28.	-404.	.493	-.0616	-.0806	.2093	.0824	.1334	2011.
.2190	-686.	1401.	781.	-1189.	-286.	-352.	.467	-.0602	-.0636	.1818	.0592	.1109	1835.
.2200	-1100.	1008.	513.	-856.	-805.	-253.	.439	-.0594	-.0452	.1479	.0213	.0850	1697.
.2210	-1463.	493.	329.	-419.	-1159.	-124.	.405	-.0576	-.0258	.1098	.0872	.0563	1750.
.2220	-1595.	2.	-36.	-2.	-1363.	-0.	.362	-.0555	-.0056	.0706	.0764	.0234	1925.
.2230	-1546.	-392.	-355.	373.	-1401.	98.	.307	-.0532	.0148	.0330	.0592	-.0128	2039.
.2240	-1410.	-717.	-408.	608.	-1299.	130.	.240	-.0511	.0349	-.0012	.0367	-.0497	2043.
.2250	-1093.	-995.	-507.	845.	-1055.	250.	.160	-.0493	.0546	-.0313	.0109	-.0859	1942.
.2260	-560.	-1170.	-834.	993.	-685.	294.	.067	-.0480	.0734	-.0561	-.0161	-.1208	1754.
.2270	46.	-1164.	-1116.	988.	-242.	293.	-.0034	-.0470	.0908	-.0742	-.0426	-.1535	1495.

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S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
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CONDITION 24

LOADS

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

SECTION	11	MEMBER	1	SEQUENCE	841	LOCATION	BEG	TYPE	TE					
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)	
.2280	647.	-982.	-1254.	834.	234.	247.	-.0135	-.0463	.1064	-.0856	-.0571	-.1827	1272.	
.2290	1229.	-741.	-1384.	629.	695.	156.	-.0233	-.0458	.1198	-.0921	-.0878	-.2069	1350.	
.2300	1671.	-572.	-1428.	485.	1060.	144.	-.0322	-.0457	.1307	-.0956	-.1028	-.2241	1659.	
.2310	1901.	-489.	-1326.	415.	1280.	123.	-.0398	-.0456	.1390	-.0967	-.1108	-.2332	1909.	
.2320	2003.	-390.	-1311.	331.	1371.	98.	-.0460	-.0455	.1447	-.0951	-.1111	-.2356	1997.	
.2330	1991.	-215.	-1443.	183.	1327.	54.	-.0506	-.0451	.1479	-.0911	-.1036	-.2327	1894.	
.2340	1782.	-51.	-1522.	43.	1130.	13.	-.0535	-.0444	.1485	-.0855	-.0892	-.2236	1597.	
.2350	1442.	-13.	-1568.	11.	830.	3.	-.0548	-.0435	.1465	-.0798	-.0597	-.2075	1172.	
.2360	1095.	-80.	-1694.	68.	503.	20.	-.0543	-.0423	.1418	-.0737	-.0478	-.1853	718.	
.2370	719.	-107.	-1732.	90.	175.	27.	-.0523	-.0407	.1346	-.0662	-.0259	-.1596	281.	
.2380	311.	-8.	-1582.	7.	-134.	2.	-.0488	-.0387	.1248	-.0565	-.0062	-.1324	189.	
.2390	2.	163.	-1447.	-139.	-362.	-41.	-.0440	-.0362	.1129	-.0449	.0093	-.1040	551.	
.2400	-170.	328.	-1359.	-279.	-486.	-82.	-.0383	-.0331	.0991	-.0323	.0197	-.0745	800.	
.2410	-304.	491.	-1090.	-417.	-532.	-123.	-.0319	-.0294	.0836	-.0190	.0250	-.0449	970.	
.2420	-386.	716.	-666.	-608.	-495.	-180.	-.0252	-.0248	.0669	-.0051	.0258	-.0175	1136.	
.2430	-315.	1018.	-340.	-864.	-353.	-256.	-.0183	-.0191	.0493	.0089	.0230	.0066	1367.	
.2440	-125.	1325.	-149.	-1125.	-144.	-333.	-.0115	-.0122	.0315	.0214	.0184	.0280	1670.	
.2450	77.	1538.	16.	-1305.	70.	-387.	-.0048	-.0040	.0135	.0307	.0132	.0472	1926.	
.2460	234.	1602.	197.	-1360.	249.	-403.	.0018	.0054	-.0044	.0353	.0088	.0642	2034.	
.2470	298.	1518.	444.	-1288.	365.	-382.	.0083	.0161	-.0219	.0346	.0062	.0789	1967.	
.2480	226.	1307.	757.	-1109.	382.	-329.	.0146	.0279	-.0388	.0290	.0065	.0916	1721.	
.2490	78.	988.	922.	-839.	298.	-248.	.0205	.0406	-.0547	.0188	.0101	.1023	1306.	
.2500	-89.	588.	848.	-499.	137.	-148.	.0259	.0540	-.0694	.0048	.0170	.1112	760.	
.2510	-379.	144.	840.	-122.	-111.	-36.	.0305	.0675	-.0828	-.0119	.0263	.1185	239.	
.2520	-834.	-303.	1054.	257.	-443.	76.	.0340	.0807	-.0950	-.0302	.0372	.1240	732.	
.2530	-1276.	-719.	1175.	610.	-788.	181.	.0362	.0932	-.1056	-.0489	.0483	.1275	1431.	
.2540	-1552.	-1049.	1011.	891.	-1063.	264.	.0369	.1047	-.1143	-.0664	.0578	.1293	1994.	
.2550	-1693.	-1233.	794.	1046.	-1238.	310.	.0359	.1149	-.1214	-.0819	.0635	.1291	2331.	
.2560	-1749.	-1267.	728.	1076.	-1302.	319.	.0334	.1235	-.1270	-.0956	.0641	.1265	2427.	
.2570	-1674.	-1236.	743.	1050.	-1234.	311.	.0295	.1303	-.1310	-.1082	.0584	.1223	2330.	
.2580	-1444.	-1224.	783.	1039.	-1029.	308.	.0243	.1351	-.1336	-.1204	.0463	.1181	2112.	
.2590	-1085.	-1212.	846.	1029.	-708.	305.	.0182	.1382	-.1346	-.1317	.0286	.1139	1815.	
.2600	-617.	-1127.	886.	957.	-301.	283.	.0114	.1397	-.1341	-.1418	.0366	.1084	1472.	
.2610	-132.	-985.	968.	836.	132.	248.	.0041	.1395	-.1321	-.1510	-.0173	.1011	1246.	
.2620	271.	-887.	1165.	753.	523.	223.	-.0034	.1379	-.1285	-.1599	-.0408	.0941	1332.	
.2630	607.	-871.	1289.	739.	840.	219.	-.0110	.1349	-.1234	-.1682	-.0516	.0878	1610.	
.2640	902.	-856.	1194.	727.	1066.	215.	-.0184	.1308	-.1165	-.1750	-.0780	.0811	1848.	
.2650	1071.	-752.	1063.	638.	1177.	189.	-.0254	.1260	-.1081	-.1792	-.0893	.0729	1909.	

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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

.2540	-1552.	-1049.	791.	1046.	-1238.	310.	.359	.1149	-.1214	-.0819	.0635	.1291	1994.
.2550	-1693.	-1233.	794.	1046.	-1238.	310.	.359	.1149	-.1214	-.0819	.0635	.1291	2331.
.2560	-1749.	-1267.	728.	1076.	-1302.	319.	.334	.1235	-.1270	-.0956	.0641	.1265	2427.
.2570	-1674.	-1236.	743.	1050.	-1234.	311.	.3295	.1303	-.1310	-.1082	.0584	.1223	2330.
.2580	-1444.	-1224.	783.	1079.	-1029.	308.	.3243	.1351	-.1336	-.1204	.0463	.1181	2112.
.2590	-1085.	-1212.	846.	1029.	-708.	305.	.3182	.1382	-.1346	-.1317	.0286	.1139	1815.
.2600	-617.	-1127.	886.	957.	-381.	283.	.3114	.1397	-.1341	-.1418	.0366	.1084	1472.
.2610	-132.	-985.	968.	836.	132.	248.	.3041	.1395	-.1321	-.1510	-.0173	.1011	1246.
.2620	271.	-387.	1165.	753.	523.	223.	-.0034	.1379	-.1285	-.1599	-.0408	.0941	1332.
.2630	607.	-871.	1289.	739.	840.	219.	-.0110	.1349	-.1234	-.1682	-.0516	.0878	1610.
.2640	902.	-856.	1194.	727.	1066.	215.	-.0184	.1308	-.1165	-.1750	-.0780	.0811	1848.
.2650	1071.	-752.	1063.	638.	1177.	189.	-.0254	.1260	-.1081	-.1792	-.0893	.0729	1909.

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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	MEMBER	SEQUENCE	LOCATION	TYPE	TE	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	PX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
11	1	841	BEG			.2660	1062.	-578.	1035.	491.	1162.	145.	-.0318	.1204	-.0984	-.1810	-.0954	.0639	1794.
						.2670	961.	-426.	956.	362.	1056.	107.	-.0374	.1143	-.0874	-.1812	-.0967	.0555	1584.
						.2680	829.	-327.	767.	278.	897.	82.	-.0424	.1078	-.0752	-.1804	-.0941	.0480	1331.
						.2690	648.	-215.	640.	182.	711.	54.	-.0466	.1011	-.0620	-.1778	-.0887	.0408	1039.
						.2700	449.	-26.	609.	22.	534.	7.	-.0501	.0945	-.0480	-.1733	-.0817	.0330	756.
						.2710	315.	203.	532.	-173.	401.	-51.	-.0531	.0882	-.0331	-.1675	-.0736	.0245	622.
						.2720	260.	385.	373.	-327.	315.	-97.	-.0557	.0822	-.0175	-.1617	-.0549	.0163	656.
						.2730	269.	501.	164.	-425.	270.	-126.	-.0579	.0767	-.0014	-.1564	-.0558	.0085	733.
						.2740	364.	610.	-129.	-518.	277.	-153.	-.0595	.0720	.0149	-.1512	-.0471	-.0000	857.
						.2750	493.	736.	-430.	-624.	311.	-185.	-.0605	.0681	.0310	-.1465	-.0393	-.0099	1019.
						.2760	581.	807.	-637.	-605.	333.	-203.	-.0605	.0650	.0463	-.1431	-.0321	-.0202	1113.
						.2770	640.	753.	-835.	-640.	334.	-189.	-.0596	.0628	.0606	-.1416	-.0255	-.0298	1053.
						.2780	680.	609.	-1080.	-517.	306.	-153.	-.0577	.0613	.0736	-.1415	-.0192	-.0390	875.
						.2790	635.	463.	-1250.	-393.	225.	-116.	-.0549	.0608	.0847	-.1416	-.0127	-.0483	660.
						.2800	488.	352.	-1320.	-298.	82.	-88.	-.0512	.0611	.0939	-.1412	-.0056	-.0576	455.
						.2810	312.	234.	-1432.	-199.	-95.	-59.	-.0471	.0620	.1009	-.1403	.0022	-.0659	322.
						.2820	137.	88.	-1609.	-75.	-288.	-22.	-.0426	.0635	.1056	-.1387	.0105	-.0721	422.
						.2830	-59.	-46.	-1728.	39.	-484.	12.	-.0379	.0654	.1079	-.1359	.0186	-.0761	687.
						.2840	-241.	-122.	-1764.	104.	-648.	31.	-.0331	.0676	.1075	-.1316	.0255	-.0779	929.
						.2850	-363.	-154.	-1755.	130.	-749.	39.	-.0283	.0701	.1046	-.1259	.0306	-.0770	1075.
						.2860	-433.	-196.	-1667.	166.	-787.	49.	-.0236	.0726	.0991	-.1194	.0335	-.0724	1138.
						.2870	-469.	-274.	-1488.	232.	-772.	69.	-.0192	.0750	.0912	-.1127	.0344	-.0637	1143.
						.2880	-459.	-362.	-1272.	307.	-710.	91.	-.0153	.0773	.0812	-.1055	.0337	-.0511	1100.
						.2890	-423.	-424.	-1032.	360.	-618.	107.	-.0119	.0793	.0694	-.0975	.0325	-.0352	1022.
						.2900	-391.	-453.	-778.	384.	-527.	114.	-.0093	.0810	.0561	-.0887	.0316	-.0164	936.
						.2910	-359.	-467.	-592.	396.	-454.	117.	-.0075	.0823	.0415	-.0792	.0316	.0050	867.
						.2920	-331.	-478.	-490.	406.	-404.	120.	-.0064	.0831	.0261	-.0689	.0329	.0286	826.
						.2930	-348.	-469.	-365.	398.	-387.	118.	-.0061	.0834	.0099	-.0579	.0351	.0533	802.
						.2940	-414.	-415.	-182.	353.	-398.	104.	-.0064	.0831	-.0067	-.0458	.0376	.0779	765.
						.2950	-481.	-317.	-11.	269.	-411.	80.	-.0073	.0825	-.0235	-.0328	.0397	.1013	703.
						.2960	-522.	-197.	144.	167.	-407.	50.	-.0087	.0813	-.0402	-.0192	.0406	.1230	625.
						.2970	-542.	-73.	351.	62.	-372.	18.	-.0105	.0799	-.0564	-.0054	.0396	.1423	533.
						.2980	-525.	57.	610.	-48.	-293.	-14.	-.0127	.0781	-.0718	.0083	.0363	.1583	419.
						.2990	-441.	186.	871.	-158.	-155.	-47.	-.0152	.0762	-.0861	.0215	.0306	.1704	319.
						.3000	-280.	291.	1110.	-247.	41.	-73.	-.0178	.0741	-.0987	.0336	.0227	.1786	369.
						.3010	-46.	356.	1302.	-302.	289.	-89.	-.0204	.0720	-.1095	.0442	.0127	.1829	604.
						.3020	245.	377.	1437.	-320.	570.	-95.	-.0228	.0698	-.1181	.0528	.0013	.1831	932.
						.3030	545.	348.	1563.	-295.	855.	-87.	-.0245	.0675	-.1244	.0591	-.0110	.1793	1284.

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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

.2930	-348.	-469.	-565.	398.	-387.	118.	-.061	.0834	.0099	-.0579	.0351	.0533	802.
.2940	-414.	-415.	-182.	353.	-398.	104.	-.064	.0831	-.0067	-.0458	.0376	.0779	765.
.2950	-481.	-317.	-11.	267.	-411.	80.	-.073	.0825	-.0235	-.0328	.0397	.1013	703.
.2960	-522.	-197.	144.	167.	-407.	50.	-.0087	.0813	-.0402	-.0192	.0406	.1230	625.
.2970	-542.	-73.	351.	62.	-372.	18.	-.0105	.0799	-.0564	-.0054	.0396	.1423	533.
.2980	-525.	57.	610.	-48.	-293.	-14.	-.0127	.0781	-.0718	.0083	.0363	.1583	419.
.2990	-441.	186.	871.	-158.	-155.	-47.	-.0152	.0762	-.0861	.0215	.0306	.1704	319.
.3000	-280.	291.	1110.	-247.	41.	-73.	-.0178	.0741	-.0987	.0336	.0227	.1786	369.
.3010	-46.	356.	1302.	-302.	289.	-89.	-.0204	.0720	-.1095	.0442	.0127	.1829	604.
.3020	245.	377.	1437.	-320.	570.	-95.	-.0228	.0698	-.1181	.0528	.0013	.1831	932.
.3030	545.	348.	1563.	-295.	855.	-87.	-.0245	.0675	-.1244	.0591	-.0110	.1793	1284.

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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	11	MEMBER	1	SEQUENCE	841	LOCATION	BEG	TYPE	TE	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)										
.3040	809.	254.	1705.	-216.	1115.	-64.	-.0253	.0651	-.1282	.0630	-.0234	.1722	1607.			
.3050	1026.	97.	1801.	-82.	1324.	-24.	-.0251	.0625	-.1295	.0646	-.0348	.1622	1874.			
.3060	1178.	-91.	1813.	77.	1456.	23.	-.0237	.0594	-.1280	.0644	-.0440	.1495	2059.			
.3070	1222.	-275.	1785.	234.	1486.	69.	-.0212	.0559	-.1240	.0630	-.0501	.1345	2128.			
.3080	1144.	-445.	1728.	378.	1405.	112.	-.0176	.0517	-.1175	.0609	-.0523	.1179	2062.			
.3090	963.	-605.	1595.	514.	1218.	152.	-.0132	.0467	-.1087	.0586	-.0501	.1006	1880.			
.3100	699.	-745.	1379.	632.	940.	187.	-.0082	.0407	-.0977	.0564	-.0437	.0832	1622.			
.3110	374.	-838.	1122.	711.	599.	211.	-.0029	.0339	-.0848	.0550	-.0337	.0660	1347.			
.3120	26.	-867.	840.	736.	233.	218.	.0025	.0260	-.0705	.0550	-.0211	.0493	1133.			
.3130	-303.	-846.	546.	718.	-120.	213.	.0075	.0172	-.0550	.0562	-.0072	.0335	1072.			
.3140	-592.	-806.	281.	684.	-432.	203.	.0121	.0073	-.0388	.0586	.0067	.0190	1178.			
.3150	-809.	-758.	55.	644.	-673.	191.	.0160	-.0034	-.0221	.0624	.0195	.0062	1343.			
.3160	-932.	-689.	-13.	585.	-826.	173.	.0190	-.0149	-.0053	.0675	.0305	-.0052	1450.			
.3170	-957.	-584.	-296.	495.	-887.	147.	.0211	-.0271	.0114	.0743	.0393	-.0157	1450.			
.3180	-888.	-454.	-429.	386.	-862.	114.	.0222	-.0398	.0276	.0826	.0457	-.0250	1343.			
.3190	-736.	-323.	-553.	274.	-764.	81.	.0224	-.0528	.0433	.0921	.0500	-.0330	1152.			
.3200	-525.	-195.	-670.	165.	-614.	49.	.0218	-.0660	.0581	.1026	.0524	-.0399	901.			
.3210	-298.	-52.	-751.	44.	-441.	13.	.0208	-.0793	.0720	.1141	.0535	-.0461	627.			
.3220	-78.	120.	-806.	-102.	-269.	-30.	.0195	-.0923	.0846	.1262	.0535	-.0520	409.			
.3230	128.	315.	-874.	-267.	-111.	-79.	.0182	-.1051	.0961	.1386	.0529	-.0575	424.			
.3240	296.	514.	-946.	-436.	13.	-129.	.0172	-.1173	.1061	.1507	.0520	-.0627	643.			
.3250	388.	708.	-974.	-601.	85.	-178.	.0166	-.1288	.1147	.1618	.0512	-.0679	893.			
.3260	412.	898.	-975.	-763.	104.	-226.	.0165	-.1395	.1217	.1714	.0505	-.0733	1133.			
.3270	388.	1084.	-984.	-920.	82.	-273.	.0170	-.1491	.1271	.1791	.0500	-.0790	1361.			
.3280	323.	1249.	-1002.	-1061.	22.	-314.	.0180	-.1574	.1310	.1844	.0497	-.0850	1563.			
.3290	228.	1369.	-1030.	-1162.	-65.	-344.	.0194	-.1643	.1333	.1868	.0496	-.0913	1715.			
.3300	125.	1430.	-1072.	-1214.	-164.	-359.	.0211	-.1698	.1341	.1859	.0494	-.0977	1803.			
.3310	17.	1428.	-1096.	-1212.	-262.	-359.	.0231	-.1737	.1332	.1818	.0487	-.1043	1824.			
.3320	-84.	1367.	-1100.	-1160.	-348.	-344.	.0253	-.1760	.1307	.1747	.0471	-.1110	1778.			
.3330	-149.	1242.	-1116.	-1055.	-407.	-312.	.0276	-.1767	.1265	.1649	.0443	-.1178	1657.			
.3340	-177.	1059.	-1124.	-899.	-433.	-266.	.0299	-.1760	.1208	.1531	.0401	-.1243	1459.			
.3350	-197.	833.	-1061.	-707.	-434.	-209.	.0323	-.1740	.1135	.1399	.0343	-.1306	1209.			
.3360	-209.	588.	-938.	-499.	-414.	-148.	.0345	-.1708	.1046	.1262	.0273	-.1366	939.			
.3370	-196.	345.	-815.	-293.	-372.	-87.	.0367	-.1668	.0944	.1128	.0193	-.1421	679.			
.3380	-167.	122.	-697.	-104.	-317.	-31.	.0386	-.1620	.0831	.1005	.0108	-.1467	473.			
.3390	-142.	-63.	-562.	53.	-262.	16.	.0404	-.1567	.0708	.0897	.0020	-.1503	378.			
.3400	-121.	-201.	-420.	171.	-208.	51.	.0419	-.1512	.0577	.0807	-.0066	-.1526	387.			
.3410	-97.	-296.	-280.	251.	-153.	74.	.0431	-.1455	.0440	.0735	-.0150	-.1530	428.			

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83/12/02. 18.26.14.

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

.3300	127.	1430.	-1096.	-1212.	-262.	-359.	.231	-.1737	.1332	.1818	.0487	-.1043	1803.
.3310	17.	1428.	-1096.	-1212.	-262.	-359.	.231	-.1737	.1332	.1818	.0487	-.1043	1824.
.3320	-24.	1367.	-1100.	-1160.	-348.	-344.	.253	-.1760	.1307	.1747	.0471	-.1110	1778.
.3330	-149.	1242.	-1116.	-1055.	-407.	-312.	.0276	-.1767	.1265	.1649	.0443	-.1178	1657.
.3340	-177.	1059.	-1124.	-399.	-433.	-266.	.0299	-.1760	.1208	.1531	.0401	-.1243	1459.
.3350	-167.	823.	-1061.	-707.	-434.	-239.	.0323	-.1740	.1135	.1399	.0343	-.1306	1209.
.3360	-209.	588.	-938.	-499.	-414.	-148.	.0345	-.1708	.1046	.1262	.0277	-.1366	939.
.3370	-196.	345.	-815.	-293.	-372.	-87.	.0367	-.1668	.0944	.1128	.0193	-.1421	679.
.3380	-167.	122.	-697.	-104.	-317.	-31.	.0386	-.1620	.0831	.1005	.0108	-.1467	473.
.3390	-142.	-63.	-562.	53.	-262.	16.	.0404	-.1567	.0708	.0897	.0020	-.1503	378.
.3400	-121.	-201.	-420.	171.	-208.	51.	.0419	-.1512	.0577	.0807	-.0066	-.1526	387.
.3410	-97.	-296.	-280.	251.	-153.	74.	.0431	-.1455	.0440	.0735	-.0150	-.1530	428.

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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

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LOADS

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ENGLISH UNITS

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

SECTION	11	MEMBER	1	SEQUENCE	841	LOCATION	BEG	TYPE	TE						
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)		
.3420	-67.	-355.	-139.	301.	-92.	89.	.0442	-.1399	.0299	.0678	-.0232	-.1512	462.		
.3430	-22.	-382.	-1.	324.	-19.	96.	.0452	-.1345	.0157	.0636	-.0310	-.1468	479.		
.3440	44.	-385.	139.	327.	72.	97.	.0460	-.1294	.0015	.0603	-.0385	-.1398	493.		
.3450	118.	-378.	315.	321.	179.	95.	.0469	-.1246	-.0124	.0578	-.0454	-.1301	536.		
.3460	197.	-370.	520.	314.	298.	93.	.0478	-.1202	-.0257	.0557	-.0511	-.1176	625.		
.3470	288.	-359.	700.	304.	420.	90.	.0487	-.1161	-.0383	.0540	-.0553	-.1027	744.		
.3480	380.	-336.	840.	285.	534.	84.	.0497	-.1125	-.0498	.0529	-.0574	-.0861	863.		
.3490	440.	-298.	972.	253.	618.	75.	.0508	-.1091	-.0601	.0524	-.0570	-.0683	949.		
.3500	448.	-247.	1096.	209.	656.	62.	.0520	-.1061	-.0690	.0526	-.0537	-.0500	976.		
.3510	402.	-187.	1182.	159.	639.	47.	.0533	-.1033	-.0763	.0533	-.0477	-.0318	932.		
.3520	301.	-116.	1224.	98.	563.	29.	.0547	-.1007	-.0819	.0548	-.0393	-.0145	809.		
.3530	144.	-28.	1243.	23.	435.	7.	.0562	-.0982	-.0857	.0570	-.0290	.0010	615.		
.3540	-54.	76.	1246.	-65.	267.	-19.	.0576	-.0958	-.0876	.0596	-.0178	.0142	389.		
.3550	-276.	181.	1237.	-154.	77.	-46.	.0588	-.0934	-.0877	.0623	-.0063	.0245	251.		
.3560	-497.	272.	1218.	-231.	-115.	-68.	.0597	-.0909	-.0857	.0648	.0044	.0317	377.		
.3570	-679.	347.	1163.	-295.	-284.	-87.	.0601	-.0883	-.0819	.0666	.0136	.0355	591.		
.3580	-796.	416.	1062.	-353.	-409.	-104.	.0598	-.0854	-.0761	.0677	.0207	.0357	777.		
.3590	-845.	475.	941.	-403.	-481.	-119.	.0588	-.0824	-.0686	.0676	.0252	.0324	902.		
.3600	-829.	507.	822.	-430.	-497.	-127.	.0570	-.0790	-.0595	.0658	.0270	.0261	946.		
.3610	-745.	501.	689.	-425.	-459.	-126.	.0544	-.0754	-.0491	.0622	.0263	.0172	902.		
.3620	-604.	465.	536.	-395.	-378.	-117.	.0512	-.0716	-.0375	.0568	.0234	.0062	790.		
.3630	-434.	418.	384.	-355.	-272.	-105.	.0473	-.0674	-.0251	.0496	.0190	-.0065	648.		
.3640	-258.	368.	238.	-312.	-160.	-92.	.0430	-.0629	-.0121	.0410	.0140	-.0203	512.		
.3650	-98.	309.	84.	-263.	-62.	-78.	.0382	-.0582	.0011	.0309	.0091	-.0345	397.		
.3660	27.	241.	-80.	-205.	3.	-61.	.0331	-.0532	.0144	.0196	.0052	-.0436	302.		
.3670	102.	176.	-258.	-149.	22.	-44.	.0277	-.0480	.0274	.0076	.0026	-.0620	222.		
.3680	130.	128.	-452.	-109.	-3.	-32.	.0223	-.0425	.0398	-.0047	.0016	-.0745	160.		
.3690	109.	96.	-650.	-82.	-71.	-24.	.0167	-.0368	.0514	-.0172	.0020	-.0856	156.		
.3700	43.	65.	-827.	-55.	-172.	-16.	.0111	-.0309	.0619	-.0297	.0032	-.0949	256.		
.3710	-52.	21.	-983.	-18.	-291.	-5.	.0055	-.0248	.0710	-.0421	.0049	-.1019	412.		
.3720	-150.	-32.	-1117.	27.	-408.	8.	-.0001	-.0185	.0785	-.0541	.0062	-.1065	578.		
.3730	-234.	-79.	-1215.	67.	-504.	20.	-.0058	-.0119	.0844	-.0651	.0066	-.1086	719.		
.3740	-288.	-117.	-1271.	99.	-564.	29.	-.0115	-.0052	.0884	-.0751	.0057	-.1082	810.		
.3750	-295.	-151.	-1298.	128.	-577.	38.	-.0174	.0017	.0906	-.0837	.0033	-.1052	836.		
.3760	-345.	-181.	-1302.	154.	-535.	45.	-.0233	.0087	.0908	-.0907	-.0007	-.0995	789.		
.3770	-144.	-192.	-1271.	163.	-442.	48.	-.0293	.0160	.0892	-.0960	-.0061	-.0915	669.		
.3780	1.	-170.	-1206.	144.	-303.	43.	-.0353	.0234	.0856	-.0994	-.0125	-.0813	478.		
.3790	178.	-120.	-1112.	102.	-128.	30.	-.0410	.0310	.0803	-.1010	-.0196	-.0692	235.		

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18.26.14.

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

.3690	109.	96.	-150.	-82.	-71.	-24.	167	-.0368	.0514	-.0172	.0020	-.0856	156.
.3700	43.	65.	-827.	-55.	-172.	-16.	.111	-.0309	.0619	-.0297	.0032	-.0949	256.
.3710	-52.	21.	-983.	-18.	-291.	-5.	.0055	-.0248	.0710	-.0421	.0049	-.1019	412.
.3720	-150.	-32.	-1117.	27.	-405.	8.	-.0001	-.0185	.0725	-.0541	.0062	-.1065	578.
.3730	-234.	-79.	-1210.	67.	-524.	20.	-.0058	-.0119	.0844	-.0651	.0066	-.1086	719.
.3740	-288.	-117.	-1271.	99.	-564.	29.	-.0115	-.0052	.0884	-.0751	.0057	-.1082	810.
.3750	-295.	-151.	-1298.	128.	-577.	38.	-.0174	.0017	.0906	-.0837	.0033	-.1052	836.
.3760	-245.	-181.	-1302.	154.	-535.	45.	-.0233	.0037	.0908	-.0907	-.0007	-.0995	789.
.3770	-144.	-192.	-1271.	163.	-442.	48.	-.0293	.0160	.0892	-.0960	-.0061	-.0915	669.
.3780	1.	-170.	-1200.	144.	-303.	43.	-.0353	.0234	.0856	-.0994	-.0125	-.0813	478.
.3790	178.	-120.	-1112.	102.	-128.	30.	-.0410	.0310	.0803	-.1010	-.0196	-.0692	235.

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

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LOADS

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ENGLISH UNITS

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

SECTION	11	MEMBER	1	SEQUENCE	841	LOCATION	DEG	TYPE	TE					
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)
.3800	366.	-56.	-985.	47.	63.	14.		-.0464	.0387	.0734	-.1010	-.0268	-.0550	113.
.3810	542.	16.	-826.	-14.	252.	-4.		-.0513	.0467	.0649	-.1000	-.0333	-.0392	357.
.3820	692.	96.	-655.	-82.	423.	-24.		-.0556	.0550	.0552	-.0980	-.0385	-.0222	609.
.3830	807.	182.	-482.	-154.	564.	-46.		-.0591	.0636	.0444	-.0954	-.0421	-.0042	828.
.3840	876.	258.	-313.	-219.	665.	-65.		-.0618	.0725	.0328	-.0927	-.0436	.0145	994.
.3850	896.	307.	-156.	-261.	722.	-77.		-.0635	.0817	.0206	-.0903	-.0428	.0335	1089.
.3860	871.	319.	-23.	-271.	734.	-80.		-.0643	.0913	.0082	-.0884	-.0399	.0526	1111.
.3870	807.	298.	88.	-253.	707.	-75.		-.0641	.1011	-.0044	-.0871	-.0351	.0712	1066.
.3880	711.	250.	182.	-212.	649.	-63.		-.0630	.1113	-.0168	-.0865	-.0290	.0891	968.
.3890	591.	170.	261.	-145.	567.	-43.		-.0610	.1215	-.0289	-.0863	-.0220	.1059	829.
.3900	452.	56.	335.	-48.	468.	-14.		-.0582	.1319	-.0407	-.0867	-.0146	.1216	664.
.3910	298.	-83.	414.	71.	357.	21.		-.0548	.1421	-.0518	-.0873	-.0073	.1357	515.
.3920	142.	-226.	487.	192.	243.	57.		-.0508	.1521	-.0623	-.0878	-.0004	.1482	445.
.3930	-2.	-355.	542.	301.	135.	89.		-.0466	.1617	-.0719	-.0878	.0060	.1587	483.
.3940	-133.	-473.	588.	401.	35.	119.		-.0423	.1707	-.0806	-.0873	.0117	.1677	593.
.3950	-254.	-585.	633.	496.	-56.	147.		-.0381	.1789	-.0883	-.0865	.0166	.1752	736.
.3960	-357.	-686.	670.	582.	-135.	172.		-.0342	.1862	-.0950	-.0853	.0208	.1813	879.
.3970	-437.	-764.	692.	649.	-197.	192.		-.0307	.1925	-.1006	-.0837	.0241	.1862	995.
.3980	-489.	-818.	706.	695.	-237.	206.		-.0277	.1975	-.1051	-.0818	.0265	.1900	1077.
.3990	-519.	-862.	728.	732.	-258.	217.		-.0253	.2012	-.1084	-.0799	.0280	.1930	1138.
.4000	-536.	-906.	767.	769.	-262.	228.		-.0236	.2036	-.1105	-.0782	.0286	.1954	1191.

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)
.1120	-1431.	4249.	-2104.	-3607.	-1744.	-1068.		.0087	.1354	-.1759	-.2790	-.1707	.0771	5857.

SECTION	11	MEMBER	1	SEQUENCE	231	LOCATION	END	TYPE	TE					
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	1.	1.	2.	-1.	1.	-0.		.0000	-.0000	-.0000	-.0000	.0000	-.0000	1.
.0020	9.	8.	8.	-3.	4.	-1.		.0001	-.0000	-.0001	-.0000	.0002	.0001	8.
.0030	35.	15.	-1.	-6.	14.	-2.		.0002	.0000	-.0004	.0000	.0005	.0004	21.

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

CONDITION 24

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ENGLISH UNITS

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

SECTION	11	MEMBER	1	SEQUENCE	231	LOCATION	END	TYPE	TE						
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	1.	1.	2.	-1.	1.	-0.		.0000	-.0000	-.0000	-.0000	.0000	-.0000	1.	
.0020	9.	8.	8.	-3.	4.	-1.		.0001	-.0000	-.0001	-.0000	.0002	.0001	8.	
.0030	35.	15.	-1.	-6.	14.	-2.		.0002	.0000	-.0004	.0000	.0005	.0004	21.	

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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	11	MEMBER	1	SEQUENCE	231	LOCATION	END	TYPE	TE						
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)	
.0040	83.	8.	-30.	-3.	29.	-1.		.0003	.0000	-.0010	.0004	.0012	.0012	42.	
.0050	150.	-18.	-71.	7.	52.	2.		.0006	.0001	-.0018	.0011	.0022	.0023	74.	
.0060	253.	-54.	-137.	22.	85.	6.		.0008	.0003	-.0031	.0020	.0040	.0038	124.	
.0070	404.	-91.	-254.	37.	131.	11.		.0012	.0006	-.0050	.0031	.0064	.0064	193.	
.0080	626.	-133.	-498.	53.	191.	16.		.0019	.0012	-.0080	.0044	.0094	.0108	281.	
.0090	998.	-203.	-1057.	81.	273.	24.		.0034	.0021	-.0124	.0060	.0131	.0171	404.	
.0100	1483.	-299.	-1833.	119.	376.	35.		.0059	.0034	-.0184	.0074	.0180	.0252	559.	
.0110	1937.	-382.	-2498.	152.	478.	45.		.0094	.0052	-.0254	.0080	.0240	.0353	712.	
.0120	2296.	-425.	-2913.	170.	573.	50.		.0139	.0075	-.0332	.0072	.0314	.0473	847.	
.0130	2626.	-432.	-3205.	173.	670.	51.		.0192	.0104	-.0413	.0049	.0402	.0601	980.	
.0140	3012.	-406.	-3558.	162.	782.	48.		.0252	.0138	-.0498	.0005	.0513	.0727	1131.	
.0150	3483.	-327.	-4064.	131.	911.	39.		.0316	.0175	-.0584	-.0060	.0651	.0855	1301.	
.0160	4116.	-192.	-4962.	77.	1057.	23.		.0383	.0216	-.0674	-.0141	.0815	.0987	1497.	
.0170	4655.	-31.	-5793.	13.	1174.	4.		.0448	.0258	-.0767	-.0225	.0988	.1124	1659.	
.0180	4569.	126.	-5473.	-51.	1178.	-15.		.0511	.0301	-.0856	-.0294	.1142	.1266	1665.	
.0190	3719.	263.	-3746.	-105.	1043.	-31.		.0574	.0343	-.0937	-.0337	.1252	.1408	1481.	
.0200	2090.	405.	-805.	-162.	740.	-48.		.0646	.0382	-.1010	-.0362	.1254	.1529	1072.	
.0210	542.	590.	1333.	-236.	374.	-70.		.0737	.0410	-.1092	-.0398	.1121	.1586	632.	
.0220	-114.	938.	1699.	-375.	155.	-111.		.0834	.0423	-.1164	-.0481	.0938	.1557	594.	
.0230	-599.	1558.	2032.	-622.	1.	-184.		.0913	.0415	-.1189	-.0598	.0748	.1468	917.	
.0240	-43.	2121.	137.	-847.	-1.	-251.		.0967	.0383	-.1182	-.0681	.0571	.1281	1248.	
.0250	388.	2324.	-1551.	-928.	-28.	-275.		.0987	.0325	-.1142	-.0670	.0386	.0984	1368.	
.0260	-2049.	2330.	3272.	-931.	-432.	-276.		.0950	.0239	-.1020	-.0560	.0155	.0666	1500.	
.0270	-4687.	2115.	9323.	-845.	-770.	-250.		.0850	.0125	-.0832	-.0377	-.0061	.0314	1652.	
.0280	-4235.	1385.	8039.	-553.	-741.	-164.		.0724	-.0021	-.0669	-.0162	-.0316	-.0184	1327.	
.0290	-3295.	569.	4030.	-227.	-840.	-67.		.0590	-.0190	-.0541	.0020	-.0727	-.0754	1232.	
.0300	-2575.	559.	820.	-223.	-932.	-66.		.0430	-.0371	-.0401	.0135	-.1164	-.1158	1356.	
.0310	-1794.	1042.	-1580.	-416.	-904.	-123.		.0247	-.0558	-.0244	.0256	-.1526	-.1436	1416.	
.0320	-3208.	516.	880.	-206.	-1177.	-61.		.0054	-.0745	-.0046	.0526	-.1837	-.1771	1690.	
.0330	-4192.	-1613.	2593.	644.	-1368.	191.		-.0130	-.0924	.0153	.0931	-.2010	-.2202	2153.	
.0340	-2203.	-3500.	-1047.	1438.	-1004.	426.		-.0296	-.1083	.0329	.1225	-.1950	-.2569	2549.	
.0350	-551.	-3522.	-2908.	1407.	-564.	417.		-.0453	-.1213	.0524	.1215	-.1741	-.2702	2220.	
.0360	-1578.	-2169.	1091.	866.	-501.	257.		-.0604	-.1301	.0759	.1034	-.1522	-.2612	1459.	
.0370	-1900.	-1905.	3243.	761.	-375.	225.		-.0735	-.1347	.0982	.0923	-.1301	-.2534	1240.	
.0380	108.	-3016.	497.	1205.	102.	357.		-.0850	-.1360	.1168	.0846	-.1047	-.2657	1781.	
.0390	679.	-3289.	528.	1314.	334.	389.		-.0969	-.1345	.1357	.0576	-.0857	-.2758	1992.	
.0400	-1539.	-1575.	4440.	629.	-90.	186.		-.1074	-.1295	.1540	.0102	-.0899	-.2472	936.	
.0410	-1895.	308.	3547.	-123.	-338.	-36.		-.1149	-.1219	.1662	-.0350	-.1053	-.2067	510.	

ADLPIPE PAGE 538 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.26.14.

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

.0310	-1754.	1042.	580.	-416.	-904.	-123.	.0247	-.0558	-.0244	.0256	-.1526	-.1436	1416.
.0320	-3208.	516.	880.	-206.	-1177.	-61.	.054	-.0745	-.0046	.0526	-.1937	-.1771	1690.
.0330	-4192.	-1613.	2593.	644.	-1368.	171.	-.1130	-.0924	.0153	.0931	-.2010	-.2202	2153.
.0340	-2207.	-3600.	-1047.	1478.	-1004.	426.	-.0296	-.1083	.0329	.1225	-.1750	-.2569	2549.
.0350	-551.	-3522.	-2908.	1407.	-564.	417.	-.0453	-.1213	.0524	.1215	-.1741	-.2702	2220.
.0360	-1578.	-2169.	1091.	866.	-501.	357.	-.0604	-.1301	.0759	.1034	-.1522	-.2612	1459.
.0370	-1900.	-1905.	3243.	761.	-375.	225.	-.0735	-.1347	.0982	.0923	-.1301	-.2534	1240.
.0380	108.	-3016.	497.	1205.	102.	357.	-.0850	-.1360	.1168	.0846	-.1047	-.2657	1781.
.0390	679.	-3289.	528.	1314.	334.	389.	-.0969	-.1345	.1357	.0576	-.0857	-.2758	1992.
.0400	-1539.	-1575.	4440.	629.	-90.	186.	-.1074	-.1295	.1540	.0102	-.0899	-.2472	936.
.0410	-1895.	308.	3547.	-123.	-338.	-36.	-.1149	-.1219	.1662	-.0350	-.1053	-.2067	510.

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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

SECTION	11	MEMBER	1	SEQUENCE	231	LOCATION	END	TYPE	TE					
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)	
.0420	-1203.	598.	576.	-239.	-412.	-71.	-.1194	-.1137	.1730	-.0628	-.1242	-.2023	681.	
.0430	-2789.	97.	1857.	-39.	-895.	-11.	-.1204	-.1055	.1781	-.0777	-.1528	-.2115	1265.	
.0440	-4131.	219.	1756.	-88.	-1443.	-26.	-.1166	-.0966	.1796	-.0893	-.1790	-.1877	2042.	
.0450	-3377.	717.	-1187.	-287.	-1490.	-85.	-.1086	-.0878	.1775	-.0998	-.1812	-.1526	2146.	
.0460	-2764.	674.	-962.	-269.	-1218.	-80.	-.0974	-.0799	.1751	-.1015	-.1559	-.1448	1766.	
.0470	-3119.	96.	1772.	-38.	-1037.	-11.	-.0826	-.0716	.1728	-.0864	-.1168	-.1409	1465.	
.0480	-2379.	-531.	1470.	212.	-777.	63.	-.0637	-.0619	.1673	-.0604	-.0686	-.1149	1141.	
.0490	-633.	-879.	331.	351.	-214.	104.	-.0423	-.0522	.1587	-.0422	-.0079	-.0921	599.	
.0500	252.	-534.	2193.	213.	360.	63.	-.0197	-.0432	.1486	-.0403	.0545	-.0834	598.	
.0510	864.	522.	3106.	-209.	713.	-62.	.0040	-.0336	.1351	-.0422	.1020	-.0581	1053.	
.0520	1996.	1398.	930.	-558.	907.	-165.	.0278	-.0236	.1175	-.0328	.1322	-.0191	1523.	
.0530	2413.	1578.	174.	-630.	984.	-187.	.0495	-.0154	.0984	-.0141	.1534	-.0018	1672.	
.0540	2030.	1913.	1118.	-764.	943.	-226.	.0682	-.0099	.0786	.0052	.1698	.0064	1744.	
.0550	2008.	2955.	77.	-1180.	811.	-350.	.0841	-.0067	.0577	.0279	.1811	.0425	2083.	
.0560	1789.	3554.	-939.	-1420.	604.	-420.	.0973	-.0064	.0366	.0664	.1907	.0871	2259.	
.0570	887.	2648.	743.	-1058.	442.	-313.	.1076	-.0099	.0163	.1266	.2033	.1018	1679.	
.0580	691.	1118.	1604.	-447.	466.	-132.	.1164	-.0162	-.0051	.1995	.2165	.1074	930.	
.0590	1416.	320.	82.	-128.	576.	-38.	.1244	-.0241	-.0285	.2688	.2241	.1383	834.	
.0600	1680.	49.	-133.	-20.	655.	-6.	.1305	-.0334	-.0518	.3255	.2273	.1749	926.	
.0610	1583.	-688.	1013.	275.	752.	81.	.1343	-.0437	-.0749	.3739	.2267	.1896	1137.	
.0620	2298.	-1970.	-193.	787.	895.	233.	.1360	-.0530	-.0988	.4190	.2178	.1965	1715.	
.0630	2947.	-3037.	-2163.	1213.	921.	359.	.1350	-.0600	-.1215	.4526	.1983	.2115	2211.	
.0640	2549.	-3314.	-1594.	1324.	830.	392.	.1298	-.0647	-.1407	.4593	.1752	.2237	2275.	
.0650	2335.	-2826.	-991.	1129.	815.	334.	.1201	-.0672	-.1568	.4371	.1537	.2295	2023.	
.0660	2794.	-2142.	-2500.	856.	821.	253.	.1067	-.0667	-.1703	.3990	.1286	.2392	1713.	
.0670	2302.	-1887.	-2769.	754.	592.	223.	.0899	-.0633	-.1793	.3563	.0941	.2459	1390.	
.0680	779.	-1912.	-864.	764.	209.	226.	.0704	-.0578	-.1841	.3066	.0522	.2366	1163.	
.0690	-0.	-1360.	-700.	543.	-83.	161.	.0501	-.0511	-.1871	.2429	.0062	.2233	809.	
.0700	-147.	26.	-2718.	-11.	-380.	-3.	.0303	-.0433	-.1885	.1679	-.0448	.2209	537.	
.0710	-854.	1301.	-3811.	-520.	-792.	-154.	.0114	-.0356	-.1861	.0954	-.0961	.2153	1356.	
.0720	-1625.	1518.	-3861.	-606.	-1106.	-180.	-.0068	-.0288	-.1787	.0391	-.1364	.1873	1799.	
.0730	-1961.	909.	-3891.	-363.	-1244.	-108.	-.0237	-.0231	-.1660	.0006	-.1513	.1446	1837.	
.0740	-2587.	361.	-2930.	-144.	-1380.	-43.	-.0381	-.0179	-.1482	-.0293	-.1737	.1053	1961.	
.0750	-3042.	271.	-1688.	-108.	-1415.	-32.	-.0497	-.0135	-.1265	-.0596	-.1723	.0690	2005.	
.0760	-2251.	411.	-2033.	-164.	-1140.	-49.	-.0583	-.0098	-.1025	-.0913	-.1557	.0263	1628.	
.0770	-1224.	475.	-2316.	-190.	-763.	-56.	-.0643	-.0067	-.0754	-.1195	-.1318	-.0209	1113.	
.0780	-1334.	387.	-363.	-155.	-576.	-46.	-.0680	-.0037	-.0450	-.1420	-.1110	-.0659	845.	
.0790	-1479.	360.	1493.	-144.	-414.	-43.	-.0694	-.0013	-.0140	-.1639	-.0946	-.1100	622.	

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DIS/ADLPIPE

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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

.0680	774.	-1712.	64.	764.	209.	226.	704	-.0578	-.1841	.3066	.0522	.2366	1163.
.0690	-0.	-1360.	-700.	543.	-83.	161.	.0501	-.0511	-.1871	.2429	.0062	.2233	809.
.0700	-147.	26.	-2718.	-11.	-380.	-3.	.0303	-.0433	-.1885	.1679	-.0448	.2209	537.
.0710	-854.	1301.	-3811.	-520.	-792.	-154.	.0114	-.0356	-.1861	.0954	-.0961	.2153	1356.
.0720	-1625.	1518.	-3861.	-606.	-1106.	-180.	-.0068	-.0288	-.1787	.0391	-.1364	.1873	1799.
.0730	-1961.	909.	-3891.	-363.	-1244.	-108.	-.0277	-.0231	-.1660	.0006	-.1513	.1446	1837.
.0740	-2587.	361.	-2930.	-144.	-1380.	-43.	-.0381	-.0179	-.1402	-.0293	-.1737	.1053	1961.
.0750	-3042.	271.	-1688.	-108.	-1415.	-32.	-.0497	-.0135	-.1265	-.0596	-.1723	.0690	2005.
.0760	-2251.	411.	-2033.	-164.	-1140.	-49.	-.0583	-.0098	-.1025	-.0913	-.1557	.0263	1628.
.0770	-1824.	475.	-2316.	-190.	-763.	-56.	-.0643	-.0067	-.0754	-.1195	-.1318	-.0209	1113.
.0780	-1334.	387.	-763.	-155.	-576.	-46.	-.0680	-.0037	-.0450	-.1420	-.1110	-.0659	845.
.0790	-1479.	360.	1497.	-144.	-414.	-43.	-.0694	-.0013	-.0140	-.1639	-.0946	-.1100	622.

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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	11	MEMBER	1	SEQUENCE	231	LOCATION	END	TYPE	TE					
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)	
.0800	-400.	814.	813.	-325.	-64.	-96.	-.0689	-.0004	.0152	-.1926	-.0303	-.1558	488.	
.0810	612.	1916.	-143.	-766.	228.	-227.	-.0673	-.0013	.0434	-.2265	-.0718	-.1961	1173.	
.0820	397.	3081.	607.	-1231.	230.	-364.	-.0657	-.0044	.0717	-.2525	-.0722	-.2270	1842.	
.0830	-119.	3404.	1452.	-1360.	124.	-403.	-.0643	-.0103	.0992	-.2579	-.0766	-.2588	2011.	
.0840	-369.	2784.	1641.	-1112.	47.	-329.	-.0627	-.0195	.1244	-.2425	-.0811	-.2984	1640.	
.0850	-957.	2086.	2245.	-833.	-117.	-247.	-.0602	-.0318	.1469	-.2160	-.0875	-.3310	1239.	
.0860	-1591.	1885.	2540.	-753.	-323.	-223.	-.0560	-.0464	.1659	-.1838	-.0955	-.3417	1200.	
.0870	-1595.	1661.	2067.	-664.	-393.	-196.	-.0498	-.0626	.1808	-.1422	-.1006	-.3404	1124.	
.0880	-1526.	675.	1984.	-270.	-375.	-80.	-.0413	-.0798	.1922	-.0860	-.1021	-.3419	662.	
.0890	-1822.	-872.	2762.	348.	-401.	103.	-.0306	-.0966	.2002	-.0196	-.1017	-.3397	765.	
.0900	-1723.	-2108.	2592.	842.	-382.	249.	-.0176	-.1118	.2038	.0436	-.0964	-.3215	1353.	
.0910	-972.	-2570.	1483.	1027.	-213.	304.	-.0030	-.1247	.2032	.0930	-.0806	-.2907	1542.	
.0920	-311.	-2570.	1173.	1027.	15.	304.	.0119	-.1346	.2000	.1299	-.0535	-.2553	1513.	
.0930	32.	-2687.	1609.	1073.	203.	318.	.0264	-.1405	.1949	.1629	-.0181	-.2148	1607.	
.0940	373.	-3122.	1917.	1247.	376.	369.	.0400	-.1423	.1874	.1931	.0238	-.1711	1912.	
.0950	687.	-3484.	2435.	1392.	561.	412.	.0525	-.1402	.1771	.2119	.0697	-.1283	2198.	
.0960	1009.	-3206.	2914.	1281.	748.	379.	.0636	-.1344	.1632	.2122	.1150	-.0811	2162.	
.0970	1629.	-2305.	2288.	921.	921.	273.	.0734	-.1249	.1453	.1980	.1548	-.0240	1880.	
.0980	2227.	-1503.	1221.	600.	1034.	178.	.0811	-.1123	.1244	.1796	.1870	.0313	1708.	
.0990	2355.	-1360.	1003.	543.	1059.	161.	.0859	-.0974	.1019	.1639	.2120	.0714	1697.	
.1000	2348.	-1583.	947.	633.	1050.	187.	.0875	-.0805	.0780	.1487	.2302	.1021	1752.	
.1010	2562.	-1556.	233.	622.	1051.	184.	.0860	-.0617	.0530	.1280	.2413	.1333	1744.	
.1020	2612.	-1212.	-187.	484.	1021.	143.	.0814	-.0415	.0278	.1000	.2441	.1595	1610.	
.1030	2262.	-988.	98.	395.	915.	117.	.0738	-.0200	.0029	.0697	.2361	.1721	1418.	
.1040	1864.	-1080.	-8.	431.	744.	128.	.0640	.0029	-.0217	.0407	.2145	.1744	1228.	
.1050	1394.	-1135.	-503.	454.	497.	134.	.0528	.0269	-.0459	.0084	.1783	.1723	969.	
.1060	568.	-689.	-435.	275.	176.	81.	.0408	.0514	-.0693	-.0345	.1296	.1662	475.	
.1070	-107.	305.	-641.	-122.	-119.	-36.	.0287	.0756	-.0918	-.0878	.0731	.1572	245.	
.1080	-629.	1464.	-1383.	-585.	-415.	-173.	.0179	.0990	-.1136	-.1423	.0095	.1482	1042.	
.1090	-1483.	2413.	-1766.	-964.	-802.	-286.	.0103	.1205	-.1351	-.1902	-.0526	.1364	1816.	
.1100	-783.	3017.	-3830.	-1205.	-766.	-357.	.0036	.1384	-.1549	-.2332	-.1165	.1110	2080.	
.1110	-615.	3658.	-3953.	-1461.	-713.	-433.	-.0026	.1519	-.1702	-.2701	-.1532	.0859	2377.	
.1120	-1431.	4249.	-2104.	-1698.	-821.	-503.	-.0081	.1611	-.1809	-.2928	-.1773	.0731	2756.	
.1130	-1464.	4146.	-1411.	-1656.	-752.	-491.	-.0124	.1658	-.1893	-.2945	-.1853	.0574	2661.	
.1140	-721.	3338.	-1498.	-1333.	-465.	-395.	-.0155	.1653	-.1964	-.2799	-.1799	.0283	2071.	
.1150	-301.	2669.	-1075.	-1066.	-247.	-316.	-.0175	.1605	-.2016	-.2590	-.1714	.0053	1609.	
.1160	199.	2485.	-1542.	-993.	-103.	-294.	-.0187	.1521	-.2053	-.2356	-.1636	.0029	1470.	
.1170	577.	2091.	-1960.	-836.	-1.	-247.	-.0201	.1408	-.2068	-.2054	-.1559	.0031	1231.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.15.

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

.1070	-107.	305.	-641.	-112.	-119.	-36.	.287	.0756	-.0918	-.0878	.0731	.1572	245.
.1080	-629.	1464.	-1383.	-585.	-415.	-173.	.179	.0990	-.1136	-.1423	.0095	.1482	1042.
.1090	-1483.	2413.	-1766.	-964.	-802.	-286.	.0103	.1205	-.1351	-.1902	-.0526	.1364	1816.
.1100	-763.	3017.	-3830.	-1205.	-756.	-357.	.0036	.1384	-.1549	-.2332	-.1165	.1110	2080.
.1110	-615.	3658.	-3957.	-1461.	-713.	-433.	-.0026	.1519	-.1702	-.2701	-.1532	.0859	2377.
.1120	-1431.	4249.	-2104.	-1698.	-821.	-503.	-.0081	.1611	-.1309	-.2928	-.1773	.0731	2756.
.1130	-1464.	4146.	-1411.	-1656.	-752.	-491.	-.0124	.1652	-.1893	-.2945	-.1853	.0574	2661.
.1140	-721.	3378.	-1498.	-1333.	-465.	-395.	-.0155	.1653	-.1964	-.2799	-.1799	.0283	2071.
.1150	-301.	2669.	-1075.	-1066.	-247.	-316.	-.0175	.1605	-.2016	-.2590	-.1714	.0053	1609.
.1160	192.	2485.	-1542.	-993.	-103.	-294.	-.0187	.1521	-.2053	-.2356	-.1636	.0029	1470.
.1170	577.	2091.	-1960.	-836.	-1.	-247.	-.0201	.1408	-.2068	-.2054	-.1559	.0031	1231.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.15.

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	11	MEMBER	1	SEQUENCE	231	LOCATION	END	TYPE	TE					
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)	
.1180	1742.	979.	-3298.	-391.	306.	-116.	-.0235	.1272	-.2051	-.1656	-.1400	-.0097	720.	
.1190	1173.	-187.	-1828.	75.	252.	22.	-.0290	.1128	-.1980	-.1208	-.1288	-.0180	373.	
.1200	-166.	-743.	-152.	297.	-84.	88.	-.0360	.0987	-.1872	-.0799	-.1246	-.0068	453.	
.1210	418.	-882.	-2409.	352.	-118.	104.	-.0432	.0851	-.1756	-.0494	-.1177	.0080	545.	
.1220	8.	-952.	-2286.	380.	-267.	113.	-.0506	.0716	-.1606	-.0301	-.1140	.0109	675.	
.1230	-736.	-1004.	-1720.	401.	-497.	119.	-.0575	.0595	-.1422	-.0152	-.1130	.0172	918.	
.1240	-1608.	-1145.	-1441.	457.	-813.	135.	-.0631	.0493	-.1208	.0006	-.1150	.0323	1331.	
.1250	-2404.	-1533.	-589.	612.	-1030.	181.	-.0669	.0406	-.0968	.0142	-.1132	.0373	1712.	
.1260	-2000.	-1781.	-867.	712.	-902.	211.	-.0684	.0332	-.0716	.0188	-.1010	.0320	1649.	
.1270	-2590.	-1391.	379.	556.	-990.	165.	-.0665	.0279	-.0451	.0138	-.0931	.0378	1620.	
.1280	-2325.	-926.	-414.	370.	-978.	110.	-.0608	.0246	-.0192	.0056	-.0833	.0509	1485.	
.1290	-1779.	-1183.	-788.	473.	-804.	140.	-.0522	.0226	.0067	-.0017	-.0654	.0451	1332.	
.1300	-1728.	-1777.	682.	710.	-610.	210.	-.0417	.0221	.0335	-.0105	-.0407	.0268	1355.	
.1310	-467.	-1786.	-215.	714.	-212.	211.	-.0298	.0241	.0594	-.0252	-.0068	.0223	1093.	
.1320	85.	-1201.	262.	480.	65.	142.	-.0177	.0280	.0857	-.0469	.0304	.0253	713.	
.1330	720.	-792.	1314.	316.	443.	94.	-.0065	.0333	.1112	-.0714	.0736	.0144	780.	
.1340	1208.	-723.	2490.	289.	777.	86.	.0037	.0398	.1347	-.0944	.1132	-.0048	1177.	
.1350	1455.	-542.	2967.	217.	932.	64.	-.0129	.0475	.1550	-.1171	.1401	-.0158	1355.	
.1360	2366.	-30.	1803.	12.	1159.	3.	.0203	.0555	.1711	-.1434	.1596	-.0242	1637.	
.1370	2174.	754.	2948.	-301.	1217.	-89.	.0249	.0630	.1844	-.1728	.1590	-.0395	1776.	
.1380	2564.	1574.	2593.	-629.	1331.	-186.	.0265	.0697	.1935	-.1966	.1721	-.0510	2096.	
.1390	2834.	2033.	1749.	-812.	1339.	-241.	.0247	.0753	.1991	-.2067	.1671	-.0561	2238.	
.1400	2150.	1839.	2800.	-735.	1190.	-218.	.0190	.0789	.2023	-.2032	.1572	-.0690	2000.	
.1410	2067.	1312.	2987.	-524.	1179.	-155.	.0096	.0804	.2013	-.1912	.1485	-.0880	1836.	
.1420	1388.	1034.	3631.	-413.	984.	-122.	-.0022	.0805	.1962	-.1744	.1314	-.0971	1517.	
.1430	1022.	897.	2992.	-358.	762.	-106.	-.0154	.0796	.1860	-.1521	.1072	-.0953	1199.	
.1440	464.	435.	2815.	-174.	518.	-51.	-.0298	.0780	.1714	-.1240	.0777	-.0984	776.	
.1450	-271.	-288.	3140.	115.	263.	34.	-.0445	.0759	.1530	-.0933	.0438	-.1052	409.	
.1460	-217.	-802.	1673.	320.	111.	95.	-.0588	.0744	.1302	-.0649	.0084	-.1002	497.	
.1470	-1189.	-946.	1824.	378.	-259.	112.	-.0720	.0739	.1051	-.0421	-.0324	-.0840	666.	
.1480	-1566.	-976.	1085.	390.	-497.	116.	-.0838	.0744	.0773	-.0249	-.0575	-.0679	908.	
.1490	-1651.	-918.	-49.	367.	-665.	109.	-.0938	.0761	.0479	-.0119	-.0958	-.0508	1084.	
.1500	-2342.	-673.	-92.	269.	-947.	80.	-.1015	.0790	.0188	-.0024	-.1196	-.0242	1394.	
.1510	-2473.	-424.	-790.	169.	-1081.	50.	-.1066	.0828	-.0101	.0042	-.1327	.0082	1548.	
.1520	-2868.	-309.	-304.	123.	-1102.	37.	-.1086	.0869	-.0381	.0076	-.1376	.0365	1679.	
.1530	-2459.	-202.	-890.	81.	-1088.	24.	-.1071	.0912	-.0655	.0083	-.1334	.0640	1541.	
.1540	-2322.	53.	-985.	-21.	-1044.	-6.	-.1019	.0958	-.0915	.0076	-.1278	.0972	1475.	
.1550	-2389.	274.	-620.	-110.	-1028.	-32.	-.0934	.1003	-.1158	.0072	-.1213	.1310	1461.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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18.26.15.

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

.1440	424.	433.	3140.	115.	263.	34.	-.445	.0750	.1530	-.0933	.0438	-.1052	409.
.1450	-271.	-288.	1673.	320.	111.	95.	-.588	.0744	.1302	-.0649	.0084	-.1002	497.
.1470	-1189.	-946.	1824.	378.	-259.	112.	-.0720	.0739	.1051	-.0421	-.0324	-.0840	666.
.1480	-1566.	-976.	1085.	390.	-497.	116.	-.0838	.0744	.0773	-.0249	-.0575	-.0679	908.
.1490	-1651.	-918.	-49.	367.	-665.	109.	-.0938	.0761	.0479	-.0119	-.0958	-.0508	1084.
.1500	-2742.	-673.	-92.	269.	-947.	30.	-.1015	.0790	.0188	-.0024	-.1196	-.0242	1394.
.1510	-2473.	-424.	-790.	169.	-1081.	50.	-.1066	.0828	-.0101	.0042	-.1327	.0082	1548.
.1520	-2868.	-309.	-304.	123.	-1182.	37.	-.1086	.0869	-.0381	.0076	-.1376	.0365	1679.
.1530	-2459.	-202.	-890.	81.	-1088.	24.	-.1071	.0912	-.0655	.0083	-.1334	.0640	1541.
.1540	-2322.	53.	-985.	-21.	-1044.	-6.	-.1019	.0958	-.0915	.0076	-.1278	.0972	1475.
.1550	-2389.	274.	-620.	-110.	-1028.	-32.	-.0974	.1003	-.1158	.0072	-.1213	.1310	1461.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.15.

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	11	MEMBER	1	SEQUENCE	231	LOCATION	END	TYPE	TE						
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)		
.1560	-1086.	271.	-2419.	-108.	-720.	-32.	-.0824	.1043	-.1386	.0075	-.1061	.1577	1029.		
.1570	-714.	224.	-2360.	-89.	-565.	-26.	-.0699	.1078	-.1577	.0078	-.0903	.1806	808.		
.1580	-366.	215.	-2363.	-86.	-426.	-25.	-.0568	.1111	-.1731	.0092	-.0714	.2058	615.		
.1590	769.	81.	-3556.	-32.	-113.	-10.	-.0440	.1141	-.1846	.0126	-.0453	.2272	167.		
.1600	997.	-166.	-2565.	66.	95.	20.	-.0325	.1169	-.1910	.0164	-.0182	.2385	166.		
.1610	594.	-273.	-742.	109.	149.	32.	-.0221	.1196	-.1932	.0182	.0040	.2480	265.		
.1620	1474.	-127.	-2099.	51.	340.	15.	-.0126	.1223	-.1939	.0158	.0225	.2596	487.		
.1630	1444.	202.	-2016.	-81.	338.	-24.	-.0044	.1244	-.1913	.0076	.0316	.2635	492.		
.1640	1017.	646.	-1349.	-258.	247.	-76.	.0023	.1256	-.1857	-.0043	.0342	.2598	516.		
.1650	1325.	1177.	-2542.	-470.	229.	-139.	.0075	.1259	-.1778	-.0152	.0343	.2570	764.		
.1660	732.	1640.	-2176.	-655.	35.	-194.	.0113	.1244	-.1661	-.0224	.0301	.2505	967.		
.1670	321.	1849.	-1669.	-739.	-69.	-219.	.0136	.1206	-.1513	-.0251	.0299	.2337	1093.		
.1680	-76.	1911.	-1015.	-763.	-150.	-226.	.0151	.1143	-.1338	-.0234	.0320	.2120	1145.		
.1690	186.	1930.	-1689.	-771.	-125.	-228.	.0162	.1054	-.1146	-.0170	.0374	.1924	1149.		
.1700	138.	1785.	-1534.	-713.	-126.	-211.	.0171	.0940	-.0931	-.0053	.0442	.1692	1065.		
.1710	-1099.	1359.	1039.	-543.	-316.	-161.	.0183	.0804	-.0695	.0118	.0472	.1385	916.		
.1720	-520.	773.	79.	-309.	-198.	-91.	.0204	.0650	-.0471	.0324	.0536	.1079	534.		
.1730	-88.	345.	-589.	-138.	-105.	-41.	.0232	.0485	-.0246	.0511	.0577	.0804	251.		
.1740	-207.	143.	211.	-57.	-58.	-17.	.0262	.0311	-.0013	.0655	.0613	.0537	117.		
.1750	291.	-56.	155.	22.	135.	7.	.0291	.0134	.0215	.0784	.0683	.0275	193.		
.1760	493.	-413.	645.	165.	273.	49.	.0314	-.0039	.0442	.0922	.0745	.0020	456.		
.1770	1120.	-828.	476.	331.	504.	98.	.0325	-.0205	.0658	.1045	.0831	-.0227	862.		
.1780	1083.	-980.	1599.	391.	622.	116.	.0320	-.0363	.0868	.1109	.0897	-.0449	1051.		
.1790	1482.	-816.	1635.	326.	791.	97.	.0297	-.0510	.1055	.1109	.0954	-.0613	1217.		
.1800	2132.	-630.	1014.	252.	972.	74.	.0253	-.0646	.1218	.1085	.0979	-.0746	1422.		
.1810	1353.	-664.	2676.	265.	857.	79.	.0187	-.0771	.1365	.1068	.0901	-.0896	1272.		
.1820	1247.	-864.	2576.	345.	803.	102.	.0103	-.0884	.1476	.1054	.0777	-.1044	1243.		
.1830	1112.	-932.	1998.	372.	681.	110.	.0004	-.0986	.1553	.1009	.0583	-.1162	1107.		
.1840	601.	-731.	1820.	312.	456.	92.	-.0106	-.1077	.1601	.0923	.0336	-.1248	791.		
.1850	70.	-636.	1443.	254.	199.	75.	-.0223	-.1155	.1623	.0835	.0070	-.1321	468.		
.1860	-819.	-756.	1517.	302.	-148.	89.	-.0340	-.1219	.1624	.0783	-.0205	-.1407	491.		
.1870	-1066.	-1150.	607.	459.	-354.	136.	-.0450	-.1269	.1605	.0761	-.0422	-.1519	841.		
.1880	-1828.	-1489.	1131.	595.	-597.	176.	-.0547	-.1301	.1577	.0729	-.0501	-.1629	1216.		
.1890	-2330.	-1540.	1512.	615.	-752.	182.	-.0622	-.1314	.1532	.0661	-.0725	-.1693	1396.		
.1900	-2053.	-1425.	691.	569.	-738.	169.	-.0668	-.1304	.1467	.0566	-.0788	-.1727	1338.		
.1910	-2316.	-1365.	1184.	546.	-785.	162.	-.0684	-.1274	.1391	.0465	-.0842	-.1781	1370.		
.1920	-2292.	-1357.	1151.	542.	-756.	161.	-.0668	-.1223	.1298	.0362	-.0868	-.1833	1333.		
.1930	-1988.	-1161.	1027.	464.	-672.	137.	-.0621	-.1154	.1186	.0233	-.0875	-.1839	1170.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.15.

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

.1830	1112.	-932.	1998.	372.	681.	110.	.0004	-.0986	.1553	.1009	.0583	-.1162	1107.
.1840	601.	-731.	1820.	312.	456.	92.	-.0106	-.1077	.1601	.0923	.0336	-.1248	791.
.1850	70.	-636.	1443.	254.	199.	75.	-.0223	-.1155	.1623	.0835	.0070	-.1321	468.
.1860	-819.	-756.	1517.	302.	-141.	89.	-.0340	-.1219	.1624	.0783	-.0205	-.1407	491.
.1870	-1066.	-1150.	607.	459.	-354.	136.	-.0450	-.1269	.1605	.0761	-.0422	-.1519	841.
.1880	-1228.	-1429.	1131.	595.	-597.	176.	-.0547	-.1301	.1577	.0729	-.0501	-.1629	1216.
.1890	-2330.	-1540.	1512.	615.	-752.	182.	-.0622	-.1314	.1532	.0661	-.0725	-.1693	1396.
.1900	-2052.	-1425.	691.	569.	-738.	169.	-.0668	-.1304	.1467	.0566	-.0788	-.1727	1338.
.1910	-2316.	-1365.	1184.	546.	-785.	162.	-.0684	-.1274	.1391	.0465	-.0342	-.1781	1370.
.1920	-2292.	-1357.	1351.	542.	-756.	161.	-.0668	-.1223	.1298	.0362	-.0868	-.1833	1333.
.1930	1988.	-1161.	1027.	464.	-672.	137.	-.0621	-.1154	.1186	.0233	-.0875	-.1839	1170.

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DIS/ADLPIPE

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83/12/02.

18.26.15.

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	11	MEMBER	1	SEQUENCE	231	LOCATION	END	TYPE	TE					
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)	
.1940	-1770.	-681.	951.	272.	-595.	81.	-.0546	-.1070	.1061	.0069	-.0866	-.1799	931.	
.1950	-1490.	-100.	870.	40.	-493.	12.	-.0448	-.0977	.0921	-.0101	-.0828	-.1736	698.	
.1960	-970.	355.	405.	-142.	-340.	-42.	-.0333	-.0879	.0770	-.0233	-.0751	-.1655	523.	
.1970	-559.	632.	255.	-253.	-193.	-75.	-.0207	-.0783	.0614	-.0309	-.0645	-.1554	461.	
.1980	-409.	822.	712.	-328.	-79.	-97.	-.0075	-.0692	.0452	-.0343	-.0520	-.1431	496.	
.1990	-146.	1003.	896.	-401.	48.	-119.	.0060	-.0611	.0282	-.0345	-.0382	-.1276	594.	
.2000	328.	1173.	483.	-468.	188.	-139.	.0195	-.0542	.0100	-.0312	-.0250	-.1091	740.	
.2010	698.	1281.	104.	-512.	291.	-151.	.0325	-.0488	-.0086	-.0237	-.0139	-.0888	859.	
.2020	933.	1301.	-121.	-520.	359.	-154.	.0445	-.0450	-.0273	-.0117	-.0050	-.0672	918.	
.2030	1187.	1250.	-477.	-499.	418.	-148.	.0550	-.0427	-.0455	.0042	.0026	-.0440	943.	
.2040	1348.	1161.	-764.	-464.	448.	-137.	.0637	-.0421	-.0628	.0229	.0093	-.0198	932.	
.2050	1378.	1059.	-933.	-423.	440.	-125.	.0702	-.0431	-.0788	.0436	.0151	.0052	880.	
.2060	1404.	942.	-1250.	-376.	413.	-111.	.0746	-.0454	-.0932	.0665	.0205	.0308	805.	
.2070	1343.	786.	-1523.	-314.	356.	-93.	.0767	-.0490	-.1055	.0919	.0256	.0563	684.	
.2080	1017.	566.	-1401.	-226.	241.	-67.	.0770	-.0535	-.1154	.1190	.0292	.0806	476.	
.2090	619.	286.	-1276.	-114.	96.	-34.	.0759	-.0588	-.1231	.1465	.0315	.1034	216.	
.2100	400.	-24.	-1573.	10.	-26.	3.	.0738	-.0646	-.1287	.1731	.0332	.1241	40.	
.2110	179.	-341.	-1810.	136.	-142.	40.	.0712	-.0706	-.1319	.1974	.0344	.1418	284.	
.2120	-149.	-664.	-1732.	265.	-264.	79.	.0684	-.0762	-.1323	.2189	.0353	.1558	541.	
.2130	-358.	-1005.	-1782.	401.	-354.	119.	.0658	-.0812	-.1301	.2365	.0374	.1655	774.	
.2140	-374.	-1333.	-2013.	533.	-387.	158.	.0635	-.0851	-.1253	.2483	.0420	.1700	957.	
.2150	-342.	-1576.	-2020.	630.	-376.	186.	.0615	-.0877	-.1176	.2523	.0495	.1688	1068.	
.2160	-260.	-1684.	-1786.	673.	-315.	199.	.0599	-.0888	-.1069	.2476	.0595	.1631	1086.	
.2170	-13.	-1685.	-1551.	673.	-189.	199.	.0585	-.0881	-.0938	.2349	.0711	.1522	1027.	
.2180	328.	-1608.	-1218.	642.	-13.	190.	.0571	-.0856	-.0783	.2145	.0823	.1349	946.	
.2190	686.	-1401.	-731.	560.	182.	166.	.0553	-.0815	-.0611	.1863	.0907	.1121	864.	
.2200	1100.	-1008.	-513.	403.	379.	119.	.0528	-.0761	-.0426	.1511	.0943	.0860	799.	
.2210	1463.	-493.	-329.	197.	546.	58.	.0492	-.0697	-.0233	.1114	.0916	.0568	824.	
.2220	1595.	-2.	36.	1.	641.	0.	.0439	-.0628	-.0033	.0706	.0816	.0234	906.	
.2230	1546.	392.	355.	-157.	659.	-46.	.0369	-.0559	.0166	.0318	.0545	-.0131	960.	
.2240	1410.	717.	408.	-286.	612.	-85.	.0280	-.0493	.0361	-.0035	.0416	-.0504	961.	
.2250	1093.	995.	507.	-397.	497.	-118.	.0174	-.0436	.0550	-.0345	.0149	-.0869	914.	
.2260	560.	1170.	834.	-467.	322.	-138.	.0054	-.0389	.0730	-.0598	-.0135	-.1220	825.	
.2270	-46.	1164.	1116.	-465.	114.	-138.	-.0073	-.0353	.0897	-.0779	-.0417	-.1546	704.	
.2280	-647.	982.	1254.	-392.	-110.	-116.	-.0200	-.0327	.1046	-.0888	-.0680	-.1836	598.	
.2290	-1229.	741.	1384.	-296.	-327.	-88.	-.0319	-.0311	.1173	-.0945	-.0904	-.2076	635.	
.2300	-1671.	572.	1428.	-228.	-499.	-68.	-.0423	-.0302	.1278	-.0974	-.1068	-.2246	781.	
.2310	-1901.	489.	1326.	-195.	-602.	-58.	-.0508	-.0298	.1358	-.0983	-.1156	-.2337	898.	

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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
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.2210	1403.	-493.	329.	197.	546.	58.	.492	-.0697	-.0233	.1114	.0916	.0568	824.
.2220	1595.	-7.	36.	1.	641.	0.	.439	-.0628	-.0033	.0706	.0816	.0234	906.
.2230	1546.	392.	355.	-157.	659.	-46.	.0369	-.0559	.0166	.0318	.0545	-.0131	960.
.2240	1410.	717.	408.	-286.	612.	-85.	.0260	-.0493	.0361	-.0035	.0416	-.0504	961.
.2250	1093.	995.	507.	-397.	497.	-118.	.0174	-.0436	.0550	-.0345	.0149	-.0869	914.
.2260	500.	1170.	834.	-467.	322.	-138.	.0054	-.0389	.0730	-.0598	-.0135	-.1220	825.
.2270	-46.	1164.	1116.	-465.	114.	-138.	-.0073	-.0353	.0897	-.0779	-.0417	-.1546	704.
.2280	-647.	982.	1254.	-392.	-110.	-116.	-.0200	-.0327	.1046	-.0888	-.0680	-.1836	598.
.2290	-1229.	741.	1384.	-296.	-327.	-88.	-.0319	-.0311	.1173	-.0945	-.0904	-.2076	635.
.2300	-1671.	572.	1428.	-228.	-499.	-68.	-.0423	-.0302	.1278	-.0974	-.1068	-.2246	781.
.2310	-1901.	489.	1326.	-195.	-402.	-58.	-.0508	-.0298	.1358	-.0983	-.1156	-.2337	898.

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

SECTION	11	MEMBER	1	SEQUENCE	231	LOCATION	END	TYPE	TE						
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)	
.2320	-2003.	390.	1311.	-156.	-645.	-46.		-.0570	-.0298	.1415	-.0964	-.1163	-.2360	940.	
.2330	-1991.	215.	1443.	-86.	-625.	-25.		-.0609	-.0299	.1450	-.0918	-.1386	-.2329	891.	
.2340	-1782.	51.	1522.	-20.	-532.	-6.		-.0624	-.0301	.1460	-.0857	-.0935	-.2237	752.	
.2350	-1442.	13.	1568.	-5.	-390.	-2.		-.0617	-.0302	.1445	-.0798	-.0729	-.2075	552.	
.2360	-1095.	80.	1694.	-32.	-237.	-9.		-.0591	-.0302	.1405	-.0740	-.0497	-.1853	338.	
.2370	-719.	107.	1732.	-43.	-82.	-13.		-.0548	-.0300	.1339	-.0666	-.0265	-.1597	132.	
.2380	-311.	8.	1582.	-3.	63.	-1.		-.0493	-.0297	.1247	-.0565	-.0257	-.1324	89.	
.2390	-2.	-163.	1447.	65.	170.	19.		-.0430	-.0291	.1133	-.0444	.0106	-.1038	259.	
.2400	170.	-328.	1359.	131.	229.	39.		-.0363	-.0281	.0998	-.0312	.0216	-.0741	376.	
.2410	304.	-491.	1090.	196.	250.	58.		-.0294	-.0265	.0844	-.0174	.0271	-.0445	457.	
.2420	386.	-716.	666.	286.	233.	85.		-.0226	-.0241	.0677	-.0028	.0277	-.0169	534.	
.2430	315.	-1018.	340.	407.	166.	120.		-.0160	-.0205	.0500	.0121	.0244	.0076	643.	
.2440	125.	-1325.	149.	529.	68.	157.		-.0097	-.0155	.0320	.0257	.0189	.0292	786.	
.2450	-77.	-1538.	-16.	614.	-33.	182.		-.0036	-.0088	.0139	.0357	.0129	.0486	906.	
.2460	-234.	-1602.	-197.	640.	-117.	190.		.0025	-.0003	-.0042	.0404	.0079	.0657	957.	
.2470	-298.	-1518.	-444.	606.	-172.	180.		.0087	.0100	-.0218	.0395	.0048	.0804	926.	
.2480	-226.	-1307.	-757.	522.	-180.	155.		.0151	.0221	-.0387	.0332	.0050	.0928	810.	
.2490	-78.	-988.	-922.	395.	-140.	117.		.0214	.0357	-.0545	.0220	.0090	.1033	614.	
.2500	89.	-588.	-848.	235.	-65.	70.		.0274	.0502	-.0690	.0067	.0165	.1118	358.	
.2510	379.	-144.	-840.	58.	52.	17.		.0330	.0652	-.0821	-.0114	.0268	.1186	112.	
.2520	834.	303.	-1054.	-121.	209.	-36.		.0377	.0802	-.0940	-.0312	.0389	.1237	344.	
.2530	1276.	719.	-1175.	-287.	371.	-85.		.0411	.0945	-.1042	-.0512	.0513	.1268	673.	
.2540	1552.	1049.	-1011.	-419.	500.	-124.		.0427	.1078	-.1127	-.0698	.0618	.1283	938.	
.2550	1693.	1233.	-794.	-492.	583.	-146.		.0424	.1195	-.1195	-.0859	.0682	.1279	1097.	
.2560	1749.	1267.	-728.	-506.	613.	-150.		.0399	.1295	-.1251	-.0996	.0690	.1253	1142.	
.2570	1674.	1236.	-743.	-494.	581.	-146.		.0355	.1375	-.1293	-.1122	.0631	.1211	1096.	
.2580	1444.	1224.	-783.	-489.	484.	-145.		.0291	.1436	-.1322	-.1243	.0502	.1169	994.	
.2590	1095.	1212.	-846.	-484.	333.	-143.		.0212	.1479	-.1338	-.1356	.0313	.1128	854.	
.2600	617.	1127.	-886.	-450.	142.	-133.		.0121	.1504	-.1339	-.1454	.0078	.1073	693.	
.2610	132.	985.	-968.	-394.	-62.	-117.		.0024	.1513	-.1326	-.1542	-.0178	.1002	586.	
.2620	-271.	887.	-1165.	-354.	-246.	-105.		-.0075	.1506	-.1298	-.1628	-.0428	.0932	627.	
.2630	-607.	871.	-1289.	-348.	-395.	-103.		-.0171	.1486	-.1252	-.1710	-.0648	.0870	758.	
.2640	-902.	356.	-1194.	-342.	-502.	-101.		-.0262	.1454	-.1188	-.1778	-.0821	.0802	869.	
.2650	-1071.	752.	-1063.	-300.	-554.	-89.		-.0343	.1411	-.1108	-.1816	-.0938	.0721	899.	
.2660	-1062.	578.	-1035.	-231.	-547.	-68.		-.0412	.1359	-.1012	-.1828	-.0998	.0634	844.	
.2670	-961.	426.	-956.	-170.	-497.	-50.		-.0470	.1300	-.0903	-.1826	-.1007	.0551	746.	
.2680	-829.	327.	-767.	-131.	-422.	-39.		-.0516	.1235	-.0780	-.1814	-.0975	.0477	627.	
.2690	-648.	215.	-640.	-86.	-334.	-25.		-.0552	.1168	-.0646	-.1785	-.0914	.0406	489.	

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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

.2590	1085.	1212.	-846.	-484.	333.	-143.	.0212	.1479	-.1338	-.1356	.0313	.1128	854.
.2600	617.	1127.	-886.	-450.	142.	-133.	.0121	.1504	-.1339	-.1454	.0078	.1073	693.
.2610	132.	985.	-968.	-394.	-62.	-117.	.0024	.1513	-.1326	-.1542	-.0178	.1002	586.
.2620	-271.	397.	-1165.	-354.	-246.	-105.	-.0075	.1506	-.1298	-.1628	-.0428	.0932	627.
.2630	-607.	671.	-1289.	-348.	-395.	-103.	-.0171	.1486	-.1252	-.1710	-.0648	.0870	758.
.2640	-902.	356.	-1194.	-342.	-502.	-101.	-.0262	.1454	-.1188	-.1778	-.0821	.0802	869.
.2650	-1071.	752.	-1063.	-300.	-554.	-89.	-.0343	.1411	-.1108	-.1816	-.0938	.0721	899.
.2660	-1062.	578.	-1035.	-231.	-547.	-68.	-.0412	.1359	-.1012	-.1828	-.0998	.0634	844.
.2670	-961.	426.	-956.	-170.	-497.	-50.	-.0470	.1300	-.0903	-.1826	-.1007	.0551	746.
.2680	-829.	327.	-767.	-131.	-422.	-39.	-.0516	.1235	-.0780	-.1814	-.0975	.0477	627.
.2690	-648.	215.	-640.	-86.	-334.	-25.	-.0552	.1168	-.0646	-.1785	-.0914	.0406	489.

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S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK

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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	11	MEMBER	1	SEQUENCE	231	LOCATION	END	TYPE	TE					
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)	
.2700	-449.	26.	-609.	-10.	-251.	-3.	-.0580	.1099	-.0503	-.1734	-.0838	.0329	356.	
.2710	-315.	-203.	-532.	81.	-189.	24.	-.0602	.1032	-.0352	-.1669	-.0752	.0247	292.	
.2720	-260.	-385.	-373.	154.	-148.	46.	-.0619	.0968	-.0193	-.1605	-.0561	.0167	309.	
.2730	-269.	-501.	-164.	200.	-127.	59.	-.0632	.0910	-.0030	-.1547	-.0568	.0090	345.	
.2740	-364.	-610.	129.	244.	-130.	72.	-.0641	.0860	.0136	-.1493	-.0482	.0006	403.	
.2750	-493.	-736.	430.	294.	-146.	87.	-.0643	.0818	.0299	-.1441	-.0404	-.0092	480.	
.2760	-581.	-807.	637.	322.	-157.	95.	-.0637	.0787	.0454	-.1405	-.0334	-.0194	524.	
.2770	-640.	-753.	835.	301.	-157.	89.	-.0622	.0766	.0599	-.1391	-.0268	-.0291	496.	
.2780	-680.	-609.	1080.	243.	-144.	72.	-.0596	.0755	.0730	-.1395	-.0204	-.0384	412.	
.2790	-635.	-463.	1250.	185.	-106.	55.	-.0562	.0753	.0844	-.1401	-.0135	-.0478	311.	
.2800	-488.	-352.	1320.	140.	-39.	42.	-.0518	.0758	.0938	-.1401	-.0059	-.0573	214.	
.2810	-312.	-234.	1432.	94.	45.	28.	-.0468	.0769	.1010	-.1395	.0026	-.0657	152.	
.2820	-137.	-88.	1609.	35.	136.	10.	-.0415	.0785	.1060	-.1384	.0116	-.0720	198.	
.2830	59.	46.	1728.	-19.	228.	-5.	-.0359	.0803	.1085	-.1361	.0204	-.0761	323.	
.2840	241.	122.	1764.	-49.	305.	-14.	-.0304	.0822	.1084	-.1320	.0280	-.0780	437.	
.2850	363.	154.	1755.	-61.	352.	-18.	-.0251	.0841	.1056	-.1264	.0335	-.0771	506.	
.2860	433.	196.	1667.	-78.	370.	-23.	-.0201	.0859	.1002	-.1201	.0365	-.0726	535.	
.2870	469.	274.	1488.	-109.	363.	-32.	-.0157	.0875	.0923	-.1136	.0373	-.0640	538.	
.2880	459.	362.	1272.	-145.	334.	-43.	-.0118	.0888	.0823	-.1066	.0364	-.0515	518.	
.2890	423.	424.	1032.	-169.	291.	-50.	-.0086	.0897	.0704	-.0989	.0348	-.0356	481.	
.2900	391.	453.	778.	-181.	248.	-54.	-.0061	.0900	.0570	-.0902	.0336	-.0168	440.	
.2910	359.	467.	592.	-186.	214.	-55.	-.0043	.0898	.0425	-.0807	.0333	.0046	408.	
.2920	331.	478.	490.	-191.	190.	-57.	-.0032	.0890	.0271	-.0705	.0344	.0281	389.	
.2930	348.	469.	365.	-187.	182.	-56.	-.0026	.0875	.0110	-.0594	.0366	.0529	377.	
.2940	414.	415.	182.	-166.	187.	-49.	-.0027	.0854	-.0056	-.0471	.0391	.0775	360.	
.2950	481.	317.	11.	-126.	194.	-37.	-.0034	.0828	-.0224	-.0338	.0413	.1010	331.	
.2960	522.	197.	-144.	-79.	191.	-23.	-.0047	.0798	-.0390	-.0198	.0421	.1228	294.	
.2970	542.	73.	-351.	-29.	175.	-9.	-.0066	.0764	-.0553	-.0056	.0410	.1423	251.	
.2980	525.	-57.	-610.	23.	138.	7.	-.0092	.0729	-.0708	.0085	.0374	.1584	197.	
.2990	441.	-186.	-871.	74.	73.	22.	-.0122	.0693	-.0852	.0221	.0312	.1706	150.	
.3000	280.	-291.	-1110.	116.	-19.	34.	-.0157	.0658	-.0982	.0346	.0225	.1789	174.	
.3010	46.	-356.	-1302.	142.	-136.	42.	-.0193	.0626	-.1092	.0453	.0116	.1832	284.	
.3020	-245.	-377.	-1437.	151.	-268.	45.	-.0228	.0596	-.1182	.0540	-.0009	.1834	439.	
.3030	-545.	-348.	-1563.	139.	-403.	41.	-.0258	.0569	-.1249	.0602	-.0143	.1796	604.	
.3040	-809.	-254.	-1705.	101.	-525.	30.	-.0280	.0543	-.1291	.0638	-.0277	.1724	756.	
.3050	-1026.	-97.	-1801.	39.	-623.	11.	-.0289	.0518	-.1306	.0649	-.0398	.1623	882.	
.3060	-1178.	91.	-1813.	-36.	-685.	-11.	-.0285	.0492	-.1295	.0641	-.0495	.1494	969.	
.3070	-1222.	275.	-1785.	-110.	-700.	-33.	-.0265	.0463	-.1257	.0621	-.0558	.1342	1001.	

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2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

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ENGLISH UNITS

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

.2970	542.	73.	-351.	-29.	175.	-9.	-.0066	.0764	-.0553	-.0056	.0410	.1423	251.
.2980	525.	-57.	-610.	23.	138.	7.	-.0092	.0729	-.0708	.0085	.0374	.1584	197.
.2990	441.	-186.	-871.	74.	73.	22.	-.0122	.0693	-.0852	.0221	.0312	.1706	150.
.3000	280.	-291.	-1110.	116.	-19.	34.	-.0157	.0658	-.0982	.0346	.0225	.1789	174.
.3010	46.	-356.	-1302.	142.	-136.	42.	-.0193	.0626	-.1092	.0453	.0116	.1832	284.
.3020	-245.	-377.	-1437.	151.	-268.	45.	-.0228	.0596	-.1182	.0540	-.0009	.1834	439.
.3030	-545.	-348.	-1563.	179.	-403.	41.	-.0258	.0569	-.1249	.0602	-.0143	.1796	604.
.3040	-809.	-254.	-1705.	101.	-525.	30.	-.0280	.0543	-.1291	.0638	-.0277	.1724	756.
.3050	-1026.	-97.	-1801.	39.	-623.	11.	-.0289	.0518	-.1306	.0649	-.0398	.1623	882.
.3060	-1178.	91.	-1813.	-36.	-685.	-11.	-.0285	.0492	-.1295	.0641	-.0495	.1494	969.
.3070	-1222.	275.	-1785.	-110.	-700.	-33.	-.0265	.0463	-.1257	.0621	-.0558	.1342	1001.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.15.

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	11	MEMBER	1	SEQUENCE	231	LOCATION	END	TYPE	TE						
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)		
.3080	-1144.	445.	-1728.	-178.	-661.	-53.	-.0231	.0428	-.1192	.0595	-.0576	.1175	970.		
.3090	-963.	605.	-1595.	-242.	-573.	-72.	-.0184	.0386	-.1103	.0566	-.0547	.1000	885.		
.3100	-699.	745.	-1379.	-298.	-443.	-88.	-.0127	.0334	-.0990	.0540	-.0473	.0824	763.		
.3110	-374.	838.	-1122.	-335.	-282.	-99.	-.0063	.0272	-.0859	.0523	-.0359	.0652	634.		
.3120	-26.	867.	-840.	-346.	-110.	-103.	.0004	.0198	-.0711	.0522	-.0220	.0485	533.		
.3130	303.	846.	-546.	-338.	56.	-100.	.0069	.0113	-.0552	.0535	-.0068	.0327	504.		
.3140	592.	806.	-281.	-322.	203.	-95.	.0129	.0016	-.0385	.0560	.0083	.0183	555.		
.3150	809.	758.	-55.	-303.	317.	-90.	.0181	-.0092	-.0215	.0599	.0221	.0055	632.		
.3160	932.	689.	139.	-275.	389.	-81.	.0223	-.0209	-.0043	.0653	.0337	-.0059	682.		
.3170	957.	584.	296.	-233.	417.	-69.	.0252	-.0334	.0126	.0724	.0427	-.0162	682.		
.3180	888.	454.	429.	-182.	406.	-54.	.0268	-.0467	.0290	.0811	.0490	-.0254	632.		
.3190	736.	323.	553.	-129.	360.	-38.	.0274	-.0604	.0448	.0911	.0529	-.0333	542.		
.3200	525.	195.	670.	-78.	289.	-23.	.0270	-.0745	.0597	.1020	.0548	-.0401	424.		
.3210	298.	52.	751.	-21.	208.	-6.	.0260	-.0887	.0735	.1139	.0551	-.0461	295.		
.3220	78.	-120.	806.	48.	127.	14.	.0247	-.1028	.0862	.1266	.0545	-.0518	192.		
.3230	-128.	-315.	874.	126.	52.	37.	.0233	-.1166	.0976	.1397	.0534	-.0572	200.		
.3240	-296.	-514.	946.	205.	-6.	61.	.0221	-.1299	.1076	.1524	.0520	-.0622	302.		
.3250	-388.	-708.	974.	283.	-40.	84.	.0214	-.1425	.1161	.1641	.0509	-.0672	420.		
.3260	-412.	-898.	975.	359.	-49.	106.	.0212	-.1539	.1231	.1743	.0501	-.0724	533.		
.3270	-388.	-1084.	984.	433.	-39.	128.	.0217	-.1642	.1285	.1826	.0496	-.0780	640.		
.3280	-323.	-1249.	1002.	499.	-10.	148.	.0226	-.1729	.1324	.1885	.0496	-.0838	735.		
.3290	-228.	-1369.	1030.	547.	31.	162.	.0241	-.1799	.1348	.1912	.0499	-.0899	807.		
.3300	-125.	-1430.	1072.	571.	77.	169.	.0258	-.1851	.1355	.1905	.0500	-.0963	848.		
.3310	-17.	-1428.	1096.	571.	123.	169.	.0278	-.1884	.1346	.1864	.0497	-.1030	858.		
.3320	84.	-1367.	1100.	546.	164.	162.	.0299	-.1898	.1321	.1791	.0484	-.1097	837.		
.3330	149.	-1242.	1116.	496.	192.	147.	.0319	-.1894	.1279	.1689	.0459	-.1166	780.		
.3340	177.	-1059.	1124.	423.	204.	125.	.0339	-.1873	.1220	.1565	.0417	-.1233	686.		
.3350	197.	-833.	1061.	333.	204.	99.	.0357	-.1838	.1145	.1426	.0360	-.1298	569.		
.3360	209.	-588.	938.	235.	195.	70.	.0373	-.1791	.1055	.1281	.0289	-.1360	442.		
.3370	196.	-345.	815.	138.	175.	41.	.0386	-.1736	.0951	.1139	.0267	-.1417	320.		
.3380	167.	-122.	697.	49.	149.	14.	.0398	-.1674	.0835	.1009	.0120	-.1466	223.		
.3390	142.	63.	562.	-25.	123.	-7.	.0407	-.1609	.0709	.0895	.0030	-.1504	178.		
.3400	121.	201.	420.	-80.	98.	-24.	.0413	-.1544	.0575	.0801	-.0058	-.1528	182.		
.3410	97.	296.	280.	-118.	72.	-35.	.0418	-.1480	.0436	.0725	-.0144	-.1533	202.		
.3420	67.	355.	139.	-142.	43.	-42.	.0421	-.1420	.0293	.0667	-.0228	-.1515	217.		
.3430	22.	382.	1.	-153.	9.	-45.	.0423	-.1363	.0148	.0624	-.0310	-.1472	225.		
.3440	-44.	385.	-139.	-154.	-34.	-46.	.0424	-.1310	.0004	.0591	-.0388	-.1402	232.		
.3450	-118.	378.	-315.	-151.	-84.	-45.	.0426	-.1263	-.0137	.0566	-.0460	-.1305	252.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.15.

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

.3350	147.	-583.	1061.	373.	104.	90.	.0357	-.1731	.1145	.1426	.0360	-.1298	569.
.3360	209.	-581.	938.	275.	195.	70.	.0373	-.1791	.1055	.1281	.0289	-.1360	442.
.3370	146.	-345.	815.	138.	175.	41.	.0386	-.1736	.0951	.1139	.0207	-.1417	320.
.3380	167.	-122.	697.	49.	149.	14.	.0398	-.1674	.0835	.1009	.0120	-.1466	223.
.3390	142.	63.	562.	-25.	123.	-7.	.0407	-.1609	.0709	.0895	.0030	-.1504	178.
.3400	121.	201.	420.	-40.	98.	-24.	.0413	-.1544	.0575	.0801	-.0058	-.1528	182.
.3410	97.	296.	280.	-110.	72.	-35.	.0418	-.1480	.0436	.0725	-.0144	-.1533	202.
.3420	67.	355.	139.	-142.	43.	-42.	.0421	-.1420	.0293	.0667	-.0228	-.1515	217.
.3430	22.	382.	1.	-153.	9.	-45.	.0423	-.1363	.0148	.0624	-.0310	-.1472	225.
.3440	-44.	355.	-130.	-154.	-34.	-46.	.0424	-.1310	.0004	.0591	-.0388	-.1402	232.
.3450	-118.	378.	-315.	-151.	-84.	-45.	.0426	-.1263	-.0137	.0566	-.0460	-.1305	252.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.15.

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	11	MEMBER	1	SEQUENCE	231	LOCATION	END	TYPE	TE					
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)	
.3460	-197.	370.	-520.	-146.	-140.	-44.	.0429	-.1220	-.0272	.0545	-.0523	-.1179	294.	
.3470	-288.	359.	-700.	-143.	-198.	-42.	.0433	-.1182	-.0399	.0528	-.0569	-.1031	350.	
.3480	-380.	336.	-840.	-134.	-251.	-40.	.0441	-.1149	-.0515	.0518	-.0594	-.0865	406.	
.3490	-440.	298.	-972.	-119.	-291.	-35.	.0451	-.1120	-.0618	.0514	-.0593	-.0686	446.	
.3500	-448.	247.	-1096.	-98.	-309.	-29.	.0460	-.1095	-.0706	.0518	-.0562	-.0502	459.	
.3510	-402.	187.	-1182.	-75.	-300.	-22.	.0485	-.1073	-.0777	.0527	-.0501	-.0320	438.	
.3520	-301.	116.	-1224.	-46.	-265.	-14.	.0508	-.1054	-.0831	.0544	-.0414	-.0147	380.	
.3530	-144.	28.	-1243.	-11.	-205.	-3.	.0533	-.1036	-.0866	.0569	-.0307	.0010	289.	
.3540	54.	-76.	-1246.	30.	-126.	9.	.0558	-.1018	-.0882	.0599	-.0188	.0143	183.	
.3550	276.	-181.	-1237.	72.	-36.	21.	.0582	-.1000	-.0879	.0629	-.0066	.0246	118.	
.3560	497.	-272.	-1218.	108.	54.	32.	.0602	-.0980	-.0856	.0657	.0048	.0319	177.	
.3570	679.	-347.	-1163.	139.	134.	41.	.0615	-.0957	-.0815	.0678	.0147	.0358	278.	
.3580	796.	-416.	-1062.	166.	192.	49.	.0619	-.0930	-.0755	.0690	.0222	.0361	366.	
.3590	845.	-475.	-941.	190.	226.	56.	.0613	-.0898	-.0679	.0691	.0270	.0329	424.	
.3600	829.	-507.	-822.	203.	234.	60.	.0597	-.0862	-.0588	.0675	.0289	.0266	445.	
.3610	745.	-501.	-689.	200.	216.	59.	.0571	-.0820	-.0483	.0639	.0280	.0177	424.	
.3620	604.	-465.	-536.	186.	178.	55.	.0536	-.0773	-.0369	.0583	.0248	.0066	372.	
.3630	434.	-418.	-384.	167.	128.	49.	.0492	-.0720	-.0246	.0510	.0200	-.0061	305.	
.3640	258.	-368.	-238.	147.	75.	43.	.0444	-.0663	-.0117	.0421	.0146	-.0199	241.	
.3650	98.	-309.	-84.	124.	29.	37.	.0391	-.0602	.0014	.0319	.0093	-.0342	187.	
.3660	-27.	-241.	80.	96.	-1.	29.	.0336	-.0538	.0146	.0204	.0052	-.0483	142.	
.3670	-102.	-176.	258.	70.	-10.	21.	.0280	-.0470	.0275	.0082	.0025	-.0618	105.	
.3680	-130.	-128.	452.	51.	2.	15.	.0224	-.0400	.0399	-.0043	.0016	-.0743	75.	
.3690	-109.	-96.	650.	38.	33.	11.	.0169	-.0328	.0515	-.0169	.0022	-.0855	74.	
.3700	-43.	-65.	827.	26.	81.	8.	.0115	-.0255	.0620	-.0295	.0039	-.0949	120.	
.3710	52.	-21.	983.	8.	137.	2.	.0061	-.0180	.0712	-.0421	.0060	-.1019	194.	
.3720	150.	32.	1117.	-13.	192.	-4.	.0007	-.0104	.0788	-.0542	.0077	-.1065	272.	
.3730	234.	79.	1215.	-32.	237.	-9.	-.0049	-.0028	.0847	-.0654	.0085	-.1087	338.	
.3740	288.	117.	1271.	-47.	266.	-14.	-.0108	.0049	.0887	-.0754	.0078	-.1083	381.	
.3750	295.	151.	1298.	-60.	271.	-18.	-.0168	.0125	.0908	-.0841	.0054	-.1054	394.	
.3760	245.	181.	1302.	-72.	252.	-21.	-.0232	.0201	.0909	-.0913	.0013	-.0997	371.	
.3770	144.	192.	1271.	-77.	208.	-23.	-.0297	.0276	.0891	-.0967	-.0044	-.0917	315.	
.3780	-1.	170.	1206.	-68.	142.	-20.	-.0363	.0351	.0854	-.1000	-.0114	-.0815	225.	
.3790	-178.	120.	1112.	-48.	60.	-14.	-.0428	.0424	.0798	-.1014	-.0191	-.0693	111.	
.3800	-366.	56.	985.	-22.	-30.	-7.	-.0490	.0498	.0727	-.1012	-.0270	-.0551	53.	
.3810	-542.	-16.	826.	6.	-119.	2.	-.0546	.0572	.0640	-.0999	-.0342	-.0392	168.	
.3820	-692.	-96.	655.	39.	-199.	11.	-.0594	.0648	.0541	-.0977	-.0401	-.0221	287.	
.3830	-807.	-182.	482.	73.	-265.	22.	-.0633	.0726	.0432	-.0949	-.0442	-.0040	390.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.15.

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

.3730	234.	79.	1215.	-32.	237.	-9.	-.0049	-.0028	.0847	-.0654	.0055	-.1087	338.
.3740	248.	117.	1271.	-47.	266.	-14.	-.0108	.0049	.0887	-.0754	.0078	-.1083	381.
.3750	295.	151.	1298.	-60.	271.	-18.	-.0168	.0125	.0908	-.0841	.0054	-.1054	394.
.3760	245.	181.	1302.	-72.	252.	-21.	-.0232	.0201	.0909	-.0913	.0013	-.0997	371.
.3770	144.	192.	1271.	-77.	208.	-23.	-.0297	.0276	.0891	-.0967	-.0044	-.0917	315.
.3780	-1.	170.	1206.	-61.	142.	-20.	-.0363	.0351	.0854	-.1000	-.0114	-.0815	225.
.3790	-178.	120.	1112.	-48.	60.	-14.	-.0428	.0424	.0798	-.1014	-.0191	-.0693	111.
.3800	-366.	56.	985.	-22.	-30.	-7.	-.0490	.0498	.0727	-.1012	-.0270	-.0551	53.
.3810	-542.	-16.	826.	6.	-119.	2.	-.0546	.0572	.0640	-.0999	-.0342	-.0392	168.
.3820	-692.	-96.	655.	29.	-199.	11.	-.0594	.0648	.0541	-.0977	-.0401	-.0221	287.
.3830	-807.	-182.	482.	73.	-265.	22.	-.0633	.0726	.0432	-.0945	-.0442	-.0040	390.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.15.

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	11	MEMBER	1	SEQUENCE	231	LOCATION	END	TYPE	TE						
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)		
.3840	-876.	-258.	313.	103.	-313.	31.	-.0662	.0807	.0315	-.0919	-.0461	.0147	468.		
.3850	-896.	-307.	156.	123.	-340.	36.	-.0679	.0891	.0194	-.0893	-.0455	.0338	513.		
.3860	-871.	-319.	23.	120.	-345.	38.	-.0684	.0980	.0070	-.0874	-.0426	.0529	523.		
.3870	-807.	-298.	-88.	119.	-333.	35.	-.0677	.1072	-.0054	-.0862	-.0378	.0715	502.		
.3880	-711.	-250.	-182.	100.	-305.	30.	-.0660	.1168	-.0177	-.0857	-.0314	.0893	456.		
.3890	-591.	-170.	-261.	68.	-267.	20.	-.0633	.1267	-.0296	-.0858	-.0241	.1061	390.		
.3900	-452.	-56.	-335.	22.	-220.	7.	-.0598	.1366	-.0411	-.0865	-.0164	.1216	313.		
.3910	-298.	83.	-414.	-73.	-168.	-10.	-.0556	.1466	-.0521	-.0876	-.0087	.1357	242.		
.3920	-142.	226.	-487.	-90.	-114.	-27.	-.0510	.1563	-.0623	-.0885	-.0013	.1479	209.		
.3930	2.	355.	-542.	-142.	-63.	-42.	-.0461	.1657	-.0718	-.0890	.0055	.1584	227.		
.3940	133.	473.	-588.	-189.	-16.	-56.	-.0412	.1744	-.0803	-.0889	.0115	.1672	279.		
.3950	254.	585.	-633.	-234.	26.	-69.	-.0365	.1824	-.0879	-.0884	.0168	.1746	346.		
.3960	357.	686.	-670.	-274.	64.	-81.	-.0322	.1895	-.0945	-.0875	.0213	.1807	413.		
.3970	437.	764.	-692.	-305.	93.	-90.	-.0284	.1954	-.1000	-.0861	.0249	.1855	468.		
.3980	489.	818.	-706.	-327.	112.	-97.	-.0251	.2002	-.1043	-.0844	.0274	.1892	507.		
.3990	519.	862.	-728.	-344.	121.	-102.	-.0226	.2037	-.1076	-.0826	.0289	.1922	535.		
.4000	536.	906.	-767.	-362.	123.	-107.	-.0208	.2058	-.1097	-.0811	.0296	.1946	561.		

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)		
.1120	-1431.	4249.	-2104.	-1698.	-821.	-503.	-.0081	.1611	-.1809	-.2928	-.1773	.0731	2756.		

SECTION	11	MEMBER	2	SEQUENCE	842	LOCATION	DIS	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	0.	0.	0.	0.	0.	0.	.0000	.0000	-.0000	-.0000	.0000	-.0000	0.		
.0020	0.	0.	0.	0.	0.	0.	.0001	.0000	-.0001	-.0001	.0002	.0000	0.		
.0030	0.	0.	0.	0.	0.	0.	.0002	-.0000	-.0004	.0000	.0006	.0004	0.		
.0040	0.	0.	0.	0.	0.	0.	.0005	-.0000	-.0009	.0004	.0012	.0012	0.		
.0050	0.	0.	0.	0.	0.	0.	.0008	-.0000	-.0018	.0011	.0024	.0023	0.		
.0060	0.	0.	0.	0.	0.	0.	.0012	.0000	-.0030	.0020	.0041	.0038	0.		
.0070	0.	0.	0.	0.	0.	0.	.0018	.0002	-.0048	.0032	.0067	.0064	0.		

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

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INTERNAL FORCES IN THE PIPING
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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)
0.0000	0.	0.	0.	0.	0.	0.	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	0.
.0020	0.	0.	0.	0.	0.	0.	.0001	.0000	-.0001	-.0001	.0002	.0000	0.
.0030	0.	0.	0.	0.	0.	0.	.0002	-.0000	-.0004	.0000	.0006	.0004	0.
.0040	0.	0.	0.	0.	0.	0.	.0005	-.0000	-.0009	.0004	.0012	.0012	0.
.0050	0.	0.	0.	0.	0.	0.	.0008	-.0000	-.0018	.0011	.0024	.0023	0.
.0060	0.	0.	0.	0.	0.	0.	.0012	.0000	-.0030	.0020	.0041	.0038	0.
.0070	0.	0.	0.	0.	0.	0.	.0018	.0002	-.0048	.0032	.0067	.0064	0.

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INTERNAL FORCES IN THE PIPING
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SECTION	MEMBER	SEQUENCE	LOCATION	DIS	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)
11	2	842					.0080	0.	0.	0.	0.	0.	0.	.0028	.0005	-.0077	.0046	.0099	.0109	0.
							.0090	0.	0.	0.	0.	0.	0.	.0046	.0011	-.0121	.0062	.0138	.0172	0.
							.0100	0.	0.	0.	0.	0.	0.	.0076	.0021	-.0179	.0077	.0188	.0253	0.
							.0110	0.	0.	0.	0.	0.	0.	.0117	.0036	-.0248	.0083	.0251	.0354	0.
							.0120	0.	0.	0.	0.	0.	0.	.0168	.0057	-.0324	.0076	.0327	.0474	0.
							.0130	0.	0.	0.	0.	0.	0.	.0230	.0084	-.0404	.0053	.0418	.0602	0.
							.0140	0.	0.	0.	0.	0.	0.	.0299	.0118	-.0485	.0009	.0531	.0728	0.
							.0150	0.	0.	0.	0.	0.	0.	.0376	.0158	-.0568	-.0057	.0672	.0856	0.
							.0160	0.	0.	0.	0.	0.	0.	.0457	.0203	-.0654	-.0139	.0840	.0988	0.
							.0170	0.	0.	0.	0.	0.	0.	.0538	.0249	-.0743	-.0225	.1015	.1124	0.
							.0180	0.	0.	0.	0.	0.	0.	.0613	.0295	-.0828	-.0295	.1169	.1266	0.
							.0190	0.	0.	0.	0.	0.	0.	.0685	.0337	-.0906	-.0340	.1276	.1408	0.
							.0200	0.	0.	0.	0.	0.	0.	.0755	.0375	-.0978	-.0365	.1271	.1528	0.
							.0210	0.	0.	0.	0.	0.	0.	.0833	.0406	-.1063	-.0403	.1129	.1584	0.
							.0220	0.	0.	0.	0.	0.	0.	.0913	.0427	-.1140	-.0490	.0942	.1554	0.
							.0230	0.	0.	0.	0.	0.	0.	.0976	.0432	-.1170	-.0612	.0748	.1464	0.
							.0240	0.	0.	0.	0.	0.	0.	.1015	.0413	-.1168	-.0700	.0571	.1275	0.
							.0250	0.	0.	0.	0.	0.	0.	.1019	.0362	-.1133	-.0691	.0386	.0978	0.
							.0260	0.	0.	0.	0.	0.	0.	.0960	.0275	-.1016	-.0581	.0145	.0660	0.
							.0270	0.	0.	0.	0.	0.	0.	.0840	.0153	-.0832	-.0397	-.0079	.0309	0.
							.0280	0.	0.	0.	0.	0.	0.	.0693	.0001	-.0675	-.0175	-.0333	-.0188	0.
							.0290	0.	0.	0.	0.	0.	0.	.0525	-.0171	-.0559	.0015	-.0746	-.0755	0.
							.0300	0.	0.	0.	0.	0.	0.	.0327	-.0352	-.0431	.0130	-.1185	-.1159	0.
							.0310	0.	0.	0.	0.	0.	0.	.0115	-.0541	-.0283	.0247	-.1547	-.1439	0.
							.0320	0.	0.	0.	0.	0.	0.	-.0106	-.0744	-.0093	.0521	-.1864	-.1772	0.
							.0330	0.	0.	0.	0.	0.	0.	-.0306	-.0951	.0102	.0946	-.2042	-.2197	0.
							.0340	0.	0.	0.	0.	0.	0.	-.0464	-.1130	.0279	.1258	-.1973	-.2559	0.
							.0350	0.	0.	0.	0.	0.	0.	-.0602	-.1255	.0479	.1247	-.1754	-.2693	0.
							.0360	0.	0.	0.	0.	0.	0.	-.0734	-.1328	.0721	.1053	-.1534	-.2606	0.
							.0370	0.	0.	0.	0.	0.	0.	-.0846	-.1365	.0950	.0940	-.1310	-.2528	0.
							.0380	0.	0.	0.	0.	0.	0.	-.0938	-.1372	.1142	.0874	-.1045	-.2649	0.
							.0390	0.	0.	0.	0.	0.	0.	-.1039	-.1332	.1336	.0606	-.0849	-.2749	0.
							.0400	0.	0.	0.	0.	0.	0.	-.1150	-.1246	.1519	.0116	-.0901	-.2468	0.
							.0410	0.	0.	0.	0.	0.	0.	-.1240	-.1138	.1636	-.0353	-.1060	-.2068	0.
							.0420	0.	0.	0.	0.	0.	0.	-.1300	-.1033	.1699	-.0634	-.1251	-.2025	0.
							.0430	0.	0.	0.	0.	0.	0.	-.1337	-.0937	.1743	-.0778	-.1549	-.2116	0.
							.0440	0.	0.	0.	0.	0.	0.	-.1324	-.0844	.1751	-.0895	-.1323	-.1878	0.
							.0450	0.	0.	0.	0.	0.	0.	-.1246	-.0755	.1728	-.1004	-.1846	-.1528	0.

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.0340	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
.0350	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
.0360	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
.0370	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
.0380	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
.0390	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
.0400	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
.0410	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
.0420	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
.0430	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
.0440	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
.0450	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

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INTERNAL FORCES IN THE PIPING
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SECTION	11	MEMBER	2	SEQUENCE	842	LOCATION	DIS	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)	
.0460	0.	0.	0.	0.	0.	0.	-.1111	-.0677	.1711	-.1021	-.1587	-.1450	J.	
.0470	0.	0.	0.	0.	0.	0.	-.0929	-.0609	.1698	-.0865	-.1192	-.1409	0.	
.0480	0.	0.	0.	0.	0.	0.	-.0698	-.0541	.1655	-.0600	-.0704	-.1147	0.	
.0490	0.	0.	0.	0.	0.	0.	-.0430	-.0466	.1585	-.0414	-.0084	-.0910	0.	
.0500	0.	0.	0.	0.	0.	0.	-.0150	-.0379	.1500	-.0399	.0554	-.0832	0.	
.0510	0.	0.	0.	0.	0.	0.	.0129	-.0285	.1378	-.0427	.1037	-.0582	0.	
.0520	0.	0.	0.	0.	0.	0.	.0394	-.0201	.1209	-.0341	.1343	-.0195	0.	
.0530	0.	0.	0.	0.	0.	0.	.0629	-.0138	.1023	-.0155	.1557	-.0022	0.	
.0540	0.	0.	0.	0.	0.	0.	.0829	-.0100	.0830	.0034	.1720	.0058	0.	
.0550	0.	0.	0.	0.	0.	0.	.0997	-.0094	.0623	.0251	.1830	.0417	0.	
.0560	0.	0.	0.	0.	0.	0.	.1136	-.0133	.0414	.0631	.1921	.0861	0.	
.0570	0.	0.	0.	0.	0.	0.	.1248	-.0224	.0215	.1242	.2044	.1011	0.	
.0580	0.	0.	0.	0.	0.	0.	.1347	-.0353	.0004	.1985	.2175	.1071	0.	
.0590	0.	0.	0.	0.	0.	0.	.1434	-.0500	-.0228	.2685	.2254	.1382	0.	
.0600	0.	0.	0.	0.	0.	0.	.1499	-.0650	-.0461	.3254	.2288	.1749	0.	
.0610	0.	0.	0.	0.	0.	0.	.1537	-.0798	-.0692	.3745	.2284	.1898	0.	
.0620	0.	0.	0.	0.	0.	0.	.1547	-.0934	-.0933	.4208	.2199	.1970	0.	
.0630	0.	0.	0.	0.	0.	0.	.1522	-.1038	-.1166	.4553	.2004	.2123	0.	
.0640	0.	0.	0.	0.	0.	0.	.1449	-.1095	-.1363	.4624	.1771	.2246	0.	
.0650	0.	0.	0.	0.	0.	0.	.1334	-.1101	-.1529	.4397	.1555	.2303	0.	
.0660	0.	0.	0.	0.	0.	0.	.1179	-.1065	-.1671	.4010	.1305	.2398	0.	
.0670	0.	0.	0.	0.	0.	0.	.0981	-.0996	-.1770	.3581	.0954	.2464	0.	
.0680	0.	0.	0.	0.	0.	0.	.0749	-.0898	-.1828	.3084	.0527	.2372	0.	
.0690	0.	0.	0.	0.	0.	0.	.0506	-.0772	-.1870	.2442	.0060	.2237	0.	
.0700	0.	0.	0.	0.	0.	0.	.0264	-.0628	-.1898	.1678	-.0456	.2209	0.	
.0710	0.	0.	0.	0.	0.	0.	.0029	-.0486	-.1888	.0942	-.0979	.2150	0.	
.0720	0.	0.	0.	0.	0.	0.	-.0188	-.0364	-.1823	.0377	-.1389	.1869	0.	
.0730	0.	0.	0.	0.	0.	0.	-.0378	-.0265	-.1703	-.0003	-.1641	.1443	0.	
.0740	0.	0.	0.	0.	0.	0.	-.0534	-.0180	-.1528	-.0296	-.1769	.1052	0.	
.0750	0.	0.	0.	0.	0.	0.	-.0649	-.0101	-.1310	-.0598	-.1755	.0689	0.	
.0760	0.	0.	0.	0.	0.	0.	-.0719	-.0027	-.1065	-.0916	-.1583	.0262	0.	
.0770	0.	0.	0.	0.	0.	0.	-.0757	.0040	-.0789	-.1200	-.1336	-.0211	0.	
.0780	0.	0.	0.	0.	0.	0.	-.0776	.0099	-.0479	-.1424	-.1123	-.0660	0.	
.0790	0.	0.	0.	0.	0.	0.	-.0776	.0152	-.0164	-.1643	-.0956	-.1101	0.	
.0800	0.	0.	0.	0.	0.	0.	-.0756	.0198	.0132	-.1933	-.0804	-.1560	0.	
.0810	0.	0.	0.	0.	0.	0.	-.0732	.0230	.0416	-.2282	-.0713	-.1966	0.	
.0820	0.	0.	0.	0.	0.	0.	-.0717	.0231	.0700	-.2553	-.0717	-.2278	0.	
.0830	0.	0.	0.	0.	0.	0.	-.0707	.0185	.0973	-.2610	-.0763	-.2597	0.	

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.0730	0.	0.	0.	0.	0.	0.	0.	-.378	-.0265	-.1703	-.0003	-.1641	.1443	0.
.0740	0.	0.	0.	0.	0.	0.	0.	-.534	-.0180	-.1528	-.0296	-.1769	.1052	0.
.0750	0.	0.	0.	0.	0.	0.	0.	-.0649	-.0101	-.1310	-.0598	-.1755	.0689	0.
.0760	0.	0.	0.	0.	0.	0.	0.	-.0719	-.0027	-.1065	-.0916	-.1583	.0262	0.
.0770	0.	0.	0.	0.	0.	0.	0.	-.0757	.0040	-.0789	-.1200	-.1336	-.0211	0.
.0780	0.	0.	0.	0.	0.	0.	0.	-.0776	.0099	-.0479	-.1424	-.1123	-.0660	0.
.0790	0.	0.	0.	0.	0.	0.	0.	-.0776	.0152	-.0164	-.1643	-.0956	-.1101	0.
.0800	0.	0.	0.	0.	0.	0.	0.	-.0756	.0198	.0132	-.1933	-.0304	-.1560	0.
.0810	0.	0.	0.	0.	0.	0.	0.	-.0732	.0230	.0416	-.2282	-.0713	-.1966	0.
.0820	0.	0.	0.	0.	0.	0.	0.	-.0717	.0231	.0700	-.2553	-.0717	-.2278	0.
.0830	0.	0.	0.	0.	0.	0.	0.	-.0707	.0185	.0973	-.2610	-.0763	-.2597	0.

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SECTION	11	MEMBER	2	SEQUENCE	842	LOCATION	DIS	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)		
.0840	0.	0.	0.	0.	0.	0.	-.0695	.0088	.1224	-.2451	-.0810	-.2992	0.		
.0850	0.	0.	0.	0.	0.	0.	-.0676	-.0051	.1448	-.2179	-.0378	-.3315	0.		
.0860	0.	0.	0.	0.	0.	0.	-.0642	-.0221	.1636	-.1856	-.0762	-.3422	0.		
.0870	0.	0.	0.	0.	0.	0.	-.0584	-.0419	.1783	-.1437	-.1015	-.3409	0.		
.0880	0.	0.	0.	0.	0.	0.	-.0501	-.0640	.1897	-.0866	-.1030	-.3420	0.		
.0890	0.	0.	0.	0.	0.	0.	-.0394	-.0868	.1977	-.0188	-.1026	-.3394	0.		
.0900	0.	0.	0.	0.	0.	0.	-.0259	-.1080	.2014	.0456	-.0972	-.3209	0.		
.0910	0.	0.	0.	0.	0.	0.	-.0099	-.1259	.2012	.0953	-.0811	-.2900	0.		
.0920	0.	0.	0.	0.	0.	0.	.0074	-.1397	.1987	.1323	-.0535	-.2546	0.		
.0930	0.	0.	0.	0.	0.	0.	.0250	-.1495	.1945	.1653	-.0176	-.2141	0.		
.0940	0.	0.	0.	0.	0.	0.	.0422	-.1550	.1881	.1959	.0247	-.1702	0.		
.0950	0.	0.	0.	0.	0.	0.	.0586	-.1556	.1790	.2151	.0710	-.1274	0.		
.0960	0.	0.	0.	0.	0.	0.	.0736	-.1509	.1662	.2152	.1167	-.0802	0.		
.0970	0.	0.	0.	0.	0.	0.	.0868	-.1414	.1493	.2001	.1569	-.0234	0.		
.0980	0.	0.	0.	0.	0.	0.	.0973	-.1285	.1292	.1810	.1894	.0317	0.		
.0990	0.	0.	0.	0.	0.	0.	.1042	-.1132	.1073	.1651	.2144	.0718	0.		
.1000	0.	0.	0.	0.	0.	0.	.1073	-.0958	.0839	.1502	.2326	.1026	0.		
.1010	0.	0.	0.	0.	0.	0.	.1068	-.0761	.0591	.1294	.2437	.1337	0.		
.1020	0.	0.	0.	0.	0.	0.	.1024	-.0541	.0339	.1011	.2464	.1598	0.		
.1030	0.	0.	0.	0.	0.	0.	.0941	-.0303	.0089	.0706	.2382	.1723	0.		
.1040	0.	0.	0.	0.	0.	0.	.0824	-.0051	-.0163	.0416	.2162	.1747	0.		
.1050	0.	0.	0.	0.	0.	0.	.0680	.0217	-.0415	.0095	.1795	.1726	0.		
.1060	0.	0.	0.	0.	0.	0.	.0518	.0500	-.0661	-.0339	.1300	.1664	0.		
.1070	0.	0.	0.	0.	0.	0.	.0348	.0792	-.0900	-.0881	.0728	.1571	0.		
.1080	0.	0.	0.	0.	0.	0.	.0185	.1076	-.1134	-.1436	.0085	.1478	0.		
.1090	0.	0.	0.	0.	0.	0.	.0046	.1336	-.1368	-.1925	-.0645	.1358	0.		
.1100	0.	0.	0.	0.	0.	0.	-.0065	.1558	-.1580	-.2359	-.1183	.1102	0.		
.1110	0.	0.	0.	0.	0.	0.	-.0158	.1732	-.1742	-.2734	-.1549	.0849	0.		
.1120	0.	0.	0.	0.	0.	0.	-.0233	.1848	-.1855	-.2966	-.1792	.0719	0.		
.1130	0.	0.	0.	0.	0.	0.	-.0283	.1899	-.1941	-.2983	-.1870	.0563	0.		
.1140	0.	0.	0.	0.	0.	0.	-.0308	.1888	-.2009	-.2829	-.1809	.0274	0.		
.1150	0.	0.	0.	0.	0.	0.	-.0320	.1826	-.2059	-.2614	-.1720	.0045	0.		
.1160	0.	0.	0.	0.	0.	0.	-.0325	.1723	-.2094	-.2378	-.1639	.0022	0.		
.1170	0.	0.	0.	0.	0.	0.	-.0332	.1584	-.2108	-.2073	-.1559	.0025	0.		
.1180	0.	0.	0.	0.	0.	0.	-.0350	.1415	-.2087	-.1665	-.1393	-.0100	0.		
.1190	0.	0.	0.	0.	0.	0.	-.0396	.1233	-.2013	-.1206	-.1282	-.0179	0.		
.1200	0.	0.	0.	0.	0.	0.	-.0464	.1054	-.1903	-.0792	-.1248	-.0066	0.		
.1210	0.	0.	0.	0.	0.	0.	-.0531	.0888	-.1786	-.0486	-.1180	.0082	0.		

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ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.15.

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

.1110	0.	0.	0.	0.	0.	0.	0.	-.0158	.1732	-.1742	-.2734	-.1549	.0849	0.
.1120	0.	0.	0.	0.	0.	0.	0.	-.0233	.1848	-.1855	-.2966	-.1792	.0719	0.
.1130	0.	0.	0.	0.	0.	0.	0.	-.0283	.1899	-.1941	-.2983	-.1870	.0563	0.
.1140	0.	0.	0.	0.	0.	0.	0.	-.0308	.1888	-.2009	-.2829	-.1809	.0274	0.
.1150	0.	0.	0.	0.	0.	0.	0.	-.0320	.1826	-.2059	-.2614	-.1720	.0045	0.
.1160	0.	0.	0.	0.	0.	0.	0.	-.0325	.1723	-.2094	-.2378	-.1539	.0022	0.
.1170	0.	0.	0.	0.	0.	0.	0.	-.0332	.1584	-.2108	-.2073	-.1559	.0025	0.
.1180	0.	0.	0.	0.	0.	0.	0.	-.0350	.1415	-.2087	-.1665	-.1393	-.0100	0.
.1190	0.	0.	0.	0.	0.	0.	0.	-.0396	.1233	-.2013	-.1206	-.1282	-.0179	0.
.1200	0.	0.	0.	0.	0.	0.	0.	-.0464	.1054	-.1903	-.0792	-.1248	-.0066	0.
.1210	0.	0.	0.	0.	0.	0.	0.	-.0531	.0888	-.1786	-.0486	-.1180	.0082	0.

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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

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ENGLISH UNITS

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

SECTION	11	MEMBER	2	SEQUENCE	842	LOCATION	DIS	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)		
.1220	0.	0.	0.	0.	0.	0.	-.0603	.0737	-.1636	-.0292	-.1146	.0112	0.		
.1230	0.	0.	0.	0.	0.	0.	-.0672	.0601	-.1451	-.0143	-.1142	.0175	0.		
.1240	0.	0.	0.	0.	0.	0.	-.0731	.0482	-.1238	.0017	-.1169	.0326	0.		
.1250	0.	0.	0.	0.	0.	0.	-.0769	.0381	-.0997	.0156	-.1155	.0377	0.		
.1260	0.	0.	0.	0.	0.	0.	-.0773	.0304	-.0743	.0204	-.1031	.0325	0.		
.1270	0.	0.	0.	0.	0.	0.	-.0748	.0255	-.0475	.0151	-.0953	.0381	0.		
.1280	0.	0.	0.	0.	0.	0.	-.0682	.0226	-.0214	.0065	-.0855	.0511	0.		
.1290	0.	0.	0.	0.	0.	0.	-.0581	.0213	.0050	-.0006	-.0672	.0454	0.		
.1300	0.	0.	0.	0.	0.	0.	-.0454	.0219	.0324	-.0089	-.0421	.0273	0.		
.1310	0.	0.	0.	0.	0.	0.	-.0305	.0252	.0592	-.0236	-.0073	.0228	0.		
.1320	0.	0.	0.	0.	0.	0.	-.0151	.0311	.0365	-.0458	.0305	.0256	0.		
.1330	0.	0.	0.	0.	0.	0.	-.0001	.0388	.1131	-.0707	.0747	.0146	0.		
.1340	0.	0.	0.	0.	0.	0.	.0136	.0476	.1377	-.0938	.1150	-.0046	0.		
.1350	0.	0.	0.	0.	0.	0.	.0251	.0575	.1587	-.1166	.1423	-.0156	0.		
.1360	0.	0.	0.	0.	0.	0.	.0342	.0681	.1753	-.1434	.1623	-.0242	0.		
.1370	0.	0.	0.	0.	0.	0.	.0397	.0786	.1888	-.1735	.1718	-.0397	0.		
.1380	0.	0.	0.	0.	0.	0.	.0416	.0878	.1980	-.1980	.1751	-.0514	0.		
.1390	0.	0.	0.	0.	0.	0.	.0394	.0945	.2035	-.2086	.1701	-.0567	0.		
.1400	0.	0.	0.	0.	0.	0.	.0327	.0981	.2064	-.2049	.1599	-.0695	0.		
.1410	0.	0.	0.	0.	0.	0.	.0226	.0989	.2053	-.1924	.1513	-.0884	0.		
.1420	0.	0.	0.	0.	0.	0.	.0093	.0977	.1997	-.1754	.1337	-.0974	0.		
.1430	0.	0.	0.	0.	0.	0.	-.0061	.0949	.1888	-.1529	.1090	-.0955	0.		
.1440	0.	0.	0.	0.	0.	0.	-.0230	.0909	.1735	-.1244	.0789	-.0985	0.		
.1450	0.	0.	0.	0.	0.	0.	-.0407	.0863	.1542	-.0930	.0444	-.1051	0.		
.1460	0.	0.	0.	0.	0.	0.	-.0580	.0822	.1305	-.0641	.0087	-.1000	0.		
.1470	0.	0.	0.	0.	0.	0.	-.0748	.0793	.1043	-.0412	-.0330	-.0837	0.		
.1480	0.	0.	0.	0.	0.	0.	-.0897	.0780	.0756	-.0240	-.0687	-.0676	0.		
.1490	0.	0.	0.	0.	0.	0.	-.1021	.0781	.0455	-.0111	-.0973	-.0505	0.		
.1500	0.	0.	0.	0.	0.	0.	-.1120	.0796	.0157	-.0017	-.1218	-.0240	0.		
.1510	0.	0.	0.	0.	0.	0.	-.1183	.0821	-.0136	.0046	-.1352	.0083	0.		
.1520	0.	0.	0.	0.	0.	0.	-.1207	.0853	-.0417	.0079	-.1403	.0366	0.		
.1530	0.	0.	0.	0.	0.	0.	-.1188	.0889	-.0690	.0085	-.1359	.0641	0.		
.1540	0.	0.	0.	0.	0.	0.	-.1131	.0928	-.0949	.0076	-.1302	.0972	0.		
.1550	0.	0.	0.	0.	0.	0.	-.1041	.0965	-.1189	.0070	-.1237	.1309	0.		
.1560	0.	0.	0.	0.	0.	0.	-.0917	.0999	-.1415	.0072	-.1078	.1576	0.		
.1570	0.	0.	0.	0.	0.	0.	-.0778	.1028	-.1601	.0076	-.0916	.1805	0.		
.1580	0.	0.	0.	0.	0.	0.	-.0629	.1053	-.1750	.0090	-.0724	.2058	0.		
.1590	0.	0.	0.	0.	0.	0.	-.0478	.1075	-.1859	.0125	-.0455	.2272	0.		

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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

.1490	0.	0.	0.	0.	0.	0.	0.	-.1021	.0781	.0455	-.0111	-.0973	-.0505	0.
.1500	0.	0.	0.	0.	0.	0.	0.	-.1120	.0796	.0157	-.0017	-.1218	-.0240	0.
.1510	0.	0.	0.	0.	0.	0.	0.	-.1183	.0821	-.0136	.0046	-.1352	.0083	0.
.1520	0.	0.	0.	0.	0.	0.	0.	-.1207	.0853	-.0417	.0079	-.1403	.0366	0.
.1530	0.	0.	0.	0.	0.	0.	0.	-.1188	.0889	-.0690	.0085	-.1359	.0641	0.
.1540	0.	0.	0.	0.	0.	0.	0.	-.1131	.0928	-.0949	.0076	-.1302	.0972	0.
.1550	0.	0.	0.	0.	0.	0.	0.	-.1041	.0965	-.1189	.0070	-.1237	.1309	0.
.1560	0.	0.	0.	0.	0.	0.	0.	-.0917	.0999	-.1415	.0072	-.1078	.1576	0.
.1570	0.	0.	0.	0.	0.	0.	0.	-.0778	.1028	-.1601	.0076	-.0916	.1805	0.
.1580	0.	0.	0.	0.	0.	0.	0.	-.0629	.1053	-.1750	.0090	-.0724	.2058	0.
.1590	0.	0.	0.	0.	0.	0.	0.	-.0478	.1075	-.1859	.0125	-.0455	.2272	0.

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S/RV PIPING KEWAUNEE GKMOBF 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	11	MEMBER	2	SEQUENCE	842	LOCATION	DIS	TYPE	RU						
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)				DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
.1600	0.	0.	0.	0.	0.	0.	0.	-.0339	.1095	-.1915	.0165	-.0180	.2386	0.	
.1610	0.	0.	0.	0.	0.	0.	0.	-.0217	.1119	-.1931	.0184	.0043	.2481	0.	
.1620	0.	0.	0.	0.	0.	0.	0.	-.0105	.1145	-.1933	.0159	.0233	.2597	0.	
.1630	0.	0.	0.	0.	0.	0.	0.	-.0016	.1173	-.1906	.0074	.0324	.2634	0.	
.1640	0.	0.	0.	0.	0.	0.	0.	.0053	.1197	-.1849	-.0049	.0348	.2596	0.	
.1650	0.	0.	0.	0.	0.	0.	0.	.0106	.1210	-.1770	-.0162	.0348	.2566	0.	
.1660	0.	0.	0.	0.	0.	0.	0.	.0139	.1205	-.1654	-.0239	.0302	.2501	0.	
.1670	0.	0.	0.	0.	0.	0.	0.	.0161	.1174	-.1506	-.0268	.0297	.2332	0.	
.1680	0.	0.	0.	0.	0.	0.	0.	.0177	.1114	-.1331	-.0252	.0316	.2115	0.	
.1690	0.	0.	0.	0.	0.	0.	0.	.0193	.1025	-.1137	-.0188	.0372	.1918	0.	
.1700	0.	0.	0.	0.	0.	0.	0.	.0208	.0907	-.0921	-.0070	.0439	.1687	0.	
.1710	0.	0.	0.	0.	0.	0.	0.	.0220	.0763	-.0684	.0106	.0465	.1381	0.	
.1720	0.	0.	0.	0.	0.	0.	0.	.0247	.0598	-.0458	.0317	.0532	.1077	0.	
.1730	0.	0.	0.	0.	0.	0.	0.	.0280	.0423	-.0232	.0507	.0575	.0803	0.	
.1740	0.	0.	0.	0.	0.	0.	0.	.0313	.0243	.0002	.0653	.0612	.0536	0.	
.1750	0.	0.	0.	0.	0.	0.	0.	.0349	.0062	.0232	.0784	.0687	.0275	0.	
.1760	0.	0.	0.	0.	0.	0.	0.	.0378	-.0117	.0461	.0925	.0751	.0021	0.	
.1770	0.	0.	0.	0.	0.	0.	0.	.0398	-.0289	.0680	.1053	.0842	-.0225	0.	
.1780	0.	0.	0.	0.	0.	0.	0.	.0399	-.0447	.0891	.1118	.0911	-.0447	0.	
.1790	0.	0.	0.	0.	0.	0.	0.	.0381	-.0590	.1080	.1117	.0972	-.0611	0.	
.1800	0.	0.	0.	0.	0.	0.	0.	.0340	-.0720	.1244	.1091	.1001	-.0744	0.	
.1810	0.	0.	0.	0.	0.	0.	0.	.0267	-.0840	.1390	.1074	.0921	-.0894	0.	
.1820	0.	0.	0.	0.	0.	0.	0.	.0172	-.0949	.1497	.1062	.0796	-.1042	0.	
.1830	0.	0.	0.	0.	0.	0.	0.	.0056	-.1044	.1569	.1017	.0599	-.1159	0.	
.1840	0.	0.	0.	0.	0.	0.	0.	-.0076	-.1125	.1611	.0931	.0346	-.1246	0.	
.1850	0.	0.	0.	0.	0.	0.	0.	-.0216	-.1193	.1625	.0841	.0075	-.1319	0.	
.1860	0.	0.	0.	0.	0.	0.	0.	-.0358	-.1252	.1620	.0789	-.0209	-.1405	0.	
.1870	0.	0.	0.	0.	0.	0.	0.	-.0487	-.1298	.1594	.0772	-.0430	-.1516	0.	
.1880	0.	0.	0.	0.	0.	0.	0.	-.0600	-.1325	.1561	.0743	-.0615	-.1625	0.	
.1890	0.	0.	0.	0.	0.	0.	0.	-.0686	-.1331	.1514	.0675	-.0742	-.1689	0.	
.1900	0.	0.	0.	0.	0.	0.	0.	-.0738	-.1312	.1447	.0579	-.0805	-.1724	0.	
.1910	0.	0.	0.	0.	0.	0.	0.	-.0759	-.1272	.1370	.0478	-.0860	-.1777	0.	
.1920	0.	0.	0.	0.	0.	0.	0.	-.0745	-.1211	.1276	.0374	-.0885	-.1829	0.	
.1930	0.	0.	0.	0.	0.	0.	0.	-.0698	-.1130	.1164	.0244	-.0891	-.1836	0.	
.1940	0.	0.	0.	0.	0.	0.	0.	-.0622	-.1033	.1039	.0075	-.0880	-.1798	0.	
.1950	0.	0.	0.	0.	0.	0.	0.	-.0520	-.0926	.0900	-.0100	-.0839	-.1736	0.	
.1960	0.	0.	0.	0.	0.	0.	0.	-.0398	-.0818	.0751	-.0236	-.0759	-.1656	0.	
.1970	0.	0.	0.	0.	0.	0.	0.	-.0262	-.0717	.0597	-.0315	-.0650	-.1556	0.	

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S/RV PIPING KEWAUNEE GKMOBF 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

.1870	0.	0.	0.	0.	0.	0.	0.	-.0487	-.1298	.1594	.0772	-.0430	-.1516	0.
.1880	0.	0.	0.	0.	0.	0.	0.	-.0600	-.1325	.1561	.0743	-.0615	-.1625	0.
.1890	0.	0.	0.	0.	0.	0.	0.	-.0686	-.1331	.1514	.0675	-.0742	-.1689	0.
.1900	0.	0.	0.	0.	0.	0.	0.	-.0738	-.1312	.1447	.0579	-.0805	-.1724	0.
.1910	0.	0.	0.	0.	0.	0.	0.	-.0759	-.1272	.1370	.0478	-.0860	-.1777	0.
.1920	0.	0.	0.	0.	0.	0.	0.	-.0745	-.1211	.1276	.0374	-.0885	-.1829	0.
.1930	0.	0.	0.	0.	0.	0.	0.	-.0698	-.1130	.1164	.0244	-.0891	-.1836	0.
.1940	0.	0.	0.	0.	0.	0.	0.	-.0622	-.1033	.1039	.0075	-.0880	-.1798	0.
.1950	0.	0.	0.	0.	0.	0.	0.	-.0520	-.0926	.0900	-.0100	-.0839	-.1736	0.
.1960	0.	0.	0.	0.	0.	0.	0.	-.0398	-.0818	.0751	-.0236	-.0759	-.1656	0.
.1970	0.	0.	0.	0.	0.	0.	0.	-.0262	-.0717	.0597	-.0315	-.0650	-.1556	0.

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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	11	MEMBER	2	SEQUENCE	842	LOCATION	DIS	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)
.1980	0.	0.	0.	0.	0.	0.	0.	-.0119	-.0626	.0440	-.0350	-.0522	-.1433	0.	0.	0.	-.0119	-.0626	.0440	-.0350	-.0522	-.1433	0.
.1990	0.	0.	0.	0.	0.	0.	0.	.0028	-.0548	.0273	-.0354	-.0381	-.1278	0.	0.	0.	.0028	-.0548	.0273	-.0354	-.0381	-.1278	0.
.2000	0.	0.	0.	0.	0.	0.	0.	.0175	-.0487	.0094	-.0323	-.0245	-.1094	0.	0.	0.	.0175	-.0487	.0094	-.0323	-.0245	-.1094	0.
.2010	0.	0.	0.	0.	0.	0.	0.	.0315	-.0443	-.0089	-.0249	-.0132	-.0892	0.	0.	0.	.0315	-.0443	-.0089	-.0249	-.0132	-.0892	0.
.2020	0.	0.	0.	0.	0.	0.	0.	.0443	-.0420	-.0273	-.0129	-.0042	-.0676	0.	0.	0.	.0443	-.0420	-.0273	-.0129	-.0042	-.0676	0.
.2030	0.	0.	0.	0.	0.	0.	0.	.0555	-.0417	-.0454	.0031	.0036	-.0444	0.	0.	0.	.0555	-.0417	-.0454	.0031	.0036	-.0444	0.
.2040	0.	0.	0.	0.	0.	0.	0.	.0647	-.0433	-.0625	.0218	.0103	-.0201	0.	0.	0.	.0647	-.0433	-.0625	.0218	.0103	-.0201	0.
.2050	0.	0.	0.	0.	0.	0.	0.	.0717	-.0466	-.0784	.0426	.0161	.0049	0.	0.	0.	.0717	-.0466	-.0784	.0426	.0161	.0049	0.
.2060	0.	0.	0.	0.	0.	0.	0.	.0765	-.0516	-.0926	.0657	.0215	.0305	0.	0.	0.	.0765	-.0516	-.0926	.0657	.0215	.0305	0.
.2070	0.	0.	0.	0.	0.	0.	0.	.0791	-.0579	-.1049	.0912	.0264	.0561	0.	0.	0.	.0791	-.0579	-.1049	.0912	.0264	.0561	0.
.2080	0.	0.	0.	0.	0.	0.	0.	.0796	-.0654	-.1147	.1185	.0298	.0805	0.	0.	0.	.0796	-.0654	-.1147	.1185	.0298	.0805	0.
.2090	0.	0.	0.	0.	0.	0.	0.	.0786	-.0736	-.1224	.1463	.0318	.1033	0.	0.	0.	.0786	-.0736	-.1224	.1463	.0318	.1033	0.
.2100	0.	0.	0.	0.	0.	0.	0.	.0766	-.0822	-.1280	.1731	.0332	.1241	0.	0.	0.	.0766	-.0822	-.1280	.1731	.0332	.1241	0.
.2110	0.	0.	0.	0.	0.	0.	0.	.0740	-.0907	-.1311	.1977	.0341	.1419	0.	0.	0.	.0740	-.0907	-.1311	.1977	.0341	.1419	0.
.2120	0.	0.	0.	0.	0.	0.	0.	.0712	-.0985	-.1315	.2195	.0347	.1560	0.	0.	0.	.0712	-.0985	-.1315	.2195	.0347	.1560	0.
.2130	0.	0.	0.	0.	0.	0.	0.	.0687	-.1053	-.1293	.2374	.0366	.1658	0.	0.	0.	.0687	-.1053	-.1293	.2374	.0366	.1658	0.
.2140	0.	0.	0.	0.	0.	0.	0.	.0668	-.1104	-.1244	.2495	.0411	.1703	0.	0.	0.	.0668	-.1104	-.1244	.2495	.0411	.1703	0.
.2150	0.	0.	0.	0.	0.	0.	0.	.0655	-.1134	-.1165	.2537	.0486	.1693	0.	0.	0.	.0655	-.1134	-.1165	.2537	.0486	.1693	0.
.2160	0.	0.	0.	0.	0.	0.	0.	.0647	-.1140	-.1056	.2492	.0588	.1635	0.	0.	0.	.0647	-.1140	-.1056	.2492	.0588	.1635	0.
.2170	0.	0.	0.	0.	0.	0.	0.	.0643	-.1119	-.0921	.2364	.0706	.1527	0.	0.	0.	.0643	-.1119	-.0921	.2364	.0706	.1527	0.
.2180	0.	0.	0.	0.	0.	0.	0.	.0639	-.1073	-.0763	.2159	.0822	.1354	0.	0.	0.	.0639	-.1073	-.0763	.2159	.0822	.1354	0.
.2190	0.	0.	0.	0.	0.	0.	0.	.0630	-.1002	-.0588	.1876	.0911	.1125	0.	0.	0.	.0630	-.1002	-.0588	.1876	.0911	.1125	0.
.2200	0.	0.	0.	0.	0.	0.	0.	.0609	-.0911	-.0402	.1520	.0952	.0863	0.	0.	0.	.0609	-.0911	-.0402	.1520	.0952	.0863	0.
.2210	0.	0.	0.	0.	0.	0.	0.	.0571	-.0805	-.0209	.1118	.0929	.0569	0.	0.	0.	.0571	-.0805	-.0209	.1118	.0929	.0569	0.
.2220	0.	0.	0.	0.	0.	0.	0.	.0511	-.0693	-.0012	.0706	.0831	.0234	0.	0.	0.	.0511	-.0693	-.0012	.0706	.0831	.0234	0.
.2230	0.	0.	0.	0.	0.	0.	0.	.0426	-.0581	.0183	.0314	.0660	-.0133	0.	0.	0.	.0426	-.0581	.0183	.0314	.0660	-.0133	0.
.2240	0.	0.	0.	0.	0.	0.	0.	.0318	-.0476	.0372	-.0042	.0430	-.0506	0.	0.	0.	.0318	-.0476	.0372	-.0042	.0430	-.0506	0.
.2250	0.	0.	0.	0.	0.	0.	0.	.0189	-.0383	.0555	-.0354	.0161	-.0872	0.	0.	0.	.0189	-.0383	.0555	-.0354	.0161	-.0872	0.
.2260	0.	0.	0.	0.	0.	0.	0.	.0045	-.0306	.0728	-.0609	-.0127	-.1223	0.	0.	0.	.0045	-.0306	.0728	-.0609	-.0127	-.1223	0.
.2270	0.	0.	0.	0.	0.	0.	0.	-.0107	-.0247	.0887	-.0790	-.0414	-.1549	0.	0.	0.	-.0107	-.0247	.0887	-.0790	-.0414	-.1549	0.
.2280	0.	0.	0.	0.	0.	0.	0.	-.0257	-.0205	.1029	-.0897	-.0682	-.1839	0.	0.	0.	-.0257	-.0205	.1029	-.0897	-.0682	-.1839	0.
.2290	0.	0.	0.	0.	0.	0.	0.	-.0396	-.0179	.1151	-.0952	-.0912	-.2078	0.	0.	0.	-.0396	-.0179	.1151	-.0952	-.0912	-.2078	0.
.2300	0.	0.	0.	0.	0.	0.	0.	-.0515	-.0164	.1251	-.0979	-.1080	-.2248	0.	0.	0.	-.0515	-.0164	.1251	-.0979	-.1080	-.2248	0.
.2310	0.	0.	0.	0.	0.	0.	0.	-.0608	-.0157	.1329	-.0987	-.1170	-.2338	0.	0.	0.	-.0608	-.0157	.1329	-.0987	-.1170	-.2338	0.
.2320	0.	0.	0.	0.	0.	0.	0.	-.0671	-.0158	.1386	-.0968	-.1177	-.2361	0.	0.	0.	-.0671	-.0158	.1386	-.0968	-.1177	-.2361	0.
.2330	0.	0.	0.	0.	0.	0.	0.	-.0703	-.0164	.1422	-.0920	-.1101	-.2330	0.	0.	0.	-.0703	-.0164	.1422	-.0920	-.1101	-.2330	0.
.2340	0.	0.	0.	0.	0.	0.	0.	-.0705	-.0174	.1436	-.0858	-.0947	-.2237	0.	0.	0.	-.0705	-.0174	.1436	-.0858	-.0947	-.2237	0.
.2350	0.	0.	0.	0.	0.	0.	0.	-.0680	-.0184	.1427	-.0798	-.0738	-.2075	0.	0.	0.	-.0680	-.0184	.1427	-.0798	-.0738	-.2075	0.

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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

.2250	0.	0.	0.	0.	0.	0.	0.	.189	-.0383	.0555	-.0354	.0161	-.0872	0.
.2260	0.	0.	0.	0.	0.	0.	0.	.0045	-.0306	.0728	-.0609	-.0127	-.1223	0.
.2270	0.	0.	0.	0.	0.	0.	0.	-.0107	-.0247	.0887	-.0790	-.0414	-.1549	0.
.2280	0.	0.	0.	0.	0.	0.	0.	-.0257	-.0205	.1029	-.0897	-.0682	-.1839	0.
.2290	0.	0.	0.	0.	0.	0.	0.	-.0396	-.0179	.1151	-.0952	-.0912	-.2078	0.
.2300	0.	0.	0.	0.	0.	0.	0.	-.0515	-.0164	.1251	-.0979	-.1080	-.2248	0.
.2310	0.	0.	0.	0.	0.	0.	0.	-.0608	-.0157	.1329	-.0987	-.1170	-.2338	0.
.2320	0.	0.	0.	0.	0.	0.	0.	-.0671	-.0158	.1386	-.0968	-.1177	-.2361	0.
.2330	0.	0.	0.	0.	0.	0.	0.	-.0703	-.0164	.1422	-.0920	-.1101	-.2330	0.
.2340	0.	0.	0.	0.	0.	0.	0.	-.0705	-.0174	.1436	-.0858	-.0947	-.2237	0.
.2350	0.	0.	0.	0.	0.	0.	0.	-.0680	-.0184	.1427	-.0798	-.0738	-.2075	0.

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S/RV PIPING KEWAUNEE GKWOBF 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	11	MEMBER	2	SEQUENCE	842	LOCATION	DIS	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)	
.2360	0.	0.	0.	0.	0.	0.	-.0634	-.0194	.1393	-.0740	-.0502	-.1854	0.	
.2370	0.	0.	0.	0.	0.	0.	-.0571	-.0205	.1333	-.0667	-.0267	-.1597	0.	
.2380	0.	0.	0.	0.	0.	0.	-.0498	-.0217	.1246	-.0565	-.0056	-.1324	0.	
.2390	0.	0.	0.	0.	0.	0.	-.0420	-.0229	.1136	-.0442	.0110	-.1038	0.	
.2400	0.	0.	0.	0.	0.	0.	-.0344	-.0237	.1004	-.0309	.0221	-.0741	0.	
.2410	0.	0.	0.	0.	0.	0.	-.0270	-.0241	.0852	-.0170	.0276	-.0443	0.	
.2420	0.	0.	0.	0.	0.	0.	-.0201	-.0236	.0684	-.0021	.0282	-.0167	0.	
.2430	0.	0.	0.	0.	0.	0.	-.0139	-.0219	.0507	.0131	.0248	.0079	0.	
.2440	0.	0.	0.	0.	0.	0.	-.0081	-.0187	.0325	.0269	.0191	.0296	0.	
.2450	0.	0.	0.	0.	0.	0.	-.0026	-.0134	.0142	.0371	.0129	.0491	0.	
.2460	0.	0.	0.	0.	0.	0.	.0031	-.0057	-.0040	.0419	.0076	.0661	0.	
.2470	0.	0.	0.	0.	0.	0.	.0091	.0044	-.0217	.0409	.0044	.0808	0.	
.2480	0.	0.	0.	0.	0.	0.	.0154	.0167	-.0387	.0344	.0046	.0932	0.	
.2490	0.	0.	0.	0.	0.	0.	.0221	.0310	-.0543	.0229	.0087	.1035	0.	
.2500	0.	0.	0.	0.	0.	0.	.0288	.0467	-.0686	.0072	.0163	.1120	0.	
.2510	0.	0.	0.	0.	0.	0.	.0353	.0632	-.0815	-.0113	.0269	.1187	0.	
.2520	0.	0.	0.	0.	0.	0.	.0411	.0798	-.0930	-.0315	.0394	.1236	0.	
.2530	0.	0.	0.	0.	0.	0.	.0456	.0959	-.1029	-.0518	.0522	.1267	0.	
.2540	0.	0.	0.	0.	0.	0.	.0482	.1107	-.1111	-.0707	.0629	.1280	0.	
.2550	0.	0.	0.	0.	0.	0.	.0484	.1238	-.1178	-.0870	.0696	.1276	0.	
.2560	0.	0.	0.	0.	0.	0.	.0460	.1350	-.1233	-.1008	.0704	.1250	0.	
.2570	0.	0.	0.	0.	0.	0.	.0411	.1442	-.1277	-.1133	.0644	.1208	0.	
.2580	0.	0.	0.	0.	0.	0.	.0336	.1514	-.1310	-.1254	.0514	.1166	0.	
.2590	0.	0.	0.	0.	0.	0.	.0240	.1567	-.1330	-.1367	.0320	.1125	0.	
.2600	0.	0.	0.	0.	0.	0.	.0129	.1602	-.1337	-.1465	.0081	.1070	0.	
.2610	0.	0.	0.	0.	0.	0.	.0009	.1619	-.1331	-.1551	-.0180	.0999	0.	
.2620	0.	0.	0.	0.	0.	0.	-.0112	.1621	-.1309	-.1636	-.0434	.0930	0.	
.2630	0.	0.	0.	0.	0.	0.	-.0227	.1610	-.1269	-.1718	-.0657	.0868	0.	
.2640	0.	0.	0.	0.	0.	0.	-.0333	.1585	-.1210	-.1785	-.0832	.0800	0.	
.2650	0.	0.	0.	0.	0.	0.	-.0424	.1547	-.1132	-.1823	-.0951	.0719	0.	
.2660	0.	0.	0.	0.	0.	0.	-.0499	.1498	-.1038	-.1834	-.1011	.0632	0.	
.2670	0.	0.	0.	0.	0.	0.	-.0557	.1440	-.0929	-.1830	-.1019	.0550	0.	
.2680	0.	0.	0.	0.	0.	0.	-.0600	.1376	-.0805	-.1317	-.0985	.0476	0.	
.2690	0.	0.	0.	0.	0.	0.	-.0631	.1307	-.0670	-.1787	-.0922	.0405	0.	
.2700	0.	0.	0.	0.	0.	0.	-.0652	.1236	-.0525	-.1734	-.0843	.0329	0.	
.2710	0.	0.	0.	0.	0.	0.	-.0666	.1165	-.0371	-.1667	-.0756	.0247	0.	
.2720	0.	0.	0.	0.	0.	0.	-.0675	.1098	-.0210	-.1601	-.0664	.0168	0.	
.2730	0.	0.	0.	0.	0.	0.	-.0681	.1036	-.0044	-.1543	-.0571	.0091	0.	

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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

.2620	0.	0.	0.	0.	0.	0.	0.	0.	-.0112	.1621	-.1309	-.1636	-.0434	.0930	0.
.2630	0.	0.	0.	0.	0.	0.	0.	0.	-.0227	.1610	-.1269	-.1718	-.0657	.0868	0.
.2640	0.	0.	0.	0.	0.	0.	0.	0.	-.0333	.1585	-.1210	-.1785	-.0832	.0800	0.
.2650	0.	0.	0.	0.	0.	0.	0.	0.	-.0424	.1547	-.1132	-.1823	-.0951	.0719	0.
.2660	0.	0.	0.	0.	0.	0.	0.	0.	-.0499	.1498	-.1038	-.1834	-.1011	.0632	0.
.2670	0.	0.	0.	0.	0.	0.	0.	0.	-.0557	.1440	-.0929	-.1830	-.1019	.0550	0.
.2680	0.	0.	0.	0.	0.	0.	0.	0.	-.0600	.1376	-.0805	-.1817	-.0985	.0476	0.
.2690	0.	0.	0.	0.	0.	0.	0.	0.	-.0631	.1307	-.0670	-.1787	-.0922	.0405	0.
.2700	0.	0.	0.	0.	0.	0.	0.	0.	-.0652	.1236	-.0525	-.1734	-.0843	.0329	0.
.2710	0.	0.	0.	0.	0.	0.	0.	0.	-.0666	.1165	-.0371	-.1667	-.0756	.0247	0.
.2720	0.	0.	0.	0.	0.	0.	0.	0.	-.0675	.1098	-.0210	-.1601	-.0664	.0168	0.
.2730	0.	0.	0.	0.	0.	0.	0.	0.	-.0681	.1036	-.0044	-.1543	-.0571	.0091	0.

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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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PRESSURE

ENGLISH UNITS

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

SECTION	11	MEMBER	2	SEQUENCE	842	LOCATION	DIS	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)		
.2740	0.	0.	0.	0.	0.	0.	-.0682	.0983	.0124	-.1487	-.0485	.0007	0.		
.2750	0.	0.	0.	0.	0.	0.	-.0678	.0940	.0288	-.1435	-.0408	-.0090	0.		
.2760	0.	0.	0.	0.	0.	0.	-.0666	.0908	.0446	-.1397	-.0337	-.0192	0.		
.2770	0.	0.	0.	0.	0.	0.	-.0645	.0888	.0593	-.1384	-.0272	-.0289	0.		
.2780	0.	0.	0.	0.	0.	0.	-.0614	.0880	.0725	-.1390	-.0207	-.0382	0.		
.2790	0.	0.	0.	0.	0.	0.	-.0574	.0881	.0841	-.1397	-.0138	-.0477	0.		
.2800	0.	0.	0.	0.	0.	0.	-.0524	.0889	.0937	-.1398	-.0060	-.0572	0.		
.2810	0.	0.	0.	0.	0.	0.	-.0466	.0902	.1012	-.1393	.0027	-.0656	0.		
.2820	0.	0.	0.	0.	0.	0.	-.0404	.0918	.1064	-.1383	.0119	-.0720	0.		
.2830	0.	0.	0.	0.	0.	0.	-.0341	.0936	.1091	-.1361	.0209	-.0761	0.		
.2840	0.	0.	0.	0.	0.	0.	-.0279	.0952	.1092	-.1321	.0287	-.0780	0.		
.2850	0.	0.	0.	0.	0.	0.	-.0221	.0967	.1065	-.1265	.0343	-.0772	0.		
.2860	0.	0.	0.	0.	0.	0.	-.0169	.0978	.1012	-.1203	.0373	-.0727	0.		
.2870	0.	0.	0.	0.	0.	0.	-.0124	.0987	.0934	-.1138	.0381	-.0640	0.		
.2880	0.	0.	0.	0.	0.	0.	-.0086	.0991	.0833	-.1070	.0372	-.0516	0.		
.2890	0.	0.	0.	0.	0.	0.	-.0056	.0989	.0714	-.0993	.0355	-.0357	0.		
.2900	0.	0.	0.	0.	0.	0.	-.0032	.0981	.0579	-.0906	.0341	-.0169	0.		
.2910	0.	0.	0.	0.	0.	0.	-.0014	.0965	.0434	-.0811	.0338	.0045	0.		
.2920	0.	0.	0.	0.	0.	0.	-.0002	.0943	.0280	-.0709	.0349	.0280	0.		
.2930	0.	0.	0.	0.	0.	0.	.0005	.0913	.0119	-.0598	.0370	.0527	0.		
.2940	0.	0.	0.	0.	0.	0.	.0007	.0876	-.0046	-.0475	.0396	.0774	0.		
.2950	0.	0.	0.	0.	0.	0.	.0002	.0832	-.0213	-.0341	.0417	.1010	0.		
.2960	0.	0.	0.	0.	0.	0.	-.0011	.0785	-.0379	-.0200	.0426	.1228	0.		
.2970	0.	0.	0.	0.	0.	0.	-.0031	.0734	-.0542	-.0057	.0414	.1423	0.		
.2980	0.	0.	0.	0.	0.	0.	-.0059	.0682	-.0699	.0086	.0378	.1584	0.		
.2990	0.	0.	0.	0.	0.	0.	-.0096	.0632	-.0845	.0223	.0314	.1706	0.		
.3000	0.	0.	0.	0.	0.	0.	-.0138	.0585	-.0976	.0349	.0225	.1790	0.		
.3010	0.	0.	0.	0.	0.	0.	-.0184	.0542	-.1090	.0457	.0113	.1833	0.		
.3020	0.	0.	0.	0.	0.	0.	-.0231	.0504	-.1183	.0543	-.0015	.1835	0.		
.3030	0.	0.	0.	0.	0.	0.	-.0272	.0473	-.1253	.0605	-.0152	.1797	0.		
.3040	0.	0.	0.	0.	0.	0.	-.0305	.0446	-.1299	.0641	-.0289	.1725	0.		
.3050	0.	0.	0.	0.	0.	0.	-.0326	.0423	-.1318	.0650	-.0413	.1623	0.		
.3060	0.	0.	0.	0.	0.	0.	-.0330	.0402	-.1309	.0640	-.0511	.1494	0.		
.3070	0.	0.	0.	0.	0.	0.	-.0315	.0378	-.1272	.0618	-.0574	.1341	0.		
.3080	0.	0.	0.	0.	0.	0.	-.0283	.0350	-.1208	.0591	-.0591	.1173	0.		
.3090	0.	0.	0.	0.	0.	0.	-.0233	.0315	-.1118	.0560	-.0561	.0998	0.		
.3100	0.	0.	0.	0.	0.	0.	-.0169	.0270	-.1003	.0533	-.0483	.0822	0.		
.3110	0.	0.	0.	0.	0.	0.	-.0094	.0214	-.0868	.0516	-.0366	.0650	0.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.15.

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

.3000	0.	0.	0.	0.	0.	0.	0.	-.0158	.0585	-.0976	.0349	.0225	.1790	0.
.3010	0.	0.	0.	0.	0.	0.	0.	-.0184	.0542	-.1090	.0457	.0113	.1833	0.
.3020	0.	0.	0.	0.	0.	0.	0.	-.0231	.0504	-.1183	.0543	-.0015	.1835	0.
.3030	0.	0.	0.	0.	0.	0.	0.	-.0272	.0473	-.1253	.0605	-.0152	.1797	0.
.3040	0.	0.	0.	0.	0.	0.	0.	-.0305	.0446	-.1299	.0641	-.0289	.1725	0.
.3050	0.	0.	0.	0.	0.	0.	0.	-.0326	.0423	-.1318	.0650	-.0413	.1623	0.
.3060	0.	0.	0.	0.	0.	0.	0.	-.0330	.0402	-.1309	.0640	-.0511	.1494	0.
.3070	0.	0.	0.	0.	0.	0.	0.	-.0315	.0378	-.1272	.0618	-.0574	.1341	0.
.3080	0.	0.	0.	0.	0.	0.	0.	-.0283	.0350	-.1208	.0591	-.0591	.1173	0.
.3090	0.	0.	0.	0.	0.	0.	0.	-.0233	.0315	-.1118	.0560	-.0561	.0998	0.
.3100	0.	0.	0.	0.	0.	0.	0.	-.0169	.0270	-.1003	.0533	-.0483	.0822	0.
.3110	0.	0.	0.	0.	0.	0.	0.	-.0094	.0214	-.0868	.0516	-.0366	.0650	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.15.

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	11	MEMBER	2	SEQUENCE	842	LOCATION	DIS	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)		
.3120	0.	0.	0.	0.	0.	0.	-.0015	.0144	-.0717	.0514	-.0222	.0482	0.		
.3130	0.	0.	0.	0.	0.	0.	.0064	.0062	-.0554	.0527	-.0066	.0324	0.		
.3140	0.	0.	0.	0.	0.	0.	.0138	-.0034	-.0383	.0553	.0088	.0180	0.		
.3150	0.	0.	0.	0.	0.	0.	.0202	-.0141	-.0209	.0592	.0228	.0053	0.		
.3160	0.	0.	0.	0.	0.	0.	.0253	-.0260	-.0035	.0647	.0346	-.0061	0.		
.3170	0.	0.	0.	0.	0.	0.	.0290	-.0390	.0137	.0719	.0436	-.0164	0.		
.3180	0.	0.	0.	0.	0.	0.	.0312	-.0527	.0303	.0807	.0499	-.0255	0.		
.3190	0.	0.	0.	0.	0.	0.	.0320	-.0671	.0461	.0908	.0537	-.0334	0.		
.3200	0.	0.	0.	0.	0.	0.	.0318	-.0820	.0611	.1018	.0554	-.0401	0.		
.3210	0.	0.	0.	0.	0.	0.	.0307	-.0971	.0749	.1139	.0556	-.0462	0.		
.3220	0.	0.	0.	0.	0.	0.	.0293	-.1122	.0876	.1267	.0548	-.0518	0.		
.3230	0.	0.	0.	0.	0.	0.	.0277	-.1270	.0989	.1400	.0535	-.0571	0.		
.3240	0.	0.	0.	0.	0.	0.	.0264	-.1413	.1089	.1528	.0520	-.0621	0.		
.3250	0.	0.	0.	0.	0.	0.	.0256	-.1547	.1174	.1647	.0508	-.0670	0.		
.3260	0.	0.	0.	0.	0.	0.	.0254	-.1669	.1244	.1751	.0499	-.0722	0.		
.3270	0.	0.	0.	0.	0.	0.	.0258	-.1778	.1298	.1836	.0495	-.0777	0.		
.3280	0.	0.	0.	0.	0.	0.	.0268	-.1868	.1337	.1896	.0496	-.0835	0.		
.3290	0.	0.	0.	0.	0.	0.	.0282	-.1940	.1360	.1925	.0499	-.0896	0.		
.3300	0.	0.	0.	0.	0.	0.	.0301	-.1990	.1368	.1918	.0502	-.0960	0.		
.3310	0.	0.	0.	0.	0.	0.	.0320	-.2018	.1359	.1877	.0500	-.1026	0.		
.3320	0.	0.	0.	0.	0.	0.	.0340	-.2024	.1333	.1803	.0488	-.1094	0.		
.3330	0.	0.	0.	0.	0.	0.	.0359	-.2010	.1291	.1701	.0463	-.1162	0.		
.3340	0.	0.	0.	0.	0.	0.	.0375	-.1976	.1231	.1575	.0422	-.1230	0.		
.3350	0.	0.	0.	0.	0.	0.	.0388	-.1927	.1155	.1433	.0365	-.1296	0.		
.3360	0.	0.	0.	0.	0.	0.	.0398	-.1866	.1062	.1286	.0293	-.1359	0.		
.3370	0.	0.	0.	0.	0.	0.	.0405	-.1797	.0956	.1142	.0212	-.1417	0.		
.3380	0.	0.	0.	0.	0.	0.	.0408	-.1722	.0838	.1010	.0123	-.1466	0.		
.3390	0.	0.	0.	0.	0.	0.	.0410	-.1647	.0710	.0895	.0033	-.1504	0.		
.3400	0.	0.	0.	0.	0.	0.	.0409	-.1573	.0574	.0799	-.0056	-.1528	0.		
.3410	0.	0.	0.	0.	0.	0.	.0406	-.1502	.0432	.0722	-.0143	-.1534	0.		
.3420	0.	0.	0.	0.	0.	0.	.0402	-.1437	.0287	.0664	-.0227	-.1516	0.		
.3430	0.	0.	0.	0.	0.	0.	.0397	-.1377	.0140	.0620	-.0310	-.1473	0.		
.3440	0.	0.	0.	0.	0.	0.	.0391	-.1324	-.0005	.0587	-.0389	-.1403	0.		
.3450	0.	0.	0.	0.	0.	0.	.0387	-.1277	-.0148	.0562	-.0462	-.1306	0.		
.3460	0.	0.	0.	0.	0.	0.	.0384	-.1235	-.0285	.0541	-.0526	-.1180	0.		
.3470	0.	0.	0.	0.	0.	0.	.0385	-.1200	-.0413	.0525	-.0574	-.1032	0.		
.3480	0.	0.	0.	0.	0.	0.	.0390	-.1170	-.0530	.0515	-.0500	-.0866	0.		
.3490	0.	0.	0.	0.	0.	0.	.0400	-.1146	-.0633	.0512	-.0500	-.0687	0.		

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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

PRESSURE

ENGLISH UNITS

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

.3370	0.	0.	0.	0.	0.	0.	0.	0.408	-1.1722	.0838	.1010	.0123	-1.1466	0.
.3390	0.	0.	0.	0.	0.	0.	0.	.0410	-1.1647	.0710	.0895	.0033	-1.1504	0.
.3400	0.	0.	0.	0.	0.	0.	0.	.0409	-1.1573	.0574	.0799	-.0056	-1.1528	0.
.3410	0.	0.	0.	0.	0.	0.	0.	.0406	-1.1502	.0432	.0722	-.0143	-1.1534	0.
.3420	0.	0.	0.	0.	0.	0.	0.	.0402	-1.1437	.0287	.0664	-.0227	-1.1516	0.
.3430	0.	0.	0.	0.	0.	0.	0.	.0397	-1.1377	.0140	.0620	-.0310	-1.1473	0.
.3440	0.	0.	0.	0.	0.	0.	0.	.0391	-1.1324	-.0005	.0587	-.0389	-1.1403	0.
.3450	0.	0.	0.	0.	0.	0.	0.	.0387	-1.1277	-.0148	.0562	-.0462	-1.1306	0.
.3460	0.	0.	0.	0.	0.	0.	0.	.0384	-1.1235	-.0285	.0541	-.0526	-1.1180	0.
.3470	0.	0.	0.	0.	0.	0.	0.	.0385	-1.1200	-.0413	.0525	-.0574	-1.1032	0.
.3480	0.	0.	0.	0.	0.	0.	0.	.0390	-1.1170	-.0530	.0515	-.0500	-1.0866	0.
.3490	0.	0.	0.	0.	0.	0.	0.	.0400	-1.1146	-.0633	.0512	-.0500	-1.0687	0.

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DIS/ADLPIPE ADLPIPE STRESS ANALYSIS
 S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
 2 SAFETY COLD FKW24F--2 PSV

83/12/02. 18.26.15.

CONDITION 24
 LOADS
 SHOCK
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 ENGLISH UNITS

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

SECTION	11	MEMBER	2	SEQUENCE	842	LOCATION	DIS	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)		
.3500	0.	0.	0.	0.	0.	0.	.0418	-.1125	-.0721	.0515	-.0569	-.0503	0.		
.3510	0.	0.	0.	0.	0.	0.	.0442	-.1109	-.0791	.0526	-.0508	-.0320	0.		
.3520	0.	0.	0.	0.	0.	0.	.0472	-.1096	-.0842	.0543	-.0420	-.0147	0.		
.3530	0.	0.	0.	0.	0.	0.	.0506	-.1084	-.0874	.0569	-.0311	.0010	0.		
.3540	0.	0.	0.	0.	0.	0.	.0542	-.1072	-.0887	.0599	-.0191	.0143	0.		
.3550	0.	0.	0.	0.	0.	0.	.0576	-.1059	-.0881	.0631	-.0067	.0247	0.		
.3560	0.	0.	0.	0.	0.	0.	.0606	-.1043	-.0856	.0659	.0049	.0320	0.		
.3570	0.	0.	0.	0.	0.	0.	.0628	-.1023	-.0812	.0681	.0150	.0359	0.		
.3580	0.	0.	0.	0.	0.	0.	.0639	-.0997	-.0750	.0694	.0227	.0363	0.		
.3590	0.	0.	0.	0.	0.	0.	.0637	-.0965	-.0672	.0695	.0276	.0330	0.		
.3600	0.	0.	0.	0.	0.	0.	.0623	-.0926	-.0580	.0679	.0295	.0267	0.		
.3610	0.	0.	0.	0.	0.	0.	.0596	-.0879	-.0476	.0643	.0285	.0178	0.		
.3620	0.	0.	0.	0.	0.	0.	.0557	-.0824	-.0362	.0587	.0252	.0068	0.		
.3630	0.	0.	0.	0.	0.	0.	.0510	-.0762	-.0241	.0514	.0203	-.0060	0.		
.3640	0.	0.	0.	0.	0.	0.	.0456	-.0695	-.0114	.0425	.0147	-.0198	0.		
.3650	0.	0.	0.	0.	0.	0.	.0399	-.0621	.0016	.0322	.0094	-.0341	0.		
.3660	0.	0.	0.	0.	0.	0.	.0340	-.0543	.0147	.0206	.0051	-.0483	0.		
.3670	0.	0.	0.	0.	0.	0.	.0282	-.0462	.0275	.0084	.0025	-.0618	0.		
.3680	0.	0.	0.	0.	0.	0.	.0225	-.0379	.0399	-.0042	.0016	-.0743	0.		
.3690	0.	0.	0.	0.	0.	0.	.0171	-.0293	.0516	-.0168	.0023	-.0855	0.		
.3700	0.	0.	0.	0.	0.	0.	.0119	-.0207	.0621	-.0295	.0041	-.0948	0.		
.3710	0.	0.	0.	0.	0.	0.	.0067	-.0120	.0714	-.0420	.0063	-.1019	0.		
.3720	0.	0.	0.	0.	0.	0.	.0014	-.0032	.0790	-.0542	.0082	-.1066	0.		
.3730	0.	0.	0.	0.	0.	0.	-.0041	.0054	.0849	-.0655	.0090	-.1087	0.		
.3740	0.	0.	0.	0.	0.	0.	-.0100	.0139	.0889	-.0755	.0084	-.1084	0.		
.3750	0.	0.	0.	0.	0.	0.	-.0162	.0222	.0910	-.0843	.0061	-.1054	0.		
.3760	0.	0.	0.	0.	0.	0.	-.0230	.0303	.0910	-.0915	.0019	-.0998	0.		
.3770	0.	0.	0.	0.	0.	0.	-.0300	.0380	.0891	-.0968	-.0039	-.0917	0.		
.3780	0.	0.	0.	0.	0.	0.	-.0372	.0455	.0852	-.1001	-.0111	-.0815	0.		
.3790	0.	0.	0.	0.	0.	0.	-.0444	.0527	.0794	-.1015	-.0190	-.0693	0.		
.3800	0.	0.	0.	0.	0.	0.	-.0513	.0597	.0720	-.1013	-.0271	-.0551	0.		
.3810	0.	0.	0.	0.	0.	0.	-.0575	.0666	.0632	-.0999	-.0345	-.0392	0.		
.3820	0.	0.	0.	0.	0.	0.	-.0629	.0735	.0531	-.0976	-.0406	-.0220	0.		
.3830	0.	0.	0.	0.	0.	0.	-.0672	.0806	.0420	-.0947	-.0448	-.0039	0.		
.3840	0.	0.	0.	0.	0.	0.	-.0702	.0880	.0303	-.0916	-.0468	.0148	0.		
.3850	0.	0.	0.	0.	0.	0.	-.0718	.0957	.0182	-.0890	-.0463	.0339	0.		
.3860	0.	0.	0.	0.	0.	0.	-.0721	.1039	.0059	-.0871	-.0434	.0530	0.		
.3870	0.	0.	0.	0.	0.	0.	-.0711	.1126	-.0064	-.0859	-.0385	.0716	0.		

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DIS/ADLPIPE ADLPIPE STRESS ANALYSIS
 S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
 2 SAFETY COLD FKW24F--2 PSV

83/12/02. 18.26.15.

CONDITION 24
 LOADS
 SHOCK
 PRESSURE
 ENGLISH UNITS

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

.3770	0.	0.	0.	0.	0.	0.	0.	-.0300	.0380	.0891	-.0968	-.0339	-.0917	0.
.3780	0.	0.	0.	0.	0.	0.	0.	-.0372	.0455	.0852	-.1001	-.0111	-.0815	0.
.3790	0.	0.	0.	0.	0.	0.	0.	-.0444	.0527	.0794	-.1015	-.0190	-.0693	0.
.3800	0.	0.	0.	0.	0.	0.	0.	-.0513	.0597	.0720	-.1013	-.0271	-.0551	0.
.3810	0.	0.	0.	0.	0.	0.	0.	-.0575	.0666	.0632	-.0999	-.0345	-.0392	0.
.3820	0.	0.	0.	0.	0.	0.	0.	-.0629	.0735	.0531	-.0976	-.0406	-.0220	0.
.3830	0.	0.	0.	0.	0.	0.	0.	-.0672	.0806	.0420	-.0947	-.0448	-.0039	0.
.3840	0.	0.	0.	0.	0.	0.	0.	-.0702	.0880	.0303	-.0916	-.0468	.0148	0.
.3850	0.	0.	0.	0.	0.	0.	0.	-.0718	.0957	.0182	-.0890	-.0463	.0339	0.
.3860	0.	0.	0.	0.	0.	0.	0.	-.0721	.1039	.0059	-.0871	-.0434	.0530	0.
.3870	0.	0.	0.	0.	0.	0.	0.	-.0711	.1126	-.0064	-.0859	-.0385	.0716	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.15.

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	11	MEMBER	2	SEQUENCE	842	LOCATION	DIS	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)	
.3880	0.	0.	0.	0.	0.	0.		-.0688	.1217	-.0185	-.0854	-.0321	.0894	0.	
.3890	0.	0.	0.	0.	0.	0.		-.0655	.1312	-.0303	-.0856	-.0247	.1061	0.	
.3900	0.	0.	0.	0.	0.	0.		-.0613	.1408	-.0416	-.0865	-.0169	.1216	0.	
.3910	0.	0.	0.	0.	0.	0.		-.0564	.1506	-.0523	-.0877	-.0091	.1356	0.	
.3920	0.	0.	0.	0.	0.	0.		-.0511	.1601	-.0624	-.0887	-.0016	.1479	0.	
.3930	0.	0.	0.	0.	0.	0.		-.0457	.1693	-.0716	-.0893	.0053	.1583	0.	
.3940	0.	0.	0.	0.	0.	0.		-.0403	.1778	-.0800	-.0893	.0115	.1671	0.	
.3950	0.	0.	0.	0.	0.	0.		-.0351	.1856	-.0875	-.0889	.0169	.1745	0.	
.3960	0.	0.	0.	0.	0.	0.		-.0304	.1925	-.0940	-.0881	.0215	.1805	0.	
.3970	0.	0.	0.	0.	0.	0.		-.0262	.1982	-.0994	-.0868	.0251	.1853	0.	
.3980	0.	0.	0.	0.	0.	0.		-.0228	.2028	-.1037	-.0852	.0277	.1890	0.	
.3990	0.	0.	0.	0.	0.	0.		-.0201	.2061	-.1069	-.0834	.0292	.1920	0.	
.4000	0.	0.	0.	0.	0.	0.		-.0182	.2080	-.1090	-.0819	.0299	.1943	0.	

MAXIMUM VALUE OF DISCONTINUITY FORCE OCCURS AT

TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	FORCE
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(LB)
0.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.

SECTION	11	MEMBER	2	SEQUENCE	842	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	1.	1.	2.	-0.	0.	-0.		.0000	.0000	-.0000	-.0000	.0000	-.0000	0.	
.0020	9.	8.	8.	-0.	0.	-0.		.0001	.0000	-.0001	-.0001	.0002	.0000	0.	
.0030	35.	15.	-1.	-0.	0.	-0.		.0002	-.0000	-.0004	.0000	.0006	.0004	0.	
.0040	83.	8.	-30.	-0.	0.	-0.		.0005	-.0000	-.0009	.0004	.0012	.0012	0.	
.0050	150.	-18.	-71.	-0.	0.	-0.		.0008	-.0000	-.0018	.0011	.0024	.0023	0.	
.0060	253.	-54.	-137.	-0.	0.	-0.		.0012	.0000	-.0030	.0020	.0041	.0038	0.	
.0070	404.	-91.	-254.	-0.	0.	-0.		.0018	.0002	-.0048	.0032	.0067	.0064	0.	
.0080	626.	-133.	-498.	-0.	0.	-0.		.0028	.0005	-.0077	.0046	.0099	.0109	0.	
.0090	998.	-203.	-1057.	-0.	0.	-0.		.0046	.0011	-.0121	.0062	.0138	.0172	0.	
.0100	1483.	-299.	-1833.	-0.	0.	-0.		.0076	.0021	-.0179	.0077	.0188	.0253	0.	
.0110	1937.	-382.	-2498.	-0.	0.	-0.		.0117	.0036	-.0248	.0083	.0251	.0354	0.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.15.

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