

50-305

RESPONSE TO NUREG-0737 ITEM II.D.1

Docket # *50-305*

Control # *8403280048*

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

.2020	-1527.	-588.	796.	1050.	-744.	2958.	.0554	-.0504	-.0287	-.0283	-.0413	-.1338	1512.
.2030	-2139.	-1068.	689.	1542.	-1272.	2947.	.0632	-.0404	-.0468	-.0170	-.0295	-.1115	1669.
.2040	-2703.	-1570.	634.	1985.	-1739.	2782.	.0694	-.0309	-.0639	-.0021	-.0183	-.0849	1807.
.2050	-3228.	-2093.	674.	2389.	-2254.	2475.	.0735	-.0221	-.0798	.0158	-.0083	-.0545	1927.
.2060	-3700.	-2543.	596.	2757.	-2661.	2070.	.0757	-.0140	-.0940	.0349	.0010	-.0209	2041.
.2070	-4061.	-2890.	550.	3096.	-2968.	1596.	.0758	-.0066	-.1063	.0539	.0090	.0149	2143.
.2080	-4228.	-3163.	769.	3434.	-3118.	1037.	.0738	-.0000	-.1163	.0722	.0159	.0513	2227.
.2090	-4215.	-3430.	866.	3791.	-3152.	466.	.0702	.0056	-.1238	.0894	.0239	.0867	2321.
.2100	-4109.	-3703.	479.	4154.	-3149.	-99.	.0658	.0102	-.1290	.1052	.0347	.1199	2443.
.2110	-3887.	-4000.	27.	4510.	-3079.	-646.	.0605	.0137	-.1316	.1193	.0469	.1496	2577.
.2120	-3492.	-4246.	-255.	4840.	-2881.	-1127.	.0546	.0161	-.1316	.1303	.0590	.1741	2692.
.2130	-2987.	-4342.	-669.	5100.	-2590.	-1502.	.0486	.0173	-.1290	.1373	.0711	.1926	2771.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.06.

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	8	MEMBER	1	SEQUENCE	27	LOCATION	END	TYPE	VA					
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)		DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
.2140	-2512.	-4338.	-1153.	5233.	-2278.	-1800.		.0428	.0172	-.1239	.1413	.0818	.2041	2805.
.2150	-2116.	-4330.	-1301.	5227.	-1940.	-2019.		.0370	.0155	-.1164	.1428	.0884	.2078	2779.
.2160	-1750.	-4250.	-1114.	5080.	-1534.	-2091.		.0316	.0124	-.1065	.1412	.0902	.2036	2673.
.2170	-1418.	-3965.	-828.	4735.	-1094.	-2019.		.0267	.0081	-.0943	.1360	.0878	.1914	2466.
.2180	-1159.	-3472.	-398.	4129.	-687.	-1885.		.0226	.0025	-.0800	.1284	.0818	.1718	2151.
.2190	-954.	-2856.	115.	3296.	-343.	-1689.		.0195	-.0043	-.0638	.1194	.0735	.1452	1743.
.2200	-749.	-2175.	404.	2333.	-65.	-1368.		.0173	-.0119	-.0461	.1088	.0543	.1125	1268.
.2210	-515.	-1455.	505.	1297.	151.	-952.		.0159	-.0201	-.0270	.0967	.0546	.0746	757.
.2220	-236.	-687.	640.	214.	311.	-533.		.0149	-.0285	-.0069	.0832	.0438	.0325	306.
.2230	103.	153.	631.	-845.	423.	-116.		.0141	-.0369	.0137	.0679	.0329	-.0123	446.
.2240	491.	990.	321.	-1773.	500.	339.		.0131	-.0449	.0344	.0508	.0219	-.0583	878.
.2250	889.	1664.	20.	-2493.	567.	804.		.0114	-.0523	.0545	.0329	.0096	-.1040	1256.
.2260	1281.	2145.	-76.	-2986.	654.	1231.		.0088	-.0589	.0738	.0149	-.0047	-.1477	1544.
.2270	1697.	2562.	-179.	-3281.	783.	1603.		.0054	-.0645	.0916	-.0032	-.0194	-.1875	1750.
.2280	2139.	2979.	-360.	-3431.	952.	1896.		.0013	-.0690	.1076	-.0208	-.0332	-.2216	1890.
.2290	2548.	3306.	-481.	-3485.	1136.	2080.		-.0033	-.0723	.1212	-.0356	-.0457	-.2484	1975.
.2300	2865.	3465.	-586.	-3464.	1319.	2174.		-.0082	-.0746	.1322	-.0464	-.0564	-.2667	2014.
.2310	3098.	3507.	-699.	-3395.	1522.	2196.		-.0133	-.0758	.1404	-.0528	-.0653	-.2758	2025.
.2320	3270.	3545.	-596.	-3348.	1774.	2098.		-.0185	-.0759	.1457	-.0554	-.0732	-.2756	2030.
.2330	3357.	3639.	-216.	-3377.	2055.	1843.		-.0239	-.0748	.1482	-.0540	-.0802	-.2664	2044.
.2340	3330.	3732.	244.	-3459.	2323.	1485.		-.0289	-.0727	.1478	-.0486	-.0854	-.2488	2073.
.2350	3209.	3705.	742.	-3533.	2562.	1095.		-.0336	-.0695	.1447	-.0393	-.0880	-.2240	2108.
.2360	3032.	3531.	1301.	-3572.	2747.	687.		-.0375	-.0653	.1391	-.0265	-.0872	-.1936	2136.
.2370	2819.	3302.	1704.	-3586.	2836.	242.		-.0404	-.0601	.1311	-.0117	-.0816	-.1590	2146.
.2380	2604.	3060.	1792.	-3553.	2814.	-232.		-.0420	-.0539	.1211	.0039	-.0705	-.1221	2127.
.2390	2425.	2728.	1689.	-3409.	2695.	-683.		-.0423	-.0466	.1093	.0195	-.0545	-.0848	2061.
.2400	2277.	2235.	1425.	-3111.	2473.	-1063.		-.0414	-.0383	.0961	.0344	-.0344	-.0482	1928.
.2410	2116.	1621.	850.	-2675.	2120.	-1366.		-.0392	-.0293	.0816	.0479	-.0109	-.0137	1723.
.2420	1938.	973.	49.	-2150.	1663.	-1620.		-.0358	-.0195	.0662	.0588	.0142	.0177	1483.
.2430	1768.	356.	-695.	-1569.	1171.	-1830.		-.0315	-.0092	.0501	.0662	.0384	.0452	1256.
.2440	1597.	-207.	-1279.	-959.	683.	-1966.		-.0266	.0014	.0336	.0696	.0596	.0686	1074.
.2450	1381.	-726.	-1743.	-362.	200.	-2012.		-.0211	.0122	.0168	.0692	.0770	.0880	963.
.2460	1095.	-1199.	-2091.	165.	-273.	-1980.		-.0150	.0227	-.0001	.0656	.0904	.1035	940.
.2470	742.	-1583.	-2335.	582.	-717.	-1881.		-.0087	.0329	-.0170	.0588	.0994	.1152	982.
.2480	331.	-1837.	-2454.	881.	-1099.	-1711.		-.0021	.0426	-.0337	.0486	.1035	.1235	1038.
.2490	-114.	-1985.	-2272.	1086.	-1377.	-1475.		.0042	.0517	-.0498	.0350	.1015	.1287	1074.
.2500	-567.	-2064.	-1735.	1228.	-1533.	-1180.		.0100	.0601	-.0652	.0184	.0936	.1309	1074.
.2510	-1043.	-2085.	-1126.	1330.	-1612.	-835.		.0152	.0678	-.0797	-.0007	.0816	.1304	1055.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.06.

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

.2410	2116.	1621.	50.	-2675.	2120.	-1366.	-.0392	-.0293	.0816	.0479	-.0109	-.0137	1723.
.2420	1938.	973.	49.	-2150.	1663.	-1620.	-.0358	-.0195	.0662	.0588	.0142	-.0177	1483.
.2430	1768.	356.	-695.	-1569.	1171.	-1030.	-.0315	-.0092	.0501	.0662	.0384	.0452	1256.
.2440	1597.	-207.	-1179.	-959.	683.	-1966.	-.0266	.0014	.0336	.0696	.0596	.0686	1074.
.2450	1381.	-726.	-1743.	-362.	200.	-2012.	-.0211	.0122	.0168	.0692	.0770	.0880	963.
.2460	1095.	-1199.	-2091.	165.	-273.	-1980.	-.0150	.0227	-.0001	.0656	.0904	.1035	940.
.2470	742.	-1583.	-2335.	582.	-717.	-1881.	-.0087	.0329	-.0170	.0588	.0994	.1152	982.
.2480	331.	-1837.	-2454.	881.	-1099.	-1711.	-.0021	.0426	-.0337	.0486	.1035	.1235	1038.
.2490	-114.	-1985.	-2272.	1086.	-1377.	-1475.	.0042	.0517	-.0498	.0350	.1015	.1287	1074.
.2500	-567.	-2064.	-1735.	1228.	-1533.	-1180.	.0100	.0601	-.0652	.0184	.0936	.1309	1074.
.2510	-1043.	-2085.	-1126.	1330.	-1612.	-835.	.0152	.0678	-.0797	-.0007	.0816	.1304	1055.

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

CONDITION 24

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

SECTION	U	MEMBER	1	SEQUENCE	27	LOCATION	END	TYPE	VA					
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
.2520	-1567.	-2083.	-608.	1416.	-1654.	-464.	.0199	.0746	-.0931	-.0216	.0564	.1277	1043.	
.2530	-2093.	-2112.	29.	1531.	-1637.	-86.	.0236	.0804	-.1051	-.0436	.0479	.1227	1051.	
.2540	-2531.	-2151.	873.	1705.	-1530.	300.	.0260	.0853	-.1154	-.0669	.0264	.1160	1083.	
.2550	-2852.	-2140.	1661.	1918.	-1376.	672.	.0275	.0892	-.1239	-.0909	.0045	.1081	1150.	
.2560	-3098.	-2101.	2162.	2120.	-1260.	977.	.0281	.0919	-.1305	-.1139	-.0155	.0994	1243.	
.2570	-3282.	-2117.	2384.	2294.	-1219.	1205.	.0281	.0932	-.1352	-.1343	-.0325	.0905	1342.	
.2580	-3361.	-2177.	2351.	2447.	-1230.	1404.	.0274	.0933	-.1379	-.1519	-.0460	.0818	1442.	
.2590	-3317.	-2188.	2081.	2542.	-1283.	1573.	.0262	.0921	-.1386	-.1660	-.0559	.0741	1524.	
.2600	-3203.	-2101.	1672.	2514.	-1393.	1642.	.0245	.0897	-.1374	-.1785	-.0526	.0673	1551.	
.2610	-3082.	-1940.	1139.	2350.	-1568.	1595.	.0223	.0862	-.1344	-.1866	-.0565	.0615	1520.	
.2620	-2982.	-1758.	494.	2105.	-1782.	1499.	.0197	.0818	-.1299	-.1912	-.0584	.0569	1471.	
.2630	-2908.	-1590.	-38.	1819.	-1985.	1383.	.0165	.0765	-.1238	-.1928	-.0701	.0532	1418.	
.2640	-2863.	-1393.	-286.	1484.	-2145.	1210.	.0125	.0708	-.1163	-.1920	-.0723	.0504	1348.	
.2650	-2835.	-1095.	-395.	1095.	-2253.	969.	.0079	.0648	-.1075	-.1894	-.0745	.0481	1259.	
.2660	-2806.	-732.	-502.	690.	-2300.	696.	.0029	.0588	-.0976	-.1855	-.0758	.0461	1172.	
.2670	-2756.	-439.	-509.	327.	-2273.	430.	-.0025	.0528	-.0866	-.1798	-.0763	.0442	1095.	
.2680	-2653.	-263.	-404.	26.	-2162.	187.	-.0084	.0471	-.0745	-.1724	-.0756	.0423	1017.	
.2690	-2450.	-103.	-366.	-238.	-1964.	-32.	-.0144	.0417	-.0615	-.1640	-.0729	.0401	927.	
.2700	-2120.	120.	-440.	-500.	-1680.	-246.	-.0205	.0369	-.0475	-.1552	-.0679	.0375	829.	
.2710	-1673.	352.	-503.	-760.	-1311.	-458.	-.0267	.0327	-.0327	-.1456	-.0618	.0343	742.	
.2720	-1131.	522.	-513.	-997.	-864.	-637.	-.0329	.0290	-.0172	-.1352	-.0552	.0304	686.	
.2730	-501.	658.	-497.	-1224.	-348.	-770.	-.0390	.0259	-.0012	-.1242	-.0487	.0256	697.	
.2740	214.	856.	-420.	-1498.	219.	-886.	-.0446	.0235	.0149	-.1129	-.0420	.0200	822.	
.2750	972.	1156.	-371.	-1855.	790.	-1009.	-.0495	.0218	.0309	-.1015	-.0349	.0134	1057.	
.2760	1716.	1493.	-409.	-2270.	1324.	-1111.	-.0533	.0206	.0462	-.0898	-.0270	.0059	1337.	
.2770	2411.	1778.	-457.	-2693.	1806.	-1157.	-.0560	.0200	.0606	-.0780	-.0190	-.0026	1613.	
.2780	3028.	2019.	-442.	-3108.	2223.	-1151.	-.0576	.0199	.0736	-.0664	-.0111	-.0120	1870.	
.2790	3523.	2284.	-429.	-3515.	2549.	-1112.	-.0578	.0206	.0848	-.0560	-.0037	-.0222	2100.	
.2800	3870.	2566.	-410.	-3880.	2776.	-1042.	-.0570	.0219	.0939	-.0473	.0028	-.0328	2288.	
.2810	4064.	2774.	-251.	-4139.	2917.	-922.	-.0553	.0238	.1008	-.0404	.0077	-.0436	2412.	
.2820	4107.	2856.	57.	-4256.	2977.	-744.	-.0530	.0264	.1053	-.0353	.0108	-.0539	2459.	
.2830	4014.	2849.	382.	-4243.	2946.	-528.	-.0501	.0295	.1072	-.0319	.0130	-.0628	2433.	
.2840	3830.	2798.	655.	-4127.	2829.	-312.	-.0467	.0332	.1067	-.0302	.0155	-.0695	2350.	
.2850	3605.	2700.	854.	-3925.	2644.	-113.	-.0430	.0372	.1037	-.0297	.0189	-.0730	2219.	
.2860	3361.	2528.	911.	-3645.	2404.	67.	-.0392	.0414	.0983	-.0296	.0237	-.0726	2047.	
.2870	3110.	2277.	804.	-3308.	2122.	218.	-.0355	.0456	.0908	-.0296	.0300	-.0676	1845.	
.2880	2864.	1981.	590.	-2940.	1824.	316.	-.0320	.0498	.0812	-.0293	.0372	-.0577	1628.	
.2890	2629.	1684.	311.	-2562.	1535.	344.	-.0289	.0539	.0699	-.0289	.0445	-.0428	1409.	

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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

.2790	3523.	2284.	-429.	-3515.	2549.	-1112.	-.0578	.0206	.0848	-.0560	-.0037	-.0222	2100.
.2800	3870.	2566.	-410.	-3880.	2776.	-1042.	-.0570	.0219	.0939	-.0473	.0028	-.0328	2288.
.2810	4064.	2774.	-251.	-4139.	2917.	-922.	-.0553	.0238	.1008	-.0404	.0077	-.0436	2412.
.2820	4107.	2856.	57.	-4256.	2977.	-744.	-.0530	.0264	.1053	-.0353	.0108	-.0539	2459.
.2830	4014.	2849.	382.	-4243.	2946.	-528.	-.0501	.0295	.1072	-.0319	.0130	-.0628	2433.
.2840	3830.	2798.	655.	-4127.	2829.	-312.	-.0467	.0332	.1067	-.0302	.0155	-.0695	2350.
.2850	3605.	2700.	854.	-3925.	2644.	-113.	-.0430	.0372	.1037	-.0297	.0189	-.0730	2219.
.2860	3361.	2528.	911.	-3645.	2404.	67.	-.0392	.0414	.0983	-.0296	.0237	-.0726	2047.
.2870	3110.	2277.	804.	-3308.	2122.	218.	-.0355	.0456	.0908	-.0296	.0300	-.0676	1845.
.2880	2864.	1981.	590.	-2940.	1824.	316.	-.0320	.0498	.0812	-.0293	.0372	-.0577	1628.
.2890	2629.	1684.	211.	-2562.	1535.	344.	-.0289	.0539	.0699	-.0289	.0445	-.0428	1409.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.06.

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

SECTION	8	MEMBER	1	SEQUENCE	27	LOCATION	END	TYPE	VA					
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
.2900	2389.	1393.	14.	-2175.	1276.	301.	-.0266	.0577	.0570	-.0285	.0508	-.0232	1190.	
.2910	2124.	1085.	-200.	-1770.	1056.	197.	-.0249	.0612	.0427	-.0281	.0550	.0003	970.	
.2920	1822.	748.	-297.	-1339.	872.	45.	-.0240	.0644	.0273	-.0275	.0566	.0270	749.	
.2930	1470.	404.	-355.	-883.	706.	-143.	-.0235	.0672	.0111	-.0272	.0560	.0557	534.	
.2940	1059.	71.	-410.	-408.	535.	-366.	-.0233	.0696	-.0058	-.0273	.0531	.0853	359.	
.2950	595.	-260.	-410.	90.	352.	-611.	-.0231	.0715	-.0229	-.0280	.0481	.1142	333.	
.2960	87.	-593.	-361.	619.	147.	-845.	-.0229	.0730	-.0399	-.0296	.0410	.1414	496.	
.2970	-463.	-921.	-322.	1176.	-97.	-1046.	-.0224	.0741	-.0564	-.0323	.0321	.1654	739.	
.2980	-1056.	-1232.	-292.	1742.	-393.	-1206.	-.0214	.0747	-.0722	-.0361	.0217	.1854	1010.	
.2990	-1675.	-1516.	-235.	2300.	-732.	-1315.	-.0200	.0749	-.0867	-.0411	.0098	.2004	1288.	
.3000	-2250.	-1763.	-136.	2844.	-1093.	-1349.	-.0182	.0745	-.0996	-.0473	-.0034	.2099	1562.	
.3010	-2875.	-1970.	7.	3354.	-1461.	-1302.	-.0159	.0737	-.1106	-.0544	-.0174	.2138	1820.	
.3020	-3409.	-2125.	177.	3796.	-1825.	-1188.	-.0131	.0723	-.1194	-.0619	-.0313	.2121	2051.	
.3030	-3866.	-2208.	306.	4140.	-2171.	-1017.	-.0098	.0704	-.1258	-.0693	-.0440	.2052	2242.	
.3040	-4217.	-2221.	348.	4378.	-2479.	-789.	-.0060	.0679	-.1295	-.0760	-.0545	.1936	2386.	
.3050	-4444.	-2180.	345.	4506.	-2719.	-521.	-.0020	.0649	-.1306	-.0814	-.0525	.1781	2478.	
.3060	-4535.	-2087.	331.	4520.	-2871.	-240.	.0022	.0613	-.1291	-.0851	-.0677	.1595	2512.	
.3070	-4503.	-1923.	285.	4422.	-2921.	40.	.0063	.0572	-.1249	-.0868	-.0701	.1386	2484.	
.3080	-4344.	-1703.	219.	4230.	-2861.	311.	.0101	.0526	-.1183	-.0863	-.0699	.1164	2397.	
.3090	-4082.	-1471.	197.	3967.	-2690.	564.	.0134	.0475	-.1094	-.0833	-.0676	.0936	2262.	
.3100	-3736.	-1249.	244.	3656.	-2414.	791.	.0161	.0419	-.0985	-.0774	-.0635	.0711	2086.	
.3110	-3314.	-1020.	335.	3303.	-2049.	981.	.0179	.0359	-.0859	-.0689	-.0580	.0496	1879.	
.3120	-2824.	-773.	454.	2909.	-1618.	1120.	.0190	.0295	-.0718	-.0578	-.0511	.0297	1646.	
.3130	-2285.	-526.	585.	2483.	-1151.	1199.	.0192	.0227	-.0566	-.0440	-.0428	.0119	1400.	
.3140	-1717.	-299.	686.	2036.	-680.	1224.	.0187	.0156	-.0406	-.0275	-.0333	-.0035	1158.	
.3150	-1128.	-92.	742.	1578.	-227.	1198.	.0175	.0081	-.0240	-.0087	-.0226	-.0161	934.	
.3160	-531.	111.	757.	1110.	193.	1113.	.0157	.0004	-.0072	.0119	-.0112	-.0262	742.	
.3170	56.	319.	731.	638.	565.	967.	.0134	-.0075	.0096	.0339	.0006	-.0336	604.	
.3180	621.	526.	680.	182.	886.	774.	.0105	-.0156	.0261	.0566	.0124	-.0391	558.	
.3190	1153.	708.	621.	-237.	1157.	554.	.0073	-.0237	.0421	.0795	.0237	-.0425	611.	
.3200	1640.	852.	554.	-604.	1379.	318.	.0038	-.0318	.0573	.1021	.0346	-.0445	721.	
.3210	2076.	964.	450.	-918.	1553.	68.	.0003	-.0399	.0716	.1239	.0449	-.0454	846.	
.3220	2464.	1057.	311.	-1177.	1689.	-190.	-.0032	-.0478	.0847	.1444	.0548	-.0457	969.	
.3230	2819.	1130.	164.	-1377.	1804.	-440.	-.0064	-.0556	.0966	.1632	.0642	-.0458	1083.	
.3240	3138.	1169.	-4.	-1518.	1901.	-670.	-.0091	-.0631	.1071	.1801	.0731	-.0460	1183.	
.3250	3408.	1169.	-225.	-1614.	1977.	-878.	-.0113	-.0703	.1161	.1950	.0815	-.0467	1265.	
.3260	3629.	1148.	-472.	-1681.	2038.	-1063.	-.0127	-.0773	.1235	.2078	.0890	-.0482	1334.	
.3270	3813.	1135.	-700.	-1733.	2095.	-1214.	-.0133	-.0839	.1293	.2179	.0952	-.0507	1395.	

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

.3170	56.	319.	31.	33.	565.	967.	.134	-.0075	.0096	.0339	.0206	-.0338	604.
.3180	621.	526.	680.	182.	886.	774.	.105	-.0156	.0261	.0566	.0124	-.0391	558.
.3190	1153.	708.	621.	-237.	1157.	554.	.0073	-.0237	.0421	.0795	.0237	-.0425	611.
.3200	1640.	852.	554.	-604.	1779.	318.	.0038	-.0318	.0573	.1021	.0346	-.0445	721.
.3210	2076.	964.	450.	-910.	1553.	68.	.0003	-.0399	.0716	.1239	.0449	-.0454	846.
.3220	2464.	1057.	311.	-1177.	1689.	-190.	-.0032	-.0478	.0847	.1444	.0548	-.0457	969.
.3230	2819.	1130.	164.	-1377.	1804.	-440.	-.0064	-.0556	.0966	.1632	.0542	-.0458	1083.
.3240	3138.	1169.	-4.	-1518.	1901.	-670.	-.0091	-.0631	.1071	.1801	.0731	-.0460	1183.
.3250	3408.	1169.	-225.	-1614.	1977.	-878.	-.0113	-.0703	.1161	.1950	.0815	-.0467	1265.
.3260	3629.	1148.	-472.	-1681.	2038.	-1063.	-.0127	-.0773	.1235	.2078	.0890	-.0482	1334.
.3270	3813.	1135.	-700.	-1733.	2095.	-1214.	-.0133	-.0839	.1293	.2179	.0952	-.0507	1395.

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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	MEMBER	SEQUENCE	LOCATION	END	TYPE	VA								
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
.3280	3948.	1133.	-884.	-1780.	2149.	-1321.	-.0131	-.0901	.1334	.2252	.0993	-.0544	1447.	
.3290	4019.	1129.	-1004.	-1828.	2194.	-1378.	-.0120	-.0959	.1358	.2298	.1010	-.0595	1486.	
.3300	4019.	1122.	-1043.	-1882.	2221.	-1378.	-.0101	-.1012	.1365	.2316	.1000	-.0662	1509.	
.3310	3947.	1127.	-1022.	-1943.	2222.	-1316.	-.0072	-.1060	.1355	.2303	.0962	-.0745	1515.	
.3320	3803.	1150.	-947.	-2008.	2190.	-1189.	-.0035	-.1103	.1327	.2259	.0897	-.0842	1500.	
.3330	3590.	1178.	-798.	-2063.	2121.	-998.	.0010	-.1139	.1283	.2184	.0807	-.0954	1463.	
.3340	3312.	1192.	-605.	-2087.	2007.	-743.	.0062	-.1169	.1222	.2081	.0595	-.1079	1401.	
.3350	2962.	1186.	-432.	-2067.	1837.	-434.	.0122	-.1191	.1145	.1951	.0569	-.1212	1312.	
.3360	2543.	1152.	-275.	-1986.	1612.	-87.	.0186	-.1207	.1053	.1798	.0431	-.1351	1199.	
.3370	2071.	1086.	-91.	-1831.	1345.	288.	.0254	-.1214	.0948	.1623	.0282	-.1491	1073.	
.3380	1558.	986.	115.	-1590.	1050.	678.	.0321	-.1215	.0831	.1433	.0127	-.1625	948.	
.3390	1009.	850.	318.	-1270.	730.	1063.	.0388	-.1208	.0704	.1233	-.0029	-.1746	848.	
.3400	433.	669.	510.	-886.	388.	1419.	.0452	-.1194	.0570	.1032	-.0181	-.1847	805.	
.3410	-145.	450.	683.	-455.	37.	1735.	.0512	-.1175	.0430	.0838	-.0322	-.1922	841.	
.3420	-697.	206.	813.	-2.	-312.	2002.	.0566	-.1152	.0287	.0659	-.0445	-.1962	949.	
.3430	-1205.	-50.	887.	440.	-653.	2204.	.0614	-.1124	.0143	.0501	-.0545	-.1964	1097.	
.3440	-1656.	-312.	893.	842.	-985.	2329.	.0655	-.1094	.0002	.0371	-.0516	-.1924	1249.	
.3450	-2043.	-576.	805.	1188.	-1302.	2380.	.0689	-.1061	-.0135	.0273	-.0556	-.1841	1388.	
.3460	-2361.	-839.	638.	1471.	-1595.	2361.	.0716	-.1027	-.0266	.0208	-.0564	-.1716	1503.	
.3470	-2611.	-1099.	457.	1689.	-1852.	2275.	.0735	-.0992	-.0388	.0176	-.0546	-.1555	1586.	
.3480	-2798.	-1344.	294.	1844.	-2063.	2131.	.0746	-.0955	-.0500	.0172	-.0506	-.1365	1637.	
.3490	-2930.	-1567.	139.	1948.	-2225.	1943.	.0750	-.0918	-.0600	.0193	-.0547	-.1152	1658.	
.3500	-3022.	-1780.	3.	2016.	-2338.	1723.	.0746	-.0880	-.0686	.0233	-.0473	-.0928	1657.	
.3510	-3081.	-1994.	-83.	2063.	-2402.	1484.	.0736	-.0841	-.0758	.0289	-.0389	-.0702	1639.	
.3520	-3103.	-2198.	-122.	2098.	-2414.	1241.	.0720	-.0801	-.0813	.0353	-.0298	-.0484	1608.	
.3530	-3083.	-2370.	-140.	2123.	-2378.	1005.	.0699	-.0761	-.0851	.0421	-.0202	-.0283	1566.	
.3540	-3021.	-2505.	-151.	2133.	-2303.	780.	.0675	-.0721	-.0870	.0487	-.0102	-.0107	1516.	
.3550	-2920.	-2607.	-168.	2126.	-2200.	572.	.0649	-.0682	-.0871	.0551	-.0001	.0038	1459.	
.3560	-2775.	-2673.	-200.	2098.	-2072.	392.	.0620	-.0644	-.0852	.0609	.0096	.0146	1394.	
.3570	-2577.	-2687.	-229.	2040.	-1918.	244.	.0589	-.0607	-.0813	.0658	.0185	.0216	1317.	
.3580	-2324.	-2630.	-246.	1937.	-1743.	122.	.0556	-.0573	-.0755	.0697	.0264	.0246	1222.	
.3590	-2020.	-2498.	-277.	1776.	-1555.	26.	.0522	-.0541	-.0679	.0726	.0330	.0237	1107.	
.3600	-1675.	-2306.	-335.	1561.	-1361.	-39.	.0488	-.0511	-.0586	.0744	.0383	.0192	971.	
.3610	-1294.	-2069.	-403.	1295.	-1159.	-69.	.0452	-.0485	-.0480	.0752	.0421	.0114	815.	
.3620	-888.	-1792.	-465.	981.	-950.	-67.	.0415	-.0461	-.0362	.0751	.0444	.0008	641.	
.3630	-469.	-1470.	-522.	624.	-734.	-39.	.0378	-.0439	-.0236	.0738	.0451	-.0119	452.	
.3640	-51.	-1115.	-563.	236.	-507.	12.	.0339	-.0420	-.0105	.0715	.0442	-.0262	262.	
.3650	347.	-751.	-558.	-164.	-269.	83.	.0298	-.0402	.0028	.0681	.0416	-.0415	153.	

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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

.3550	-2920.	-2607.	-168.	2126.	-2200.	572.	.0649	-.0682	-.0871	.0551	-.0001	.0038	1459.
.3560	-2775.	-2673.	-200.	2098.	-2072.	392.	.0620	-.0644	-.0852	.0609	.0096	.0146	1394.
.3570	-2577.	-2687.	-229.	2040.	-1918.	244.	.0589	-.0607	-.0813	.0658	.0185	.0216	1317.
.3580	-2324.	-2670.	-246.	1977.	-1743.	122.	.0556	-.0573	-.0755	.0697	.0264	.0246	1222.
.3590	-2020.	-2498.	-277.	1776.	-1555.	26.	.0522	-.0541	-.0679	.0726	.0330	.0237	1107.
.3600	-1675.	-2306.	-335.	1561.	-1361.	-39.	.0498	-.0511	-.0586	.0744	.0383	.0192	971.
.3610	-1294.	-2069.	-403.	1295.	-1159.	-69.	.0452	-.0485	-.0480	.0752	.0421	.0114	815.
.3620	-888.	-1792.	-465.	951.	-950.	-67.	.0415	-.0461	-.0362	.0751	.0444	.0008	641.
.3630	-469.	-1470.	-522.	624.	-734.	-39.	.0378	-.0439	-.0236	.0738	.0451	-.0119	452.
.3640	-51.	-1115.	-563.	236.	-507.	12.	.0339	-.0426	-.0105	.0715	.0442	-.0262	262.
.3650	347.	-751.	-555.	-164.	-269.	83.	.0298	-.0402	.0028	.0681	.0416	-.0415	153.

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

SECTION	8	MEMBER	1	SEQUENCE	27	LOCATION	END	TYPE	VA							
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)			
.3660	710.	-398.	-493.	-562.	-18.	171.	.0255	-.0385	.0160	.0638	.0374	-.0569	275.			
.3670	1034.	-52.	-361.	-949.	248.	265.	.0210	-.0369	.0288	.0584	.0317	-.0719	476.			
.3680	1327.	296.	-167.	-1322.	526.	354.	.0162	-.0353	.0409	.0520	.0249	-.0858	687.			
.3690	1575.	642.	61.	-1679.	809.	427.	.0112	-.0336	.0520	.0447	.0176	-.0979	896.			
.3700	1791.	967.	282.	-2011.	1082.	481.	.0061	-.0318	.0620	.0369	.0104	-.1078	1094.			
.3710	1975.	1259.	472.	-2312.	1335.	513.	.0008	-.0298	.0707	.0286	.0038	-.1150	1274.			
.3720	2138.	1524.	610.	-2579.	1559.	520.	-.0045	-.0275	.0778	.0199	-.0019	-.1191	1433.			
.3730	2282.	1769.	673.	-2810.	1744.	495.	-.0099	-.0249	.0834	.0110	-.0063	-.1201	1567.			
.3740	2404.	1989.	653.	-2994.	1881.	439.	-.0152	-.0219	.0874	.0018	-.0095	-.1178	1670.			
.3750	2497.	2159.	567.	-3117.	1964.	358.	-.0204	-.0185	.0895	-.0074	-.0116	-.1123	1735.			
.3760	2555.	2268.	429.	-3167.	1991.	257.	-.0255	-.0145	.0899	-.0167	-.0129	-.1039	1757.			
.3770	2573.	2324.	242.	-3141.	1961.	138.	-.0304	-.0099	.0885	-.0260	-.0134	-.0926	1736.			
.3780	2545.	2334.	23.	-3042.	1875.	2.	-.0350	-.0048	.0853	-.0353	-.0135	-.0789	1675.			
.3790	2464.	2292.	-209.	-2872.	1738.	-143.	-.0393	.0010	.0803	-.0444	-.0134	-.0630	1575.			
.3800	2325.	2186.	-439.	-2632.	1557.	-289.	-.0431	.0075	.0737	-.0531	-.0132	-.0452	1439.			
.3810	2123.	2020.	-649.	-2335.	1340.	-431.	-.0464	.0145	.0656	-.0612	-.0133	-.0260	1278.			
.3820	1863.	1814.	-812.	-2000.	1102.	-569.	-.0491	.0222	.0561	-.0689	-.0138	-.0057	1103.			
.3830	1555.	1591.	-906.	-1649.	857.	-701.	-.0513	.0303	.0454	-.0760	-.0150	.0153	931.			
.3840	1207.	1361.	-924.	-1295.	619.	-819.	-.0528	.0390	.0339	-.0826	-.0168	.0366	774.			
.3850	830.	1120.	-861.	-949.	395.	-920.	-.0537	.0480	.0216	-.0887	-.0193	.0578	647.			
.3860	437.	873.	-721.	-623.	193.	-1000.	-.0541	.0574	.0089	-.0942	-.0221	.0785	560.			
.3870	52.	642.	-527.	-323.	21.	-1058.	-.0538	.0669	-.0040	-.0994	-.0251	.0983	519.			
.3880	-305.	438.	-306.	-54.	-120.	-1091.	-.0529	.0767	-.0168	-.1044	-.0277	.1167	515.			
.3890	-625.	255.	-85.	190.	-234.	-1096.	-.0515	.0865	-.0294	-.1094	-.0296	.1335	533.			
.3900	-903.	77.	108.	423.	-328.	-1068.	-.0496	.0963	-.0414	-.1143	-.0305	.1483	560.			
.3910	-1136.	-103.	254.	655.	-406.	-1008.	-.0472	.1059	-.0529	-.1194	-.0302	.1609	595.			
.3920	-1324.	-271.	358.	890.	-471.	-921.	-.0445	.1153	-.0636	-.1248	-.0288	.1711	639.			
.3930	-1469.	-423.	434.	1133.	-527.	-808.	-.0416	.1243	-.0734	-.1305	-.0266	.1791	697.			
.3940	-1584.	-569.	485.	1390.	-580.	-672.	-.0386	.1328	-.0822	-.1363	-.0237	.1850	773.			
.3950	-1683.	-727.	513.	1661.	-637.	-517.	-.0356	.1407	-.0900	-.1421	-.0204	.1890	868.			
.3960	-1776.	-893.	530.	1934.	-703.	-357.	-.0329	.1479	-.0967	-.1473	-.0170	.1915	979.			
.3970	-1857.	-1041.	545.	2186.	-775.	-207.	-.0304	.1541	-.1022	-.1519	-.0135	.1929	1091.			
.3980	-1925.	-1154.	553.	2398.	-852.	-77.	-.0282	.1592	-.1066	-.1554	-.0101	.1939	1193.			
.3990	-1981.	-1236.	543.	2555.	-934.	21.	-.0265	.1632	-.1098	-.1576	-.0066	.1947	1275.			
.4000	-2030.	-1300.	506.	2650.	-1023.	78.	-.0253	.1660	-.1117	-.1578	-.0031	.1957	1331.			

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

.3930	-1469.	-423.	434.	1133.	-527.	-808.	-.0416	.1243	-.0734	-.1305	-.0266	.1791	697.
.3940	-1584.	-565.	485.	1390.	-580.	-672.	-.0386	.1328	-.0822	-.1363	-.0237	.1850	773.
.3950	-1683.	-727.	513.	1661.	-637.	-517.	-.0356	.1407	-.0900	-.1421	-.0204	.1890	868.
.3960	-1776.	-893.	530.	1934.	-703.	-357.	-.0329	.1479	-.0967	-.1473	-.0170	.1915	970.
.3970	-1857.	-1041.	545.	2186.	-775.	-207.	-.0304	.1541	-.1022	-.1519	-.0135	.1929	1051.
.3980	-1925.	-1154.	553.	2399.	-852.	-77.	-.0282	.1592	-.1066	-.1554	-.0101	.1939	1193.
.3990	-1981.	-1236.	543.	2555.	-934.	21.	-.0265	.1632	-.1098	-.1576	-.0066	.1947	1275.
.4000	-2030.	-1300.	506.	2650.	-1023.	78.	-.0253	.1660	-.1117	-.1578	-.0031	.1957	1331.

ADLPIPE PAGE 428 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.26.06.

S/RV PIPING KEMAUNEE GK08F 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)
.1400	8851.	4961.	-501.	-8417.	5656.	-175.	-.0665	.0194	.1997	.0465	.1865	-.0652	4753.

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
0.0000	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.
.0010	-1.	-5.	-1.	-0.	1.	0.	-.0000	-.0000	-.0000	.0000	.0000	-.0000	-.0000	-.0000	-.0000	-.0000	.0000	.0000	-.0000	0.
.0020	-5.	-30.	-9.	1.	2.	1.	-.0000	.0000	-.0001	.0000	.0002	.0000	.0000	.0000	.0000	.0000	.0002	.0000	.0000	1.
.0030	-14.	-64.	-36.	11.	-2.	2.	-.0000	.0001	-.0004	-.0000	.0006	.0004	.0004	.0000	.0001	-.0000	.0006	.0004	.0004	5.
.0040	-28.	-97.	-82.	34.	-13.	-1.	-.0000	.0003	-.0010	-.0003	.0014	.0013	.0013	.0000	.0003	-.0003	.0014	.0013	.0013	17.
.0050	-53.	-147.	-138.	70.	-26.	-13.	-.0001	.0006	-.0019	-.0008	.0024	.0027	.0027	.0000	.0006	-.0008	.0024	.0027	.0027	36.
.0060	-103.	-237.	-219.	119.	-38.	-32.	-.0003	.0011	-.0033	-.0015	.0035	.0048	.0048	.0000	.0011	-.0033	.0035	.0048	.0048	61.
.0070	-174.	-361.	-347.	191.	-61.	-51.	-.0006	.0019	-.0053	-.0026	.0051	.0080	.0080	.0000	.0019	-.0053	.0051	.0080	.0080	97.
.0080	-245.	-486.	-611.	293.	-128.	-72.	-.0006	.0032	-.0083	-.0042	.0086	.0131	.0131	.0000	.0032	-.0083	.0086	.0131	.0131	154.
.0090	-332.	-585.	-1176.	413.	-301.	-117.	-.0001	.0049	-.0128	-.0064	.0154	.0207	.0207	.0000	.0049	-.0128	.0154	.0207	.0207	246.
.0100	-445.	-692.	-1953.	531.	-559.	-192.	.0011	.0071	-.0187	-.0086	.0254	.0307	.0307	.0000	.0071	-.0187	.0254	.0307	.0307	372.
.0110	-539.	-836.	-2650.	650.	-803.	-263.	.0028	.0097	-.0259	-.0109	.0371	.0426	.0426	.0000	.0097	-.0259	.0371	.0426	.0426	500.
.0120	-585.	-988.	-3127.	770.	-975.	-305.	.0047	.0126	-.0338	-.0135	.0491	.0558	.0558	.0000	.0126	-.0338	.0491	.0558	.0558	600.
.0130	-642.	-1136.	-3450.	854.	-1096.	-335.	.0071	.0157	-.0424	-.0158	.0605	.0695	.0695	.0000	.0157	-.0424	.0605	.0695	.0695	670.
.0140	-800.	-1311.	-3710.	865.	-1196.	-375.	.0097	.0188	-.0514	-.0174	.0705	.0830	.0830	.0000	.0188	-.0514	.0705	.0830	.0830	714.
.0150	-1091.	-1545.	-3931.	822.	-1274.	-391.	.0124	.0217	-.0608	-.0184	.0783	.0959	.0959	.0000	.0217	-.0608	.0783	.0959	.0959	734.
.0160	-1530.	-1843.	-4316.	759.	-1376.	-363.	.0152	.0245	-.0706	-.0191	.0842	.1083	.1083	.0000	.0245	-.0706	.0842	.1083	.1083	756.
.0170	-2024.	-2173.	-4518.	717.	-1418.	-300.	.0179	.0274	-.0809	-.0204	.0876	.1204	.1204	.0000	.0274	-.0809	.0876	.1204	.1204	758.
.0180	-2327.	-2426.	-3704.	767.	-1173.	-185.	.0198	.0308	-.0911	-.0237	.0866	.1324	.1324	.0000	.0308	-.0911	.0866	.1324	.1324	662.
.0190	-2208.	-2461.	-1842.	946.	-607.	0.	.0215	.0347	-.1005	-.0295	.0831	.1435	.1435	.0000	.0347	-.1005	.0831	.1435	.1435	527.
.0200	-1464.	-2201.	554.	1170.	90.	220.	.0248	.0386	-.1087	-.0362	.0842	.1519	.1519	.0000	.0386	-.1087	.0842	.1519	.1519	559.
.0210	-437.	-1766.	1593.	1166.	235.	313.	.0331	.0408	-.1164	-.0380	.1012	.1559	.1559	.0000	.0408	-.1164	.1012	.1559	.1559	576.
.0220	101.	-1585.	954.	771.	-313.	257.	.0450	.0400	-.1221	-.0304	.1257	.1531	.1531	.0000	.0400	-.1221	.1257	.1531	.1531	408.
.0230	410.	-1712.	450.	281.	-807.	378.	.0565	.0366	-.1231	-.0175	.1411	.1403	.1403	.0000	.0366	-.1231	.1411	.1403	.1403	438.
.0240	376.	-1818.	-1705.	-168.	-1573.	608.	.0679	.0312	-.1204	-.0040	.1499	.1155	.1155	.0000	.0312	-.1204	.1499	.1155	.1155	794.
.0250	118.	-1857.	-3263.	-534.	-2168.	734.	.0772	.0242	-.1147	.0075	.1456	.0820	.0820	.0000	.0242	-.1147	.1456	.0820	.0820	1102.
.0260	429.	-1334.	1202.	-485.	-1106.	1057.	.0787	.0169	-.1027	.0132	.1066	.0437	.0437	.0000	.0169	-.1027	.1066	.0437	.0437	752.
.0270	754.	-1071.	6983.	-15.	618.	1687.	.0744	.0087	-.0846	.0141	.0433	-.0032	-.0032	.0000	.0087	-.0846	.0433	-.0032	-.0032	842.
.0280	269.	-933.	2272.	233.	627.	2047.	.0744	-.0030	-.0666	.0198	-.0011	-.0604	1009.	.0000	-.0030	-.0666	.0198	-.0011	-.0604	1009.
.0290	-857.	-1094.	3059.	-60.	-627.	1952.	.0789	-.0183	-.0502	.0367	-.0235	-.1172	961.	.0000	-.0183	-.0502	.0367	-.0235	-.1172	961.
.0300	-2115.	-2493.	714.	-279.	-1966.	2175.	.0816	-.0343	-.0325	.0567	-.0480	-.1633	1380.	.0000	-.0343	-.0325	.0567	-.0480	-.1633	1380.
.0310	-2945.	-2278.	-1245.	33.	-2698.	2908.	.0794	-.0492	-.0138	.0696	-.0796	-.2054	1859.	.0000	-.0492	-.0138	.0696	-.0796	-.2054	1859.
.0320	-2554.	-2485.	776.	730.	-1821.	3321.	.0697	-.0621	.0070	.0696	-.1260	-.2456	1808.	.0000	-.0621	.0070	.0696	-.1260	-.2456	1808.

.0330	-2302.	-1160.	2141.	1197.	-1037.	2673.	.0580	-.0730	.0271	.0627	-.1592	-.2745	1456.
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.0170	-1024.	-2173.	110.	717.	-1418.	-100.	.179	.0274	-.0809	-.0204	.0876	.1204	758.
.0180	-2327.	-2426.	-3704.	767.	-1173.	-185.	.0198	.0308	-.0911	-.0237	.0866	.1324	662.
.0190	-2208.	-2461.	-1842.	946.	-607.	0.	.0215	.0347	-.1005	-.0295	.0831	.1435	527.
.0200	-1464.	-2201.	554.	1170.	90.	220.	.0248	.0386	-.1087	-.0362	.0842	.1519	559.
.0210	-427.	-1766.	1593.	1166.	235.	313.	.0331	.0408	-.1164	-.0380	.1012	.1559	576.
.0220	101.	-1585.	954.	771.	-313.	257.	.0450	.0400	-.1221	-.0304	.1257	.1531	408.
.0230	410.	-1712.	450.	281.	-807.	378.	.0565	.0366	-.1231	-.0175	.1411	.1403	438.
.0240	376.	-1818.	-1705.	-168.	-1573.	608.	.0679	.0312	-.1204	-.0040	.1499	.1155	794.
.0250	118.	-1657.	-3263.	-534.	-2168.	734.	.0772	.0242	-.1147	.0075	.1456	.0820	1102.
.0260	429.	-1334.	1202.	-485.	-1106.	1057.	.0787	.0169	-.1027	.0132	.1066	.0437	752.
.0270	754.	-1071.	6985.	-15.	618.	1687.	.0744	.0087	-.0846	.0141	.0433	-.0032	842.
.0280	209.	-933.	6272.	233.	627.	2047.	.0744	-.0030	-.0666	.0198	-.0011	-.0604	1009.
.0290	-857.	-1094.	3059.	-60.	-627.	1952.	.0789	-.0183	-.0502	.0367	-.0235	-.1172	961.
.0300	-2115.	-1493.	714.	-279.	-1966.	2175.	.0816	-.0343	-.0325	.0567	-.0480	-.1633	1380.
.0310	-2945.	-2278.	-1245.	33.	-2698.	2908.	.0794	-.0492	-.0138	.0696	-.0796	-.2054	1859.
.0320	-2554.	-2485.	776.	730.	-1821.	3321.	.0697	-.0621	.0070	.0696	-.1260	-.2456	1808.

.0330 -2302. -1160. 2841. 1197. -1037. 2673. .0580 -.0738 .0271 .0627 -.1592 -.2745 1456.

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	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU	DX	DY	DZ	RX	RY	RZ	STRESS
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
.0340	-3330.	193.	1041.	1167.	-1418.	1645.	.0471	-.0864	.0449	.0609	-.1989	-.2907	1155.
.0350	-4342.	-367.	583.	977.	-1050.	1426.	.0311	-.1003	.0630	.0657	-.2328	-.3002	948.
.0360	-3934.	-1274.	4636.	958.	927.	1870.	.0091	-.1124	.0834	.0645	-.2744	-.2999	1076.
.0370	-3003.	184.	6980.	741.	2332.	1558.	-.0111	-.1214	.1033	.0512	-.2972	-.2854	1359.
.0380	-2860.	2761.	4954.	-280.	2276.	-63.	-.0272	-.1303	.1208	.0385	-.2942	-.2670	1075.
.0390	-2511.	3534.	4604.	-1631.	2714.	-1474.	-.0455	-.1404	.1384	.0337	-.2878	-.2519	1637.
.0400	-252.	3413.	6563.	-2232.	3870.	-1253.	-.0633	-.1468	.1561	.0242	-.2597	-.2289	2175.
.0410	2001.	4367.	3933.	-2639.	3387.	-845.	-.0728	-.1493	.1701	.0098	-.2190	-.1965	2051.
.0420	3084.	5578.	-751.	-3799.	1775.	-1922.	-.0765	-.1517	.1799	.0018	-.1496	-.1727	2162.
.0430	4813.	6114.	-2405.	-4730.	982.	-3121.	-.0791	-.1516	.1874	-.0070	-.0800	-.1600	2695.
.0440	7360.	6529.	-4991.	-4321.	194.	-2701.	-.0778	-.1452	.1915	-.0257	-.0058	-.1434	2390.
.0450	8454.	6192.	-8869.	-3609.	-1117.	-1765.	-.0735	-.1361	.1910	-.0387	.0616	-.1253	1954.
.0460	7686.	4527.	-9028.	-3544.	-1598.	-1705.	-.0717	-.1279	.1874	-.0377	.0999	-.1192	1989.
.0470	7356.	3554.	-6412.	-3043.	-890.	-1559.	-.0712	-.1157	.1818	-.0438	.1166	-.1174	1656.
.0480	7766.	4443.	-5597.	-1684.	-286.	-657.	-.0670	-.0974	.1730	-.0619	.1310	-.1057	857.
.0490	6821.	4696.	-4792.	-1039.	-10.	-199.	-.0603	-.0803	.1605	-.0616	.1373	-.0905	496.
.0500	4737.	2888.	-1482.	-1571.	646.	-401.	-.0534	-.0677	.1455	-.0328	.1317	-.0799	818.
.0510	3802.	1636.	414.	-1858.	1204.	-52.	-.0428	-.0532	.1285	-.0028	.1346	-.0627	1038.
.0520	4038.	2547.	-654.	-1737.	1049.	447.	-.0269	-.0347	.1095	.0192	.1527	-.0328	974.
.0530	3635.	3447.	-516.	-2393.	776.	-252.	-.0108	-.0179	.0892	.0536	.1668	-.0025	1185.
.0540	2706.	2840.	936.	-3349.	776.	-1237.	.0030	-.0035	.0681	.1006	.1716	.0230	1712.
.0550	2624.	1897.	568.	-3120.	765.	-864.	.0159	.0137	.0465	.1385	.1761	.0526	1559.
.0560	2928.	1229.	401.	-2055.	958.	-73.	.0265	.0330	.0248	.1663	.1741	.0845	1063.
.0570	2391.	258.	2672.	-1253.	1542.	-409.	.0334	.0503	.0029	.1949	.1588	.1083	951.
.0580	1604.	-773.	3950.	-182.	1913.	-901.	.0397	.0666	-.0198	.2174	.1449	.1266	995.
.0590	1483.	-1726.	2788.	1837.	1872.	-177.	.0473	.0836	-.0434	.2276	.1410	.1485	1232.
.0600	1119.	-3587.	2626.	3836.	1889.	848.	.0538	.0971	-.0669	.2395	.1350	.1697	2043.
.0610	-120.	-6075.	3568.	5029.	1822.	1000.	.0591	.1046	-.0902	.2575	.1254	.1841	2550.
.0620	-1197.	-7256.	2309.	6035.	1156.	792.	.0660	.1096	-.1130	.2651	.1238	.1975	2904.
.0630	-1580.	-6929.	342.	7084.	345.	804.	.0730	.1132	-.1337	.2589	.1238	.2153	3345.
.0640	-2413.	-7023.	819.	7375.	-53.	651.	.0761	.1112	-.1514	.2555	.1095	.2315	3470.
.0650	-4163.	-7967.	1682.	6821.	-499.	315.	.0762	.1029	-.1663	.2575	.0843	.2425	3209.
.0660	-5685.	-8108.	906.	6203.	-1235.	213.	.0752	.0926	-.1778	.2483	.0583	.2526	2966.
.0670	-6351.	-6843.	1124.	5607.	-1622.	32.	.0716	.0816	-.1847	.2233	.0285	.2616	2735.
.0680	-6854.	-5344.	2888.	4563.	-1695.	-621.	.0654	.0678	-.1873	.1931	-.0038	.2629	2299.
.0690	-7471.	-4437.	2661.	3306.	-2304.	-1106.	.0601	.0511	-.1872	.1614	-.0238	.2561	1958.
.0700	-7590.	-3921.	122.	2413.	-3433.	-798.	.0565	.0341	-.1846	.1237	-.0268	.2452	2002.
.0710	-7171.	-3498.	-1824.	1844.	-4327.	-272.	.0519	.0173	-.1782	.0786	-.0251	.2277	2208.

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

.0610	-120.	-2075.	3568.	5029.	1822.	1000.	.591	.1046	-.0902	.2575	.1254	.1841	2550.
.0620	-1197.	-7256.	2309.	6035.	1156.	792.	.660	.1096	-.1130	.2651	.1238	.1975	2904.
.0630	-1580.	-6929.	342.	7084.	345.	804.	.0730	.1132	-.1337	.2589	.1238	.2153	3345.
.0640	-2417.	-7023.	819.	7375.	-53.	651.	.0761	.1112	-.1514	.2555	.1095	.2315	3470.
.0650	-4167.	-7967.	1682.	6221.	-499.	315.	.0762	.1029	-.1663	.2575	.0843	.2425	3209.
.0660	-5615.	-8108.	906.	6207.	-1231.	213.	.0752	.0926	-.1778	.2483	.0583	.2526	2966.
.0670	-6351.	-6843.	1124.	5607.	-1622.	32.	.0716	.0816	-.1847	.2233	.0285	.2616	2735.
.0680	-6854.	-5344.	2888.	4563.	-1695.	-621.	.0654	.0678	-.1873	.1931	-.0038	.2629	2299.
.0690	-7471.	-4437.	2661.	3306.	-2304.	-1106.	.0601	.0511	-.1872	.1614	-.0238	.2561	1958.
.0700	-7590.	-3921.	122.	2412.	-3433.	-798.	.0565	.0341	-.1846	.1237	-.0268	.2452	2002.
.0710	-7171.	-2498.	-1824.	1844.	-4327.	-272.	.0519	.0173	-.1782	.0726	-.0251	.2277	2208.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.06.

S/RV PIPING KEWAUNEE GKWCDF 2 RUP DISK
2 SAFETY COLD FRW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	8	MEMBER	2	SEQUENCE	228	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)		
.0720	-6723.	-2978.	-2896.	1413.	-4761.	-218.	.0444	.0007	-.1679	.0265	-.0276	.1974	2329.		
.0730	-6051.	-2163.	-3049.	1416.	-4712.	-278.	.0341	-.0142	-.1536	-.0353	-.0355	.1559	2310.		
.0740	-4828.	-1245.	-3645.	1995.	-4006.	136.	.0216	-.0267	-.1354	-.1033	-.0498	.1099	2098.		
.0750	-3761.	-777.	-2726.	2645.	-3037.	842.	.0086	-.0386	-.1145	-.1656	-.0682	.0612	1928.		
.0760	-3409.	-820.	-2829.	2939.	-2295.	1419.	-.0033	-.0514	-.0917	-.2157	-.0366	.0076	1870.		
.0770	-2998.	-651.	-2794.	3034.	-1359.	1862.	-.0143	-.0635	-.0665	-.2577	-.1075	-.0485	1786.		
.0780	-1800.	395.	-856.	3071.	149.	2245.	-.0248	-.0739	-.0785	-.2942	-.1324	-.1011	1784.		
.0790	-512.	1988.	968.	2690.	1441.	2381.	-.0318	-.0838	-.0094	-.3172	-.1525	-.1488	1814.		
.0800	-20.	3155.	549.	1567.	1830.	2216.	-.0339	-.0955	.0189	-.3169	-.1516	-.1944	1534.		
.0810	161.	3651.	-169.	38.	1920.	2092.	-.0333	-.1079	.0468	-.2964	-.1564	-.2366	1331.		
.0820	786.	4263.	625.	-1332.	2308.	2137.	-.0321	-.1183	.0749	-.2667	-.1740	-.2723	1601.		
.0830	1504.	5457.	1644.	-2491.	2658.	1909.	-.0302	-.1258	.1022	-.2323	-.1820	-.3029	1927.		
.0840	1772.	6596.	2175.	-3612.	2719.	1204.	-.0272	-.1314	.1275	-.1898	-.1373	-.3319	2193.		
.0850	1286.	6934.	2983.	-4461.	2710.	654.	-.0237	-.1351	.1503	-.1384	-.1378	-.3565	2465.		
.0860	2146.	6443.	3417.	-4729.	2521.	795.	-.0188	-.1358	.1698	-.0820	-.1786	-.3718	2539.		
.0870	2302.	5472.	2730.	-4612.	1970.	1159.	-.0124	-.1336	.1854	-.0228	-.1573	-.3786	2412.		
.0880	2425.	4454.	2077.	-4400.	1390.	1089.	-.0060	-.1292	.1973	.0367	-.1272	-.3791	2222.		
.0890	2994.	3781.	1810.	-3987.	977.	768.	.0003	-.1222	.2056	.0916	-.0384	-.3703	1957.		
.0900	3855.	3195.	577.	-3368.	413.	637.	.0070	-.1130	.2095	.1426	-.0385	-.3486	1618.		
.0910	4342.	1993.	-1372.	-2956.	-304.	556.	.0132	-.1029	.2088	.1958	.0165	-.3156	1417.		
.0920	4488.	423.	-2371.	-2895.	-702.	222.	.0166	-.0951	.2044	.2485	.0565	-.2735	1400.		
.0930	4916.	-328.	-2378.	-2842.	-597.	-335.	.0168	-.0848	.1971	.2894	.1085	-.2214	1370.		
.0940	5636.	-18.	-2134.	-2734.	-176.	-1104.	.0146	-.0728	.1869	.3156	.1433	-.1613	1384.		
.0950	6064.	288.	-1431.	-2902.	394.	-2116.	.0107	-.0612	.1734	.3354	.1711	-.0979	1693.		
.0960	6062.	-6.	-609.	-3321.	883.	-3020.	.0065	-.0508	.1564	.3523	.1949	-.0329	2144.		
.0970	5994.	-417.	-692.	-3610.	1076.	-3461.	.0035	-.0402	.1360	.3597	.2191	.0331	2397.		
.0980	5970.	-537.	-1163.	-3694.	1153.	-2734.	.0011	-.0290	.1133	.3533	.2397	.0945	2520.		
.0990	5785.	-454.	-845.	-3696.	1372.	-4220.	-.0020	-.0177	.0890	.3336	.2500	.1452	2707.		
.1000	5390.	-310.	-259.	-3448.	1600.	-4599.	-.0054	-.0063	.0638	.3008	.2500	.1848	2796.		
.1010	4803.	-402.	-129.	-2790.	1680.	-4389.	-.0083	.0053	.0380	.2563	.2417	.2140	2561.		
.1020	3935.	-1056.	260.	-1950.	1767.	-3748.	-.0111	.0160	.0124	.2048	.2228	.2298	2146.		
.1030	2855.	-1856.	1119.	-1133.	1075.	-3078.	-.0135	.0255	-.0123	.1475	.1948	.2312	1771.		
.1040	1894.	-2010.	1540.	-266.	1737.	-2399.	-.0137	.0349	-.0357	.0822	.1543	.2223	1394.		
.1050	1171.	-1676.	1200.	598.	1312.	-1561.	-.0112	.0439	-.0576	.0130	.1347	.2058	996.		
.1060	452.	-1722.	1104.	1174.	755.	-573.	-.0063	.0507	-.0778	-.0506	.1051	.1813	707.		
.1070	-434.	-2178.	386.	1393.	-77.	506.	.0010	.0551	-.0964	-.1054	.0778	.1510	696.		
.1080	-1021.	-2167.	-1086.	1486.	-1166.	1621.	.0114	.0587	-.1135	-.1563	.0564	.1197	1167.		
.1090	-625.	-1291.	-2761.	1497.	-2358.	2550.	.0256	.0618	-.1297	-.2040	.0463	.0175	1772.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.06.

S/RV PIPING KEWAUNEE GKWCDF 2 RUP DISK
2 SAFETY COLD FRW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.0990	5785.	-454.	-845.	-3696.	1372.	-4220.	-0020	-0177	.0890	.3336	.2500	.1452	2707.
.1000	5390.	-310.	-259.	-3448.	1600.	-4599.	-0054	-0063	.0678	.3008	.2500	.1848	2796.
.1010	4808.	-402.	-129.	-2790.	1630.	-4389.	-0083	.0053	.0380	.2563	.2417	.2140	2561.
.1020	3935.	-1056.	260.	-1950.	1767.	-3740.	-0111	.0160	.0124	.2048	.2228	.2298	2146.
.1030	2955.	-1856.	1119.	-1173.	1075.	-3078.	-0135	.0255	-0123	.1475	.1948	.2312	1771.
.1040	1894.	-2010.	1540.	-266.	1737.	-2399.	-0137	.0349	-0357	.0822	.1643	.2223	1394.
.1050	1171.	-1676.	1260.	598.	1312.	-1561.	-0112	.0439	-0576	.0130	.1347	.2058	996.
.1060	452.	-1722.	1104.	1174.	755.	-573.	-0063	.0507	-0778	-0506	.1051	.1813	707.
.1070	-434.	-2178.	386.	1393.	-79.	506.	.0010	.0551	-0964	-1054	.0778	.1510	696.
.1080	-1021.	-2167.	-1086.	1466.	-1166.	1621.	.0114	.0587	-1135	-1563	.0564	.1197	1167.
.1090	-525.	-1291.	-2761.	1497.	-2358.	2550.	.0256	.0618	-1297	-2040	.0463	.0895	1772.

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S/RV PIPING KEVAUNEE 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	B	MEMBER	2	SEQUENCE	228	LOCATION	END	TYPE	RU					
TIME	FX	FY	FZ	MX	MY	MZ								STRESS
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
.1100	-2034.	-864.	-5363.	1034.	-3829.	2874.		.0393	.0621	-1450	-2377	.0305	.0563	2295.
.1110	-3344.	-1227.	-5656.	692.	-4411.	3272.		.0483	.0611	-1578	-2626	-0029	.0219	2594.
.1120	-3906.	-1396.	-3677.	1048.	-3942.	4134.		.0529	.0617	-1677	-2891	-0503	-0074	2722.
.1130	-4673.	-945.	-2104.	1598.	-3434.	4631.		.0557	.0631	-1763	-3126	-1001	-0315	2804.
.1140	-6195.	-635.	-926.	1806.	-3122.	4298.		.0574	.0628	-1840	-3235	-1474	-0533	2630.
.1150	-7495.	-948.	518.	2106.	-2667.	4020.		.0579	.0619	-1903	-3237	-1882	-0699	2467.
.1160	-8129.	-1555.	949.	2859.	-2313.	4335.		.0581	.0617	-1948	-3184	-2168	-0766	2664.
.1170	-8609.	-2235.	1261.	3530.	-2056.	4401.		.0571	.0612	-1970	-3047	-2367	-0760	2814.
.1180	-9746.	-2770.	930.	3705.	-2075.	3588.		.0535	.0593	-1962	-2818	-2545	-0721	2605.
.1190	-9873.	-2906.	2826.	3999.	-1286.	2786.		.0451	.0582	-1906	-2603	-2753	-0632	2362.
.1200	-8871.	-2536.	4676.	4626.	-291.	2571.		.0347	.0586	-1809	-2422	-2884	-0456	2484.
.1210	-8538.	-2241.	3061.	4752.	-450.	2176.		.0263	.0573	-1694	-2147	-2829	-0219	2458.
.1220	-8513.	-2848.	3129.	4046.	-461.	1168.		.0163	.0524	-1547	-1736	-2723	-0005	1985.
.1230	-7768.	-3155.	3138.	3393.	-320.	330.		.0055	.0477	-1364	-1355	-2536	.0210	1605.
.1240	-5894.	-2380.	2539.	3161.	-78.	-96.		-0050	.0453	-1148	-1091	-2248	.0443	1483.
.1250	-4246.	-1455.	2360.	2554.	96.	-917.		-0152	.0421	-0909	-0819	-1909	.0644	1272.
.1260	-3557.	-1105.	1258.	1413.	-213.	-2037.		-0240	.0370	-0661	-0484	-1508	.0786	1166.
.1270	-1920.	-1002.	1056.	639.	-127.	-2367.		-0314	.0328	-0399	-0207	-1034	.0889	1151.
.1280	134.	-461.	-1036.	246.	-423.	-2155.		-0352	.0302	-0140	-0020	-0433	.0965	1036.
.1290	1477.	-39.	-2551.	-573.	-794.	-2545.		-0376	.0266	.0115	.0178	.0160	.0958	1278.
.1300	2484.	124.	-2265.	-1616.	-749.	-3198.		-0464	.0224	.0368	.0364	.0671	.0870	1716.
.1310	3608.	617.	-3659.	-2130.	-818.	-3007.		-0421	.0202	.0611	.0441	.1151	.0766	1769.
.1320	4963.	1003.	-3492.	-2399.	-291.	-2280.		-0451	.0190	.0850	.0456	.1500	.0637	1557.
.1330	5429.	1123.	-2315.	-3138.	341.	-2066.		-0489	.0165	.1074	.0502	.1713	.0459	1768.
.1340	5768.	1526.	-920.	-4024.	1001.	-2160.		-0520	.0141	.1280	.0527	.1859	.0256	2191.
.1350	6837.	2549.	-397.	-4543.	1587.	-1884.		-0532	.0137	.1464	.0474	.2016	.0074	2422.
.1360	7578.	3458.	-1302.	-5133.	1673.	-1564.		-0522	.0131	.1615	.0441	.2174	-0093	2634.
.1370	7868.	3482.	-474.	-6099.	1991.	-1569.		-0519	.0109	.1739	.0492	.2226	-0273	3095.
.1380	7991.	3632.	-834.	-6807.	1977.	-1470.		-0508	.0099	.1829	.0516	.2235	-0428	3392.
.1390	8533.	4391.	-1583.	-6866.	2043.	-1120.		-0503	.0118	.1890	.0440	.2165	-0549	3398.
.1400	8851.	4961.	-501.	-6737.	2566.	-1087.		-0527	.0142	.1923	.0344	.1926	-0678	3416.
.1410	8185.	4944.	187.	-6587.	2646.	-1357.		-0562	.0164	.1915	.0274	.1580	-0810	3422.
.1420	7668.	4573.	1281.	-5960.	3235.	-1233.		-0601	.0199	.1869	.0173	.1178	-0907	3230.
.1430	7213.	4363.	1235.	-4886.	3287.	-778.		-0626	.0252	.1781	.0024	.0794	-0947	2784.
.1440	6377.	4040.	1494.	-3911.	3198.	-680.		-0645	.0305	.1652	-0111	.0399	-0966	2389.
.1450	5213.	3491.	2027.	-3069.	3002.	-893.		-0656	.0355	.1487	-0227	.0005	-0966	2055.
.1460	4016.	3053.	931.	-2003.	3362.	-812.		-0646	.0417	.1285	-0368	-0323	-0899	1500.
.1470	3223.	2507.	1109.	-844.	1995.	-466.		-0632	.0486	.1059	-0518	-0639	-0770	1038.

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S/RV PIPING KEVAUNEE 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	7808.	3482.	-474.	-6099.	1991.	-1589.	-.0519	.0109	.1739	.0492	.2226	-.0273	3095.
.1380	7991.	3632.	-834.	-6807.	1977.	-1470.	-.0508	.0099	.1829	.0516	.2235	-.0428	3392.
.1390	8533.	4391.	-1583.	-6866.	2043.	-1120.	-.0503	.0118	.1890	.0440	.2165	-.0549	3398.
.1400	8851.	4961.	-501.	-6737.	2566.	-1087.	-.0527	.0142	.1923	.0344	.1926	-.0678	3416.
.1410	9185.	4944.	187.	-6507.	2046.	-1357.	-.0562	.0164	.1915	.0274	.1580	-.0810	3422.
.1420	7608.	4573.	1281.	-5960.	3235.	-1233.	-.0601	.0199	.1869	.0173	.1178	-.0907	3230.
.1430	7213.	4363.	1235.	-4886.	3287.	-778.	-.0626	.0252	.1781	.0024	.0794	-.0947	2784.
.1440	6375.	4040.	1494.	-3911.	3198.	-680.	-.0645	.0305	.1652	-.0111	.0399	-.0966	2389.
.1450	5213.	3491.	2027.	-3069.	3002.	-893.	-.0656	.0355	.1487	-.0227	.0005	-.0966	2055.
.1460	4016.	3053.	931.	-2003.	2362.	-812.	-.0646	.0417	.1285	-.0368	-.0323	-.0899	1500.
.1470	3223.	2507.	1109.	-844.	1995.	-466.	-.0632	.0486	.1059	-.0518	-.0639	-.0770	1038.

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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	S	MEMBER	2	SEQUENCE	228	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)		
.1480	1017.	1842.	731.	-45.	1303.	-384.	-.0606	.0548	.0805	-.0627	-.0921	-.0599	637.		
.1490	124.	1203.	211.	519.	539.	-489.	-.0577	.0607	.0533	-.0724	-.1181	-.0390	414.		
.1500	-1057.	804.	702.	1234.	198.	-321.	-.0555	.0678	.0256	-.0860	-.1436	-.0127	605.		
.1510	-2250.	604.	798.	1952.	-155.	-127.	-.0533	.0752	-.0025	-.1009	-.1654	.0184	920.		
.1520	-3498.	138.	1861.	2375.	-262.	-220.	-.0515	.0817	-.0304	-.1118	-.1835	.0502	1124.		
.1530	-4814.	-390.	1850.	2635.	-595.	-423.	-.0484	.0876	-.0580	-.1200	-.1907	.0829	1281.		
.1540	-5417.	-750.	1870.	3032.	-787.	-413.	-.0444	.0940	-.0843	-.1298	-.1863	.1175	1481.		
.1550	-5527.	-977.	1926.	3430.	-937.	-393.	-.0391	.1006	-.1088	-.1390	-.1705	.1525	1676.		
.1560	-6054.	-1250.	41.	3588.	-1641.	-638.	-.0321	.1062	-.1319	-.1439	-.1433	.1849	1873.		
.1570	-6127.	-1825.	-421.	3741.	-1870.	-844.	-.0262	.1113	-.1517	-.1469	-.1154	.2125	1999.		
.1580	-5817.	-2259.	-890.	4127.	-1911.	-747.	-.0210	.1169	-.1680	-.1523	-.0873	.2369	2160.		
.1590	-5706.	-2453.	-2101.	4513.	-2068.	-634.	-.0165	.1224	-.1808	-.1580	-.0617	.2571	2345.		
.1600	-5602.	-2787.	-1269.	4685.	-1678.	-690.	-.0146	.1267	-.1891	-.1609	-.0472	.2699	2355.		
.1610	-5143.	-2991.	281.	4851.	-1030.	-570.	-.0135	.1305	-.1932	-.1634	-.0368	.2772	2339.		
.1620	-4767.	-2779.	-881.	4994.	-1112.	-201.	-.0098	.1336	-.1947	-.1648	-.0190	.2817	2400.		
.1630	-4394.	-2867.	-905.	4748.	-1087.	34.	-.0060	.1344	-.1927	-.1583	-.0037	.2799	2282.		
.1640	-4134.	-3120.	-451.	4189.	-1070.	150.	-.0021	.1330	-.1874	-.1454	.0088	.2720	2027.		
.1650	-3817.	-2904.	-1509.	3734.	-1387.	471.	.0026	.1310	-.1791	-.1321	.0220	.2611	1880.		
.1660	-3134.	-2491.	-1160.	3358.	-1275.	842.	.0058	.1283	-.1672	-.1207	.0275	.2459	1729.		
.1670	-2898.	-2193.	-428.	2804.	-1110.	930.	.0075	.1236	-.1526	-.1036	.0255	.2255	1479.		
.1680	-2783.	-2041.	567.	2275.	-839.	963.	.0081	.1175	-.1356	-.0836	.0192	.2012	1223.		
.1690	-2640.	-1784.	508.	1994.	-725.	1177.	.0085	.1108	-.1168	-.0640	.0139	.1760	1137.		
.1700	-2376.	-1599.	1118.	1778.	-385.	1305.	.0076	.1029	-.0960	-.0431	.0068	.1492	1049.		
.1710	-1736.	-1512.	3522.	1492.	422.	1154.	.0053	.0934	-.0735	-.0201	-.0008	.1203	906.		
.1720	-1318.	-1010.	2690.	1226.	385.	904.	.0055	.0831	-.0513	.0028	.0058	.0936	736.		
.1730	-620.	-609.	1755.	974.	331.	707.	.0060	.0716	-.0287	.0267	.0193	.0691	585.		
.1740	199.	-614.	1826.	615.	541.	483.	.0054	.0585	-.0057	.0531	.0331	.0456	446.		
.1750	962.	-535.	1076.	217.	590.	186.	.0044	.0446	.0169	.0782	.0494	.0240	307.		
.1760	1880.	-81.	721.	-119.	817.	-174.	.0025	.0306	.0392	.0982	.0647	.0048	396.		
.1770	2633.	610.	-48.	-493.	927.	-628.	-.0002	.0164	.0606	.1148	.0779	-.0118	574.		
.1780	3211.	977.	380.	-924.	1321.	-1025.	-.0046	.0016	.0809	.1302	.0842	-.0272	895.		
.1790	3728.	1155.	47.	-1314.	1495.	-1226.	-.0092	-.0134	.0993	.1431	.0884	-.0405	1095.		
.1800	3928.	1410.	-807.	-1644.	1472.	-1358.	-.0139	-.0279	.1157	.1520	.0898	-.0520	1214.		
.1810	4390.	1724.	312.	-1943.	1865.	-1586.	-.0198	-.0420	.1305	.1563	.0837	-.0632	1465.		
.1820	4544.	2247.	-20.	-2193.	1777.	-1850.	-.0244	-.0554	.1424	.1564	.0789	-.0733	1582.		
.1830	4580.	2578.	-797.	-2376.	1479.	-1982.	-.0281	-.0682	.1515	.1542	.0739	-.0828	1607.		
.1840	4479.	2537.	-1181.	-2523.	1174.	-1975.	-.0316	-.0805	.1581	.1511	.0658	-.0920	1599.		
.1850	4227.	2425.	-1573.	-2583.	814.	-1912.	-.0346	-.0918	.1620	.1452	.0546	-.1008	1554.		

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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

.1750	407.	535.	1070.	217.	690.	150.	0044	.0446	.0169	.0782	.0494	.0240	307.
.1760	1780.	-31.	721.	-119.	817.	-174.	.0025	.0306	.0392	.0982	.0647	.0048	396.
.1770	2633.	610.	-48.	-493.	927.	-628.	-.0002	.0164	.0606	.1148	.0779	-.0118	574.
.1780	3211.	977.	300.	-924.	1321.	-1029.	-.0046	.0016	.0809	.1302	.0842	-.0272	895.
.1790	3728.	1155.	47.	-1314.	1495.	-1226.	-.0092	-.0134	.0993	.1431	.0884	-.0405	1095.
.1800	3928.	1410.	-207.	-1644.	1472.	-1358.	-.0139	-.0279	.1157	.1520	.0898	-.0520	1214.
.1810	4390.	1724.	312.	-1943.	1865.	-1586.	-.0198	-.0420	.1305	.1563	.0837	-.0632	1465.
.1820	4544.	2247.	-20.	-2193.	1777.	-1850.	-.0244	-.0554	.1424	.1564	.0789	-.0733	1582.
.1830	4580.	2578.	-797.	-2376.	1479.	-1982.	-.0281	-.0682	.1515	.1542	.0739	-.0828	1607.
.1840	4479.	2537.	-1181.	-2523.	1174.	-1975.	-.0216	-.0805	.1581	.1511	.0658	-.0920	1599.
.1850	4227.	2435.	-1573.	-2583.	814.	-1912.	-.0346	-.0918	.1620	.1452	.0546	-.1008	1554.

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CONDITION 24

LOADS

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PRESSURE

ENGLISH UNITS

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

SECTION	8	MEMBER	2	SEQUENCE	228	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)		
.1860	4090.	2514.	-1449.	-2498.	635.	-1875.	-.0376	-.1014	.1639	.1341	.0390	-.1099	1494.		
.1870	3680.	2792.	-1935.	-2351.	354.	-1936.	-.0401	-.1093	.1634	.1194	.0206	-.1195	1437.		
.1880	3287.	2867.	-1071.	-2153.	476.	-1969.	-.0431	-.1160	.1613	.1034	-.0042	-.1294	1396.		
.1890	2849.	2795.	-249.	-1961.	649.	-1815.	-.0452	-.1209	.1573	.0868	-.0293	-.1383	1288.		
.1900	2302.	2771.	-447.	-1737.	605.	-1566.	-.0451	-.1242	.1512	.0695	-.0500	-.1461	1132.		
.1910	2008.	2777.	313.	-1607.	824.	-1417.	-.0438	-.1259	.1437	.0523	-.0586	-.1540	1076.		
.1920	1779.	2971.	652.	-1542.	929.	-1323.	-.0402	-.1259	.1344	.0351	-.0310	-.1609	1047.		
.1930	1661.	3166.	413.	-1461.	889.	-1081.	-.0341	-.1240	.1233	.0185	-.0861	-.1660	948.		
.1940	1589.	3054.	281.	-1398.	855.	-672.	-.0265	-.1200	.1108	.0046	-.0867	-.1701	830.		
.1950	1423.	2737.	155.	-1356.	780.	-200.	-.0175	-.1164	.0967	-.0068	-.0841	-.1732	739.		
.1960	1176.	2500.	-215.	-1239.	633.	291.	-.0076	-.1103	.0813	-.0176	-.0793	-.1748	666.		
.1970	942.	2302.	-222.	-987.	602.	812.	.0024	-.1025	.0650	-.0282	-.0752	-.1747	662.		
.1980	663.	1923.	386.	-640.	716.	1360.	.0120	-.0936	.0480	-.0363	-.0729	-.1727	780.		
.1990	207.	1340.	849.	-255.	722.	1916.	.0219	-.0840	.0300	-.0402	-.0692	-.1676	967.		
.2000	-395.	676.	824.	135.	514.	2427.	.0324	-.0740	.0111	-.0395	-.0619	-.1587	1165.		
.2010	-999.	17.	773.	507.	234.	2822.	.0428	-.0638	-.0081	-.0347	-.0524	-.1456	1348.		
.2020	-1567.	-568.	796.	858.	-67.	3062.	.0524	-.0536	-.0271	-.0262	-.0419	-.1281	1491.		
.2030	-2139.	-1068.	689.	1180.	-421.	3143.	.0610	-.0436	-.0456	-.0142	-.0308	-.1057	1586.		
.2040	-2703.	-1570.	634.	1453.	-757.	3070.	.0679	-.0341	-.0631	.0012	-.0202	-.0792	1631.		
.2050	-3228.	-2093.	674.	1680.	-1037.	2860.	.0727	-.0255	-.0794	.0195	-.0107	-.0492	1629.		
.2060	-3700.	-2543.	596.	1895.	-1298.	2538.	.0755	-.0175	-.0940	.0390	-.0020	-.0163	1604.		
.2070	-4061.	-2880.	550.	2120.	-1491.	2115.	.0761	-.0101	-.1065	.0584	.0057	.0188	1568.		
.2080	-4228.	-3163.	769.	2363.	-1545.	1618.	.0746	-.0034	-.1167	.0771	.0124	.0543	1525.		
.2090	-4215.	-3430.	866.	2629.	-1565.	1097.	.0716	.0023	-.1246	.0947	.0204	.0887	1523.		
.2100	-4109.	-3703.	479.	2900.	-1669.	582.	.0679	.0070	-.1302	.1109	.0311	.1210	1592.		
.2110	-3887.	-4000.	27.	3155.	-1758.	89.	.0636	.0106	-.1333	.1253	.0433	.1498	1693.		
.2120	-3492.	-4246.	-255.	3402.	-1745.	-346.	.0586	.0132	-.1338	.1367	.0556	.1736	1799.		
.2130	-2987.	-4342.	-669.	3629.	-1701.	-704.	.0535	.0146	-.1316	.1441	.0679	.1914	1907.		
.2140	-2512.	-4338.	-1153.	3764.	-1639.	-1003.	.0484	.0145	-.1270	.1482	.0789	.2024	1980.		
.2150	-2116.	-4330.	-1301.	3760.	-1462.	-1223.	.0432	.0129	-.1198	.1497	.0859	.2057	1976.		
.2160	-1750.	-4250.	-1114.	3640.	-1146.	-1309.	.0378	.0098	-.1099	.1478	.0882	.2012	1891.		
.2170	-1418.	-3965.	-823.	3392.	-766.	-1290.	.0328	.0054	-.0976	.1422	.0864	.1891	1738.		
.2180	-1159.	-3472.	-398.	2953.	-367.	-1246.	.0284	-.0004	-.0831	.1338	.0810	.1696	1512.		
.2190	-954.	-2856.	115.	2329.	1.	-1164.	.0246	-.0075	-.0666	.1236	.0732	.1431	1220.		
.2200	-749.	-2175.	404.	1596.	263.	-968.	.0219	-.0155	-.0485	.1117	.0645	.1107	884.		
.2210	-515.	-1455.	505.	804.	418.	-685.	.0198	-.0242	-.0291	.0982	.0550	.0733	532.		
.2220	-236.	-687.	640.	-18.	509.	-407.	.0180	-.0332	-.0086	.0833	.0445	.0317	306.		
.2230	103.	153.	631.	-793.	504.	-144.	.0164	-.0422	.0125	.0666	.0335	-.0127	446.		

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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

.2130	-2987.	-4342.	-669.	3629.	-1701.	-794.	.535	.0146	-.1316	.1441	.0679	.1914	1907.
.2140	-2512.	-4338.	-1153.	3764.	-1639.	-1003.	.484	.0145	-.1270	.1482	.0789	.2024	1980.
.2150	-2116.	-4330.	-1301.	3760.	-1462.	-1223.	.0432	.0129	-.1198	.1497	.0859	.2057	1976.
.2160	-1750.	-4250.	-1114.	3640.	-1146.	-1309.	.0378	.0098	-.1099	.1478	.0882	.2012	1891.
.2170	-1418.	-3965.	-828.	3391.	-766.	-1290.	.0328	.0054	-.0976	.1422	.0864	.1891	1738.
.2180	-1159.	-3472.	-393.	2953.	-367.	-1246.	.0284	-.0004	-.0831	.1338	.0810	.1696	1512.
.2190	-954.	-2856.	115.	2329.	1.	-1164.	.0246	-.0075	-.0666	.1236	.0732	.1431	1220.
.2200	-749.	-2175.	404.	1596.	263.	-968.	.0219	-.0155	-.0485	.1117	.0645	.1107	884.
.2210	-515.	-1455.	505.	804.	418.	-685.	.0198	-.0242	-.0291	.0982	.0550	.0733	532.
.2220	-236.	-687.	640.	-18.	509.	-407.	.0180	-.0332	-.0086	.0833	.0445	.0317	306.
.2230	103.	153.	631.	-793.	504.	-144.	.0164	-.0422	.0125	.0666	.0335	-.0127	446.

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
.2240	491.	990.	321.	-1438.	392.	157.	.0146	-.0506	.0335	.0483	.0226	-.0581	702.							
.2250	889.	1664.	20.	-1929.	270.	498.	.0121	-.0584	.0541	.0295	.0102	-.1032	942.							
.2260	1281.	2145.	-76.	-2260.	207.	836.	.0085	-.0654	.0739	.0110	-.0040	-.1463	1133.							
.2270	1697.	2562.	-179.	-2413.	175.	1132.	.0041	-.0712	.0923	-.0075	-.0187	-.1856	1252.							
.2280	2139.	2979.	-360.	-2422.	161.	1348.	-.0009	-.0757	.1088	-.0251	-.0324	-.2192	1301.							
.2290	2548.	3306.	-481.	-2366.	185.	1472.	-.0064	-.0790	.1229	-.0400	-.0447	-.2457	1309.							
.2300	2865.	3465.	-586.	-2290.	240.	1537.	-.0120	-.0813	.1343	-.0506	-.0552	-.2639	1297.							
.2310	3098.	3507.	-699.	-2207.	344.	1551.	-.0177	-.0824	.1428	-.0570	-.0639	-.2729	1274.							
.2320	3270.	3545.	-596.	-2147.	557.	1446.	-.0235	-.0822	.1485	-.0594	-.0714	-.2729	1241.							
.2330	3357.	3639.	-216.	-2144.	878.	1174.	-.0293	-.0809	.1512	-.0581	-.0780	-.2641	1217.							
.2340	3330.	3732.	244.	-2195.	1240.	799.	-.0348	-.0785	.1510	-.0529	-.0827	-.2472	1240.							
.2350	3209.	3705.	742.	-2278.	1611.	414.	-.0396	-.0750	.1480	-.037	-.0849	-.2232	1322.							
.2360	3032.	3531.	1301.	-2376.	1960.	38.	-.0435	-.0706	.1423	-.0312	-.0837	-.1934	1443.							
.2370	2819.	3302.	1704.	-2468.	2195.	-366.	-.0459	-.0651	.1341	-.0165	-.0778	-.1597	1557.							
.2380	2604.	3060.	1792.	-2516.	2261.	-795.	-.0468	-.0586	.1237	-.0010	-.0667	-.1236	1629.							
.2390	2425.	2728.	1689.	-2485.	2184.	-1185.	-.0460	-.0510	.1113	.0146	-.0508	-.0870	1647.							
.2400	2277.	2235.	1425.	-2354.	1964.	-1474.	-.0437	-.0424	.0973	.0299	-.0311	-.0511	1594.							
.2410	2116.	1621.	850.	-2126.	1560.	-1664.	-.0398	-.0330	.0820	.0438	-.0082	-.0170	1461.							
.2420	1938.	973.	49.	-1820.	1016.	-1799.	-.0346	-.0227	.0656	.0553	.0162	.0142	1290.							
.2430	1768.	356.	-695.	-1448.	445.	-1895.	-.0286	-.0121	.0486	.0635	.0396	.0415	1137.							
.2440	1597.	-207.	-1279.	-1029.	-93.	-1928.	-.0222	-.0009	.0313	.0676	.0600	.0649	1025.							
.2450	1381.	-726.	-1743.	-608.	-589.	-1079.	-.0155	.106	.0138	.0681	.0767	.0844	966.							
.2460	1095.	-1199.	-2091.	-241.	-1029.	-1760.	-.0086	.0219	-.0036	.0652	.0894	.1000	962.							
.2470	742.	-1583.	-2335.	46.	-1398.	-1590.	-.0016	.0330	-.0209	.0590	.0979	.1121	992.							
.2480	331.	-1837.	-2454.	259.	-1662.	-1373.	.0052	.0437	-.0377	.0492	.1014	.1208	1018.							
.2490	-114.	-1985.	-2272.	413.	-1756.	-1110.	.0113	.0540	-.0537	.0359	.0991	.1265	993.							
.2500	-567.	-2064.	-1735.	529.	-1661.	-800.	.0165	.0637	-.0688	.0196	.0913	.1292	899.							
.2510	-1043.	-2085.	-1126.	624.	-1466.	-452.	.0209	.0727	-.0828	.0007	.0793	.1294	776.							
.2520	-1567.	-2083.	-608.	710.	-1235.	-81.	.0245	.0808	-.0956	-.0199	.0643	.1274	669.							
.2530	-2093.	-2112.	29.	815.	-923.	303.	.0268	.0881	-.1069	-.0417	.0460	.1231	594.							
.2540	-2531.	-2151.	873.	977.	-512.	695.	.0278	.0943	-.1163	-.0647	.0249	.1172	611.							
.2550	-2852.	-2140.	1661.	1193.	-104.	1065.	.0276	.0996	-.1240	-.0882	.0034	.1099	751.							
.2560	-3098.	-2101.	2162.	1408.	187.	1363.	.0268	.1036	-.1298	-.1108	-.0163	.1019	923.							
.2570	-3282.	-2117.	2384.	1577.	331.	1594.	.0256	.1061	-.1338	-.1309	-.0331	.0934	1062.							
.2580	-3361.	-2177.	2351.	1709.	340.	1804.	.0240	.1070	-.1360	-.1483	-.0466	.0852	1175.							
.2590	-3317.	-2188.	2081.	1801.	223.	1975.	.0221	.1066	-.1363	-.1630	-.0567	.0778	1257.							
.2600	-3203.	-2101.	1672.	1802.	-0.	2028.	.0199	.1048	-.1349	-.1747	-.0536	.0711	1272.							
.2610	-3082.	-1940.	1179.	1693.	-315.	1652.	.0175	.1017	-.1318	-.1830	-.0679	.0652	1220.							

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CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING

.2510	-1043.	-2085.	1126.	624.	-1466.	-452.	.0209	.0727	-.0828	.0007	.0793	.1294	776.
.2520	-1567.	-2083.	-608.	710.	-1235.	-81.	.0245	.0808	-.0956	-.0199	.0643	.1274	669.
.2530	-2093.	-2112.	29.	815.	-923.	303.	.0268	.0881	-.1069	-.0417	.0460	.1231	594.
.2540	-2531.	-2151.	873.	977.	-512.	695.	.0278	.0943	-.1163	-.0647	.0249	.1172	611.
.2550	-2952.	-2140.	1661.	1153.	-104.	1065.	.0276	.0996	-.1240	-.0882	.0034	.1099	751.
.2560	-3058.	-2101.	2162.	1408.	187.	1363.	.0268	.1036	-.1298	-.1102	-.0163	.1019	923.
.2570	-3282.	-2117.	2304.	1577.	331.	1594.	.0256	.1061	-.1338	-.1309	-.0331	.0934	1062.
.2580	-3361.	-2177.	2351.	1709.	740.	1804.	.0240	.1070	-.1360	-.1483	-.0466	.0852	1175.
.2590	-3317.	-2188.	2081.	1801.	223.	1975.	.0221	.1066	-.1363	-.1630	-.0567	.0778	1257.
.2600	-3203.	-2101.	1672.	1802.	-0.	2028.	.0199	.1048	-.1349	-.1747	-.0636	.0711	1272.
.2610	-3082.	-1940.	1139.	1693.	-315.	1953.	.0175	.1017	-.1318	-.1830	-.0679	.0652	1220.

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CONDITION 24
 LOADS
 SHOCK
 PRESSURE
 ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
.2620								-2982.	-1758.	494.	1510.	-681.	1822.	.0147	.0974	-.1271	-.1880	-.0703	.0602	1154.
.2630								-2908.	-1590.	-38.	1281.	-1007.	1675.	.0113	.0922	-.1210	-.1901	-.0723	.0563	1095.
.2640								-2863.	-1393.	-286.	1013.	-1228.	1466.	.0072	.0863	-.1134	-.1897	-.0748	.0531	1014.
.2650								-2835.	-1095.	-395.	724.	-1365.	1170.	.0025	.0800	-.1046	-.1878	-.0772	.0502	908.
.2660								-2806.	-732.	-502.	442.	-1442.	831.	-.0027	.0737	-.0946	-.1844	-.0786	.0476	807.
.2670								-2756.	-439.	-509.	178.	-1433.	511.	-.0081	.0673	-.0836	-.1793	-.0791	.0451	718.
.2680								-2653.	-263.	-404.	-63.	-1338.	236.	-.0139	.0609	-.0715	-.1724	-.0782	.0426	637.
.2690								-2450.	-103.	-366.	-273.	-1202.	-13.	-.0198	.0549	-.0586	-.1644	-.0752	.0400	578.
.2700								-2120.	120.	-440.	-459.	-1043.	-268.	-.0255	.0494	-.0448	-.1560	-.0700	.0370	548.
.2710								-1673.	352.	-503.	-640.	-837.	-522.	-.0312	.0444	-.0302	-.1469	-.0634	.0333	551.
.2720								-1131.	522.	-513.	-820.	-575.	-733.	-.0369	.0398	-.0150	-.1368	-.0563	.0290	582.
.2730								-501.	658.	-497.	-1001.	-269.	-891.	-.0425	.0358	.0007	-.1261	-.0491	.0239	641.
.2740								214.	856.	-428.	-1268.	68.	-1044.	-.0476	.0324	.0165	-.1152	-.0418	.0179	749.
.2750								972.	1156.	-371.	-1464.	393.	-1222.	-.0519	.0296	.0322	-.1044	-.0340	.0110	912.
.2760								1716.	1493.	-409.	-1764.	668.	-1386.	-.0551	.0273	.0472	-.0933	-.0256	.0032	1097.
.2770								2411.	1778.	-457.	-2090.	906.	-1484.	-.0572	.0256	.0612	-.0820	-.0169	-.0054	1274.
.2780								3028.	2019.	-442.	-2424.	1117.	-1522.	-.0581	.0244	.0739	-.0710	-.0087	-.0150	1440.
.2790								3523.	2284.	-429.	-2741.	1277.	-1532.	-.0579	.0239	.0848	-.0612	-.0009	-.0252	1589.
.2800								3870.	2566.	-410.	-3011.	1389.	-1514.	-.0566	.0242	.0937	-.0530	.0059	-.0358	1708.
.2810								4064.	2774.	-251.	-3200.	1495.	-1433.	-.0545	.0253	.1004	-.0464	.0110	-.0465	1786.
.2820								4107.	2856.	57.	-3299.	1597.	-1269.	-.0520	.0271	.1047	-.0415	.0142	-.0565	1814.
.2830								4014.	2849.	382.	-3278.	1657.	-1052.	-.0489	.0297	.1066	-.0381	.0165	-.0650	1790.
.2840								3830.	2798.	655.	-3180.	1652.	-826.	-.0454	.0329	.1060	-.0362	.0188	-.0712	1723.
.2850								3605.	2700.	854.	-3011.	1580.	-610.	-.0415	.0367	.1028	-.0353	.0220	-.0744	1619.
.2860								3361.	2528.	911.	-2789.	1433.	-398.	-.0373	.0409	.0973	-.0348	.0266	-.0735	1481.
.2870								3110.	2277.	804.	-2526.	1217.	-201.	-.0331	.0454	.0895	-.0342	.0325	-.0682	1322.
.2880								2864.	1981.	590.	-2289.	962.	-49.	-.0292	.0499	.0797	-.0334	.0393	-.0579	1155.
.2890								2629.	1684.	311.	-1992.	702.	34.	-.0256	.0545	.0681	-.0325	.0462	-.0428	990.
.2900								2389.	1393.	14.	-1704.	469.	45.	-.0228	.0590	.0549	-.0316	.0521	-.0233	828.
.2910								2124.	1085.	-200.	-1403.	299.	-3.	-.0209	.0634	.0405	-.0306	.0560	.0002	672.
.2920								1822.	748.	-297.	-1086.	201.	-92.	-.0199	.0675	.0251	-.0295	.0574	.0267	519.
.2930								1470.	404.	-355.	-746.	142.	-217.	-.0194	.0713	.0089	-.0285	.0566	.0552	370.
.2940								1059.	71.	-410.	-384.	101.	-379.	-.0194	.0748	-.0079	-.0280	.0536	.0845	257.
.2950								595.	-260.	-410.	2.	75.	-563.	-.0197	.0779	-.0248	-.0281	.0484	.1132	266.
.2960								87.	-593.	-361.	418.	51.	-736.	-.0200	.0805	-.0415	-.0289	.0411	.1430	398.
.2970								-463.	-921.	-322.	865.	0.	-876.	-.0201	.0826	-.0577	-.0308	.0320	.1639	577.
.2980								-1056.	-1232.	-292.	1325.	-89.	-980.	-.0199	.0843	-.0730	-.0338	.0214	.1837	773.
.2990								-1675.	-1516.	-235.	1787.	-207.	-1036.	-.0194	.0853	-.0871	-.0380	.0091	.1986	973.

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ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.06.

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

CONDITION 24
 LOADS
 SHOCK
 PRESSURE
 ENGLISH UNIT

.2890	2629.	1684.	311.	-199.	702.	34.	-1256	.0545	.0681	-.0325	.0462	-.0428	990.
.2900	2389.	1393.	14.	-1704.	469.	45.	-.0228	.0590	.0549	-.0316	.0521	-.0233	828.
.2910	2124.	1185.	-200.	-1403.	299.	-3.	-.0209	.0634	.0405	-.0306	.0560	.0002	672.
.2920	1822.	748.	-297.	-1056.	201.	-92.	-.0199	.0675	.0251	-.0295	.0574	.0267	519.
.2930	1470.	404.	-355.	-746.	142.	-217.	-.0194	.0713	.0089	-.0285	.0566	.0552	370.
.2940	1059.	71.	-410.	-304.	101.	-379.	-.0194	.0741	-.0079	-.0280	.0536	.0845	257.
.2950	595.	-260.	-410.	2.	75.	-563.	-.0197	.0779	-.0248	-.0281	.0484	.1132	266.
.2960	87.	-593.	-361.	418.	51.	-736.	-.0200	.0805	-.0415	-.0289	.0411	.1400	398.
.2970	-463.	-921.	-322.	865.	0.	-876.	-.0201	.0826	-.0577	-.0308	.0320	.1639	577.
.2980	-1056.	-1232.	-292.	1325.	-89.	-980.	-.0199	.0843	-.0730	-.0338	.0214	.1837	773.
.2990	-1675.	-1516.	-235.	1707.	-207.	-1036.	-.0194	.0853	-.0871	-.0380	.0091	.1986	973.

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ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.06.

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

SECTION	B	MEMBER	2	SEQUENCE	228	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)	
.3000	-2290.	-1763.	-136.	2247.	-342.	-1025.	-.0186	.0857	-.0995	-.0434	-.0044	.2082	1168.	
.3010	-2875.	-1970.	7.	2687.	-486.	-939.	-.0173	.0855	-.1099	-.0498	-.0188	.2123	1353.	
.3020	-3409.	-2125.	177.	3076.	-637.	-797.	-.0155	.0846	-.1181	-.0566	-.0332	.2109	1519.	
.3030	-3866.	-2208.	306.	3393.	-806.	-611.	-.0131	.0829	-.1240	-.0635	-.0462	.2044	1659.	
.3040	-4217.	-2221.	348.	3626.	-986.	-381.	-.0102	.0805	-.1273	-.0697	-.0571	.1933	1770.	
.3050	-4444.	-2180.	345.	3767.	-1150.	-120.	-.0067	.0772	-.1281	-.0749	-.0654	.1783	1847.	
.3060	-4539.	-2087.	331.	3813.	-1273.	144.	-.0029	.0732	-.1263	-.0785	-.0708	.1602	1885.	
.3070	-4503.	-1923.	285.	3771.	-1344.	394.	.0010	.0684	-.1221	-.0803	-.0733	.1398	1885.	
.3080	-4344.	-1703.	219.	3653.	-1350.	624.	.0049	.0629	-.1155	-.0800	-.0730	.1180	1848.	
.3090	-4082.	-1471.	197.	3469.	-1271.	835.	.0084	.0567	-.1067	-.0772	-.0705	.0956	1775.	
.3100	-3736.	-1249.	244.	3233.	-1104.	1021.	.0113	.0499	-.0960	-.0718	-.0662	.0734	1671.	
.3110	-3314.	-1020.	335.	2957.	-865.	1169.	.0136	.0425	-.0836	-.0637	-.0602	.0521	1544.	
.3120	-2824.	-773.	454.	2647.	-578.	1262.	.0152	.0346	-.0698	-.0532	-.0527	.0324	1401.	
.3130	-2285.	-526.	585.	2304.	-269.	1296.	.0160	.0262	-.0549	-.0399	-.0439	.0146	1245.	
.3140	-1717.	-299.	686.	1934.	28.	1279.	.0163	.0173	-.0392	-.0241	-.0338	-.0008	1087.	
.3150	-1128.	-92.	742.	1546.	292.	1215.	.0159	.0081	-.0231	-.0060	-.0226	-.0136	932.	
.3160	-531.	111.	757.	1147.	512.	1093.	.0149	-.0015	-.0067	.0139	-.0106	-.0240	780.	
.3170	56.	319.	731.	747.	680.	908.	.0134	-.0112	.0096	.0352	.0016	-.0319	637.	
.3180	621.	526.	680.	360.	801.	677.	.0114	-.0211	.0256	.0572	.0137	-.0377	520.	
.3190	1153.	708.	621.	3.	881.	424.	.0090	-.0309	.0411	.0794	.0253	-.0417	458.	
.3200	1640.	852.	554.	-316.	926.	162.	.0064	-.0407	.0559	.1014	.0363	-.0441	465.	
.3210	2076.	964.	450.	-591.	933.	-109.	.0036	-.0503	.0698	.1227	.0468	-.0456	520.	
.3220	2464.	1057.	311.	-819.	912.	-384.	.0008	-.0597	.0825	.1428	.0567	-.0464	602.	
.3230	2819.	1130.	164.	-994.	879.	-648.	-.0017	-.0688	.0940	.1612	.0662	-.0470	692.	
.3240	3138.	1169.	-4.	-1122.	830.	-885.	-.0038	-.0775	.1042	.1778	.0751	-.0477	776.	
.3250	3408.	1169.	-225.	-1218.	781.	-1093.	-.0053	-.0859	.1126	.1926	.0835	-.0488	850.	
.3260	3629.	1148.	-472.	-1292.	721.	-1274.	-.0061	-.0938	.1200	.2052	.0911	-.0506	915.	
.3270	3813.	1135.	-700.	-1349.	675.	-1423.	-.0063	-.1012	.1255	.2152	.0972	-.0534	972.	
.3280	3948.	1132.	-884.	-1397.	650.	-1529.	-.0058	-.1081	.1295	.2225	.1014	-.0573	1017.	
.3290	4019.	1129.	-1004.	-1446.	648.	-1585.	-.0046	-.1144	.1318	.2269	.1031	-.0626	1050.	
.3300	4019.	1122.	-1045.	-1502.	668.	-1585.	-.0027	-.1201	.1326	.2286	.1022	-.0693	1070.	
.3310	3947.	1127.	-1022.	-1561.	697.	-1523.	-.0002	-.1251	.1317	.2272	.0984	-.0774	1073.	
.3320	3803.	1150.	-947.	-1619.	728.	-1401.	.0031	-.1294	.1292	.2228	.0919	-.0869	1060.	
.3330	3590.	1178.	-798.	-1664.	758.	-1214.	.0069	-.1330	.1251	.2153	.0828	-.0978	1029.	
.3340	3312.	1192.	-605.	-1683.	774.	-962.	.0114	-.1357	.1194	.2050	.0716	-.1098	978.	
.3350	2962.	1186.	-430.	-1665.	754.	-653.	.0164	-.1375	.1122	.1921	.0588	-.1226	910.	
.3360	2543.	1152.	-275.	-1596.	730.	-299.	.0218	-.1385	.1036	.1769	.0448	-.1358	829.	
.3370	2071.	1086.	-91.	-1482.	627.	88.	.0275	-.1386	.0937	.1598	.0297	-.1491	747.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.07.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSVCONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

.3270	1913.	1125.	-700.	-1349.	675.	-1423.	-.0663	-.1012	.1255	.2152	.0972	-.0534	972.
.3280	3948.	1133.	-884.	-1397.	650.	-1529.	-.0558	-.1081	.1295	.2225	.1014	-.0573	1017.
.3290	4019.	1129.	-1004.	-1446.	648.	-1585.	-.0646	-.1144	.1318	.2269	.1031	-.0626	1050.
.3300	4019.	1122.	-1047.	-1501.	668.	-1585.	-.0627	-.1201	.1326	.2286	.1022	-.0693	1070.
.3310	3947.	1127.	-1022.	-1561.	697.	-1523.	-.0607	-.1251	.1317	.2272	.0984	-.0774	1073.
.3320	3863.	1150.	-947.	-1619.	728.	-1401.	.0031	-.1294	.1292	.2228	.0919	-.0869	1060.
.3330	3590.	1178.	-798.	-1664.	758.	-1214.	.0069	-.1330	.1251	.2153	.0828	-.0978	1029.
.3340	3312.	1192.	-605.	-1683.	774.	-962.	.0114	-.1357	.1194	.2050	.0716	-.1098	978.
.3350	2962.	1186.	-432.	-1665.	754.	-653.	.0164	-.1375	.1122	.1921	.0588	-.1226	910.
.3360	2543.	1152.	-275.	-1596.	700.	-299.	.0218	-.1385	.1036	.1769	.0448	-.1358	829.
.3370	2071.	1086.	-91.	-1462.	627.	88.	.0275	-.1386	.0937	.1598	.0297	-.1491	747.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.07.

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

CONDITION 24
LOADS

SHOCK
PRESSURE

ENGLISH UNITS

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

SECTION	8	MEMBER	2	SEQUENCE	228	LOCATION	END	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)	
.3380	1558.	986.	115.	-1256.	544.	497.	.0331	-.1377	.0826	.1411	.0139	-.1617	682.		
.3390	1009.	850.	31.	-982.	447.	907.	.0387	-.1361	.0705	.1217	-.0020	-.1730	661.		
.3400	433.	669.	510.	-659.	335.	1296.	.0440	-.1338	.0576	.1022	-.0175	-.1824	699.		
.3410	-145.	450.	683.	-302.	212.	1652.	.0489	-.1308	.0442	.0836	-.0320	-.1891	793.		
.3420	-697.	206.	813.	68.	74.	1964.	.0534	-.1273	.0304	.0663	-.0447	-.1926	921.		
.3430	-1205.	-50.	887.	423.	-82.	2213.	.0574	-.1235	.0165	.0512	-.0551	-.1923	1057.		
.3440	-1656.	-312.	893.	737.	-260.	2386.	.0610	-.1194	.0026	.0388	-.0626	-.1879	1177.		
.3450	-2043.	-576.	805.	993.	-462.	2485.	.0642	-.1152	-.0109	.0295	-.0569	-.1794	1273.		
.3460	-2361.	-839.	638.	1187.	-679.	2515.	.0668	-.1108	-.0239	.0234	-.0681	-.1669	1342.		
.3470	-2611.	-1099.	457.	1317.	-884.	2478.	.0688	-.1065	-.0362	.0204	-.0666	-.1509	1379.		
.3480	-2798.	-1344.	294.	1389.	-1061.	2378.	.0701	-.1021	-.0476	.0202	-.0629	-.1320	1383.		
.3490	-2930.	-1567.	139.	1417.	-1207.	2231.	.0709	-.0977	-.0578	.0224	-.0572	-.1111	1362.		
.3500	-3022.	-1780.	3.	1413.	-1314.	2050.	.0710	-.0933	-.0667	.0264	-.0500	-.0890	1319.		
.3510	-3081.	-1994.	-83.	1388.	-1373.	1850.	.0706	-.0890	-.0742	.0319	-.0417	-.0668	1261.		
.3520	-3103.	-2198.	-122.	1354.	-1385.	1645.	.0696	-.0846	-.0801	.0383	-.0326	-.0454	1191.		
.3530	-3083.	-2370.	-140.	1321.	-1359.	1441.	.0683	-.0803	-.0842	.0450	-.0229	-.0257	1116.		
.3540	-3021.	-2505.	-151.	1285.	-1308.	1241.	.0666	-.0762	-.0866	.0516	-.0129	-.0085	1037.		
.3550	-2920.	-2607.	-168.	1243.	-1242.	1051.	.0647	-.0721	-.0870	.0580	-.0027	.0056	960.		
.3560	-2775.	-2673.	-200.	1193.	-1169.	884.	.0625	-.0683	-.0854	.0637	.0072	.0161	885.		
.3570	-2577.	-2687.	-229.	1130.	-1087.	738.	.0600	-.0648	-.0819	.0685	.0163	.0228	812.		
.3580	-2324.	-2630.	-246.	1046.	-1001.	606.	.0573	-.0615	-.0764	.0722	.0243	.0256	736.		
.3590	-2020.	-2498.	-277.	930.	-922.	485.	.0545	-.0585	-.0691	.0748	.0311	.0244	655.		
.3600	-1675.	-2306.	-335.	780.	-855.	385.	.0514	-.0558	-.0601	.0763	.0366	.0197	572.		
.3610	-1294.	-2069.	-403.	594.	-795.	311.	.0481	-.0535	-.0496	.0768	.0406	.0118	487.		
.3620	-888.	-1792.	-465.	374.	-735.	262.	.0446	-.0515	-.0379	.0762	.0431	.0011	406.		
.3630	-467.	-1470.	-522.	126.	-671.	231.	.0409	-.0497	-.0253	.0745	.0440	-.0117	338.		
.3640	-51.	-1115.	-563.	-141.	-594.	217.	.0370	-.0481	-.0122	.0716	.0433	-.0260	304.		
.3650	347.	-751.	-558.	-419.	-489.	222.	.0328	-.0466	.0012	.0677	.0410	-.0413	319.		
.3660	710.	-398.	-493.	-697.	-349.	244.	.0282	-.0452	.0146	.0628	.0371	-.0567	383.		
.3670	1034.	-52.	-361.	-966.	-169.	275.	.0233	-.0438	.0275	.0569	.0317	-.0716	477.		
.3680	1322.	296.	-167.	-1222.	48.	299.	.0180	-.0422	.0399	.0500	.0253	-.0854	590.		
.3690	1575.	642.	61.	-1462.	287.	309.	.0126	-.0404	.0513	.0423	.0184	-.0976	713.		
.3700	1791.	967.	212.	-1684.	517.	303.	.0069	-.0384	.0616	.0340	.0116	-.1074	839.		
.3710	1975.	1259.	472.	-1886.	757.	282.	.0012	-.0360	.0705	.0253	.0053	-.1146	961.		
.3720	2138.	1524.	610.	-2063.	947.	239.	-.0045	-.0333	.0779	.0163	-.0000	-.1189	1070.		
.3730	2282.	1769.	673.	-2210.	1095.	170.	-.0102	-.0301	.0836	.0071	-.0042	-.1199	1159.		
.3740	2404.	1989.	657.	-2321.	1187.	73.	-.0157	-.0263	.0877	-.0024	-.0072	-.1178	1222.		
.3750	2497.	2159.	567.	-2386.	1322.	-39.	-.0211	-.0220	.0899	-.0118	-.0093	-.1125	1257.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.07.

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

CONDITION 24
LOADS

SHOCK
PRESSURE

ENGLISH UNITS

.3650	347.	-751.	-558.	-419.	-489.	222.	.328	-.0466	.0012	.0677	.0410	-.0413	319.
.3660	710.	-398.	-493.	-697.	-749.	244.	.282	-.0452	.0146	.0628	.0371	-.0567	383.
.3670	1034.	-52.	-361.	-966.	-169.	275.	.0233	-.0438	.0275	.0569	.0317	-.0716	477.
.3680	1322.	296.	-167.	-1220.	48.	299.	.0180	-.0422	.0399	.0500	.0253	-.0854	590.
.3690	1575.	642.	61.	-1462.	287.	309.	.0126	-.0404	.0513	.0423	.0184	-.0976	713.
.3700	1791.	967.	212.	-1684.	527.	303.	.0069	-.0384	.0616	.0340	.0116	-.1074	839.
.3710	1975.	1259.	472.	-1886.	753.	282.	.0012	-.0360	.0705	.0253	.0053	-.1146	961.
.3720	2138.	1524.	610.	-2063.	947.	239.	-.0045	-.0332	.0779	.0163	-.0000	-.1189	1070.
.3730	2282.	1769.	673.	-2210.	1095.	170.	-.0102	-.0301	.0836	.0071	-.0042	-.1199	1159.
.3740	2404.	1989.	653.	-2321.	1187.	73.	-.0157	-.0263	.0877	-.0024	-.0072	-.1178	1222.
.3750	2497.	2159.	567.	-2386.	1222.	-39.	-.0211	-.0220	.0899	-.0118	-.0093	-.1125	1257.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.07.

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

SECTION	8	MEMBER	2	SEQUENCE	228	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)	
.3760	2555.	2268.	429.	-2398.	1204.	-160.	-.0262	-.0171	.0903	-.0212	-.0105	-.1043	1260.	
.3770	2573.	2324.	242.	-2354.	1134.	-290.	-.0312	-.0114	.0889	-.0304	-.0111	-.0933	1232.	
.3780	2545.	2334.	23.	-2252.	1017.	-427.	-.0358	-.0051	.0857	-.0395	-.0113	-.0798	1175.	
.3790	2464.	2292.	-209.	-2096.	865.	-565.	-.0401	.0020	.0808	-.0484	-.0114	-.0641	1095.	
.3800	2325.	2186.	-439.	-1891.	689.	-691.	-.0439	.0097	.0742	-.0568	-.0115	-.0466	997.	
.3810	2123.	2020.	-649.	-1650.	502.	-803.	-.0472	.0181	.0660	-.0645	-.0119	-.0275	892.	
.3820	1863.	1814.	-812.	-1386.	322.	-903.	-.0500	.0270	.0566	-.0717	-.0128	-.0074	790.	
.3830	1555.	1591.	-906.	-1110.	164.	-993.	-.0522	.0364	.0460	-.0784	-.0142	.0135	702.	
.3840	1207.	1361.	-924.	-834.	40.	-1069.	-.0539	.0463	.0345	-.0845	-.0163	.0347	636.	
.3850	830.	1120.	-861.	-570.	-45.	-1126.	-.0551	.0566	.0223	-.0901	-.0190	.0558	592.	
.3860	437.	873.	-721.	-327.	-87.	-1161.	-.0556	.0671	.0097	-.0952	-.0221	.0765	567.	
.3870	52.	642.	-527.	-106.	-93.	-1176.	-.0556	.0778	-.0030	-.0999	-.0252	.0962	555.	
.3880	-305.	436.	-306.	94.	-73.	-1172.	-.0549	.0826	-.0158	-.1046	-.0279	.1146	552.	
.3890	-625.	255.	-85.	277.	-38.	-1143.	-.0536	.0994	-.0282	-.1092	-.0298	.1315	551.	
.3900	-903.	77.	108.	449.	-2.	-1082.	-.0518	.1100	-.0403	-.1139	-.0307	.1464	549.	
.3910	-1136.	-103.	254.	620.	26.	-989.	-.0494	.1205	-.0517	-.1186	-.0305	.1591	547.	
.3920	-1324.	-271.	358.	798.	43.	-871.	-.0466	.1306	-.0624	-.1236	-.0291	.1696	554.	
.3930	-1469.	-423.	434.	990.	51.	-730.	-.0435	.1404	-.0723	-.1289	-.0269	.1779	577.	
.3940	-1584.	-569.	485.	1198.	46.	-567.	-.0403	.1495	-.0812	-.1344	-.0241	.1841	621.	
.3950	-1683.	-727.	513.	1415.	27.	-383.	-.0372	.1580	-.0891	-.1397	-.0209	.1885	687.	
.3960	-1776.	-893.	530.	1631.	-4.	-193.	-.0342	.1655	-.0960	-.1445	-.0175	.1913	770.	
.3970	-1857.	-1041.	545.	1833.	-46.	-16.	-.0314	.1721	-.1017	-.1487	-.0141	.1931	859.	
.3980	-1925.	-1154.	553.	2007.	-98.	135.	-.0290	.1776	-.1062	-.1519	-.0108	.1943	944.	
.3990	-1981.	-1236.	543.	2137.	-164.	248.	-.0271	.1817	-.1095	-.1538	-.0074	.1954	1011.	
.4000	-2030.	-1300.	506.	2269.	-242.	317.	-.0256	.1845	-.1115	-.1539	-.0041	.1966	1052.	

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)
.0640	-2413.	-7023.	819.	7375.	-53.	651.	.0761	.1112	-.1514	.2555	.1095	.2315	3470.

SECTION	9	MEMBER	1	SEQUENCE	228	LOCATION	BEG	TYPE	RU					
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.07.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSVCONDITION 24
LOADS
SHOCK

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)
.0040	-2417.	-7003.	339.	7007.	-10.	651.	.0761	.1112	-.1514	.2555	.1295	.2315	3470.

SECTION 9	MEMBER 1	SEQUENCE 228	LOCATION BEG	TYPE RU	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
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ADLPIPE PAGE 439 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 8/31/02. 18.26.07.

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 9	MEMBER 1	SEQUENCE 228	LOCATION BEG	TYPE RU	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.
.0010	-2.	1.	1.	0.	-1.	-0.	-.0000	-.0000	-.0000	.0000	1.
.0020	-6.	9.	8.	-1.	-2.	-1.	-.0000	.0000	-.0001	.0000	4.
.0030	-1.	26.	30.	-11.	2.	-2.	-.0000	.0001	-.0004	.0006	16.
.0040	20.	53.	67.	-34.	13.	1.	-.0000	.0003	-.0010	-.0003	52.
.0050	57.	90.	111.	-70.	26.	13.	-.0001	.0006	-.0019	-.0008	107.
.0060	109.	145.	168.	-119.	38.	32.	-.0003	.0011	-.0033	-.0015	182.
.0070	197.	229.	262.	-191.	61.	51.	-.0006	.0019	-.0053	-.0026	292.
.0080	340.	343.	471.	-293.	128.	72.	-.0006	.0032	-.0083	-.0042	463.
.0090	635.	468.	928.	-413.	301.	117.	-.0001	.0049	-.0128	-.0064	741.
.0100	1047.	605.	1557.	-531.	559.	192.	.0011	.0071	-.0187	-.0086	1122.
.0110	1396.	781.	2123.	-650.	803.	263.	.0028	.0097	-.0259	-.0109	1506.
.0120	1803.	998.	2516.	-770.	975.	305.	.0047	.0126	-.0338	-.0135	1807.
.0130	1769.	1205.	2774.	-854.	1096.	335.	.0071	.0157	-.0424	-.0158	2019.
.0140	2044.	1372.	2942.	-865.	1198.	375.	.0097	.0188	-.0514	-.0174	2151.
.0150	2493.	1541.	3028.	-822.	1274.	391.	.0124	.0217	-.0608	-.0184	2212.
.0160	3218.	1740.	3197.	-759.	1376.	363.	.0152	.0245	-.0706	-.0191	2278.
.0170	3952.	1964.	3190.	-717.	1418.	300.	.0179	.0274	-.0809	-.0204	2284.
.0180	4061.	2222.	2387.	-767.	1173.	185.	.0198	.0308	-.0911	-.0237	1996.
.0190	3250.	2505.	836.	-946.	607.	-0.	.0215	.0347	-.1005	-.0295	1588.
.0200	1407.	2730.	-947.	-1170.	-90.	-220.	.0248	.0386	-.1087	-.0362	1686.
.0210	-347.	2713.	-1460.	-1166.	-235.	-313.	.0331	.0408	-.1164	-.0380	1737.
.0220	-895.	2497.	-687.	-771.	313.	-257.	.0450	.0400	-.1221	-.0304	1230.
.0230	-1210.	2416.	-97.	-281.	807.	-378.	.0565	.0366	-.1231	-.0175	1403.
.0240	-400.	2283.	1775.	168.	1573.	-608.	.0679	.0312	-.1204	-.0040	2393.
.0250	538.	1870.	3072.	574.	2168.	-734.	.0772	.0242	-.1147	.0075	3320.
.0260	-1525.	1651.	-535.	485.	1106.	-1057.	.0787	.0169	-.1027	.0132	2267.
.0270	-4104.	1813.	-5243.	15.	-618.	-1687.	.0744	.0087	-.0846	.0141	2538.
.0280	-3154.	1680.	-4715.	-233.	-627.	-2047.	.0744	-.0030	-.0666	.0198	3042.
.0290	-648.	1115.	-2209.	60.	627.	-1952.	.0789	-.0183	-.0502	.0367	2897.
.0300	1962.	1012.	-505.	279.	1966.	-2175.	.0816	-.0343	-.0325	.0567	4160.
.0310	3714.	1622.	1016.	-33.	2698.	-2908.	.0794	-.0492	-.0138	.0696	5602.
.0320	2239.	1983.	-465.	-730.	1821.	-3321.	.0617	-.0621	.0070	.0696	5449.
.0330	1425.	1181.	-2139.	-1197.	1037.	-2673.	.0580	-.0738	.0271	.0627	4389.
.0340	4046.	40.	-1047.	-1167.	1418.	-1645.	.0471	-.0864	.0449	.0609	3482.
.0350	5618.	-41.	-1081.	-977.	1050.	-1426.	.0311	-.1003	.0630	.0657	2858.
.0360	3422.	502.	-4492.	-958.	-927.	-1870.	.0091	-.1124	.0834	.0645	3244.
.0370	1825.	-211.	-6393.	-741.	-2332.	-1558.	-.0111	-.1214	.1033	.0512	4097.

ADLPIPE PAGE 440 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 8/31/02. 18.26.07.

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

.0270	-4164.	1812.	-242.	15.	-618.	-1687.	.744	.0087	-.0846	.0141	.0433	-.0032	2538.
.0280	-3154.	1670.	-4715.	-233.	-627.	-2047.	.0744	-.0030	-.0666	.0198	-.0011	-.0604	3042.
.0290	-648.	1115.	-2209.	60.	627.	-1952.	.0789	-.0183	-.0502	.0367	-.0235	-.1172	2897.
.0300	1962.	1012.	-505.	279.	1746.	-2175.	.0816	-.0743	-.0325	.0567	-.0480	-.1633	4160.
.0310	3714.	1622.	1016.	-73.	2698.	-2908.	.0794	-.0492	-.0138	.0696	-.0796	-.2054	5602.
.0320	2239.	1983.	-465.	-730.	1021.	-7321.	.0677	-.0621	.0070	.0696	-.1260	-.2456	5449.
.0330	1425.	1181.	-2139.	-1197.	1037.	-2673.	.0580	-.0738	.0271	.0627	-.1692	-.2745	4389.
.0340	4048.	40.	-1047.	-1167.	1410.	-1645.	.0471	-.0264	.0449	.0609	-.1989	-.2907	3482.
.0350	5618.	-41.	-1081.	-977.	1050.	-1426.	.0311	-.1003	.0630	.0657	-.2728	-.3002	2858.
.0360	3422.	502.	-4492.	-958.	-927.	-1870.	.0091	-.1124	.0834	.0645	-.2744	-.2999	3244.
.0370	1825.	-211.	-6393.	-741.	-2332.	-1558.	-.0111	-.1214	.1033	.0512	-.2972	-.2854	4097.

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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	9	MEMBER	1	SEQUENCE	228	LOCATION	BEG	TYPE	RU						
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	PZ (DEG)	STRESS (PSI)		
.0380	2984.	-2532.	-4889.	280.	-2276.	63.	-.0272	-.1303	.1208	.0385	-.2942	-.2670	3241.		
.0390	2452.	-4235.	-4670.	1631.	-2714.	1474.	-.0455	-.1404	.1384	.0337	-.2378	-.2519	4933.		
.0400	-1471.	-4237.	-5788.	2232.	-3870.	1253.	-.0633	-.1468	.1561	.0242	-.2697	-.2289	6554.		
.0410	-3149.	-4192.	-3052.	2639.	-3387.	845.	-.0728	-.1493	.1701	.0098	-.2190	-.1965	6182.		
.0420	-2977.	-5869.	1115.	3799.	-1775.	1922.	-.0765	-.1517	.1799	.0018	-.1496	-.1727	6516.		
.0430	-5363.	-7447.	3015.	4730.	-982.	3121.	-.0791	-.1516	.1874	-.0070	-.0800	-.1600	8124.		
.0440	-7807.	-6978.	5914.	4321.	-194.	2701.	-.0778	-.1452	.1915	-.0257	-.0058	-.1434	7203.		
.0450	-7583.	-5708.	9438.	3609.	1117.	1765.	-.0735	-.1361	.1910	-.0387	.0616	-.1253	5890.		
.0460	-7078.	-5282.	9333.	3544.	1598.	1705.	-.0717	-.1279	.1874	-.0377	.0999	-.1192	5996.		
.0470	-8028.	-4966.	7014.	3043.	890.	1559.	-.0712	-.1157	.1818	-.0438	.1166	-.1174	4991.		
.0480	-8116.	-4073.	6336.	1684.	286.	657.	-.0670	-.0974	.1730	-.0619	.1310	-.1057	2584.		
.0490	-6519.	-3497.	5270.	1039.	10.	199.	-.0603	-.0803	.1605	-.0616	.1373	-.0905	1494.		
.0500	-5357.	-3305.	1856.	1571.	-646.	401.	-.0534	-.0677	.1455	-.0328	.1317	-.0799	2465.		
.0510	-4896.	-2600.	-9.	1858.	-1204.	52.	-.0428	-.0532	.1285	-.0028	.1346	-.0627	3128.		
.0520	-3977.	-2062.	920.	1737.	-1049.	-447.	-.0269	-.0347	.1095	.0192	.1527	-.0328	2935.		
.0530	-3035.	-2810.	665.	2393.	-776.	252.	-.0108	-.0179	.0892	.0536	.1568	-.0025	3571.		
.0540	-2570.	-3512.	-813.	3349.	-776.	1237.	.0030	-.0035	.0681	.1006	.1716	.0230	5161.		
.0550	-2154.	-2431.	-549.	3120.	-765.	864.	.0159	.0137	.0465	.1385	.1761	.0526	4699.		
.0560	-2013.	-696.	-383.	2055.	-958.	73.	.0265	.0330	.0248	.1663	.1741	.0845	3205.		
.0570	-2234.	-46.	-2479.	1253.	-1542.	409.	.0334	.0503	.0029	.1949	.1588	.1083	2865.		
.0580	-1951.	479.	-3763.	182.	-1913.	901.	.0397	.0666	-.0198	.2174	.1449	.1266	2998.		
.0590	-1246.	2403.	-2773.	-1837.	-1872.	177.	.0473	.0836	-.0434	.2276	.1410	.1485	3713.		
.0600	-853.	4887.	-2639.	-3826.	-1889.	-848.	.0538	.0971	-.0669	.2395	.1350	.1697	6157.		
.0610	-323.	6505.	-3618.	-5029.	-1822.	-1000.	.0591	.1046	-.0902	.2575	.1254	.1841	7687.		
.0620	1059.	7394.	-2672.	-6035.	-1156.	-792.	.0660	.1096	-.1130	.2651	.1238	.1975	8751.		
.0630	2284.	8061.	-918.	-7084.	-345.	-804.	.0730	.1132	-.1337	.2589	.1238	.2153	10082.		
.0640	2870.	8332.	-1310.	-7375.	53.	-651.	.0761	.1112	-.1514	.2555	.1095	.2315	10458.		
.0650	4136.	8268.	-2272.	-6821.	499.	-315.	.0762	.1029	-.1663	.2575	.0843	.2425	9671.		
.0660	6087.	8123.	-1818.	-6203.	1235.	-213.	.0752	.0926	-.1778	.2483	.0583	.2526	8939.		
.0670	6898.	7461.	-1981.	-5607.	1622.	-32.	.0716	.0816	-.1847	.2233	.0285	.2616	8244.		
.0680	6649.	5976.	-3389.	-4563.	1695.	621.	.0654	.0678	-.1873	.1931	-.0038	.2629	6931.		
.0690	7077.	4530.	-3160.	-3306.	2304.	1106.	.0601	.0511	-.1872	.1614	-.0238	.2561	5902.		
.0700	7912.	3913.	-885.	-2413.	3433.	798.	.0565	.0341	-.1846	.1237	-.0268	.2452	6033.		
.0710	7910.	3558.	984.	-1844.	4327.	272.	.0519	.0173	-.1782	.0786	-.0251	.2277	6654.		
.0720	7398.	2688.	2059.	-1413.	4761.	218.	.0444	.0007	-.1679	.0265	-.0276	.1974	7021.		
.0730	6617.	1661.	3012.	-1416.	4713.	278.	.0341	-.0142	-.1536	-.0353	-.0355	.1559	6962.		
.0740	4996.	1148.	3058.	-1995.	4886.	-126.	.0216	-.0267	-.1354	-.1033	-.0498	.1099	6325.		
.0750	3472.	993.	2386.	-2645.	3037.	-842.	.0086	-.0386	-.1145	-.1656	-.0682	.0612	5811.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

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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

.0650	4124.	7268.	2272.	-6821.	499.	-315.	.0762	.1029	-.1663	.2575	.0843	.2425	9671.
.0660	6087.	8123.	-1818.	-6203.	1239.	-213.	.0752	.0926	-.1778	.2483	.0583	.2526	8939.
.0670	6898.	7461.	-1981.	-5607.	1622.	-32.	.0716	.0816	-.1847	.2233	.0285	.2616	8244.
.0680	6449.	5976.	-3339.	-4563.	1695.	621.	.0654	.0672	-.1873	.1931	-.0038	.2629	6931.
.0690	7277.	4570.	-2160.	-7378.	2704.	1136.	.0601	.0511	-.1872	.1614	-.0238	.2561	5902.
.0700	7912.	3912.	-885.	-2413.	3403.	798.	.0565	.0341	-.1846	.1237	-.0268	.2452	6033.
.0710	7910.	3558.	984.	-1844.	4327.	272.	.0519	.0173	-.1782	.0786	-.0251	.2277	6554.
.0720	7398.	2688.	2059.	-1413.	4761.	218.	.0444	.0007	-.1679	.0265	-.0276	.1974	7021.
.0730	6617.	1661.	3012.	-1416.	4713.	278.	.0341	-.0142	-.1536	-.0353	-.0355	.1559	6962.
.0740	4998.	1148.	3058.	-1995.	4006.	-136.	.0216	-.0267	-.1354	-.1033	-.0498	.1099	6325.
.0750	3472.	993.	2316.	-2649.	3037.	-842.	.0086	-.0386	-.1145	-.1656	-.0582	.0612	5811.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.07.

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	S	MEMBER	1	SEQUENCE	228	LOCATION	BEG	TYPE	PU					STRESS
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ		(PSI)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)		
.0760	3207.	701.	2328.	-2939.	2295.	-1419.	-.0033	-.0514	-.0917	-.2157	-.0866	.0076		5636.
.0770	2871.	186.	2158.	-3034.	1359.	-1862.	-.0143	-.0635	-.0665	-.2577	-.1075	-.0485		5382.
.0780	1073.	-523.	618.	-3071.	-149.	-2245.	-.0248	-.0739	-.0385	-.2942	-.1324	-.1011		5378.
.0790	-623.	-1595.	-778.	-2690.	-1441.	-2381.	-.0318	-.0838	-.0094	-.3172	-.1525	-.1488		5467.
.0800	-600.	-2952.	-463.	-1567.	-1830.	-2216.	-.0339	-.0955	.0189	-.3169	-.1516	-.1944		4624.
.0810	-258.	-4095.	68.	-38.	-1920.	-2092.	-.0333	-.1079	.0468	-.2964	-.1564	-.2366		4011.
.0820	-966.	-4876.	-517.	1332.	-2308.	-2137.	-.0321	-.1183	.0749	-.2667	-.1740	-.2723		4825.
.0830	-1733.	-5789.	-1254.	2491.	-2658.	-1909.	-.0302	-.1258	.1022	-.2323	-.1820	-.3029		5809.
.0840	-1883.	-6958.	-1687.	3612.	-2719.	-1204.	-.0272	-.1314	.1275	-.1898	-.1373	-.3319		6609.
.0850	-2152.	-7566.	-2362.	4461.	-2710.	-654.	-.0237	-.1351	.1503	-.1384	-.1378	-.3565		7430.
.0860	-2476.	-7013.	-2658.	4729.	-2521.	-795.	-.0188	-.1358	.1698	-.0820	-.1786	-.3718		7652.
.0870	-2307.	-5891.	-2015.	4612.	-1970.	-1159.	-.0124	-.1336	.1854	-.0228	-.1573	-.3786		7270.
.0880	-2332.	-5012.	-1385.	4400.	-1390.	-1089.	-.0060	-.1292	.1973	.0367	-.1272	-.3791		6697.
.0890	-3110.	-4257.	-950.	3987.	-977.	-768.	.0003	-.1222	.2056	.0916	-.0884	-.3703		5898.
.0900	-3765.	-3162.	353.	3368.	-413.	-637.	.0070	-.1130	.2095	.1426	-.0385	-.3486		4877.
.0910	-3779.	-1865.	2119.	2956.	304.	-556.	.0132	-.1039	.2088	.1958	.0165	-.3156		4270.
.0920	-3890.	-800.	2955.	2895.	702.	-222.	.0166	-.0951	.2044	.2485	.0665	-.2735		4219.
.0930	-4534.	-133.	2979.	2842.	597.	335.	.0168	-.0848	.1971	.2894	.1085	-.2214		4130.
.0940	-5350.	95.	2819.	2734.	176.	1104.	.0146	-.0728	.1869	.3156	.1433	-.1613		4172.
.0950	-6034.	-31.	2173.	2902.	-394.	2116.	.0107	-.0612	.1734	.3354	.1711	-.0979		5103.
.0960	-6366.	-75.	1318.	3321.	-883.	3020.	.0065	-.0508	.1564	.3523	.1949	-.0329		6462.
.0970	-6172.	246.	1222.	3610.	-1076.	3461.	.0035	-.0402	.1360	.3597	.2191	.0331		7226.
.0980	-5832.	541.	1478.	3694.	-1153.	3734.	.0011	-.0290	.1133	.3533	.2397	.0945		7596.
.0990	-5717.	413.	1067.	3696.	-1372.	4220.	-.0020	-.0177	.0890	.3336	.2500	.1452		8158.
.1000	-5463.	253.	405.	3448.	-1600.	4599.	-.0054	-.0063	.0638	.3008	.2500	.1848		8428.
.1010	-4747.	616.	108.	2790.	-1680.	4389.	-.0083	.0053	.0380	.2563	.2417	.2140		7720.
.1020	-3936.	1330.	-433.	1950.	-1767.	3748.	-.0111	.0160	.0124	.2048	.2228	.2298		6469.
.1030	-3252.	1860.	-1399.	1133.	-1875.	3078.	-.0135	.0255	-.0123	.1475	.1948	.2312		5337.
.1040	-2423.	2063.	-1845.	266.	-1737.	2399.	-.0137	.0349	-.0357	.0822	.1543	.2223		4200.
.1050	-1548.	2148.	-1629.	-598.	-1312.	1561.	-.0112	.0439	-.0576	.0130	.1347	.2058		3002.
.1060	-916.	2265.	-1406.	-1174.	-755.	573.	-.0063	.0507	-.0778	-.0506	.1051	.1813		2131.
.1070	-30.	2392.	-719.	-1393.	79.	-506.	.0010	.0551	-.0964	-.1054	.0778	.1510		2096.
.1080	905.	2396.	717.	-1486.	1166.	-1621.	.0114	.0587	-.1135	-.1563	.0564	.1197		3516.
.1090	1202.	2042.	2548.	-1497.	2358.	-2550.	.0256	.0618	-.1297	-.2040	.0463	.0895		5342.
.1100	3253.	1232.	4782.	-1034.	3829.	-2874.	.0393	.0621	-.1450	-.2377	.0305	.0563		6919.
.1110	4587.	883.	4963.	-692.	4411.	-3272.	.0483	.0611	-.1578	-.2626	-.0029	.0219		7818.
.1120	4446.	1288.	3360.	-1048.	3942.	-4134.	.0529	.0617	-.1677	-.2891	-.0503	-.0074		8203.
.1130	5041.	1417.	1953.	-1598.	3434.	-4631.	.0557	.0631	-.1763	-.3126	-.1001	-.0315		8450.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.07.

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

.1030	-3252.	1860.	-1399.	1133.	-1875.	3078.	-.0135	.0255	-.0123	.1475	.1948	.2312	5337.
.1040	-2423.	2063.	-1845.	266.	-1737.	2399.	-.0137	.0349	-.0357	.0822	.1643	.2223	4200.
.1050	-1548.	2148.	-1629.	-598.	-1312.	1561.	-.0112	.0439	-.0576	.0130	.1347	.2058	3002.
.1060	-916.	2265.	-1406.	-1174.	-755.	573.	-.0063	.0507	-.0778	-.0506	.1051	.1813	2131.
.1070	-30.	2392.	-719.	-1393.	79.	-506.	.0010	.0551	-.0964	-.1054	.0778	.1510	2096.
.1080	905.	2396.	717.	-1476.	1166.	-1621.	.0114	.0587	-.1135	-.1563	.0564	.1197	3516.
.1090	1202.	2042.	2548.	-1497.	2358.	-2550.	.0256	.0618	-.1297	-.2040	.0463	.0895	5342.
.1100	3253.	1232.	4782.	-1034.	3829.	-2874.	.0393	.0621	-.1450	-.2377	.0305	.0563	6919.
.1110	4587.	802.	4963.	-652.	4411.	-3272.	.0483	.0611	-.1578	-.2626	-.0029	.0219	7818.
.1120	4446.	1288.	3360.	-1048.	3042.	-4134.	.0529	.0617	-.1677	-.2891	-.0503	-.0074	8203.
.1130	5041.	1417.	1953.	-1598.	3434.	-4631.	.0557	.0631	-.1763	-.3126	-.1001	-.0315	8450.

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83/12/02.

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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	9	MEMBER	1	SEQUENCE	228	LOCATION	BEG	TYPE	RU					STRESS
TIME	FX	FY	FZ	MX	MY	MZ				DZ	RX	RY	RZ	(PSI)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)			(IN)	(IN)	(DEG)	(DEG)	(DEG)	
.1140	6602.	870.	618.	-1806.	3122.	-4298.		.0574	.0628	-.1840	-.3235	-.1474	-.0533	7926.
.1150	7644.	760.	-897.	-2106.	2667.	-4020.		.0579	.0619	-.1903	-.3237	-.1382	-.0699	7435.
.1160	8418.	1660.	-1410.	-2859.	2313.	-4335.		.0581	.0617	-.1948	-.3184	-.2168	-.0766	8030.
.1170	9034.	2531.	-1811.	-3530.	2056.	-4401.		.0571	.0612	-.1970	-.3047	-.2367	-.0760	8481.
.1180	10609.	2511.	-1899.	-3705.	2075.	-3588.		.0535	.0593	-.1962	-.2818	-.2545	-.0721	7853.
.1190	10051.	2442.	-3600.	-3999.	1286.	-2786.		.0451	.0582	-.1906	-.2603	-.2753	-.0632	7119.
.1200	8377.	2898.	-4991.	-4626.	291.	-2571.		.0347	.0586	-.1809	-.2422	-.2384	-.0456	7486.
.1210	8948.	3106.	-3700.	-4752.	450.	-2176.		.0263	.0573	-.1694	-.2147	-.2829	-.0219	7409.
.1220	8703.	2762.	-3889.	-4046.	461.	-1168.		.0163	.0524	-.1547	-.1736	-.2723	-.0005	5984.
.1230	7593.	2535.	-3825.	-3393.	320.	-330.		.0055	.0477	-.1364	-.1355	-.2536	.0210	4836.
.1240	5664.	2518.	-2957.	-3161.	78.	96.		-.0050	.0453	-.1148	-.1091	-.2248	.0443	4469.
.1250	3781.	1893.	-2511.	-2554.	-96.	917.		-.0152	.0421	-.0909	-.0819	-.1909	.0644	3835.
.1260	3246.	846.	-1555.	-1413.	213.	2037.		-.0240	.0370	-.0661	-.0484	-.1508	.0786	3514.
.1270	1183.	583.	-1068.	-639.	127.	2367.		-.0314	.0328	-.0399	-.0207	-.1034	.0889	3468.
.1280	-362.	768.	1104.	-246.	423.	2155.		-.0352	.0302	-.0140	-.0020	-.0433	.0965	3121.
.1290	-1392.	233.	2580.	573.	794.	2545.		-.0376	.0266	.0115	.0178	.0160	.0958	3851.
.1300	-2875.	-675.	2453.	1616.	749.	3198.		-.0404	.0224	.0368	.0364	.0671	.0870	5171.
.1310	-3449.	-893.	3738.	2130.	818.	3007.		-.0421	.0202	.0611	.0441	.1151	.0766	5332.
.1320	-4803.	-690.	3759.	2399.	291.	2280.		-.0451	.0190	.0850	.0456	.1500	.0637	4693.
.1330	-5581.	-1136.	2669.	3138.	-341.	2066.		-.0489	.0165	.1074	.0502	.1713	.0459	5328.
.1340	-6281.	-1999.	1372.	4024.	-1001.	2160.		-.0520	.0141	.1280	.0527	.1859	.0256	6604.
.1350	-7337.	-2545.	1040.	4543.	-1587.	1884.		-.0532	.0137	.1464	.0474	.2016	.0074	7299.
.1360	-7418.	-3042.	1917.	5133.	-1673.	1564.		-.0522	.0131	.1615	.0441	.2174	-.0093	7940.
.1370	-8103.	-3758.	1140.	6099.	-1991.	1569.		-.0519	.0109	.1739	.0492	.2226	-.0273	9329.
.1380	-7993.	-4311.	1417.	6807.	-1977.	1470.		-.0508	.0099	.1829	.0516	.2235	-.0428	10225.
.1390	-8024.	-4529.	2162.	6866.	-2043.	1120.		-.0503	.0118	.1890	.0440	.2165	-.0549	10241.
.1400	-8684.	-4868.	1336.	6737.	-2566.	1087.		-.0527	.0142	.1923	.0344	.1926	-.0678	10298.
.1410	-8167.	-5268.	584.	6587.	-2846.	1357.		-.0562	.0164	.1915	.0274	.1580	-.0810	10316.
.1420	-8023.	-5027.	-424.	5960.	-3235.	1233.		-.0601	.0199	.1869	.0173	.1178	-.0907	9736.
.1430	-7376.	-4347.	-414.	4886.	-3287.	778.		-.0626	.0252	.1781	.0024	.0794	-.0947	8391.
.1440	-6584.	-3970.	-709.	3911.	-3198.	680.		-.0645	.0305	.1652	-.0111	.0399	-.0966	7200.
.1450	-5742.	-3805.	-1266.	3069.	-3002.	893.		-.0656	.0355	.1487	-.0227	.0005	-.0966	6194.
.1460	-4099.	-3243.	-433.	2003.	-2362.	812.		-.0646	.0417	.1285	-.0368	-.0323	-.0899	4522.
.1470	-3477.	-2343.	-519.	844.	-1995.	466.		-.0632	.0486	.1059	-.0518	-.0539	-.0770	3130.
.1480	-1939.	-1779.	-311.	45.	-1303.	384.		-.0606	.0548	.0805	-.0627	-.0921	-.0599	1920.
.1490	-12.	-1474.	-84.	-519.	-539.	469.		-.0577	.0607	.0533	-.0724	-.1181	-.0390	1248.
.1500	1008.	-949.	-590.	-1234.	-198.	321.		-.0555	.0678	.0256	-.0860	-.1436	-.0127	1822.
.1510	2357.	-366.	-810.	-1952.	155.	127.		-.0533	.0752	-.0025	-.1009	-.1654	.0184	2772.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.07.

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

.1410	-1167.	-5268.	584.	6587.	-2846.	1357.	-1582.	.0164.	.1915	.0274	.1580	-.0810	10298.
.1420	-8023.	-5027.	-424.	5960.	-3235.	1233.	-.001	.0199	.1869	.0173	.1178	-.0907	9736.
.1430	-7376.	-4347.	-414.	4886.	-3287.	778.	-.0626	.0252	.1781	.0024	.0794	-.0947	8391.
.1440	-6584.	-3970.	-709.	3911.	-3198.	680.	-.0645	.0305	.1652	-.0111	.0399	-.0966	7200.
.1450	-5742.	-3801.	-1266.	3069.	-3001.	893.	-.0656	.0351	.1487	-.0227	.0005	-.0966	6194.
.1460	-4699.	-3243.	-433.	2003.	-2382.	812.	-.0646	.0417	.1285	-.0368	-.0323	-.0899	4522.
.1470	-3477.	-2343.	-519.	844.	-1995.	466.	-.0632	.0486	.1059	-.0518	-.0539	-.0770	3130.
.1480	-1939.	-1779.	-311.	45.	-1303.	384.	-.0606	.0548	.0805	-.0627	-.0921	-.0599	1920.
.1490	-12.	-1474.	-84.	-519.	-539.	469.	-.0577	.0607	.0533	-.0724	-.1181	-.0390	1248.
.1500	1008.	-949.	-590.	-1274.	-198.	321.	-.0555	.0678	.0256	-.0860	-.1436	-.0127	1822.
.1510	2327.	-366.	-810.	-1952.	155.	127.	-.0533	.0752	-.0025	-.1009	-.1554	.0184	2772.

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	9	MEMBER	1	SEQUENCE	228	LOCATION	BEG	TYPE	RU	DX	DY	DZ	RX	RY	RZ	STRESS
TIME	FX	FY	FZ	MX	MY	MZ				(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)										
.1520	3236.	-22.	-1882.	-2375.	262.	220.	-.0515	.0817	-.0304	-.1118	-.1335	.0502	3389.			
.1530	4593.	224.	-2103.	-2635.	595.	423.	-.0484	.0876	-.0580	-.1200	-.1907	.0829	3862.			
.1540	5121.	697.	-2170.	-3032.	787.	413.	-.0444	.0940	-.0843	-.1298	-.1863	.1175	4463.			
.1550	5050.	1174.	-2150.	-3430.	937.	393.	-.0391	.1006	-.1088	-.1390	-.1705	.1525	5053.			
.1560	6258.	1364.	-658.	-3588.	1641.	638.	-.0321	.1062	-.1319	-.1439	-.1433	.1849	5645.			
.1570	6233.	1654.	-261.	-3741.	1870.	844.	-.0262	.1113	-.1517	-.1469	-.1154	.2125	6026.			
.1580	5881.	2235.	210.	-4127.	1911.	747.	-.0210	.1169	-.1680	-.1523	-.0873	.2369	6510.			
.1590	6268.	2705.	1198.	-4513.	2068.	634.	-.0165	.1224	-.1808	-.1580	-.0617	.2571	7069.			
.1600	5753.	2869.	453.	-4685.	1678.	690.	-.0146	.1267	-.1891	-.1609	-.0472	.2699	7097.			
.1610	4563.	3060.	-804.	-4851.	1030.	570.	-.0135	.1305	-.1932	-.1634	-.0368	.2772	7051.			
.1620	4804.	3318.	175.	-4994.	1112.	201.	-.0098	.1336	-.1947	-.1648	-.0190	.2817	7233.			
.1630	4433.	3349.	221.	-4748.	1087.	-34.	-.0060	.1344	-.1927	-.1583	-.0037	.2799	6880.			
.1640	3910.	3158.	-148.	-4189.	1070.	-150.	-.0021	.1330	-.1874	-.1454	.0088	.2720	6110.			
.1650	4144.	3037.	761.	-3734.	1387.	-471.	.0026	.1310	-.1791	-.1331	.0220	.2611	5666.			
.1660	3431.	2909.	589.	-3358.	1275.	-842.	.0058	.1283	-.1672	-.1207	.0275	.2459	5211.			
.1670	3067.	2495.	-36.	-2804.	1110.	-930.	.0075	.1236	-.1526	-.1036	.0255	.2255	4458.			
.1680	2737.	2110.	-926.	-2275.	839.	-963.	.0081	.1175	-.1356	-.0836	.0192	.2012	3686.			
.1690	2943.	2011.	-945.	-1994.	725.	-1177.	.0085	.1108	-.1168	-.0640	.0139	.1760	3427.			
.1700	2694.	1930.	-1503.	-1778.	385.	-1305.	.0076	.1029	-.0960	-.0431	.0068	.1492	3162.			
.1710	1075.	1639.	-3446.	-1492.	-422.	-1154.	.0053	.0934	-.0735	-.0201	-.0008	.1203	2731.			
.1720	1156.	1230.	-2744.	-1226.	-385.	-904.	.0055	.0831	-.0513	.0028	.0058	.0936	2219.			
.1730	863.	961.	-1863.	-974.	-331.	-707.	.0060	.0716	-.0287	.0267	.0193	.0691	1763.			
.1740	-177.	774.	-1776.	-615.	-541.	-483.	.0054	.0585	-.0057	.0531	.0331	.0456	1343.			
.1750	-758.	511.	-1030.	-217.	-590.	-186.	.0044	.0446	.0169	.0782	.0494	.0240	926.			
.1760	-1794.	112.	-534.	119.	-817.	174.	.0025	.0306	.0392	.0982	.0647	.0048	1192.			
.1770	-2318.	-461.	243.	493.	-927.	628.	-.0002	.0164	.0606	.1148	.0779	-.0118	1729.			
.1780	-3361.	-960.	12.	924.	-1321.	1025.	-.0046	.0016	.0809	.1302	.0842	-.0272	2699.			
.1790	-3756.	-1253.	351.	1314.	-1495.	1226.	-.0092	-.0134	.0993	.1431	.0884	-.0405	3302.			
.1800	-3645.	-1510.	1087.	1644.	-1472.	1358.	-.0139	-.0279	.1157	.1520	.0898	-.0520	3660.			
.1810	-4741.	-1891.	276.	1943.	-1865.	1586.	-.0198	-.0420	.1305	.1563	.0837	-.0632	4415.			
.1820	-4833.	-2358.	615.	2193.	-1777.	1850.	-.0244	-.0554	.1424	.1564	.0789	-.0733	4707.			
.1830	-4669.	-2663.	1323.	2376.	-1479.	1982.	-.0281	-.0682	.1515	.1542	.0739	-.0828	4844.			
.1840	-4581.	-2764.	1685.	2523.	-1174.	1975.	-.0316	-.0805	.1581	.1511	.0558	-.0920	4820.			
.1850	-4280.	-2790.	2014.	2583.	-814.	1912.	-.0346	-.0918	.1620	.1452	.0546	-.1008	4682.			
.1860	-4283.	-2859.	1937.	2498.	-635.	1875.	-.0376	-.1014	.1639	.1341	.0390	-.1099	4502.			
.1870	-3618.	-3062.	2277.	2351.	-354.	1936.	-.0401	-.1093	.1634	.1194	.0206	-.1195	4330.			
.1880	-3559.	-3215.	1485.	2183.	-476.	1969.	-.0431	-.1160	.1613	.1034	-.0042	-.1294	4206.			
.1890	-3375.	-3175.	705.	1961.	-649.	1815.	-.0452	-.1209	.1573	.0868	-.0293	-.1383	3883.			

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.1790	-3756.	-1252.	1087.	1314.	-1495.	1226.	-.0092	-.0134	.0993	.1431	.0884	-.0405	3302.
.1800	-3645.	-1510.	1087.	1644.	-1472.	135.	-.0139	-.0279	.1157	.1520	.0898	-.0520	3660.
.1810	-4741.	-1891.	276.	1943.	-1865.	1986.	-.0198	-.0420	.1305	.1563	.0837	-.0632	4415.
.1820	-4933.	-2358.	615.	2193.	-1777.	1850.	-.0244	-.0554	.1424	.1564	.0789	-.0733	4767.
.1830	-4669.	-2663.	1323.	2376.	-1479.	1982.	-.0281	-.0682	.1515	.1542	.0739	-.0828	4844.
.1840	-4581.	-2764.	1885.	2523.	-1174.	1975.	-.0316	-.0805	.1581	.1511	.0598	-.0920	4820.
.1850	-4280.	-2790.	2014.	2583.	-814.	1912.	-.0346	-.0918	.1620	.1452	.0546	-.1008	4682.
.1860	-4283.	-2859.	1937.	2498.	-635.	1875.	-.0376	-.1014	.1639	.1341	.0390	-.1099	4502.
.1870	-3618.	-3062.	2277.	2351.	-354.	1936.	-.0401	-.1093	.1634	.1194	.0206	-.1195	4330.
.1880	-3559.	-3215.	1485.	2183.	-476.	1969.	-.0421	-.1160	.1613	.1034	-.0042	-.1294	4206.
.1890	-3375.	-3175.	705.	1961.	-649.	1815.	-.0452	-.1209	.1573	.0868	-.0293	-.1383	3883.

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SECTION	9	MEMBER	1	SEQUENCE	228	LOCATION	BEG	TYPE	RU						
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)		
.1900	-2567.	-3085.	740.	1737.	-605.	1566.	-.0451	-.1242	.1512	.0695	-.0500	-.1461	3412.		
.1910	-2513.	-3152.	48.	1607.	-824.	1417.	-.0438	-.1259	.1437	.0523	-.0686	-.1540	3242.		
.1920	-2342.	-3357.	-273.	1542.	-929.	1323.	-.0402	-.1259	.1344	.0351	-.0810	-.1609	3155.		
.1930	-2047.	-3436.	-78.	1461.	-889.	1081.	-.0341	-.1240	.1233	.0185	-.0861	-.1660	2858.		
.1940	-1909.	-3311.	46.	1398.	-855.	672.	-.0265	-.1208	.1108	.0046	-.0867	-.1701	2501.		
.1950	-1689.	-3098.	140.	1356.	-780.	200.	-.0175	-.1164	.0967	-.0068	-.0841	-.1732	2228.		
.1960	-1220.	-2864.	410.	1239.	-633.	-291.	-.0076	-.1103	.0813	-.0176	-.0793	-.1748	2008.		
.1970	-884.	-2547.	381.	987.	-602.	-812.	.0024	-.1025	.0650	-.0282	-.0752	-.1747	1995.		
.1980	-768.	-2074.	-170.	640.	-716.	-1360.	.0120	-.0936	.0480	-.0363	-.0729	-.1727	2352.		
.1990	-367.	-1446.	-643.	255.	-722.	-1916.	.0219	-.0840	.0300	-.0402	-.0592	-.1676	2915.		
.2000	365.	-742.	-733.	-135.	-514.	-2427.	.0324	-.0740	.0111	-.0395	-.0519	-.1587	3510.		
.2010	1101.	-51.	-785.	-507.	-234.	-2822.	.0428	-.0638	-.0081	-.0347	-.0524	-.1456	4064.		
.2020	1743.	584.	-875.	-858.	67.	-3062.	.0524	-.0536	-.0271	-.0262	-.0419	-.1281	4493.		
.2030	2443.	1167.	-854.	-1180.	421.	-3143.	.0610	-.0436	-.0456	-.0142	-.0308	-.1057	4780.		
.2040	3085.	1709.	-877.	-1453.	757.	-3070.	.0679	-.0341	-.0631	.0012	-.0202	-.0792	4915.		
.2050	3607.	2210.	-979.	-1680.	1037.	-2860.	.0727	-.0255	-.0794	.0195	-.0107	-.0492	4909.		
.2060	4120.	2652.	-986.	-1895.	1290.	-2538.	.0755	-.0175	-.0940	.0390	-.0020	-.0163	4835.		
.2070	4501.	3017.	-1013.	-2120.	1491.	-2115.	.0761	-.0101	-.1065	.0584	.0057	.0188	4725.		
.2080	4520.	3327.	-1228.	-2363.	1545.	-1618.	.0746	-.0034	-.1167	.0771	.0124	.0543	4596.		
.2090	4350.	3628.	-1307.	-2629.	1565.	-1097.	.0716	.0023	-.1246	.0947	.0204	.0887	4591.		
.2100	4256.	3932.	-972.	-2900.	1669.	-592.	.0679	.0070	-.1302	.1109	.0311	.1210	4797.		
.2110	4034.	4217.	-565.	-3155.	1758.	-89.	.0636	.0106	-.1333	.1253	.0433	.1498	5103.		
.2120	3530.	4460.	-263.	-3402.	1745.	346.	.0586	.0132	-.1338	.1367	.0556	.1736	5422.		
.2130	2995.	4628.	164.	-3629.	1701.	704.	.0535	.0146	-.1316	.1441	.0579	.1914	5748.		
.2140	2582.	4881.	623.	-3764.	1639.	1003.	.0484	.0145	-.1270	.1482	.0789	.2024	5969.		
.2150	2169.	4635.	765.	-3760.	1462.	1223.	.0432	.0129	-.1198	.1497	.0859	.2057	5954.		
.2160	1711.	4516.	610.	-3640.	1146.	1309.	.0378	.0098	-.1099	.1478	.0882	.2012	5699.		
.2170	1328.	4250.	363.	-3392.	766.	1290.	.0328	.0054	-.0976	.1422	.0864	.1891	5239.		
.2180	1020.	3747.	-15.	-2953.	367.	1246.	.0284	-.0004	-.0831	.1338	.0810	.1696	4557.		
.2190	759.	3058.	-459.	-2329.	-1.	1164.	.0246	-.0075	-.0666	.1236	.0732	.1431	3677.		
.2200	595.	2315.	-692.	-1596.	-263.	968.	.0219	-.0155	-.0485	.1117	.0645	.1107	2663.		
.2210	452.	1540.	-735.	-804.	-418.	685.	.0198	-.0242	-.0291	.0982	.0550	.0733	1605.		
.2220	200.	675.	-772.	18.	-509.	407.	.0180	-.0332	-.0086	.0833	.0445	.0317	921.		
.2230	-96.	-245.	-655.	793.	-504.	144.	.0164	-.0422	.0125	.0666	.0335	-.0127	1343.		
.2240	-348.	-1100.	-265.	1438.	-392.	-157.	.0146	-.0506	.0335	.0483	.0226	-.0581	2116.		
.2250	-663.	-1812.	122.	1929.	-270.	-498.	.0121	-.0584	.0541	.0295	.0102	-.1032	2840.		
.2260	-1108.	-2377.	332.	2260.	-207.	-836.	.0085	-.0654	.0739	.0110	-.0040	-.1463	3416.		
.2270	-1587.	-2829.	544.	2413.	-175.	-1132.	.0041	-.0712	.0923	-.0075	-.0187	-.1856	3773.		

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.2170	1328.	4250.	363.	-3392.	766.	1290.	.0328	.0054	-.0976	.1422	.0864	.1891	5239.
.2180	1020.	3747.	-15.	-2953.	367.	1246.	.0284	-.0004	-.0831	.1338	.0810	.1696	4557.
.2190	759.	3058.	-459.	-2329.	-1.	1164.	.0246	-.0075	-.0666	.1236	.0732	.1431	3677.
.2200	595.	2315.	-692.	-1596.	-263.	968.	.0219	-.0155	-.0485	.1117	.0645	.1107	2663.
.2210	452.	1540.	-735.	-804.	-418.	685.	.0198	-.0242	-.0291	.0982	.0550	.0733	1605.
.2220	200.	675.	-772.	18.	-509.	407.	.0180	-.0332	-.0086	.0833	.0445	.0317	921.
.2230	-96.	-245.	-655.	793.	-504.	144.	.0164	-.0422	.0125	.0666	.0335	-.0127	1343.
.2240	-348.	-1100.	-265.	1438.	-392.	-157.	.0146	-.0506	.0335	.0483	.0226	-.0581	2116.
.2250	-663.	-1812.	122.	1929.	-270.	-498.	.0121	-.0584	.0541	.0295	.0102	-.1032	2840.
.2260	-1108.	-2377.	332.	2260.	-207.	-636.	.0085	-.0654	.0739	.0110	-.0040	-.1463	3416.
.2270	-1587.	-2829.	544.	2413.	-175.	-1132.	.0041	-.0712	.0923	-.0075	-.0187	-.1856	3773.

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INTERNAL FORCES IN THE PIPING
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SECTION	9	MEMBER	1	SEQUENCE	228	LOCATION	BEG	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.2280	-2054.	-3207.	814.	2422.	-161.	-1348.	-.0009	-.0757	.1088	-.0251	-.0324	-.2192	3922.		
.2290	-2505.	-3512.	1011.	2366.	-185.	-1472.	-.0064	-.0790	.1229	-.0400	-.0447	-.2457	3944.		
.2300	-2851.	-3695.	1155.	2290.	-240.	-1537.	-.0120	-.0813	.1343	-.0506	-.0552	-.2639	3910.		
.2310	-3068.	-3754.	1267.	2207.	-344.	-1551.	-.0177	-.0824	.1428	-.0570	-.0639	-.2729	3841.		
.2320	-3260.	-3785.	1168.	2147.	-557.	-1446.	-.0235	-.0822	.1485	-.0594	-.0714	-.2729	3740.		
.2330	-3422.	-3863.	800.	2144.	-878.	-1174.	-.0293	-.0809	.1512	-.0581	-.0780	-.2641	3669.		
.2340	-3449.	-3935.	326.	2195.	-1240.	-799.	-.0348	-.0785	.1510	-.0529	-.0827	-.2472	3736.		
.2350	-3380.	-3897.	-204.	2278.	-1611.	-414.	-.0396	-.0750	.1480	-.0437	-.0849	-.2232	3984.		
.2360	-3300.	-3739.	-791.	2376.	-1960.	-38.	-.0435	-.0706	.1423	-.0312	-.0837	-.1934	4350.		
.2370	-3149.	-3526.	-1240.	2468.	-2195.	366.	-.0459	-.0651	.1341	-.0165	-.0778	-.1597	4693.		
.2380	-2918.	-3273.	-1398.	2516.	-2261.	795.	-.0468	-.0586	.1237	-.0010	-.0667	-.1236	4909.		
.2390	-2732.	-2919.	-1354.	2485.	-2184.	1185.	-.0460	-.0510	.1113	.0146	-.0508	-.0870	4964.		
.2400	-2601.	-2408.	-1132.	2354.	-1964.	1474.	-.0437	-.0424	.0973	.0299	-.0311	-.0511	4804.		
.2410	-2388.	-1776.	-625.	2126.	-1560.	1664.	-.0398	-.0330	.0820	.0438	-.0082	-.0170	4405.		
.2420	-2098.	-1110.	90.	1820.	-1016.	1799.	-.0346	-.0229	.0656	.0553	.0162	.0142	3889.		
.2430	-1859.	-466.	771.	1448.	-445.	1875.	-.0286	-.0121	.0486	.0635	.0396	.0415	3427.		
.2440	-1670.	154.	1323.	1029.	93.	1928.	-.0222	-.0009	.0313	.0676	.0600	.0649	3090.		
.2450	-1441.	738.	1760.	608.	589.	1879.	-.0155	.0106	.0138	.0681	.0767	.0844	2910.		
.2460	-1130.	1247.	2072.	241.	1029.	1760.	-.0086	.0219	-.0036	.0652	.0894	.1000	2899.		
.2470	-719.	1643.	2265.	-46.	1398.	1590.	-.0016	.0330	-.0209	.0590	.0979	.1121	2990.		
.2480	-207.	1917.	2318.	-259.	1662.	1373.	.0052	.0437	-.0377	.0492	.1014	.1208	3067.		
.2490	296.	2092.	2088.	-413.	1756.	1110.	.0113	.0540	-.0537	.0359	.0991	.1265	2992.		
.2500	722.	2195.	1539.	-529.	1661.	800.	.0165	.0637	-.0688	.0196	.0913	.1292	2709.		
.2510	1206.	2250.	903.	-624.	1466.	452.	.0209	.0727	-.0828	.0007	.0793	.1294	2339.		
.2520	1827.	2274.	312.	-710.	1235.	81.	.0245	.0808	-.0956	-.0199	.0543	.1274	2016.		
.2530	2404.	2298.	-388.	-815.	923.	-303.	.0268	.0881	-.1069	-.0417	.0460	.1231	1792.		
.2540	2773.	2347.	-1244.	-977.	512.	-695.	.0278	.0943	-.1163	-.0647	.0249	.1172	1841.		
.2550	3003.	2401.	-2018.	-1193.	104.	-1065.	.0276	.0996	-.1240	-.0882	.0034	.1099	2264.		
.2560	3209.	2421.	-2520.	-1408.	-187.	-1363.	.0268	.1036	-.1298	-.1108	-.0163	.1019	2781.		
.2570	3369.	2421.	-2755.	-1577.	-331.	-1594.	.0256	.1061	-.1338	-.1309	-.0331	.0934	3201.		
.2580	3424.	2450.	-2724.	-1709.	-340.	-1804.	.0240	.1070	-.1360	-.1483	-.0466	.0852	3543.		
.2590	3375.	2471.	-2439.	-1801.	-223.	-1975.	.0221	.1066	-.1363	-.1630	-.0567	.0778	3789.		
.2600	3254.	2385.	-2000.	-1802.	0.	-2028.	.0199	.1048	-.1349	-.1747	-.0636	.0711	3833.		
.2610	3145.	2180.	-1444.	-1693.	315.	-1952.	.0175	.1017	-.1318	-.1830	-.0679	.0652	3677.		
.2620	3105.	1949.	-798.	-1510.	681.	-1822.	.0147	.0974	-.1271	-.1880	-.0703	.0602	3478.		
.2630	3068.	1733.	-257.	-1281.	1007.	-1675.	.0113	.0922	-.1210	-.1901	-.0723	.0563	3301.		
.2640	2980.	1473.	25.	-1013.	1228.	-1466.	.0072	.0863	-.1134	-.1897	-.0748	.0531	3057.		
.2650	2907.	1128.	167.	-724.	1365.	-1170.	.0025	.0800	-.1046	-.1878	-.0772	.0502	2738.		

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FORCES AND MOMENTS ACT ON THE PIPING

.2540	2777.	2347.	-44.	-977.	512.	-195.	.278	.0943	-.1163	-.0647	.0249	.1172	1841.
.2550	3003.	2401.	-2018.	-1193.	104.	-1065.	.276	.0996	-.1240	-.0887	.0034	.1099	2264.
.2560	3209.	2421.	-2520.	-1408.	-187.	-1363.	.0266	.1036	-.1298	-.1108	-.0163	.1019	2781.
.2570	3369.	2421.	-2755.	-1577.	-331.	-1594.	.0256	.1061	-.1338	-.1309	-.0331	.0934	3201.
.2580	3424.	2450.	-2724.	-1709.	-340.	-1804.	.0240	.1070	-.1360	-.1483	-.0466	.0852	3543.
.2590	3375.	2471.	-2439.	-1801.	-223.	-1975.	.0221	.1066	-.1363	-.1630	-.0567	.0778	3789.
.2600	3254.	2385.	-2000.	-1802.	0.	-2028.	.0199	.1048	-.1349	-.1747	-.0536	.0711	3833.
.2610	3145.	2180.	-1444.	-1693.	315.	-1952.	.0175	.1017	-.1318	-.1830	-.0579	.0652	3677.
.2620	3105.	1949.	-798.	-1510.	681.	-1822.	.0147	.0974	-.1271	-.1880	-.0703	.0602	3478.
.2630	3068.	1733.	-257.	-1281.	1007.	-1675.	.0113	.0922	-.1210	-.1901	-.0723	.0563	3301.
.2640	2980.	1473.	25.	-1013.	1228.	-1466.	.0072	.0863	-.1134	-.1897	-.0748	.0531	3057.
.2650	2907.	1128.	167.	-724.	1365.	-1170.	.0025	.0800	-.1046	-.1878	-.0772	.0502	2738.

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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	9	MEMBER	1	SEQUENCE	228	LOCATION	BEG	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.2660	2885.	753.	284.	-442.	1442.	-831.	-.0027	.0737	-.0946	-.1844	-.0786	.0476	2433.		
.2670	2822.	436.	301.	-178.	1433.	-511.	-.0081	.0673	-.0836	-.1793	-.0791	.0451	2164.		
.2680	2661.	203.	216.	63.	1336.	-236.	-.0139	.0609	-.0715	-.1724	-.0782	.0426	1921.		
.2690	2430.	7.	192.	273.	1202.	13.	-.0198	.0549	-.0586	-.1644	-.0752	.0400	1741.		
.2700	2120.	-210.	273.	459.	1043.	268.	-.0255	.0494	-.0448	-.1560	-.0700	.0370	1653.		
.2710	1677.	-440.	357.	640.	837.	522.	-.0312	.0444	-.0302	-.1469	-.0534	.0333	1661.		
.2720	1102.	-627.	406.	820.	575.	733.	-.0369	.0398	-.0150	-.1368	-.0563	.0290	1753.		
.2730	421.	-777.	442.	1001.	269.	891.	-.0425	.0358	.0007	-.1261	-.0491	.0239	1931.		
.2740	-369.	-972.	450.	1208.	-68.	1044.	-.0476	.0324	.0165	-.1152	-.0418	.0179	2258.		
.2750	-1188.	-1262.	481.	1464.	-393.	1222.	-.0519	.0296	.0322	-.1044	-.0340	.0110	2750.		
.2760	-1942.	-1591.	594.	1764.	-668.	1386.	-.0551	.0273	.0472	-.0933	-.0256	.0032	3306.		
.2770	-2638.	-1889.	714.	2090.	-906.	1484.	-.0572	.0256	.0612	-.0820	-.0169	-.0054	3840.		
.2780	-3267.	-2157.	776.	2424.	-1117.	1522.	-.0581	.0244	.0739	-.0710	-.0087	-.0150	4340.		
.2790	-3738.	-2439.	823.	2741.	-1277.	1532.	-.0579	.0239	.0848	-.0612	-.0009	-.0252	4789.		
.2800	-4017.	-2719.	840.	3011.	-1389.	1514.	-.0566	.0242	.0937	-.0530	.0059	-.0358	5149.		
.2810	-4168.	-2923.	713.	3200.	-1495.	1433.	-.0545	.0253	.1004	-.0464	.0110	-.0465	5383.		
.2820	-4212.	-3006.	435.	3289.	-1597.	1269.	-.0520	.0271	.1047	-.0415	.0142	-.0565	5466.		
.2830	-4116.	-2990.	121.	3278.	-1657.	1052.	-.0489	.0297	.1066	-.0381	.0165	-.0650	5396.		
.2840	-3911.	-2915.	-157.	3180.	-1652.	826.	-.0454	.0329	.1060	-.0362	.0188	-.0712	5194.		
.2850	-3661.	-2784.	-369.	3011.	-1580.	610.	-.0415	.0367	.1028	-.0353	.0220	-.0744	4880.		
.2860	-3381.	-2578.	-451.	2789.	-1433.	398.	-.0373	.0409	.0973	-.0348	.0266	-.0735	4465.		
.2870	-3076.	-2304.	-384.	2536.	-1217.	201.	-.0331	.0454	.0895	-.0342	.0325	-.0682	3983.		
.2880	-2779.	-1995.	-217.	2269.	-962.	49.	-.0292	.0499	.0797	-.0334	.0393	-.0579	3482.		
.2890	-2494.	-1680.	12.	1992.	-702.	-34.	-.0256	.0545	.0681	-.0325	.0462	-.0428	2984.		
.2900	-2213.	-1365.	254.	1704.	-469.	-45.	-.0228	.0590	.0549	-.0316	.0521	-.0233	2497.		
.2910	-1949.	-1040.	419.	1403.	-299.	3.	-.0209	.0634	.0405	-.0306	.0560	.0002	2026.		
.2920	-1694.	-696.	472.	1086.	-201.	92.	-.0199	.0675	.0251	-.0295	.0574	.0267	1565.		
.2930	-1388.	-340.	477.	746.	-142.	217.	-.0194	.0713	.0089	-.0285	.0566	.0552	1115.		
.2940	-1006.	8.	464.	384.	-101.	379.	-.0194	.0748	-.0079	-.0280	.0536	.0845	775.		
.2950	-580.	344.	395.	-2.	-75.	563.	-.0197	.0779	-.0248	-.0281	.0484	.1132	802.		
.2960	-120.	684.	279.	-418.	-51.	736.	-.0200	.0805	-.0415	-.0289	.0411	.1400	1198.		
.2970	402.	1026.	167.	-865.	-0.	876.	-.0201	.0826	-.0577	-.0308	.0320	.1639	1739.		
.2980	988.	1347.	58.	-1325.	89.	980.	-.0199	.0843	-.0730	-.0338	.0214	.1837	2331.		
.2990	1603.	1631.	-78.	-1787.	207.	1036.	-.0194	.0853	-.0871	-.0380	.0091	.1986	2933.		
.3000	2210.	1888.	-244.	-2247.	342.	1025.	-.0186	.0857	-.0995	-.0434	-.0044	.2082	3521.		
.3010	2778.	2112.	-438.	-2687.	486.	939.	-.0173	.0855	-.1099	-.0498	-.0188	.2123	4078.		
.3020	3287.	2275.	-643.	-3076.	637.	797.	-.0155	.0846	-.1181	-.0566	-.0332	.2109	4578.		
.3030	3736.	2362.	-797.	-3393.	806.	611.	-.0131	.0829	-.1240	-.0635	-.0462	.2044	5000.		

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

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

.2920	-1694.	-696.	72.	1006.	-201.	92.	-159	.0675	.0251	-.0295	.0574	.0267	1565.
.2930	-1388.	-340.	477.	746.	-142.	217.	-.194	.0713	.0089	-.0285	.0566	.0552	1115.
.2940	-1066.	8.	464.	384.	-101.	379.	-.0194	.0748	-.0079	-.0280	.0536	.0845	775.
.2950	-580.	344.	395.	-2.	-75.	563.	-.0197	.0777	-.0248	-.0281	.0484	.1132	802.
.2960	-120.	684.	275.	-419.	-51.	736.	-.0200	.0805	-.0415	-.0289	.0411	.1400	1198.
.2970	402.	1026.	167.	-865.	-0.	876.	-.0201	.0826	-.0577	-.0308	.0320	.1635	1739.
.2980	988.	1347.	58.	-1225.	89.	900.	-.0199	.0843	-.0730	-.0338	.0214	.1837	2331.
.2990	1603.	1631.	-78.	-1787.	207.	1036.	-.0194	.0853	-.0871	-.0380	.0091	.1986	2933.
.3000	2210.	1888.	-244.	-2247.	342.	1025.	-.0186	.0857	-.0995	-.0434	-.0344	.2082	3521.
.3010	2778.	2112.	-438.	-2687.	486.	939.	-.0173	.0855	-.1099	-.0498	-.0188	.2123	4078.
.3020	3287.	2275.	-643.	-3076.	637.	797.	-.0155	.0846	-.1181	-.0566	-.0332	.2109	4578.
.3030	3736.	2362.	-797.	-3393.	806.	611.	-.0131	.0829	-.1240	-.0635	-.0462	.2044	5000.

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

SECTION	9	MEMBER	1	SEQUENCE	228	LOCATION	BEG	TYPE	RU						
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)		
.3040	4114.	2381.	-857.	-3626.	986.	381.	-.0102	.0805	-.1273	-.0697	-.0571	.1933	5334.		
.3050	4376.	2341.	-858.	-3767.	1150.	120.	-.0067	.0772	-.1281	-.0749	-.0654	.1783	5566.		
.3060	4502.	2237.	-830.	-3813.	1275.	-144.	-.0029	.0732	-.1263	-.0785	-.0708	.1602	5682.		
.3070	4509.	2065.	-759.	-3771.	1344.	-394.	.0010	.0684	-.1221	-.0803	-.0733	.1398	5682.		
.3080	4408.	1845.	-661.	-3653.	1350.	-624.	.0049	.0629	-.1155	-.0800	-.0730	.1180	5570.		
.3090	4190.	1606.	-597.	-3469.	1271.	-835.	.0084	.0567	-.1067	-.0772	-.0705	.0956	5350.		
.3100	3865.	1367.	-593.	-3233.	1104.	-1021.	.0113	.0499	-.0960	-.0718	-.0662	.0734	5036.		
.3110	3452.	1127.	-627.	-2957.	865.	-1169.	.0136	.0425	-.0836	-.0637	-.0602	.0521	4655.		
.3120	2963.	877.	-686.	-2647.	578.	-1262.	.0152	.0346	-.0698	-.0532	-.0527	.0324	4222.		
.3130	2415.	623.	-755.	-2304.	269.	-1296.	.0160	.0262	-.0549	-.0399	-.0439	.0146	3754.		
.3140	1838.	381.	-798.	-1934.	-28.	-1279.	.0163	.0173	-.0392	-.0241	-.0338	-.0008	3276.		
.3150	1244.	157.	-801.	-1546.	-292.	-1215.	.0159	.0081	-.0231	-.0060	-.0226	-.0136	2808.		
.3160	640.	-64.	-764.	-1147.	-512.	-1093.	.0149	-.0015	-.0067	.0139	-.0106	-.0240	2352.		
.3170	44.	-293.	-691.	-747.	-680.	-908.	.0134	-.0112	.0096	.0352	.0016	-.0319	1919.		
.3180	-534.	-517.	-594.	-360.	-801.	-677.	.0114	-.0211	.0256	.0572	.0137	-.0377	1566.		
.3190	-1090.	-714.	-489.	-3.	-881.	-424.	.0090	-.0309	.0411	.0794	.0253	-.0417	1381.		
.3200	-1615.	-874.	-379.	316.	-926.	-162.	.0064	-.0407	.0559	.1014	.0363	-.0441	1400.		
.3210	-2084.	-1006.	-241.	591.	-933.	109.	.0036	-.0503	.0698	.1227	.0468	-.0456	1568.		
.3220	-2503.	-1116.	-75.	819.	-912.	384.	.0008	-.0597	.0825	.1428	.0567	-.0464	1814.		
.3230	-2895.	-1196.	100.	994.	-879.	648.	-.0017	-.0688	.0940	.1612	.0662	-.0470	2086.		
.3240	-3251.	-1237.	294.	1122.	-838.	885.	-.0038	-.0775	.1042	.1778	.0751	-.0477	2339.		
.3250	-3539.	-1248.	528.	1218.	-781.	1093.	-.0053	-.0859	.1128	.1926	.0835	-.0488	2561.		
.3260	-3766.	-1244.	781.	1292.	-721.	1274.	-.0061	-.0938	.1200	.2052	.0911	-.0506	2758.		
.3270	-3951.	-1241.	1013.	1349.	-675.	1423.	-.0063	-.1012	.1255	.2152	.0972	-.0534	2929.		
.3280	-4084.	-1240.	1203.	1397.	-650.	1529.	-.0058	-.1081	.1295	.2225	.1014	-.0573	3066.		
.3290	-4155.	-1243.	1326.	1446.	-648.	1585.	-.0046	-.1144	.1318	.2269	.1031	-.0626	3166.		
.3300	-4162.	-1252.	1368.	1502.	-668.	1585.	-.0027	-.1201	.1326	.2286	.1022	-.0693	3225.		
.3310	-4087.	-1272.	1347.	1561.	-697.	1523.	-.0002	-.1251	.1317	.2272	.0984	-.0774	3235.		
.3320	-3932.	-1305.	1267.	1619.	-728.	1401.	.0031	-.1294	.1292	.2228	.0919	-.0869	3194.		
.3330	-3715.	-1340.	1116.	1664.	-758.	1214.	.0069	-.1330	.1251	.2153	.0828	-.0978	3100.		
.3340	-3432.	-1362.	919.	1683.	-774.	962.	.0114	-.1357	.1194	.2050	.0716	-.1098	2949.		
.3350	-3056.	-1361.	730.	1665.	-754.	653.	.0164	-.1375	.1122	.1921	.0588	-.1226	2741.		
.3360	-2593.	-1333.	545.	1596.	-700.	299.	.0218	-.1385	.1036	.1769	.0448	-.1358	2498.		
.3370	-2083.	-1267.	330.	1463.	-627.	-88.	.0275	-.1386	.0937	.1598	.0297	-.1491	2252.		
.3380	-1541.	-1154.	93.	1256.	-544.	-497.	.0331	-.1377	.0826	.1411	.0139	-.1617	2057.		
.3390	-965.	-995.	-146.	982.	-447.	-907.	.0387	-.1361	.0705	.1217	-.0020	-.1730	1991.		
.3400	-368.	-795.	-380.	659.	-335.	-1296.	.0440	-.1338	.0576	.1022	-.0175	-.1824	2108.		
.3410	222.	-557.	-598.	302.	-212.	-1652.	.0489	-.1308	.0442	.0836	-.0320	-.1891	2391.		

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

.3310	-4087.	-1272.	347.	1561.	-697.	1523.	-.0002	-.1251	.1317	.2272	.0984	-.0774	3235.
.3320	-3932.	-1305.	1267.	1619.	-728.	1401.	.0331	-.1294	.1292	.2228	.0919	-.0869	3194.
.3330	-3715.	-1340.	1116.	1664.	-758.	1214.	.0069	-.1330	.1251	.2153	.0828	-.0978	3100.
.3340	-3432.	-1362.	919.	1687.	-774.	962.	.0114	-.1357	.1194	.2050	.0716	-.1098	2949.
.3350	-3056.	-1361.	736.	1667.	-754.	653.	.0164	-.1375	.1122	.1921	.0588	-.1226	2741.
.3360	-2593.	-1333.	541.	1596.	-700.	299.	.0218	-.1385	.1036	.1769	.0448	-.1358	2498.
.3370	-2083.	-1267.	330.	1463.	-627.	-88.	.0275	-.1386	.0937	.1598	.0297	-.1491	2252.
.3380	-1541.	-1154.	93.	1256.	-544.	-497.	.0331	-.1377	.0826	.1411	.0139	-.1617	2057.
.3390	-965.	-995.	-146.	982.	-447.	-907.	.0387	-.1361	.0705	.1217	-.0020	-.1730	1991.
.3400	-368.	-795.	-380.	659.	-335.	-1296.	.0440	-.1338	.0576	.1022	-.0175	-.1824	2108.
.3410	222.	-557.	-598.	302.	-212.	-1652.	.0489	-.1308	.0442	.0836	-.0320	-.1891	2391.

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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	9	MEMBER	1	SEQUENCE	228	LOCATION	BEG	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.3420	781.	-287.	-772.	-68.	-74.	-1964.	.0534	-.1273	.0304	.0663	-.0447	-.1926	2777.		
.3430	1291.	-4.	-889.	-423.	82.	-2213.	.0574	-.1235	.0165	.0512	-.0551	-.1923	3185.		
.3440	1742.	277.	-936.	-737.	260.	-2386.	.0610	-.1194	.0026	.0388	-.0526	-.1879	3547.		
.3450	2139.	555.	-893.	-993.	462.	-2485.	.0642	-.1152	-.0109	.0295	-.0569	-.1794	3837.		
.3460	2477.	828.	-773.	-1187.	679.	-2515.	.0668	-.1108	-.0239	.0234	-.0681	-.1669	4044.		
.3470	2738.	1090.	-634.	-1317.	884.	-2478.	.0688	-.1065	-.0362	.0204	-.0566	-.1509	4155.		
.3480	2919.	1335.	-506.	-1359.	1061.	-2378.	.0701	-.1021	-.0476	.0202	-.0529	-.1320	4169.		
.3490	3047.	1565.	-384.	-1417.	1207.	-2231.	.0709	-.0977	-.0578	.0224	-.0572	-.1111	4104.		
.3500	3136.	1784.	-283.	-1413.	1314.	-2050.	.0710	-.0933	-.0667	.0264	-.0500	-.0890	3977.		
.3510	3183.	1997.	-229.	-1388.	1373.	-1850.	.0706	-.0890	-.0742	.0319	-.0417	-.0668	3799.		
.3520	3184.	2202.	-216.	-1354.	1385.	-1645.	.0696	-.0846	-.0801	.0383	-.0326	-.0454	3589.		
.3530	3146.	2385.	-220.	-1321.	1359.	-1441.	.0683	-.0803	-.0842	.0450	-.0229	-.0257	3363.		
.3540	3072.	2535.	-227.	-1285.	1308.	-1241.	.0666	-.0762	-.0866	.0516	-.0129	-.0085	3127.		
.3550	2967.	2646.	-224.	-1243.	1242.	-1051.	.0647	-.0721	-.0870	.0580	-.0027	-.0056	2893.		
.3560	2824.	2718.	-201.	-1193.	1169.	-884.	.0625	-.0683	-.0854	.0637	.0072	.0161	2669.		
.3570	2626.	2738.	-168.	-1170.	1087.	-738.	.0600	-.0648	-.0819	.0685	.0163	.0228	2448.		
.3580	2364.	2689.	-129.	-1046.	1001.	-606.	.0573	-.0615	-.0764	.0722	.0243	.0256	2217.		
.3590	2055.	2563.	-67.	-930.	922.	-485.	.0545	-.0585	-.0691	.0748	.0311	.0244	1973.		
.3600	1712.	2372.	32.	-780.	855.	-385.	.0514	-.0558	-.0601	.0763	.0366	.0197	1723.		
.3610	1324.	2130.	149.	-594.	795.	-311.	.0481	-.0535	-.0496	.0768	.0406	.0118	1469.		
.3620	928.	1841.	270.	-374.	735.	-262.	.0446	-.0515	-.0379	.0762	.0431	.0011	1222.		
.3630	515.	1507.	391.	-126.	671.	-231.	.0409	-.0497	-.0253	.0745	.0440	-.0117	1019.		
.3640	109.	1141.	496.	141.	594.	-217.	.0370	-.0481	-.0122	.0716	.0433	-.0260	915.		
.3650	-279.	764.	555.	419.	489.	-222.	.0328	-.0466	.0012	.0677	.0410	-.0413	962.		
.3660	-639.	391.	550.	677.	349.	-244.	.0282	-.0452	.0146	.0628	.0371	-.0567	1153.		
.3670	-968.	26.	476.	966.	169.	-275.	.0233	-.0438	.0275	.0569	.0317	-.0716	1439.		
.3680	-1271.	-335.	336.	1222.	-48.	-299.	.0180	-.0422	.0399	.0500	.0253	-.0854	1778.		
.3690	-1542.	-690.	158.	1462.	-257.	-309.	.0126	-.0404	.0513	.0423	.0184	-.0976	2149.		
.3700	-1774.	-1027.	-22.	1684.	-527.	-303.	.0069	-.0384	.0616	.0340	.0116	-.1074	2529.		
.3710	-1974.	-1336.	-179.	1886.	-753.	-282.	.0012	-.0360	.0705	.0253	.0053	-.1146	2895.		
.3720	-2152.	-1618.	-290.	2063.	-947.	-239.	-.0045	-.0333	.0779	.0163	-.0000	-.1189	3224.		
.3730	-2305.	-1876.	-333.	2210.	-1095.	-170.	-.0102	-.0301	.0836	.0071	-.0042	-.1199	3492.		
.3740	-2431.	-2105.	-300.	2321.	-1187.	-73.	-.0157	-.0263	.0877	-.0024	-.0072	-.1178	3683.		
.3750	-2530.	-2285.	-205.	2386.	-1222.	39.	-.0211	-.0220	.0899	-.0118	-.0093	-.1125	3787.		
.3760	-2601.	-2406.	-63.	2398.	-1204.	160.	-.0262	-.0171	.0903	-.0212	-.0105	-.1043	3798.		
.3770	-2633.	-2468.	120.	2354.	-1134.	290.	-.0312	-.0114	.0889	-.0304	-.0111	-.0933	3713.		
.3780	-2618.	-2478.	330.	2252.	-1017.	427.	-.0358	-.0051	.0857	-.0395	-.0113	-.0798	3542.		
.3790	-2551.	-2430.	545.	2096.	-865.	565.	-.0401	.0020	.0808	-.0484	-.0114	-.0641	3300.		

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.3690	-1542.	-690.	158.	1462.	-287.	-309.	.0126	-.0404	.0513	.0423	.0184	-.0976	2149.
.3700	-1774.	-1027.	-22.	1684.	-527.	-303.	.0069	-.0384	.0616	.0340	.0116	-.1074	2529.
.3710	-1974.	-1336.	-179.	1886.	-753.	-282.	.0012	-.0360	.0705	.0253	.0053	-.1146	2895.
.3720	-2152.	-1618.	-290.	2063.	-947.	-239.	-.0045	-.0333	.0779	.0163	-.0000	-.1189	3224.
.3730	-2305.	-1876.	-333.	2210.	-1095.	-170.	-.0102	-.0301	.0836	.0071	-.0042	-.1199	3492.
.3740	-2431.	-2105.	-300.	2321.	-1187.	-73.	-.0157	-.0263	.0877	-.0024	-.0072	-.1178	3683.
.3750	-2530.	-2285.	-205.	2386.	-1222.	39.	-.0211	-.0220	.0899	-.0118	-.0093	-.1125	3787.
.3760	-2601.	-2406.	-63.	2398.	-1204.	160.	-.0262	-.0171	.0903	-.0212	-.0105	-.1043	3798.
.3770	-2633.	-2468.	120.	2354.	-1134.	290.	-.0312	-.0114	.0889	-.0304	-.0111	-.0933	3713.
.3780	-2618.	-2478.	330.	2252.	-1017.	427.	-.0358	-.0051	.0857	-.0395	-.0113	-.0798	3542.
.3790	-2551.	-2430.	545.	2096.	-865.	565.	-.0401	.0020	.0808	-.0484	-.0114	-.0641	3300.

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SECTION	9	MEMBER	1	SEQUENCE	228	LOCATION	BEG	TYPE	RU					
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.3800	-2422.	-2315.	751.	1891.	-689.	691.	-.0439	.0097	.0742	-.0568	-.0115	-.0466	3006.	
.3810	-2226.	-2141.	927.	1650.	-502.	803.	-.0472	.0181	.0660	-.0645	-.0119	-.0275	2687.	
.3820	-1970.	-1926.	1049.	1386.	-322.	903.	-.0500	.0270	.0566	-.0717	-.0128	-.0074	2380.	
.3830	-1665.	-1688.	1098.	1110.	-164.	993.	-.0522	.0364	.0460	-.0784	-.0142	.0135	2116.	
.3840	-1319.	-1436.	1069.	834.	-40.	1069.	-.0539	.0463	.0345	-.0845	-.0163	.0347	1916.	
.3850	-943.	-1177.	957.	570.	45.	1126.	-.0551	.0566	.0223	-.0901	-.0190	.0558	1784.	
.3860	-557.	-917.	769.	327.	87.	1161.	-.0556	.0671	.0097	-.0952	-.0221	.0765	1708.	
.3870	-177.	-670.	529.	106.	93.	1176.	-.0556	.0778	-.0030	-.0999	-.0252	.0962	1673.	
.3880	179.	-445.	268.	-94.	73.	1172.	-.0549	.0886	-.0158	-.1046	-.0279	.1146	1664.	
.3890	504.	-239.	12.	-277.	38.	1143.	-.0536	.0994	-.0282	-.1092	-.0298	.1315	1661.	
.3900	794.	-40.	-214.	-449.	2.	1082.	-.0518	.1100	-.0403	-.1139	-.0307	.1464	1655.	
.3910	1050.	157.	-390.	-620.	-26.	989.	-.0494	.1205	-.0517	-.1186	-.0305	.1591	1649.	
.3920	1266.	345.	-520.	-790.	-43.	871.	-.0466	.1306	-.0624	-.1236	-.0291	.1696	1669.	
.3930	1440.	525.	-615.	-990.	-51.	730.	-.0435	.1404	-.0723	-.1289	-.0269	.1779	1739.	
.3940	1583.	705.	-681.	-1198.	-46.	567.	-.0403	.1495	-.0812	-.1344	-.0241	.1841	1873.	
.3950	1710.	896.	-723.	-1415.	-27.	383.	-.0372	.1580	-.0891	-.1397	-.0209	.1885	2072.	
.3960	1826.	1087.	-752.	-1631.	4.	193.	-.0342	.1655	-.0960	-.1445	-.0175	.1913	2320.	
.3970	1924.	1260.	-777.	-1833.	46.	16.	-.0314	.1721	-.1017	-.1487	-.0141	.1931	2590.	
.3980	2006.	1402.	-790.	-2007.	98.	-135.	-.0290	.1776	-.1062	-.1519	-.0108	.1943	2845.	
.3990	2078.	1510.	-784.	-2137.	164.	-248.	-.0271	.1817	-.1095	-.1538	-.0074	.1954	3047.	
.4000	2147.	1584.	-754.	-2209.	242.	-317.	-.0256	.1845	-.1115	-.1539	-.0041	.1966	3171.	

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)
.0640	-2870.	-8332.	1310.	7375.	-53.	651.	.0761	.1112	-.1514	.2555	.1095	.2315	10458.

SECTION	9	MEMBER	1	SEQUENCE	28	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	2.	-1.	-1.	-0.	1.	0.	-.0000	-.0000	-.0000	.0000	.0000	-.0000	1.	
.0020	6.	-9.	-8.	1.	2.	1.	-.0000	.0000	-.0001	.0000	.0002	.0000	3.	
.0030	1.	-26.	-30.	11.	-2.	2.	-.0000	.0001	-.0004	-.0000	.0006	.0004	16.	

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.0640 -2870. -8332. 310. 7375. -53. 651. .761 .1112 -1.1514 .2555 .1095 .2315 10458.

SECTION TIME (SEC)	MEMBER 9 FX (LB)	MEMBER 1 FY (LB)	SEQUENCE 28 FZ (LB)	SEQUENCE 28 FX (FT-LB)	SEQUENCE 28 MY (FT-LB)	LOCATION END MZ (FT-LB)	LOCATION END DX (IN)	TYPE RU DY (IN)	RU 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	2.	-1.	-1.	-0.	1.	0.	-0.0000	-0.0000	-0.0000	.0000	.0000	-0.0000	1.
.0020	6.	-9.	-8.	1.	2.	1.	-0.0000	.0000	-0.0001	.0000	.0002	.0000	3.
.0030	1.	-26.	-30.	11.	-2.	2.	-0.0000	.0001	-0.0004	-0.0000	.0006	.0004	16.

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SECTION TIME (SEC)	MEMBER 9 FX (LB)	MEMBER 1 FY (LB)	SEQUENCE 28 FZ (LB)	SEQUENCE 28 MX (FT-LB)	SEQUENCE 28 MY (FT-LB)	LOCATION END MZ (FT-LB)	LOCATION END DX (IN)	TYPE RU DY (IN)	RU DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
.0040	-20.	-53.	-67.	74.	-13.	-1.	-0.0000	.0003	-0.0010	-0.0003	.0014	.0013	52.
.0050	-53.	-90.	-111.	70.	-26.	-13.	-0.0001	.0006	-0.0019	-0.0008	.0024	.0027	107.
.0060	-109.	-145.	-168.	119.	-38.	-32.	-0.0003	.0011	-0.0033	-0.0015	.0035	.0048	182.
.0070	-197.	-229.	-262.	191.	-60.	-50.	-0.0006	.0019	-0.0053	-0.0026	.0051	.0080	291.
.0080	-340.	-343.	-471.	293.	-128.	-72.	-0.0006	.0032	-0.0083	-0.0042	.0086	.0131	462.
.0090	-635.	-468.	-928.	412.	-301.	-117.	-0.0001	.0049	-0.0128	-0.0064	.0154	.0207	739.
.0100	-1047.	-605.	-1557.	530.	-559.	-191.	.0011	.0071	-0.0187	-0.0086	.0254	.0307	1121.
.0110	-1396.	-781.	-2123.	649.	-802.	-263.	.0028	.0097	-0.0259	-0.0109	.0371	.0426	1504.
.0120	-1603.	-998.	-2516.	769.	-975.	-304.	.0048	.0126	-0.0339	-0.0134	.0490	.0558	1806.
.0130	-1769.	-1205.	-2774.	852.	-1096.	-334.	.0071	.0158	-0.0424	-0.0158	.0604	.0695	2016.
.0140	-2044.	-1372.	-2942.	863.	-1196.	-374.	.0097	.0188	-0.0514	-0.0174	.0705	.0829	2149.
.0150	-2493.	-1541.	-3028.	819.	-1273.	-390.	.0124	.0217	-0.0608	-0.0184	.0782	.0959	2208.
.0160	-3218.	-1740.	-3197.	757.	-1374.	-362.	.0153	.0245	-0.0706	-0.0191	.0842	.1083	2273.
.0170	-3952.	-1964.	-3190.	714.	-1415.	-298.	.0179	.0275	-0.0810	-0.0204	.0876	.1204	2278.
.0180	-4061.	-2222.	-2387.	764.	-1169.	-183.	.0199	.0309	-0.0911	-0.0237	.0866	.1324	1989.
.0190	-3250.	-2505.	-836.	942.	-603.	3.	.0215	.0348	-0.1005	-0.0295	.0831	.1435	1580.
.0200	-1407.	-2730.	947.	1166.	93.	222.	.0248	.0386	-0.1087	-0.0361	.0842	.1519	1681.
.0210	347.	-2713.	1460.	1162.	235.	316.	.0331	.0408	-0.1164	-0.0380	.1012	.1559	1732.
.0220	895.	-2497.	687.	767.	-314.	259.	.0450	.0400	-0.1221	-0.0304	.1257	.1531	1226.
.0230	1210.	-2416.	97.	278.	-809.	380.	.0565	.0367	-0.1231	-0.0175	.1411	.1403	1321.
.0240	400.	-2283.	-1775.	-171.	-1575.	610.	.0679	.0312	-0.1205	-0.0040	.1499	.1155	2397.
.0250	-538.	-1870.	-3072.	-537.	-2170.	736.	.0772	.0242	-0.1147	.0075	.1455	.0820	3324.
.0260	1525.	-1651.	535.	-487.	-1108.	1058.	.0787	.0169	-0.1027	.0132	.1065	.0437	2271.
.0270	4104.	-1813.	5243.	-17.	617.	1688.	.0744	.0087	-0.0846	.0141	.0433	-0.0032	2539.
.0280	3154.	-1680.	4715.	230.	626.	2049.	.0744	-0.0030	-0.0666	.0198	-0.0011	-0.0603	3043.
.0290	643.	-1115.	2209.	-62.	-626.	1953.	.0789	-0.0183	-0.0502	.0367	-0.0236	-0.1171	2898.
.0300	-1962.	-1012.	505.	-280.	-1963.	2176.	.0816	-0.0343	-0.0325	.0567	-0.0480	-0.1633	4158.
.0310	-3714.	-1622.	-1016.	30.	-2693.	2909.	.0794	-0.0492	-0.0138	.0697	-0.0797	-0.2053	5599.
.0320	-2239.	-1983.	465.	727.	-1818.	3323.	.0696	-0.0622	.0070	.0696	-0.1260	-0.2455	5447.
.0330	-1425.	-1181.	2139.	1195.	-1033.	2674.	.0579	-0.0739	.0271	.0628	-0.1692	-0.2745	4387.
.0340	-4046.	-40.	1047.	1167.	-1411.	1645.	.0470	-0.0865	.0449	.0609	-0.1990	-0.2907	3476.
.0350	-5618.	41.	1081.	977.	-1041.	1426.	.0311	-0.1004	.0631	.0657	-0.2328	-0.3002	2851.
.0360	-3422.	-502.	4492.	958.	935.	1871.	.0090	-0.1125	.0835	.0645	-0.2744	-0.2999	3249.
.0370	-1825.	211.	6393.	741.	2340.	1558.	-0.0112	-0.1214	.1033	.0512	-0.2971	-0.2853	4106.
.0380	-2984.	2532.	4889.	-276.	2285.	-65.	-0.0273	-0.1304	.1208	.0385	-0.2941	-0.2670	3252.
.0390	-2452.	4335.	4670.	-1624.	2721.	-1478.	-0.0456	-0.1404	.1385	.0336	-0.2877	-0.2520	4939.
.0400	1471.	4237.	5788.	-2226.	3873.	-1257.	-0.0634	-0.1469	.1562	.0242	-0.2596	-0.2289	6554.
.0410	3149.	4192.	3052.	-2633.	3385.	-849.	-0.0729	-0.1494	.1701	.0098	-0.2189	-0.1965	6175.

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.0310	-3714.	-1822.	016.	30.	-2693.	2909.	.774.	-.0492	-.0138	.0697	-.0797	-.2053	5599.
.0320	-2239.	-1983.	465.	727.	-1818.	3323.	.696	-.0622	.0070	.0696	-.1260	-.2455	5447.
.0330	-1425.	-1181.	2139.	1195.	-1033.	2674.	.0579	-.0739	.0271	.0628	-.1692	-.2745	4387.
.0340	-4046.	-40.	1047.	1167.	-1411.	1645.	.0470	-.0865	.0449	.0609	-.1290	-.2907	3476.
.0350	-5618.	41.	1001.	977.	-1041.	1426.	.0311	-.1004	.0631	.0657	-.2328	-.3002	2851.
.0360	-3422.	-502.	4492.	958.	935.	1871.	.0090	-.1125	.0835	.0645	-.2744	-.2999	3249.
.0370	-1825.	211.	6393.	741.	2340.	1558.	-.0112	-.1214	.1033	.0512	-.2971	-.2853	4106.
.0380	-2984.	2532.	4889.	-276.	2285.	-65.	-.0273	-.1304	.1208	.0385	-.2941	-.2670	3252.
.0390	-2452.	4335.	4670.	-1624.	2721.	-1478.	-.0456	-.1404	.1385	.0336	-.2877	-.2520	4939.
.0400	1471.	4237.	5788.	-2226.	3873.	-1257.	-.0674	-.1469	.1562	.0242	-.2596	-.2289	6554.
.0410	3149.	4192.	3052.	-2633.	3385.	-849.	-.0729	-.1494	.1701	.0098	-.2189	-.1965	6175.

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INTERNAL FORCES IN THE PIPING
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SECTION	9	MEMBER	1	SEQUENCE	28	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ									STRESS
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.0420	2977.	5869.	-1115.	-3790.	1770.	-1926.	-.0766	-.1517	.1799	.0017	-.1496	-.1728	6505.		
.0430	5363.	7447.	-3015.	-4719.	971.	-3127.	-.0791	-.1516	.1874	-.0071	-.0800	-.1601	8113.		
.0440	7807.	6978.	-5914.	-4310.	178.	-2707.	-.0778	-.1452	.1915	-.0257	-.0058	-.1435	7193.		
.0450	7583.	5708.	-9438.	-3601.	-1136.	-1770.	-.0735	-.1361	.1910	-.0388	.0516	-.1254	5890.		
.0460	7078.	5282.	-9333.	-3536.	-1617.	-1709.	-.0717	-.1279	.1874	-.0378	.0999	-.1192	5999.		
.0470	8028.	4966.	-7014.	-3036.	-908.	-1563.	-.0712	-.1157	.1817	-.0438	.1166	-.1175	4991.		
.0480	8116.	4073.	-6336.	-1677.	-304.	-660.	-.0670	-.0973	.1730	-.0620	.1310	-.1057	2582.		
.0490	6519.	3497.	-5270.	-1034.	-24.	-202.	-.0603	-.0803	.1605	-.0616	.1373	-.0905	1488.		
.0500	5357.	3305.	-1856.	-1566.	636.	-403.	-.0534	-.0677	.1455	-.0328	.1317	-.0799	2454.		
.0510	4896.	2600.	9.	-1854.	1197.	-54.	-.0427	-.0532	.1285	-.0029	.1346	-.0627	3118.		
.0520	3977.	2062.	-920.	-1734.	1042.	445.	-.0269	-.0347	.1095	.0191	.1527	-.0328	2926.		
.0530	3035.	2810.	-665.	-2389.	771.	-255.	-.0108	-.0179	.0892	.0536	.1669	-.0025	3563.		
.0540	2570.	3512.	813.	-3344.	773.	-1240.	.0030	-.0036	.0681	.1005	.1716	.0230	5154.		
.0550	2154.	2431.	549.	-3116.	762.	-866.	.0160	.0136	.0465	.1385	.1762	.0526	4694.		
.0560	2013.	696.	383.	-2054.	956.	-74.	.0266	.0330	.0247	.1663	.1741	.0845	3202.		
.0570	2234.	46.	2479.	-1253.	1540.	-409.	.0335	.0502	.0029	.1949	.1588	.1082	2863.		
.0580	1951.	-479.	3763.	-182.	1913.	-901.	.0398	.0666	-.0199	.2174	.1449	.1265	2998.		
.0590	1246.	-2403.	2773.	1833.	1873.	-175.	.0474	.0836	-.0434	.2276	.1410	.1485	3710.		
.0600	853.	-4887.	2639.	3829.	1890.	852.	.0539	.0970	-.0669	.2395	.1350	.1698	6150.		
.0610	323.	-6505.	3618.	5019.	1825.	1005.	.0592	.1045	-.0902	.2576	.1254	.1841	7676.		
.0620	-1059.	-7394.	2672.	6024.	1160.	798.	.0661	.1096	-.1130	.2652	.1238	.1975	8738.		
.0630	-2284.	-8061.	918.	7072.	350.	811.	.0730	.1132	-.1337	.2590	.1238	.2153	10066.		
.0640	-2870.	-8332.	1310.	7363.	-47.	658.	.0762	.1111	-.1514	.2557	.1095	.2316	10441.		
.0650	-4136.	-8268.	2272.	6809.	-491.	322.	.0763	.1028	-.1663	.2577	.0843	.2425	9653.		
.0660	-6087.	-8123.	1818.	6191.	-1224.	219.	.0752	.0925	-.1778	.2485	.0583	.2526	8919.		
.0670	-6898.	-7461.	1981.	5595.	-1610.	38.	.0716	.0816	-.1847	.2234	.0285	.2616	8224.		
.0680	-6649.	-5976.	3389.	4553.	-1682.	-616.	.0654	.0677	-.1873	.1932	-.0038	.2629	6912.		
.0690	-7077.	-4530.	3160.	3299.	-2291.	-1102.	.0601	.0511	-.1872	.1615	-.0238	.2561	5883.		
.0700	-7912.	-3913.	885.	2407.	-3420.	-795.	.0565	.0341	-.1845	.1237	-.0269	.2452	6013.		
.0710	-7910.	-3558.	-984.	1839.	-4315.	-269.	.0519	.0173	-.1782	.0786	-.0252	.2277	6637.		
.0720	-7398.	-2688.	-2059.	1409.	-4751.	-216.	.0443	.0007	-.1679	.0265	-.0277	.1974	7007.		
.0730	-6617.	-1661.	-3012.	1414.	-4705.	-277.	.0340	-.0141	-.1536	-.0353	-.0356	.1559	6951.		
.0740	-4996.	-1148.	-3058.	1993.	-4001.	137.	.0216	-.0266	-.1354	-.1032	-.0498	.1099	6317.		
.0750	-3472.	-993.	-2386.	2643.	-3033.	843.	.0086	-.0385	-.1145	-.1655	-.0583	.0613	5806.		
.0760	-3207.	-701.	-2328.	2938.	-2292.	1420.	-.0033	-.0513	-.0917	-.2156	-.0867	.0077	5633.		
.0770	-2871.	-186.	-2158.	3034.	-1356.	1862.	-.0144	-.0635	-.0665	-.2576	-.1075	-.0484	5380.		
.0780	-1073.	523.	-618.	3072.	150.	2245.	-.0248	-.0738	-.0384	-.2942	-.1324	-.1010	5378.		
.0790	623.	1595.	778.	2693.	1440.	2379.	-.0319	-.0837	-.0093	-.3171	-.1525	-.1488	5468.		

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

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.0690	-7077.	-4530.	3160.	3299.	-2291.	-1102.	.6601	.0511	-.1872	.1615	-.0238	.2561	5883.
.0700	-7912.	-3913.	885.	2407.	-3420.	-795.	.0565	.0341	-.1845	.1237	-.0269	.2452	6013.
.0710	-7910.	-3558.	-984.	1839.	-4315.	-269.	.0519	.0173	-.1782	.0786	-.0252	.2277	6637.
.0720	-7358.	-2688.	-2059.	1409.	-4751.	-216.	.0443	.0007	-.1679	.0265	-.0277	.1974	7007.
.0730	-6617.	-1661.	-3012.	1414.	-4705.	-277.	.0340	-.0141	-.1536	-.0353	-.0356	.1559	6951.
.0740	-4596.	-1148.	-2058.	1997.	-4001.	137.	.0216	-.0266	-.1354	-.1032	-.0498	.1099	6317.
.0750	-3472.	-993.	-2386.	2643.	-3033.	843.	.0086	-.0385	-.1145	-.1655	-.0583	.0613	5806.
.0760	-3207.	-701.	-2328.	2938.	-2292.	1420.	-.0033	-.0513	-.0917	-.2156	-.0867	.0077	5633.
.0770	-2871.	-186.	-2158.	3034.	-1356.	1862.	-.0144	-.0635	-.0665	-.2576	-.1075	-.0484	5380.
.0780	-1073.	523.	-618.	3072.	150.	2245.	-.0248	-.0738	-.0384	-.2942	-.1324	-.1010	5378.
.0790	623.	1595.	778.	2693.	1440.	2379.	-.0319	-.0837	-.0093	-.3171	-.1525	-.1488	5468.

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

SECTION	9	MEMBER 1			SEQUENCE	LOCATION END			TYPE	RU			STRESS (PSI)
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)	
.0800	600.	2952.	463.	1571.	1830.	2214.	-.0340	-.0954	.0190	-.3169	-.1515	-.1943	4624.
.0810	258.	4095.	-68.	45.	1919.	2089.	-.0333	-.1078	.0468	-.2964	-.1664	-.2366	4007.
.0820	966.	4876.	517.	-1325.	2307.	2133.	-.0322	-.1182	.0749	-.2667	-.1740	-.2723	4816.
.0830	1733.	5789.	1254.	-2482.	2656.	1904.	-.0302	-.1257	.1022	-.2324	-.1819	-.3029	5797.
.0840	1883.	6958.	1687.	-3602.	2718.	1198.	-.0273	-.1314	.1276	-.1898	-.1872	-.3319	6594.
.0850	2152.	7566.	2362.	-4450.	2708.	648.	-.0237	-.1351	.1503	-.1385	-.1878	-.3565	7414.
.0860	2476.	7013.	2658.	-4718.	2519.	789.	-.0188	-.1358	.1698	-.0821	-.1786	-.3718	7637.
.0870	2307.	5891.	2015.	-4603.	1968.	1154.	-.0125	-.1337	.1854	-.0229	-.1573	-.3786	7256.
.0880	2332.	5012.	1385.	-4392.	1388.	1085.	-.0060	-.1293	.1973	.0366	-.1272	-.3791	6684.
.0890	3110.	4257.	950.	-3980.	973.	764.	.0003	-.1223	.2056	.0915	-.0884	-.3703	5887.
.0900	3765.	3162.	-353.	-3363.	407.	635.	.0070	-.1131	.2095	.1425	-.0385	-.3485	4869.
.0910	3779.	1865.	-2119.	-2953.	-311.	554.	.0132	-.1040	.2088	.1957	.0165	-.3156	4267.
.0920	3890.	800.	-2955.	-2894.	-711.	221.	.0166	-.0953	.2044	.2485	.0665	-.2735	4220.
.0930	4534.	133.	-2979.	-2842.	-606.	-336.	.0168	-.0850	.1971	.2894	.1085	-.2215	4132.
.0940	5350.	-95.	-2819.	-2734.	-186.	-1104.	.0146	-.0729	.1869	.3155	.1433	-.1613	4173.
.0950	6034.	31.	-2173.	-2902.	383.	-2116.	.0108	-.0613	.1734	.3354	.1711	-.0979	5102.
.0960	6366.	75.	-1318.	-3321.	872.	-3020.	.0066	-.0509	.1564	.3522	.1950	-.0330	6459.
.0970	6172.	-246.	-1222.	-3611.	1066.	-3461.	.0036	-.0403	.1360	.3596	.2191	.0330	7223.
.0980	5832.	-541.	-1478.	-3695.	1143.	-3733.	.0011	-.0291	.1132	.3532	.2397	.0944	7593.
.0990	5717.	-413.	-1067.	-3697.	1263.	-4220.	-.0020	-.0178	.0890	.3336	.2500	.1451	8155.
.1000	5463.	-253.	-405.	-3448.	1591.	-4599.	-.0053	-.0064	.0638	.3007	.2501	.1847	8424.
.1010	4747.	-616.	-108.	-2791.	1673.	-4388.	-.0082	.0053	.0380	.2563	.2417	.2139	7717.
.1020	3936.	-1330.	433.	-1952.	1761.	-3747.	-.0110	.0159	.0124	.2048	.2229	.2297	6466.
.1030	3252.	-1860.	1399.	-1136.	1872.	-3076.	-.0134	.0255	-.0123	.1475	.1948	.2311	5334.
.1040	2423.	-2063.	1845.	-269.	1735.	-2397.	-.0137	.0349	-.0357	.0822	.1643	.2222	4197.
.1050	1548.	-2148.	1629.	594.	1311.	-1559.	-.0111	.0439	-.0576	.0130	.1347	.2057	2998.
.1060	916.	-2265.	1406.	1170.	755.	-571.	-.0063	.0508	-.0778	-.0506	.1051	.1813	2126.
.1070	30.	-2392.	719.	1389.	-78.	508.	.0011	.0552	-.0964	-.1054	.0777	.1510	2092.
.1080	-905.	-2396.	-717.	1483.	-1165.	1623.	.0114	.0587	-.1135	-.1563	.0564	.1198	3514.
.1090	-1202.	-2042.	-2548.	1494.	-2359.	2551.	.0256	.0619	-.1297	-.2040	.0462	.0896	5342.
.1100	-3253.	-1232.	-4782.	1032.	-3828.	2875.	.0393	.0622	-.1450	-.2377	.0305	.0563	6918.
.1110	-4587.	-883.	-4963.	691.	-4408.	3273.	.0483	.0612	-.1578	-.2626	-.0030	.0220	7816.
.1120	-4446.	-1288.	-3360.	1046.	-3938.	4135.	.0529	.0618	-.1677	-.2890	-.0504	-.0073	8200.
.1130	-5041.	-1417.	-1953.	1596.	-3428.	4632.	.0556	.0632	-.1762	-.3125	-.1002	-.0314	8446.
.1140	-6602.	-870.	-618.	1805.	-3113.	4299.	.0573	.0629	-.1840	-.3235	-.1475	-.0532	7919.
.1150	-7644.	-760.	897.	2105.	-2655.	4020.	.0578	.0620	-.1903	-.3237	-.1882	-.0698	7426.
.1160	-8418.	-1660.	1410.	2857.	-2299.	4336.	.0580	.0618	-.1948	-.3183	-.2168	-.0765	8022.
.1170	-9034.	-2531.	1811.	3526.	-2040.	4403.	.0571	.0613	-.1970	-.3046	-.2368	-.0759	8473.

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.1070	30.	-2392.	719.	1389.	-78.	508.	.0011	.0552	-.0964	-.1054	.0777	.1510	2092.
.1080	-905.	-2396.	-717.	1483.	-1165.	1623.	.0114	.0587	-.1135	-.1563	.0564	.1198	3514.
.1090	-1202.	-2042.	-2548.	1494.	-2359.	2551.	.0256	.0619	-.1297	-.2040	.0462	.0896	5342.
.1100	-3257.	-1232.	-4782.	1032.	-3828.	2875.	.0393	.0627	-.1450	-.2377	.0305	.0563	6918.
.1110	-4527.	-883.	-4963.	691.	-4408.	3273.	.0483	.0612	-.1578	-.2626	-.0030	.0220	7816.
.1120	-4446.	-1288.	-3360.	1046.	-3938.	4135.	.0529	.0618	-.1677	-.2890	-.0504	-.0073	8200.
.1130	-5041.	-1417.	-1953.	1596.	-3428.	4632.	.0556	.0632	-.1762	-.3125	-.1002	-.0314	8446.
.1140	-6602.	-870.	-618.	1805.	-3113.	4299.	.0573	.0629	-.1840	-.3235	-.1475	-.0532	7919.
.1150	-7644.	-760.	897.	2105.	-2655.	4020.	.0578	.0620	-.1903	-.3237	-.1882	-.0698	7426.
.1160	-8418.	-1660.	1410.	2857.	-2299.	4376.	.0580	.0618	-.1948	-.3183	-.2168	-.0765	8022.
.1170	-9034.	-2531.	1811.	3526.	-2040.	4403.	.0571	.0613	-.1970	-.3046	-.2368	-.0759	8473.

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
.1180	9	1					.1180	-10609.	-2511.	1899.	3701.	-2057.	3590.	.0534	.0594	-.1962	-.2818	-.2546	-.0720	7842.
.1190	9	1					.1190	-10051.	-2442.	3600.	3995.	-1267.	2788.	.0450	.0583	-.1906	-.2602	-.2753	-.0632	7110.
.1200	9	1					.1200	-8377.	-2898.	4991.	4621.	-274.	2573.	.0346	.0587	-.1809	-.2421	-.2884	-.0455	7481.
.1210	9	1					.1210	-8948.	-3106.	3700.	4747.	-433.	2178.	.0262	.0573	-.1693	-.2146	-.2329	-.0219	7403.
.1220	9	1					.1220	-8703.	-2762.	3889.	4042.	-445.	1171.	.0162	.0524	-.1546	-.1735	-.2723	-.0005	5977.
.1230	9	1					.1230	-7593.	-2535.	3825.	3389.	-705.	332.	.0054	.0477	-.1363	-.1355	-.2536	.0210	4829.
.1240	9	1					.1240	-5664.	-2518.	2957.	3157.	-67.	-94.	-.0051	.0454	-.1147	-.1091	-.2248	.0444	4463.
.1250	9	1					.1250	-3781.	-1893.	2511.	2551.	104.	-915.	-.0153	.0422	-.0909	-.0818	-.1909	.0644	3830.
.1260	9	1					.1260	-3246.	-846.	1555.	1411.	-207.	-2036.	-.0240	.0370	-.0660	-.0483	-.1508	.0786	3512.
.1270	9	1					.1270	-1183.	-583.	1068.	638.	-124.	-2367.	-.0315	.0328	-.0399	-.0207	-.1034	.0888	3467.
.1280	9	1					.1280	362.	-768.	-1104.	245.	-424.	-2154.	-.0352	.0303	-.0140	-.0020	-.0433	.0964	3121.
.1290	9	1					.1290	1392.	-233.	-2580.	-573.	-798.	-2545.	-.0376	.0266	.0115	.0178	.0160	.0958	3853.
.1300	9	1					.1300	2875.	675.	-2453.	-1615.	-755.	-3199.	-.0404	.0224	.0368	.0364	.0571	.0869	5173.
.1310	9	1					.1310	3449.	893.	-3738.	-2129.	-827.	-3008.	-.0421	.0202	.0611	.0441	.1151	.0765	5334.
.1320	9	1					.1320	4803.	690.	-3759.	-2398.	-302.	-2280.	-.0450	.0190	.0850	.0456	.1500	.0636	4694.
.1330	9	1					.1330	5581.	1136.	-2669.	-3136.	330.	-2067.	-.0488	.0165	.1074	.0502	.1713	.0458	5326.
.1340	9	1					.1340	6281.	1999.	-1372.	-4021.	990.	-2162.	-.0520	.0141	.1280	.0526	.1859	.0256	6599.
.1350	9	1					.1350	7337.	2545.	-1040.	-4539.	1575.	-1886.	-.0531	.0137	.1463	.0473	.2016	.0073	7290.
.1360	9	1					.1360	7418.	3042.	-1917.	-5129.	1660.	-1567.	-.0521	.0131	.1615	.0440	.2174	-.0094	7929.
.1370	9	1					.1370	8103.	3758.	-1140.	-6093.	1977.	-1572.	-.0518	.0109	.1738	.0491	.2226	-.0274	9317.
.1380	9	1					.1380	7993.	4311.	-1417.	-6801.	1963.	-1473.	-.0507	.0099	.1829	.0515	.2236	-.0428	10212.
.1390	9	1					.1390	8024.	4529.	-2162.	-6859.	2029.	-1124.	-.0503	.0117	.1890	.0439	.2166	-.0549	10227.
.1400	9	1					.1400	8684.	4868.	-1336.	-6729.	2552.	-1091.	-.0526	.0142	.1923	.0342	.1927	-.0679	10282.
.1410	9	1					.1410	8167.	5268.	-584.	-6579.	2833.	-1361.	-.0561	.0164	.1915	.0272	.1581	-.0811	10300.
.1420	9	1					.1420	8023.	5027.	424.	-5953.	3224.	-1238.	-.0600	.0199	.1869	.0172	.1172	-.0907	9720.
.1430	9	1					.1430	7376.	4347.	414.	-4879.	3277.	-782.	-.0626	.0252	.1781	.0023	.0795	-.0947	8375.
.1440	9	1					.1440	6584.	3970.	709.	-3905.	3188.	-684.	-.0645	.0304	.1652	-.0112	.0399	-.0967	7185.
.1450	9	1					.1450	5742.	3805.	1266.	-3064.	2994.	-896.	-.0656	.0355	.1487	-.0227	.0006	-.1966	6182.
.1460	9	1					.1460	4099.	3243.	433.	-1998.	2356.	-814.	-.0646	.0417	.1285	-.0369	-.0323	-.0899	4513.
.1470	9	1					.1470	3477.	2343.	519.	-840.	1991.	-468.	-.0632	.0486	.1059	-.0518	-.0638	-.0770	3122.
.1480	9	1					.1480	1939.	1779.	311.	-43.	1300.	-385.	-.0606	.0548	.0805	-.0627	-.0921	-.0599	1917.
.1490	9	1					.1490	12.	1474.	84.	521.	539.	-471.	-.0577	.0608	.0533	-.0724	-.1181	-.0390	1251.
.1500	9	1					.1500	-1008.	949.	590.	1235.	200.	-322.	-.0556	.0678	.0256	-.0860	-.1436	-.0127	1825.
.1510	9	1					.1510	-2357.	366.	810.	1953.	-151.	-127.	-.0533	.0753	-.0025	-.1009	-.1554	.0184	2772.
.1520	9	1					.1520	-3236.	22.	1882.	2375.	-255.	-220.	-.0515	.0817	-.0304	-.1117	-.1835	.0502	3388.
.1530	9	1					.1530	-4593.	-224.	2103.	2635.	-586.	-423.	-.0485	.0876	-.0580	-.1200	-.1907	.0829	3859.
.1540	9	1					.1540	-5121.	-697.	2170.	3031.	-778.	-413.	-.0444	.0941	-.0843	-.1297	-.1863	.1175	4458.
.1550	9	1					.1550	-5050.	-1174.	2150.	3428.	-928.	-392.	-.0392	.1007	-.1088	-.1389	-.1706	.1525	5047.

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S/RV PIPING KEWAUNEE GKWOBF 2 RUP DISK

2 SAFETY COLD FW24F--2 PSV

CONDITION 24

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ENGLISH UNITS

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

.1450	5742.	2805.	1266.	-3064.	2994.	7805.	-896.	-.0656	.0355	.1487	-.0227	.0006	-.0966	6182.
.1460	4099.	3243.	433.	-1998.	2356.	-814.	-.0646	.0417	.1285	-.0369	-.0323	-.0899	4513.	
.1470	3477.	2343.	519.	-840.	1991.	-468.	-.0632	.0486	.1059	-.0518	-.0638	-.0770	3122.	
.1480	1939.	1779.	311.	-43.	1700.	-385.	-.0606	.0548	.0805	-.0627	-.0721	-.0599	1917.	
.1490	12.	1474.	84.	521.	539.	-471.	-.0577	.0608	.0533	-.0724	-.1181	-.0390	1251.	
.1500	-1002.	949.	590.	1235.	200.	-322.	-.0556	.0678	.0256	-.0860	-.1436	-.0127	1825.	
.1510	-2357.	366.	810.	1953.	-151.	-127.	-.0533	.0753	-.0025	-.1009	-.1554	.0184	2772.	
.1520	-3236.	22.	1882.	2375.	-255.	-220.	-.0515	.0817	-.0304	-.1117	-.1835	.0502	3388.	
.1530	-4593.	-224.	2103.	2635.	-586.	-423.	-.0485	.0876	-.0580	-.1200	-.1907	.0829	3859.	
.1540	-5121.	-697.	2170.	3031.	-778.	-413.	-.0444	.0941	-.0847	-.1297	-.1863	.1175	4458.	
.1550	-5050.	-1174.	2150.	3428.	-928.	-392.	-.0392	.1007	-.1088	-.1389	-.1706	.1525	5047.	

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

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

SECTION	9	MEMBER	1	SEQUENCE	28	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)
.1560	-6258.	-1364.	658.	3586.	-1631.	-637.	-.0322	.1063	-.1318	-.1438	-.1434	.1849	5636.										
.1570	-6233.	-1654.	261.	3738.	-1860.	-842.	-.0262	.1114	-.1517	-.1468	-.1155	.2125	6017.										
.1580	-5881.	-2235.	-210.	4124.	-1902.	-745.	-.0210	.1170	-.1680	-.1523	-.0873	.2369	6500.										
.1590	-6268.	-2705.	-1198.	4509.	-2060.	-632.	-.0165	.1225	-.1807	-.1580	-.0618	.2571	7059.										
.1600	-5753.	-2869.	-453.	4681.	-1670.	-687.	-.0146	.1268	-.1890	-.1608	-.0472	.2699	7087.										
.1610	-4563.	-3060.	804.	4847.	-1022.	-568.	-.0135	.1306	-.1932	-.1633	-.0368	.2772	7042.										
.1620	-4804.	-3318.	-175.	4989.	-1105.	-199.	-.0098	.1337	-.1947	-.1647	-.0190	.2818	7224.										
.1630	-4433.	-3349.	-221.	4743.	-1080.	37.	-.0060	.1345	-.1927	-.1582	-.0037	.2799	6871.										
.1640	-3910.	-3158.	148.	4184.	-1064.	152.	-.0021	.1330	-.1874	-.1453	.0088	.2720	6101.										
.1650	-4144.	-3037.	-761.	3730.	-1381.	473.	.0026	.1311	-.1791	-.1330	.0220	.2611	5657.										
.1660	-3431.	-2909.	-589.	3353.	-1271.	845.	.0058	.1284	-.1672	-.1206	.0274	.2460	5204.										
.1670	-3067.	-2495.	36.	2801.	-1105.	933.	.0075	.1237	-.1526	-.1035	.0255	.2255	4452.										
.1680	-2737.	-2110.	926.	2272.	-835.	965.	.0081	.1176	-.1356	-.0835	.0192	.2012	3680.										
.1690	-2943.	-2011.	945.	1991.	-720.	1178.	.0085	.1108	-.1168	-.0640	.0139	.1760	3422.										
.1700	-2694.	-1930.	1503.	1775.	-380.	1306.	.0076	.1029	-.0960	-.0431	.0068	.1492	3159.										
.1710	-1075.	-1639.	3446.	1490.	426.	1156.	.0053	.0935	-.0735	-.0201	-.0008	.1203	2730.										
.1720	-1156.	-1230.	2744.	1224.	389.	905.	.0055	.0831	-.0513	.0028	.0058	.0936	2220.										
.1730	-863.	-961.	1863.	972.	334.	708.	.0060	.0716	-.0287	.0267	.0193	.0691	1763.										
.1740	177.	-774.	1776.	614.	543.	483.	.0054	.0585	-.0057	.0531	.0331	.0456	1343.										
.1750	758.	-511.	1030.	217.	590.	187.	.0044	.0446	.0169	.0782	.0494	.0240	926.										
.1760	1794.	-112.	534.	-119.	815.	-174.	.0025	.0306	.0392	.0982	.0547	.0048	1189.										
.1770	2318.	461.	-243.	-493.	924.	-629.	-.0002	.0164	.0606	.1148	.0779	-.0118	1725.										
.1780	3361.	960.	-12.	-923.	1316.	-1026.	-.0046	.0015	.0809	.1302	.0943	-.0272	2693.										
.1790	3756.	1253.	-351.	-1312.	1489.	-1227.	-.0092	-.0134	.0993	.1431	.0884	-.0406	3296.										
.1800	3645.	1510.	-1087.	-1642.	1465.	-1359.	-.0138	-.0280	.1157	.1519	.0898	-.0520	3654.										
.1810	4741.	1891.	-276.	-1940.	1858.	-1588.	-.0198	-.0421	.1305	.1563	.0838	-.0632	4408.										
.1820	4833.	2358.	-615.	-2190.	1769.	-1852.	-.0244	-.0554	.1424	.1563	.0789	-.0733	4760.										
.1830	4669.	2663.	-1323.	-2372.	1471.	-1984.	-.0281	-.0682	.1515	.1541	.0740	-.0829	4837.										
.1840	4581.	2764.	-1685.	-2519.	1165.	-1978.	-.0315	-.0806	.1580	.1510	.0658	-.0921	4813.										
.1850	4280.	2790.	-2014.	-2579.	805.	-1914.	-.0346	-.0918	.1620	.1451	.0546	-.1008	4677.										
.1860	4283.	2859.	-1937.	-2494.	627.	-1878.	-.0376	-.1014	.1638	.1341	.0391	-.1100	4497.										
.1870	3618.	3062.	-2277.	-2346.	346.	-1938.	-.0401	-.1094	.1634	.1193	.0206	-.1195	4326.										
.1880	3559.	3215.	-1485.	-2178.	469.	-1972.	-.0431	-.1160	.1613	.1034	-.0042	-.1295	4202.										
.1890	3375.	3175.	-705.	-1956.	643.	-1817.	-.0452	-.1210	.1573	.0867	-.0293	-.1384	3879.										
.1900	2567.	3085.	-740.	-1732.	600.	-1568.	-.0451	-.1243	.1512	.0694	-.0500	-.1461	3408.										
.1910	2513.	3152.	-48.	-1602.	820.	-1419.	-.0438	-.1260	.1437	.0523	-.0586	-.1540	3238.										
.1920	2342.	3357.	273.	-1537.	925.	-1325.	-.0402	-.1259	.1344	.0351	-.0810	-.1609	3151.										
.1930	2047.	3436.	78.	-1456.	886.	-1084.	-.0342	-.1240	.1233	.0184	-.0861	-.1660	2853.										

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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

.1830	4669.	2663.	-223.	-2372.	1471.	-1984.	-.0281	-.0682	.1515	.1541	.0740	-.0829	4837.
.1840	4581.	2764.	-1685.	-2519.	1165.	-1978.	-.0315	-.0806	.1580	.1510	.0558	-.0921	4813.
.1850	4280.	2790.	-2014.	-2579.	805.	-1914.	-.0346	-.0918	.1620	.1451	.0546	-.1008	4677.
.1860	4283.	2859.	-1937.	-2494.	627.	-1876.	-.0376	-.1014	.1638	.1341	.0391	-.1100	4497.
.1870	3618.	3062.	-2277.	-2346.	346.	-1938.	-.0401	-.1094	.1634	.1193	.0206	-.1195	4326.
.1880	3559.	3215.	-1485.	-2178.	469.	-1972.	-.0431	-.1160	.1613	.1034	-.0042	-.1295	4202.
.1890	3375.	3175.	-705.	-1956.	643.	-1817.	-.0452	-.1210	.1573	.0867	-.0293	-.1384	3879.
.1900	2567.	3085.	-740.	-1732.	600.	-1568.	-.0451	-.1243	.1512	.0694	-.0500	-.1461	3408.
.1910	2513.	3152.	-48.	-1602.	820.	-1419.	-.0438	-.1260	.1437	.0523	-.0586	-.1540	3238.
.1920	2342.	3357.	273.	-1537.	925.	-1325.	-.0402	-.1259	.1344	.0351	-.0810	-.1609	3151.
.1930	2047.	3436.	70.	-1456.	886.	-1084.	-.0342	-.1240	.1232	.0184	-.0861	-.1660	2853.

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ENGLISH UNITS

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

SECTION	9	MEMBER	1	SEQUENCE	28	LOCATION	END	TYPE	RU	DZ	PX	RY	FZ	STRESS
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	PX	RY	FZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.1940	1909.	3311.	-46.	-1393.	852.	-674.	-.0265	-.1209	.1108	.0045	-.0867	-.1701	2495.	
.1950	1689.	3098.	-140.	-1352.	777.	-203.	-.0176	-.1164	.0967	-.0068	-.0841	-.1732	2221.	
.1960	1220.	2864.	-410.	-1235.	631.	288.	-.0076	-.1103	.0813	-.0176	-.0792	-.1748	2001.	
.1970	884.	2547.	-381.	-984.	600.	810.	.0023	-.1025	.0650	-.0282	-.0752	-.1747	1989.	
.1980	768.	2074.	170.	-637.	715.	1359.	.0120	-.0936	.0480	-.0363	-.0729	-.1727	2348.	
.1990	387.	1446.	643.	-252.	722.	1915.	.0219	-.0840	.0300	-.0402	-.0691	-.1676	2913.	
.2000	-365.	742.	733.	136.	515.	2427.	.0324	-.0740	.0111	-.0395	-.0519	-.1586	3510.	
.2010	-1101.	51.	785.	507.	236.	2822.	.0427	-.0638	-.0081	-.0346	-.0524	-.1456	4064.	
.2020	-1743.	-584.	875.	857.	-64.	3063.	.0524	-.0536	-.0271	-.0262	-.0419	-.1280	4493.	
.2030	-2443.	-1167.	854.	1178.	-416.	3144.	.0610	-.0436	-.0456	-.0142	-.0308	-.1056	4779.	
.2040	-3085.	-1709.	877.	1450.	-751.	3072.	.0679	-.0342	-.0631	.0013	-.0202	-.0791	4914.	
.2050	-3607.	-2210.	979.	1677.	-1031.	2862.	.0727	-.0255	-.0794	.0195	-.0107	-.0492	4906.	
.2060	-4120.	-2652.	986.	1891.	-1291.	2540.	.0755	-.0175	-.0940	.0390	-.0020	-.0162	4831.	
.2070	-4501.	-3017.	1013.	2115.	-1483.	2118.	.0761	-.0101	-.1065	.0585	.0057	.0189	4719.	
.2080	-4520.	-3327.	1228.	2358.	-1537.	1621.	.0746	-.0035	-.1167	.0772	.0124	.0543	4588.	
.2090	-4350.	-3628.	1307.	2624.	-1557.	1100.	.0716	.0023	-.1246	.0947	.0204	.0888	4581.	
.2100	-4256.	-3932.	972.	2894.	-1662.	585.	.0679	.0070	-.1302	.1110	.0311	.1211	4786.	
.2110	-4034.	-4217.	565.	3148.	-1751.	93.	.0636	.0106	-.1333	.1254	.0433	.1498	5090.	
.2120	-3530.	-4460.	263.	3395.	-1739.	-342.	.0586	.0131	-.1338	.1368	.0555	.1736	5410.	
.2130	-2995.	-4628.	-164.	3622.	-1697.	-700.	.0535	.0145	-.1316	.1442	.0679	.1914	5735.	
.2140	-2582.	-4681.	-623.	3756.	-1636.	-999.	.0484	.0145	-.1270	.1483	.0789	.2024	5957.	
.2150	-2169.	-4635.	-765.	3753.	-1459.	-1219.	.0432	.0129	-.1198	.1498	.0859	.2057	5943.	
.2160	-1711.	-4516.	-610.	3634.	-1144.	-1305.	.0379	.0098	-.1099	.1479	.0882	.2012	5688.	
.2170	-1328.	-4250.	-363.	3385.	-765.	-1286.	.0329	.0054	-.0977	.1422	.0864	.1891	5228.	
.2180	-1020.	-3747.	15.	2947.	-366.	-1243.	.0284	-.0004	-.0831	.1338	.0810	.1696	4548.	
.2190	-759.	-3058.	459.	2324.	3.	-1162.	.0247	-.0075	-.0667	.1236	.0732	.1431	3670.	
.2200	-595.	-2315.	692.	1593.	264.	-966.	.0219	-.0155	-.0485	.1117	.0645	.1107	2658.	
.2210	-452.	-1540.	735.	802.	420.	-684.	.0198	-.0242	-.0291	.0982	.0550	.0733	1602.	
.2220	-200.	-675.	772.	-19.	510.	-406.	.0181	-.0333	-.0086	.0833	.0445	.0316	922.	
.2230	96.	245.	655.	-793.	505.	-144.	.0164	-.0422	.0124	.0666	.0336	-.0127	1343.	
.2240	348.	1100.	265.	-1436.	392.	156.	.0147	-.0506	.0335	.0482	.0226	-.0581	2114.	
.2250	663.	1812.	-122.	-1926.	269.	497.	.0121	-.0584	.0541	.0295	.0102	-.1032	2835.	
.2260	1108.	2377.	-332.	-2256.	205.	834.	.0085	-.0654	.0739	.0109	-.0040	-.1463	3410.	
.2270	1587.	2829.	-544.	-2409.	172.	1129.	.0041	-.0712	.0923	-.0075	-.0187	-.1855	3765.	
.2280	2054.	3207.	-814.	-2417.	157.	1345.	-.0010	-.0757	.1088	-.0252	-.0324	-.2192	3914.	
.2290	2505.	3512.	-1011.	-2360.	180.	1469.	-.0064	-.0790	.1229	-.0400	-.0447	-.2457	3935.	
.2300	2851.	3695.	-1155.	-2284.	235.	1534.	-.0120	-.0813	.1343	-.0506	-.0552	-.2638	3901.	
.2310	3068.	3754.	-1267.	-2201.	338.	1548.	-.0177	-.0824	.1428	-.0570	-.0639	-.2729	3831.	

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2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

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INTERNAL FORCES IN THE PIPING
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.2200	-595.	2315.	772.	1593.	284.	-958.	219.	-.0155	-.0485	.1117	.0645	.1107	2658.
.2210	-452.	-1540.	735.	802.	420.	-684.	.0198	-.0242	-.0291	.0982	.0550	.0733	1602.
.2220	-200.	-675.	772.	-19.	510.	-406.	.0181	-.0333	-.0086	.0833	.0445	.0316	922.
.2230	96.	245.	655.	-793.	505.	-144.	.0164	-.0422	.0124	.0666	.0336	-.0127	1343.
.2240	748.	1100.	265.	-1476.	392.	156.	.0147	-.0506	.0335	.0482	.0226	-.0581	2114.
.2250	863.	1812.	-122.	-1926.	269.	497.	.0121	-.0584	.0541	.0295	.0102	-.1032	2835.
.2260	1108.	2377.	-332.	-2256.	205.	834.	.0085	-.0654	.0739	.0109	-.0240	-.1463	3410.
.2270	1587.	2829.	-544.	-2409.	172.	1129.	.0041	-.0712	.0923	-.0075	-.0187	-.1855	3765.
.2280	2054.	3207.	-814.	-2417.	157.	1345.	-.0010	-.0757	.1088	-.0252	-.0324	-.2192	3914.
.2290	2505.	3312.	-1011.	-2360.	180.	1469.	-.0064	-.0790	.1229	-.0400	-.0447	-.2457	3935.
.2300	2851.	2695.	-1155.	-2284.	235.	1534.	-.0120	-.0813	.1343	-.0506	-.0552	-.2638	3901.
.2310	3068.	3754.	-1267.	-2201.	338.	1548.	-.0177	-.0824	.1428	-.0570	-.0639	-.2729	3831.

ADLPIPE PAGE 456 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.26.08.

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	9	MEMBER	1	SEQUENCE	28	LOCATION	END	TYPE	RU					STRESS
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)	(PSI)
.2320	3260.	3785.	-1168.	-2141.	551.	1442.		-.0236	-.0823	.1485	-.0594	-.0714	-.2728	3729.
.2330	3422.	3863.	-800.	-2138.	872.	1171.		-.0294	-.0809	.1512	-.0581	-.0780	-.2641	3657.
.2340	3449.	3935.	-326.	-2189.	1235.	795.		-.0348	-.0785	.1510	-.0529	-.0827	-.2472	3724.
.2350	3380.	3897.	204.	-2272.	1606.	411.		-.0396	-.0750	.1480	-.0438	-.0848	-.2232	3973.
.2360	3300.	3739.	791.	-2370.	1955.	35.		-.0435	-.0706	.1423	-.0313	-.0836	-.1935	4340.
.2370	3149.	3526.	1240.	-2462.	2191.	-369.		-.0460	-.0651	.1342	-.0166	-.0778	-.1597	4685.
.2380	2918.	3273.	1398.	-2511.	2258.	-797.		-.0468	-.0586	.1237	-.0011	-.0666	-.1237	4901.
.2390	2732.	2919.	1354.	-2480.	2181.	-1187.		-.0460	-.0510	.1113	.0146	-.0508	-.0871	4958.
.2400	2601.	2408.	1132.	-2350.	1960.	-1476.		-.0437	-.0424	.0973	.0298	-.0311	-.0511	4800.
.2410	2388.	1776.	625.	-2124.	1556.	-1666.		-.0398	-.0331	.0820	.0438	-.0082	-.0170	4401.
.2420	2098.	1110.	-90.	-1818.	1013.	-1800.		-.0346	-.0229	.0656	.0553	.0162	.0141	3886.
.2430	1859.	466.	-771.	-1447.	441.	-1895.		-.0286	-.0122	.0486	.0634	.0396	.0414	3426.
.2440	1670.	-154.	-1323.	-1029.	-97.	-1928.		-.0222	-.0009	.0312	.0676	.0500	.0648	3090.
.2450	1441.	-738.	-1760.	-609.	-592.	-1878.		-.0155	.0106	.0138	.0681	.0767	.0843	2911.
.2460	1130.	-1247.	-2072.	-243.	-1032.	-1759.		-.0086	.0219	-.0037	.0652	.0894	.1000	2901.
.2470	719.	-1643.	-2265.	43.	-1401.	-1588.		-.0016	.0330	-.0209	.0590	.0978	.1120	2992.
.2480	207.	-1917.	-2318.	256.	-1665.	-1371.		.0052	.0437	-.0377	.0492	.1014	.1208	3068.
.2490	-296.	-2092.	-2088.	410.	-1757.	-1108.		.0113	.0540	-.0537	.0359	.0991	.1264	2991.
.2500	-722.	-2195.	-1539.	526.	-1661.	-799.		.0165	.0637	-.0688	.0196	.0912	.1292	2707.
.2510	-1206.	-2250.	-903.	620.	-1465.	-450.		.0210	.0727	-.0828	.0007	.0793	.1294	2335.
.2520	-1827.	-2274.	-312.	707.	-1233.	-79.		.0245	.0809	-.0956	-.0199	.0542	.1274	2010.
.2530	-2404.	-2298.	388.	812.	-919.	304.		.0268	.0881	-.1069	-.0417	.0460	.1232	1785.
.2540	-2773.	-2347.	1244.	973.	-507.	697.		.0278	.0944	-.1163	-.0647	.0249	.1172	1836.
.2550	-3003.	-2401.	2018.	1190.	-98.	1067.		.0276	.0997	-.1240	-.0882	.0034	.1100	2262.
.2560	-3209.	-2421.	2520.	1404.	194.	1365.		.0268	.1037	-.1298	-.1108	-.0163	.1019	2780.
.2570	-3369.	-2421.	2755.	1573.	339.	1596.		.0256	.1061	-.1338	-.1309	-.0331	.0934	3201.
.2580	-3424.	-2450.	2724.	1706.	348.	1806.		.0240	.1071	-.1360	-.1483	-.0466	.0852	3543.
.2590	-3375.	-2471.	2439.	1797.	230.	1977.		.0220	.1067	-.1363	-.1630	-.0567	.0778	3788.
.2600	-3254.	-2385.	2000.	1799.	6.	2030.		.0199	.1049	-.1349	-.1747	-.0536	.0711	3831.
.2610	-3145.	-2180.	1444.	1690.	-309.	1954.		.0174	.1018	-.1318	-.1830	-.0579	.0652	3674.
.2620	-3105.	-1949.	798.	1507.	-675.	1824.		.0147	.0974	-.1271	-.1880	-.0703	.0603	3475.
.2630	-3068.	-1733.	257.	1278.	-1002.	1676.		.0113	.0922	-.1210	-.1900	-.0723	.0564	3297.
.2640	-2980.	-1473.	-25.	1010.	-1224.	1467.		.0072	.0864	-.1134	-.1897	-.0749	.0531	3053.
.2650	-2907.	-1128.	-167.	722.	-1361.	1171.		.0024	.0801	-.1046	-.1871	-.0772	.0502	2734.
.2660	-2885.	-753.	-284.	441.	-1438.	832.		-.0027	.0737	-.0946	-.1844	-.0787	.0476	2428.
.2670	-2822.	-436.	-301.	177.	-1429.	511.		-.0082	.0673	-.0835	-.1793	-.0791	.0452	2159.
.2680	-2661.	-203.	-216.	-64.	-1334.	236.		-.0140	.0610	-.0715	-.1724	-.0782	.0426	1915.
.2690	-2430.	-7.	-192.	-273.	-1198.	-13.		-.0198	.0550	-.0586	-.1644	-.0752	.0400	1736.

ADLPIPE PAGE 457 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.26.08.

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

.2590	-3375.	-247.	2439.	1797.	230.	1977.	.0220	.1067	-.1363	-.1630	-.0567	.0778	3788.
.2600	-3254.	-2385.	2000.	1799.	6.	2030.	.0199	.1049	-.1349	-.1747	-.0536	.0711	3831.
.2610	-3145.	-2180.	1444.	1650.	-309.	1954.	.0174	.1018	-.1318	-.1830	-.0579	.0652	3674.
.2620	-3105.	-1949.	798.	1507.	-675.	1824.	.0147	.0974	-.1271	-.1880	-.0703	.0603	3475.
.2630	-3060.	-1773.	257.	1278.	-1002.	1676.	.0113	.0922	-.1210	-.1900	-.0723	.0564	3297.
.2640	-2980.	-1473.	-25.	1010.	-1224.	1467.	.0072	.0864	-.1134	-.1897	-.0749	.0531	3053.
.2650	-2907.	-1128.	-167.	722.	-1361.	1171.	.0024	.0801	-.1046	-.1878	-.0772	.0502	2734.
.2660	-2865.	-753.	-284.	441.	-1438.	832.	-.0027	.0737	-.0946	-.1844	-.0787	.0476	2428.
.2670	-2822.	-436.	-301.	177.	-1429.	511.	-.0082	.0673	-.0835	-.1793	-.0791	.0452	2159.
.2680	-2661.	-203.	-216.	-64.	-1334.	236.	-.0140	.0610	-.0715	-.1724	-.0782	.0426	1915.
.2690	-2430.	-7.	-192.	-273.	-1198.	-13.	-.0198	.0550	-.0586	-.1644	-.0752	.0400	1736.

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S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK

2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

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

SECTION	9	MEMBER	1	SEQUENCE	28	LOCATION	END	TYPE	RU	DX	DY	DZ	RX	RY	RZ	STRESS
TIME	FX	FY	FZ	MX	MY	MZ				(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)										
.2700	-2120.	210.	-273.	-459.	-1040.	-268.		-.0255	.0494	-.0448	-.1560	-.0700	.0369			1649.
.2710	-1677.	440.	-357.	-640.	-835.	-523.		-.0312	.0444	-.0302	-.1469	-.0634	.0333			1659.
.2720	-1102.	627.	-406.	-819.	-574.	-734.		-.0369	.0399	-.0150	-.1368	-.0563	.0290			1752.
.2730	-421.	777.	-442.	-1000.	-269.	-891.		-.0425	.0358	.0007	-.1261	-.0491	.0239			1930.
.2740	369.	972.	-450.	-1207.	67.	-1045.		-.0476	.0324	.0165	-.1153	-.0418	.0179			2257.
.2750	1188.	1262.	-481.	-1462.	391.	-1223.		-.0519	.0296	.0322	-.1044	-.0340	.0110			2748.
.2760	1942.	1591.	-594.	-1761.	664.	-1387.		-.0551	.0273	.0472	-.0933	-.0256	.0032			3303.
.2770	2638.	1889.	-714.	-2087.	901.	-1486.		-.0572	.0256	.0612	-.0821	-.0169	-.0055			3836.
.2780	3267.	2157.	-776.	-2421.	1111.	-1524.		-.0581	.0244	.0739	-.0711	-.0086	-.0150			4334.
.2790	3738.	2439.	-823.	-2738.	1271.	-1534.		-.0579	.0239	.0848	-.0612	-.0008	-.0252			4782.
.2800	4017.	2719.	-840.	-3007.	1383.	-1516.		-.0566	.0242	.0937	-.0531	.0060	-.0359			5142.
.2810	4168.	2923.	-713.	-3195.	1488.	-1435.		-.0545	.0253	.1004	-.0465	.0110	-.0465			5376.
.2820	4212.	3006.	-435.	-3284.	1590.	-1271.		-.0520	.0271	.1047	-.0415	.0142	-.0565			5458.
.2830	4116.	2990.	-121.	-3273.	1651.	-1054.		-.0489	.0297	.1066	-.0382	.0165	-.0650			5388.
.2840	3911.	2915.	157.	-3175.	1647.	-829.		-.0454	.0329	.1060	-.0362	.0189	-.0713			5186.
.2850	3661.	2784.	369.	-3007.	1575.	-612.		-.0415	.0367	.1028	-.0353	.0221	-.0744			4872.
.2860	3381.	2578.	451.	-2785.	1428.	-400.		-.0373	.0409	.0973	-.0349	.0266	-.0736			4457.
.2870	3076.	2304.	384.	-2533.	1213.	-202.		-.0331	.0454	.0895	-.0343	.0325	-.0682			3977.
.2880	2779.	1995.	217.	-2266.	958.	-50.		-.0291	.0499	.0797	-.0335	.0393	-.0579			3476.
.2890	2494.	1680.	-12.	-1989.	698.	33.		-.0256	.0545	.0681	-.0326	.0462	-.0428			2978.
.2900	2213.	1365.	-254.	-1701.	465.	44.		-.0228	.0590	.0549	-.0316	.0521	-.0233			2492.
.2910	1949.	1040.	-419.	-1401.	296.	-4.		-.0209	.0634	.0405	-.0306	.0560	.0002			2023.
.2920	1694.	696.	-472.	-1085.	198.	-93.		-.0198	.0675	.0251	-.0295	.0574	.0267			1563.
.2930	1388.	340.	-477.	-745.	140.	-217.		-.0194	.0713	.0089	-.0286	.0566	.0552			1114.
.2940	1006.	-8.	-464.	-384.	99.	-379.		-.0194	.0748	-.0079	-.0280	.0536	.0845			774.
.2950	580.	-344.	-395.	1.	74.	-563.		-.0197	.0779	-.0248	-.0281	.0484	.1132			802.
.2960	120.	-684.	-279.	417.	51.	-736.		-.0200	.0805	-.0415	-.0289	.0411	.1400			1197.
.2970	-402.	-1026.	-167.	863.	1.	-875.		-.0201	.0827	-.0577	-.0308	.0320	.1638			1736.
.2980	-988.	-1347.	-58.	1323.	-88.	-978.		-.0199	.0843	-.0730	-.0338	.0214	.1837			2327.
.2990	-1603.	-1631.	78.	1784.	-205.	-1035.		-.0194	.0853	-.0871	-.0380	.0091	.1986			2928.
.3000	-2210.	-1888.	244.	2244.	-339.	-1023.		-.0186	.0858	-.0995	-.0434	-.0045	.2082			3516.
.3010	-2778.	-2112.	438.	2684.	-481.	-938.		-.0173	.0856	-.1099	-.0497	-.0188	.2123			4072.
.3020	-3287.	-2275.	643.	3073.	-632.	-796.		-.0155	.0846	-.1181	-.0566	-.0332	.2109			4571.
.3030	-3736.	-2362.	797.	3389.	-800.	-609.		-.0132	.0830	-.1240	-.0634	-.0462	.2044			4993.
.3040	-4114.	-2381.	857.	3622.	-979.	-379.		-.0102	.0805	-.1273	-.0697	-.0571	.1933			5327.
.3050	-4376.	-2341.	858.	3764.	-1143.	-118.		-.0067	.0773	-.1281	-.0748	-.0654	.1783			5558.
.3060	-4502.	-2237.	830.	3810.	-1265.	146.		-.0029	.0732	-.1263	-.0784	-.0709	.1602			5674.
.3070	-4509.	-2065.	759.	3768.	-1336.	396.		.0010	.0684	-.1220	-.0802	-.0734	.1398			5674.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.08.

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

.2970	-402.	-1026.	-167.	865.	1.	-875.	-.0201	.0827	-.0577	-.0308	.0320	.1638	1736.
.2980	-988.	-1347.	-58.	1323.	-88.	-978.	-.0199	.0843	-.0730	-.0338	.0214	.1837	2327.
.2990	-1603.	-1631.	78.	1784.	-205.	-1035.	-.0194	.0853	-.0871	-.0380	.0091	.1986	2928.
.3000	-2210.	-1896.	244.	2244.	-339.	-1023.	-.0186	.0858	-.0995	-.0434	-.0045	.2082	3516.
.3010	-2778.	-2112.	438.	2684.	-481.	-938.	-.0173	.0856	-.1099	-.0497	-.0188	.2123	4072.
.3020	-3287.	-2275.	643.	3073.	-632.	-796.	-.0155	.0846	-.1181	-.0566	-.0332	.2109	4571.
.3030	-3736.	-2362.	797.	3389.	-800.	-609.	-.0132	.0830	-.1240	-.0634	-.0462	.2044	4993.
.3040	-4114.	-2381.	857.	3622.	-979.	-379.	-.0102	.0805	-.1273	-.0697	-.0571	.1933	5327.
.3050	-4376.	-2341.	858.	3764.	-1143.	-118.	-.0067	.0773	-.1281	-.0748	-.0654	.1783	5558.
.3060	-4502.	-2237.	830.	3810.	-1265.	146.	-.0029	.0732	-.1263	-.0784	-.0709	.1602	5674.
.3070	-4509.	-2065.	759.	3768.	-1336.	396.	.0010	.0684	-.1220	-.0802	-.0734	.1398	5674.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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CONDITION 24

LOADS

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

SECTION	9	MEMBER	1	SEQUENCE	28	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ									STRESS
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)									(PSI)
.3080	-4408.	-1845.	661.	3650.	-1342.	626.	.0048	.0630	-.1154	-.0799	-.0731	.1180	5564.		
.3090	-4190.	-1606.	597.	3467.	-1264.	836.	.0083	.0568	-.1067	-.0771	-.0705	.0956	5344.		
.3100	-3865.	-1367.	593.	3231.	-1097.	1022.	.0113	.0499	-.0959	-.0717	-.0562	.0734	5031.		
.3110	-3452.	-1127.	627.	2955.	-860.	1170.	.0136	.0425	-.0835	-.0637	-.0602	.0522	4651.		
.3120	-2963.	-877.	686.	2646.	-573.	1263.	.0152	.0346	-.0698	-.0531	-.0528	.0324	4219.		
.3130	-2415.	-623.	755.	2304.	-265.	1296.	.0160	.0262	-.0549	-.0399	-.0439	.0146	3752.		
.3140	-1838.	-381.	798.	1934.	31.	1279.	.0163	.0173	-.0392	-.0241	-.0338	-.0008	3275.		
.3150	-1244.	-157.	801.	1546.	294.	1215.	.0159	.0081	-.0231	-.0060	-.0226	-.0136	2808.		
.3160	-640.	64.	764.	1148.	513.	1093.	.0149	-.0015	-.0067	.0140	-.0106	-.0239	2353.		
.3170	-44.	293.	691.	747.	681.	908.	.0134	-.0112	.0096	.0352	.0016	-.0319	1919.		
.3180	534.	517.	594.	361.	801.	676.	.0114	-.0211	.0256	.0572	.0137	-.0377	1566.		
.3190	1090.	714.	489.	4.	880.	423.	.0091	-.0309	.0411	.0794	.0253	-.0416	1379.		
.3200	1615.	874.	379.	-314.	923.	161.	.0064	-.0407	.0559	.1014	.0363	-.0441	1397.		
.3210	2084.	1006.	241.	-590.	930.	-110.	.0036	-.0504	.0698	.1227	.0468	-.0456	1563.		
.3220	2503.	1116.	75.	-817.	908.	-385.	.0009	-.0598	.0825	.1427	.0568	-.0464	1809.		
.3230	2895.	1196.	-100.	-992.	875.	-649.	-.0016	-.0689	.0940	.1612	.0662	-.0470	2081.		
.3240	3251.	1237.	-294.	-1120.	832.	-886.	-.0037	-.0776	.1042	.1778	.0751	-.0477	2335.		
.3250	3539.	1248.	-528.	-1216.	776.	-1094.	-.0053	-.0859	.1128	.1926	.0835	-.0488	2557.		
.3260	3766.	1244.	-781.	-1290.	715.	-1275.	-.0061	-.0938	.1199	.2051	.0911	-.0506	2754.		
.3270	3951.	1241.	-1013.	-1347.	668.	-1424.	-.0063	-.1013	.1255	.2152	.0972	-.0534	2925.		
.3280	4084.	1240.	-1203.	-1395.	643.	-1530.	-.0058	-.1081	.1294	.2224	.1014	-.0574	3062.		
.3290	4155.	1243.	-1326.	-1444.	641.	-1587.	-.0046	-.1145	.1318	.2269	.1032	-.0626	3162.		
.3300	4162.	1252.	-1368.	-1500.	660.	-1586.	-.0027	-.1202	.1325	.2286	.1022	-.0693	3221.		
.3310	4087.	1272.	-1347.	-1560.	690.	-1525.	-.0001	-.1252	.1317	.2272	.0984	-.0774	3231.		
.3320	3932.	1305.	-1267.	-1617.	721.	-1402.	.0031	-.1295	.1292	.2227	.0919	-.0870	3190.		
.3330	3715.	1340.	-1116.	-1662.	752.	-1215.	.0070	-.1331	.1251	.2152	.0828	-.0978	3096.		
.3340	3432.	1362.	-919.	-1681.	768.	-963.	.0114	-.1358	.1194	.2049	.0716	-.1098	2944.		
.3350	3056.	1361.	-730.	-1663.	749.	-654.	.0164	-.1376	.1122	.1920	.0588	-.1226	2737.		
.3360	2593.	1333.	-545.	-1594.	695.	-300.	.0219	-.1386	.1036	.1768	.0448	-.1359	2493.		
.3370	2083.	1267.	-330.	-1461.	624.	87.	.0275	-.1386	.0936	.1597	.0297	-.1491	2247.		
.3380	1541.	1154.	-93.	-1254.	542.	496.	.0332	-.1378	.0826	.1411	.0139	-.1616	2053.		
.3390	965.	995.	146.	-981.	445.	906.	.0387	-.1362	.0705	.1217	-.0020	-.1730	1988.		
.3400	368.	795.	380.	-658.	335.	1296.	.0440	-.1338	.0577	.1022	-.0175	-.1823	2106.		
.3410	-222.	557.	598.	-302.	213.	1652.	.0489	-.1309	.0442	.0836	-.0320	-.1891	2391.		
.3420	-781.	287.	772.	68.	75.	1964.	.0534	-.1274	.0304	.0663	-.0447	-.1925	2777.		
.3430	-1291.	4.	889.	423.	889.	2213.	.0574	-.1235	.0165	.0512	-.0551	-.1922	3184.		
.3440	-1742.	-277.	936.	736.	-256.	2387.	.0610	-.1194	.0027	.0388	-.0526	-.1878	3547.		
.3450	-2139.	-555.	893.	993.	-458.	2486.	.0641	-.1152	-.0109	.0295	-.0669	-.1793	3836.		

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2 SAFETY COLD FKW24F--2 PSV

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

.3720	2152.	1818.	96.	-2061.	944.	238.	-.045	-.0333	.0779	.0163	-.0000	-.1189	3219.
.3730	2305.	1876.	333.	-2207.	1092.	168.	-.102	-.0301	.0836	.0070	-.0042	-.1199	3487.
.3740	2431.	2105.	300.	-2317.	1163.	72.	-.157	-.0264	.0877	-.0024	-.0072	-.1178	3677.
.3750	2530.	2285.	205.	-2383.	1219.	-41.	-.0211	-.0220	.0899	-.0118	-.0092	-.1125	3781.
.3760	2601.	2406.	62.	-2395.	1200.	-162.	-.0262	-.0171	.0903	-.0212	-.0105	-.1043	3791.
.3770	2637.	2468.	-120.	-2350.	1130.	-292.	-.0312	-.0114	.0889	-.0305	-.0111	-.0933	3706.
.3780	2618.	2478.	-330.	-2248.	1017.	-429.	-.0358	-.0051	.0857	-.0396	-.0113	-.0798	3535.
.3790	2551.	2430.	-545.	-1092.	861.	-567.	-.0401	.0020	.0808	-.0484	-.0114	-.0641	3294.
.3800	2422.	2315.	-751.	-1888.	655.	-693.	-.0439	.0097	.0742	-.0568	-.0115	-.0466	3001.
.3810	2226.	2141.	-927.	-1647.	498.	-804.	-.0472	.0181	.0660	-.0646	-.0119	-.0275	2683.
.3820	1970.	1926.	-1049.	-1383.	318.	-904.	-.0500	.0270	.0566	-.0717	-.0128	-.0074	2377.
.3830	1665.	1688.	-1098.	-1107.	161.	-995.	-.0522	.0365	.0460	-.0784	-.0142	.0135	2114.

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

SECTION	9	MEMBER	1	SEQUENCE	28	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)	
.3840	1319.	1436.	-1069.	-832.	37.	-1070.	-.0539	.0464	.0345	-.0845	-.0163	.0347	1915.	
.3850	943.	1177.	-957.	-568.	-47.	-1127.	-.0551	.0566	.0223	-.0901	-.0190	.0558	1784.	
.3860	557.	917.	-769.	-326.	-89.	-1162.	-.0556	.0671	.0097	-.0952	-.0221	.0764	1709.	
.3870	177.	670.	-529.	-105.	-94.	-1177.	-.0556	.0778	-.0030	-.0999	-.0252	.0962	1674.	
.3880	-179.	445.	-268.	95.	-73.	-1172.	-.0549	.0886	-.0158	-.1046	-.0279	.1146	1664.	
.3890	-504.	239.	-12.	277.	-37.	-1143.	-.0536	.0994	-.0282	-.1092	-.0298	.1314	1662.	
.3900	-794.	40.	214.	449.	-1.	-1082.	-.0518	.1101	-.0402	-.1138	-.0307	.1464	1655.	
.3910	-1050.	-157.	390.	620.	28.	-989.	-.0494	.1205	-.0517	-.1186	-.0305	.1591	1649.	
.3920	-1266.	-345.	520.	797.	45.	-870.	-.0466	.1307	-.0624	-.1236	-.0291	.1696	1669.	
.3930	-1440.	-525.	615.	989.	53.	-730.	-.0435	.1404	-.0723	-.1289	-.0269	.1779	1738.	
.3940	-1583.	-705.	681.	1197.	49.	-566.	-.0403	.1496	-.0812	-.1344	-.0241	.1871	1871.	
.3950	-1710.	-896.	723.	1414.	30.	-383.	-.0372	.1580	-.0891	-.1397	-.0209	.1885	2069.	
.3960	-1826.	-1087.	752.	1630.	-1.	-192.	-.0342	.1656	-.0960	-.1445	-.0175	.1913	2318.	
.3970	-1924.	-1260.	777.	1831.	-42.	-15.	-.0314	.1722	-.1016	-.1487	-.0141	.1931	2588.	
.3980	-2006.	-1402.	790.	2005.	-94.	136.	-.0291	.1776	-.1062	-.1519	-.0108	.1943	2842.	
.3990	-2078.	-1510.	784.	2135.	-160.	249.	-.0271	.1818	-.1095	-.1537	-.0074	.1954	3044.	
.4000	-2147.	-1584.	754.	2207.	-238.	319.	-.0256	.1846	-.1115	-.1539	-.0041	.1966	3167.	

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)
.0640	-2870.	-8332.	1310.	7363.	-47.	658.	.0762	.1111	-.1514	.2557	.1095	.2316	10441.

SECTION	9	MEMBER	2	SEQUENCE	806	LOCATION	END	TYPE	EL					
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	2.	-1.	-1.	-0.	0.	0.	-.0000	-.0000	-.0000	.0000	.0000	-.0000	1.	
.0020	6.	-9.	-8.	-1.	-0.	1.	-.0000	-.0000	-.0001	.0000	.0002	.0000	3.	
.0030	1.	-26.	-30.	4.	-5.	4.	.0000	.0001	-.0004	.0001	.0005	.0004	10.	
.0040	-20.	-53.	-67.	19.	-14.	3.	.0000	.0003	-.0010	.0002	.0011	.0012	34.	
.0050	-53.	-90.	-111.	45.	-21.	-5.	.0000	.0007	-.0019	.0004	.0018	.0024	70.	
.0060	-109.	-145.	-168.	78.	-22.	-19.	-.0001	.0012	-.0033	.0006	.0028	.0041	118.	
.0070	-197.	-229.	-262.	127.	-28.	-31.	-.0003	.0021	-.0054	.0007	.0041	.0070	188.	

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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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FORCES AND MOMENTS ACT ON THE PIPING

TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	FX (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	2.	-1.	-1.	-0.	0.	0.	-0.0000	-0.0000	-0.0000	.0000	.0000	-0.0000	1.
.0020	6.	-9.	-8.	-1.	-0.	1.	-0.0000	-0.0000	-0.0001	.0000	.0002	.0000	3.
.0030	1.	-26.	-30.	4.	-5.	4.	.0000	.0001	-0.0004	.0001	.0005	.0004	10.
.0040	-20.	-53.	-67.	19.	-14.	3.	.0000	.0003	-0.0010	.0002	.0011	.0012	34.
.0050	-53.	-90.	-111.	45.	-21.	-5.	.0000	.0007	-0.0019	.0004	.0018	.0024	70.
.0060	-109.	-145.	-168.	78.	-22.	-19.	-0.0001	.0012	-0.0033	.0006	.0028	.0041	118.
.0070	-197.	-229.	-262.	127.	-28.	-31.	-0.0003	.0021	-0.0054	.0007	.0041	.0070	188.

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

SECTION	9	MEMBER	2	SEQUENCE	806	LOCATION	END	TYPE	EL	DX	DY	DZ	RX	RY	RZ	STRESS
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(PSI)
.0080	-340.	-343.	-471.	197.	-73.	-42.	-0.0002	.0034	-0.0085	.0009	.0063	.0116	303.			
.0090	-635.	-468.	-928.	281.	-204.	-76.	.0006	.0053	-0.0130	.0009	.0098	.0185	502.			
.0100	-1047.	-605.	-1557.	361.	-402.	-139.	.0022	.0077	-0.0191	.0009	.0148	.0276	787.			
.0110	-1396.	-781.	-2123.	431.	-597.	-195.	.0044	.0106	-0.0265	.0008	.0216	.0386	1075.			
.0120	-1603.	-998.	-2516.	490.	-746.	-217.	.0069	.0138	-0.0346	.0002	.0300	.0512	1297.			
.0130	-1769.	-1205.	-2774.	515.	-842.	-230.	.0098	.0173	-0.0434	-0.0010	.0391	.0645	1432.			
.0140	-2044.	-1372.	-2942.	479.	-880.	-255.	.0130	.0206	-0.0526	-0.0027	.0476	.0778	1460.			
.0150	-2493.	-1541.	-3028.	389.	-839.	-256.	.0161	.0238	-0.0621	-0.0050	.0549	.0909	1356.			
.0160	-3218.	-1740.	-3197.	270.	-752.	-211.	.0192	.0270	-0.0720	-0.0077	.0606	.1040	1168.			
.0170	-3952.	-1964.	-3190.	165.	-588.	-128.	.0220	.0302	-0.0824	-0.0108	.0653	.1169	881.			
.0180	-4061.	-2222.	-2387.	143.	-241.	10.	.0240	.0340	-0.0925	-0.0144	.0708	.1295	396.			
.0190	-3250.	-2505.	-836.	242.	233.	220.	.0258	.0384	-0.1019	-0.0184	.0788	.1411	567.			
.0200	-1407.	-2730.	947.	403.	568.	459.	.0297	.0426	-0.1102	-0.0224	.0914	.1499	1178.			
.0210	347.	-2713.	1460.	403.	265.	551.	.0392	.0451	-0.1182	-0.0248	.1069	.1545	1035.			
.0220	895.	-2497.	687.	69.	-504.	476.	.0522	.0440	-0.1243	-0.0240	.1171	.1530	984.			
.0230	1210.	-2416.	97.	-398.	-1138.	590.	.0643	.0400	-0.1255	-0.0211	.1204	.1432	1896.			
.0240	400.	-2283.	-1775.	-809.	-1841.	808.	.0757	.0336	-0.1230	-0.0171	.1131	.1217	3061.			
.0250	-538.	-1870.	-3072.	-1060.	-2286.	898.	.0843	.0256	-0.1171	-0.0121	.0972	.0904	3779.			
.0260	1525.	-1651.	535.	-948.	-1488.	1202.	.0843	.0174	-0.1045	-0.0064	.0790	.0536	3015.			
.0270	4104.	-1813.	5243.	-524.	-75.	1846.	.0776	.0080	-0.0854	.0003	.0504	.0084	2712.			
.0280	3154.	-1680.	4715.	-239.	154.	2195.	.0749	-0.0051	-0.0666	.0096	.0084	-0.0480	3126.			
.0290	648.	-1115.	2209.	-374.	-615.	2050.	.0771	-0.0222	-0.0496	.0229	-0.0363	-0.1044	3068.			
.0300	-1962.	-1012.	505.	-563.	-1370.	2264.	.0774	-0.0400	-0.0313	.0379	-0.0837	-0.1482	3822.			
.0310	-3714.	-1622.	-1016.	-423.	-1743.	3050.	.0728	-0.0565	-0.0119	.0516	-0.1276	-0.1870	4998.			
.0320	-2239.	-1983.	465.	173.	-1152.	3495.	.0610	-0.0706	.0096	.0622	-0.1578	-0.2277	5204.			
.0330	-1425.	-1181.	2139.	865.	-449.	2777.	.0473	-0.0828	.0305	.0701	-0.1847	-0.2634	4157.			
.0340	-4046.	-40.	1047.	1156.	-189.	1648.	.0342	-0.0957	.0488	.0760	-0.2161	-0.2864	2856.			
.0350	-5618.	41.	1081.	989.	623.	1423.	.0165	-0.1099	.0676	.0783	-0.2374	-0.2964	2601.			
.0360	-3422.	-502.	4492.	817.	2282.	1914.	-0.0066	-0.1219	.0885	.0730	-0.2393	-0.2929	4363.			
.0370	-1825.	211.	6393.	800.	3405.	1540.	-0.0272	-0.1297	.1086	.0591	-0.2345	-0.2798	5398.			
.0380	-2984.	2532.	4889.	431.	3543.	-285.	-0.0433	-0.1372	.1260	.0409	-0.2310	-0.2681	5058.			
.0390	-2452.	4335.	4670.	-412.	3812.	-1855.	-0.0609	-0.1460	.1435	.0216	-0.2171	-0.2565	6016.			
.0400	1471.	4237.	5788.	-1042.	3964.	-1625.	-0.0766	-0.1511	.1606	-0.0010	-0.1845	-0.2292	6228.			
.0410	3149.	4192.	3052.	-1462.	2770.	-1213.	-0.0834	-0.1518	.1736	-0.0255	-0.1523	-0.1924	4744.			
.0420	2977.	5869.	-1115.	-2150.	841.	-2436.	-0.0840	-0.1527	.1823	-0.0463	-0.1217	-0.1709	4741.			
.0430	5363.	7447.	-3015.	-2638.	-789.	-3774.	-0.0828	-0.1515	.1886	-0.0629	-0.0783	-0.1622	6599.			
.0440	7807.	6978.	-5914.	-2360.	-2518.	-3313.	-0.0776	-0.1438	.1913	-0.0769	-0.0315	-0.1446	6757.			
.0450	7583.	5708.	-9438.	-2006.	-4075.	-2266.	-0.0702	-0.1340	.1897	-0.0843	.0044	-0.1233	7170.			

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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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.0350	-2618.	41.	1081.	989.	623.	1423.	.165	-.1099	.0676	.0783	-.2374	-.2964	2601.
.0360	-2422.	-502.	4492.	817.	2282.	1914.	-.066	-.1219	.0885	.0730	-.2393	-.2929	4363.
.0370	-1825.	211.	6393.	800.	3405.	1540.	-.0272	-.1297	.1086	.0591	-.2345	-.2798	5398.
.0380	-2984.	2532.	4889.	431.	3543.	-285.	-.0433	-.1372	.1260	.0409	-.2310	-.2681	5058.
.0390	-2452.	4335.	4670.	-412.	3812.	-1855.	-.0609	-.1460	.1435	.0216	-.2171	-.2565	6016.
.0400	1471.	4237.	5787.	-1042.	3964.	-1625.	-.0766	-.1511	.1606	-.0010	-.1845	-.2292	6228.
.0410	3149.	4192.	3052.	-1462.	2770.	-1213.	-.0834	-.1518	.1736	-.0255	-.1523	-.1924	4744.
.0420	2977.	5869.	-1115.	-2150.	841.	-2436.	-.0840	-.1527	.1823	-.0463	-.1217	-.1709	4741.
.0430	5363.	7447.	-3015.	-2638.	-789.	-3774.	-.0828	-.1515	.1886	-.0629	-.0783	-.1622	6599.
.0440	7807.	6978.	-5914.	-2360.	-2518.	-3313.	-.0776	-.1438	.1913	-.0769	-.0315	-.1446	6757.
.0450	7583.	5708.	-9438.	-2006.	-4075.	-2266.	-.0702	-.1340	.1897	-.0843	.0044	-.1233	7170.

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	EL							STRESS
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)	(PSI)
.0460	7078.	5282.	-9333.	-2060.	-4405.	-2168.	-.0664	-.1258	.1854	-.0835	.0341	-.1168	7521.
.0470	8028.	4966.	-7014.	-1648.	-3760.	-1995.	-.0645	-.1135	.1794	-.0814	.0558	-.1163	6447.
.0480	8116.	4073.	-6336.	-539.	-3122.	-1014.	-.0590	-.0945	.1703	-.0797	.0936	-.1050	4699.
.0490	6519.	3497.	-5270.	-56.	-2304.	-506.	-.0519	-.0775	.1578	-.0705	.1118	-.0897	3332.
.0500	5357.	3305.	-1856.	-642.	-1022.	-690.	-.0449	-.0662	.1429	-.0518	.1275	-.0775	1964.
.0510	4896.	2600.	9.	-1127.	-170.	-280.	-.0338	-.0529	.1258	-.0314	.1459	-.0563	1658.
.0520	3977.	2062.	-920.	-1158.	-149.	266.	-.0170	-.0351	.1065	-.0110	.1624	-.0236	1691.
.0530	3035.	2810.	-665.	-1603.	-135.	-499.	-.0003	-.0196	.0859	.0162	.1737	.0050	2379.
.0540	2570.	3512.	813.	-2362.	125.	-1545.	.0137	-.0070	.0648	.0510	.1315	.0287	3991.
.0550	2154.	2431.	549.	-2437.	208.	-1077.	.0269	.0083	.0431	.0885	.1868	.0603	3775.
.0560	2013.	696.	383.	-1860.	427.	-134.	.0375	.0260	.0214	.1282	.1891	.0933	2702.
.0570	2234.	46.	2479.	-1240.	1131.	-413.	.0439	.0415	-.0002	.1723	.1880	.1117	2442.
.0580	1951.	-479.	3763.	-316.	1695.	-859.	.0496	.0560	-.0227	.2167	.1844	.1225	2721.
.0590	1246.	-2403.	2773.	1162.	1765.	34.	.0569	.0716	-.0462	.2574	.1806	.1407	2985.
.0600	853.	-4887.	2639.	2463.	1881.	1277.	.0630	.0836	-.0696	.2963	.1759	.1606	4734.
.0610	323.	-6505.	3618.	3202.	2049.	1570.	.0677	.0896	-.0927	.3322	.1676	.1715	5809.
.0620	-1059.	-7394.	2672.	3958.	1687.	1441.	.0740	.0937	-.1153	.3580	.1547	.1796	6409.
.0630	-2284.	-8061.	918.	4819.	1068.	1511.	.0803	.0973	-.1360	.3703	.1390	.1931	7291.
.0640	-2870.	-8332.	1310.	5034.	869.	1381.	.0824	.0955	-.1533	.3727	.1184	.2072	7475.
.0650	-4136.	-8268.	2272.	4499.	862.	1040.	.0806	.0876	-.1676	.3655	.0884	.2188	6634.
.0660	-6087.	-8123.	1818.	3921.	635.	925.	.0775	.0783	-.1785	.3451	.0520	.2311	5760.
.0670	-6898.	-7461.	1981.	3510.	489.	686.	.0718	.0694	-.1848	.3111	.0165	.2413	5099.
.0680	-6649.	-5976.	3389.	2884.	470.	-97.	.0637	.0579	-.1867	.2679	-.0165	.2425	4129.
.0690	-7077.	-4530.	3160.	2033.	-39.	-709.	.0568	.0438	-.1862	.2182	-.0485	.2376	3042.
.0700	-7912.	-3913.	885.	1314.	-1132.	-455.	.0523	.0294	-.1834	.1632	-.0759	.2323	2533.
.0710	-7910.	-3558.	-984.	844.	-2191.	40.	.0472	.0154	-.1770	.1055	-.0954	.2203	3317.
.0720	-7398.	-2688.	-2059.	657.	-2863.	17.	.0393	.0017	-.1666	.0472	-.1100	.1916	4149.
.0730	-6617.	-1661.	-3012.	950.	-3118.	-133.	.0286	-.0103	-.1522	-.0111	-.1202	.1489	4607.
.0740	-4996.	-1148.	-3058.	1673.	-2871.	236.	.0158	-.0198	-.1339	-.0681	-.1242	.1022	4705.
.0750	-3472.	-993.	-2386.	2366.	-2270.	929.	.0024	-.0292	-.1128	-.1205	-.1257	.0545	4814.
.0760	-3207.	-701.	-2328.	2742.	-1598.	1481.	-.0100	-.0401	-.0898	-.1666	-.1290	.0027	4947.
.0770	-2871.	-186.	-2158.	2982.	-741.	1878.	-.0217	-.0507	-.0644	-.2073	-.1306	-.0516	5086.
.0780	-1073.	523.	-618.	3218.	396.	2199.	-.0325	-.0598	-.0361	-.2427	-.1268	-.1027	5534.
.0790	623.	1595.	778.	3139.	1334.	2241.	-.0399	-.0689	-.0068	-.2706	-.1227	-.1488	5764.
.0800	600.	2952.	463.	2396.	1703.	1957.	-.0422	-.0807	.0216	-.2876	-.1236	-.1910	4988.
.0810	258.	4095.	-68.	1189.	1841.	1733.	-.0418	-.0941	.0495	-.2932	-.1262	-.2277	3947.
.0820	966.	4876.	517.	38.	2082.	1709.	-.0408	-.1060	.0777	-.2884	-.1269	-.2573	3806.
.0830	1733.	5789.	1254.	-864.	2281.	1401.	-.0391	-.1154	.1051	-.2730	-.1288	-.2845	3973.

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.0720	-7597.	-2688.	-2659.	057.	-2183.	17.	.0193	.0017	-.1666	.0472	-.1100	.1916	4149.
.0730	-6617.	-1661.	-3012.	950.	-3118.	-133.	.0286	-.0103	-.1522	-.0111	-.1202	.1489	4607.
.0740	-4956.	-1148.	-3058.	1673.	-2871.	236.	.0158	-.0198	-.1339	-.0681	-.1242	.1022	4705.
.0750	-3472.	-993.	-2386.	2366.	-2270.	929.	.0024	-.0292	-.1128	-.1205	-.1257	.0545	4814.
.0760	-2107.	-701.	-2328.	2742.	-1598.	1481.	-.0100	-.0401	-.0898	-.1666	-.1290	.0027	4947.
.0770	-2871.	-186.	-2158.	2982.	-741.	1878.	-.0217	-.0507	-.0644	-.2073	-.1306	-.0516	5086.
.0780	-1073.	523.	-618.	3218.	396.	2199.	-.0325	-.0598	-.0361	-.2427	-.1268	-.1027	5534.
.0790	623.	1595.	778.	3139.	1334.	2241.	-.0399	-.0689	-.0068	-.2706	-.1227	-.1488	5764.
.0800	600.	2952.	463.	2396.	1703.	1957.	-.0422	-.0807	.0216	-.2876	-.1236	-.1910	4988.
.0810	258.	4095.	-68.	1189.	1841.	1733.	-.0418	-.0941	.0495	-.2932	-.1262	-.2277	3947.
.0820	966.	4876.	517.	38.	2082.	1709.	-.0408	-.1060	.0777	-.2884	-.1269	-.2573	3806.
.0830	1733.	5789.	1254.	-864.	2281.	1431.	-.0391	-.1154	.1051	-.2730	-.1288	-.2845	3973.

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

SECTION	9	MEMBER	2	SEQUENCE	806	LOCATION	END	TYPE	EL						
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	1883.	6958.	1687.	-1657.	2338.	594.	-.0364	-.1235	.1306	-.2456	-.1327	-.3133	4134.		
.0850	2152.	7566.	2362.	-2335.	2312.	-10.	-.0329	-.1302	.1533	-.2065	-.1335	-.3377	4642.		
.0860	2476.	7013.	2658.	-2758.	2058.	180.	-.0275	-.1343	.1727	-.1578	-.1289	-.3504	4868.		
.0870	2307.	5891.	2015.	-2957.	1499.	642.	-.0203	-.1358	.1880	-.1014	-.1196	-.3546	4769.		
.0880	2332.	5012.	1385.	-2992.	856.	649.	-.0124	-.1351	.1994	-.0401	-.1028	-.3559	4490.		
.0890	3110.	4257.	950.	-2790.	186.	394.	-.0041	-.1315	.2070	.0222	-.0756	-.3504	3989.		
.0900	3765.	3162.	-353.	-2480.	-675.	360.	.0052	-.1254	.2100	.0827	-.0412	-.3314	3666.		
.0910	3779.	1865.	-2119.	-2432.	-1552.	392.	.0142	-.1191	.2084	.1405	-.0036	-.2998	4112.		
.0920	3890.	800.	-2955.	-2670.	-2054.	151.	.0203	-.1129	.2031	.1928	.0366	-.2591	4763.		
.0930	4534.	133.	-2979.	-2805.	-2132.	-347.	.0231	-.1043	.1950	.2354	.0789	-.2101	5001.		
.0940	5350.	-95.	-2819.	-2760.	-1926.	-1095.	.0232	-.0929	.1841	.2666	.1205	-.1548	5000.		
.0950	6034.	31.	-2173.	-2893.	-1491.	-2119.	.0214	-.0814	.1701	.2884	.1592	-.0967	5486.		
.0960	6366.	75.	-1318.	-3300.	-1021.	-3026.	.0189	-.0708	.1525	.3014	.1935	-.0351	6487.		
.0970	6172.	-246.	-1222.	-3679.	-765.	-3439.	.0174	-.0593	.1317	.3042	.2224	.0299	7196.		
.0980	5832.	-541.	-1478.	-3846.	-615.	-3686.	.0162	-.0466	.1085	.2965	.2454	.0903	7575.		
.0990	5717.	-413.	-1067.	-3812.	-327.	-4184.	.0139	-.0334	.0841	.2795	.2612	.1380	8009.		
.1000	5463.	-253.	-405.	-3519.	29.	-4577.	.0107	-.0195	.0589	.2539	.2677	.1741	8155.		
.1010	4747.	-616.	-108.	-2963.	337.	-4335.	.0073	-.0051	.0332	.2203	.2635	.2017	7432.		
.1020	3936.	-1330.	433.	-2324.	699.	-3632.	.0034	.0084	.0080	.1801	.2495	.2179	6170.		
.1030	3252.	-1860.	1399.	-1656.	1085.	-2915.	-.0006	.0210	-.0162	.1341	.2269	.2198	4977.		
.1040	2423.	-2063.	1845.	-846.	1218.	-2218.	-.0028	.0337	-.0390	.0820	.1964	.2110	3769.		
.1050	1548.	-2148.	1629.	-6.	1020.	-1373.	-.0023	.0461	-.0602	.0257	.1600	.1954	2416.		
.1060	916.	-2265.	1406.	537.	621.	-374.	.0004	.0560	-.0798	-.0316	.1202	.1742	1275.		
.1070	30.	-2392.	719.	721.	-24.	716.	.0056	.0632	-.0978	-.0876	.0768	.1494	1435.		
.1080	-905.	-2396.	-717.	813.	-974.	1831.	.0139	.0694	-.1144	-.1419	.0333	.1243	3147.		
.1090	-1202.	-2042.	-2548.	923.	-2244.	2729.	.0267	.0750	-.1303	-.1928	-.0036	.0993	5158.		
.1100	-3253.	-1232.	-4782.	688.	-3334.	2982.	.0384	.0770	-.1450	-.2347	-.0473	.0694	6393.		
.1110	-4587.	-883.	-4963.	444.	-3557.	3349.	.0451	.0772	-.1571	-.2672	-.0894	.0388	6930.		
.1120	-4444.	-1288.	-3360.	686.	-2988.	4247.	.0472	.0788	-.1662	-.2919	-.1254	.0132	7398.		
.1130	-5041.	-1417.	-1953.	1200.	-2188.	4755.	.0473	.0809	-.1739	-.3073	-.1509	-.0104	7586.		
.1140	-6602.	-870.	-618.	1561.	-1322.	4375.	.0463	.0807	-.1808	-.3109	-.1954	-.0356	6822.		
.1150	-7644.	-760.	897.	1892.	-441.	4086.	.0447	.0792	-.1863	-.3036	-.2216	-.0554	6391.		
.1160	-8418.	-1660.	1410.	2393.	176.	4480.	.0434	.0781	-.1903	-.2876	-.2398	-.0630	7179.		
.1170	-9034.	-2531.	1811.	2819.	641.	4623.	.0414	.0764	-.1921	-.2636	-.2519	-.0645	7701.		
.1180	-10609.	-2511.	1899.	2999.	1072.	3809.	.0366	.0729	-.1910	-.2334	-.2654	-.0663	7013.		
.1190	-10051.	-2442.	3600.	3312.	1854.	3000.	.0275	.0704	-.1851	-.2020	-.2689	-.0637	6834.		
.1200	-8377.	-2898.	4991.	3812.	2500.	2825.	.0171	.0696	-.1753	-.1719	-.2642	-.0499	7575.		
.1210	-8948.	-3106.	3700.	3879.	2389.	2448.	.0088	.0669	-.1638	-.1407	-.2618	-.0290	7305.		

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

.1100	-1251.	-1232.	-4967.	888.	-1334.	198.	0.0770	-0.1450	-0.2547	-0.0473	0.0694	6393.	
.1110	-4587.	-883.	-4967.	444.	-3557.	3349.	0.0451	0.0772	-0.1571	-0.2672	-0.0894	0.0388	6930.
.1120	-444.	-1288.	-3360.	686.	-2988.	4247.	0.0472	0.0788	-0.1662	-0.2919	-0.1254	0.0132	7398.
.1130	-5041.	-1417.	-1953.	1200.	-2188.	4755.	0.0473	0.0809	-0.1739	-0.3073	-0.1509	-0.0104	7586.
.1140	-6602.	-870.	-618.	1561.	-1722.	4375.	0.0463	0.0807	-0.1808	-0.3109	-0.1954	-0.0356	6822.
.1150	-7644.	-760.	897.	893.	-441.	4086.	0.0447	0.0792	-0.1863	-0.3036	-0.2216	-0.0554	6391.
.1160	-8418.	-1660.	1410.	2092.	176.	4480.	0.0434	0.0781	-0.1903	-0.2876	-0.2398	-0.0630	7179.
.1170	-9034.	-2531.	1811.	2819.	641.	4623.	0.0414	0.0764	-0.1921	-0.2636	-0.2519	-0.0645	7701.
.1180	-10609.	-2511.	1899.	2999.	1072.	3809.	0.0366	0.0729	-0.1910	-0.2334	-0.2654	-0.0663	7013.
.1190	-10051.	-2442.	3600.	3312.	1854.	3000.	0.0275	0.0704	-0.1851	-0.2020	-0.2689	-0.0637	6834.
.1200	-8377.	-2898.	4991.	3812.	2500.	2825.	0.0171	0.0696	-0.1753	-0.1719	-0.2642	-0.0499	7575.
.1210	-8948.	-3106.	3700.	3879.	2389.	2448.	0.0088	0.0669	-0.1638	-0.1407	-0.2618	-0.0290	7305.

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2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	EL								
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	-8703.	-2762.	3889.	3270.	2325.	1411.	-0.0006	0.0602	-0.1493	-0.1077	-0.2520	-0.0105	6007.	
.1230	-7593.	-2535.	3825.	2681.	2149.	552.	-0.0101	0.0539	-0.1315	-0.0779	-0.2336	0.0089	4915.	
.1240	-5664.	-2518.	2957.	2454.	1772.	125.	-0.0186	0.0504	-0.1105	-0.0540	-0.2063	0.0308	4279.	
.1250	-3781.	-1893.	2511.	2022.	1379.	-751.	-0.0266	0.0463	-0.0873	-0.0329	-0.1748	0.0484	3615.	
.1260	-3246.	-846.	1555.	1175.	835.	-1963.	-0.0332	0.0399	-0.0632	-0.0134	-0.1440	0.0605	3440.	
.1270	-1183.	-583.	1068.	475.	299.	-2316.	-0.0377	0.0347	-0.0380	0.0013	-0.1014	0.0722	3366.	
.1280	362.	-768.	-1104.	30.	-621.	-2088.	-0.0380	0.0315	-0.0131	0.0107	-0.0547	0.0832	3077.	
.1290	1392.	-233.	-2580.	-638.	-1411.	-2524.	-0.0371	0.0271	0.0113	0.0179	-0.0081	0.0836	4183.	
.1300	2875.	675.	-2453.	-1427.	-1772.	-3257.	-0.0368	0.0221	0.0355	0.0218	0.0397	0.0751	5612.	
.1310	3449.	893.	-3738.	-1880.	-2115.	-3085.	-0.0356	0.0197	0.0590	0.0190	0.0831	0.0681	5913.	
.1320	4803.	690.	-3759.	-2206.	-1970.	-2340.	-0.0362	0.0185	0.0821	0.0112	0.1252	0.0610	5327.	
.1330	5581.	1136.	-2669.	-2819.	-1461.	-2165.	-0.0383	0.0159	0.1041	0.0016	0.1590	0.0476	5428.	
.1340	6281.	1999.	-1372.	-3463.	-885.	-2335.	-0.0401	0.0136	0.1243	-0.0104	0.1871	0.0302	6030.	
.1350	7337.	2545.	-1040.	-3828.	-566.	-2107.	-0.0399	0.0135	0.1423	-0.0255	0.2126	0.0156	6223.	
.1360	7418.	3042.	-1917.	-4278.	-579.	-1831.	-0.0379	0.0133	0.1571	-0.0404	0.2291	0.0033	6624.	
.1370	8103.	3758.	-1140.	-5043.	-386.	-1899.	-0.0370	0.0112	0.1693	-0.0522	0.2399	-0.0108	7631.	
.1380	7993.	4311.	-1417.	-5596.	-393.	-1848.	-0.0359	0.0102	0.1783	-0.0626	0.2406	-0.0227	8343.	
.1390	8024.	4529.	-2162.	-5593.	-401.	-1518.	-0.0358	0.0124	0.1845	-0.0724	0.2340	-0.0327	8206.	
.1400	8684.	4868.	-1336.	-5369.	9.	-1514.	-0.0392	0.0151	0.1882	-0.0786	0.2204	-0.0463	7879.	
.1410	8167.	5268.	-584.	-5107.	500.	-1818.	-0.0446	0.0173	0.1880	-0.0801	0.1941	-0.0621	7690.	
.1420	8023.	5027.	424.	-4548.	1019.	-1674.	-0.0506	0.0209	0.1842	-0.0792	0.1638	-0.0738	6995.	
.1430	7376.	4347.	414.	-3665.	1251.	-1159.	-0.0554	0.0264	0.1760	-0.0771	0.1284	-0.0797	5710.	
.1440	6584.	3970.	709.	-2795.	1410.	-1029.	-0.0597	0.0318	0.1639	-0.0730	0.0896	-0.0854	4655.	
.1450	5742.	3805.	1266.	-2000.	1500.	-1227.	-0.0633	0.0370	0.1482	-0.0675	0.0492	-0.0904	3933.	
.1460	4099.	3243.	433.	-1092.	1248.	-1096.	-0.0648	0.0435	0.1287	-0.0627	0.0066	-0.0879	2808.	
.1470	3477.	2343.	519.	-185.	1064.	-671.	-0.0655	0.0508	0.1068	-0.0591	-0.0309	-0.0777	1796.	
.1480	1939.	1779.	311.	455.	786.	-540.	-0.0651	0.0575	0.0820	-0.0564	-0.0596	-0.0634	1492.	
.1490	12.	1474.	84.	933.	543.	-599.	-0.0643	0.0640	0.0554	-0.0555	-0.1065	-0.0454	1744.	
.1500	-1008.	949.	590.	1500.	533.	-404.	-0.0639	0.0718	0.0282	-0.0573	-0.1358	-0.0212	2320.	
.1510	-2357.	366.	810.	2055.	578.	-159.	-0.0632	0.0803	0.0006	-0.0607	-0.1608	0.0081	3024.	
.1520	-3236.	22.	1882.	2381.	812.	-222.	-0.0626	0.0877	-0.0269	-0.0638	-0.1774	0.0376	3567.	
.1530	-4593.	-224.	2103.	2572.	880.	-403.	-0.0603	0.0945	-0.0543	-0.0667	-0.1874	0.0681	3882.	
.1540	-5121.	-697.	2170.	2836.	842.	-352.	-0.0561	0.1018	-0.0806	-0.0701	-0.1855	0.1013	4208.	
.1550	-5050.	-1174.	2150.	3100.	670.	-290.	-0.0500	0.1093	-0.1054	-0.0731	-0.1732	0.1349	4499.	
.1560	-6258.	-1364.	658.	3205.	175.	-518.	-0.0419	0.1156	-0.1289	-0.0742	-0.1592	0.1652	4592.	
.1570	-6233.	-1654.	261.	3276.	-95.	-699.	-0.0345	0.1213	-0.1492	-0.0741	-0.1367	0.1911	4733.	
.1580	-5881.	-2235.	-210.	3499.	-277.	-551.	-0.0277	0.1274	-0.1660	-0.0742	-0.1110	0.2147	5019.	
.1590	-6268.	-2705.	-1198.	3753.	-413.	-397.	-0.0218	0.1334	-0.1792	-0.0742	-0.0888	0.2341	5363.	

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2 SAFETY COLD FKW24F--2 PSV

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INTERNAL FORCES IN THE PIPING
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.1480	1939.	1779.	11.	45.	780.	-540.	-.0651	.0575	.0820	-.0584	-.0596	-.0634	1492.
.1490	12.	1474.	84.	933.	543.	-599.	-.0643	.0640	.0554	-.0555	-.1065	-.0454	1744.
.1500	-1008.	949.	590.	1500.	533.	-404.	-.0639	.0718	.0282	-.0573	-.1358	-.0212	2320.
.1510	-2357.	366.	810.	2055.	578.	-159.	-.0632	.0803	.0006	-.0607	-.1508	.0081	3024.
.1520	-3236.	22.	1882.	2381.	812.	-222.	-.0626	.0877	-.0269	-.0638	-.1774	.0376	3567.
.1530	-4593.	-224.	2103.	2572.	880.	-403.	-.0603	.0945	-.0543	-.0667	-.1874	.0681	3882.
.1540	-5121.	-697.	2170.	2836.	842.	-352.	-.0561	.1018	-.0806	-.0701	-.1855	.1013	4208.
.1550	-5050.	-1174.	2150.	3100.	670.	-290.	-.0500	.1093	-.1054	-.0731	-.1732	.1349	4499.
.1560	-6258.	-1364.	658.	3205.	175.	-518.	-.0419	.1156	-.1289	-.0742	-.1592	.1652	4592.
.1570	-6233.	-1654.	261.	3276.	-95.	-699.	-.0345	.1213	-.1492	-.0741	-.1367	.1911	4733.
.1580	-5881.	-2235.	-210.	3499.	-277.	-551.	-.0277	.1274	-.1660	-.0742	-.1110	.2147	5019.
.1590	-6268.	-2705.	-1198.	3753.	-413.	-397.	-.0218	.1334	-.1792	-.0742	-.0888	.2341	5363.

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ENGLISH UNITS

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

SECTION	9	MEMBER	2	SEQUENCE	806	LOCATION	END	TYPE	EL						
TIME	FX	FY	FZ	MX	MY	MZ									STRESS
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.1600	-5753.	-2889.	-453.	3879.	-102.	-438.	-.0188	.1379	-.1878	-.0739	-.0666	.2459	5516.		
.1610	-4563.	-3060.	804.	3992.	323.	-302.	-.0166	.1419	-.1923	-.0743	-.0444	.2534	5673.		
.1620	-4804.	-3318.	-175.	4062.	223.	89.	-.0119	.1452	-.1941	-.0754	-.0288	.2596	5748.		
.1630	-4433.	-3349.	-221.	3807.	139.	328.	-.0072	.1458	-.1924	-.0750	-.0141	.2603	5400.		
.1640	-3910.	-3158.	148.	3301.	42.	427.	-.0025	.1438	-.1873	-.0731	-.0023	.2556	4702.		
.1650	-4144.	-3037.	-761.	2881.	-289.	737.	.0028	.1413	-.1792	-.0709	.0037	.2487	4220.		
.1660	-3431.	-2909.	-589.	2540.	-363.	1078.	.0064	.1379	-.1675	-.0673	.0096	.2374	3942.		
.1670	-3067.	-2495.	36.	2103.	-245.	1149.	.0031	.1322	-.1529	-.0602	.0108	.2197	3403.		
.1680	-2737.	-2110.	926.	1682.	11.	1148.	.0085	.1248	-.1358	-.0497	.0104	.1978	2877.		
.1690	-2943.	-2011.	945.	1429.	184.	1353.	.0087	.1167	-.1168	-.0364	.0082	.1752	2791.		
.1700	-2694.	-1930.	1503.	1236.	504.	1474.	.0076	.1072	-.0960	-.0201	.0082	.1501	2809.		
.1710	-1075.	-1639.	3446.	1032.	1026.	1298.	.0054	.0961	-.0734	-.0011	.0153	.1214	2754.		
.1720	-1156.	-1230.	2744.	881.	951.	1012.	.0060	.0840	-.0513	.0189	.0206	.0942	2322.		
.1730	-863.	-961.	1863.	704.	737.	792.	.0073	.0708	-.0290	.0396	.0310	.0694	1823.		
.1740	177.	-774.	1776.	397.	647.	551.	.0077	.0559	-.0063	.0606	.0462	.0462	1325.		
.1750	758.	-511.	1030.	74.	467.	231.	.0077	.0403	.0159	.0801	.0609	.0245	744.		
.1760	1794.	-112.	534.	-150.	360.	-165.	.0069	.0250	.0379	.0964	.0775	.0044	598.		
.1770	2318.	461.	-243.	-364.	255.	-669.	.0051	.0096	.0590	.1094	.0906	-.0136	1134.		
.1780	3361.	960.	-12.	-655.	375.	-1110.	.0014	-.0062	.0791	.1197	.1025	-.0296	1895.		
.1790	3756.	1253.	-351.	-962.	409.	-1336.	-.0028	-.0219	.0974	.1268	.1089	-.0426	2396.		
.1800	3645.	1510.	-1087.	-1220.	352.	-1491.	-.0074	-.0370	.1137	.1306	.1093	-.0535	2766.		
.1810	4741.	1891.	-276.	-1412.	509.	-1752.	-.0134	-.0514	.1286	.1312	.1093	-.0649	3259.		
.1820	4833.	2358.	-615.	-1531.	365.	-2057.	-.0184	-.0648	.1406	.1290	.1019	-.0758	3658.		
.1830	4669.	2663.	-1323.	-1628.	51.	-2215.	-.0226	-.0776	.1498	.1248	.0903	-.0855	3884.		
.1840	4581.	2764.	-1685.	-1746.	-261.	-2218.	-.0267	-.0898	.1565	.1191	.0755	-.0941	4004.		
.1850	4280.	2790.	-2014.	-1799.	-566.	-2157.	-.0306	-.1008	.1608	.1117	.0570	-.1021	4047.		
.1860	4283.	2859.	-1937.	-1695.	-739.	-2126.	-.0347	-.1100	.1629	.1024	.0377	-.1115	3980.		
.1870	3618.	3062.	-2277.	-1490.	-863.	-2204.	-.0385	-.1173	.1628	.0914	.0149	-.1223	3951.		
.1880	3559.	3215.	-1485.	-1280.	-654.	-2251.	-.0429	-.1233	.1612	.0794	-.0062	-.1334	3772.		
.1890	3375.	3175.	-705.	-1069.	-361.	-2093.	-.0463	-.1276	.1577	.0663	-.0263	-.1424	3359.		
.1900	2567.	3085.	-740.	-870.	-181.	-1836.	-.0475	-.1301	.1520	.0520	-.0455	-.1496	2882.		
.1910	2513.	3152.	-48.	-722.	117.	-1693.	-.0471	-.1310	.1447	.0369	-.0585	-.1573	2604.		
.1920	2342.	3357.	273.	-599.	295.	-1617.	-.0442	-.1300	.1357	.0211	-.0677	-.1641	2471.		
.1930	2047.	3436.	78.	-496.	321.	-1382.	-.0385	-.1273	.1247	.0052	-.0731	-.1683	2123.		
.1940	1909.	3311.	-46.	-467.	315.	-962.	-.0309	-.1233	.1122	-.0098	-.0741	-.1702	1575.		
.1950	1689.	3098.	-140.	-486.	293.	-472.	-.0219	-.1182	.0981	-.0232	-.0726	-.1705	1042.		
.1960	1220.	2864.	-410.	-435.	254.	40.	-.0118	-.1115	.0826	-.0347	-.0698	-.1695	714.		
.1970	884.	2547.	-381.	-272.	320.	588.	-.0016	-.1031	.0663	-.0438	-.0654	-.1673	1021.		

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ENGLISH UNITS

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

.1870	3618.	3062.	-277.	-1490.	-263.	-2204.	-1385.	-1173.	.1628	.0914	.0149	-.1223	3951.
.1880	3559.	3215.	-1485.	-1280.	-654.	-2251.	-1429.	-1233.	.1612	.0794	-.0062	-.1334	3772.
.1890	3375.	3175.	-705.	-1069.	-361.	-2093.	-.0463	-.1276	.1577	.0663	-.0263	-.1424	3359.
.1900	2567.	3085.	-740.	-870.	-181.	-1836.	-.0475	-.1301	.1520	.0520	-.0455	-.1496	2882.
.1910	2513.	3152.	-48.	-721.	113.	-1693.	-.0471	-.1310	.1447	.0369	-.0585	-.1573	2604.
.1920	2342.	3357.	273.	-599.	295.	-1617.	-.0442	-.1300	.1357	.0211	-.0677	-.1641	2471.
.1930	2047.	3436.	78.	-496.	321.	-1382.	-.0385	-.1273	.1247	.0052	-.0731	-.1683	2123.
.1940	1909.	3311.	-46.	-467.	315.	-972.	-.0309	-.1233	.1122	-.0098	-.0741	-.1702	1575.
.1950	1689.	3098.	-140.	-486.	293.	-472.	-.0219	-.1182	.0981	-.0232	-.0726	-.1705	1042.
.1960	1220.	2864.	-410.	-435.	254.	40.	-.0118	-.1115	.0826	-.0347	-.0698	-.1695	714.
.1970	814.	2547.	-381.	-272.	320.	588.	-.0016	-.1031	.0663	-.0438	-.0654	-.1673	1021.

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

SECTION	9	MEMBER	2	SEQUENCE	806	LOCATION	END	TYPE	EL					
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	FX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
.1980	768.	2074.	170.	-57.	515.	1179.	.0082	-.0938	.0492	-.0491	-.0597	-.1633	1818.	
.1990	387.	1446.	643.	152.	669.	1789.	.0183	-.0840	.0311	-.0499	-.0541	-.1562	2707.	
.2000	-365.	742.	733.	343.	681.	2362.	.0291	-.0741	.0122	-.0461	-.0490	-.1455	3506.	
.2010	-1101.	51.	785.	521.	612.	2818.	.0398	-.0641	-.0071	-.0379	-.0433	-.1313	4139.	
.2020	-1743.	-584.	875.	694.	499.	3113.	.0498	-.0543	-.0262	-.0256	-.0372	-.1135	4560.	
.2030	-2443.	-1167.	854.	852.	341.	3246.	.0588	-.0448	-.0449	-.0094	-.0316	-.0917	4764.	
.2040	-3085.	-1709.	877.	973.	187.	3220.	.0660	-.0360	-.0626	.0101	-.0263	-.0664	4759.	
.2050	-3607.	-2210.	979.	1059.	62.	3054.	.0712	-.0281	-.0789	.0324	-.0211	-.0384	4567.	
.2060	-4120.	-2652.	986.	1150.	-54.	2771.	.0743	-.0208	-.0936	.0563	-.0164	-.0080	4238.	
.2070	-4501.	-3017.	1013.	1272.	-137.	2380.	.0753	-.0142	-.1063	.0811	-.0118	.0238	3817.	
.2080	-4520.	-3327.	1228.	1428.	-167.	1910.	.0741	-.0083	-.1166	.1060	-.0059	.0554	3377.	
.2090	-4350.	-3628.	1307.	1610.	-228.	1415.	.0716	-.0032	-.1246	.1303	.0013	.0858	3044.	
.2100	-4256.	-3932.	972.	1795.	-388.	927.	.0685	.0009	-.1304	.1534	.0091	.1140	2906.	
.2110	-4034.	-4217.	565.	1970.	-575.	459.	.0648	.0038	-.1378	.1744	.0182	.1388	2970.	
.2120	-3530.	-4460.	263.	2149.	-730.	45.	.0605	.0059	-.1345	.1919	.0290	.1590	3206.	
.2130	-2995.	-4628.	-164.	2329.	-874.	-298.	.0562	.0069	-.1326	.2050	.0402	.1738	3539.	
.2140	-2582.	-4681.	-623.	2448.	-968.	-592.	.0519	.0067	-.1282	.2130	.0507	.1824	3812.	
.2150	-2169.	-4635.	-765.	2458.	-920.	-816.	.0472	.0050	-.1211	.2156	.0501	.1844	3882.	
.2160	-1711.	-4516.	-610.	2372.	-719.	-913.	.0422	.0020	-.1114	.2121	.0680	.1799	3731.	
.2170	-1328.	-4250.	-363.	2198.	-425.	-917.	.0374	-.0021	-.0991	.2023	.0735	.1689	3417.	
.2180	-1020.	-3747.	15.	1900.	-80.	-918.	.0328	-.0075	-.0845	.1866	.0762	.1512	2983.	
.2190	-759.	-3058.	459.	1469.	255.	-896.	.0289	-.0140	-.0680	.1658	.0760	.1276	2457.	
.2200	-595.	-2315.	692.	946.	490.	-765.	.0258	-.0214	-.0497	.1407	.0726	.0993	1853.	
.2210	-452.	-1540.	735.	372.	610.	-550.	.0233	-.0294	-.0301	.1127	.0561	.0666	1273.	
.2220	-200.	-675.	772.	-208.	633.	-348.	.0210	-.0377	-.0094	.0828	.0568	.0299	1061.	
.2230	96.	245.	655.	-724.	535.	-166.	.0187	-.0458	.0118	.0524	.0448	-.0100	1293.	
.2240	343.	1100.	265.	-1128.	318.	60.	.0162	-.0535	.0330	.0225	.0302	-.0513	1658.	
.2250	663.	1812.	-122.	-1420.	73.	339.	.0129	-.0606	.0539	-.0054	.0139	-.0926	2064.	
.2260	1108.	2377.	-332.	-1592.	-134.	628.	.0085	-.0670	.0739	-.0304	-.0032	-.1326	2424.	
.2270	1587.	2829.	-544.	-1618.	-318.	884.	.0032	-.0723	.0926	-.0519	-.0202	-.1697	2643.	
.2280	2054.	3207.	-814.	-1521.	-487.	1067.	-.0026	-.0763	.1093	-.0696	-.0359	-.2023	2713.	
.2290	2505.	3512.	-1011.	-1379.	-608.	1164.	-.0087	-.0792	.1236	-.0829	-.0493	-.2286	2690.	
.2300	2851.	3695.	-1155.	-1252.	-662.	1213.	-.0149	-.0812	.1352	-.0918	-.0598	-.2469	2634.	
.2310	3068.	3754.	-1267.	-1152.	-629.	1221.	-.0211	-.0821	.1439	-.0965	-.0670	-.2563	2533.	
.2320	3260.	3785.	-1168.	-1084.	-462.	1114.	-.0272	-.0819	.1496	-.0971	-.0705	-.2572	2290.	
.2330	3422.	3863.	-800.	-1059.	-154.	836.	-.0332	-.0805	.1524	-.0942	-.0702	-.2501	1917.	
.2340	3449.	3935.	-326.	-1090.	243.	454.	-.0387	-.0781	.1523	-.0880	-.0667	-.2353	1702.	
.2350	3380.	3897.	204.	-1183.	679.	72.	-.0434	-.0748	.1493	-.0788	-.0502	-.2131	1929.	

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

.2250	663.	1812.	-122.	-1420.	73.	339.	.129	-.0606	.0539	-.0054	.0139	-.0926	2064.
.2260	1108.	2377.	-332.	-1592.	-134.	628.	.0085	-.0670	.0739	-.0304	-.0032	-.1326	2424.
.2270	1587.	2829.	-544.	-1618.	-318.	884.	.0032	-.0723	.0926	-.0519	-.0202	-.1697	2643.
.2280	2054.	3207.	-814.	-1521.	-487.	1067.	-.0026	-.0763	.1093	-.0696	-.0359	-.2023	2713.
.2290	2505.	3512.	-1011.	-1379.	-608.	1184.	-.0087	-.0792	.1236	-.0829	-.0493	-.2286	2690.
.2300	2851.	3695.	-1155.	-1252.	-662.	1213.	-.0149	-.0812	.1352	-.0918	-.0598	-.2469	2634.
.2310	3068.	3754.	-1267.	-1152.	-629.	1221.	-.0211	-.0821	.1439	-.0965	-.0670	-.2563	2533.
.2320	3260.	3785.	-1168.	-1084.	-462.	1114.	-.0272	-.0819	.1496	-.0971	-.0705	-.2572	2290.
.2330	3422.	3863.	-800.	-1059.	-154.	836.	-.0332	-.0805	.1524	-.0942	-.0702	-.2501	1917.
.2340	3449.	3935.	-326.	-1090.	243.	454.	-.0387	-.0781	.1523	-.0880	-.0667	-.2353	1702.
.2350	3380.	3897.	204.	-1183.	679.	72.	-.0434	-.0748	.1493	-.0788	-.0502	-.2131	1929.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.09.

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	9	MEMBER	2	SEQUENCE	806	LOCATION	END	TYPE	EL						
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	3300.	3739.	791.	-1325.	1102.	-290.	-.0469	-.0706	.1435	-.0669	-.0506	-.1850	2468.		
.2370	3149.	3526.	1240.	-1477.	1419.	-675.	-.0489	-.0654	.1352	-.0528	-.0388	-.1530	3046.		
.2380	2918.	3273.	1398.	-1597.	1564.	-1082.	-.0491	-.0592	.1246	-.0369	-.0253	-.1191	3507.		
.2390	2732.	2919.	1354.	-1665.	1535.	-1441.	-.0475	-.0520	.1119	-.0199	-.0106	-.0847	3791.		
.2400	2601.	2408.	1132.	-1677.	1332.	-1686.	-.0441	-.0438	.0976	-.0023	.0045	-.0506	3850.		
.2410	2388.	1776.	625.	-1627.	943.	-1820.	-.0392	-.0349	.0819	.0151	.0188	-.0182	3697.		
.2420	2098.	1110.	-90.	-1508.	419.	-1896.	-.0329	-.0251	.0651	.0313	.0316	.0112	3473.		
.2430	1859.	466.	-771.	-1317.	-145.	-1936.	-.0259	-.0146	.0477	.0453	.0427	.0367	3314.		
.2440	1670.	-154.	-1323.	-1072.	-678.	-1915.	-.0187	-.0035	.0301	.0560	.0515	.0584	3244.		
.2450	1441.	-738.	-1760.	-815.	-1148.	-1814.	-.0113	.0080	.0124	.0628	.0579	.0767	3243.		
.2460	1130.	-1247.	-2072.	-591.	-1528.	-1650.	-.0039	.0196	-.0052	.0650	.0617	.0917	3285.		
.2470	719.	-1643.	-2265.	-416.	-1798.	-1446.	.0033	.0311	-.0226	.0624	.0632	.1038	3311.		
.2480	207.	-1917.	-2318.	-280.	-1924.	-1205.	.0101	.0425	-.0394	.0550	.0626	.1130	3230.		
.2490	-296.	-2092.	-208.	-174.	-1856.	-927.	.0160	.0536	-.0553	.0430	.0500	.1196	2940.		
.2500	-722.	-2195.	-1539.	-88.	-1593.	-608.	.0208	.0643	-.0702	.0272	.0561	.1238	2411.		
.2510	-1206.	-2250.	-903.	-8.	-1206.	-254.	.0246	.0744	-.0840	.0083	.0504	.1256	1741.		
.2520	-1827.	-2274.	-312.	72.	-749.	119.	.0274	.0838	-.0966	-.0124	.0429	.1254	1076.		
.2530	-2404.	-2298.	388.	170.	-214.	504.	.0288	.0922	-.1075	-.0341	.0338	.1229	810.		
.2540	-2773.	-2347.	1244.	317.	376.	901.	.0287	.0997	-.1166	-.0558	.0236	.1186	1450.		
.2550	-3003.	-2401.	2018.	519.	916.	1276.	.0276	.1062	-.1239	-.0770	.0124	.1126	2336.		
.2560	-3209.	-2421.	2520.	728.	1309.	1576.	.0258	.1113	-.1294	-.0969	.0001	.1053	3071.		
.2570	-3369.	-2421.	2755.	897.	1519.	1806.	.0237	.1147	-.1332	-.1147	-.0129	.0973	3566.		
.2580	-3424.	-2450.	2724.	1021.	1541.	2019.	.0212	.1165	-.1351	-.1306	-.0261	.0898	3866.		
.2590	-3375.	-2471.	2439.	1106.	1385.	2192.	.0187	.1168	-.1352	-.1444	-.0391	.0830	3982.		
.2600	-3254.	-2385.	2000.	1132.	1089.	2237.	.0160	.1156	-.1336	-.1560	-.0517	.0765	3862.		
.2610	-3145.	-2180.	1444.	1081.	695.	2143.	.0131	.1129	-.1304	-.1655	-.0636	.0705	3529.		
.2620	-3105.	-1949.	798.	962.	261.	1993.	.0100	.1089	-.1257	-.1728	-.0747	.0655	3148.		
.2630	-3068.	-1733.	257.	794.	-122.	1827.	.0063	.1039	-.1195	-.1780	-.0845	.0616	2819.		
.2640	-2980.	-1473.	-25.	599.	-393.	1595.	.0018	.0980	-.1118	-.1812	-.0923	.0582	2470.		
.2650	-2907.	-1128.	-167.	407.	-563.	1269.	-.0031	.0918	-.1029	-.1825	-.0980	.0546	2044.		
.2660	-2885.	-753.	-284.	230.	-657.	897.	-.0084	.0853	-.0929	-.1819	-.1013	.0511	1604.		
.2670	-2822.	-436.	-301.	56.	-667.	549.	-.0139	.0786	-.0819	-.1795	-.1017	.0477	1222.		
.2680	-2661.	-203.	-216.	-120.	-609.	253.	-.0195	.0719	-.0698	-.1753	-.0992	.0445	947.		
.2690	-2430.	-7.	-192.	-275.	-536.	-12.	-.0251	.0655	-.0570	-.1697	-.0940	.0412	851.		
.2700	-2120.	210.	-273.	-400.	-471.	-286.	-.0304	.0595	-.0433	-.1631	-.0863	.0374	962.		
.2710	-1677.	440.	-357.	-517.	-397.	-561.	-.0356	.0539	-.0289	-.1557	-.0768	.0329	1215.		
.2720	-1102.	627.	-406.	-644.	-301.	-788.	-.0407	.0488	-.0139	-.1476	-.0658	.0280	1499.		
.2730	-421.	777.	-442.	-783.	-190.	-959.	-.0456	.0441	.0016	-.1393	-.0542	.0227	1769.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.09.

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

.2620	-3105.	-1949.	972.	972.	281.	1993.	.0100	.1089	-.1257	-.1728	-.0747	.0655	3148.
.2630	-3068.	-1733.	257.	794.	-122.	1827.	.0063	.1039	-.1195	-.1780	-.0845	.0616	2819.
.2640	-2980.	-1473.	-25.	599.	-393.	1595.	.0018	.0980	-.1118	-.1811	-.0923	.0582	2470.
.2650	-2907.	-1128.	-167.	407.	-563.	1269.	-.0031	.0918	-.1029	-.1825	-.0980	.0546	2044.
.2660	-2885.	-753.	-284.	270.	-657.	897.	-.0084	.0853	-.0929	-.1819	-.1013	.0511	1604.
.2670	-2822.	-436.	-301.	58.	-667.	549.	-.0139	.0787	-.0819	-.1795	-.1017	.0477	1222.
.2680	-2661.	-203.	-216.	-120.	-609.	253.	-.0195	.0719	-.0698	-.1753	-.0992	.0445	947.
.2690	-2430.	-7.	-192.	-275.	-536.	-12.	-.0251	.0655	-.0570	-.1697	-.0940	.0412	851.
.2700	-2120.	210.	-273.	-400.	-471.	-286.	-.0304	.0595	-.0433	-.1631	-.0863	.0374	962.
.2710	-1677.	440.	-357.	-517.	-397.	-561.	-.0356	.0539	-.0289	-.1557	-.0768	.0329	1215.
.2720	-1102.	627.	-406.	-644.	-301.	-788.	-.0407	.0482	-.0139	-.1476	-.0558	.0280	1499.
.2730	-421.	777.	-442.	-783.	-190.	-959.	-.0456	.0441	.0016	-.1393	-.0542	.0227	1769.

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

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

SECTION	9	MEMBER	2	SEQUENCE	806	LOCATION	END	TYPE	EL					
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)	
.2740	369.	972.	-450.	-935.	-75.	-1129.	-.0500	.0401	.0173	-.1312	-.0420	.0167	2074.	
.2750	1188.	1262.	-481.	-1109.	17.	-1333.	-.0536	.0366	.0327	-.1236	-.0297	.0097	2449.	
.2760	1942.	1591.	-594.	-1317.	70.	-1525.	-.0561	.0337	.0475	-.1167	-.0177	.0021	2848.	
.2770	2638.	1889.	-714.	-1560.	102.	-1650.	-.0575	.0314	.0614	-.1105	-.0062	-.0059	3210.	
.2780	3267.	2157.	-776.	-1818.	131.	-1711.	-.0577	.0296	.0738	-.1051	.0047	-.0143	3531.	
.2790	3738.	2439.	-823.	-2056.	154.	-1746.	-.0569	.0286	.0845	-.1006	.0145	-.0233	3816.	
.2800	4017.	2719.	-840.	-2247.	187.	-1752.	-.0551	.0284	.0933	-.0970	.0228	-.0328	4034.	
.2810	4168.	2923.	-713.	-2379.	261.	-1689.	-.0527	.0290	.0999	-.0939	.0298	-.0422	4137.	
.2820	4212.	3006.	-435.	-2444.	375.	-1532.	-.0499	.0305	.1041	-.0912	.0354	-.0508	4109.	
.2830	4116.	2990.	-121.	-2437.	490.	-1314.	-.0467	.0327	.1060	-.0887	.0396	-.0581	3972.	
.2840	3911.	2915.	157.	-2360.	567.	-1082.	-.0430	.0357	.1053	-.0861	.0428	-.0635	3754.	
.2850	3661.	2784.	369.	-2229.	584.	-854.	-.0390	.0393	.1021	-.0833	.0454	-.0660	3471.	
.2860	3381.	2578.	451.	-2065.	523.	-624.	-.0347	.0434	.0966	-.0801	.0478	-.0648	3135.	
.2870	3076.	2304.	384.	-1889.	386.	-403.	-.0303	.0478	.0887	-.0763	.0499	-.0592	2782.	
.2880	2779.	1995.	217.	-1708.	201.	-224.	-.0261	.0523	.0788	-.0719	.0519	-.0491	2450.	
.2890	2494.	1680.	-12.	-1520.	0.	-113.	-.0223	.0569	.0671	-.0669	.0538	-.0346	2153.	
.2900	2213.	1365.	-254.	-1320.	-175.	-75.	-.0193	.0616	.0539	-.0613	.0553	-.0160	1884.	
.2910	1949.	1040.	-419.	-1111.	-285.	-94.	-.0173	.0661	.0394	-.0551	.0562	.0050	1625.	
.2920	1694.	696.	-472.	-890.	-317.	-153.	-.0163	.0704	.0240	-.0483	.0562	.0307	1352.	
.2930	1388.	340.	-477.	-650.	-289.	-247.	-.0159	.0744	.0078	-.0412	.0550	.0572	1064.	
.2940	1006.	-8.	-464.	-386.	-222.	-378.	-.0162	.0781	-.0089	-.0338	.0523	.0841	825.	
.2950	580.	-344.	-395.	-95.	-122.	-533.	-.0167	.0815	-.0257	-.0264	.0478	.1101	784.	
.2960	120.	-684.	-279.	226.	-7.	-676.	-.0175	.0843	-.0422	-.0193	.0415	.1342	1008.	
.2970	-402.	-1026.	-167.	576.	99.	-786.	-.0182	.0867	-.0583	-.0127	.0331	.1554	1384.	
.2980	-982.	-1347.	-58.	946.	184.	-861.	-.0188	.0885	-.0734	-.0071	.0223	.1727	1826.	
.2990	-1603.	-1631.	78.	1329.	250.	-893.	-.0191	.0897	-.0872	-.0028	.0095	.1853	2289.	
.3000	-2210.	-1888.	244.	1716.	300.	-859.	-.0192	.0904	-.0993	.0000	-.0050	.1930	2744.	
.3010	-2778.	-2112.	438.	2093.	333.	-754.	-.0189	.0904	-.1094	.0012	-.0205	.1957	3178.	
.3020	-3287.	-2275.	643.	2437.	342.	-598.	-.0181	.0896	-.1173	.0009	-.0363	.1935	3577.	
.3030	-3736.	-2362.	797.	2729.	314.	-404.	-.0166	.0880	-.1229	-.0008	-.0515	.1866	3922.	
.3040	-4114.	-2381.	857.	2957.	245.	-172.	-.0144	.0857	-.1260	-.0036	-.0551	.1758	4197.	
.3050	-4376.	-2341.	858.	3109.	155.	85.	-.0115	.0824	-.1266	-.0071	-.0761	.1616	4399.	
.3060	-4502.	-2237.	830.	3185.	65.	340.	-.0081	.0783	-.1247	-.0107	-.0838	.1448	4525.	
.3070	-4509.	-2065.	759.	3191.	-10.	575.	-.0044	.0733	-.1204	-.0140	-.0879	.1259	4580.	
.3080	-4408.	-1845.	661.	3134.	-53.	786.	-.0005	.0676	-.1138	-.0165	-.0881	.1059	4565.	
.3090	-4190.	-1606.	597.	3018.	-41.	976.	.0032	.0610	-.1051	-.0176	-.0846	.0854	4480.	
.3100	-3865.	-1367.	593.	2849.	34.	1141.	.0065	.0536	-.0945	-.0170	-.0777	.0652	4335.	
.3110	-3452.	-1127.	627.	2641.	160.	1268.	.0093	.0456	-.0822	-.0144	-.0678	.0460	4143.	

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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

.3010	-2778.	-2112.	438.	2093.	333.	-254.	-.0189	.0904	-.1094	.0012	-.0205	.1957	3178.
.3020	-3287.	-2275.	643.	2437.	342.	-598.	-.1181	.0896	-.1173	.0009	-.0363	.1935	3577.
.3030	-3736.	-2362.	797.	2729.	314.	-404.	-.0166	.0880	-.1229	-.0008	-.0515	.1866	3922.
.3040	-4114.	-2381.	857.	2957.	245.	-172.	-.0144	.0857	-.1260	-.0036	-.0551	.1758	4197.
.3050	-4376.	-2341.	858.	3109.	155.	85.	-.0115	.0824	-.1266	-.0071	-.0761	.1616	4399.
.3060	-4502.	-2237.	830.	3185.	65.	340.	-.0081	.0783	-.1247	-.0107	-.0838	.1448	4525.
.3070	-4509.	-2065.	759.	3191.	-10.	575.	-.0044	.0733	-.1204	-.0140	-.0879	.1259	4580.
.3080	-4408.	-1845.	661.	3134.	-53.	786.	-.0005	.0676	-.1138	-.0165	-.0881	.1059	4565.
.3090	-4190.	-1606.	597.	3018.	-41.	976.	.0032	.0610	-.1051	-.0176	-.0846	.0854	4480.
.3100	-3865.	-1367.	593.	2849.	34.	1141.	.0065	.0536	-.0945	-.0170	-.0777	.0652	4335.
.3110	-3452.	-1127.	627.	2641.	160.	1268.	.0093	.0456	-.0822	-.0144	-.0678	.0460	4143.

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

SECTION	9	MEMBER	2	SEQUENCE	806	LOCATION	END	TYPE	EL									
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	-2963.	-877.	686.	2401.	315.	1339.	.0115	.0369	-.0686	-.0096	-.0556	.0280	3908.					
.3130	-2415.	-623.	755.	2129.	475.	1351.	.0132	.0276	-.0540	-.0025	-.0416	.0119	3625.					
.3140	-1838.	-381.	798.	1827.	614.	1312.	.0142	.0178	-.0386	.0068	-.0268	-.0021	3294.					
.3150	-1244.	-157.	801.	1502.	712.	1228.	.0147	.0075	-.0227	.0182	-.0117	-.0136	2920.					
.3160	-640.	64.	764.	1165.	758.	1087.	.0146	-.0032	-.0066	.0316	.0031	-.0230	2493.					
.3170	-44.	293.	691.	829.	753.	882.	.0140	-.0141	.0095	.0465	.0171	-.0303	2014.					
.3180	534.	517.	594.	505.	703.	631.	.0128	-.0252	.0252	.0626	.0299	-.0358	1514.					
.3190	1090.	714.	489.	203.	618.	361.	.0112	-.0362	.0405	.0796	.0415	-.0397	1051.					
.3200	1615.	874.	379.	-70.	505.	85.	.0092	-.0472	.0551	.0970	.0517	-.0424	730.					
.3210	2084.	1006.	241.	-309.	368.	-197.	.0070	-.0580	.0687	.1146	.0508	-.0442	734.					
.3220	2503.	1116.	75.	-505.	215.	-482.	.0049	-.0685	.0813	.1318	.0689	-.0457	1032.					
.3230	2895.	1196.	-100.	-658.	57.	-752.	.0030	-.0786	.0926	.1483	.0763	-.0471	1414.					
.3240	3251.	1237.	-294.	-775.	-102.	-993.	.0014	-.0883	.1026	.1637	.0831	-.0486	1785.					
.3250	3539.	1248.	-528.	-867.	-259.	-1203.	.0003	-.0975	.1111	.1775	.0892	-.0505	2126.					
.3260	3766.	1244.	-781.	-942.	-405.	-1383.	-.0001	-.1062	.1181	.1895	.0945	-.0531	2432.					
.3270	3951.	1241.	-1013.	-1000.	-524.	-1532.	.0001	-.1142	.1235	.1991	.0988	-.0565	2688.					
.3280	4084.	1240.	-1203.	-1048.	-603.	-1638.	.0008	-.1216	.1274	.2059	.1019	-.0608	2876.					
.3290	4155.	1243.	-1326.	-1097.	-636.	-1695.	.0021	-.1283	.1297	.2097	.1032	-.0661	2989.					
.3300	4162.	1252.	-1368.	-1150.	-622.	-1694.	.0039	-.1342	.1305	.2103	.1026	-.0726	3023.					
.3310	4087.	1272.	-1347.	-1204.	-569.	-1635.	.0063	-.1392	.1297	.2075	.0997	-.0801	2979.					
.3320	3932.	1305.	-1267.	-1252.	-488.	-1515.	.0092	-.1434	.1273	.2014	.0944	-.0886	2861.					
.3330	3715.	1340.	-1116.	-1287.	-383.	-1332.	.0125	-.1466	.1234	.1923	.0868	-.0982	2671.					
.3340	3432.	1362.	-919.	-1301.	-271.	-1082.	.0163	-.1488	.1179	.1804	.0770	-.1086	2420.					
.3350	3056.	1361.	-730.	-1283.	-168.	-772.	.0205	-.1501	.1110	.1664	.0551	-.1197	2128.					
.3360	2593.	1333.	-545.	-1222.	-77.	-416.	.0251	-.1504	.1026	.1509	.0515	-.1311	1826.					
.3370	2083.	1267.	-330.	-1107.	13.	-23.	.0297	-.1497	.0930	.1343	.0366	-.1426	1564.					
.3380	1541.	1154.	-93.	-932.	103.	396.	.0344	-.1481	.0822	.1175	.0209	-.1537	1438.					
.3390	965.	995.	146.	-703.	188.	820.	.0389	-.1456	.0705	.1010	.0049	-.1637	1548.					
.3400	368.	795.	380.	-436.	265.	1227.	.0432	-.1424	.0579	.0855	-.0110	-.1722	1876.					
.3410	-222.	557.	598.	-146.	327.	1603.	.0471	-.1386	.0448	.0715	-.0261	-.1783	2321.					
.3420	-781.	287.	772.	149.	361.	1939.	.0508	-.1344	.0313	.0592	-.0399	-.1815	2793.					
.3430	-1291.	4.	889.	424.	359.	2213.	.0541	-.1298	.0176	.0490	-.0520	-.1811	3222.					
.3440	-1742.	-277.	936.	659.	312.	2411.	.0571	-.1251	.0039	.0412	-.0519	-.1770	3557.					
.3450	-2139.	-555.	893.	838.	217.	2534.	.0598	-.1203	-.0096	.0356	-.0594	-.1689	3782.					
.3460	-2477.	-828.	773.	955.	85.	2588.	.0622	-.1155	-.0225	.0324	-.0744	-.1569	3898.					
.3470	-2738.	-1090.	634.	1010.	-59.	2573.	.0641	-.1108	-.0348	.0313	-.0767	-.1415	3905.					
.3480	-2919.	-1335.	506.	1014.	-197.	2495.	.0656	-.1061	-.0462	.0323	-.0764	-.1234	3815.					
.3490	-3047.	-1565.	384.	978.	-317.	2368.	.0666	-.1015	-.0565	.0350	-.0736	-.1033	3646.					

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.09.

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