

50-305

RESPONSE TO NUREG-0737 ITEM II.D.1

Docket # *50-305*

Control # *8403280048*

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

.0470	2296.	5034.	20.	3329.	-945.	3184.	-0.747	-0.0535	.1447	.2778	-0.0649	.0092	3169.
.0480	1756.	4405.	949.	2007.	-592.	1937.	-0.0556	-0.0553	.1418	.2911	-0.0560	-0.059	1922.
.0490	1250.	4482.	888.	1301.	-110.	917.	-0.0334	-0.0552	.1310	.2863	-0.0370	-0.0074	1075.
.0500	491.	4836.	482.	921.	321.	-359.	-0.0107	-0.0541	.1140	.2712	-0.0236	-0.0237	701.
.0510	-513.	5065.	164.	361.	701.	-1823.	.0113	-0.0509	.0931	.2474	-0.0218	-0.0376	1339.
.0520	-972.	4744.	-65.	-377.	980.	-2593.	.0339	-0.0452	.0695	.2098	-0.0158	-0.0572	1885.
.0530	-614.	3535.	-20.	-1138.	1034.	-2517.	.0562	-0.0380	.0446	.1627	-0.0005	-0.0851	1988.
.0540	-359.	1941.	293.	-1980.	1069.	-2491.	.0754	-0.0301	.0200	.1156	.0109	-0.1068	2263.
.0550	-852.	737.	485.	-2883.	1311.	-2973.	.0898	-0.0215	-0.0034	.0715	.0140	-0.1126	2928.
.0560	-1503.	-194.	447.	-3623.	1520.	-3420.	.0997	-0.0129	-0.0255	.0297	.0204	-0.1111	3511.
.0570	-1761.	-1241.	397.	-4158.	1491.	-3429.	.1057	-0.0050	-0.0456	-0.0083	.0370	-0.1094	3769.

ADLPIPE PAGE 1104

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.19.

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	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)	
.0580	-2103.	-2084.	391.	-4716.	1460.	-3443.	.1070	.0022	-0.0623	-0.0381	.0544	-0.0993	4057.	
.0590	-2943.	-2319.	314.	-5279.	1496.	-3887.	.1032	.0083	-0.0744	-0.0564	.0541	-0.0763	4532.	
.0600	-3733.	-2079.	22.	-5426.	1315.	-4362.	.0959	.0120	-0.0816	-0.0646	.0737	-0.0520	4776.	
.0610	-3931.	-1643.	-501.	-5006.	829.	-4355.	.0872	.0133	-0.0834	-0.0662	.0917	-0.0361	4507.	
.0620	-3802.	-1281.	-858.	-4523.	317.	-4061.	.0777	.0129	-0.0787	-0.0596	.1098	-0.0221	4103.	
.0630	-3595.	-1482.	-461.	-4467.	-150.	-3788.	.0667	.0111	-0.0670	-0.0412	.1173	-0.0044	3949.	
.0640	-3020.	-2314.	537.	-4624.	-707.	-3235.	.0555	.0080	-0.0500	-0.0146	.1210	.0100	3834.	
.0650	-2103.	-2997.	1316.	-4486.	-1258.	-2230.	.0448	.0037	-0.0310	.0128	.1306	.0159	3482.	
.0660	-1543.	-2830.	1549.	-3971.	-1615.	-1395.	.0339	-0.0016	-0.0118	.0418	.1373	.0204	3038.	
.0670	-1644.	-1863.	1479.	-3260.	-1870.	-1158.	.0218	-0.0079	.0064	.0752	.1309	.0275	2651.	
.0680	-1810.	-358.	1053.	-2323.	-2144.	-952.	.0107	-0.0149	.0225	.1072	.1219	.0285	2225.	
.0690	-1612.	1547.	150.	-1111.	-2371.	-345.	.0028	-0.0217	.0360	.1322	.1204	.0176	1780.	
.0700	-1404.	3529.	-772.	106.	-2521.	125.	-0.0021	-0.0288	.0484	.1555	.1150	.0021	1703.	
.0710	-1391.	5198.	-1270.	1078.	-2608.	108.	-0.0043	-0.0362	.0608	.1813	.0981	-0.0126	1903.	
.0720	-1126.	723.	-1425.	1821.	-2525.	135.	-0.0020	-0.0431	.0730	.2039	.0821	-0.0313	2100.	
.0730	-368.	6026.	-1174.	2251.	-2242.	471.	.0049	-0.0488	.0846	.2206	.0727	-0.0549	2165.	
.0740	474.	5970.	-230.	2112.	-1874.	641.	.0138	-0.0532	.0949	.2354	.0579	-0.0751	1952.	
.0750	1073.	4855.	1035.	1517.	-1410.	465.	.0228	-0.0557	.1022	.2462	.0359	-0.0879	1431.	
.0760	1516.	4050.	1802.	983.	-797.	257.	.0312	-0.0560	.1038	.2461	.0177	-0.0974	870.	
.0770	1744.	3905.	1788.	813.	-187.	-21.	.0375	-0.0545	.0986	.2349	.0036	-0.1047	563.	
.0780	1515.	4393.	1175.	920.	261.	-634.	.0398	-0.0515	.0875	.2159	-0.0149	-0.1057	774.	
.0790	996.	5323.	88.	1190.	622.	-1325.	.0385	-0.0466	.0721	.1886	-0.0348	-0.1007	1272.	
.0800	636.	6108.	-1152.	1531.	977.	-1655.	.0347	-0.0399	.0549	.1531	-0.0485	-0.0937	1656.	
.0810	572.	6049.	-1948.	1691.	1196.	-1628.	.0285	-0.0321	.0386	.1150	-0.0601	-0.0842	1776.	
.0820	687.	4971.	-2036.	1479.	1242.	-1354.	.0200	-0.0233	.0255	.0775	-0.0735	-0.0695	1590.	
.0830	985.	3152.	-1677.	1019.	1280.	-717.	.0097	-0.0137	.0156	.0398	-0.0831	-0.0507	1204.	
.0840	1442.	810.	-1021.	489.	1338.	224.	-0.0021	-0.0039	.0081	.0032	-0.0869	-0.0297	972.	
.0850	1822.	-1736.	-173.	-78.	1274.	1177.	-0.0161	.0057	.0019	-0.0300	-0.0902	-0.0052	1171.	
.0860	1942.	-3831.	421.	-563.	1106.	2051.	-0.0322	.0153	-0.0046	-0.0619	-0.0926	.0227	1616.	
.0870	1812.	-4994.	380.	-703.	946.	2855.	-0.0492	.0244	-0.0129	-0.0941	-0.0897	.0504	2082.	
.0880	1420.	-5243.	-201.	-404.	748.	3395.	-0.0662	.0321	-0.0229	-0.1233	-0.0844	.0759	2359.	
.0890	787.	-4799.	-1100.	164.	443.	3794.	-0.0819	.0782	-0.0331	-0.1480	-0.0806	.0988	2443.	
.0900	208.	-4039.	-2081.	758.	119.	7731.	-0.0941	.0432	-0.0422	-0.1699	-0.0751	.1162	2567.	
.0910	10.	-3855.	-2615.	1124.	-125.	3994.	-0.1009	.0469	-0.0484	-0.1870	-0.0560	.1259	2798.	
.0920	177.	-4572.	-2245.	1019.	-274.	4250.	-0.1021	.0492	-0.0507	-0.1959	-0.0585	.1294	2952.	
.0930	511.	-5941.	-1172.	446.	-316.	4416.	-0.0979	.0504	-0.0498	-0.1984	-0.0541	.1286	2999.	
.0940	933.	-7353.	40.	-262.	-266.	4555.	-0.0888	.0506	-0.0476	-0.1982	-0.0486	.1214	3081.	
.0950	1322.	-8349.	1035.	-770.	-178.	4560.	-0.0762	.0495	-0.0465	-0.1960	-0.0412	.1067	3120.	

ADLPIPE PAGE 1105

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

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

CONDITION 24
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ENGLISH UNITS

.0840	1442.	-1736.	-173.	-78.	1274.	1177.	-0.021	-0.0039	.0081	.0032	-.0369	-.0297	972.
.0850	1822.	-3971.	421.	-563.	1106.	2051.	-0.0322	.0153	-.0046	-.0619	-.0926	.0227	1616.
.0870	1812.	-4994.	380.	-703.	946.	2855.	-0.0492	.0244	-.0129	-.0941	-.0897	.0504	2082.
.0880	1420.	-5273.	-201.	-404.	748.	3395.	-0.0662	.0321	-.0229	-.1233	-.0844	.0759	2359.
.0890	787.	-4799.	-1100.	164.	443.	3594.	-0.0819	.0382	-.0331	-.1480	-.0806	.0988	2443.
.0900	208.	-4089.	-2081.	758.	119.	3731.	-0.0941	.0432	-.0422	-.1699	-.0751	.1162	2567.
.0910	10.	-3855.	-2615.	1124.	-125.	3994.	-0.1009	.0469	-.0484	-.1870	-.0560	.1259	2798.
.0920	177.	-4572.	-2245.	1019.	-274.	4250.	-0.1021	.0492	-.0507	-.1959	-.0585	.1294	2952.
.0930	511.	-5941.	-1172.	446.	-316.	4416.	-0.0979	.0504	-.0498	-.1984	-.0541	.1286	2999.
.0940	933.	-7352.	43.	-262.	-266.	4555.	-0.0888	.0506	-.0476	-.1982	-.0486	.1214	3081.
.0950	1322.	-8349.	1035.	-770.	-178.	4560.	-0.0762	.0495	-.0465	-.1960	-.0412	.1067	3120.

ADLPIPE PAGE 1105

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ADLPIPE STRESS ANALYSIS

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S/RV PIPING KEWAUNEE GKW00F 2 RUP DISK
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CONDITION 24

LOADS

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ENGLISH UNITS

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

SECTION	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)	
.0960	1368.	-8477.	1557.	-991.	-43.	4197.	-.0617	.0471	-.0477	-.1917	-.0353	.0883	2907.	
.0970	918.	-7430.	1405.	-943.	171.	3446.	-.0462	.0439	-.0517	-.1865	-.0313	.0686	2411.	
.0980	201.	-5429.	677.	-590.	385.	2491.	-.0298	.0397	-.0577	-.1801	-.0258	.0457	1745.	
.0990	-555.	-2970.	-282.	18.	543.	1436.	-.0122	.0340	-.0638	-.1698	-.0176	.0183	1035.	
.1000	-1365.	-427.	-1137.	622.	755.	244.	.0066	.0271	-.0675	-.1529	-.0088	-.0094	680.	
.1010	-2167.	1741.	-1522.	934.	1107.	-1056.	.0268	.0191	-.0663	-.1278	-.0014	-.0340	1208.	
.1020	-2630.	2964.	-1110.	850.	1490.	-2252.	.0482	.0102	-.0593	-.0938	.0057	-.0574	1908.	
.1030	-2545.	3138.	34.	434.	1786.	-3133.	.0703	.0095	-.0469	-.0537	.0149	-.0817	2449.	
.1040	-2113.	2758.	1476.	-170.	2013.	-3746.	.0912	-.0090	-.0310	-.0115	.0249	-.1045	2869.	
.1050	-1647.	2344.	2817.	-749.	2155.	-4298.	.1088	-.0180	-.0141	.0302	.0325	-.1225	3280.	
.1060	-1227.	2238.	3718.	-1041.	2108.	-4815.	.1212	-.0262	.0012	.0679	.0373	-.1358	3612.	
.1070	-845.	2685.	3865.	-901.	1872.	-5114.	.1272	-.0327	.0128	.0964	.0431	-.1451	3720.	
.1080	-473.	3534.	3395.	-440.	1414.	-5126.	.1262	-.0370	.0204	.1145	.0493	-.1492	3596.	
.1090	-20.	4477.	2647.	208.	617.	-4822.	.1178	-.0393	.0247	.1238	.0542	-.1482	3279.	
.1100	-4.	6021.	1190.	1134.	48.	-4400.	.1032	-.0386	.0262	.1214	.0521	-.1350	3063.	
.1110	-239.	7022.	-19.	2048.	-540.	-4052.	.0829	-.0363	.0272	.1158	.0560	-.1101	3082.	
.1120	-165.	8444.	-227.	2465.	-1264.	-3398.	.0587	-.0323	.0289	.1089	.0582	-.0783	2955.	
.1130	235.	4810.	116.	2204.	-1862.	-2107.	.0332	-.0249	.0310	.0933	.0762	-.0405	2408.	
.1140	550.	2778.	693.	1612.	-2269.	-730.	.0069	-.0155	.0323	.0721	.0847	.0038	1940.	
.1150	599.	665.	1403.	1216.	-2651.	153.	-.0199	-.0066	.0311	.0526	.0876	.0504	1969.	
.1160	501.	-840.	1592.	1182.	-3000.	831.	-.0451	.0022	.0257	.0281	.0921	.0930	2245.	
.1170	155.	-1288.	917.	1279.	-3279.	1454.	-.0669	.0124	.0156	-.0067	.0987	.1313	2567.	
.1180	-435.	-1330.	38.	1400.	-3142.	1698.	-.0840	.0223	.0018	-.0431	.1030	.1653	2585.	
.1190	-1246.	-1816.	-222.	1242.	-2941.	1198.	-.0963	.0305	-.0133	-.0722	.0907	.1953	2298.	
.1200	-1667.	-2673.	-261.	745.	-2724.	845.	-.1014	.0385	-.0289	-.1040	.0752	.2123	1987.	
.1210	-1204.	-3705.	-423.	164.	-2190.	1293.	-.0970	.0462	-.0450	-.1428	.0724	.2078	1718.	
.1220	-936.	-4568.	-429.	-418.	-1590.	1245.	-.0871	.0519	-.0594	-.1758	.0556	.1953	1390.	
.1230	-994.	-5094.	-322.	-706.	-857.	523.	-.0732	.0546	-.0716	-.1994	.0243	.1762	827.	
.1240	-630.	-5456.	-348.	-771.	-225.	175.	-.0550	.0558	-.0816	-.2230	-.0048	.1427	554.	
.1250	549.	-6154.	-256.	-922.	251.	746.	-.0339	.0565	-.0893	-.2488	-.0245	.0945	817.	
.1260	1855.	-7083.	231.	-1184.	866.	1468.	-.0134	.0560	-.0943	-.2667	-.0445	.0448	1399.	
.1270	2295.	-7209.	611.	-1265.	1257.	1415.	.0019	.0536	-.0963	-.2724	-.0797	.0063	1534.	
.1280	2589.	-6029.	1.	-496.	1464.	1528.	.0133	.0497	-.0969	-.2757	-.1022	-.0324	1465.	
.1290	3042.	-4122.	-1270.	873.	1445.	2113.	.0206	.0448	-.0953	-.2761	-.1056	-.0710	1823.	
.1300	3022.	-2372.	-2077.	1957.	1343.	2340.	.0218	.0390	-.0887	-.2621	-.1098	-.0921	2247.	
.1310	2461.	-1119.	-2104.	2474.	1477.	2099.	.0176	.0328	-.0764	-.2323	-.1149	-.0906	2403.	
.1320	1915.	-498.	-1593.	2605.	1417.	1956.	.0098	.0267	-.0590	-.1938	-.1126	-.0763	2377.	
.1330	1954.	-637.	-715.	2634.	1243.	2235.	.0007	.0204	-.0307	-.1515	-.0912	-.0599	2475.	

ADLPIPE PAGE 1106

DIS/ADLPIPE

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18.27.19.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

.1230	-994.	-5094.	322.	-706.	-857.	523.	-.732	.0546	-.0716	-.1994	.0243	.1762	827.
.1240	-630.	-5456.	-348.	-771.	-225.	175.	-.550	.0558	-.0816	-.2230	-.0248	.1427	554.
.1250	549.	-6154.	-256.	-922.	251.	746.	-.0339	.0565	-.0893	-.2488	-.0245	.0945	817.
.1260	1255.	-7083.	231.	-1184.	366.	1455.	-.0134	.0560	-.0943	-.2667	-.0445	.0448	1399.
.1270	2295.	-7209.	611.	-1265.	1257.	1412.	.0019	.0536	-.0963	-.2724	-.0797	.0063	1534.
.1280	2589.	-6029.	1.	-496.	1464.	1528.	.0133	.0497	-.0969	-.2757	-.1022	-.0324	1465.
.1290	3042.	-4122.	-1270.	873.	1445.	2113.	.0206	.0448	-.0953	-.2761	-.1056	-.0710	1823.
.1300	3022.	-2372.	-2077.	1957.	1343.	2340.	.0218	.0390	-.0887	-.2621	-.1098	-.0921	2247.
.1310	2461.	-1119.	-2104.	2474.	1477.	2079.	.0176	.0328	-.0764	-.2323	-.1149	-.0906	2403.
.1320	1915.	-498.	-1593.	2605.	1417.	1926.	.0098	.0267	-.0590	-.1938	-.1126	-.0763	2377.
.1330	1954.	-637.	-715.	2634.	1243.	2235.	.0007	.0204	-.0307	-.1515	-.0912	-.0599	2475.

ADLPIPE PAGE 1106

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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

CONDITION 24

LOADS

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ENGLISH UNITS

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

SECTION	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)
24	3	811					.1340	1675.	-953.	417.	2373.	1116.	2196.	-.0107	.0145	-.0169	-.1035	-.0704	-.0311	2305.
							.1350	626.	-845.	1438.	1938.	1077.	1350.	-.0242	.0091	.0043	-.0528	-.0503	.0123	1750.
							.1360	-160.	-543.	2036.	1830.	1082.	636.	-.0362	.0043	.0215	-.0094	-.0423	.0504	1496.
							.1370	-421.	-407.	2366.	1835.	826.	308.	-.0459	.0009	.0334	.0216	-.0204	.0778	1372.
							.1380	-628.	-422.	2638.	1550.	735.	7.	-.0531	-.0002	.0398	.0408	-.0052	.1016	1156.
							.1390	-1253.	-335.	2803.	996.	854.	-727.	-.0582	.0006	.0405	.0500	-.0076	.1257	1011.
							.1400	-1696.	-178.	2543.	728.	967.	-1359.	-.0596	.0026	.0350	.0451	-.0157	.1372	1232.
							.1410	-1358.	-171.	1801.	884.	1171.	-1269.	-.0556	.0057	.0235	.0232	-.0160	.1273	1307.
							.1420	-996.	-368.	1076.	746.	1343.	-1099.	-.0491	.0105	.0090	-.0090	-.0293	.1114	1273.
							.1430	-681.	-908.	661.	257.	1610.	-1006.	-.0410	.0161	-.0070	-.0447	-.0558	.0929	1291.
							.1440	6.	-1577.	202.	-25.	1760.	-608.	-.0312	.0213	-.0236	-.0837	-.0814	.0645	1255.
							.1450	1060.	-1922.	-703.	187.	1734.	218.	-.0205	.0258	-.0399	-.1256	-.0976	.0265	1185.
							.1460	1955.	-1918.	-1751.	566.	1777.	1000.	-.0112	.0292	-.0538	-.1623	-.1102	-.0086	1426.
							.1470	2274.	-1930.	-2361.	659.	1668.	1240.	-.0059	.0315	-.0626	-.1850	-.1313	-.0296	1470.
							.1480	2704.	-2225.	-2632.	692.	1515.	1661.	-.0034	.0325	-.0662	-.1968	-.1407	-.0444	1586.
							.1490	3342.	-2746.	-2689.	706.	1236.	2425.	-.0037	.0324	-.0644	-.1991	-.1336	-.0533	1896.
							.1500	3592.	-3365.	-2338.	476.	843.	2905.	-.0086	.0313	-.0570	-.1869	-.1231	-.0469	2064.
							.1510	3327.	-3869.	-1682.	111.	578.	2954.	-.0178	.0288	-.0452	-.1601	-.1090	-.0247	2030.
							.1520	2711.	-3906.	-1134.	-134.	196.	2759.	-.0303	.0253	-.0306	-.1247	-.0392	.0069	1866.
							.1530	2147.	-3441.	-908.	-47.	-244.	2679.	-.0438	.0209	-.0151	-.0861	-.0569	.0388	1813.
							.1540	1436.	-2697.	-687.	86.	-822.	2377.	-.0578	.0158	.0008	-.0433	-.0255	.0727	1696.
							.1550	565.	-1797.	-387.	114.	-1429.	1807.	-.0708	.0102	.0165	.0019	.0006	.1069	1555.
							.1560	-42.	-739.	-279.	277.	-1830.	1415.	-.0797	.0044	.0305	.0433	.0317	.1317	1570.
							.1570	-541.	428.	-304.	525.	-2336.	959.	-.0840	-.0016	.0427	.0804	.0578	.1466	1738.
							.1580	-901.	1459.	-277.	765.	-2722.	427.	-.0825	-.0079	.0529	.1132	.0784	.1508	1927.
							.1590	-1067.	2126.	-31.	786.	-2765.	-77.	-.0747	-.0139	.0606	.1407	.0942	.1447	1938.
							.1600	-1155.	2414.	480.	446.	-2696.	-634.	-.0614	-.0190	.0659	.1622	.0996	.1300	1891.
							.1610	-1075.	2566.	943.	62.	-2577.	-1138.	-.0429	-.0237	.0677	.1756	.0990	.1041	1899.
							.1620	-706.	2852.	1055.	-13.	-2202.	-1429.	-.0198	-.0282	.0653	.1800	.1012	.0649	1769.
							.1630	-612.	3503.	864.	-11.	-1830.	-1971.	.0050	-.0319	.0595	.1779	.0939	.0227	1813.
							.1640	-700.	4309.	510.	-7.	-1402.	-2628.	.0302	-.0348	.0512	.1702	.0807	-.0199	2008.
							.1650	-582.	4852.	176.	38.	-836.	-3036.	.0553	-.0368	.0410	.1574	.0712	-.0644	2123.
							.1660	-437.	4968.	75.	-84.	-380.	-3355.	.0780	-.0376	.0308	.1421	.0595	-.1045	2276.
							.1670	-346.	4711.	191.	-393.	151.	-3583.	.0971	-.0371	.0210	.1252	.0485	-.1356	2432.
							.1680	-458.	4177.	473.	-850.	701.	-3871.	.1111	-.0353	.0124	.1085	.0359	-.1541	2713.
							.1690	-486.	3305.	854.	-1285.	1265.	-3979.	.1197	-.0325	.0045	.0918	.0281	-.1632	2945.
							.1700	-449.	2279.	1214.	-1717.	1644.	-3884.	.1218	-.0285	-.0025	.0741	.0233	-.1625	3070.
							.1710	-662.	1488.	1364.	-2161.	1687.	-3844.	.1165	-.0233	-.0088	.0557	.0146	-.1484	3183.

ADLPIPE PAGE 1107

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.19.

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

.1610	-1075.	2566.	43.	62.	-2577.	-1138.	-0429	-0237	.0677	.1756	.0990	.1041	1899.
.1620	-706.	2852.	1055.	-13.	-2202.	-1429.	-0198	-0282	.0653	.1800	.1012	.0649	1769.
.1630	-612.	3503.	864.	-11.	-1830.	-1971.	.0050	-0319	.0595	.1779	.0939	.0227	1813.
.1640	-710.	4309.	510.	-7.	-1402.	-2628.	.0302	-0348	.0512	.1702	.0807	-0199	2008.
.1650	-582.	4852.	176.	78.	-276.	-3036.	.0553	-0768	.0410	.1574	.0712	-0644	2123.
.1660	-437.	4968.	75.	-64.	-780.	-3355.	.0780	-0376	.0308	.1421	.0595	-01045	2276.
.1670	-346.	4711.	191.	-393.	151.	-3583.	.0971	-0371	.0210	.1252	.0485	-01356	2432.
.1680	-458.	4177.	473.	-850.	701.	-3871.	.1111	-0353	.0124	.1085	.0359	-01541	2713.
.1690	-486.	3305.	854.	-1285.	1265.	-3979.	.1197	-0325	.0046	.0918	.0281	-01632	2945.
.1700	-449.	2279.	1114.	-1717.	1644.	-3884.	.1218	-0285	-0025	.0741	.0233	-01625	3070.
.1710	-602.	1488.	1364.	-2161.	1687.	-3844.	.1165	-0233	-0008	.0557	.0146	-01484	3183.

ADLPIPE PAGE 1107

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.19.

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	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)
24	3	811					.1720	-792.	918.	1207.	-2303.	1798.	-3613.	.1054	-.0176	-.0150	.0373	.0129	-.1272	3131.
							.1730	-954.	503.	889.	-2260.	1703.	-3368.	.0884	-.0118	-.0204	.0210	.0108	-.0984	2965.
							.1740	-1124.	324.	363.	-2118.	1377.	-2998.	.0666	-.0057	-.0243	.0055	.0088	-.0641	2643.
							.1750	-1235.	353.	-346.	-1822.	1038.	-2444.	.0421	.0002	-.0263	-.0087	.0100	-.0273	2171.
							.1760	-1387.	244.	-850.	-1492.	631.	-1970.	.0158	.0052	-.0252	-.0168	.0073	.0121	1719.
							.1770	-1284.	-327.	-966.	-1234.	298.	-1293.	-.0101	.0091	-.0210	-.0198	.0057	.0486	1221.
							.1780	-1026.	-1193.	-823.	-1202.	-99.	-387.	-.0344	.0128	-.0138	-.0210	.0020	.0814	854.
							.1790	-591.	-2184.	-568.	-1176.	-374.	718.	-.0556	.0156	-.0050	-.0211	-.0005	.1068	963.
							.1800	-125.	-3177.	-201.	-1007.	-504.	1744.	-.0735	.0169	.0042	-.0181	-.0055	.1242	1399.
							.1810	132.	-3857.	89.	-801.	-733.	2520.	-.0881	.0174	.0127	-.0148	-.0193	.1350	1849.
							.1820	545.	-4119.	10.	-436.	-808.	3498.	-.0976	.0177	.0188	-.0169	-.0291	.1335	2437.
							.1830	1011.	-4106.	-268.	34.	-812.	4426.	-.1022	.0174	.0221	-.0220	-.0396	.1217	3033.
							.1840	1354.	-3898.	-573.	526.	-747.	5023.	-.1024	.0163	.0229	-.0271	-.0547	.1033	3441.
							.1850	1566.	-3387.	-1024.	967.	-584.	5364.	-.0981	.0150	.0214	-.0339	-.0713	.0802	3695.
							.1860	1742.	-2720.	-1558.	1289.	-419.	5533.	-.0895	.0138	.0183	-.0423	-.0873	.0531	3840.
							.1870	2096.	-2287.	-1893.	1508.	-93.	5609.	-.0766	.0118	.0143	-.0486	-.0973	.0221	3915.
							.1880	2268.	-2009.	-1918.	1436.	253.	5262.	-.0615	.0095	.0107	-.0499	-.1093	-.0054	3681.
							.1890	2262.	-1662.	-1844.	1144.	654.	4624.	-.0449	.0070	.0076	-.0476	-.1190	-.0280	3241.
							.1900	2324.	-1316.	-1713.	831.	1075.	3927.	-.0274	.0040	.0053	-.0415	-.1206	-.0488	2801.
							.1910	2322.	-971.	-1462.	496.	1302.	3046.	-.0111	.0003	.0041	-.0297	-.1191	-.0654	2258.
							.1920	2143.	-350.	-1307.	201.	1476.	2049.	.0033	-.0037	.0042	-.0136	-.1129	-.0759	1708.
							.1930	1732.	614.	-1325.	4.	1584.	974.	.0149	-.0080	.0058	.0059	-.1025	-.0796	1254.
							.1940	1287.	1548.	-1296.	-72.	1540.	-39.	.0234	-.0127	.0093	.0297	-.0877	-.0792	1040.
							.1950	922.	2250.	-1123.	-125.	1365.	-807.	.0289	-.0176	.0147	.0560	-.0681	-.0758	1072.
							.1960	517.	2801.	-858.	-262.	1146.	-1328.	.0313	-.0219	.0222	.0826	-.0459	-.0679	1196.
							.1970	26.	3169.	-462.	-427.	887.	-1714.	.0311	-.0259	.0312	.1099	-.0241	-.0561	1333.
							.1980	-413.	3308.	25.	-479.	555.	-1926.	.0288	-.0299	.0408	.1367	-.0022	-.0445	1389.
							.1990	-743.	3376.	405.	-422.	180.	-1861.	.0256	-.0332	.0498	.1588	.0210	-.0351	1292.
							.2000	-1041.	3447.	652.	-365.	-198.	-1619.	.0220	-.0354	.0574	.1748	.0425	-.0271	1127.
							.2010	-1306.	3404.	895.	-322.	-579.	-1368.	.0187	-.0369	.0628	.1860	.0594	-.0211	1024.
							.2020	-1451.	3289.	1054.	-228.	-944.	-1094.	.0165	-.0376	.0651	.1911	.0736	-.0192	986.
							.2030	-1503.	3279.	968.	-108.	-1249.	-788.	.0164	-.0373	.0641	.1882	.0867	-.0212	998.
							.2040	-1580.	3311.	754.	-66.	-1460.	-627.	.0183	-.0359	.0598	.1791	.0956	-.0247	1072.
							.2050	-1682.	3186.	614.	-159.	-1553.	-713.	.0222	-.0339	.0527	.1667	.0993	-.0287	1157.
							.2060	-1711.	2888.	521.	-394.	-1521.	-907.	.0284	-.0311	.0434	.1505	.1009	-.0339	1223.
							.2070	-1647.	2472.	432.	-781.	-1392.	-1116.	.0364	-.0276	.0323	.1303	.1019	-.0402	1313.
							.2080	-1584.	1936.	432.	-1291.	-1198.	-1442.	.0453	-.0236	.0203	.1091	.1001	-.0461	1534.
							.2090	-1589.	1389.	484.	-1811.	-945.	-1917.	.0542	-.0198	.0079	.0887	.0951	-.0507	1888.

ADLPIPE PAGE 1108

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.19.

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

.1990	-743.	3376.	405.	-422.	180.	-1861.	.0256	-.0332	.0498	.1588	.0210	-.0351	1292.
.2000	-1041.	3447.	652.	-365.	-198.	-1619.	.0220	-.0354	.0574	.1748	.0425	-.0271	1127.
.2010	-1306.	3404.	895.	-322.	-579.	-1368.	.0187	-.0369	.0628	.1860	.0594	-.0211	1024.
.2020	-1451.	3289.	1054.	-228.	-944.	-1094.	.0165	-.0376	.0651	.1911	.0736	-.0192	986.
.2030	-1503.	3279.	968.	-108.	-1249.	-788.	.0164	-.0373	.0641	.1882	.0367	-.0212	998.
.2040	-1580.	3311.	754.	-66.	-1460.	-627.	.0183	-.0359	.0598	.1791	.0956	-.0247	1072.
.2050	-1682.	3186.	614.	-159.	-1553.	-713.	.0222	-.0339	.0527	.1667	.0993	-.0287	1157.
.2060	-1711.	2888.	521.	-394.	-1521.	-907.	.0284	-.0311	.0434	.1505	.1009	-.0339	1223.
.2070	-1647.	2472.	432.	-781.	-1392.	-1116.	.0364	-.0276	.0323	.1303	.1019	-.0402	1313.
.2080	-1584.	1976.	432.	-1291.	-1198.	-1442.	.0453	-.0236	.0203	.1091	.1001	-.0461	1534.
.2090	-1589.	1389.	484.	-1811.	-945.	-1917.	.0542	-.0198	.0079	.0887	.0951	-.0507	1888.

ADLPIPE PAGE 1108

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.19.

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	EL	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS
TIME	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
.2100	-1627.	1015.	413.	-2221.	-655.	-2380.	.0625	-.0161	-.0041	.0680	.0900	-.0551	2238.						
.2110	-1633.	777.	247.	-2499.	-390.	-2715.	.0695	-.0125	-.0151	.0476	.0355	-.0598	2501.						
.2120	-1597.	498.	166.	-2691.	-179.	-2920.	.0744	-.0094	-.0242	.0298	.0300	-.0640	2679.						
.2130	-1543.	176.	183.	-2821.	-5.	-2967.	.0766	-.0068	-.0308	.0151	.0733	-.0667	2760.						
.2140	-1473.	-77.	178.	-2838.	115.	-2797.	.0761	-.0046	-.0346	.0030	.0670	-.0681	2687.						
.2150	-1370.	-256.	140.	-2688.	159.	-2432.	.0727	-.0030	-.0357	-.0059	.0614	-.0685	2445.						
.2160	-1262.	-393.	121.	-2401.	149.	-1955.	.0665	-.0021	-.0341	-.0104	.0557	-.0673	2089.						
.2170	-1186.	-449.	112.	-2064.	113.	-1412.	.0580	-.0019	-.0300	-.0109	.0495	-.0634	1687.						
.2180	-1106.	-405.	83.	-1699.	45.	-819.	.0477	-.0021	-.0238	-.0078	.0435	-.0574	1272.						
.2190	-976.	-279.	31.	-1265.	-82.	-227.	.0365	-.0029	-.0161	-.0012	.0382	-.0505	868.						
.2200	-829.	-38.	-67.	-771.	-223.	276.	.0249	-.0044	-.0074	.0086	.0333	-.0426	572.						
.2210	-715.	312.	-196.	-309.	-345.	630.	.0136	-.0062	.0020	.0208	.0278	-.0330	527.						
.2220	-581.	632.	-269.	58.	-454.	849.	.0033	-.0082	.0116	.0345	.0219	-.0224	650.						
.2230	-351.	793.	-228.	320.	-539.	987.	-.0055	-.0102	.0210	.0489	.0163	-.0123	788.						
.2240	-64.	801.	-83.	455.	-568.	1044.	-.0126	-.0120	.0295	.0624	.0109	-.0027	858.						
.2250	182.	723.	117.	449.	-523.	984.	-.0182	-.0132	.0367	.0740	.0043	.0073	810.						
.2260	357.	619.	325.	369.	-408.	819.	-.0224	-.0140	.0418	.0826	-.0038	.0166	665.						
.2270	485.	581.	426.	323.	-238.	621.	-.0254	-.0141	.0443	.0868	-.0121	.0239	499.						
.2280	557.	682.	354.	347.	-41.	436.	-.0274	-.0136	.0440	.0856	-.0208	.0283	377.						
.2290	556.	888.	149.	422.	168.	276.	-.0286	-.0124	.0413	.0793	-.0309	.0301	359.						
.2300	540.	1114.	-123.	542.	387.	184.	-.0292	-.0107	.0366	.0686	-.0419	.0289	466.						
.2310	556.	1311.	-438.	715.	604.	210.	-.0289	-.0086	.0305	.0541	-.0529	.0243	646.						
.2320	618.	1429.	-749.	919.	794.	355.	-.0280	-.0063	.0240	.0369	-.0637	.0168	853.						
.2330	738.	1366.	-960.	1103.	957.	598.	-.0266	-.0038	.0177	.0185	-.0742	.0076	1064.						
.2340	938.	1044.	-998.	1212.	1103.	935.	-.0247	-.0013	.0122	.0002	-.0837	-.0024	1272.						
.2350	1203.	499.	-887.	1226.	1212.	1354.	-.0227	.0013	.0074	-.0174	-.0914	-.0121	1478.						
.2360	1491.	-134.	-713.	1189.	1259.	1794.	-.0210	.0038	.0033	-.0338	-.0968	-.0203	1680.						
.2370	1717.	-701.	-574.	1171.	1246.	2175.	-.0199	.0062	-.0005	-.0485	-.0993	-.0261	1865.						
.2380	1828.	-1094.	-529.	1200.	1185.	2439.	-.0197	.0084	-.0042	-.0611	-.0986	-.0285	1999.						
.2390	1806.	-1287.	-579.	1254.	1068.	2571.	-.0205	.0105	-.0078	-.0715	-.0948	-.0269	2058.						
.2400	1679.	-1338.	-677.	1304.	895.	2584.	-.0222	.0124	-.0114	-.0796	-.0876	-.0215	2042.						
.2410	1484.	-1345.	-747.	1329.	693.	2492.	-.0243	.0142	-.0145	-.0852	-.0770	-.0126	1960.						
.2420	1238.	-1391.	-722.	1285.	480.	2303.	-.0266	.0159	-.0170	-.0883	-.0639	-.0007	1807.						
.2430	964.	-1525.	-570.	1145.	258.	2043.	-.0286	.0174	-.0188	-.0891	-.0491	.0133	1588.						
.2440	705.	-1762.	-300.	928.	45.	1752.	-.0300	.0187	-.0200	-.0885	-.0328	.0279	1337.						
.2450	466.	-2086.	50.	667.	-145.	1436.	-.0305	.0199	-.0210	-.0869	-.0160	.0418	1072.						
.2460	219.	-2350.	415.	389.	-314.	1081.	-.0299	.0209	-.0222	-.0851	.0002	.0542	803.						
.2470	-45.	-2512.	708.	136.	-463.	698.	-.0282	.0217	-.0240	-.0840	.0149	.0639	572.						

ADLPIPE PAGE 1109

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.19.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

.2370	1717.	-701.	-574.	1171.	1246.	2175.	-.0199	.0062	-.0005	-.0485	-.0995	-.0261	1865.
.2380	1828.	-1094.	-529.	1200.	1185.	2439.	-.0197	.0084	-.0042	-.0611	-.0986	-.0285	1999.
.2390	1806.	-1287.	-579.	1254.	1068.	2571.	-.0205	.0105	-.0078	-.0715	-.0948	-.0269	2058.
.2400	1679.	-1338.	-677.	1304.	895.	2584.	-.0222	.0124	-.0114	-.0796	-.0876	-.0215	2042.
.2410	1484.	-1345.	-747.	1329.	693.	2492.	-.0243	.0142	-.0145	-.0852	-.0770	-.0126	1960.
.2420	1238.	-1391.	-722.	1285.	480.	2303.	-.0266	.0159	-.0170	-.0883	-.0539	-.0007	1807.
.2430	964.	-1525.	-570.	1145.	250.	2043.	-.0286	.0174	-.0188	-.0891	-.0491	.0133	1588.
.2440	705.	-1762.	-300.	928.	45.	1752.	-.0300	.0187	-.0200	-.0885	-.0328	.0279	1337.
.2450	466.	-2066.	50.	667.	-145.	1436.	-.0305	.0199	-.0210	-.0869	-.0160	.0418	1072.
.2460	219.	-2350.	415.	309.	-314.	1081.	-.0299	.0209	-.0222	-.0851	.0002	.0542	803.
.2470	-45.	-2512.	708.	136.	-463.	698.	-.0282	.0217	-.0240	-.0840	.0149	.0639	572.

ADLPIPE PAGE 1109

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.19.

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	EL								STRESS
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.2480	-309.	-2486.	860.	-35.	-579.	310.	-.0252	.0223	-.0267	-.0840	.0283	.0697	443.	
.2490	-582.	-2252.	862.	-103.	-649.	-96.	-.0209	.0225	-.0303	-.0849	.0399	.0713	448.	
.2500	-876.	-1841.	753.	-99.	-677.	-538.	-.0152	.0223	-.0344	-.0864	.0485	.0690	586.	
.2510	-1141.	-1361.	606.	-63.	-661.	-972.	-.0081	.0218	-.0385	-.0881	.0546	.0629	794.	
.2520	-1298.	-965.	520.	-33.	-598.	-1342.	.0004	.0210	-.0420	-.0894	.0590	.0529	991.	
.2530	-1340.	-741.	572.	-59.	-489.	-1646.	.0100	.0197	-.0444	-.0898	.0515	.0402	1158.	
.2540	-1308.	-680.	767.	-157.	-340.	-1915.	.0201	.0183	-.0457	-.0889	.0516	.0264	1315.	
.2550	-1215.	-725.	1045.	-283.	-165.	-2145.	.0301	.0166	-.0459	-.0869	.0502	.0123	1463.	
.2560	-1063.	-800.	1324.	-381.	6.	-2324.	.0392	.0149	-.0454	-.0843	.0580	-.0014	1587.	
.2570	-906.	-808.	1527.	-429.	153.	-2471.	.0467	.0133	-.0446	-.0815	.0552	-.0133	1694.	
.2580	-794.	-684.	1605.	-417.	273.	-2612.	.0519	.0119	-.0437	-.0788	.0514	-.0220	1793.	
.2590	-719.	-424.	1545.	-320.	357.	-2733.	.0543	.0107	-.0428	-.0762	.0472	-.0272	1870.	
.2600	-662.	-52.	1346.	-170.	384.	-2800.	.0538	.0099	-.0418	-.0739	.0430	-.0288	1907.	
.2610	-616.	376.	1049.	128.	353.	-2797.	.0503	.0094	-.0404	-.0720	.0389	-.0266	1902.	
.2620	-562.	742.	753.	407.	285.	-2713.	.0440	.0093	-.0382	-.0700	.0345	-.0204	1859.	
.2630	-457.	913.	562.	661.	189.	-2518.	.0353	.0095	-.0349	-.0675	.0297	-.0108	1760.	
.2640	-270.	839.	510.	864.	60.	-2177.	.0246	.0101	-.0304	-.0650	.0248	.0012	1579.	
.2650	-13.	564.	560.	1032.	-92.	-1688.	.0124	.0110	-.0250	-.0632	.0199	.0148	1335.	
.2660	268.	179.	654.	1208.	-251.	-1104.	-.0010	.0122	-.0194	-.0623	.0146	.0293	1116.	
.2670	520.	-207.	718.	1425.	-407.	-478.	-.0150	.0137	-.0142	-.0628	.0086	.0439	1049.	
.2680	722.	-507.	682.	1694.	-555.	171.	-.0291	.0155	-.0101	-.0655	.0020	.0576	1207.	
.2690	877.	-704.	532.	2005.	-679.	821.	-.0427	.0175	-.0074	-.0709	-.0049	.0696	1530.	
.2700	985.	-839.	310.	2322.	-765.	1430.	-.0549	.0197	-.0063	-.0787	-.0125	.0794	1909.	
.2710	1049.	-951.	58.	2601.	-798.	1963.	-.0651	.0221	-.0067	-.0884	-.0209	.0867	2261.	
.2720	1090.	-1086.	-185.	2804.	-762.	2405.	-.0727	.0246	-.0086	-.0997	-.0297	.0912	2542.	
.2730	1141.	-1309.	-358.	2900.	-650.	2740.	-.0771	.0271	-.0115	-.1119	-.0386	.0927	2725.	
.2740	1221.	-1667.	-409.	2858.	-477.	2950.	-.0784	.0294	-.0153	-.1243	-.0479	.0913	2787.	
.2750	1332.	-2123.	-359.	2679.	-255.	3039.	-.0765	.0315	-.0197	-.1364	-.0571	.0872	2736.	
.2760	1461.	-2587.	-271.	2412.	5.	3004.	-.0719	.0335	-.0247	-.1482	-.0654	.0809	2597.	
.2770	1572.	-2978.	-195.	2114.	283.	2826.	-.0651	.0350	-.0303	-.1588	-.0729	.0729	2386.	
.2780	1631.	-3237.	-162.	1814.	558.	2506.	-.0569	.0361	-.0362	-.1679	-.0794	.0642	2119.	
.2790	1633.	-3352.	-183.	1517.	820.	2092.	-.0481	.0368	-.0421	-.1752	-.0842	.0557	1828.	
.2800	1585.	-3353.	-233.	1228.	1055.	1636.	-.0393	.0372	-.0475	-.1802	-.0870	.0479	1551.	
.2810	1484.	-3275.	-279.	961.	1248.	1160.	-.0313	.0371	-.0520	-.1823	-.0878	.0417	1319.	
.2820	1325.	-3136.	-307.	725.	1395.	693.	-.0244	.0366	-.0550	-.1810	-.0865	.0376	1158.	
.2830	1131.	-2974.	-293.	518.	1491.	285.	-.0191	.0356	-.0562	-.1764	-.0830	.0355	1081.	
.2840	937.	-2837.	-208.	336.	1521.	-26.	-.0154	.0342	-.0554	-.1683	-.0773	.0353	1050.	
.2850	754.	-2718.	-66.	193.	1475.	-230.	-.0135	.0323	-.0527	-.1570	-.0598	.0365	1014.	

ADLPIPE PAGE 1110

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.19.

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

.2750	1732.	-2123.	-259.	2679.	-255.	3039.	-.0765	.0315	-.0197	-.1364	-.0571	.0872	2736.
.2760	1461.	-2587.	-271.	2412.	5.	3034.	-.0719	.0335	-.0247	-.1482	-.0654	.0809	2597.
.2770	1572.	-2978.	-195.	2114.	283.	2826.	-.0651	.0350	-.0303	-.1588	-.0729	.0729	2386.
.2780	1631.	-3237.	-162.	1814.	558.	2506.	-.0569	.0361	-.0362	-.1679	-.0794	.0642	2119.
.2790	1633.	-3352.	-183.	1517.	620.	2092.	-.0481	.0368	-.0421	-.1752	-.0842	.0557	1828.
.2800	1585.	-3353.	-233.	1228.	1055.	1636.	-.0393	.0372	-.0475	-.1802	-.0870	.0479	1551.
.2810	1484.	-3275.	-275.	961.	1248.	1160.	-.0313	.0371	-.0520	-.1823	-.0878	.0417	1319.
.2820	1325.	-3136.	-307.	725.	1395.	693.	-.0244	.0366	-.0550	-.1810	-.0865	.0376	1158.
.2830	1131.	-2974.	-293.	518.	1491.	285.	-.0191	.0356	-.0562	-.1764	-.0830	.0355	1081.
.2840	937.	-2837.	-201.	376.	1521.	-26.	-.0154	.0342	-.0554	-.1683	-.0773	.0353	1050.
.2850	754.	-2718.	-66.	193.	1475.	-230.	-.0135	.0323	-.0527	-.1570	-.0698	.0365	1014.

ADLPIPE PAGE 1110

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.19.

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	EL								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)		
.2860	575.	-2568.	87.	114.	1362.	-337.	-.0130	.0299	-.0482	-.1432	-.0507	.0388	949.	
.2870	400.	-2375.	234.	102.	1196.	-367.	-.0138	.0272	-.0423	-.1271	-.0504	.0419	846.	
.2880	240.	-2155.	376.	133.	987.	-334.	-.0156	.0242	-.0355	-.1096	-.0397	.0451	708.	
.2890	93.	-1891.	403.	187.	750.	-258.	-.0179	.0211	-.0283	-.0913	-.0290	.0482	549.	
.2900	-48.	-1561.	525.	268.	509.	-171.	-.0201	.0179	-.0211	-.0731	-.0187	.0506	404.	
.2910	-177.	-1190.	517.	365.	282.	-110.	-.0218	.0145	-.0143	-.0552	-.0093	.0518	320.	
.2920	-275.	-828.	487.	438.	78.	-81.	-.0227	.0113	-.0081	-.0381	-.0014	.0515	305.	
.2930	-320.	-496.	440.	457.	-99.	-67.	-.0223	.0081	-.0026	-.0224	.0051	.0494	318.	
.2940	-308.	-192.	371.	439.	-246.	-73.	-.0206	.0051	.0020	-.0085	.0102	.0450	343.	
.2950	-247.	81.	287.	410.	-364.	-119.	-.0175	.0022	.0056	.0039	.0138	.0384	378.	
.2960	-149.	313.	201.	358.	-454.	-193.	-.0132	-.0005	.0085	.0146	.0160	.0299	411.	
.2970	-18.	492.	125.	261.	-518.	-266.	-.0081	-.0030	.0106	.0235	.0174	.0202	430.	
.2980	129.	612.	68.	131.	-559.	-329.	-.0024	-.0052	.0120	.0309	.0181	.0099	446.	
.2990	252.	703.	20.	-5.	-579.	-400.	.0032	-.0071	.0129	.0372	.0187	-.0003	475.	
.3000	317.	808.	-40.	-132.	-580.	-486.	.0084	-.0089	.0133	.0427	.0192	-.0094	517.	
.3010	312.	938.	-117.	-254.	-566.	-574.	.0129	-.0104	.0135	.0476	.0200	-.0168	570.	
.3020	249.	1083.	-198.	-370.	-550.	-658.	.0164	-.0117	.0136	.0524	.0215	-.0224	630.	
.3030	138.	1247.	-280.	-466.	-540.	-742.	.0188	-.0129	.0138	.0575	.0235	-.0260	694.	
.3040	-10.	1432.	-363.	-542.	-539.	-829.	.0202	-.0140	.0144	.0632	.0262	-.0276	760.	
.3050	-166.	1614.	-430.	-610.	-554.	-911.	.0207	-.0152	.0156	.0697	.0293	-.0275	828.	
.3060	-302.	1763.	-460.	-678.	-587.	-984.	.0206	-.0164	.0174	.0771	.0327	-.0261	897.	
.3070	-408.	1869.	-452.	-751.	-631.	-1050.	.0200	-.0177	.0199	.0856	.0362	-.0237	969.	
.3080	-479.	1927.	-404.	-835.	-680.	-1114.	.0190	-.0190	.0231	.0948	.0395	-.0206	1044.	
.3090	-516.	1928.	-317.	-936.	-728.	-1173.	.0179	-.0204	.0267	.1046	.0422	-.0171	1125.	
.3100	-526.	1894.	-213.	-1050.	-768.	-1222.	.0168	-.0218	.0305	.1144	.0444	-.0136	1203.	
.3110	-532.	1868.	-127.	-1155.	-790.	-1266.	.0156	-.0231	.0342	.1236	.0457	-.0102	1272.	
.3120	-551.	1878.	-82.	-1230.	-794.	-1309.	.0143	-.0243	.0375	.1319	.0460	-.0074	1324.	
.3130	-581.	1923.	-78.	-1270.	-777.	-1336.	.0132	-.0254	.0403	.1388	.0452	-.0056	1348.	
.3140	-619.	1993.	-109.	-1282.	-734.	-1331.	.0122	-.0263	.0424	.1439	.0433	-.0050	1340.	
.3150	-661.	2075.	-161.	-1268.	-664.	-1289.	.0115	-.0269	.0438	.1470	.0404	-.0058	1299.	
.3160	-703.	2144.	-215.	-1231.	-565.	-1214.	.0111	-.0274	.0446	.1483	.0363	-.0081	1226.	
.3170	-732.	2174.	-253.	-1179.	-438.	-1102.	.0112	-.0277	.0448	.1476	.0312	-.0120	1127.	
.3180	-734.	2142.	-262.	-1134.	-282.	-948.	.0119	-.0277	.0444	.1451	.0252	-.0174	1014.	
.3190	-707.	2042.	-239.	-1108.	-103.	-762.	.0131	-.0274	.0436	.1409	.0182	-.0241	909.	
.3200	-653.	1893.	-200.	-1093.	92.	-561.	.0147	-.0270	.0421	.1352	.0103	-.0318	830.	
.3210	-576.	1731.	-179.	-1074.	291.	-357.	.0165	-.0264	.0402	.1281	.0019	-.0401	787.	
.3220	-478.	1588.	-202.	-1044.	482.	-154.	.0185	-.0256	.0376	.1198	-.0067	-.0488	782.	
.3230	-364.	1475.	-274.	-1003.	651.	39.	.0204	-.0246	.0346	.1107	-.0154	-.0573	806.	

ADLPIPE PAGE 1111

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.20.

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

.3120	-551.	1270.	-72.	-1230.	-794.	-1309.	.0143	-.0243	.0375	.1319	.0460	-.0074	1324.
.3130	-581.	1223.	-78.	-1270.	-777.	-1336.	.0132	-.0254	.0403	.1388	.0452	-.0056	1348.
.3140	-619.	1993.	-109.	-1282.	-734.	-1331.	.0122	-.0263	.0424	.1439	.0433	-.0050	1340.
.3150	-661.	2075.	-161.	-1268.	-664.	-1289.	.0115	-.0269	.0438	.1470	.0404	-.0058	1299.
.3160	-703.	2144.	-215.	-1271.	-565.	-1214.	.0111	-.0274	.0446	.1483	.0363	-.0081	1226.
.3170	-732.	2174.	-253.	-1179.	-438.	-1102.	.0112	-.0277	.0448	.1476	.0312	-.0120	1127.
.3180	-734.	2142.	-262.	-1134.	-282.	-948.	.0119	-.0277	.0444	.1451	.0252	-.0174	1014.
.3190	-707.	2042.	-239.	-1108.	-103.	-762.	.0131	-.0274	.0436	.1409	.0182	-.0241	909.
.3200	-653.	1893.	-200.	-1093.	92.	-561.	.0147	-.0270	.0421	.1352	.0103	-.0318	830.
.3210	-576.	1731.	-179.	-1074.	291.	-357.	.0165	-.0264	.0402	.1281	.0019	-.0401	787.
.3220	-478.	1588.	-202.	-1044.	482.	-154.	.0185	-.0256	.0376	.1198	-.0067	-.0488	782.
.3230	-364.	1475.	-274.	-1003.	651.	39.	.0204	-.0246	.0346	.1107	-.0154	-.0573	806.

ADLPIPE PAGE 1111

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.20.

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	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)	
.3240	-237.	1399.	-394.	-947.	789.	218.	.0219	-.0235	.0314	.1012	-.0239	-.0651	844.	
.3250	-103.	1358.	-555.	-873.	889.	387.	.0229	-.0224	.0282	.0919	-.0315	-.0718	879.	
.3260	37.	1324.	-726.	-790.	943.	550.	.0232	-.0213	.0254	.0834	-.0380	-.0769	909.	
.3270	180.	1258.	-867.	-718.	951.	716.	.0226	-.0203	.0233	.0762	-.0428	-.0798	937.	
.3280	312.	1144.	-954.	-671.	917.	887.	.0210	-.0193	.0221	.0708	-.0458	-.0802	972.	
.3290	415.	990.	-981.	-647.	848.	1055.	.0184	-.0184	.0219	.0675	-.0467	-.0779	1011.	
.3300	468.	817.	-957.	-634.	746.	1208.	.0150	-.0177	.0227	.0664	-.0455	-.0730	1048.	
.3310	461.	653.	-898.	-627.	620.	1339.	.0107	-.0171	.0242	.0673	-.0421	-.0657	1081.	
.3320	391.	521.	-820.	-625.	478.	1441.	.0060	-.0167	.0262	.0699	-.0368	-.0566	1106.	
.3330	258.	446.	-740.	-624.	326.	1501.	.0012	-.0165	.0284	.0738	-.0301	-.0465	1117.	
.3340	74.	449.	-678.	-610.	170.	1508.	-.0032	-.0165	.0306	.0786	-.0223	-.0363	1102.	
.3350	-138.	530.	-641.	-582.	19.	1460.	-.0068	-.0166	.0325	.0837	-.0138	-.0270	1059.	
.3360	-350.	655.	-609.	-558.	-116.	1360.	-.0090	-.0170	.0341	.0889	-.0051	-.0195	994.	
.3370	-534.	780.	-554.	-563.	-231.	1215.	-.0094	-.0175	.0351	.0937	.0031	-.0145	916.	
.3380	-671.	889.	-468.	-604.	-316.	1028.	-.0079	-.0181	.0356	.0979	.0107	-.0125	832.	
.3390	-758.	989.	-364.	-668.	-369.	802.	-.0043	-.0189	.0355	.1013	.0175	-.0136	746.	
.3400	-805.	1095.	-255.	-746.	-388.	534.	.0013	-.0198	.0346	.1036	.0232	-.0179	671.	
.3410	-823.	1223.	-154.	-831.	-378.	231.	.0084	-.0207	.0331	.1049	.0278	-.0250	635.	
.3420	-824.	1393.	-81.	-909.	-345.	-94.	.0167	-.0216	.0308	.1052	.0316	-.0342	659.	
.3430	-822.	1622.	-51.	-963.	-297.	-431.	.0257	-.0226	.0280	.1045	.0348	-.0449	739.	
.3440	-830.	1907.	-63.	-981.	-244.	-771.	.0347	-.0236	.0249	.1033	.0375	-.0564	857.	
.3450	-854.	2227.	-103.	-968.	-195.	-1094.	.0434	-.0245	.0218	.1019	.0401	-.0677	993.	
.3460	-889.	2541.	-144.	-936.	-154.	-1378.	.0512	-.0254	.0191	.1006	.0428	-.0780	1128.	
.3470	-930.	2804.	-156.	-894.	-129.	-1608.	.0577	-.0262	.0170	.0998	.0458	-.0866	1243.	
.3480	-972.	2980.	-113.	-853.	-121.	-1776.	.0627	-.0269	.0158	.0996	.0491	-.0929	1330.	
.3490	-1012.	3051.	-10.	-820.	-132.	-1871.	.0660	-.0274	.0155	.1001	.0528	-.0966	1380.	
.3500	-1048.	3022.	143.	-794.	-163.	-1892.	.0674	-.0277	.0160	.1008	.0568	-.0975	1388.	
.3510	-1084.	2914.	320.	-764.	-215.	-1848.	.0670	-.0276	.0170	.1014	.0608	-.0957	1356.	
.3520	-1124.	2763.	488.	-716.	-283.	-1752.	.0648	-.0272	.0182	.1014	.0646	-.0914	1290.	
.3530	-1168.	2592.	620.	-647.	-365.	-1612.	.0611	-.0264	.0192	.1000	.0678	-.0850	1197.	
.3540	-1206.	2409.	702.	-558.	-456.	-1436.	.0561	-.0251	.0196	.0967	.0703	-.0771	1083.	
.3550	-1231.	2217.	729.	-456.	-549.	-1231.	.0503	-.0233	.0192	.0911	.0717	-.0682	959.	
.3560	-1241.	2013.	704.	-347.	-633.	-1014.	.0439	-.0210	.0179	.0831	.0718	-.0589	839.	
.3570	-1229.	1781.	644.	-244.	-697.	-795.	.0375	-.0182	.0156	.0727	.0704	-.0496	732.	
.3580	-1186.	1503.	569.	-165.	-737.	-579.	.0313	-.0150	.0123	.0601	.0676	-.0407	641.	
.3590	-1112.	1177.	492.	-118.	-745.	-373.	.0257	-.0116	.0083	.0456	.0634	-.0327	567.	
.3600	-1015.	820.	415.	-99.	-717.	-191.	.0208	-.0079	.0036	.0299	.0579	-.0256	504.	
.3610	-909.	454.	337.	-102.	-652.	-48.	.0168	-.0042	-.0016	.0135	.0513	-.0195	446.	

ADLPIPE PAGE 1112

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.20.

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

.3510	-1084.	2914.	320.	-764.	-215.	-1848.	.6670	-.0276	.0170	.1014	.0608	-.0957	1356.
.3520	-1124.	2763.	488.	-716.	-283.	-1752.	.6648	-.0272	.0182	.1014	.0646	-.0914	1290.
.3530	-1168.	2592.	620.	-647.	-365.	-1612.	.6611	-.0264	.0192	.1000	.0578	-.0850	1197.
.3540	-1206.	2409.	702.	-558.	-456.	-1436.	.6561	-.0251	.0196	.0967	.0703	-.0771	1083.
.3550	-1231.	2217.	729.	-456.	-549.	-1231.	.6503	-.0233	.0192	.0911	.0717	-.0682	959.
.3560	-1241.	2013.	704.	-347.	-633.	-1014.	.6439	-.0210	.0179	.0831	.0718	-.0589	839.
.3570	-1229.	1781.	644.	-244.	-697.	-795.	.6375	-.0182	.0156	.0727	.0704	-.0496	732.
.3580	-1186.	1503.	569.	-165.	-737.	-579.	.6313	-.0150	.0123	.0601	.0676	-.0407	641.
.3590	-1112.	1177.	492.	-118.	-745.	-373.	.6257	-.0116	.0083	.0456	.0634	-.0327	567.
.3600	-1015.	820.	415.	-99.	-717.	-191.	.6208	-.0079	.0036	.0299	.0579	-.0256	504.
.3610	-909.	454.	337.	-102.	-652.	-48.	.6168	-.0042	-.0016	.0135	.0513	-.0195	446.

ADLPIPE PAGE 1112

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.20.

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	EL	EL	DZ	RX	RY	RZ	STRESS	
TIME	FX	FY	FZ	HX	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)	
.3620	-800.	96.	257.	-120.	-554.	53.	.0135	-.0006	-.0070	-.0030	.0438	-.0144	384.
.3630	-694.	-236.	177.	-151.	-425.	116.	.0110	.0028	-.0124	-.0189	.0356	-.0102	314.
.3640	-595.	-534.	100.	-186.	-272.	142.	.0092	.0060	-.0175	-.0338	.0271	-.0069	242.
.3650	-505.	-795.	32.	-218.	-102.	136.	.0078	.0087	-.0220	-.0471	.0183	-.0043	186.
.3660	-419.	-1027.	-14.	-247.	79.	111.	.0067	.0110	-.0258	-.0583	.0095	-.0021	190.
.3670	-326.	-1242.	-29.	-273.	260.	88.	.0057	.0129	-.0285	-.0674	.0009	-.0002	261.
.3680	-219.	-1444.	-11.	-291.	430.	79.	.0046	.0144	-.0302	-.0742	-.0074	.0014	354.
.3690	-100.	-1621.	28.	-289.	580.	92.	.0032	.0154	-.0307	-.0788	-.0154	.0031	441.
.3700	30.	-1756.	70.	-252.	703.	134.	.0013	.0160	-.0302	-.0815	-.0229	.0048	511.
.3710	169.	-1838.	102.	-175.	791.	208.	-.0012	.0163	-.0289	-.0825	-.0298	.0067	564.
.3720	312.	-1863.	114.	-59.	842.	315.	-.0044	.0163	-.0268	-.0822	-.0361	.0090	607.
.3730	453.	-1827.	98.	96.	855.	451.	-.0084	.0162	-.0242	-.0808	-.0416	.0118	655.
.3740	588.	-1736.	53.	287.	834.	609.	-.0130	.0159	-.0212	-.0785	-.0464	.0152	722.
.3750	711.	-1604.	-14.	500.	783.	781.	-.0181	.0156	-.0180	-.0757	-.0503	.0191	818.
.3760	823.	-1453.	-90.	719.	709.	959.	-.0235	.0152	-.0147	-.0724	-.0535	.0235	939.
.3770	924.	-1302.	-162.	929.	619.	1137.	-.0291	.0148	-.0114	-.0689	-.0538	.0284	1074.
.3780	1018.	-1168.	-221.	1120.	518.	1306.	-.0344	.0144	-.0082	-.0652	-.0573	.0334	1211.
.3790	1102.	-1054.	-266.	1284.	411.	1456.	-.0393	.0141	-.0052	-.0616	-.0530	.0384	1338.
.3800	1172.	-958.	-301.	1419.	305.	1578.	-.0436	.0138	-.0025	-.0581	-.0580	.0430	1445.
.3810	1224.	-874.	-330.	1523.	205.	1662.	-.0469	.0135	-.0003	-.0550	-.0573	.0471	1526.
.3820	1258.	-807.	-351.	1595.	115.	1704.	-.0493	.0132	.0013	-.0524	-.0559	.0503	1575.
.3830	1277.	-762.	-360.	1628.	38.	1705.	-.0505	.0130	.0023	-.0503	-.0541	.0526	1589.
.3840	1282.	-741.	-356.	1619.	-24.	1665.	-.0506	.0128	.0027	-.0489	-.0517	.0538	1566.
.3850	1268.	-738.	-343.	1572.	-70.	1584.	-.0494	.0127	.0024	-.0481	-.0488	.0540	1505.
.3860	1234.	-742.	-325.	1495.	-100.	1457.	-.0472	.0127	.0015	-.0480	-.0455	.0533	1409.
.3870	1180.	-748.	-304.	1393.	-116.	1290.	-.0440	.0126	-.0000	-.0483	-.0418	.0516	1282.
.3880	1109.	-750.	-278.	1268.	-124.	1087.	-.0399	.0126	-.0020	-.0491	-.0375	.0493	1129.
.3890	1022.	-744.	-248.	1125.	-125.	852.	-.0352	.0126	-.0044	-.0501	-.0328	.0465	955.
.3900	916.	-717.	-216.	975.	-124.	584.	-.0301	.0126	-.0070	-.0509	-.0275	.0436	771.
.3910	788.	-663.	-183.	825.	-121.	286.	-.0247	.0124	-.0096	-.0514	-.0217	.0408	594.
.3920	645.	-592.	-141.	673.	-119.	-35.	-.0194	.0122	-.0122	-.0513	-.0155	.0384	461.
.3930	494.	-522.	-77.	512.	-119.	-368.	-.0142	.0119	-.0144	-.0504	-.0088	.0366	433.
.3940	338.	-457.	12.	343.	-120.	-703.	-.0093	.0115	-.0162	-.0485	-.0019	.0356	534.
.3950	175.	-392.	114.	176.	-121.	-1037.	-.0049	.0111	-.0175	-.0457	.0050	.0355	713.
.3960	11.	-323.	223.	23.	-124.	-1359.	-.0012	.0105	-.0183	-.0421	.0117	.0361	920.
.3970	-142.	-260.	335.	-115.	-130.	-1652.	.0019	.0098	-.0185	-.0378	.0180	.0373	1120.
.3980	-271.	-211.	447.	-237.	-142.	-1898.	.0042	.0092	-.0183	-.0332	.0236	.0389	1293.
.3990	-371.	-173.	549.	-336.	-160.	-2085.	.0058	.0085	-.0176	-.0288	.0283	.0407	1428.

ADLPIPE PAGE 1113

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.20.

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

.3890	1022.	-744.	-243.	1125.	-125.	852.	-.0352	.0126	-.0044	-.0501	-.0328	.0465	955.
.3900	916.	-717.	-216.	975.	-124.	584.	-.0301	.0126	-.0070	-.0509	-.0275	.0436	771.
.3910	788.	-663.	-183.	825.	-121.	286.	-.0247	.0124	-.0096	-.0514	-.0217	.0408	594.
.3920	645.	-592.	-141.	672.	-119.	-35.	-.0194	.0122	-.0122	-.0513	-.0155	.0384	461.
.3930	494.	-522.	-77.	512.	-119.	-368.	-.0142	.0119	-.0144	-.0504	-.0088	.0366	433.
.3940	338.	-457.	12.	343.	-120.	-703.	-.0093	.0115	-.0162	-.0485	-.0019	.0356	534.
.3950	175.	-392.	114.	176.	-121.	-1037.	-.0049	.0111	-.0175	-.0457	.0050	.0355	713.
.3960	11.	-323.	223.	23.	-124.	-1359.	-.0012	.0105	-.0183	-.0421	.0117	.0361	920.
.3970	-142.	-260.	335.	-115.	-130.	-1652.	.0019	.0098	-.0185	-.0378	.0180	.0373	1120.
.3980	-271.	-211.	447.	-237.	-142.	-1892.	.0042	.0092	-.0183	-.0332	.0236	.0389	1293.
.3990	-371.	-173.	549.	-336.	-160.	-2085.	.0058	.0085	-.0176	-.0288	.0283	.0407	1428.

ADLPIPE PAGE 1113

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.20.

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	24	MEMBER	3	SEQUENCE	811	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)	(DEG)	(PSI)	
.4000	-441.	-135.	624.	-396.	-184.	-2208.	.0065	.0079	-.0167	-.0247	.0318	.0423		1517.	

MAXIMUM VALUE OF STRESS OCCURS AT

TIME	FX	FY	FZ	MX	MY	MZ									STRESS
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(DEG)	(PSI)	
.0430	3101.	3738.	-2145.	4572.	-970.	6629.	-.1126	-.0264	.1018	.1358	-.1165	.0146		5467.	

SECTION	25	MEMBER	1	SEQUENCE	811	LOCATION	BEG	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)	(DEG)	(PSI)	
0.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.	
.0010	-2.	-0.	-1.	0.	0.	-0.	-.0000	-.0000	.0000	.0000	-.0000	-.0000	-.0000	0.	
.0020	-8.	-3.	-6.	1.	3.	-2.	-.0000	-.0000	.0000	.0001	.0000	-.0001	-.0001	3.	
.0030	-16.	-20.	-7.	-6.	9.	-4.	-.0000	-.0001	.0000	.0002	.0001	-.0003	-.0003	8.	
.0040	-20.	-71.	3.	-30.	19.	-1.	.0000	-.0002	.0000	.0005	.0002	-.0006	-.0006	24.	
.0050	-22.	-163.	19.	-74.	30.	11.	.0000	-.0003	.0001	.0009	.0004	-.0010	-.0010	54.	
.0060	-24.	-277.	29.	-126.	43.	28.	.0001	-.0006	.0003	.0017	.0007	-.0016	-.0016	92.	
.0070	-37.	-397.	29.	-179.	60.	43.	.0002	-.0010	.0006	.0030	.0011	-.0024	-.0024	130.	
.0080	-75.	-547.	30.	-245.	99.	53.	.0004	-.0015	.0011	.0049	.0017	-.0036	-.0036	182.	
.0090	-120.	-780.	57.	-366.	167.	59.	.0008	-.0023	.0019	.0071	.0029	-.0057	-.0057	274.	
.0100	-157.	-1125.	120.	-559.	264.	71.	.0013	-.0033	.0029	.0098	.0050	-.0084	-.0084	419.	
.0110	-202.	-1533.	186.	-790.	388.	90.	.0020	-.0045	.0043	.0134	.0081	-.0115	-.0115	597.	
.0120	-246.	-1891.	219.	-1002.	527.	101.	.0029	-.0059	.0061	.0178	.0123	-.0146	-.0146	766.	
.0130	-255.	-2126.	197.	-1156.	657.	102.	.0042	-.0073	.0083	.0227	.0179	-.0172	-.0172	899.	
.0140	-195.	-2240.	119.	-1247.	754.	121.	.0058	-.0085	.0107	.0279	.0249	-.0186	-.0186	986.	
.0150	-52.	-2230.	-18.	-1254.	793.	194.	.0077	-.0094	.0129	.0328	.0326	-.0182	-.0182	1009.	
.0160	183.	-2030.	-207.	-1138.	758.	320.	.0098	-.0098	.0144	.0365	.0404	-.0156	-.0156	947.	
.0170	442.	-1589.	-430.	-881.	688.	460.	.0123	-.0094	.0147	.0373	.0479	-.0117	-.0117	815.	
.0180	624.	-942.	-667.	-517.	656.	562.	.0151	-.0081	.0131	.0342	.0550	-.0079	-.0079	679.	
.0190	675.	-196.	-889.	-112.	705.	600.	.0181	-.0059	.0091	.0260	.0516	-.0056	-.0056	629.	
.0200	497.	487.	-1031.	260.	912.	580.	.0212	-.0030	.0024	.0129	.0672	-.0060	-.0060	749.	
.0210	262.	873.	-907.	430.	1255.	550.	.0241	.0006	-.0070	-.0062	.0728	-.0083	-.0083	968.	
.0220	448.	793.	-602.	269.	1472.	588.	.0273	.0047	-.0186	-.0307	.0917	-.0108	-.0108	1084.	
.0230	843.	567.	-513.	93.	1487.	780.	.0304	.0087	-.0309	-.0542	.0911	-.0109	-.0109	1134.	

ADLPIPE PAGE 1114

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.20.

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

.0130	-255.	-2126.	197.	-1156.	657.	102.	.0042	-.0073	.0083	.0227	.0179	-.0172	899.
.0140	-195.	-2240.	119.	-1247.	754.	121.	.0058	-.0085	.0107	.0279	.0249	-.0186	986.
.0150	-52.	-2230.	-18.	-1254.	793.	194.	.0077	-.0094	.0129	.0328	.0326	-.0182	1009.
.0160	183.	-2030.	-207.	-1178.	758.	320.	.0098	-.0098	.0144	.0365	.0404	-.0156	947.
.0170	442.	-1589.	-430.	-881.	688.	460.	.0123	-.0094	.0147	.0372	.0479	-.0117	815.
.0180	624.	-942.	-667.	-517.	656.	562.	.0151	-.0081	.0131	.0342	.0550	-.0079	679.
.0190	675.	-196.	-889.	-112.	705.	600.	.0181	-.0059	.0091	.0260	.0516	-.0056	629.
.0200	497.	487.	-1031.	260.	912.	580.	.0212	-.0030	.0024	.0129	.0572	-.0060	749.
.0210	262.	873.	-907.	430.	1255.	550.	.0241	.0006	-.0070	-.0062	.0728	-.0083	968.
.0220	448.	793.	-602.	269.	1472.	588.	.0273	.0047	-.0186	-.0307	.0817	-.0108	1084.
.0230	847.	567.	-513.	93.	1487.	780.	.0304	.0087	-.0309	-.0542	.0911	-.0109	1134.

ADLPIPE PAGE 1114

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.20.

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	BEG	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)
.0240	1299.	1022.	-738.	434.	1232.	1148.	.0332	.0135	-.0423	-.0746	.0955	-.0033	1172.
.0250	1593.	2451.	-1120.	1360.	922.	1472.	.0356	.0192	-.0524	-.0936	.0957	.0095	1487.
.0260	1669.	4061.	-1638.	2323.	759.	1543.	.0380	.0247	-.0617	-.1117	.0981	.0188	1748.
.0270	2320.	4911.	-2157.	2883.	259.	1745.	.0400	.0291	-.0710	-.1278	.1022	.0275	2278.
.0280	3200.	4884.	-2188.	3245.	-582.	2672.	.0401	.0327	-.0793	-.1385	.0910	.0447	2860.
.0290	3187.	4653.	-1725.	3558.	-1010.	2653.	.0382	.0354	-.0856	-.1466	.0656	.0589	3504.
.0300	3079.	4880.	-1740.	3498.	-1150.	3184.	.0381	.0372	-.0904	-.1603	.0573	.0492	3281.
.0310	3050.	5419.	-1816.	3346.	-1376.	2181.	.0376	.0386	-.0925	-.1741	.0489	.0329	2847.
.0320	2085.	5475.	-1314.	3318.	-1450.	1966.	.0324	.0384	-.0896	-.1756	.0129	.0273	2778.
.0330	818.	4856.	-588.	2838.	-1335.	1678.	.0244	.0363	-.0830	-.1709	-.0267	.0189	2398.
.0340	284.	4289.	-135.	1743.	-1237.	226.	.0162	.0335	-.0738	-.1701	-.0429	-.0028	1449.
.0350	-350.	4276.	176.	928.	-1127.	-1433.	.0049	.0303	-.0605	-.1625	-.0592	-.0191	1379.
.0360	-1755.	4486.	553.	788.	-950.	-2324.	-.0118	.0262	-.0424	-.1380	-.0951	-.0167	1774.
.0370	-2746.	4247.	877.	400.	-828.	-3280.	-.0306	.0212	-.0228	-.1080	-.1217	-.0116	2296.
.0380	-2653.	3038.	1268.	-875.	-751.	-4730.	-.0488	.0150	-.0037	-.0811	-.1219	-.0141	3282.
.0390	-2685.	877.	2074.	-2355.	-517.	-5454.	-.0681	.0074	.0162	-.0460	-.1256	-.0085	4019.
.0400	-3576.	-1337.	2954.	-3322.	-28.	-5303.	-.0877	-.0013	.0383	.0020	-.1433	.0073	4218.
.0410	-3829.	-2515.	3110.	-3942.	222.	-5713.	-.1016	-.0096	.0603	.0480	-.1424	.0156	4681.
.0420	-3672.	-2894.	2849.	-4355.	448.	-6589.	-.1090	-.0175	.0815	.0892	-.1245	.0143	5333.
.0430	-4224.	-3664.	2790.	-4572.	970.	-6629.	-.1126	-.0264	.1018	.1358	-.1165	.0146	5467.
.0440	-4620.	-5074.	2948.	-4846.	1389.	-5862.	-.1115	-.0356	.1193	.1825	-.1116	.0166	5211.
.0450	-4011.	-6188.	2885.	-5066.	1386.	-5133.	-.1037	-.0434	.1322	.2193	-.0933	.0140	4950.
.0460	-3294.	-6317.	2311.	-4611.	1173.	-4378.	-.0906	-.0494	.1408	.2503	-.0730	.0097	4358.
.0470	-3111.	-5630.	1538.	-3329.	945.	-3184.	-.0747	-.0535	.1447	.2778	-.0649	.0092	3169.
.0480	-2611.	-4841.	943.	-2007.	592.	-1937.	-.0556	-.0553	.1418	.2911	-.0560	.0055	1922.
.0490	-1421.	-4725.	554.	-1301.	110.	-917.	-.0334	-.0552	.1310	.2863	-.0370	-.0074	1075.
.0500	-369.	-5325.	421.	-921.	-321.	359.	-.0107	-.0541	.1140	.2713	-.0236	-.0237	701.
.0510	300.	-5716.	502.	-361.	-701.	1623.	.0113	-.0509	.0931	.2474	-.0218	-.0376	1339.
.0520	886.	-5103.	436.	377.	-980.	2593.	.0339	-.0452	.0695	.2098	-.0158	-.0572	1885.
.0530	1262.	-3694.	-4.	1138.	-1034.	2517.	.0562	-.0380	.0446	.1627	-.0005	-.0851	1988.
.0540	1442.	-2141.	-508.	1980.	-1069.	2491.	.0754	-.0301	.0200	.1156	.0109	-.1068	2263.
.0550	1807.	-787.	-729.	2883.	-1311.	2973.	.0898	-.0215	-.0034	.0715	.0140	-.1126	2928.
.0560	2328.	343.	-831.	3623.	-1520.	3420.	.0997	-.0129	-.0255	.0297	.0204	-.1111	3511.
.0570	2789.	1360.	-1099.	4158.	-1491.	3429.	.1057	-.0050	-.0456	-.0083	.0370	-.1094	3769.
.0580	3284.	2295.	-1382.	4716.	-1460.	3443.	.1070	.0022	-.0623	-.0381	.0544	-.0993	4057.
.0590	3759.	2846.	-1392.	5279.	-1496.	3887.	.1032	.0083	-.0744	-.0564	.0641	-.0763	4532.
.0600	4026.	2671.	-1184.	5426.	-1315.	4362.	.0959	.0120	-.0816	-.0646	.0737	-.0520	4776.
.0610	4140.	2010.	-947.	5006.	-829.	4355.	.0872	.0133	-.0834	-.0662	.0917	-.0361	4507.

ADLPIPE PAGE 1115

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.20.

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

.0510	300.	-5716.	502.	-361.	-701.	1823.	.113	-.0509	.0931	.2474	-.0218	-.0376	1339.
.0520	886.	-5103.	436.	377.	-980.	2593.	.339	-.0452	.0695	.2098	-.0158	-.0572	1885.
.0530	1262.	-3694.	-4.	1138.	-1034.	2517.	.0562	-.0380	.0446	.1627	-.0005	-.0851	1988.
.0540	1442.	-2141.	-508.	1980.	-1069.	2491.	.0754	-.0301	.0200	.1156	.0109	-.1068	2263.
.0550	1807.	-787.	-729.	2803.	-1311.	2973.	.0898	-.0215	-.0034	.0715	.0140	-.1126	2928.
.0560	2328.	343.	-831.	3623.	-1520.	3420.	.0997	-.0129	-.0255	.0297	.0204	-.1111	3511.
.0570	2789.	1360.	-1099.	4158.	-1491.	3429.	.1057	-.0050	-.0456	-.0083	.0370	-.1094	3769.
.0580	3284.	2295.	-1382.	4716.	-1460.	3443.	.1070	.0022	-.0623	-.0381	.0544	-.0993	4057.
.0590	3759.	2846.	-1392.	5279.	-1496.	3887.	.1032	.0083	-.0744	-.0564	.0541	-.0763	4532.
.0600	4026.	2671.	-1184.	5426.	-1315.	4362.	.0959	.0120	-.0816	-.0646	.0737	-.0520	4776.
.0610	4140.	2010.	-947.	5006.	-829.	4355.	.0872	.0133	-.0834	-.0662	.0917	-.0361	4507.

ADLPIPE PAGE 1115

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.20.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	25	MEMBER	1	SEQUENCE	811	LOCATION	BEG	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)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(PSI)
.0620	4165.	1580.	-782.	4523.	-317.	4061.	.0777	.0129	-.0787	-.0596	.1098	-.0221	4103.										
.0630	3747.	1833.	-796.	4467.	150.	3788.	.0667	.0111	-.0670	-.0412	.1173	-.0044	3949.										
.0640	2893.	2600.	-1064.	4624.	707.	3235.	.0555	.0080	-.0500	-.0146	.1210	.0100	3834.										
.0650	2227.	3259.	-1385.	4486.	1258.	2230.	.0448	.0037	-.0310	.0128	.1306	.0159	3482.										
.0660	1906.	3128.	-1415.	3971.	1615.	1395.	.0339	-.0016	-.0118	.0418	.1373	.0204	3038.										
.0670	1488.	2015.	-1036.	3260.	1870.	1158.	.0218	-.0079	.0064	.0752	.1309	.0275	2651.										
.0680	1054.	335.	-460.	2323.	2144.	952.	.0107	-.0149	.0225	.1072	.1219	.0285	2225.										
.0690	955.	-1502.	119.	1111.	2371.	345.	.0028	-.0217	.0360	.1322	.1204	.0176	1780.										
.0700	830.	-3445.	722.	-106.	2521.	-125.	-.0021	-.0288	.0484	.1555	.1150	.0021	1703.										
.0710	356.	-5322.	1308.	-1078.	2608.	-108.	-.0043	-.0362	.0608	.1813	.0981	-.0126	1903.										
.0720	-11.	-6600.	1592.	-1821.	2525.	-135.	-.0020	-.0431	.0730	.2039	.0821	-.0313	2100.										
.0730	-125.	-6915.	1382.	-2251.	2242.	-471.	.0049	-.0488	.0846	.2206	.0727	-.0549	2165.										
.0740	-492.	-6373.	840.	-2112.	1874.	-641.	.0138	-.0532	.0949	.2354	.0579	-.0751	1952.										
.0750	-1004.	-5353.	239.	-1517.	1410.	-465.	.0228	-.0557	.1022	.2462	.0359	-.0879	1431.										
.0760	-1071.	-4433.	-261.	-983.	797.	-257.	.0312	-.0560	.1038	.2461	.0177	-.0974	870.										
.0770	-803.	-4216.	-470.	-813.	187.	21.	.0375	-.0545	.0986	.2349	.0036	-.1047	563.										
.0780	-652.	-4815.	-205.	-920.	-261.	634.	.0398	-.0515	.0875	.2159	-.0149	-.1057	774.										
.0790	-470.	-5729.	398.	-1190.	-622.	1325.	.0385	-.0466	.0721	.1886	-.0348	-.1007	1272.										
.0800	-88.	-6349.	943.	-1531.	-977.	1655.	.0347	-.0399	.0549	.1531	-.0485	-.0937	1656.										
.0810	32.	-6260.	1236.	-1691.	-1196.	1628.	.0285	-.0321	.0386	.1150	-.0501	-.0842	1776.										
.0820	-301.	-5196.	1311.	-1479.	-1242.	1354.	.0200	-.0233	.0255	.0775	-.0735	-.0695	1590.										
.0830	-646.	-3213.	1138.	-1019.	-1280.	717.	.0097	-.0137	.0156	.0398	-.0831	-.0507	1204.										
.0840	-889.	-757.	700.	-489.	-1338.	-224.	-.0021	-.0039	.0081	.0032	-.0869	-.0297	972.										
.0850	-1309.	1717.	232.	78.	-1274.	-1177.	-.0161	.0057	.0019	-.0300	-.0902	-.0052	1171.										
.0860	-1715.	3889.	-5.	563.	-1106.	-2051.	-.0322	.0153	-.0046	-.0619	-.0926	.0227	1616.										
.0870	-1755.	5305.	23.	703.	-946.	-2855.	-.0492	.0244	-.0129	-.0941	-.0897	.0504	2082.										
.0880	-1614.	5589.	300.	404.	-748.	-3395.	-.0662	.0321	-.0229	-.1233	-.0844	.0759	2359.										
.0890	-1540.	5018.	854.	-164.	-443.	-3594.	-.0819	.0382	-.0331	-.1480	-.0806	.0988	2443.										
.0900	-1413.	4356.	1470.	-758.	-119.	-3731.	-.0941	.0432	-.0422	-.1699	-.0751	.1162	2567.										
.0910	-1263.	4204.	1728.	-1124.	125.	-3994.	-.1009	.0469	-.0484	-.1870	-.0660	.1259	2798.										
.0920	-1344.	4816.	1459.	-1019.	274.	-4250.	-.1021	.0492	-.0507	-.1959	-.0585	.1294	2952.										
.0930	-1594.	6148.	862.	-446.	316.	-4416.	-.0979	.0504	-.0498	-.1984	-.0541	.1286	2999.										
.0940	-1747.	7685.	158.	262.	266.	-4555.	-.0888	.0506	-.0476	-.1982	-.0486	.1214	3081.										
.0950	-1755.	8655.	-506.	770.	178.	-4560.	-.0762	.0495	-.0465	-.1960	-.0412	.1067	3120.										
.0960	-1602.	8637.	-909.	991.	43.	-4197.	-.0617	.0471	-.0477	-.1917	-.0353	.0883	2907.										
.0970	-1164.	7650.	-898.	943.	-171.	-3446.	-.0462	.0439	-.0517	-.1865	-.0313	.0686	2411.										
.0980	-507.	5789.	-593.	590.	-385.	-2491.	-.0298	.0397	-.0577	-.1801	-.0258	.0457	1745.										
.0990	209.	3268.	-214.	-18.	-543.	-1436.	-.0122	.0340	-.0638	-.1698	-.0176	.0183	1035.										

ADLPIPE PAGE 1116

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.20.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.0890	-1540.	5018.	854.	-164.	-443.	-3594.	-.0819	.0382	-.0331	-.1480	-.0806	.0988	2443.
.0900	-1413.	4356.	1470.	-758.	-119.	-3731.	-.0941	.0432	-.0422	-.1699	-.0751	.1162	2567.
.0910	-1263.	4204.	1728.	-1124.	125.	-3994.	-.1009	.0469	-.0484	-.1870	-.0660	.1259	2798.
.0920	-1344.	4816.	1459.	-1019.	274.	-4250.	-.1021	.0492	-.0507	-.1959	-.0585	.1294	2952.
.0930	-1594.	6148.	862.	-446.	316.	-4416.	-.0979	.0504	-.0498	-.1984	-.0541	.1286	2999.
.0940	-1747.	7685.	158.	262.	266.	-4555.	-.0888	.0506	-.0476	-.1982	-.0486	.1214	3081.
.0950	-1755.	8655.	-506.	770.	178.	-4560.	-.0762	.0495	-.0465	-.1960	-.0412	.1067	3120.
.0960	-1602.	8637.	-909.	991.	43.	-4197.	-.0617	.0471	-.0477	-.1917	-.0353	.0883	2907.
.0970	-1164.	7650.	-398.	943.	-171.	-3446.	-.0462	.0439	-.0517	-.1865	-.0313	.0686	2411.
.0980	-507.	5789.	-593.	590.	-385.	-2491.	-.0298	.0397	-.0577	-.1801	-.0258	.0457	1745.
.0990	209.	3268.	-214.	-18.	-543.	-1436.	-.0122	.0340	-.0638	-.1698	-.0176	.0183	1035.

ADLPIPE PAGE 1116

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.20.

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	25	MEMBER	1	SEQUENCE	811	LOCATION	BEG	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)	
.1000	989.	630.	110.	-622.	-755.	-244.	.0066	.0271	-.0675	-.1529	-.0088	-.0094	680.	
.1010	1795.	-1507.	220.	-934.	-1107.	1056.	.0268	.0191	-.0663	-.1278	-.0014	-.0340	1208.	
.1020	2386.	-2793.	-78.	-850.	-1490.	2252.	.0482	.0102	-.0593	-.0938	.0057	-.0574	1908.	
.1030	2666.	-3163.	-840.	-434.	-1786.	3133.	.0703	.0005	-.0469	-.0537	.0149	-.0817	2449.	
.1040	2785.	-2871.	-1732.	170.	-2013.	3746.	.0912	-.0090	-.0310	-.0115	.0249	-.1045	2869.	
.1050	2765.	-2507.	-2485.	749.	-2155.	4298.	.1088	-.0180	-.0141	.0302	.0325	-.1225	3280.	
.1060	2560.	-2597.	-2910.	1041.	-2108.	4815.	.1212	-.0262	.0012	.0679	.0373	-.1358	3612.	
.1070	2364.	-3226.	-2925.	901.	-1872.	5114.	.1272	-.0327	.0128	.0964	.0431	-.1451	3720.	
.1080	2074.	-4181.	-2580.	440.	-1414.	5126.	.1262	-.0370	.0204	.1145	.0493	-.1492	3596.	
.1090	1396.	-5266.	-1988.	-208.	-617.	4822.	.1178	-.0393	.0247	.1238	.0542	-.1482	3279.	
.1100	1376.	-6406.	-1078.	-1134.	-48.	4400.	.1032	-.0386	.0262	.1214	.0621	-.1350	3063.	
.1110	1188.	-7416.	-201.	-2048.	540.	4052.	.0829	-.0363	.0272	.1158	.0660	-.1101	3082.	
.1120	459.	-7319.	153.	-2465.	1264.	3398.	.0587	-.0323	.0289	.1089	.0582	-.0783	2955.	
.1130	-95.	-5372.	90.	-2204.	1862.	2107.	.0332	-.0249	.0310	.0933	.0762	-.0405	2408.	
.1140	-426.	-2640.	-137.	-1612.	2269.	730.	.0069	-.0155	.0323	.0721	.0847	.0038	1940.	
.1150	-938.	-695.	-412.	-1216.	2651.	-153.	-.0199	-.0066	.0311	.0526	.0876	.0504	1969.	
.1160	-1233.	440.	-502.	-1182.	3000.	-831.	-.0451	.0022	.0257	.0281	.0921	.0930	2245.	
.1170	-1083.	1359.	-113.	-1279.	3279.	-1454.	-.0669	.0124	.0156	-.0067	.0987	.1313	2567.	
.1180	-440.	1823.	190.	-1400.	3142.	-1698.	-.0840	.0223	.0018	-.0431	.1030	.1653	2585.	
.1190	-396.	1898.	373.	-1242.	2941.	-1198.	-.0963	.0305	-.0133	-.0722	.0907	.1953	2298.	
.1200	-537.	2612.	451.	-745.	2724.	-845.	-.1014	.0385	-.0289	-.1040	.0752	.2123	1987.	
.1210	-27.	4158.	77.	-164.	2190.	-1293.	-.0970	.0462	-.0450	-.1428	.0724	.2078	1718.	
.1220	132.	5307.	-116.	418.	1590.	-1245.	-.0871	.0519	-.0594	-.1758	.0556	.1953	1390.	
.1230	21.	5431.	-153.	706.	857.	-523.	-.0732	.0546	-.0716	-.1994	.0243	.1762	827.	
.1240	-170.	5553.	-134.	771.	225.	-175.	-.0550	.0558	-.0816	-.2230	-.0048	.1427	554.	
.1250	-415.	6503.	-367.	922.	-251.	-746.	-.0339	.0565	-.0893	-.2488	-.0245	.0945	817.	
.1260	-653.	7536.	-947.	1184.	-866.	-1468.	-.0134	.0560	-.0943	-.2667	-.0445	.0448	1399.	
.1270	-1437.	7513.	-903.	1265.	-1257.	-1415.	.0019	.0536	-.0963	-.2724	-.0797	.0063	1534.	
.1280	-1771.	6241.	-422.	496.	-1464.	-1528.	.0133	.0497	-.0969	-.2757	-.1022	-.0324	1465.	
.1290	-1657.	4340.	176.	-873.	-1445.	-2113.	.0206	.0448	-.0953	-.2761	-.1056	-.0710	1823.	
.1300	-1710.	2484.	713.	-1957.	-1343.	-2340.	.0218	.0390	-.0887	-.2621	-.1098	-.0921	2247.	
.1310	-1602.	1144.	898.	-2474.	-1477.	-2099.	.0176	.0328	-.0764	-.2323	-.1149	-.0906	2403.	
.1320	-1615.	559.	879.	-2605.	-1417.	-1906.	.0098	.0267	-.0590	-.1938	-.1126	-.0763	2377.	
.1330	-1396.	593.	301.	-2634.	-1243.	-2235.	.0007	.0204	-.0387	-.1515	-.0912	-.0599	2475.	
.1340	-1141.	823.	-334.	-2373.	-1116.	-2196.	-.0107	.0145	-.0169	-.1035	-.0704	-.0311	2305.	
.1350	-921.	749.	-588.	-1938.	-1077.	-1350.	-.0242	.0091	.0043	-.0528	-.0603	.0123	1750.	
.1360	-370.	269.	-903.	-1830.	-1082.	-636.	-.0362	.0043	.0215	-.0094	-.0423	.0504	1496.	
.1370	-49.	-110.	-1171.	-1835.	-826.	-308.	-.0459	.0009	.0334	.0216	-.0204	.0778	1372.	

ADLPIPE PAGE 1117

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.20.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.1270	-1437.	7513.	-903.	1265.	-1257.	-1415.	.0019	.0536	-.0963	-.2724	-.0797	.0063	1534.
.1280	-1771.	6241.	-422.	496.	-1464.	-1528.	.0133	.0497	-.0969	-.2757	-.1022	-.0324	1465.
.1290	-1657.	4340.	176.	-873.	-1445.	-2113.	.0206	.0448	-.0953	-.2761	-.1056	-.0710	1823.
.1300	-1710.	2484.	713.	-1957.	-1343.	-2340.	.0218	.0390	-.0887	-.2621	-.1098	-.0921	2247.
.1310	-1602.	1144.	898.	-2474.	-1477.	-2099.	.0176	.0328	-.0764	-.2323	-.1149	-.0906	2403.
.1320	-1615.	559.	879.	-2605.	-1417.	-1906.	.0098	.0267	-.0590	-.1938	-.1126	-.0763	2377.
.1330	-1396.	593.	301.	-2634.	-1243.	-2235.	.0007	.0204	-.0387	-.1515	-.0912	-.0599	2475.
.1340	-1141.	823.	-334.	-2373.	-1116.	-2196.	-.0107	.0145	-.0169	-.1035	-.0704	-.0311	2305.
.1350	-921.	749.	-588.	-1938.	-1077.	-1350.	-.0242	.0091	.0043	-.0528	-.0503	.0123	1750.
.1360	-370.	269.	-903.	-1830.	-1082.	-636.	-.0362	.0043	.0215	-.0094	-.0423	.0504	1496.
.1370	-49.	-110.	-1171.	-1835.	-826.	-308.	-.0459	.0009	.0334	.0216	-.0204	.0778	1372.

ADLPIPE PAGE 1117

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.20.

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	25	MEMBER	1	SEQUENCE	811	LOCATION	BEG	TYPE	EL	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)										
.1380	273.	-34.	-1434.	-1550.	-735.	-7.	-.0531	-.0002	.0398	.0408	-.0052	.1016	1156.			
.1390	423.	138.	-1400.	-996.	-854.	727.	-.0582	.0006	.0405	.0500	-.0076	.1257	1011.			
.1400	453.	-33.	-1159.	-728.	-967.	1369.	-.0596	.0026	.0350	.0451	-.0157	.1372	1232.			
.1410	792.	-231.	-1101.	-884.	-1171.	1269.	-.0556	.0057	.0235	.0232	-.0160	.1273	1307.			
.1420	720.	154.	-792.	-746.	-1343.	1099.	-.0491	.0105	.0090	-.0090	-.0293	.1114	1273.			
.1430	299.	1014.	-466.	-257.	-1610.	1006.	-.0410	.0161	-.0070	-.0447	-.0558	.0929	1291.			
.1440	-301.	1765.	-182.	25.	-1760.	608.	-.0312	.0213	-.0236	-.0837	-.0814	.0645	1255.			
.1450	-780.	2121.	196.	-187.	-1734.	-218.	-.0205	.0258	-.0399	-.1256	-.0976	.0265	1185.			
.1460	-999.	2189.	610.	-566.	-1777.	-1000.	-.0112	.0292	-.0538	-.1623	-.1102	-.0086	1426.			
.1470	-1652.	2219.	1200.	-659.	-1668.	-1240.	-.0059	.0315	-.0626	-.1850	-.1313	-.0296	1470.			
.1480	-2114.	2454.	1455.	-692.	-1515.	-1661.	-.0034	.0325	-.0662	-.1968	-.1407	-.0444	1586.			
.1490	-2313.	3001.	1411.	-706.	-1236.	-2425.	-.0037	.0324	-.0644	-.1991	-.1336	-.0533	1896.			
.1500	-2571.	3663.	1309.	-476.	-843.	-2905.	-.0086	.0313	-.0570	-.1869	-.1231	-.0469	2064.			
.1510	-2568.	4099.	1043.	-111.	-578.	-2954.	-.0178	.0288	-.0452	-.1601	-.1090	-.0247	2030.			
.1520	-2439.	4105.	906.	134.	-196.	-2759.	-.0303	.0253	-.0306	-.1247	-.0892	.0069	1866.			
.1530	-1943.	3629.	749.	47.	244.	-2679.	-.0438	.0209	-.0151	-.0861	-.0569	.0388	1813.			
.1540	-1615.	2804.	708.	-86.	822.	-2377.	-.0578	.0158	.0008	-.0433	-.0255	.0727	1696.			
.1550	-1480.	1852.	763.	-114.	1429.	-1807.	-.0708	.0102	.0165	.0019	.0006	.1069	1555.			
.1560	-956.	826.	647.	-277.	1830.	-1415.	-.0797	.0044	.0305	.0433	.0317	.1317	1570.			
.1570	-687.	-344.	727.	-525.	2336.	-959.	-.0840	-.0016	.0427	.0804	.0578	.1466	1738.			
.1580	-491.	-1522.	766.	-765.	2722.	-427.	-.0825	-.0079	.0529	.1132	.0784	.1508	1927.			
.1590	-129.	-2296.	532.	-786.	2765.	77.	-.0747	-.0139	.0606	.1407	.0942	.1447	1938.			
.1600	-22.	-2517.	270.	-446.	2696.	634.	-.0614	-.0190	.0659	.1622	.0996	.1300	1891.			
.1610	-59.	-2606.	55.	-62.	2577.	1138.	-.0429	-.0237	.0677	.1756	.0990	.1041	1899.			
.1620	306.	-3018.	-299.	13.	2202.	1429.	-.0198	-.0282	.0653	.1800	.1012	.0649	1769.			
.1630	509.	-3725.	-285.	11.	1830.	1971.	.0050	-.0319	.0595	.1779	.0939	.0227	1813.			
.1640	681.	-4492.	-93.	7.	1402.	2628.	.0302	-.0348	.0512	.1702	.0807	-.0199	2008.			
.1650	1073.	-5094.	-135.	-38.	836.	3036.	.0553	-.0368	.0410	.1574	.0712	-.0644	2123.			
.1660	1212.	-5284.	-204.	84.	380.	3355.	.0780	-.0376	.0308	.1421	.0595	-.1045	2276.			
.1670	1428.	-4986.	-412.	393.	-151.	3583.	.0971	-.0371	.0210	.1252	.0485	-.1356	2432.			
.1680	1628.	-4367.	-630.	850.	-701.	3871.	.1111	-.0353	.0124	.1085	.0359	-.1541	2713.			
.1690	1948.	-3577.	-1041.	1285.	-1265.	3979.	.1197	-.0325	.0046	.0918	.0281	-.1632	2945.			
.1700	2144.	-2592.	-1415.	1717.	-1644.	3884.	.1218	-.0285	-.0025	.0741	.0233	-.1625	3070.			
.1710	1956.	-1575.	-1348.	2161.	-1687.	3844.	.1165	-.0233	-.0088	.0557	.0146	-.1484	3183.			
.1720	2117.	-908.	-1357.	2303.	-1798.	3613.	.1054	-.0176	-.0150	.0373	.0129	-.1272	3131.			
.1730	2064.	-586.	-1203.	2260.	-1703.	3368.	.0884	-.0118	-.0204	.0210	.0108	-.0984	2965.			
.1740	1815.	-323.	-800.	2118.	-1377.	2998.	.0666	-.0057	-.0243	.0055	.0088	-.0641	2643.			
.1750	1705.	-109.	-343.	1822.	-1038.	2444.	.0421	.0002	-.0263	-.0087	.0100	-.0273	2171.			

ADLPIPE PAGE 1118

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.20.

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

.1650	1075.	-5094.	-135.	-38.	856.	3036.	.0553	-.0368	.0410	.1574	.0712	-.0644	2123.
.1660	1212.	-5284.	-204.	84.	380.	2355.	.0780	-.0376	.0308	.1421	.0595	-.1045	2276.
.1670	1428.	-4986.	-412.	393.	-151.	3583.	.0971	-.0371	.0210	.1252	.0485	-.1356	2432.
.1680	1628.	-4367.	-630.	850.	-701.	3871.	.1111	-.0353	.0124	.1085	.0359	-.1541	2713.
.1690	1948.	-3577.	-1041.	1285.	-1265.	3979.	.1197	-.0325	.0046	.0918	.0281	-.1632	2945.
.1700	2144.	-2592.	-1415.	1717.	-1644.	3884.	.1218	-.0285	-.0025	.0741	.0233	-.1625	3070.
.1710	1956.	-1575.	-1348.	2161.	-1687.	3844.	.1165	-.0233	-.0088	.0557	.0146	-.1484	3183.
.1720	2117.	-908.	-1357.	2303.	-1798.	3613.	.1054	-.0176	-.0150	.0373	.0129	-.1272	3131.
.1730	2064.	-586.	-1203.	2260.	-1707.	3368.	.0884	-.0118	-.0204	.0210	.0108	-.0984	2965.
.1740	1815.	-323.	-800.	2110.	-1377.	2998.	.0666	-.0057	-.0243	.0055	.0088	-.0641	2643.
.1750	1705.	-109.	-343.	1822.	-1038.	2444.	.0421	.0002	-.0263	-.0087	.0100	-.0273	2171.

ADLPIPE PAGE 1110

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.20.

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	BEG	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)	(PSI)
.1760	1350.	1.	129.	1492.	-631.	1970.	.0158	.0052	-.0252	-.0168	.0073	.0121	1719.
.1770	965.	378.	289.	1234.	-298.	1293.	-.0101	.0091	-.0210	-.0198	.0057	.0486	1221.
.1780	379.	1366.	432.	1202.	99.	387.	-.0344	.0128	-.0138	-.0210	.0020	.0814	854.
.1790	-85.	2556.	427.	1176.	374.	-718.	-.0556	.0156	-.0050	-.0211	-.0005	.1068	963.
.1800	-512.	3382.	286.	1007.	504.	-1744.	-.0735	.0169	.0042	-.0181	-.0055	.1242	1399.
.1810	-1264.	3892.	447.	801.	733.	-2520.	-.0881	.0174	.0127	-.0148	-.0193	.1350	1849.
.1820	-1652.	4263.	618.	436.	808.	-3498.	-.0976	.0177	.0188	-.0169	-.0291	.1335	2437.
.1830	-1952.	4314.	821.	-34.	812.	-4426.	-.1022	.0174	.0221	-.0220	-.0396	.1217	3033.
.1840	-2311.	3931.	1060.	-526.	747.	-5023.	-.1024	.0163	.0229	-.0271	-.0547	.1033	3441.
.1850	-2543.	3385.	1386.	-967.	584.	-5364.	-.0981	.0150	.0214	-.0339	-.0713	.0802	3695.
.1860	-2717.	2891.	1783.	-1289.	419.	-5533.	-.0895	.0138	.0183	-.0423	-.0873	.0531	3840.
.1870	-2633.	2416.	1822.	-1508.	93.	-5609.	-.0766	.0118	.0143	-.0486	-.0973	.0221	3915.
.1880	-2637.	2033.	1780.	-1436.	-253.	-5262.	-.0615	.0095	.0107	-.0499	-.1093	-.0054	3681.
.1890	-2492.	1795.	1707.	-1144.	-654.	-4624.	-.0449	.0070	.0076	-.0476	-.1190	-.0280	3241.
.1900	-2112.	1517.	1448.	-831.	-1075.	-3927.	-.0274	.0040	.0053	-.0415	-.1206	-.0488	2801.
.1910	-1904.	1047.	1189.	-496.	-1302.	-3046.	-.0111	.0003	.0041	-.0297	-.1191	-.0654	2258.
.1920	-1557.	395.	988.	-201.	-1476.	-2049.	.0033	-.0037	.0042	-.0136	-.1129	-.0759	1708.
.1930	-1066.	-463.	922.	-4.	-1584.	-974.	.0149	-.0080	.0058	.0059	-.1025	-.0796	1254.
.1940	-641.	-1495.	845.	72.	-1540.	39.	.0234	-.0127	.0093	.0297	-.0377	-.0792	1040.
.1950	-279.	-2380.	671.	125.	-1365.	807.	.0289	-.0176	.0147	.0560	-.0681	-.0758	1072.
.1960	115.	-2865.	486.	262.	-1146.	1328.	.0313	-.0219	.0222	.0826	-.0459	-.0679	1196.
.1970	436.	-3144.	303.	427.	-887.	1714.	.0311	-.0259	.0312	.1099	-.0241	-.0561	1333.
.1980	633.	-3440.	80.	479.	-555.	1926.	.0288	-.0299	.0408	.1367	-.0022	-.0445	1389.
.1990	831.	-3624.	-109.	422.	-180.	1861.	.0256	-.0332	.0498	.1588	.0210	-.0351	1292.
.2000	1018.	-3596.	-194.	365.	198.	1619.	.0220	-.0354	.0574	.1748	.0425	-.0271	1127.
.2010	1052.	-3538.	-241.	322.	579.	1368.	.0187	-.0369	.0628	.1860	.0594	-.0211	1024.
.2020	1012.	-3547.	-282.	228.	944.	1094.	.0165	-.0376	.0651	.1911	.0736	-.0192	986.
.2030	1060.	-3517.	-244.	108.	1249.	788.	.0164	-.0373	.0641	.1882	.0867	-.0212	998.
.2040	1135.	-3437.	-134.	66.	1460.	627.	.0183	-.0359	.0598	.1791	.0956	-.0247	1072.
.2050	1165.	-3345.	-75.	159.	1553.	713.	.0222	-.0339	.0527	.1667	.0993	-.0287	1157.
.2060	1253.	-3089.	-111.	394.	1521.	907.	.0284	-.0311	.0434	.1505	.1009	-.0339	1223.
.2070	1430.	-2555.	-206.	781.	1392.	1116.	.0364	-.0276	.0323	.1303	.1019	-.0402	1313.
.2080	1573.	-1914.	-348.	1291.	1198.	1442.	.0453	-.0236	.0203	.1091	.1001	-.0461	1534.
.2090	1685.	-1384.	-503.	1811.	945.	1917.	.0542	-.0198	.0079	.0887	.0951	-.0507	1888.
.2100	1878.	-988.	-604.	2221.	655.	2380.	.0625	-.0161	-.0041	.0680	.0900	-.0551	2238.
.2110	2083.	-674.	-650.	2499.	390.	2715.	.0695	-.0125	-.0151	.0476	.0855	-.0598	2501.
.2120	2168.	-403.	-709.	2691.	179.	2920.	.0744	-.0094	-.0242	.0298	.0800	-.0640	2679.
.2130	2150.	-109.	-775.	2821.	5.	2967.	.0766	-.0068	-.0308	.0151	.0733	-.0667	2760.

ADLPIPE PAGE 1119

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.20.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

.2030	1060.	-3517.	-244.	108.	1249.	788.	.0164	-.0373	.0641	.1882	.0867	-.0212	998.
.2040	1135.	-3437.	-134.	66.	1460.	627.	.0183	-.0359	.0598	.1791	.0956	-.0247	1072.
.2050	1165.	-3345.	-75.	159.	1553.	713.	.0222	-.0339	.0527	.1667	.0993	-.0287	1157.
.2060	1253.	-3089.	-111.	394.	1521.	907.	.0284	-.0311	.0434	.1505	.1009	-.0339	1223.
.2070	1430.	-2555.	-206.	781.	1392.	1116.	.0364	-.0276	.0323	.1303	.1019	-.0402	1313.
.2080	1571.	-1914.	-348.	1291.	1198.	1442.	.0453	-.0236	.0203	.1091	.1001	-.0461	1534.
.2090	1685.	-1384.	-503.	1811.	945.	1917.	.0542	-.0198	.0079	.0887	.0751	-.0507	1888.
.2100	1878.	-988.	-604.	2221.	655.	2380.	.0625	-.0161	-.0041	.0680	.0900	-.0551	2238.
.2110	2083.	-674.	-650.	2499.	390.	2715.	.0695	-.0125	-.0151	.0476	.0855	-.0598	2501.
.2120	2168.	-403.	-709.	2691.	179.	2920.	.0744	-.0094	-.0242	.0298	.0300	-.0640	2679.
.2130	2150.	-109.	-775.	2821.	5.	2967.	.0766	-.0068	-.0308	.0151	.0733	-.0667	2760.

ADLPIPE PAGE 1119

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.20.

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	25	MEMBER	1	SEQUENCE	811	LOCATION	BEG	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)		
.2140	2094.	211.	-784.	2838.	-115.	2797.	.0761	-.0046	-.0346	.0030	.0570	-.0681	2687.		
.2150	1982.	431.	-740.	2688.	-159.	2432.	.0727	-.0030	-.0357	-.0059	.0614	-.0685	2445.		
.2160	1799.	506.	-678.	2401.	-149.	1955.	.0665	-.0021	-.0341	-.0104	.0557	-.0673	2089.		
.2170	1589.	540.	-579.	2064.	-118.	1412.	.0580	-.0019	-.0300	-.0109	.0495	-.0634	1687.		
.2180	1347.	557.	-433.	1699.	-45.	819.	.0477	-.0021	-.0238	-.0078	.0435	-.0574	1272.		
.2190	1061.	427.	-271.	1265.	82.	227.	.0365	-.0029	-.0161	-.0012	.0382	-.0505	868.		
.2200	778.	111.	-92.	771.	223.	-276.	.0249	-.0044	-.0074	.0086	.0333	-.0426	572.		
.2210	522.	-273.	119.	309.	345.	-630.	.0136	-.0062	.0020	.0208	.0278	-.0330	527.		
.2220	251.	-609.	306.	-58.	454.	-849.	.0033	-.0082	.0116	.0345	.0219	-.0224	650.		
.2230	-28.	-840.	390.	-320.	539.	-987.	-.0055	-.0102	.0210	.0489	.0163	-.0123	788.		
.2240	-273.	-915.	377.	-455.	568.	-1044.	-.0126	-.0120	.0295	.0624	.0109	-.0027	858.		
.2250	-477.	-842.	322.	-449.	523.	-984.	-.0182	-.0132	.0367	.0740	.0043	.0073	810.		
.2260	-634.	-741.	250.	-369.	408.	-819.	-.0224	-.0140	.0418	.0826	-.0038	.0166	665.		
.2270	-711.	-731.	193.	-323.	238.	-621.	-.0254	-.0141	.0443	.0868	-.0121	.0239	499.		
.2280	-719.	-833.	208.	-347.	41.	-436.	-.0274	-.0136	.0440	.0856	-.0208	.0283	377.		
.2290	-714.	-1005.	303.	-422.	-168.	-276.	-.0286	-.0124	.0413	.0793	-.0309	.0301	359.		
.2300	-714.	-1204.	430.	-542.	-387.	-184.	-.0292	-.0107	.0366	.0686	-.0419	.0289	466.		
.2310	-716.	-1375.	566.	-715.	-604.	-210.	-.0289	-.0086	.0305	.0541	-.0529	.0243	646.		
.2320	-749.	-1456.	710.	-919.	-794.	-355.	-.0280	-.0063	.0240	.0369	-.0637	.0168	853.		
.2330	-842.	-1377.	813.	-1103.	-957.	-598.	-.0266	-.0038	.0177	.0185	-.0742	.0076	1064.		
.2340	-982.	-1063.	818.	-1212.	-1103.	-935.	-.0247	-.0013	.0122	.0002	-.0837	-.0024	1272.		
.2350	-1159.	-504.	742.	-1226.	-1212.	-1354.	-.0227	.0013	.0074	-.0174	-.0914	-.0121	1478.		
.2360	-1356.	167.	644.	-1189.	-1259.	-1794.	-.0210	.0038	.0033	-.0338	-.0968	-.0203	1680.		
.2370	-1520.	744.	566.	-1171.	-1246.	-2175.	-.0199	.0062	-.0005	-.0485	-.0993	-.0261	1865.		
.2380	-1607.	1117.	531.	-1200.	-1155.	-2439.	-.0197	.0084	-.0042	-.0611	-.0986	-.0285	1999.		
.2390	-1620.	1308.	554.	-1254.	-1068.	-2571.	-.0205	.0105	-.0078	-.0715	-.0948	-.0269	2058.		
.2400	-1568.	1377.	601.	-1304.	-895.	-2584.	-.0222	.0124	-.0114	-.0796	-.0376	-.0215	2042.		
.2410	-1449.	1382.	612.	-1329.	-693.	-2492.	-.0243	.0142	-.0145	-.0852	-.0770	-.0126	1960.		
.2420	-1286.	1414.	560.	-1285.	-480.	-2303.	-.0266	.0159	-.0170	-.0883	-.0539	-.0007	1807.		
.2430	-1107.	1555.	442.	-1145.	-258.	-2043.	-.0286	.0174	-.0188	-.0891	-.0491	.0133	1588.		
.2440	-907.	1808.	245.	-928.	-45.	-1752.	-.0300	.0187	-.0200	-.0885	-.0328	.0279	1337.		
.2450	-688.	2107.	-16.	-667.	145.	-1436.	-.0305	.0199	-.0210	-.0869	-.0160	.0418	1072.		
.2460	-470.	2386.	-282.	-389.	314.	-1081.	-.0299	.0209	-.0222	-.0851	.0002	.0542	803.		
.2470	-252.	2569.	-497.	-136.	463.	-698.	-.0282	.0217	-.0240	-.0840	.0149	.0639	572.		
.2480	-2.	2567.	-651.	35.	579.	-310.	-.0252	.0223	-.0267	-.0840	.0283	.0697	443.		
.2490	279.	2334.	-737.	103.	649.	96.	-.0209	.0225	-.0303	-.0849	.0399	.0713	448.		
.2500	554.	1922.	-745.	99.	677.	538.	-.0152	.0223	-.0344	-.0864	.0485	.0690	586.		
.2510	808.	1448.	-719.	63.	661.	972.	-.0081	.0218	-.0385	-.0881	.0546	.0629	794.		

ADLPIPE PAGE 1120

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.20.

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

.2410	-1449.	1382.	612.	-1329.	-693.	-2492.	-.0243	.0142	-.0145	-.0852	-.0770	-.0126	1960.
.2420	-1286.	1414.	560.	-1285.	-480.	-2303.	-.0266	.0159	-.0170	-.0883	-.0639	-.0007	1807.
.2430	-1107.	1555.	442.	-1145.	-258.	-2043.	-.0286	.0174	-.0188	-.0891	-.0491	.0133	1588.
.2440	-907.	1808.	245.	-928.	-45.	-1752.	-.0300	.0187	-.0200	-.0885	-.0328	.0279	1337.
.2450	-688.	2107.	-16.	-667.	145.	-1436.	-.0305	.0199	-.0210	-.0869	-.0160	.0418	1072.
.2460	-470.	2386.	-282.	-389.	314.	-1081.	-.0299	.0209	-.0222	-.0851	.0302	.0542	803.
.2470	-252.	2569.	-497.	-136.	463.	-698.	-.0282	.0217	-.0240	-.0840	.0149	.0639	572.
.2480	-2.	2567.	-651.	35.	579.	-310.	-.0252	.0223	-.0267	-.0840	.0283	.0697	443.
.2490	279.	2334.	-737.	103.	649.	96.	-.0209	.0225	-.0303	-.0849	.0399	.0713	448.
.2500	554.	1922.	-745.	99.	677.	538.	-.0152	.0223	-.0344	-.0864	.0485	.0690	586.
.2510	808.	1448.	-719.	63.	661.	972.	-.0081	.0218	-.0385	-.0881	.0546	.0629	794.

ADLPIPE PAGE 1120

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.20.

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	25	MEMBER	1	SEQUENCE	811	LOCATION	BEG	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)		
.2520	1034.	1040.	-742.	33.	598.	1342.	.0004	.0210	-.0420	-.0894	.0590	.0529	991.		
.2530	1203.	793.	-844.	59.	489.	1646.	.0100	.0197	-.0444	-.0898	.0615	.0402	1158.		
.2540	1309.	719.	-1005.	157.	340.	1915.	.0201	.0183	-.0457	-.0889	.0616	.0264	1315.		
.2550	1371.	747.	-1201.	283.	165.	2145.	.0301	.0166	-.0459	-.0869	.0502	.0123	1463.		
.2560	1401.	782.	-1400.	381.	-6.	2324.	.0392	.0149	-.0454	-.0843	.0580	-.0014	1587.		
.2570	1405.	761.	-1543.	429.	-153.	2471.	.0467	.0133	-.0446	-.0815	.0552	-.0133	1694.		
.2580	1393.	633.	-1594.	417.	-273.	2612.	.0519	.0119	-.0437	-.0788	.0514	-.0220	1793.		
.2590	1369.	363.	-1558.	320.	-357.	2733.	.0543	.0107	-.0428	-.0762	.0472	-.0272	1870.		
.2600	1320.	-24.	-1434.	130.	-384.	2800.	.0538	.0099	-.0418	-.0739	.0430	-.0288	1907.		
.2610	1237.	-447.	-1232.	-128.	-353.	2797.	.0503	.0094	-.0404	-.0720	.0389	-.0266	1902.		
.2620	1110.	-803.	-1009.	-407.	-285.	2713.	.0440	.0093	-.0382	-.0700	.0345	-.0204	1859.		
.2630	910.	-986.	-829.	-661.	-189.	2518.	.0353	.0095	-.0349	-.0675	.0297	-.0108	1760.		
.2640	626.	-915.	-709.	-864.	-60.	2177.	.0246	.0101	-.0304	-.0650	.0248	.0012	1579.		
.2650	281.	-619.	-635.	-1032.	92.	1688.	.0124	.0110	-.0250	-.0632	.0199	.0148	1335.		
.2660	-94.	-225.	-578.	-1208.	251.	1104.	-.0010	.0122	-.0194	-.0623	.0146	.0293	1116.		
.2670	-477.	147.	-498.	-1425.	407.	478.	-.0150	.0137	-.0142	-.0628	.0086	.0439	1049.		
.2680	-836.	447.	-360.	-1694.	555.	-171.	-.0291	.0155	-.0101	-.0655	.0020	.0576	1207.		
.2690	-1144.	663.	-172.	-2005.	679.	-821.	-.0427	.0175	-.0074	-.0709	-.0049	.0696	1530.		
.2700	-1407.	807.	38.	-2322.	765.	-1430.	-.0549	.0197	-.0063	-.0787	-.0125	.0794	1909.		
.2710	-1622.	929.	251.	-2601.	798.	-1963.	-.0651	.0221	-.0067	-.0884	-.0209	.0867	2261.		
.2720	-1771.	1093.	435.	-2804.	762.	-2405.	-.0727	.0246	-.0086	-.0997	-.0297	.0912	2542.		
.2730	-1861.	1341.	546.	-2900.	650.	-2740.	-.0771	.0271	-.0115	-.1119	-.0386	.0927	2725.		
.2740	-1928.	1702.	565.	-2858.	477.	-2950.	-.0784	.0294	-.0153	-.1243	-.0479	.0913	2787.		
.2750	-1969.	2174.	507.	-2679.	255.	-3039.	-.0765	.0315	-.0197	-.1364	-.0571	.0872	2736.		
.2760	-1958.	2672.	401.	-2412.	-5.	-3004.	-.0719	.0335	-.0247	-.1482	-.0654	.0809	2597.		
.2770	-1898.	3072.	281.	-2114.	-283.	-2826.	-.0651	.0350	-.0303	-.1588	-.0729	.0729	2386.		
.2780	-1797.	3315.	178.	-1814.	-558.	-2506.	-.0569	.0361	-.0362	-.1679	-.0794	.0642	2119.		
.2790	-1643.	3432.	100.	-1517.	-820.	-2092.	-.0481	.0368	-.0421	-.1752	-.0842	.0557	1828.		
.2800	-1446.	3452.	33.	-1228.	-1055.	-1636.	-.0393	.0372	-.0475	-.1802	-.0870	.0479	1551.		
.2810	-1230.	3379.	-30.	-961.	-1248.	-1160.	-.0313	.0371	-.0520	-.1823	-.0878	.0417	1319.		
.2820	-1002.	3237.	-87.	-725.	-1395.	-693.	-.0244	.0366	-.0550	-.1810	-.0865	.0376	1158.		
.2830	-769.	3077.	-151.	-518.	-1491.	-285.	-.0191	.0356	-.0562	-.1764	-.0830	.0355	1081.		
.2840	-566.	2939.	-236.	-336.	-1521.	26.	-.0154	.0342	-.0554	-.1683	-.0773	.0353	1050.		
.2850	-409.	2814.	-327.	-193.	-1475.	230.	-.0135	.0323	-.0527	-.1570	-.0698	.0365	1014.		
.2860	-283.	2658.	-400.	-114.	-1362.	337.	-.0130	.0299	-.0482	-.1432	-.0607	.0388	949.		
.2870	-184.	2445.	-452.	-102.	-1196.	367.	-.0138	.0272	-.0423	-.1271	-.0504	.0419	846.		
.2880	-123.	2191.	-487.	-133.	-987.	334.	-.0156	.0242	-.0355	-.1096	-.0397	.0451	708.		
.2890	-86.	1914.	-490.	-187.	-750.	258.	-.0179	.0211	-.0283	-.0913	-.0290	.0482	549.		

ADLPIPE PAGE 1121

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.20.

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

.2790	-1643.	3432.	100.	-1517.	-820.	-2092.	-.0481	.0368	-.0421	-.1752	-.0842	.0557	1828.
.2800	-1446.	3452.	33.	-1228.	-1055.	-1636.	-.0393	.0372	-.0475	-.1802	-.0870	.0479	1551.
.2810	-1230.	3379.	-30.	-961.	-1248.	-1160.	-.0313	.0371	-.0520	-.1823	-.0878	.0417	1319.
.2820	-1002.	3237.	-87.	-725.	-1395.	-693.	-.0244	.0366	-.0550	-.1810	-.0865	.0376	1158.
.2830	-769.	3077.	-151.	-518.	-1491.	-285.	-.0191	.0356	-.0562	-.1764	-.0830	.0355	1081.
.2840	-566.	2939.	-236.	-336.	-1521.	26.	-.0154	.0342	-.0554	-.1683	-.0773	.0353	1050.
.2850	-409.	2814.	-327.	-193.	-1475.	230.	-.0135	.0323	-.0527	-.1570	-.0698	.0365	1014.
.2860	-283.	2658.	-400.	-114.	-1362.	337.	-.0130	.0299	-.0482	-.1432	-.0607	.0388	949.
.2870	-184.	2445.	-452.	-102.	-1196.	367.	-.0138	.0272	-.0423	-.1271	-.0504	.0419	846.
.2880	-123.	2191.	-487.	-133.	-987.	334.	-.0156	.0242	-.0355	-.1096	-.0397	.0451	708.
.2890	-86.	1914.	-490.	-187.	-750.	258.	-.0179	.0211	-.0283	-.0913	-.0290	.0482	549.

ADLPIPE PAGE 1121

DIS/ADLPIPE ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.20.

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	BEG	TYPE	EL										STRESS
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ				
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)			
.2900	-47.	1585.	-453.	-268.	-509.	171.	-.0201	.0179	-.0211	-.0731	-.0187	.0506	404.			
.2910	-12.	1191.	-392.	-365.	-282.	110.	-.0218	.0145	-.0143	-.0552	-.0093	.0518	320.			
.2920	6.	795.	-323.	-438.	-78.	81.	-.0227	.0113	-.0081	-.0381	-.0014	.0515	305.			
.2930	10.	464.	-250.	-457.	99.	67.	-.0223	.0081	-.0026	-.0224	.0051	.0494	318.			
.2940	3.	180.	-175.	-439.	246.	73.	-.0206	.0051	.0020	-.0085	.0102	.0450	343.			
.2950	-21.	-109.	-101.	-410.	364.	119.	-.0175	.0022	.0056	.0039	.0138	.0384	378.			
.2960	-60.	-374.	-33.	-358.	454.	193.	-.0132	-.0005	.0085	.0146	.0160	.0299	411.			
.2970	-101.	-552.	22.	-261.	518.	266.	-.0081	-.0030	.0106	.0235	.0174	.0202	430.			
.2980	-141.	-656.	57.	-131.	559.	329.	-.0024	-.0052	.0120	.0309	.0181	.0099	446.			
.2990	-166.	-752.	79.	5.	579.	400.	.0032	-.0071	.0129	.0372	.0187	-.0003	475.			
.3000	-154.	-865.	105.	132.	580.	486.	.0084	-.0089	.0133	.0427	.0192	-.0094	517.			
.3010	-100.	-981.	138.	254.	566.	574.	.0129	-.0104	.0135	.0476	.0200	-.0168	570.			
.3020	-16.	-1105.	171.	370.	550.	658.	.0164	-.0117	.0136	.0524	.0215	-.0224	630.			
.3030	88.	-1256.	205.	466.	540.	742.	.0188	-.0129	.0138	.0575	.0235	-.0260	694.			
.3040	206.	-1430.	244.	542.	539.	829.	.0202	-.0140	.0144	.0632	.0262	-.0276	760.			
.3050	318.	-1600.	280.	610.	554.	911.	.0207	-.0152	.0156	.0697	.0293	-.0275	828.			
.3060	410.	-1742.	301.	678.	587.	984.	.0206	-.0164	.0174	.0771	.0327	-.0261	897.			
.3070	479.	-1850.	306.	751.	631.	1050.	.0200	-.0177	.0199	.0856	.0362	-.0237	969.			
.3080	522.	-1915.	295.	835.	680.	1114.	.0190	-.0190	.0231	.0948	.0395	-.0206	1044.			
.3090	538.	-1930.	267.	936.	728.	1173.	.0179	-.0204	.0267	.1046	.0422	-.0171	1125.			
.3100	537.	-1907.	229.	1050.	768.	1222.	.0168	-.0218	.0305	.1144	.0444	-.0136	1203.			
.3110	537.	-1885.	204.	1155.	790.	1266.	.0156	-.0231	.0342	.1236	.0457	-.0102	1272.			
.3120	541.	-1904.	202.	1230.	794.	1309.	.0143	-.0243	.0375	.1319	.0460	-.0074	1324.			
.3130	548.	-1966.	222.	1270.	777.	1336.	.0132	-.0254	.0403	.1388	.0452	-.0056	1348.			
.3140	564.	-2041.	257.	1282.	734.	1331.	.0122	-.0263	.0424	.1439	.0433	-.0050	1340.			
.3150	583.	-2115.	301.	1268.	664.	1289.	.0115	-.0269	.0438	.1470	.0404	-.0058	1299.			
.3160	600.	-2185.	344.	1231.	565.	1214.	.0111	-.0274	.0446	.1483	.0363	-.0081	1226.			
.3170	613.	-2225.	372.	1179.	438.	1102.	.0112	-.0277	.0448	.1476	.0312	-.0120	1127.			
.3180	617.	-2195.	377.	1134.	282.	948.	.0119	-.0277	.0444	.1451	.0252	-.0174	1014.			
.3190	609.	-2088.	360.	1108.	103.	762.	.0131	-.0274	.0436	.1409	.0182	-.0241	909.			
.3200	583.	-1934.	331.	1093.	-92.	561.	.0147	-.0270	.0421	.1352	.0103	-.0318	830.			
.3210	546.	-1772.	308.	1074.	-291.	357.	.0165	-.0264	.0402	.1281	.0019	-.0401	787.			
.3220	500.	-1621.	307.	1044.	-482.	154.	.0185	-.0256	.0376	.1198	-.0067	-.0488	782.			
.3230	436.	-1497.	335.	1003.	-651.	-39.	.0204	-.0246	.0346	.1107	-.0154	-.0573	806.			
.3240	354.	-1409.	394.	947.	-789.	-218.	.0219	-.0235	.0314	.1012	-.0239	-.0651	844.			
.3250	262.	-1356.	479.	873.	-889.	-387.	.0229	-.0224	.0282	.0919	-.0315	-.0718	879.			
.3260	156.	-1312.	577.	790.	-943.	-550.	.0232	-.0213	.0254	.0834	-.0380	-.0769	909.			
.3270	34.	-1242.	666.	718.	-951.	-716.	.0226	-.0203	.0233	.0762	-.0428	-.0798	937.			

ADLPIPE PAGE 1122

DIS/ADLPIPE ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.20.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

.3170	613.	-2225.	372.	1179.	438.	1102.	.0112	-.0277	.0448	.1476	.0312	-.0120	1127.
.3180	617.	-2195.	377.	1134.	282.	948.	.0119	-.0277	.0444	.1451	.0252	-.0174	1014.
.3190	609.	-2088.	360.	1108.	103.	762.	.0131	-.0274	.0436	.1409	.0182	-.0241	909.
.3200	583.	-1934.	331.	1093.	-92.	561.	.0147	-.0270	.0421	.1352	.0103	-.0318	830.
.3210	546.	-1772.	308.	1074.	-291.	357.	.0165	-.0264	.0402	.1281	.0019	-.0401	787.
.3220	500.	-1621.	307.	1044.	-482.	154.	.0185	-.0256	.0376	.1198	-.0067	-.0488	782.
.3230	436.	-1497.	335.	1003.	-651.	-39.	.0204	-.0246	.0346	.1107	-.0154	-.0573	806.
.3240	354.	-1409.	394.	947.	-789.	-218.	.0219	-.0235	.0314	.1012	-.0239	-.0651	844.
.3250	262.	-1356.	479.	873.	-889.	-387.	.0229	-.0224	.0282	.0919	-.0315	-.0718	879.
.3260	156.	-1312.	577.	790.	-943.	-550.	.0232	-.0213	.0254	.0834	-.0380	-.0769	909.
.3270	34.	-1242.	666.	718.	-951.	-716.	.0226	-.0203	.0233	.0762	-.0428	-.0798	937.

ADLPIPE PAGE 1122

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.20.

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	BEG	TYPE	EL								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)		
.3280	-89.	-1118.	730.	671.	-917.	-887.	.0210	-.0193	.0221	.0708	-.0458	-.0802	972.	
.3290	-200.	-953.	767.	647.	-848.	-1055.	.0184	-.0184	.0219	.0675	-.0467	-.0779	1011.	
.3300	-289.	-777.	731.	634.	-746.	-1208.	.0150	-.0177	.0227	.0664	-.0455	-.0730	1048.	
.3310	-342.	-615.	778.	627.	-620.	-1339.	.0107	-.0171	.0242	.0673	-.0421	-.0657	1081.	
.3320	-353.	-481.	762.	625.	-478.	-1441.	.0060	-.0167	.0262	.0699	-.0368	-.0566	1106.	
.3330	-322.	-400.	743.	624.	-326.	-1501.	.0012	-.0165	.0284	.0738	-.0301	-.0465	1117.	
.3340	-255.	-400.	731.	610.	-170.	-1508.	-.0032	-.0165	.0306	.0786	-.0223	-.0363	1102.	
.3350	-152.	-485.	724.	582.	-19.	-1460.	-.0068	-.0166	.0325	.0837	-.0138	-.0270	1059.	
.3360	-30.	-615.	709.	558.	116.	-1360.	-.0090	-.0170	.0341	.0889	-.0051	-.0195	994.	
.3370	92.	-745.	673.	563.	231.	-1215.	-.0094	-.0175	.0351	.0937	.0031	-.0145	916.	
.3380	210.	-856.	608.	604.	316.	-1028.	-.0079	-.0181	.0356	.0979	.0107	-.0125	832.	
.3390	326.	-959.	518.	668.	369.	-802.	-.0043	-.0189	.0355	.1013	.0175	-.0136	746.	
.3400	438.	-1075.	415.	746.	388.	-534.	.0013	-.0198	.0346	.1036	.0232	-.0179	671.	
.3410	548.	-1212.	307.	831.	378.	-231.	.0084	-.0207	.0331	.1049	.0278	-.0250	635.	
.3420	661.	-1384.	208.	909.	345.	94.	.0167	-.0216	.0308	.1052	.0316	-.0342	659.	
.3430	782.	-1614.	127.	963.	297.	431.	.0257	-.0226	.0280	.1045	.0348	-.0449	739.	
.3440	906.	-1907.	69.	981.	244.	771.	.0347	-.0236	.0249	.1033	.0375	-.0564	857.	
.3450	1031.	-2234.	31.	968.	195.	1094.	.0434	-.0245	.0218	.1019	.0401	-.0677	993.	
.3460	1153.	-2551.	0.	936.	154.	1378.	.0512	-.0254	.0191	.1006	.0428	-.0780	1128.	
.3470	1263.	-2821.	-38.	894.	129.	1608.	.0577	-.0262	.0170	.0998	.0458	-.0866	1243.	
.3480	1353.	-3011.	-95.	853.	121.	1776.	.0627	-.0269	.0158	.0996	.0491	-.0929	1330.	
.3490	1419.	-3098.	-174.	820.	132.	1871.	.0660	-.0274	.0155	.1001	.0528	-.0966	1380.	
.3500	1462.	-3081.	-269.	794.	163.	1892.	.0674	-.0277	.0160	.1008	.0568	-.0975	1388.	
.3510	1480.	-2987.	-366.	764.	215.	1848.	.0670	-.0276	.0170	.1014	.0508	-.0957	1356.	
.3520	1478.	-2852.	-448.	716.	283.	1752.	.0648	-.0272	.0182	.1014	.0546	-.0914	1290.	
.3530	1457.	-2695.	-505.	647.	365.	1612.	.0611	-.0264	.0192	.1000	.0678	-.0850	1197.	
.3540	1415.	-2510.	-529.	558.	456.	1436.	.0561	-.0251	.0196	.0967	.0703	-.0771	1083.	
.3550	1353.	-2324.	-522.	456.	549.	1231.	.0503	-.0233	.0192	.0911	.0717	-.0682	959.	
.3560	1275.	-2111.	-487.	347.	633.	1014.	.0439	-.0210	.0179	.0831	.0718	-.0589	839.	
.3570	1182.	-1866.	-438.	244.	697.	795.	.0375	-.0182	.0156	.0727	.0704	-.0496	732.	
.3580	1073.	-1570.	-386.	165.	737.	579.	.0313	-.0150	.0123	.0601	.0676	-.0407	641.	
.3590	956.	-1217.	-341.	118.	745.	373.	.0257	-.0116	.0083	.0456	.0634	-.0327	567.	
.3600	840.	-928.	-305.	99.	717.	191.	.0208	-.0079	.0036	.0299	.0579	-.0256	504.	
.3610	730.	-435.	-275.	102.	652.	48.	.0168	-.0042	-.0016	.0135	.0513	-.0195	446.	
.3620	632.	-54.	-251.	120.	554.	-53.	.0135	-.0006	-.0070	-.0030	.0438	-.0144	384.	
.3630	553.	303.	-232.	151.	425.	-116.	.0110	-.0028	-.0124	-.0189	.0356	-.0102	314.	
.3640	489.	622.	-217.	186.	272.	-142.	.0092	-.0060	-.0175	-.0338	.0271	-.0069	242.	
.3650	438.	894.	-206.	218.	102.	-136.	.0078	-.0087	-.0220	-.0471	.0183	-.0043	186.	

ADLPIPE PAGE 1123

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.20.

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

.3540	1415.	-2518.	-529.	558.	456.	1436.	.0561	-.0251	.0196	.0967	.0703	-.0771	1083.
.3550	1353.	-2324.	-522.	456.	549.	1231.	.0503	-.0233	.0192	.0911	.0717	-.0682	959.
.3560	1275.	-2111.	-487.	347.	633.	1014.	.0439	-.0210	.0179	.0831	.0718	-.0589	839.
.3570	1182.	-1866.	-438.	244.	697.	795.	.0375	-.0182	.0156	.0727	.0704	-.0496	732.
.3580	1073.	-1570.	-386.	165.	737.	579.	.0313	-.0150	.0123	.0601	.0676	-.0407	641.
.3590	956.	-1217.	-341.	118.	745.	373.	.0257	-.0116	.0083	.0456	.0634	-.0327	567.
.3600	840.	-828.	-305.	99.	717.	191.	.0208	-.0079	.0036	.0299	.0579	-.0256	504.
.3610	730.	-435.	-275.	102.	652.	48.	.0168	-.0042	-.0016	.0135	.0513	-.0195	446.
.3620	632.	-54.	-251.	120.	554.	-53.	.0135	-.0006	-.0070	-.0030	.0438	-.0144	384.
.3630	533.	303.	-232.	151.	425.	-116.	.0110	.0028	-.0124	-.0189	.0356	-.0102	314.
.3640	489.	622.	-217.	186.	272.	-142.	.0092	.0060	-.0175	-.0338	.0271	-.0069	242.
.3650	438.	894.	-206.	218.	102.	-136.	.0078	.0087	-.0220	-.0471	.0183	-.0043	186.

ADLPIPE PAGE 1123

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.20.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	BEG	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)
25	1	811					.3660	394.	1128.	-204.	247.	-79.	-111.	.0067	.0110	-.0258	-.0583	.0095	-.0021	190.
							.3670	347.	1344.	-215.	273.	-260.	-88.	.0057	.0129	-.0285	-.0674	.0009	-.0002	261.
							.3680	286.	1544.	-235.	291.	-430.	-79.	.0046	.0144	-.0302	-.0742	-.0074	.0014	354.
							.3690	207.	1712.	-257.	289.	-580.	-92.	.0032	.0154	-.0307	-.0788	-.0154	.0031	441.
							.3700	109.	1833.	-269.	252.	-703.	-134.	.0013	.0160	-.0302	-.0815	-.0229	.0048	511.
							.3710	-9.	1900.	-265.	175.	-791.	-208.	-.0012	.0163	-.0289	-.0825	-.0298	.0067	564.
							.3720	-148.	1910.	-233.	59.	-842.	-315.	-.0044	.0163	-.0268	-.0822	-.0361	.0090	607.
							.3730	-302.	1862.	-186.	-96.	-855.	-451.	-.0084	.0162	-.0242	-.0808	-.0416	.0118	655.
							.3740	-464.	1759.	-111.	-287.	-834.	-609.	-.0130	.0159	-.0212	-.0785	-.0464	.0152	722.
							.3750	-630.	1616.	-20.	-500.	-783.	-781.	-.0181	.0156	-.0180	-.0757	-.0503	.0191	818.
							.3760	-795.	1458.	80.	-719.	-709.	-959.	-.0235	.0152	-.0147	-.0724	-.0535	.0235	939.
							.3770	-954.	1303.	177.	-929.	-619.	-1137.	-.0291	.0148	-.0114	-.0689	-.0558	.0284	1074.
							.3780	-1104.	1166.	264.	-1120.	-518.	-1306.	-.0344	.0144	-.0082	-.0652	-.0573	.0334	1211.
							.3790	-1241.	1051.	337.	-1284.	-411.	-1456.	-.0393	.0141	-.0052	-.0616	-.0580	.0384	1338.
							.3800	-1357.	954.	399.	-1419.	-305.	-1578.	-.0436	.0138	-.0025	-.0581	-.0580	.0430	1445.
							.3810	-1446.	870.	449.	-1523.	-205.	-1662.	-.0469	.0135	-.0003	-.0550	-.0573	.0471	1526.
							.3820	-1507.	798.	485.	-1595.	-115.	-1704.	-.0493	.0132	.0013	-.0524	-.0559	.0503	1575.
							.3830	-1540.	749.	503.	-1628.	-38.	-1705.	-.0505	.0130	.0023	-.0503	-.0541	.0526	1589.
							.3840	-1544.	729.	503.	-1619.	24.	-1665.	-.0506	.0128	.0027	-.0489	-.0517	.0538	1566.
							.3850	-1516.	729.	487.	-1572.	70.	-1584.	-.0494	.0127	.0024	-.0481	-.0488	.0540	1505.
							.3860	-1458.	735.	458.	-1495.	100.	-1457.	-.0472	.0127	.0015	-.0480	-.0455	.0533	1409.
							.3870	-1371.	741.	417.	-1393.	116.	-1290.	-.0440	.0126	-.0000	-.0483	-.0418	.0516	1282.
							.3880	-1259.	749.	365.	-1268.	124.	-1087.	-.0399	.0126	-.0020	-.0491	-.0375	.0493	1129.
							.3890	-1126.	751.	303.	-1125.	125.	-852.	-.0352	.0126	-.0044	-.0501	-.0328	.0465	955.
							.3900	-974.	731.	234.	-975.	124.	-584.	-.0301	.0126	-.0070	-.0509	-.0275	.0436	771.
							.3910	-802.	681.	161.	-825.	121.	-286.	-.0247	.0124	-.0096	-.0514	-.0217	.0408	594.
							.3920	-617.	612.	80.	-673.	119.	35.	-.0194	.0122	-.0122	-.0513	-.0155	.0384	461.
							.3930	-427.	541.	-14.	-512.	119.	368.	-.0142	.0119	-.0144	-.0504	-.0088	.0366	433.
							.3940	-236.	478.	-120.	-343.	120.	703.	-.0093	.0115	-.0162	-.0485	-.0019	.0356	534.
							.3950	-45.	413.	-231.	-176.	121.	1037.	-.0049	.0111	-.0175	-.0457	.0050	.0355	713.
							.3960	138.	339.	-339.	-23.	124.	1359.	-.0012	.0105	-.0183	-.0421	.0117	.0361	920.
							.3970	304.	263.	-442.	115.	130.	1652.	.0019	.0098	-.0185	-.0378	.0180	.0373	1120.
							.3980	442.	205.	-537.	237.	142.	1898.	.0042	.0092	-.0183	-.0332	.0236	.0389	1293.
							.3990	545.	163.	-614.	336.	160.	2085.	.0058	.0085	-.0176	-.0288	.0283	.0407	1428.
							.4000	611.	119.	-666.	396.	184.	2208.	.0065	.0079	-.0167	-.0247	.0318	.0423	1517.

ADLPIPE PAGE 1124

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.20.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

.3930	-427.	541.	-14.	-512.	119.	368.	-.0142	.0119	-.0144	-.0504	-.0088	.0366	433.
.3940	-236.	478.	-120.	-343.	120.	703.	-.0093	.0115	-.0162	-.0485	-.0019	.0356	534.
.3950	-45.	413.	-231.	-176.	121.	1037.	-.0049	.0111	-.0175	-.0457	.0050	.0355	713.
.3960	138.	339.	-339.	-23.	124.	1359.	-.0012	.0105	-.0183	-.0421	.0117	.0361	920.
.3970	304.	263.	-442.	115.	130.	1652.	.0019	.0098	-.0185	-.0378	.0180	.0373	1120.
.3980	442.	205.	-537.	237.	142.	1898.	.0042	.0092	-.0183	-.0332	.0236	.0389	1293.
.3990	545.	163.	-614.	336.	160.	2085.	.0058	.0085	-.0176	-.0288	.0283	.0407	1428.
.4000	611.	119.	-668.	396.	184.	2208.	.0065	.0079	-.0167	-.0247	.0318	.0423	1517.

ADLPIPE PAGE 1124

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.20.

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

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)
.0430	4224.	3664.	-2790.	4572.	-970.	6629.	-.1126	-.0264	.1018	.1358	-.1165	.0146	5467.

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)
25	1	43					0.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.
							.0010	2.	0.	1.	-1.	-0.	1.	.0000	-.0000	.0000	.0000	-.0000	-.0000	1.
							.0020	8.	3.	6.	-4.	-1.	5.	.0000	-.0000	.0000	.0001	-.0000	-.0001	4.
							.0030	16.	20.	7.	-5.	-4.	13.	.0000	-.0000	.0000	.0002	.0000	-.0002	10.
							.0040	20.	71.	-3.	-2.	-8.	23.	.0000	-.0001	.0001	.0005	.0001	-.0005	17.
							.0050	22.	163.	-19.	2.	-15.	35.	.0000	-.0002	.0002	.0012	.0002	-.0010	26.
							.0060	24.	277.	-29.	4.	-74.	47.	.0001	-.0003	.0004	.0022	.0005	-.0016	36.
							.0070	37.	397.	-29.	0.	-36.	66.	.0003	-.0005	.0008	.0036	.0008	-.0024	50.
							.0080	75.	547.	-30.	-3.	-57.	102.	.0005	-.0008	.0015	.0057	.0012	-.0037	79.
							.0090	120.	780.	-57.	15.	-97.	164.	.0008	-.0011	.0024	.0083	.0022	-.0057	129.
							.0100	157.	1125.	-120.	60.	-160.	248.	.0013	-.0016	.0036	.0119	.0038	-.0085	203.
							.0110	202.	1533.	-186.	117.	-247.	342.	.0019	-.0023	.0054	.0164	.0063	-.0117	295.
							.0120	246.	1891.	-219.	169.	-357.	431.	.0026	-.0029	.0076	.0216	.0097	-.0148	394.
							.0130	255.	2126.	-197.	209.	-489.	492.	.0035	-.0036	.0103	.0271	.0145	-.0175	488.
							.0140	195.	2240.	-119.	229.	-633.	489.	.0045	-.0042	.0133	.0326	.0207	-.0191	561.
							.0150	52.	2230.	18.	211.	-773.	382.	.0056	-.0047	.0162	.0375	.0277	-.0192	599.
							.0160	-183.	2030.	207.	147.	-896.	153.	.0069	-.0049	.0183	.0407	.0350	-.0176	620.
							.0170	-442.	1589.	430.	47.	-1003.	-155.	.0085	-.0047	.0190	.0405	.0422	-.0146	685.
							.0180	-624.	942.	667.	-68.	-1115.	-451.	.0104	-.0040	.0176	.0358	.0487	-.0117	815.
							.0190	-675.	196.	889.	-175.	-1245.	-699.	.0127	-.0029	.0135	.0259	.0545	-.0099	969.
							.0200	-497.	-487.	1031.	-259.	-1404.	-812.	.0153	-.0014	.0064	.0111	.0587	-.0103	1107.
							.0210	-262.	-873.	907.	-222.	-1607.	-829.	.0179	.0004	-.0037	-.0086	.0524	-.0128	1228.
							.0220	-448.	-793.	602.	-32.	-1833.	-887.	.0204	.0023	-.0160	-.0318	.0599	-.0160	1373.
							.0230	-843.	-567.	513.	59.	-2010.	-1109.	.0227	.0041	-.0289	-.0542	.0785	-.0175	1548.
							.0240	-1299.	-1022.	738.	-120.	-2024.	-1692.	.0246	.0064	-.0410	-.0758	.0832	-.0121	1780.
							.0250	-1593.	-2451.	1120.	-464.	-1947.	-2442.	.0263	.0093	-.0520	-.0987	.0839	-.0012	2128.
							.0260	-1669.	-4061.	1638.	-790.	-1951.	-2937.	.0280	.0121	-.0621	-.1211	.0364	.0074	2436.
							.0270	-2320.	-4911.	2157.	-1068.	-1886.	-3498.	.0291	.0143	-.0719	-.1395	.0919	.0147	2774.
							.0280	-3200.	-4384.	2188.	-1449.	-1463.	-4611.	.0292	.0160	-.0812	-.1514	.0840	.0273	3404.
							.0290	-3187.	-4653.	1725.	-1768.	-912.	-5531.	.0292	.0172	-.0892	-.1602	.0509	.0371	3962.
							.0300	-3079.	-4880.	1740.	-1605.	-725.	-5095.	.0303	.0182	-.0951	-.1736	.0541	.0299	3634.
							.0310	-3050.	-5419.	1816.	-1219.	-505.	-4222.	.0310	.0189	-.0981	-.1866	.0482	.0186	2982.
							.0320	-2085.	-5475.	1314.	-1055.	146.	-3810.	.0296	.0189	-.0972	-.1875	.0149	.0149	2666.

.0330	-818.	-4856.	588.	-704.	805.	-3087.	.0259	.0178	-.0924	-.1804	-.0223	.0090	2202.
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.0180	-624.	942.	867.	-68.	-1115.	-461.	.0104	-.0040	.0176	.0358	.0487	-.0117	815.
.0190	-675.	196.	889.	-175.	-1245.	-699.	.0127	-.0029	.0135	.0259	.0545	-.0099	969.
.0200	-497.	-487.	1031.	-259.	-1404.	-812.	.0153	-.0014	.0064	.0111	.0587	-.0103	1107.
.0210	-262.	-873.	907.	-222.	-1607.	-829.	.0179	.0004	-.0037	-.0086	.0524	-.0128	1228.
.0220	-448.	-793.	602.	-32.	-1833.	-887.	.0204	.0023	-.0160	-.0318	.0599	-.0160	1373.
.0230	-843.	-567.	513.	59.	-2010.	-1109.	.0227	.0041	-.0289	-.0542	.0785	-.0175	1548.
.0240	-1299.	-1022.	738.	-120.	-2024.	-1692.	.0246	.0064	-.0410	-.0758	.0832	-.0121	1780.
.0250	-1593.	-2451.	1120.	-464.	-1947.	-2442.	.0263	.0093	-.0520	-.0987	.0839	-.0012	2128.
.0260	-1669.	-4061.	1638.	-790.	-1951.	-2937.	.0280	.0121	-.0621	-.1211	.0864	.0074	2436.
.0270	-2320.	-4911.	2157.	-1066.	-1886.	-3498.	.0291	.0143	-.0719	-.1395	.0919	.0147	2774.
.0280	-3200.	-4884.	2188.	-1449.	-1463.	-4611.	.0292	.0160	-.0812	-.1514	.0840	.0273	3404.
.0290	-3187.	-4653.	1725.	-1768.	-912.	-5531.	.0292	.0172	-.0892	-.1602	.0509	.0371	3962.
.0300	-3079.	-4880.	1740.	-1605.	-725.	-5095.	.0303	.0182	-.0951	-.1736	.0541	.0299	3634.
.0310	-3050.	-5419.	1816.	-1219.	-505.	-4222.	.0310	.0189	-.0981	-.1866	.0482	.0186	2982.
.0320	-2085.	-5475.	1314.	-1055.	146.	-3810.	.0296	.0189	-.0972	-.1875	.0149	.0149	2666.

.0330	-818.	-4856.	588.	-704.	805.	-3087.	.0259	.0178	-.0924	-.1804	-.0223	.0090	2202.
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ADLPIPE PAGE 1125

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.20.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

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	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)	
.0340	-284.	-4289.	135.	227.	1070.	-1374.	.0201	.0163	-.0840	-.1743	-.0361	-.0051	1184.	
.0350	350.	-4276.	-176.	1104.	1335.	428.	.0110	.0147	-.0710	-.1627	-.0501	-.0129	1202.	
.0360	1755.	-4486.	-553.	1424.	1908.	1574.	-.0024	.0128	-.0537	-.1377	-.0837	-.0050	1924.	
.0370	2746.	-4247.	-877.	1772.	2330.	2809.	-.0189	.0103	-.0341	-.1063	-.1082	.0058	2735.	
.0380	2653.	-3038.	-1268.	2570.	2309.	4544.	-.0371	.0071	-.0137	-.0738	-.1069	.0107	3847.	
.0390	2685.	-877.	-2074.	3219.	2293.	5822.	-.0564	.0032	.0079	-.0323	-.1101	.0202	4743.	
.0400	3576.	1337.	-2954.	3348.	2443.	6426.	-.0748	-.0013	.0312	.0194	-.1286	.0364	5154.	
.0410	3829.	2515.	-3110.	3453.	2350.	7190.	-.0891	-.0054	.0555	.0672	-.1281	.0474	5605.	
.0420	3673.	2894.	-2849.	3633.	1985.	8128.	-.0982	-.0092	.0795	.1093	-.1114	.0504	6148.	
.0430	4224.	3664.	-2790.	3477.	1705.	8484.	-.1025	-.0134	.1023	.1557	-.1058	.0513	6286.	
.0440	4620.	5074.	-2948.	3129.	1510.	8161.	-.1017	-.0179	.1222	.2028	-.1035	.0501	5978.	
.0450	4011.	6138.	-2885.	2816.	1213.	7580.	-.0954	-.0218	.1378	.2400	-.0868	.0438	5511.	
.0460	3294.	6317.	-2311.	2174.	947.	6700.	-.0841	-.0245	.1488	.2681	-.0676	.0356	4791.	
.0470	3111.	5630.	-1538.	1042.	894.	5292.	-.0688	-.0262	.1543	.2887	-.0605	.0295	3685.	
.0480	2611.	4841.	-943.	-43.	864.	3735.	-.0504	-.0267	.1525	.2953	-.0523	.0201	2584.	
.0490	1421.	4725.	-554.	-779.	692.	2424.	-.0295	-.0265	.1424	.2869	-.0335	.0014	1779.	
.0500	369.	5325.	-421.	-1468.	599.	1069.	-.0074	-.0258	.1254	.2698	-.0203	-.0214	1289.	
.0510	-300.	5716.	-502.	-2193.	688.	-443.	.0152	-.0241	.1035	.2434	-.0185	-.0425	1577.	
.0520	-886.	5103.	-436.	-2659.	677.	-1496.	.0381	-.0212	.0785	.2028	-.0127	-.0663	2107.	
.0530	-1262.	3694.	4.	-2860.	445.	-1860.	.0602	-.0174	.0521	.1523	.0017	-.0944	2319.	
.0540	-1442.	2141.	508.	-3089.	268.	-2266.	.0793	-.0133	.0259	.1015	.0123	-.1166	2589.	
.0550	-1807.	787.	729.	-3410.	285.	-3170.	.0936	-.0090	.0005	.0540	.0153	-.1253	3144.	
.0560	-2328.	-343.	831.	-3646.	224.	-4018.	.1028	-.0048	-.0232	.0095	.0215	-.1267	3660.	
.0570	-2789.	-1360.	1099.	-3766.	-87.	-4386.	.1071	-.0009	-.0443	-.0307	.0367	-.1258	3897.	
.0580	-3284.	-2295.	1382.	-3950.	-420.	-4745.	.1062	.0027	-.0615	-.0630	.0525	-.1164	4171.	
.0590	-3759.	-2846.	1392.	-4259.	-609.	-5433.	.1004	.0056	-.0740	-.0836	.0610	-.0961	4671.	
.0600	-4026.	-2671.	1184.	-4441.	-861.	-5922.	.0912	.0073	-.0812	-.0925	.0687	-.0745	5023.	
.0610	-4140.	-2010.	947.	-4277.	-1340.	-5773.	.0803	.0077	-.0821	-.0923	.0836	-.0589	4927.	
.0620	-4165.	-1580.	782.	-3959.	-1822.	-5376.	.0684	.0073	-.0762	-.0836	.0989	-.0440	4665.	
.0630	-3747.	-1833.	796.	-3788.	-2097.	-5074.	.0561	.0064	-.0633	-.0649	.1041	-.0251	4496.	
.0640	-2893.	-2600.	1064.	-3645.	-2325.	-4529.	.0439	.0049	-.0451	-.0393	.1056	-.0079	4220.	
.0650	-2227.	-3259.	1385.	-3272.	-2646.	-3544.	.0321	.0028	-.0243	-.0116	.1132	.0028	3708.	
.0660	-1906.	-3128.	1415.	-2823.	-2061.	-2605.	.0203	.0002	-.0035	.0195	.1190	.0114	3229.	
.0670	-1488.	-2015.	1036.	-2549.	-2826.	-1995.	.0086	-.0031	.0160	.0560	.1124	.0201	2896.	
.0680	-1054.	-335.	460.	-2268.	-2752.	-1269.	-.0016	-.0066	.0332	.0917	.1034	.0228	2551.	
.0690	-955.	1502.	-119.	-1785.	-2786.	-175.	-.0088	-.0101	.0479	.1218	.1021	.0154	2233.	
.0700	-830.	3445.	-722.	-1341.	-2726.	814.	-.0126	-.0136	.0612	.1502	.0974	-.0028	2120.	
.0710	-356.	5322.	-1308.	-1115.	-2443.	1377.	-.0123	-.0173	.0740	.1800	.0316	-.0112	2034.	

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

.0500	-4026.	-2671.	1184.	-4441.	-861.	-5922.	.0912	.0073	-.0812	-.0925	.0687	-.0745	5023.
.0610	-4140.	-2010.	947.	-4277.	-1340.	-5773.	.0803	.0077	-.0821	-.0923	.0836	-.0589	4927.
.0620	-4165.	-1580.	782.	-3959.	-1822.	-5376.	.0684	.0073	-.0762	-.0836	.0989	-.0440	4665.
.0630	-3747.	-1833.	796.	-3788.	-2097.	-5074.	.0561	.0064	-.0633	-.0649	.1041	-.0251	4496.
.0640	-2893.	-2600.	1064.	-3645.	-2325.	-4529.	.0439	.0049	-.0451	-.0393	.1056	-.0079	4220.
.0650	-2227.	-3259.	1385.	-3272.	-2646.	-3544.	.0321	.0028	-.0243	-.0116	.1132	.0028	3708.
.0660	-1906.	-3128.	1415.	-2823.	-2861.	-2605.	.0203	.0002	-.0035	.0195	.1190	.0114	3229.
.0670	-1488.	-2015.	1036.	-2549.	-2826.	-1995.	.0086	-.0031	.0160	.0560	.1124	.0201	2896.
.0680	-1054.	-335.	460.	-2268.	-2752.	-1269.	-.0016	-.0066	.0332	.0917	.1034	.0228	2551.
.0690	-955.	1502.	-119.	-1785.	-2786.	-175.	-.0088	-.0101	.0479	.1218	.1021	.0154	2233.
.0700	-830.	3445.	-722.	-1341.	-2726.	314.	-.0126	-.0136	.0612	.1502	.0974	.0028	2120.
.0710	-356.	5322.	-1308.	-1115.	-2443.	1377.	-.0123	-.0173	.0740	.1000	.0816	-.0112	2034.

ADLPIPE PAGE 1126 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.27.21.

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	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)
.0720	11.	6600.	-1592.	-905.	-2117.	1808.	-.0077	-.0207	.0866	.2058	.0575	-.0290	1973.							
.0730	125.	6915.	-1382.	-669.	-1834.	2248.	.0010	-.0234	.0985	.2245	.0504	-.0506	2007.							
.0740	492.	6373.	-840.	-674.	-1432.	2362.	.0122	-.0254	.1088	.2386	.0483	-.0696	1916.							
.0750	1004.	5353.	-239.	-926.	-881.	2040.	.0238	-.0264	.1154	.2468	.0293	-.0826	1623.							
.0760	1071.	4433.	261.	-1141.	-364.	1614.	.0342	-.0264	.1161	.2446	.0146	-.0929	1355.							
.0770	803.	4216.	470.	-1255.	69.	1222.	.0421	-.0256	.1097	.2330	.0036	-.1014	1182.							
.0780	652.	4815.	205.	-1369.	513.	728.	.0462	-.0242	.0968	.2149	-.0124	-.1051	1101.							
.0790	470.	5729.	-396.	-1393.	941.	227.	.0465	-.0220	.0793	.1894	-.0300	-.1032	1143.							
.0800	88.	6349.	-943.	-1221.	1257.	-29.	.0436	-.0189	.0597	.1563	-.0417	-.0978	1181.							
.0810	-32.	6260.	-1236.	-955.	1494.	-51.	.0381	-.0152	.0412	.1198	-.0516	-.0884	1196.							
.0820	301.	5196.	-1311.	-654.	1714.	27.	.0301	-.0111	.0256	.0824	-.0639	-.0726	1237.							
.0830	646.	3213.	-1138.	-229.	1869.	238.	.0198	-.0065	.0134	.0439	-.0725	-.0513	1279.							
.0840	889.	757.	-700.	290.	1930.	611.	.0073	-.0018	.0040	.0063	-.0753	-.0265	1379.							
.0850	1309.	-1717.	-232.	773.	1943.	1030.	-.0077	.0028	-.0040	-.0282	-.0783	.0020	1572.							
.0860	1715.	-3889.	5.	1249.	1904.	1443.	-.0249	.0073	-.0122	-.0613	-.0808	.0334	1817.							
.0870	1755.	-5305.	-23.	1774.	1770.	1898.	-.0435	.0115	-.0219	-.0930	-.0783	.0642	2119.							
.0880	1614.	-5589.	-300.	2267.	1576.	2336.	-.0622	.0150	-.0329	-.1201	-.0738	.0917	2437.							
.0890	1540.	-5018.	-854.	2690.	1377.	2662.	-.0793	.0177	-.0441	-.1417	-.0712	.1152	2714.							
.0900	1413.	-4356.	-1470.	3111.	1149.	2939.	-.0927	.0199	-.0539	-.1603	-.0671	.1329	2987.							
.0910	1263.	-4204.	-1728.	3463.	900.	3207.	-.1008	.0215	-.0604	-.1753	-.0593	.1434	3239.							
.0920	1344.	-4816.	-1459.	3585.	722.	3326.	-.1029	.0226	-.0628	-.1845	-.0527	.1478	3332.							
.0930	1594.	-6148.	-862.	3501.	645.	3210.	-.0990	.0233	-.0618	-.1895	-.0489	.1476	3231.							
.0940	1747.	-7685.	-158.	3354.	588.	2994.	-.0902	.0236	-.0594	-.1925	-.0437	.1408	3056.							
.0950	1755.	-8655.	506.	3153.	512.	2756.	-.0777	.0232	-.0578	-.1928	-.0364	.1260	2844.							
.0960	1602.	-8637.	909.	2835.	474.	2364.	-.0629	.0222	-.0585	-.1899	-.0306	.1058	2508.							
.0970	1164.	-7650.	898.	2425.	487.	1766.	-.0469	.0208	-.0620	-.1851	-.0265	.0827	2048.							
.0980	507.	-5789.	593.	1978.	471.	1137.	-.0299	.0188	-.0674	-.1779	-.0211	.0554	1570.							
.0990	-209.	-3268.	214.	1494.	391.	563.	-.0118	.0161	-.0725	-.1658	-.0132	.0234	1108.							
.1000	-989.	-630.	-110.	940.	322.	-133.	.0076	.0128	-.0748	-.1474	-.0047	-.0095	676.							
.1010	-1795.	1507.	-220.	280.	326.	-1069.	.0282	.0091	-.0719	-.1219	.0028	-.0400	777.							
.1020	-2386.	2793.	98.	-474.	353.	-2070.	.0500	.0049	-.0629	-.0895	.0103	-.0688	1451.							
.1030	-2666.	3163.	840.	-1224.	331.	-2918.	.0723	.0005	-.0481	-.0524	.0193	-.0970	2145.							
.1040	-2785.	2871.	1732.	-1889.	277.	-3631.	.0934	-.0038	-.0298	-.0139	.0291	-.1225	2765.							
.1050	-2765.	2507.	2435.	-2463.	238.	-4271.	.1111	-.0079	-.0107	.0243	.0362	-.1430	3327.							
.1060	-2560.	2597.	2910.	-2890.	179.	-4720.	.1237	-.0117	.0066	.0600	.0401	-.1586	3733.							
.1070	-2364.	3226.	2925.	-3047.	30.	-4817.	.1297	-.0149	.0198	.0887	.0445	-.1691	3842.							
.1080	-2074.	4181.	2580.	-2956.	-206.	-4523.	.1285	-.0170	.0286	.1084	.0485	-.1731	3645.							
.1090	-1396.	5266.	1988.	-2683.	-537.	-3796.	.1198	-.0182	.0334	.1202	.0503	-.1703	3154.							

ADLPIPE PAGE 1127 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.27.21.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

.0990	-209.	-268.	-214.	1494.	391.	563.	-.118	.0161	-.0725	-.1658	-.0132	.0234	1108.
.1000	-989.	-630.	-110.	940.	322.	-133.	.0076	.0128	-.0748	-.1474	-.0047	-.0095	676.
.1010	-1795.	1507.	-220.	280.	326.	-1069.	.0282	.0091	-.0719	-.1219	.0028	-.0400	777.
.1020	-2386.	2793.	90.	-474.	353.	-2070.	.0500	.0049	-.0629	-.0895	.0103	-.0688	1451.
.1030	-2666.	3163.	840.	-1224.	371.	-2918.	.0723	.0005	-.0481	-.0524	.0193	-.0970	2145.
.1040	-2785.	2871.	1732.	-1889.	277.	-3631.	.0934	-.0038	-.0298	-.0139	.0291	-.1225	2765.
.1050	-2765.	2507.	2485.	-2463.	238.	-4271.	.1111	-.0079	-.0107	.0243	.0362	-.1430	3327.
.1060	-2560.	2597.	2910.	-2890.	179.	-4720.	.1237	-.0117	.0066	.0600	.0401	-.1586	3733.
.1070	-2364.	3226.	2925.	-3047.	30.	-4817.	.1297	-.0149	.0198	.0887	.0445	-.1691	3842.
.1080	-2074.	4181.	2520.	-2956.	-206.	-4523.	.1285	-.0170	.0286	.1034	.0485	-.1731	3645.
.1090	-1396.	5266.	1988.	-2683.	-527.	-3796.	.1193	-.0182	.0334	.1202	.0503	-.1703	3154.

ADLPIPE PAGE 1127

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.21.

S/RV PIPING KEWAUNEE GKW02F 2 RUP DISK
2 SAFETY COLD FKM24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	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)	
.1100	-1376.	6406.	1078.	-2088.	-866.	-3081.	.1040	-.0181	.0352	.1224	.0560	-.1553	2576.	
.1110	-1188.	7416.	201.	-1453.	-1145.	-2436.	.0823	-.0174	.0362	.1216	.0577	-.1291	2062.	
.1120	-459.	7319.	-153.	-913.	-1439.	-1646.	.0566	-.0157	.0377	.1169	.0573	-.0943	1597.	
.1130	95.	5372.	-90.	-280.	-1794.	-727.	.0286	-.0123	.0393	.1009	.0631	-.0510	1319.	
.1140	426.	2640.	137.	352.	-2106.	32.	-.0007	-.0079	.0399	.0783	.0701	-.0011	1439.	
.1150	938.	695.	412.	802.	-2318.	535.	-.0299	-.0038	.0379	.0578	.0716	.0492	1692.	
.1160	1233.	-440.	502.	1277.	-2553.	991.	-.0574	.0003	.0314	.0339	.0747	.0945	2037.	
.1170	1083.	-1359.	113.	1887.	-2803.	1348.	-.0817	.0049	.0200	.0008	.0801	.1348	2452.	
.1180	440.	-1823.	-190.	2291.	-2889.	1333.	-.1008	.0094	.0048	-.0338	.0848	.1691	2643.	
.1190	396.	-1898.	-373.	2208.	-2662.	804.	-.1133	.0133	-.0122	-.0631	.0734	.1966	2394.	
.1200	537.	-2612.	-451.	2062.	-2359.	302.	-.1177	.0171	-.0301	-.0965	.0592	.2119	2122.	
.1210	27.	-4158.	-77.	2119.	-2158.	247.	-.1131	.0210	-.0481	-.1373	.0589	.2091	2045.	
.1220	-132.	-5307.	116.	2030.	-1681.	-127.	-.1012	.0239	-.0649	-.1722	.0454	.1963	1779.	
.1230	-21.	-5431.	153.	1791.	-906.	-856.	-.0834	.0253	-.0798	-.1965	.0185	.1742	1471.	
.1240	170.	-5553.	134.	1788.	-179.	-1193.	-.0610	.0260	-.0923	-.2197	-.0064	.1396	1454.	
.1250	415.	-6503.	367.	2028.	352.	-809.	-.0360	.0266	-.1022	-.2456	-.0222	.0945	1490.	
.1260	653.	-7536.	947.	2121.	931.	-295.	-.0117	.0266	-.1090	-.2647	-.0377	.0487	1574.	
.1270	1437.	-7513.	903.	2038.	1698.	-171.	.0087	.0257	-.1131	-.2708	-.0691	.0111	1792.	
.1280	1771.	-6241.	422.	2320.	2183.	338.	.0240	.0239	-.1148	-.2705	-.0388	-.0263	2159.	
.1290	1657.	-4340.	-176.	2935.	2262.	1378.	.0334	.0214	-.1132	-.2648	-.0907	-.0617	2665.	
.1300	1710.	-2484.	-713.	3272.	2320.	2087.	.0360	.0185	-.1061	-.2462	-.0944	-.0811	3047.	
.1310	1602.	-1144.	-898.	3204.	2452.	2161.	.0322	.0154	-.0926	-.2145	-.0986	-.0803	3085.	
.1320	1615.	-559.	-879.	3059.	2393.	2120.	.0235	.0124	-.0733	-.1760	-.0968	-.0667	2982.	
.1330	1396.	-593.	-301.	2977.	1970.	2391.	.0115	.0093	-.0499	-.1344	-.0771	-.0489	2896.	
.1340	1141.	-823.	334.	2683.	1563.	2238.	-.0031	.0064	-.0248	-.0884	-.0583	-.0205	2580.	
.1350	921.	-749.	588.	2158.	1358.	1363.	-.0195	.0037	-.0009	-.0401	-.0500	.0186	1949.	
.1360	370.	-269.	903.	1757.	1026.	650.	-.0349	.0013	.0192	.0023	-.0338	.0530	1440.	
.1370	49.	110.	1171.	1526.	553.	347.	-.0479	-.0005	.0338	.0327	-.0146	.0785	1119.	
.1380	-273.	34.	1434.	1219.	245.	-44.	-.0575	-.0011	.0417	.0501	-.0012	.1006	839.	
.1390	-423.	-138.	1400.	752.	303.	-855.	-.0634	-.0006	.0427	.0567	-.0039	.1211	794.	
.1400	-453.	33.	1159.	458.	462.	-1460.	-.0645	.0003	.0365	.0507	-.0118	.1296	1077.	
.1410	-792.	231.	1101.	534.	524.	-1384.	-.0602	.0018	.0241	.0296	-.0111	.1202	1060.	
.1420	-720.	-154.	792.	643.	807.	-1296.	-.0517	.0042	.0074	-.0027	-.0227	.1051	1117.	
.1430	-299.	-1014.	466.	627.	1352.	-1328.	-.0402	.0071	-.0117	-.0400	-.0466	.0875	1346.	
.1440	301.	-1765.	182.	757.	1854.	-988.	-.0267	.0098	-.0315	-.0798	-.0597	.0615	1505.	
.1450	780.	-2121.	-196.	1218.	2147.	-148.	-.0129	.0121	-.0506	-.1203	-.0842	.0278	1667.	
.1460	999.	-2189.	-610.	1720.	2397.	665.	-.0008	.0138	-.0667	-.1546	-.0950	-.0034	2039.	
.1470	1652.	-2219.	-1200.	1957.	2742.	1041.	.0075	.0150	-.0777	-.1765	-.1149	-.0228	2377.	

ADLPIPE PAGE 1128

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.21.

S/RV PIPING KEWAUNEE GKW02F 2 RUP DISK
2 SAFETY COLD FKM24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.1370	49.	110.	1171.	1526.	553.	347.	-.477	-.0005	.0338	.0327	-.0146	.0785	1119.
.1380	-273.	34.	1434.	1219.	245.	-44.	-.0575	-.0011	.0417	.0501	-.0012	.1006	839.
.1390	-423.	-138.	1400.	752.	303.	-855.	-.0634	-.0006	.0427	.0567	-.0039	.1211	794.
.1400	-453.	33.	1159.	458.	462.	-1460.	-.0645	.0003	.0365	.0507	-.0118	.1296	1077.
.1410	-792.	231.	1101.	534.	524.	-1384.	-.0602	.0018	.0241	.0296	-.0111	.1202	1060.
.1420	-720.	-154.	792.	643.	807.	-1296.	-.0517	.0042	.0074	-.0027	-.0227	.1051	1117.
.1430	-259.	-1014.	466.	627.	1352.	-1328.	-.0402	.0071	-.0117	-.0400	-.0466	.0875	1346.
.1440	301.	-1765.	182.	757.	1854.	-988.	-.0267	.0098	-.0315	-.0798	-.0597	.0615	1505.
.1450	780.	-2121.	-196.	1218.	2147.	-148.	-.0129	.0121	-.0506	-.1203	-.0842	.0278	1667.
.1460	999.	-2189.	-610.	1720.	2397.	665.	-.0008	.0138	-.0667	-.1546	-.0950	-.0034	2039.
.1470	1652.	-2219.	-1200.	1957.	2742.	1041.	.0075	.0150	-.0777	-.1765	-.1149	-.0228	2377.

ADLPIPE PAGE 1128

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.21.

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	MEMBER	SEQUENCE	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)	
.1480	2114.	-2454.	-1455.	2155.	2869.	1504.	.0117	.0155	-.0824	-.1880	-.1240	-.0353	2623.	
.1490	2313.	-3001.	-1411.	2415.	2671.	2174.	.0111	.0155	-.0804	-.1903	-.1178	-.0407	2835.	
.1500	2571.	-3663.	-1309.	2471.	2373.	2542.	.0049	.0150	-.0719	-.1794	-.1093	-.0321	2875.	
.1510	2568.	-4099.	-1043.	2251.	2038.	2480.	-.0066	.0138	-.0582	-.1548	-.0974	-.0098	2643.	
.1520	2439.	-4105.	-906.	1978.	1563.	2256.	-.0223	.0121	-.0411	-.1211	-.0807	.0205	2280.	
.1530	1943.	-3629.	-749.	1809.	851.	2187.	-.0403	.0098	-.0222	-.0829	-.0525	.0516	1998.	
.1540	1615.	-2804.	-708.	1549.	110.	2023.	-.0587	.0072	-.0027	-.0405	-.0257	.0836	1719.	
.1550	1480.	-1852.	-763.	1145.	-546.	1663.	-.0756	.0044	.0164	.0037	-.0044	.1149	1410.	
.1560	956.	-926.	-647.	804.	-1221.	1416.	-.0884	.0015	.0338	.0447	.0228	.1376	1372.	
.1570	687.	344.	-727.	524.	-1832.	1197.	-.0956	-.0015	.0491	.0819	.0449	.1501	1517.	
.1580	491.	1522.	-766.	223.	-2299.	920.	-.0962	-.0046	.0618	.1149	.0523	.1517	1676.	
.1590	129.	2296.	-532.	-167.	-2570.	532.	-.0896	-.0074	.0717	.1417	.0765	.1431	1773.	
.1600	22.	2517.	-270.	-668.	-2617.	7.	-.0760	-.0097	.0782	.1609	.0814	.1261	1820.	
.1610	59.	2606.	-55.	-1141.	-2535.	-466.	-.0563	-.0117	.0806	.1719	.0808	.0980	1900.	
.1620	-306.	3018.	299.	-1486.	-2420.	-732.	-.0316	-.0137	.0785	.1753	.0844	.0577	1977.	
.1630	-509.	3725.	285.	-1809.	-2140.	-1140.	-.0043	-.0153	.0723	.1728	.0788	.0134	2039.	
.1640	-681.	4492.	93.	-2121.	-1743.	-1641.	.0241	-.0165	.0630	.1650	.0678	-.0319	2156.	
.1650	-1073.	5094.	135.	-2366.	-1370.	-1983.	.0520	-.0172	.0519	.1522	.0511	-.0780	2277.	
.1660	-1212.	5284.	204.	-2592.	-996.	-2284.	.0776	-.0174	.0404	.1362	.0519	-.1192	2424.	
.1670	-1428.	4986.	412.	-2807.	-619.	-2635.	.0991	-.0170	.0294	.1181	.0436	-.1512	2628.	
.1680	-1628.	4367.	630.	-3024.	-218.	-3124.	.1150	-.0159	.0194	.0997	.0337	-.1710	2934.	
.1690	-1948.	3577.	1041.	-3181.	94.	-3502.	.1245	-.0145	.0104	.0813	.0285	-.1807	3189.	
.1700	-2144.	2592.	1415.	-3236.	287.	-3699.	.1270	-.0125	.0022	.0620	.0255	-.1797	3319.	
.1710	-1956.	1575.	1348.	-3191.	435.	-3876.	.1219	-.0099	-.0054	.0423	.0173	-.1657	3397.	
.1720	-2117.	908.	1357.	-3024.	467.	-3848.	.1099	-.0073	-.0125	.0237	.0162	-.1437	3314.	
.1730	-2064.	586.	1203.	-2797.	436.	-3673.	.0917	-.0047	-.0188	.0081	.0139	-.1139	3126.	
.1740	-1815.	323.	800.	-2444.	328.	-3315.	.0686	-.0019	-.0236	-.0062	.0108	-.0781	2785.	
.1750	-1705.	109.	343.	-1948.	157.	-2791.	.0423	.0007	-.0262	-.0183	.0110	-.0390	2297.	
.1760	-1350.	-1.	-129.	-1464.	34.	-2267.	.0145	.0028	-.0256	-.0242	.0071	.0024	1819.	
.1770	-965.	-378.	-289.	-994.	-78.	-1601.	-.0128	.0045	-.0217	-.0256	.0047	.0419	1271.	
.1780	-379.	-1366.	-432.	-470.	-166.	-816.	-.0382	.0060	-.0149	-.0261	.0003	.0789	645.	
.1790	85.	-2556.	-427.	109.	-226.	90.	-.0605	.0073	-.0062	-.0254	-.0024	.1094	180.	
.1800	512.	-3382.	-286.	632.	-193.	1001.	-.0787	.0078	.0028	-.0212	-.0068	.1317	808.	
.1810	1264.	-3892.	-447.	1111.	-30.	1813.	-.0925	.0079	.0108	-.0166	-.0200	.1465	1433.	
.1820	1652.	-4263.	-618.	1686.	119.	2782.	-.1011	.0080	.0163	-.0166	-.0285	.1498	2194.	
.1830	1952.	-4314.	-821.	2225.	305.	3763.	-.1042	.0078	.0189	-.0192	-.0373	.1426	2954.	
.1840	2311.	-3931.	-1060.	2591.	598.	4536.	-.1022	.0072	.0187	-.0219	-.0505	.1276	3544.	
.1850	2543.	-3385.	-1386.	2849.	952.	5066.	-.0953	.0067	.0161	-.0266	-.0549	.1067	3970.	

ADLPIPE PAGE 1129

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.21.

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

.1740	-1815.	323.	600.	-2444.	228.	-3315.	.0686	-.0019	-.0236	-.0062	.0108	-.0781	2785.
.1750	-1705.	109.	343.	-1948.	157.	-2791.	.0423	.0007	-.0262	-.0183	.0110	-.0390	2297.
.1760	-1350.	-1.	-129.	-1464.	34.	-2267.	.0145	.0028	-.0256	-.0242	.0071	-.0024	1819.
.1770	-965.	-378.	-289.	-994.	-78.	-1601.	-.0128	.0045	-.0217	-.0256	.0047	.0419	1271.
.1780	-379.	-1366.	-432.	-470.	-166.	-816.	-.0382	.0060	-.0149	-.0261	.0003	.0789	645.
.1790	85.	-2556.	-427.	109.	-226.	90.	-.0605	.0073	-.0062	-.0254	-.0024	.1094	180.
.1800	512.	-3382.	-286.	632.	-193.	1001.	-.0787	.0078	.0028	-.0212	-.0068	.1317	808.
.1810	1264.	-3892.	-447.	1111.	-30.	1813.	-.0925	.0079	.0108	-.0166	-.0200	.1465	1433.
.1820	1652.	-4263.	-618.	1686.	119.	2782.	-.1011	.0080	.0163	-.0166	-.0285	.1498	2194.
.1830	1952.	-4314.	-821.	2225.	305.	3763.	-.1042	.0078	.0189	-.0192	-.0373	.1426	2954.
.1840	2311.	-3931.	-1060.	2591.	598.	4536.	-.1022	.0072	.0187	-.0219	-.0505	.1276	3544.
.1850	2543.	-3385.	-1386.	2849.	952.	5066.	-.0953	.0067	.0161	-.0266	-.0549	.1067	3970.

ADLPIPE PAGE 1129

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.21.

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	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)	(PSI)
.1860	2717.	-2891.	-1783.	3028.	1299.	5399.	-.0840	.0061	.0118	-.0334	-.0787	.0809	4263.
.1870	2633.	-2416.	-1822.	3034.	1595.	5576.	-.0689	.0053	.0071	-.0389	-.0365	.0506	4412.
.1880	2637.	-2033.	-1780.	2774.	1932.	5327.	-.0514	.0043	.0028	-.0408	-.0965	.0220	4253.
.1890	2492.	-1795.	-1707.	2356.	2247.	4717.	-.0328	.0033	-.0006	-.0401	-.1045	-.0033	3863.
.1900	2112.	-1517.	-1448.	1856.	2426.	4007.	-.0143	.0021	-.0027	-.0358	-.1048	-.0273	3396.
.1910	1904.	-1047.	-1189.	1245.	2491.	3199.	.0027	.0004	-.0032	-.0262	-.1033	-.0478	2859.
.1920	1557.	-395.	-988.	602.	2451.	2291.	.0171	-.0014	-.0021	-.0122	-.0976	-.0629	2298.
.1930	1066.	463.	-922.	-9.	2314.	1325.	.0279	-.0034	.0010	.0058	-.0884	-.0718	1798.
.1940	641.	1495.	-845.	-584.	2053.	481.	.0351	-.0056	.0063	.0283	-.0756	-.0762	1475.
.1950	279.	2380.	-671.	-1087.	1665.	-143.	.0387	-.0079	.0140	.0534	-.0586	-.0766	1343.
.1960	-115.	2865.	-486.	-1490.	1216.	-629.	.0388	-.0100	.0238	.0787	-.0392	-.0714	1364.
.1970	-436.	3144.	-303.	-1825.	761.	-1015.	.0360	-.0119	.0351	.1046	-.0202	-.0618	1498.
.1980	-633.	3440.	-80.	-2065.	281.	-1195.	.0312	-.0139	.0470	.1303	-.0013	-.0515	1619.
.1990	-831.	3624.	109.	-2135.	-235.	-1127.	.0253	-.0155	.0582	.1521	.0189	-.0420	1635.
.2000	-1018.	3596.	194.	-2084.	-722.	-933.	.0194	-.0166	.0676	.1681	.0377	-.0333	1614.
.2010	-1052.	3538.	241.	-2025.	-1130.	-704.	.0142	-.0173	.0743	.1791	.0522	-.0264	1633.
.2020	-1012.	3547.	282.	-1943.	-1487.	-419.	.0107	-.0177	.0777	.1844	.0643	-.0234	1673.
.2030	-1060.	3517.	244.	-1800.	-1804.	-131.	.0095	-.0176	.0771	.1819	.0756	-.0243	1720.
.2040	-1135.	3437.	134.	-1698.	-2023.	-6.	.0107	-.0169	.0729	.1731	.0832	-.0272	1780.
.2050	-1165.	3345.	75.	-1735.	-2115.	-122.	.0145	-.0159	.0654	.1603	.0862	-.0318	1846.
.2060	-1253.	3089.	111.	-1858.	-2133.	-401.	.0207	-.0145	.0553	.1431	.0876	-.0381	1926.
.2070	-1430.	2555.	206.	-2017.	-2111.	-783.	.0289	-.0127	.0433	.1214	.0887	-.0456	2038.
.2080	-1573.	1914.	348.	-2260.	-2019.	-1303.	.0383	-.0107	.0302	.0981	.0873	-.0532	2223.
.2090	-1685.	1384.	503.	-2566.	-1858.	-1936.	.0479	-.0087	.0167	.0755	.0831	-.0602	2503.
.2100	-1878.	988.	604.	-2815.	-1683.	-2543.	.0569	-.0068	.0034	.0532	.0789	-.0669	2797.
.2110	-2083.	674.	650.	-2956.	-1526.	-3003.	.0645	-.0051	-.0088	.0319	.0754	-.0734	3020.
.2120	-2168.	403.	709.	-3035.	-1368.	-3294.	.0700	-.0035	-.0190	.0135	.0708	-.0786	3157.
.2130	-2150.	109.	775.	-3042.	-1203.	-3412.	.0729	-.0022	-.0266	-.0015	.0652	-.0815	3186.
.2140	-2094.	-211.	784.	-2913.	-1060.	-3311.	.0730	-.0011	-.0313	-.0134	.0599	-.0820	3057.
.2150	-1982.	-431.	740.	-2650.	-952.	-2976.	.0701	-.0004	-.0331	-.0213	.0552	-.0808	2761.
.2160	-1799.	-506.	678.	-2314.	-861.	-2478.	.0644	-.0001	-.0319	-.0242	.0504	-.0772	2358.
.2170	-1589.	-540.	579.	-1939.	-769.	-1898.	.0562	-.0001	-.0281	-.0228	.0451	-.0706	1901.
.2180	-1347.	-557.	433.	-1535.	-692.	-1255.	.0462	-.0003	-.0220	-.0178	.0397	-.0616	1416.
.2190	-1061.	-427.	271.	-1125.	-645.	-568.	.0351	-.0008	-.0143	-.0090	.0349	-.0517	954.
.2200	-778.	-111.	92.	-740.	-609.	77.	.0236	-.0017	-.0053	.0031	.0303	-.0413	648.
.2210	-522.	273.	-119.	-410.	-558.	584.	.0124	-.0027	.0043	.0176	.0251	-.0298	611.
.2220	-251.	609.	-306.	-158.	-493.	948.	.0022	-.0037	.0143	.0332	.0194	-.0180	728.
.2230	28.	840.	-390.	15.	-427.	1205.	-.0065	-.0048	.0241	.0488	.0141	-.0071	862.

ADLPIPE PAGE 1130

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.21.

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

.2130	-2150.	109.	775.	-3042.	-1203.	-3412.	.0729	-.0022	-.0266	-.0015	.0552	-.0815	3186.
.2140	-2094.	-211.	734.	-2913.	-1060.	-3311.	.0730	-.0011	-.0313	-.0134	.0599	-.0820	3057.
.2150	-1982.	-431.	740.	-2650.	-952.	-2976.	.0701	-.0004	-.0331	-.0213	.0552	-.0808	2761.
.2160	-1799.	-506.	678.	-2314.	-861.	-2478.	.0644	-.0001	-.0319	-.0242	.0504	-.0772	2358.
.2170	-1589.	-540.	579.	-1939.	-769.	-1898.	.0562	-.0001	-.0281	-.0228	.0451	-.0706	1901.
.2180	-1347.	-557.	433.	-1535.	-692.	-1255.	.0462	-.0003	-.0220	-.0178	.0397	-.0616	1416.
.2190	-1061.	-427.	271.	-1125.	-645.	-568.	.0351	-.0008	-.0143	-.0090	.0349	-.0517	954.
.2200	-778.	-111.	92.	-740.	-609.	77.	.0236	-.0017	-.0053	.0031	.0303	-.0413	648.
.2210	-522.	273.	-119.	-410.	-558.	584.	.0124	-.0027	.0043	.0176	.0251	-.0298	611.
.2220	-251.	609.	-306.	-158.	-493.	948.	.0022	-.0037	.0143	.0332	.0194	-.0180	728.
.2230	28.	840.	-390.	15.	-427.	1205.	-.0065	-.0048	.0241	.0488	.0141	-.0071	862.

ADLPIPE PAGE 1130

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.21.

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	25	MEMBER	1	SEQUENCE	43	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)		
.2240	273.	915.	-377.	112.	-346.	1336.	-.0135	-.0058	.0329	.0630	.0090	.0030	933.		
.2250	477.	842.	-322.	127.	-220.	1302.	-.0189	-.0064	.0403	.0747	.0028	.0128	894.		
.2260	634.	741.	-250.	79.	-49.	1146.	-.0227	-.0068	.0454	.0831	-.0044	.0215	775.		
.2270	711.	731.	-193.	24.	142.	963.	-.0253	-.0069	.0476	.0872	-.0117	.0279	656.		
.2280	719.	833.	-208.	5.	347.	804.	-.0267	-.0067	.0469	.0863	-.0192	.0316	590.		
.2290	714.	1005.	-303.	21.	578.	687.	-.0271	-.0061	.0434	.0806	-.0279	.0328	605.		
.2300	714.	1204.	-430.	75.	829.	646.	-.0265	-.0053	.0376	.0707	-.0373	.0313	710.		
.2310	716.	1375.	-566.	198.	1080.	715.	-.0251	-.0044	.0304	.0573	-.0466	.0270	883.		
.2320	749.	1456.	-710.	396.	1323.	888.	-.0229	-.0032	.0226	.0413	-.0557	.0203	1107.		
.2330	842.	1377.	-813.	640.	1556.	1131.	-.0201	-.0021	.0150	.0242	-.0646	.0123	1366.		
.2340	982.	1063.	-818.	896.	1768.	1420.	-.0169	-.0009	.0081	.0069	-.0725	.0040	1644.		
.2350	1159.	504.	-742.	1154.	1940.	1736.	-.0138	.0004	.0022	-.0101	-.0789	-.0036	1920.		
.2360	1356.	-167.	-644.	1408.	2054.	2050.	-.0113	.0017	-.0030	-.0263	-.0834	-.0098	2174.		
.2370	1520.	-744.	-566.	1642.	2098.	2321.	-.0097	.0028	-.0076	-.0407	-.0355	-.0139	2381.		
.2380	1607.	-1117.	-531.	1838.	2068.	2509.	-.0095	.0039	-.0118	-.0528	-.0849	-.0153	2518.		
.2390	1620.	-1308.	-554.	1985.	1962.	2595.	-.0108	.0048	-.0158	-.0627	-.0817	-.0133	2569.		
.2400	1568.	-1377.	-601.	2078.	1778.	2580.	-.0133	.0057	-.0193	-.0705	-.0756	-.0080	2534.		
.2410	1449.	-1382.	-612.	2107.	1523.	2460.	-.0168	.0065	-.0222	-.0759	-.0566	.0000	2413.		
.2420	1286.	-1414.	-560.	2067.	1220.	2227.	-.0208	.0073	-.0242	-.0791	-.0555	.0106	2207.		
.2430	1107.	-1555.	-442.	1967.	886.	1893.	-.0248	.0079	-.0253	-.0806	-.0429	.0229	1935.		
.2440	907.	-1808.	-245.	1824.	530.	1494.	-.0284	.0085	-.0257	-.0810	-.0289	.0356	1629.		
.2450	688.	-2107.	16.	1646.	171.	1054.	-.0310	.0091	-.0258	-.0807	-.0143	.0475	1322.		
.2460	470.	-2386.	282.	1439.	-166.	580.	-.0325	.0096	-.0261	-.0803	-.0003	.0577	1052.		
.2470	252.	-2569.	497.	1224.	-471.	104.	-.0326	.0099	-.0272	-.0804	.0124	.0651	887.		
.2480	2.	-2567.	651.	1019.	-742.	-339.	-.0311	.0102	-.0292	-.0813	.0241	.0687	880.		
.2490	-279.	-2334.	737.	823.	-966.	-748.	-.0278	.0103	-.0322	-.0828	.0342	.0681	993.		
.2500	-554.	-1922.	745.	633.	-1124.	-1146.	-.0228	.0103	-.0359	-.0845	.0419	.0635	1163.		
.2510	-808.	-1448.	719.	454.	-1220.	-1516.	-.0159	.0100	-.0398	-.0861	.0473	.0552	1347.		
.2520	-1034.	-1040.	742.	289.	-1267.	-1832.	-.0074	.0097	-.0431	-.0875	.0515	.0434	1514.		
.2530	-1207.	-793.	844.	125.	-1263.	-2111.	.0025	.0091	-.0454	-.0882	.0540	.0293	1661.		
.2540	-1309.	-719.	1005.	-42.	-1204.	-2384.	.0132	.0085	-.0466	-.0878	.0546	.0143	1801.		
.2550	-1371.	-747.	1201.	-198.	-1108.	-2635.	.0240	.0078	-.0468	-.0865	.0538	-.0008	1932.		
.2560	-1401.	-782.	1400.	-324.	-1002.	-2830.	.0339	.0071	-.0463	-.0844	.0524	-.0153	2035.		
.2570	-1405.	-761.	1543.	-414.	-892.	-2973.	.0422	.0064	-.0454	-.0819	.0502	-.0278	2110.		
.2580	-1393.	-633.	1594.	-472.	-779.	-3078.	.0482	.0057	-.0446	-.0792	.0471	-.0370	2164.		
.2590	-1369.	-363.	1558.	-493.	-675.	-3125.	.0512	.0052	-.0438	-.0762	.0435	-.0427	2181.		
.2600	-1320.	24.	1434.	-456.	-594.	-3084.	.0512	.0047	-.0429	-.0731	.0397	-.0445	2139.		
.2610	-1237.	447.	1232.	-351.	-536.	-2956.	.0480	.0044	-.0416	-.0699	.0358	-.0421	2038.		

ADLPIPE PAGE 1131

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.21.

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

.2510	-808.	-1448.	719.	454.	-1220.	-1516.	-.0159	.0100	-.0398	-.0861	.0473	.0552	1347.
.2520	-1034.	-1040.	742.	289.	-1267.	-1832.	-.0074	.0097	-.0431	-.0375	.0515	.0434	1514.
.2530	-1207.	-793.	844.	125.	-1263.	-2111.	.0025	.0091	-.0454	-.0882	.0540	.0293	1661.
.2540	-1309.	-719.	1005.	-42.	-1204.	-2384.	.0132	.0085	-.0466	-.0878	.0546	.0143	1801.
.2550	-1371.	-747.	1201.	-198.	-1108.	-2635.	.0240	.0078	-.0468	-.0865	.0538	-.0008	1932.
.2560	-1401.	-782.	1400.	-324.	-1002.	-2830.	.0339	.0071	-.0463	-.0844	.0524	-.0153	2035.
.2570	-1405.	-761.	1543.	-414.	-892.	-2973.	.0422	.0064	-.0454	-.0819	.0502	-.0278	2110.
.2580	-1393.	-633.	1594.	-472.	-779.	-3078.	.0482	.0057	-.0446	-.0792	.0471	-.0370	2164.
.2590	-1369.	-363.	1558.	-493.	-675.	-3125.	.0512	.0052	-.0438	-.0762	.0435	-.0427	2181.
.2600	-1320.	24.	1434.	-456.	-594.	-3084.	.0512	.0047	-.0429	-.0731	.0397	-.0445	2139.
.2610	-1237.	447.	1232.	-351.	-536.	-2956.	.0480	.0044	-.0416	-.0699	.0358	-.0421	2038.

ADLPIPE PAGE 1131

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.21.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSVCONDITION 24
LOADSSHOCK
PRESSURE

ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	EL								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)		
.2620	-1110.	803.	1009.	-189.	-488.	-2753.	.0418	.0043	-.0395	-.0665	.0315	-.0354	1889.	
.2630	-910.	986.	829.	19.	-445.	-2469.	.0332	.0043	-.0363	-.0627	.0269	-.0248	1691.	
.2640	-626.	915.	709.	281.	-411.	-2083.	.0224	.0045	-.0319	-.0591	.0221	-.0110	1443.	
.2650	-281.	619.	635.	604.	-384.	-1593.	.0100	.0048	-.0268	-.0561	.0173	.0049	1177.	
.2660	94.	225.	578.	976.	-354.	-1027.	-.0035	.0053	-.0214	-.0540	.0122	.0222	984.	
.2670	477.	-147.	498.	1384.	-311.	-410.	-.0177	.0059	-.0165	-.0532	.0065	.0398	995.	
.2680	836.	-447.	360.	1824.	-257.	241.	-.0318	.0066	-.0129	-.0543	.0003	.0567	1252.	
.2690	1144.	-663.	172.	2276.	-190.	904.	-.0453	.0074	-.0108	-.0578	-.0061	.0718	1656.	
.2700	1407.	-807.	-38.	2707.	-99.	1535.	-.0572	.0084	-.0104	-.0637	-.0130	.0846	2098.	
.2710	1622.	-929.	-251.	3089.	22.	2084.	-.0670	.0095	-.0117	-.0717	-.0205	.0945	2512.	
.2720	1771.	-1093.	-435.	3409.	174.	2517.	-.0740	.0106	-.0145	-.0817	-.0282	.1011	2859.	
.2730	1861.	-1341.	-546.	3645.	355.	2809.	-.0778	.0117	-.0185	-.0930	-.0358	.1043	3111.	
.2740	1928.	-1702.	-565.	3776.	565.	2943.	-.0782	.0128	-.0232	-.1052	-.0436	.1039	3249.	
.2750	1969.	-2174.	-507.	3804.	791.	2921.	-.0753	.0139	-.0287	-.1179	-.0513	.1004	3277.	
.2760	1958.	-2672.	-401.	3746.	1019.	2758.	-.0696	.0149	-.0347	-.1305	-.0582	.0939	3210.	
.2770	1898.	-3072.	-281.	3607.	1239.	2465.	-.0618	.0158	-.0412	-.1423	-.0642	.0851	3061.	
.2780	1797.	-3315.	-178.	3398.	1441.	2061.	-.0526	.0164	-.0478	-.1527	-.0695	.0749	2850.	
.2790	1643.	-3432.	-100.	3139.	1611.	1585.	-.0430	.0168	-.0543	-.1613	-.0734	.0645	2607.	
.2800	1446.	-3452.	-33.	2845.	1737.	1080.	-.0336	.0171	-.0601	-.1677	-.0756	.0546	2362.	
.2810	1230.	-3379.	30.	2529.	1814.	575.	-.0252	.0172	-.0647	-.1712	-.0760	.0462	2133.	
.2820	1002.	-3237.	87.	2214.	1840.	95.	-.0183	.0170	-.0676	-.1712	-.0746	.0398	1942.	
.2830	769.	-3077.	151.	1919.	1812.	-325.	-.0132	.0166	-.0684	-.1678	-.0713	.0358	1792.	
.2840	566.	-2939.	236.	1654.	1725.	-646.	-.0101	.0159	-.0670	-.1609	-.0662	.0340	1669.	
.2850	409.	-2814.	327.	1432.	1583.	-852.	-.0088	.0150	-.0633	-.1507	-.0596	.0342	1549.	
.2860	283.	-2658.	400.	1265.	1393.	-948.	-.0093	.0139	-.0577	-.1376	-.0516	.0360	1420.	
.2870	184.	-2445.	452.	1142.	1168.	-945.	-.0112	.0126	-.0506	-.1221	-.0427	.0389	1272.	
.2880	123.	-2191.	487.	1047.	921.	-862.	-.0141	.0112	-.0425	-.1049	-.0335	.0423	1105.	
.2890	86.	-1914.	490.	971.	666.	-723.	-.0175	.0097	-.0339	-.0869	-.0244	.0457	932.	
.2900	47.	-1585.	453.	907.	417.	-562.	-.0208	.0081	-.0253	-.0688	-.0156	.0485	772.	
.2910	12.	-1191.	392.	834.	189.	-409.	-.0234	.0065	-.0172	-.0510	-.0077	.0501	639.	
.2920	-6.	-795.	323.	737.	-7.	-283.	-.0250	.0050	-.0098	-.0341	-.0010	.0501	532.	
.2930	-10.	-464.	250.	619.	-167.	-187.	-.0251	.0035	-.0033	-.0188	.0044	.0481	450.	
.2940	-3.	-180.	175.	485.	-292.	-120.	-.0236	.0021	.0021	-.0054	.0085	.0438	390.	
.2950	21.	109.	101.	336.	-380.	-87.	-.0205	.0008	.0065	.0063	.0114	.0371	347.	
.2960	60.	374.	33.	176.	-435.	-86.	-.0160	-.0005	.0100	.0163	.0130	.0285	322.	
.2970	101.	552.	-22.	9.	-465.	-104.	-.0105	-.0016	.0125	.0244	.0139	.0187	321.	
.2980	141.	656.	-57.	-162.	-478.	-132.	-.0044	-.0026	.0143	.0308	.0144	.0082	352.	
.2990	166.	752.	-79.	-338.	-482.	-174.	.0017	-.0034	.0154	.0361	.0148	-.0021	414.	

ADLPIPE PAGE 1132

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.21.

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

.2890	86.	-1714.	490.	971.	666.	-723.	-.0175	.0097	-.0425	-.0869	-.0244	.0457	932.
.2900	47.	-1585.	453.	907.	417.	-562.	-.0208	.0081	-.0253	-.0688	-.0156	.0485	772.
.2910	12.	-1191.	392.	834.	189.	-409.	-.0234	.0065	-.0172	-.0510	-.0077	.0501	639.
.2920	-6.	-795.	327.	777.	-7.	-283.	-.0250	.0050	-.0098	-.0341	-.0010	.0501	532.
.2930	-10.	-464.	250.	619.	-167.	-187.	-.0251	.0035	-.0033	-.0188	.0044	.0481	450.
.2940	-3.	-180.	175.	485.	-292.	-120.	-.0236	.0021	.0021	-.0054	.0085	.0438	390.
.2950	21.	109.	101.	336.	-380.	-87.	-.0205	.0008	.0065	.0063	.0114	.0371	347.
.2960	60.	374.	33.	176.	-435.	-86.	-.0160	-.0005	.0100	.0163	.0130	.0285	322.
.2970	101.	552.	-22.	9.	-465.	-104.	-.0105	-.0016	.0125	.0244	.0139	.0187	321.
.2980	141.	656.	-57.	-162.	-478.	-132.	-.0044	-.0026	.0143	.0308	.0144	.0082	352.
.2990	166.	752.	-79.	-338.	-482.	-174.	.0017	-.0034	.0154	.0361	.0148	-.0021	414.

ADLPIPE PAGE 1132

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.21.

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

CONDITION 24

LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	25	MEMBER	1	SEQUENCE	43	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)		
.3000	154.	865.	-105.	-512.	-481.	-233.	.0073	-.0042	.0161	.0407	.0151	-.0115	499.		
.3010	100.	981.	-138.	-681.	-484.	-304.	.0120	-.0048	.0166	.0448	.0159	-.0192	599.		
.3020	16.	1105.	-171.	-847.	-499.	-375.	.0156	-.0054	.0170	.0487	.0172	-.0250	709.		
.3030	-88.	1256.	-205.	-1006.	-529.	-444.	.0180	-.0059	.0175	.0531	.0191	-.0289	823.		
.3040	-206.	1430.	-244.	-1155.	-573.	-512.	.0192	-.0064	.0185	.0581	.0215	-.0309	935.		
.3050	-318.	1600.	-280.	-1294.	-632.	-576.	.0195	-.0069	.0201	.0640	.0242	-.0311	1045.		
.3060	-410.	1742.	-301.	-1424.	-702.	-633.	.0189	-.0075	.0225	.0709	.0272	-.0301	1152.		
.3070	-479.	1850.	-306.	-1546.	-776.	-687.	.0179	-.0081	.0256	.0787	.0302	-.0280	1255.		
.3080	-522.	1915.	-295.	-1662.	-848.	-745.	.0165	-.0087	.0293	.0873	.0330	-.0252	1354.		
.3090	-538.	1930.	-267.	-1777.	-911.	-803.	.0151	-.0094	.0335	.0964	.0353	-.0219	1451.		
.3100	-537.	1907.	-244.	-1889.	-960.	-858.	.0135	-.0100	.0378	.1054	.0370	-.0185	1541.		
.3110	-537.	1885.	-204.	-1989.	-989.	-908.	.0120	-.0106	.0420	.1140	.0380	-.0154	1617.		
.3120	-541.	1904.	-202.	-2073.	-995.	-946.	.0107	-.0112	.0457	.1218	.0382	-.0127	1676.		
.3130	-548.	1966.	-222.	-2137.	-976.	-959.	.0095	-.0117	.0487	.1284	.0375	-.0109	1711.		
.3140	-564.	2041.	-257.	-2176.	-932.	-938.	.0087	-.0121	.0510	.1333	.0360	-.0102	1716.		
.3150	-583.	2115.	-301.	-2188.	-860.	-882.	.0082	-.0124	.0524	.1365	.0336	-.0106	1692.		
.3160	-600.	2185.	-344.	-2174.	-758.	-793.	.0083	-.0126	.0530	.1379	.0302	-.0125	1641.		
.3170	-613.	2225.	-372.	-2134.	-629.	-674.	.0091	-.0128	.0530	.1375	.0261	-.0157	1567.		
.3180	-617.	2195.	-377.	-2074.	-474.	-528.	.0105	-.0127	.0522	.1353	.0212	-.0203	1478.		
.3190	-609.	2088.	-360.	-2002.	-296.	-367.	.0126	-.0126	.0508	.1313	.0156	-.0259	1386.		
.3200	-583.	1934.	-331.	-1921.	-96.	-200.	.0152	-.0124	.0488	.1258	.0093	-.0324	1304.		
.3210	-546.	1772.	-308.	-1832.	114.	-28.	.0182	-.0120	.0461	.1189	.0025	-.0396	1237.		
.3220	-500.	1621.	-307.	-1732.	326.	146.	.0213	-.0116	.0427	.1109	-.0046	-.0472	1192.		
.3230	-436.	1497.	-335.	-1627.	533.	322.	.0243	-.0111	.0389	.1022	-.0119	-.0546	1174.		
.3240	-354.	1409.	-394.	-1517.	724.	497.	.0270	-.0106	.0348	.0931	-.0190	-.0614	1181.		
.3250	-262.	1356.	-479.	-1399.	888.	672.	.0289	-.0100	.0309	.0844	-.0256	-.0671	1205.		
.3260	-156.	1312.	-577.	-1275.	1017.	848.	.0300	-.0095	.0273	.0764	-.0312	-.0713	1239.		
.3270	-34.	1242.	-666.	-1151.	1103.	1023.	.0300	-.0090	.0246	.0697	-.0356	-.0734	1277.		
.3280	89.	1118.	-730.	-1032.	1143.	1189.	.0287	-.0085	.0230	.0647	-.0384	-.0730	1312.		
.3290	200.	953.	-767.	-923.	1135.	1340.	.0262	-.0081	.0226	.0616	-.0394	-.0699	1337.		
.3300	289.	777.	-781.	-825.	1078.	1468.	.0224	-.0078	.0234	.0607	-.0385	-.0643	1348.		
.3310	342.	615.	-778.	-743.	976.	1570.	.0175	-.0076	.0251	.0617	-.0358	-.0565	1343.		
.3320	353.	481.	-762.	-682.	835.	1640.	.0119	-.0074	.0275	.0643	-.0314	-.0471	1323.		
.3330	322.	400.	-743.	-647.	664.	1673.	.0060	-.0074	.0302	.0682	-.0257	-.0369	1289.		
.3340	255.	400.	-731.	-636.	473.	1665.	.0004	-.0074	.0330	.0730	-.0191	-.0269	1243.		
.3350	152.	485.	-724.	-649.	273.	1616.	-.0044	-.0075	.0356	.0782	-.0118	-.0180	1188.		
.3360	30.	615.	-709.	-689.	77.	1522.	-.0077	-.0078	.0378	.0834	-.0043	-.0112	1128.		
.3370	-92.	745.	-673.	-763.	-103.	1383.	-.0091	-.0080	.0395	.0880	.0028	-.0071	1067.		

ADLPIPE PAGE 1133

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.21.

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

CONDITION 24

LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

.3270	-34.	1242.	-666.	-1151.	1103.	1023.	.0300	-.0090	.0246	.0697	-.0356	-.0734	1277.
.3280	89.	1118.	-730.	-1032.	1143.	1189.	.0287	-.0085	.0230	.0647	-.0384	-.0730	1312.
.3290	200.	953.	-767.	-923.	1135.	1340.	.0262	-.0081	.0226	.0616	-.0394	-.0699	1337.
.3300	289.	777.	-781.	-825.	1078.	1468.	.0224	-.0078	.0234	.0607	-.0385	-.0643	1348.
.3310	342.	615.	-778.	-743.	976.	1570.	.0175	-.0076	.0251	.0617	-.0358	-.0565	1343.
.3320	353.	481.	-762.	-682.	835.	1640.	.0119	-.0074	.0275	.0643	-.0314	-.0471	1323.
.3330	322.	400.	-743.	-647.	664.	1673.	.0060	-.0074	.0302	.0682	-.0257	-.0369	1289.
.3340	255.	400.	-731.	-636.	473.	1685.	.0004	-.0074	.0330	.0730	-.0191	-.0269	1243.
.3350	152.	485.	-724.	-649.	273.	1616.	-.0044	-.0075	.0356	.0782	-.0118	-.0180	1188.
.3360	30.	615.	-709.	-689.	77.	1522.	-.0077	-.0078	.0378	.0834	-.0043	-.0112	1128.
.3370	-92.	745.	-673.	-763.	-103.	1383.	-.0091	-.0080	.0395	.0880	.0028	-.0071	1067.

ADLPIPE PAGE 1133

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.21.

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	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)	(PSI)
.3380	-210.	856.	-608.	-869.	-260.	1199.	-.0084	-.0083	.0406	.0919	.0094	-.0061	1013.
.3390	-326.	959.	-518.	-1001.	-389.	973.	-.0053	-.0087	.0409	.0948	.0153	-.0084	977.
.3400	-438.	1075.	-415.	-1156.	-487.	710.	-.0001	-.0091	.0405	.0966	.0203	-.0141	971.
.3410	-548.	1212.	-307.	-1328.	-556.	417.	.0069	-.0095	.0392	.0973	.0245	-.0226	1010.
.3420	-661.	1384.	-208.	-1509.	-600.	111.	.0153	-.0099	.0372	.0971	.0279	-.0334	1097.
.3430	-782.	1614.	-127.	-1687.	-629.	-195.	.0245	-.0103	.0345	.0960	.0308	-.0458	1221.
.3440	-906.	1907.	-69.	-1855.	-649.	-487.	.0339	-.0107	.0315	.0945	.0334	-.0589	1365.
.3450	-1031.	2234.	-31.	-2003.	-667.	-755.	.0428	-.0111	.0285	.0930	.0358	-.0717	1511.
.3460	-1153.	2551.	-0.	-2125.	-692.	-986.	.0508	-.0114	.0259	.0917	.0383	-.0834	1646.
.3470	-1263.	2821.	38.	-2217.	-727.	-1172.	.0575	-.0118	.0239	.0909	.0410	-.0931	1760.
.3480	-1353.	3011.	95.	-2277.	-775.	-1311.	.0625	-.0121	.0229	.0909	.0441	-.1003	1847.
.3490	-1419.	3098.	174.	-2302.	-837.	-1399.	.0656	-.0124	.0228	.0914	.0475	-.1045	1902.
.3500	-1462.	3081.	269.	-2289.	-912.	-1434.	.0667	-.0125	.0236	.0923	.0511	-.1056	1922.
.3510	-1480.	2987.	366.	-2237.	-997.	-1417.	.0658	-.0125	.0248	.0931	.0547	-.1037	1907.
.3520	-1478.	2852.	448.	-2144.	-1085.	-1355.	.0631	-.0124	.0262	.0933	.0580	-.0991	1860.
.3530	-1457.	2695.	505.	-2014.	-1172.	-1251.	.0587	-.0120	.0273	.0924	.0509	-.0922	1782.
.3540	-1415.	2518.	529.	-1848.	-1249.	-1109.	.0532	-.0114	.0277	.0898	.0629	-.0836	1679.
.3550	-1353.	2324.	522.	-1654.	-1312.	-940.	.0468	-.0106	.0271	.0849	.0640	-.0739	1557.
.3560	-1275.	2111.	487.	-1437.	-1350.	-760.	.0400	-.0096	.0254	.0777	.0539	-.0638	1425.
.3570	-1182.	1866.	438.	-1210.	-1359.	-582.	.0332	-.0084	.0225	.0682	.0626	-.0536	1288.
.3580	-1073.	1570.	386.	-982.	-1334.	-418.	.0269	-.0069	.0185	.0564	.0599	-.0439	1152.
.3590	-956.	1217.	341.	-760.	-1277.	-275.	.0213	-.0053	.0136	.0427	.0561	-.0349	1018.
.3600	-840.	828.	305.	-552.	-1185.	-166.	.0166	-.0036	.0079	.0276	.0512	-.0271	888.
.3610	-730.	435.	275.	-365.	-1062.	-99.	.0129	-.0019	.0016	.0117	.0453	-.0204	760.
.3620	-632.	54.	251.	-201.	-912.	-72.	.0101	-.0002	-.0049	-.0044	.0388	-.0149	631.
.3630	-553.	-303.	232.	-61.	-741.	-82.	.0081	.0014	-.0115	-.0200	.0317	-.0106	504.
.3640	-489.	-622.	217.	56.	-555.	-123.	.0069	.0029	-.0177	-.0345	.0243	-.0072	385.
.3650	-438.	-894.	206.	153.	-358.	-187.	.0062	.0042	-.0233	-.0475	.0168	-.0046	291.
.3660	-394.	-1128.	204.	234.	-156.	-261.	.0058	.0053	-.0280	-.0584	.0092	-.0025	259.
.3670	-347.	-1344.	215.	307.	44.	-328.	.0055	.0062	-.0316	-.0672	.0019	-.0007	304.
.3680	-286.	-1544.	235.	376.	237.	-375.	.0051	.0069	-.0339	-.0738	-.0053	.0010	392.
.3690	-207.	-1712.	257.	453.	419.	-387.	.0044	.0073	-.0351	-.0781	-.0121	.0027	491.
.3700	-109.	-1833.	269.	543.	584.	-354.	.0031	.0076	-.0351	-.0803	-.0186	.0047	588.
.3710	9.	-1900.	265.	652.	729.	-271.	.0011	.0077	-.0341	-.0808	-.0246	.0071	684.
.3720	148.	-1910.	238.	779.	851.	-136.	-.0017	.0077	-.0323	-.0797	-.0301	.0100	783.
.3730	302.	-1862.	186.	923.	949.	46.	-.0052	.0076	-.0300	-.0774	-.0351	.0135	893.
.3740	464.	-1759.	111.	1082.	1022.	266.	-.0095	.0074	-.0271	-.0742	-.0394	.0177	1019.
.3750	630.	-1616.	20.	1249.	1072.	510.	-.0144	.0072	-.0240	-.0703	-.0431	.0226	1162.

ADLPIPE PAGE 1134

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.21.

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

.3640	-489.	-894.	206.	153.	-350.	-187.	.0062	.0042	-.0233	-.0475	.0168	-.0046	291.
.3650	-394.	-1128.	204.	234.	-156.	-261.	.0058	.0053	-.0280	-.0584	.0092	-.0025	259.
.3670	-747.	-1344.	215.	307.	44.	-328.	.0055	.0062	-.0316	-.0672	.0019	-.0007	304.
.3680	-286.	-1544.	235.	376.	237.	-375.	.0051	.0069	-.0339	-.0738	-.0053	.0010	392.
.3690	-207.	-1710.	257.	453.	419.	-387.	.0044	.0073	-.0351	-.0781	-.0121	.0027	491.
.3700	-109.	-1833.	269.	543.	584.	-354.	.0031	.0076	-.0351	-.0803	-.0186	.0047	588.
.3710	9.	-1900.	265.	652.	729.	-271.	.0011	.0077	-.0341	-.0808	-.0246	.0071	684.
.3720	148.	-1910.	238.	779.	851.	-136.	-.0017	.0077	-.0323	-.0797	-.0301	.0100	783.
.3730	302.	-1862.	186.	923.	949.	46.	-.0052	.0076	-.0300	-.0774	-.0351	.0135	893.
.3740	464.	-1759.	111.	1082.	1022.	266.	-.0095	.0074	-.0271	-.0742	-.0394	.0177	1019.
.3750	630.	-1616.	20.	1249.	1072.	510.	-.0144	.0072	-.0240	-.0703	-.0431	.0226	1162.

ADLPIPE PAGE 1134

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.21.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	25	MEMBER	1	SEQUENCE	43	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)		
.3760	795.	-1458.	-80.	1416.	1100.	765.	-.0198	.0069	-.0207	-.0659	-.0462	.0280	1314.		
.3770	954.	-1303.	-177.	1576.	1108.	1016.	-.0253	.0067	-.0173	-.0613	-.0485	.0338	1468.		
.3780	1104.	-1166.	-264.	1722.	1099.	1253.	-.0307	.0064	-.0140	-.0568	-.0501	.0397	1615.		
.3790	1241.	-1051.	-337.	1848.	1075.	1463.	-.0358	.0062	-.0108	-.0524	-.0511	.0454	1746.		
.3800	1357.	-954.	-399.	1951.	1038.	1635.	-.0402	.0060	-.0080	-.0483	-.0513	.0506	1853.		
.3810	1446.	-870.	-449.	2027.	992.	1760.	-.0438	.0058	-.0057	-.0447	-.0510	.0551	1929.		
.3820	1507.	-798.	-485.	2074.	940.	1833.	-.0464	.0057	-.0038	-.0417	-.0501	.0585	1970.		
.3830	1540.	-749.	-503.	2088.	883.	1853.	-.0479	.0055	-.0026	-.0395	-.0486	.0608	1974.		
.3840	1544.	-729.	-503.	2069.	822.	1820.	-.0482	.0055	-.0021	-.0382	-.0467	.0618	1938.		
.3850	1516.	-729.	-487.	2019.	760.	1732.	-.0473	.0054	-.0022	-.0377	-.0443	.0615	1865.		
.3860	1458.	-735.	-458.	1938.	696.	1592.	-.0453	.0054	-.0029	-.0379	-.0414	.0601	1754.		
.3870	1371.	-741.	-417.	1830.	628.	1403.	-.0424	.0054	-.0043	-.0389	-.0382	.0575	1611.		
.3880	1259.	-749.	-365.	1697.	556.	1174.	-.0386	.0054	-.0061	-.0403	-.0344	.0542	1441.		
.3890	1126.	-751.	-303.	1547.	476.	910.	-.0342	.0055	-.0083	-.0420	-.0302	.0502	1249.		
.3900	974.	-731.	-234.	1367.	389.	613.	-.0294	.0055	-.0107	-.0437	-.0256	.0458	1043.		
.3910	802.	-681.	-161.	1178.	293.	289.	-.0245	.0055	-.0131	-.0451	-.0204	.0415	841.		
.3920	617.	-612.	-80.	975.	189.	54.	-.0196	.0054	-.0153	-.0458	-.0149	.0374	671.		
.3930	427.	-541.	14.	761.	77.	-411.	-.0149	.0053	-.0171	-.0458	-.0090	.0339	585.		
.3940	236.	-478.	120.	539.	-40.	-772.	-.0106	.0052	-.0185	-.0449	-.0029	.0312	636.		
.3950	45.	-413.	231.	318.	-158.	-1131.	-.0068	.0050	-.0193	-.0431	.0032	.0293	799.		
.3960	-138.	-339.	339.	106.	-274.	-1475.	-.0037	.0047	-.0196	-.0403	.0092	.0283	1013.		
.3970	-304.	-263.	442.	-89.	-384.	-1786.	-.0013	.0045	-.0193	-.0369	.0148	.0280	1233.		
.3980	-442.	-205.	537.	-259.	-484.	-2047.	.0004	.0042	-.0186	-.0331	.0197	.0283	1429.		
.3990	-545.	-163.	614.	-395.	-569.	-2246.	.0015	.0039	-.0176	-.0292	.0238	.0291	1584.		
.4000	-611.	-119.	666.	-487.	-637.	-2373.	.0018	.0036	-.0163	-.0256	.0269	.0301	1688.		

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)
.0430	4224.	3664.	-2790.	3477.	1705.	8484.	-.1025	-.0134	.1023	.1557	-.1058	.0513	6286.

SECTION	25	MEMBER	2	SEQUENCE	B12	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)		

ADLPIPE PAGE 1135

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.21.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

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)
.0430	4224.	3664.	-2790.	3477.	1705.	8434.	-.1025	-.0134	.1023	.1557	-.1058	.0513	6286.

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)	(PSI)
25	2	812					

ADLPIPE PAGE 1135

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.21.

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	EL	STRESS
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	(PSI)
0.0000	0.	0.	0.	0.	0.	0.	0.
.0010	2.	0.	1.	-1.	0.	1.	1.
.0020	8.	3.	6.	-4.	1.	4.	4.
.0030	16.	20.	7.	-10.	0.	14.	12.
.0040	20.	71.	-3.	-25.	-2.	32.	28.
.0050	22.	163.	-19.	-51.	-5.	59.	53.
.0060	24.	277.	-29.	-87.	-12.	91.	85.
.0070	37.	397.	-29.	-128.	-19.	127.	122.
.0080	75.	547.	-30.	-177.	-29.	183.	173.
.0090	120.	780.	-57.	-236.	-50.	278.	248.
.0100	157.	1125.	-120.	-307.	-91.	415.	353.
.0110	202.	1533.	-186.	-387.	-153.	571.	476.
.0120	246.	1891.	-219.	-451.	-244.	714.	592.
.0130	255.	2126.	-197.	-480.	-376.	814.	685.
.0140	195.	2240.	-119.	-484.	-552.	838.	751.
.0150	52.	2230.	18.	-479.	-761.	750.	789.
.0160	-183.	2030.	207.	-453.	-987.	522.	813.
.0170	-442.	1589.	430.	-384.	-1213.	177.	866.
.0180	-624.	942.	667.	-263.	-1422.	-211.	985.
.0190	-675.	196.	889.	-105.	-1604.	-567.	1149.
.0200	-497.	-487.	1031.	43.	-1733.	-821.	1293.
.0210	-262.	-873.	907.	182.	-1841.	-938.	1398.
.0220	-448.	-793.	602.	303.	-2074.	-955.	1553.
.0230	-843.	-567.	513.	310.	-2359.	-1081.	1761.
.0240	-1259.	-1022.	738.	305.	-2552.	-1674.	2068.
.0250	-1593.	-2451.	1120.	462.	-2631.	-2622.	2523.
.0260	-1669.	-4061.	1638.	712.	-2746.	-3378.	2973.
.0270	-2320.	-4911.	2157.	774.	-2971.	-3986.	3391.
.0280	-3200.	-4884.	2188.	389.	-2826.	-4966.	3860.
.0290	-3187.	-4653.	1725.	-69.	-2193.	-5849.	4211.
.0300	-3079.	-4880.	1740.	166.	-1975.	-5467.	3920.
.0310	-3050.	-5419.	1816.	731.	-1750.	-4690.	3412.
.0320	-2085.	-5475.	1314.	838.	-723.	-4428.	3077.
.0330	-818.	-4856.	588.	891.	452.	-3786.	2639.
.0340	-284.	-4289.	135.	1579.	959.	-2056.	1863.
.0350	350.	-4276.	-176.	2406.	1473.	-344.	1916.
.0360	1755.	-4486.	-553.	2737.	2546.	561.	2548.
.0370	2748.	-4247.	-877.	2964.	3331.	1690.	3214.

ADLPIPE PAGE 1136

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.21.

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

.0270	-2320.	-4911.	157.	774.	-2971.	-3986.	.0235	.0047	-.0645	-.1329	.0810	.0012	3391.
.0280	-3200.	-4884.	188.	359.	-2826.	-4966.	.0243	.0052	-.0736	-.1457	.0764	.0093	3860.
.0290	-3187.	-4653.	1725.	-69.	-2193.	-5849.	.0259	.0056	-.0820	-.1561	.0586	.0149	4211.
.0300	-3079.	-4280.	1740.	166.	-1975.	-5467.	.0272	.0059	-.0877	-.1689	.0525	.0089	3920.
.0310	-2050.	-5415.	1816.	731.	-1758.	-4670.	.0280	.0062	-.0906	-.1802	.0466	.0003	3412.
.0320	-2085.	-5475.	1314.	838.	-723.	-4428.	.0285	.0062	-.0908	-.1814	.0182	-.0031	3077.
.0330	-818.	-4856.	588.	891.	452.	-3786.	.0270	.0058	-.0876	-.1747	-.0140	-.0074	2639.
.0340	-284.	-4285.	135.	1579.	959.	-2056.	.0219	.0052	-.0798	-.1662	-.0280	-.0156	1863.
.0350	350.	-4276.	-176.	2406.	1473.	-344.	.0136	.0046	-.0678	-.1521	-.0422	-.0173	1916.
.0360	1755.	-4486.	-553.	2737.	2546.	561.	.0027	.0040	-.0524	-.1272	-.0720	-.0063	2548.
.0370	2748.	-4247.	-877.	2964.	3331.	1690.	-.0118	.0031	-.0346	-.0962	-.0942	.0085	3214.

ADLPIPE PAGE 1136

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.21.

S/RV PIPING KEWAUNEE GKW00F 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	25	MEMBER	2	SEQUENCE	812	LOCATION	END	TYPE	EL					
TIME	FX	FY	FZ	HX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.0380	2653.	-3038.	-1268.	3328.	3347.	3643.	-.0298	.0019	-.0152	-.0628	-.0957	.0208	4019.	
.0390	2685.	-877.	-2074.	3188.	3477.	5281.	-.0485	.0003	.0049	-.0219	-.1005	.0364	4773.	
.0400	3576.	1337.	-2954.	2500.	4052.	6128.	-.0651	-.0013	.0260	.0265	-.1174	.0559	5231.	
.0410	3829.	2515.	-3110.	2216.	4064.	7054.	-.0790	-.0027	.0488	.0724	-.1182	.0708	5687.	
.0420	3673.	2894.	-2849.	2316.	3607.	8079.	-.0889	-.0039	.0720	.1141	-.1054	.0786	6164.	
.0430	4224.	3664.	-2790.	1930.	3488.	8484.	-.0934	-.0053	.0936	.1583	-.1015	.0819	6318.	
.0440	4620.	5074.	-2948.	1120.	3443.	8340.	-.0927	-.0066	.1122	.2019	-.0992	.0808	6128.	
.0450	4011.	6188.	-2885.	471.	2946.	8036.	-.0877	-.0078	.1272	.2369	-.0842	.0737	5778.	
.0460	3294.	6317.	-2311.	-127.	2361.	7283.	-.0780	-.0085	.1381	.2626	-.0663	.0634	5161.	
.0470	3111.	5630.	-1538.	-932.	2121.	5786.	-.0635	-.0087	.1434	.2791	-.0578	.0525	4201.	
.0480	2611.	4841.	-943.	-1685.	1834.	4169.	-.0461	-.0085	.1417	.2823	-.0479	.0376	3274.	
.0490	1421.	4725.	-554.	-2329.	1227.	3013.	-.0271	-.0082	.1326	.2717	-.0296	.0149	2697.	
.0500	369.	5325.	-421.	-3184.	785.	1914.	-.0067	-.0078	.1167	.2517	-.0161	-.0119	2559.	
.0510	-300.	5716.	-502.	-4042.	679.	565.	.0150	-.0071	.0957	.2224	-.0121	-.0381	2789.	
.0520	-886.	5103.	-436.	-4308.	476.	-506.	.0366	-.0059	.0722	.1912	-.0053	-.0660	2941.	
.0530	-1262.	3694.	4.	-4007.	52.	-1052.	.0569	-.0044	.0480	.1321	.0075	-.0959	2793.	
.0540	-1442.	2141.	508.	-3680.	-266.	-1694.	.0746	-.0030	.0237	.0826	.0170	-.1202	2737.	
.0550	-1807.	787.	729.	-3548.	-399.	-2773.	.0883	-.0015	-.0001	.0361	.0211	-.1332	3047.	
.0560	-2328.	-343.	831.	-3418.	-640.	-3735.	.0970	-.0000	-.0223	-.0072	.0274	-.1384	3440.	
.0570	-2789.	-1360.	1099.	-3182.	-1139.	-4207.	.1003	.0012	-.0415	-.0460	.0404	-.1389	3637.	
.0580	-3284.	-2295.	1382.	-3034.	-1674.	-4651.	.0987	.0023	-.0572	-.0774	.0540	-.1309	3910.	
.0590	-3759.	-2846.	1392.	-3170.	-2011.	-5362.	.0930	.0032	-.0688	-.0982	.0518	-.1130	4412.	
.0600	-4026.	-2671.	1184.	-3438.	-2312.	-5783.	.0839	.0036	-.0755	-.1076	.0684	-.0928	4795.	
.0610	-4140.	-2010.	947.	-3514.	-2787.	-5506.	.0726	.0035	-.0760	-.1071	.0799	-.0757	4787.	
.0620	-4165.	-1580.	782.	-3354.	-3248.	-5032.	.0603	.0032	-.0699	-.0972	.0914	-.0586	4627.	
.0630	-3747.	-1833.	796.	-3102.	-3396.	-4835.	.0484	.0028	-.0574	-.0774	.0949	-.0387	4498.	
.0640	-2893.	-2600.	1064.	-2682.	-3403.	-4544.	.0368	.0023	-.0400	-.0506	.0949	-.0199	4232.	
.0650	-2227.	-3259.	1385.	-2056.	-3571.	-3767.	.0250	.0015	-.0199	-.0209	.0995	-.0056	3764.	
.0660	-1906.	-3128.	1415.	-1644.	-3692.	-2853.	.0132	.0006	.0002	.0117	.1027	.0066	3335.	
.0670	-1488.	-2015.	1036.	-1771.	-3463.	-2117.	.0023	-.0005	.0183	.0474	.0961	.0181	2985.	
.0680	-1054.	-335.	460.	-2096.	-3157.	-1171.	-.0071	-.0018	.0340	.0815	.0873	.0244	2673.	
.0690	-955.	1502.	-119.	-2269.	-3063.	218.	-.0144	-.0030	.0477	.1106	.0845	.0222	2573.	
.0700	-830.	3445.	-722.	-2517.	-2862.	1517.	-.0181	-.0042	.0599	.1378	.0791	.0145	2765.	
.0710	-356.	5322.	-1308.	-2960.	-2333.	2327.	-.0172	-.0054	.0712	.1655	.0652	.0033	2985.	
.0720	11.	6600.	-1592.	-3189.	-1845.	2919.	-.0122	-.0064	.0825	.1901	.0531	-.0127	3169.	
.0730	125.	6915.	-1382.	-3020.	-1562.	3396.	-.0037	-.0072	.0936	.2092	.0471	-.0329	3239.	
.0740	492.	6373.	-840.	-2777.	-1137.	3364.	.0075	-.0076	.1031	.2236	.0376	-.0523	3039.	
.0750	1004.	5353.	-279.	-2624.	-529.	2796.	.0198	-.0077	.1090	.2317	.0229	-.0680	2609.	

ADLPIPE PAGE 1137

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.21.

S/RV PIPING KEWAUNEE GKW00F 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

.0650	-2227.	-3259.	1385.	-2056.	-3571.	-2767.	.0250	.0015	-.0199	-.0209	.0995	-.0056	3764.
.0660	-1906.	-3128.	1415.	-1644.	-3692.	-2853.	.0132	.0006	.0002	.0117	.1027	.0066	3335.
.0670	-1488.	-2015.	1036.	-1771.	-3463.	-2117.	.0023	-.0005	.0183	.0474	.0961	.0181	2985.
.0680	-1054.	-335.	460.	-2096.	-3157.	-1171.	-.0071	-.0018	.0340	.0815	.0873	.0244	2673.
.0690	-955.	1502.	-119.	-2269.	-3067.	218.	-.0144	-.0030	.0477	.1106	.0845	.0222	2573.
.0700	-730.	3445.	-722.	-2517.	-2862.	1517.	-.0181	-.0042	.0599	.1378	.0791	.0145	2765.
.0710	-356.	5322.	-1308.	-2960.	-2333.	2327.	-.0172	-.0054	.0712	.1655	.0552	.0033	2985.
.0720	11.	6600.	-1592.	-2159.	-1845.	2919.	-.0122	-.0064	.0825	.1901	.0531	-.0127	3169.
.0730	125.	6915.	-1382.	-3020.	-1562.	3396.	-.0037	-.0072	.0936	.2092	.0471	-.0329	3239.
.0740	492.	6373.	-840.	-2777.	-1137.	3364.	.0075	-.0076	.1031	.2236	.0376	-.0523	3039.
.0750	1004.	5353.	-239.	-2624.	-529.	2796.	.0198	-.0077	.1090	.2317	.0229	-.0680	2609.

ADLPIPE PAGE 1137

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.21.

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	25	MEMBER	2	SEQUENCE	812	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)		
.0760	1071.	4433.	261.	-2480.	-75.	2205.	.0308	-.0075	.1093	.2298	.0120	-.0811	2237.		
.0770	803.	4216.	470.	-2496.	239.	1815.	.0389	-.0072	.1029	.2181	.0040	-.0917	2087.		
.0780	652.	4315.	205.	-2835.	681.	1445.	.0438	-.0068	.0901	.1989	-.0085	-.0975	2193.		
.0790	470.	5729.	-398.	-3231.	1154.	1125.	.0451	-.0061	.0727	.1724	-.0225	-.0977	2434.		
.0800	88.	6349.	-943.	-3332.	1443.	1029.	.0431	-.0053	.0538	.1396	-.0320	-.0937	2544.		
.0810	-32.	6260.	-1236.	-3081.	1693.	1010.	.0384	-.0043	.0360	.1047	-.0405	-.0850	2465.		
.0820	301.	5196.	-1311.	-2461.	2029.	859.	.0317	-.0031	.0211	.0702	-.0513	-.0705	2226.		
.0830	646.	3213.	-1138.	-1394.	2262.	685.	.0226	-.0018	.0098	.0365	-.0592	-.0505	1849.		
.0840	889.	757.	-700.	-48.	2325.	609.	.0110	-.0004	.0013	.0047	-.0624	-.0266	1620.		
.0850	1309.	-1717.	-232.	1273.	2389.	549.	-.0028	.0008	-.0058	-.0243	-.0559	.0012	1862.		
.0860	1715.	-3889.	5.	2458.	2436.	536.	-.0188	.0021	-.0131	-.0522	-.0693	.0322	2360.		
.0870	1755.	-5305.	-23.	3419.	2319.	746.	-.0365	.0032	-.0218	-.0794	-.0685	.0635	2830.		
.0880	1614.	-5589.	-300.	3959.	2128.	1156.	-.0547	.0040	-.0320	-.1036	-.0660	.0923	3129.		
.0890	1540.	-5018.	-854.	4124.	1999.	1590.	-.0711	.0046	-.0425	-.1238	-.0653	.1172	3270.		
.0900	1413.	-4356.	-1470.	4249.	1836.	1997.	-.0842	.0050	-.0516	-.1409	-.0630	.1363	3398.		
.0910	1263.	-4204.	-1728.	4516.	1584.	2313.	-.0924	.0053	-.0575	-.1542	-.0575	.1479	3583.		
.0920	1344.	-4316.	-1459.	4868.	1386.	2317.	-.0947	.0056	-.0594	-.1619	-.0523	.1524	3752.		
.0930	1594.	-6148.	-262.	5285.	1285.	1940.	-.0911	.0060	-.0581	-.1653	-.0488	.1510	3892.		
.0940	1747.	-7685.	-158.	5719.	1157.	1442.	-.0829	.0062	-.0554	-.1668	-.0439	.1424	4051.		
.0950	1755.	-8655.	506.	5917.	972.	1038.	-.0713	.0063	-.0535	-.1666	-.0371	.1264	4102.		
.0960	1602.	-8637.	909.	5652.	818.	672.	-.0575	.0062	-.0541	-.1649	-.0312	.1051	3876.		
.0970	1164.	-7650.	898.	4933.	697.	305.	-.0426	.0059	-.0575	-.1630	-.0265	.0808	3364.		
.0980	507.	-5789.	593.	3863.	529.	86.	-.0268	.0054	-.0629	-.1600	-.0206	.0530	2629.		
.0990	-209.	-3268.	214.	2541.	291.	42.	-.0103	.0047	-.0680	-.1533	-.0127	.0212	1724.		
.1000	-989.	-630.	-110.	1120.	34.	-94.	.0075	.0038	-.0705	-.1405	-.0041	-.0119	758.		
.1010	-1795.	1507.	-220.	-221.	-195.	-552.	.0265	.0028	-.0681	-.1205	.0043	-.0437	422.		
.1020	-2386.	2793.	98.	-1327.	-405.	-1249.	.0469	.0018	-.0597	-.0927	.0128	-.0747	1258.		
.1030	-2666.	3163.	840.	-2084.	-639.	-1994.	.0676	.0007	-.0457	-.0593	.0225	-.1052	1991.		
.1040	-2785.	2871.	1732.	-2528.	-880.	-2739.	.0872	-.0003	-.0281	-.0233	.0327	-.1328	2581.		
.1050	-2765.	2507.	2485.	-2878.	-1040.	-3443.	.1038	-.0013	-.0097	.0130	.0403	-.1555	3105.		
.1060	-2560.	2597.	2910.	-3271.	-1108.	-3907.	.1156	-.0022	.0066	.0467	.0446	-.1723	3515.		
.1070	-2364.	3226.	2925.	-3620.	-1198.	-3926.	.1211	-.0031	.0191	.0738	.0484	-.1825	3689.		
.1080	-2074.	4181.	2580.	-3877.	-1286.	-3514.	.1195	-.0038	.0274	.0925	.0511	-.1846	3632.		
.1090	-1396.	5266.	1988.	-4028.	-1306.	-2703.	.1110	-.0043	.0318	.1036	.0507	-.1782	3386.		
.1100	-1376.	6406.	1078.	-3921.	-1475.	-1799.	.0954	-.0046	.0336	.1071	.0535	-.1599	3073.		
.1110	-1188.	7416.	201.	-3727.	-1548.	-1011.	.0746	-.0047	.0345	.1080	.0529	-.1309	2804.		
.1120	-459.	7319.	-153.	-3209.	-1556.	-345.	.0501	-.0045	.0360	.1057	.0502	-.0935	2415.		
.1130	95.	5372.	-90.	-1963.	-1750.	166.	.0233	-.0037	.0383	.0949	.0527	-.0481	1776.		

ADLPIPE PAGE 1138

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.21.

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	-2666.	3163.	140.	-2084.	-639.	-1994.	.0676	.0007	-.0457	-.0593	.0225	-.1052	1991.
.1040	-2785.	2871.	1732.	-2526.	-880.	-2739.	.0872	-.0003	-.0281	-.0233	.0327	-.1328	2581.
.1050	-2765.	2507.	2485.	-2878.	-1040.	-3443.	.1038	-.0013	-.0097	.0130	.0403	-.1555	3105.
.1060	-2560.	2597.	2910.	-3271.	-1108.	-3907.	.1156	-.0022	.0066	.0467	.0446	-.1723	3515.
.1070	-2364.	3226.	2925.	-3620.	-1198.	-3926.	.1211	-.0031	.0191	.0738	.0494	-.1825	3689.
.1080	-2074.	4181.	2580.	-3877.	-1286.	-3514.	.1195	-.0038	.0274	.0925	.0511	-.1846	3632.
.1090	-1396.	5266.	1988.	-4028.	-1306.	-2703.	.1110	-.0043	.0318	.1036	.0507	-.1782	3386.
.1100	-1376.	6406.	1078.	-3921.	-1475.	-1799.	.0954	-.0046	.0336	.1071	.0535	-.1599	3073.
.1110	-1188.	7416.	201.	-3727.	-1548.	-1011.	.0746	-.0047	.0345	.1080	.0529	-.1309	2804.
.1120	-459.	7319.	-153.	-3209.	-1556.	-345.	.0501	-.0045	.0360	.1057	.0502	-.0935	2415.
.1130	95.	5372.	-90.	-1963.	-1750.	166.	.0233	-.0037	.0383	.0949	.0527	-.0481	1776.

ADLPIPE PAGE 1138

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.21.

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	25	MEMBER	2	SEQUENCE	812	LOCATION	END	TYPE	CL						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.1140	426.	2640.	137.	-449.	-1996.	415.	-.0048	-.0026	.0397	.0788	.0566	.0027	1407.		
.1150	938.	695.	412.	646.	-2096.	515.	-.0324	-.0016	.0382	.0630	.0561	.0533	1518.		
.1160	1233.	-440.	502.	1488.	-2254.	736.	-.0587	-.0007	.0326	.0430	.0571	.0993	1887.		
.1170	1083.	-1359.	113.	2326.	-2485.	960.	-.0819	.0004	.0222	.0145	.0601	.1400	2384.		
.1180	440.	-1823.	-190.	2830.	-2720.	961.	-.1003	.0016	.0082	-.0170	.0635	.1737	2724.		
.1190	396.	-1898.	-373.	2744.	-2476.	426.	-.1114	.0026	-.0083	-.0461	.0543	.1987	2508.		
.1200	537.	-2612.	-451.	2807.	-2116.	-217.	-.1144	.0037	-.0257	-.0791	.0430	.2110	2374.		
.1210	27.	-4158.	-77.	3399.	-2137.	-458.	-.1100	.0050	-.0424	-.1176	.0433	.2069	2724.		
.1220	-132.	-5307.	116.	3696.	-1742.	-1003.	-.0978	.0061	-.0586	-.1513	.0331	.1913	2836.		
.1230	-21.	-5431.	153.	3501.	-938.	-1769.	-.0792	.0067	-.0735	-.1764	.0124	.1653	2719.		
.1240	170.	-5553.	134.	3533.	-149.	-2154.	-.0564	.0071	-.0861	-.1995	-.0072	.1280	2791.		
.1250	415.	-6503.	367.	4102.	419.	-1966.	-.0319	.0076	-.0957	-.2236	-.0201	.0829	3079.		
.1260	653.	-7536.	947.	4601.	974.	-1662.	-.0080	.0080	-.1024	-.2418	-.0326	.0379	3362.		
.1270	1437.	-7513.	903.	4505.	1992.	-1648.	.0131	.0079	-.1073	-.2493	-.0582	-.0005	3501.		
.1280	1771.	-6241.	422.	4321.	2662.	-974.	.0285	.0075	-.1097	-.2500	-.0749	-.0360	3483.		
.1290	1657.	-4340.	-176.	4257.	2807.	404.	.0370	.0067	-.1084	-.2444	-.0778	-.0665	3448.		
.1300	1710.	-2484.	-713.	3939.	2972.	1418.	.0393	.0057	-.1021	-.2273	-.0819	-.0822	3460.		
.1310	1602.	-1144.	-898.	3428.	3101.	1734.	.0358	.0047	-.0897	-.1979	-.0853	-.0802	3328.		
.1320	1615.	-559.	-879.	3104.	3043.	1789.	.0274	.0037	-.0714	-.1609	-.0837	-.0661	3168.		
.1330	1396.	-593.	-301.	3117.	2454.	2087.	.0149	.0027	-.0487	-.1196	-.0677	-.0463	3021.		
.1340	1141.	-323.	334.	2988.	1861.	1932.	-.0001	.0017	-.0243	-.0745	-.0517	-.0176	2707.		
.1350	921.	-749.	588.	2477.	1545.	1101.	-.0158	.0008	-.0015	-.0281	-.0437	.0189	2103.		
.1360	370.	-269.	903.	1973.	989.	550.	-.0313	-.0002	.0179	.0126	-.0293	.0517	1533.		
.1370	49.	110.	1171.	1663.	371.	359.	-.0446	-.0009	.0322	.0420	-.0132	.0772	1174.		
.1380	-273.	34.	1434.	1418.	-82.	2.	-.0545	-.0011	.0401	.0585	-.0015	.0985	958.		
.1390	-423.	-138.	1400.	1000.	-65.	-817.	-.0597	-.0010	.0407	.0634	-.0027	.1160	871.		
.1400	-453.	33.	1159.	618.	126.	-1388.	-.0601	-.0007	.0345	.0561	-.0085	.1221	1028.		
.1410	-792.	231.	1101.	623.	92.	-1229.	-.0561	-.0003	.0228	.0350	-.0079	.1131	931.		
.1420	-720.	-154.	792.	807.	450.	-1217.	-.0474	.0006	.0067	.0035	-.0175	.0977	1030.		
.1430	-299.	-1014.	466.	1010.	1180.	-1455.	-.0350	.0016	-.0120	-.0334	-.0371	.0784	1435.		
.1440	301.	-1765.	182.	1333.	1917.	-1330.	-.0208	.0027	-.0314	-.0725	-.0567	.0523	1811.		
.1450	780.	-2121.	-196.	1849.	2423.	-620.	-.0070	.0035	-.0498	-.1112	-.0699	.0208	2096.		
.1460	999.	-2189.	-610.	2311.	2811.	150.	.0048	.0041	-.0653	-.1439	-.0800	-.0080	2455.		
.1470	1652.	-2219.	-1200.	2471.	3458.	424.	.0138	.0045	-.0763	-.1652	-.0972	-.0269	2879.		
.1480	2114.	-2454.	-1455.	2705.	3771.	781.	.0182	.0048	-.0809	-.1761	-.1055	-.0382	3172.		
.1490	2313.	-3001.	-1411.	3141.	3628.	1329.	.0171	.0048	-.0787	-.1769	-.1015	-.0412	3356.		
.1500	2571.	-3663.	-1309.	3417.	3392.	1548.	.0108	.0046	-.0703	-.1653	-.0952	-.0313	3409.		
.1510	2568.	-4099.	-1043.	3372.	3012.	1413.	-.0007	.0042	-.0570	-.1411	-.0854	-.0088	3193.		

ADLPIPE PAGE 1139

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.21.

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	-792.	231.	1101.	623.	92.	-1229.	-0561	-0003	.0228	.0350	-0079	.1131	931.
.1420	-720.	-154.	792.	807.	450.	-1217.	-0474	.0006	.0067	.0035	-0175	.0977	1030.
.1430	-299.	-1014.	466.	1010.	1180.	-1455.	-0350	.0016	-.0120	-.0334	-.0371	.0784	1435.
.1440	301.	-1765.	182.	1333.	1917.	-1330.	-.0208	.0027	-.0314	-.0725	-.0567	.0523	1811.
.1450	780.	-2121.	-196.	1849.	2427.	-620.	-.0070	.0035	-.0498	-.1112	-.0699	.0208	2096.
.1460	959.	-2189.	-610.	2311.	2811.	150.	.0048	.0041	-.0653	-.1439	-.0800	-.0080	2455.
.1470	1652.	-2219.	-1200.	2471.	3458.	424.	.0138	.0045	-.0763	-.1652	-.0972	-.0269	2879.
.1480	2114.	-2454.	-1455.	2705.	3771.	781.	.0182	.0048	-.0809	-.1761	-.1055	-.0382	3172.
.1490	2313.	-3001.	-1411.	3141.	3628.	1329.	.0171	.0048	-.0787	-.1769	-.1015	-.0412	3356.
.1500	2571.	-3663.	-1309.	3417.	3392.	1548.	.0108	.0046	-.0703	-.1653	-.0952	-.0313	3409.
.1510	2568.	-4099.	-1043.	3372.	3012.	1413.	-.0007	.0042	-.0570	-.1411	-.0854	-.0088	3193.

ADLPIPE PAGE 1139

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.21.

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	25	MEMBER	2	SEQUENCE	812	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)			
.1520	2439.	-4105.	-906.	3121.	2473.	1206.	-.0165	.0035	-.0403	-.1084	-.0716	.0217	2804.			
.1530	1943.	-3629.	-749.	2827.	1581.	1291.	-.0352	.0026	-.0216	-.0713	-.0483	.0541	2350.			
.1540	1615.	-2804.	-708.	2317.	731.	1313.	-.0543	.0016	-.0026	-.0307	-.0264	.0875	1861.			
.1550	1480.	-1852.	-763.	1609.	42.	1134.	-.0714	.0006	.0159	.0108	-.0087	.1193	1327.			
.1560	956.	-826.	-647.	966.	-815.	1136.	-.0852	-.0005	.0330	.0492	.0140	.1431	1145.			
.1570	687.	344.	-727.	311.	-1496.	1154.	-.0934	-.0015	.0478	.0840	.0324	.1568	1291.			
.1580	491.	1522.	-766.	-362.	-2017.	1104.	-.0950	-.0025	.0601	.1144	.0470	.1590	1569.			
.1590	129.	2296.	-532.	-959.	-2441.	901.	-.0895	-.0033	.0697	.1385	.0598	.1504	1869.			
.1600	22.	2517.	-270.	-1489.	-2564.	429.	-.0768	-.0038	.0759	.1552	.0650	.1320	2020.			
.1610	59.	2606.	-55.	-1958.	-2508.	-35.	-.0580	-.0041	.0780	.1638	.0658	.1025	2145.			
.1620	-306.	3018.	299.	-2379.	-2566.	-179.	-.0349	-.0045	.0760	.1650	.0701	.0618	2362.			
.1630	-509.	3725.	285.	-2925.	-2346.	-437.	-.0086	-.0047	.0698	.1600	.0668	.0164	2545.			
.1640	-681.	4492.	93.	-3503.	-1970.	-784.	.0189	-.0047	.0604	.1497	.0592	-.0306	2760.			
.1650	-1073.	5094.	135.	-3929.	-1726.	-967.	.0458	-.0047	.0495	.1349	.0550	-.0777	2965.			
.1660	-1212.	5284.	204.	-4204.	-1407.	-1213.	.0705	-.0045	.0383	.1175	.0486	-.1201	3098.			
.1670	-1428.	4986.	412.	-4296.	-1132.	-1585.	.0915	-.0041	.0276	.0987	.0430	-.1540	3179.			
.1680	-1628.	4367.	630.	-4288.	-830.	-2149.	.1073	-.0035	.0179	.0802	.0361	-.1764	3281.			
.1690	-1948.	3577.	1041.	-4140.	-687.	-2613.	.1167	-.0030	.0093	.0623	.0329	-.1882	3332.			
.1700	-2144.	2592.	1415.	-3834.	-618.	-2948.	.1193	-.0023	.0017	.0441	.0310	-.1888	3286.			
.1710	-1956.	1575.	1348.	-3483.	-400.	-3324.	.1151	-.0015	-.0056	.0261	.0242	-.1766	3256.			
.1720	-2117.	908.	1357.	-3107.	-419.	-3385.	.1039	-.0009	-.0122	.0094	.0230	-.1551	3110.			
.1730	-2064.	586.	1203.	-2803.	-408.	-3272.	.0868	-.0003	-.0181	-.0047	.0202	-.1252	2917.			
.1740	-1815.	323.	800.	-2427.	-371.	-2995.	.0650	.0003	-.0227	-.0171	.0163	-.0885	2611.			
.1750	-1705.	109.	343.	-1931.	-431.	-2523.	.0401	.0008	-.0250	-.0266	.0148	-.0478	2161.			
.1760	-1350.	-1.	-129.	-1482.	-364.	-2070.	.0139	.0011	-.0245	-.0302	.0098	-.0049	1733.			
.1770	-965.	-378.	-289.	-919.	-329.	-1523.	-.0120	.0013	-.0206	-.0291	.0060	.0366	1219.			
.1780	-379.	-1366.	-432.	-109.	-211.	-991.	-.0359	.0015	-.0140	-.0263	.0004	.0754	687.			
.1790	85.	-2556.	-427.	840.	-127.	-353.	-.0569	.0017	-.0056	-.0218	-.0037	.1082	620.			
.1800	512.	-3382.	-286.	1641.	15.	355.	-.0741	.0017	.0031	-.0147	-.0090	.1330	1132.			
.1810	1264.	-3892.	-447.	2255.	438.	971.	-.0865	.0016	.0104	-.0078	-.0216	.1497	1681.			
.1820	1652.	-4263.	-618.	2920.	736.	1821.	-.0943	.0015	.0156	-.0053	-.0302	.1559	2372.			
.1830	1952.	-4314.	-821.	3446.	1050.	2750.	-.0971	.0014	.0179	-.0061	-.0389	.1519	3055.			
.1840	2311.	-3931.	-1060.	3657.	1495.	3534.	-.0946	.0012	.0173	-.0084	-.0508	.1394	3573.			
.1850	2543.	-3385.	-1386.	3698.	1975.	4123.	-.0875	.0011	.0144	-.0133	-.0633	.1202	3963.			
.1860	2717.	-2891.	-1783.	3665.	2444.	4513.	-.0761	.0010	.0099	-.0204	-.0751	.0955	4251.			
.1870	2633.	-2416.	-1822.	3518.	2721.	4783.	-.0614	.0009	.0051	-.0269	-.0812	.0659	4402.			
.1880	2637.	-2033.	-1780.	3145.	3052.	4598.	-.0443	.0008	.0006	-.0308	-.0896	.0365	4281.			
.1890	2492.	-1795.	-1707.	2663.	3310.	4049.	-.0261	.0007	-.0031	-.0323	-.0937	.0088	3956.			

ADLPIPE PAGE 1140

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.21.

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

.1790	85.	-2556.	-427.	840.	-127.	-353.	-.569	.0017	-.0140	-.0218	-.0037	.1082	620.
.1800	512.	-3382.	-286.	1641.	15.	355.	-.741	.0017	.0031	-.0147	-.0090	.1330	1132.
.1810	1264.	-3892.	-447.	2255.	438.	971.	-.0865	.0016	.0104	-.0078	-.0216	.1497	1681.
.1820	1652.	-4263.	-618.	2920.	736.	1821.	-.0943	.0015	.0156	-.0053	-.0302	.1559	2372.
.1830	1952.	-4314.	-821.	3446.	1050.	2750.	-.0971	.0014	.0179	-.0061	-.0389	.1519	3055.
.1840	2211.	-3931.	-1060.	3657.	1495.	3534.	-.0946	.0012	.0173	-.0084	-.0508	.1394	3573.
.1850	2543.	-3385.	-1386.	3698.	1975.	4123.	-.0875	.0011	.0144	-.0133	-.0633	.1202	3963.
.1860	2717.	-2891.	-1783.	3665.	2444.	4513.	-.0761	.0010	.0099	-.0204	-.0751	.0955	4251.
.1870	2633.	-2416.	-1822.	3516.	2721.	4783.	-.0614	.0009	.0051	-.0269	-.0812	.0659	4402.
.1880	2637.	-2033.	-1780.	3145.	3052.	4598.	-.0443	.0008	.0006	-.0308	-.0886	.0365	4281.
.1890	2492.	-1795.	-1707.	2663.	3310.	4049.	-.0261	.0007	-.0021	-.0323	-.0937	.0088	3956.

ADLPIPE PAGE 1140

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.21.

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	EL										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)				
.1900	2112.	-1517.	-1448.	2116.	3326.	3442.	-.0084	.0006	-.0052	-.0305	-.0922	-.0173			3527.	
.1910	1904.	-1047.	-1189.	1396.	3283.	2743.	.0078	.0003	-.0059	-.0241	-.0392	-.0402			3033.	
.1920	1557.	-395.	-988.	580.	3101.	1997.	.0212	-.0001	-.0049	-.0135	-.0827	-.0577			2517.	
.1930	1066.	463.	-922.	-287.	2801.	1247.	.0311	-.0006	-.0020	.0011	-.0733	-.0690			2076.	
.1940	641.	1495.	-845.	-1172.	2395.	639.	.0373	-.0012	.0030	.0202	-.0513	-.0752			1848.	
.1950	279.	2380.	-671.	-1925.	1864.	218.	.0398	-.0019	.0106	.0423	-.0462	-.0763			1812.	
.1960	-115.	2865.	-486.	-2452.	1262.	-129.	.0388	-.0025	.0203	.0656	-.0293	-.0716			1861.	
.1970	-436.	3144.	-303.	-2847.	676.	-421.	.0351	-.0031	.0315	.0899	-.0131	-.0623			1992.	
.1980	-633.	3440.	-80.	-3145.	98.	-522.	.0295	-.0038	.0433	.1145	.0027	-.0515			2150.	
.1990	-831.	3624.	109.	-3245.	-511.	-394.	.0228	-.0043	.0545	.1360	.0193	-.0407			2230.	
.2000	-1018.	3596.	194.	-3173.	-1071.	-177.	.0160	-.0047	.0640	.1524	.0344	-.0306			2260.	
.2010	-1052.	3538.	241.	-3089.	-1497.	47.	.0102	-.0050	.0708	.1638	.0459	-.0222			2314.	
.2020	-1012.	3547.	282.	-3004.	-1849.	328.	.0061	-.0052	.0744	.1694	.0552	-.0177			2388.	
.2030	-1060.	3517.	244.	-2857.	-2174.	618.	.0042	-.0052	.0743	.1677	.0539	-.0170			2456.	
.2040	-1135.	3437.	134.	-2746.	-2398.	740.	.0049	-.0049	.0705	.1595	.0700	-.0193			2507.	
.2050	-1165.	3345.	75.	-2763.	-2490.	613.	.0084	-.0046	.0635	.1468	.0725	-.0243			2541.	
.2060	-1253.	3089.	111.	-2802.	-2542.	304.	.0143	-.0041	.0540	.1296	.0740	-.0317			2558.	
.2070	-1430.	2555.	206.	-2781.	-2590.	-143.	.0222	-.0035	.0428	.1081	.0757	-.0410			2563.	
.2080	-1573.	1914.	348.	-2803.	-2567.	-750.	.0313	-.0027	.0303	.0848	.0754	-.0510			2611.	
.2090	-1685.	1384.	503.	-2923.	-2466.	-1456.	.0408	-.0020	.0174	.0618	.0730	-.0608			2758.	
.2100	-1878.	988.	604.	-3033.	-2368.	-2101.	.0498	-.0013	.0047	.0392	.0707	-.0703			2955.	
.2110	-2083.	674.	650.	-3070.	-2283.	-2584.	.0573	-.0007	-.0069	.0180	.0686	-.0789			3112.	
.2120	-2168.	403.	709.	-3056.	-2161.	-2909.	.0629	-.0001	-.0167	-.0002	.0653	-.0856			3195.	
.2130	-2150.	109.	775.	-2962.	-2002.	-3079.	.0661	.0003	-.0240	-.0148	.0609	-.0894			3180.	
.2140	-2094.	-211.	784.	-2732.	-1843.	-3039.	.0664	.0006	-.0285	-.0257	.0564	-.0901			3022.	
.2150	-1982.	-431.	740.	-2407.	-1693.	-2758.	.0639	.0008	-.0302	-.0323	.0519	-.0881			2719.	
.2160	-1799.	-506.	678.	-2058.	-1534.	-2300.	.0587	.0008	-.0292	-.0338	.0471	-.0830			2323.	
.2170	-1589.	-540.	579.	-1687.	-1360.	-1756.	.0511	.0007	-.0256	-.0309	.0417	-.0746			1880.	
.2180	-1347.	-557.	433.	-1299.	-1184.	-1152.	.0417	.0006	-.0200	-.0244	.0361	-.0637			1416.	
.2190	-1061.	-427.	271.	-953.	-1020.	-484.	.0313	.0002	-.0127	-.0143	.0308	-.0515			996.	
.2200	-778.	-111.	92.	-692.	-866.	172.	.0205	-.0002	-.0043	-.0011	.0258	-.0387			756.	
.2210	-522.	273.	-119.	-513.	-700.	707.	.0101	-.0006	.0047	.0141	.0206	-.0254			754.	
.2220	-251.	609.	-306.	-392.	-520.	1088.	.0006	-.0011	.0139	.0302	.0150	-.0124			855.	
.2230	28.	840.	-390.	-303.	-353.	1343.	-.0074	-.0015	.0230	.0462	.0100	-.0007			958.	
.2240	273.	915.	-377.	-228.	-197.	1450.	-.0137	-.0019	.0313	.0607	.0055	.0097			998.	
.2250	477.	842.	-322.	-182.	-17.	1374.	-.0184	-.0021	.0381	.0725	.0004	.0190			934.	
.2260	634.	741.	-250.	-188.	190.	1178.	-.0216	-.0023	.0426	.0808	-.0054	.0267			814.	
.2270	711.	731.	-193.	-231.	395.	982.	-.0236	-.0023	.0446	.0848	-.0111	.0321			730.	

ADLPIPE PAGE 1141

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.21.

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

.2170	-1589.	-540.	579.	-1687.	-1360.	-1756.	.511	.0007	-.0256	-.0307	.0417	-.0746	1880.
.2180	-1347.	-557.	433.	-1299.	-1184.	-1152.	.417	.0006	-.0200	-.0244	.0361	-.0637	1416.
.2190	-1061.	-427.	271.	-953.	-1020.	-484.	.313	.0002	-.0127	-.0143	.0308	-.0515	996.
.2200	-773.	-111.	92.	-657.	-766.	172.	.205	-.0002	-.0043	-.0011	.0258	-.0387	756.
.2210	-522.	273.	-119.	-517.	-700.	707.	.101	-.0006	.0047	.0141	.0206	-.0254	754.
.2220	-251.	609.	-306.	-392.	-520.	1058.	.0006	-.0011	.0139	.0302	.0150	-.0124	855.
.2230	28.	840.	-390.	-303.	-353.	1343.	-.0074	-.0015	.0230	.0462	.0100	-.0007	958.
.2240	273.	915.	-377.	-228.	-197.	1450.	-.0137	-.0019	.0313	.0607	.0055	.0097	998.
.2250	477.	842.	-322.	-182.	-17.	1374.	-.0184	-.0021	.0381	.0725	.0004	.0190	934.
.2260	634.	741.	-250.	-170.	120.	1178.	-.0216	-.0023	.0426	.0808	-.0054	.0267	814.
.2270	711.	731.	-193.	-271.	395.	982.	-.0236	-.0023	.0446	.0848	-.0111	.0321	730.

ADLPIPE PAGE 1141

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.21.

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	25	MEMBER	2	SEQUENCE	812	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)		
.2280	719.	833.	-208.	-284.	605.	839.	-.0244	-.0023	.0436	.0837	-.0171	.0350	723.		
.2290	714.	1005.	-303.	-376.	851.	752.	-.0243	-.0021	.0400	.0779	-.0240	.0354	798.		
.2300	714.	1204.	-430.	-362.	1123.	744.	-.0232	-.0019	.0342	.0680	-.0318	.0334	940.		
.2310	716.	1375.	-566.	-312.	1398.	842.	-.0214	-.0016	.0271	.0548	-.0395	.0290	1120.		
.2320	749.	1456.	-710.	-160.	1675.	1023.	-.0188	-.0012	.0195	.0396	-.0473	.0225	1328.		
.2330	842.	1377.	-813.	93.	1954.	1240.	-.0157	-.0009	.0121	.0235	-.0549	.0149	1561.		
.2340	982.	1063.	-810.	446.	2211.	1456.	-.0123	-.0005	.0054	.0077	-.0619	.0069	1810.		
.2350	1159.	504.	-742.	889.	2426.	1651.	-.0090	-.0001	-.0002	-.0076	-.0676	-.0004	2067.		
.2360	1356.	-167.	-644.	1365.	2584.	1823.	-.0064	.0004	-.0050	-.0219	-.0717	-.0062	2322.		
.2370	1520.	-744.	-566.	1790.	2666.	1973.	-.0048	.0007	-.0093	-.0345	-.0739	-.0100	2540.		
.2380	1607.	-1117.	-531.	2107.	2657.	2086.	-.0046	.0010	-.0132	-.0452	-.0738	-.0110	2684.		
.2390	1620.	-1308.	-554.	2311.	2559.	2137.	-.0060	.0013	-.0167	-.0540	-.0714	-.0088	2734.		
.2400	1568.	-1377.	-601.	2418.	2366.	2118.	-.0088	.0015	-.0199	-.0609	-.0666	-.0036	2690.		
.2410	1449.	-1382.	-612.	2447.	2077.	2015.	-.0125	.0017	-.0223	-.0658	-.0593	.0042	2554.		
.2420	1286.	-1414.	-560.	2424.	1714.	1800.	-.0169	.0019	-.0238	-.0686	-.0500	.0143	2341.		
.2430	1107.	-1555.	-442.	2386.	1305.	1468.	-.0213	.0020	-.0245	-.0698	-.0393	.0256	2083.		
.2440	907.	-1808.	-245.	2350.	853.	1056.	-.0254	.0022	-.0244	-.0698	-.0274	.0372	1829.		
.2450	688.	-2107.	16.	2303.	382.	597.	-.0286	.0023	-.0240	-.0693	-.0149	.0477	1624.		
.2460	470.	-2386.	282.	2222.	-67.	109.	-.0306	.0025	-.0239	-.0688	-.0028	.0565	1500.		
.2470	252.	-2569.	497.	2095.	-477.	-367.	-.0313	.0026	-.0245	-.0691	.0083	.0626	1469.		
.2480	2.	-2567.	651.	1911.	-852.	-772.	-.0304	.0027	-.0261	-.0704	.0186	.0650	1503.		
.2490	-279.	-2334.	737.	1656.	-1177.	-1101.	-.0279	.0027	-.0287	-.0726	.0276	.0634	1558.		
.2500	-554.	-1922.	745.	1339.	-1421.	-1389.	-.0235	.0027	-.0321	-.0752	.0346	.0579	1615.		
.2510	-808.	-1448.	719.	1009.	-1592.	-1642.	-.0173	.0027	-.0357	-.0780	.0397	.0488	1685.		
.2520	-1034.	-1040.	742.	721.	-1714.	-1856.	-.0094	.0027	-.0388	-.0804	.0438	.0363	1771.		
.2530	-1203.	-793.	844.	495.	-1780.	-2069.	-.0001	.0026	-.0410	-.0819	.0465	.0214	1869.		
.2540	-1309.	-719.	1005.	328.	-1780.	-2314.	.0101	.0026	-.0421	-.0823	.0477	.0054	1980.		
.2550	-1371.	-747.	1201.	210.	-1737.	-2561.	.0204	.0025	-.0424	-.0815	.0478	-.0106	2090.		
.2560	-1401.	-782.	1400.	124.	-1673.	-2756.	.0299	.0024	-.0419	-.0799	.0473	-.0259	2175.		
.2570	-1405.	-761.	1543.	49.	-1589.	-2895.	.0379	.0022	-.0412	-.0778	.0460	-.0390	2226.		
.2580	-1393.	-673.	1594.	-42.	-1481.	-2981.	.0437	.0021	-.0405	-.0755	.0438	-.0487	2244.		
.2590	-1369.	-363.	1558.	-152.	-1367.	-2986.	.0468	.0020	-.0399	-.0730	.0409	-.0545	2215.		
.2600	-1320.	24.	1434.	-254.	-1246.	-2856.	.0469	.0018	-.0393	-.0703	.0377	-.0560	2126.		
.2610	-1237.	447.	1232.	-309.	-1128.	-2699.	.0441	.0017	-.0382	-.0673	.0342	-.0531	1983.		
.2620	-1110.	803.	1009.	-291.	-1003.	-2453.	.0385	.0015	-.0364	-.0636	.0301	-.0457	1798.		
.2630	-910.	956.	829.	-166.	-868.	-2169.	.0304	.0014	-.0335	-.0593	.0256	-.0342	1579.		
.2640	-626.	915.	709.	101.	-725.	-1876.	.0205	.0013	-.0294	-.0545	.0208	-.0193	1333.		
.2650	-281.	619.	675.	505.	-579.	-1448.	.0089	.0012	-.0246	-.0500	.0157	-.0021	1105.		

ADLPIPE PAGE 1142

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.21.

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

.2550	-1771.	-747.	1301.	210.	-1737.	-2561.	.0204	.0025	-.0424	-.0815	.0478	-.0106	2090.
.2560	-1401.	-782.	1400.	124.	-1677.	-2756.	.0299	.0024	-.0419	-.0799	.0473	-.0259	2175.
.2570	-1405.	-761.	1547.	49.	-1589.	-2695.	.0379	.0022	-.0412	-.0778	.0460	-.0390	2226.
.2580	-1397.	-633.	1594.	-42.	-1481.	-2931.	.0477	.0021	-.0405	-.0755	.0438	-.0487	2244.
.2590	-1369.	-363.	1551.	-152.	-1267.	-2986.	.0468	.0020	-.0399	-.0730	.0409	-.0545	2215.
.2600	-1320.	14.	1434.	-204.	-1246.	-2856.	.0469	.0018	-.0393	-.0703	.0377	-.0560	2126.
.2610	-1237.	447.	1232.	-309.	-1128.	-2699.	.0441	.0017	-.0382	-.0673	.0342	-.0531	1983.
.2620	-1110.	303.	1009.	-291.	-1003.	-2455.	.0385	.0015	-.0364	-.0636	.0301	-.0457	1798.
.2630	-910.	956.	829.	-166.	-868.	-2169.	.0304	.0014	-.0335	-.0593	.0256	-.0342	1579.
.2640	-626.	715.	709.	101.	-725.	-1876.	.0205	.0013	-.0294	-.0545	.0208	-.0193	1333.
.2650	-281.	619.	635.	505.	-579.	-1442.	.0089	.0013	-.0246	-.0500	.0157	-.0021	1105.

ADLPIPE PAGE 1142

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.21.

S/RV PIPING KEWAUNEE GKWOOD 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	25	MEMBER	2	SEQUENCE	B12	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)		
.2660	94.	225.	578.	990.	-422.	-1002.	-.0037	.0013	-.0195	-.0460	.0103	.0167	992.		
.2670	477.	-147.	498.	1502.	-246.	-505.	-.0169	.0014	-.0149	-.0430	.0043	.0359	1081.		
.2680	836.	-447.	360.	2015.	-58.	43.	-.0300	.0014	-.0115	-.0421	-.0022	.0546	1359.		
.2690	1144.	-663.	172.	2508.	137.	625.	-.0425	.0015	-.0095	-.0436	-.0089	.0716	1744.		
.2700	1407.	-807.	-38.	2952.	344.	1193.	-.0536	.0017	-.0093	-.0476	-.0158	.0862	2158.		
.2710	1622.	-929.	-251.	3341.	568.	1690.	-.0626	.0019	-.0107	-.0540	-.0231	.0976	2552.		
.2720	1771.	-1093.	-435.	3685.	797.	2073.	-.0689	.0021	-.0134	-.0626	-.0303	.1053	2900.		
.2730	1761.	-1341.	-546.	3982.	1025.	2310.	-.0721	.0024	-.0173	-.0728	-.0371	.1090	3179.		
.2740	1928.	-1702.	-565.	4222.	1259.	2374.	-.0720	.0028	-.0220	-.0840	-.0437	.1085	3373.		
.2750	1969.	-2174.	-507.	4405.	1488.	2266.	-.0688	.0031	-.0273	-.0960	-.0499	.1042	3487.		
.2760	1958.	-2672.	-401.	4517.	1695.	2021.	-.0629	.0035	-.0331	-.1083	-.0551	.0965	3526.		
.2770	1898.	-3072.	-281.	4521.	1876.	1669.	-.0550	.0039	-.0394	-.1202	-.0595	.0861	3486.		
.2780	1797.	-3315.	-178.	4403.	2029.	1239.	-.0459	.0042	-.0459	-.1311	-.0630	.0741	3372.		
.2790	1643.	-3432.	-100.	4191.	2138.	765.	-.0364	.0045	-.0522	-.1406	-.0652	.0617	3213.		
.2800	1446.	-3452.	-33.	3913.	2192.	286.	-.0273	.0047	-.0578	-.1481	-.0660	.0500	3029.		
.2810	1230.	-3379.	30.	3584.	2191.	-175.	-.0192	.0048	-.0622	-.1530	-.0653	.0398	2834.		
.2820	1002.	-3237.	87.	3233.	2137.	-598.	-.0127	.0048	-.0651	-.1545	-.0633	.0319	2643.		
.2830	769.	-3077.	151.	2897.	2025.	-956.	-.0080	.0047	-.0658	-.1524	-.0597	.0267	2468.		
.2840	566.	-2939.	236.	2602.	1861.	-1225.	-.0052	.0046	-.0644	-.1468	-.0549	.0243	2309.		
.2850	409.	-2814.	327.	2354.	1654.	-1387.	-.0044	.0044	-.0608	-.1377	-.0489	.0242	2153.		
.2860	283.	-2658.	400.	2149.	1413.	-1438.	-.0053	.0040	-.0553	-.1256	-.0422	.0263	1986.		
.2870	184.	-2445.	452.	1960.	1149.	-1385.	-.0077	.0036	-.0484	-.1109	-.0348	.0298	1797.		
.2880	123.	-2191.	487.	1799.	878.	-1250.	-.0110	.0032	-.0405	-.0946	-.0274	.0342	1591.		
.2890	86.	-1914.	490.	1638.	610.	-1059.	-.0147	.0027	-.0321	-.0775	-.0200	.0389	1377.		
.2900	47.	-1585.	453.	1466.	355.	-836.	-.0184	.0022	-.0239	-.0603	-.0130	.0431	1162.		
.2910	12.	-1191.	392.	1262.	126.	-612.	-.0215	.0016	-.0160	-.0435	-.0067	.0460	949.		
.2920	-6.	-795.	323.	1031.	-63.	-416.	-.0234	.0011	-.0089	-.0278	-.0014	.0472	751.		
.2930	-10.	-484.	250.	799.	-212.	-263.	-.0239	.0007	-.0027	-.0138	.0029	.0462	585.		
.2940	-3.	-180.	175.	566.	-322.	-150.	-.0227	.0003	.0025	-.0016	.0063	.0428	451.		
.2950	21.	109.	101.	317.	-391.	-71.	-.0200	-.0001	.0067	.0088	.0088	.0368	343.		
.2960	60.	374.	33.	65.	-422.	-31.	-.0159	-.0004	.0098	.0175	.0102	.0286	289.		
.2970	101.	552.	-22.	-165.	-430.	-26.	-.0107	-.0006	.0122	.0243	.0112	.0191	311.		
.2980	141.	656.	-57.	-375.	-425.	-42.	-.0050	-.0006	.0138	.0295	.0118	.0088	383.		
.2990	166.	752.	-79.	-583.	-417.	-71.	.0008	-.0010	.0148	.0336	.0123	-.0014	486.		
.3000	154.	865.	-105.	-796.	-415.	-110.	.0061	-.0012	.0154	.0370	.0129	-.0107	610.		
.3010	100.	981.	-138.	-1006.	-430.	-153.	.0105	-.0013	.0158	.0399	.0138	-.0183	745.		
.3020	16.	1105.	-171.	-1215.	-465.	-191.	.0138	-.0014	.0161	.0428	.0151	-.0241	887.		
.3030	-88.	1256.	-205.	-1427.	-522.	-219.	.0160	-.0015	.0167	.0460	.0169	-.0279	1035.		

ADLPIPE PAGE 1142

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.21.

S/RV PIPING KEWAUNEE GKWOOD 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

.2920	-6.	-795.	1071.	-63.	-416.	-.0234	.0011	-.0089	-.0278	-.0014	.0472	751.	
.2930	-10.	-464.	250.	799.	-212.	-263.	-.0239	.0007	-.0027	-.0138	.0029	.0462	585.
.2940	-3.	-180.	175.	566.	-322.	-150.	-.0227	.0003	.0025	-.0016	.0063	.0428	451.
.2950	21.	109.	101.	317.	-391.	-71.	-.0200	-.0001	.0067	.0088	.0368	.0368	343.
.2960	60.	374.	77.	65.	-422.	-31.	-.0159	-.0004	.0098	.0175	.0102	.0286	289.
.2970	101.	552.	-77.	-165.	-430.	-26.	-.0107	-.0006	.0122	.0247	.0112	.0191	311.
.2980	141.	656.	-57.	-375.	-425.	-42.	-.0050	-.0001	.0138	.0295	.0118	.0088	383.
.2990	166.	752.	-79.	-583.	-417.	-71.	.0003	-.0010	.0148	.0336	.0123	-.0014	486.
.3000	154.	865.	-105.	-796.	-415.	-110.	.0061	-.0012	.0154	.0370	.0129	-.0107	610.
.3010	100.	931.	-138.	-1006.	-430.	-153.	.0105	-.0013	.0158	.0399	.0138	-.0183	745.
.3020	16.	1105.	-171.	-1215.	-465.	-191.	.0138	-.0014	.0161	.0428	.0151	-.0241	887.
.3030	-88.	1256.	-205.	-1427.	-522.	-219.	.0160	-.0015	.0167	.0460	.0169	-.0279	1035.

ADLPIPE PAGE 1143

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

83/12/02. 18.27.21.

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	DC	MEMBER	2	SEQUENCE	212	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)		
.3040	-206.	1430.	-244.	-1635.	-596.	-241.	.0170	-.0017	.0176	.0500	.0191	-.0297	1184.		
.3050	-318.	1600.	-280.	-1832.	-634.	-260.	.0170	-.0018	.0191	.0549	.0215	-.0298	1329.		
.3060	-410.	1742.	-301.	-2009.	-778.	-279.	.0164	-.0020	.0214	.0609	.0241	-.0285	1464.		
.3070	-479.	1350.	-306.	-2165.	-874.	-305.	.0152	-.0022	.0243	.0680	.0267	-.0263	1587.		
.3080	-522.	1915.	-295.	-2300.	-961.	-345.	.0138	-.0024	.0279	.0759	.0291	-.0234	1696.		
.3090	-538.	1930.	-267.	-2416.	-1033.	-399.	.0122	-.0026	.0319	.0844	.0311	-.0201	1792.		
.3100	-537.	1907.	-229.	-2515.	-1088.	-458.	.0107	-.0027	.0360	.0929	.0327	-.0168	1872.		
.3110	-537.	1885.	-204.	-2604.	-1122.	-511.	.0093	-.0029	.0400	.1009	.0336	-.0137	1942.		
.3120	-541.	1904.	-202.	-2694.	-1129.	-545.	.0080	-.0031	.0435	.1082	.0339	-.0110	2003.		
.3130	-548.	1966.	-222.	-2781.	-1109.	-547.	.0069	-.0033	.0463	.1143	.0333	-.0092	2051.		
.3140	-564.	2041.	-257.	-2848.	-1063.	-511.	.0062	-.0034	.0483	.1188	.0321	-.0083	2078.		
.3150	-583.	2115.	-301.	-2889.	-990.	-440.	.0059	-.0035	.0496	.1217	.0301	-.0085	2080.		
.3160	-600.	2185.	-344.	-2903.	-887.	-337.	.0061	-.0036	.0501	.1228	.0273	-.0101	2059.		
.3170	-613.	2225.	-372.	-2880.	-757.	-209.	.0070	-.0036	.0499	.1224	.0238	-.0130	2012.		
.3180	-617.	2195.	-377.	-2812.	-603.	-67.	.0086	-.0036	.0490	.1203	.0198	-.0172	1939.		
.3190	-609.	2088.	-360.	-2703.	-424.	74.	.0108	-.0035	.0476	.1165	.0151	-.0225	1845.		
.3200	-583.	1934.	-331.	-2571.	-222.	212.	.0136	-.0034	.0455	.1113	.0098	-.0287	1745.		
.3210	-546.	1772.	-308.	-2427.	-4.	351.	.0168	-.0032	.0428	.1048	.0041	-.0357	1653.		
.3220	-500.	1621.	-307.	-2281.	223.	497.	.0201	-.0031	.0395	.0972	-.0019	-.0430	1580.		
.3230	-436.	1497.	-335.	-2141.	454.	638.	.0234	-.0029	.0357	.0889	-.0080	-.0501	1537.		
.3240	-354.	1409.	-394.	-2013.	690.	787.	.0262	-.0027	.0316	.0803	-.0141	-.0567	1527.		
.3250	-262.	1356.	-479.	-1891.	888.	939.	.0284	-.0025	.0277	.0719	-.0197	-.0621	1544.		
.3260	-156.	1312.	-577.	-1767.	1066.	1092.	.0297	-.0023	.0242	.0644	-.0247	-.0659	1574.		
.3270	-34.	1242.	-666.	-1634.	1205.	1237.	.0299	-.0022	.0216	.0582	-.0286	-.0677	1603.		
.3280	89.	1118.	-730.	-1487.	1294.	1365.	.0289	-.0021	.0200	.0538	-.0312	-.0669	1616.		
.3290	200.	953.	-767.	-1331.	1327.	1471.	.0265	-.0020	.0196	.0514	-.0324	-.0635	1609.		
.3300	289.	777.	-781.	-1181.	1300.	1557.	.0228	-.0019	.0204	.0511	-.0320	-.0575	1582.		
.3310	342.	615.	-778.	-1046.	1214.	1623.	.0181	-.0019	.0222	.0527	-.0301	-.0494	1538.		
.3320	353.	481.	-762.	-943.	1073.	1669.	.0125	-.0019	.0246	.0559	-.0267	-.0397	1481.		
.3330	322.	400.	-743.	-880.	889.	1693.	.0066	-.0020	.0274	.0602	-.0223	-.0292	1419.		
.3340	255.	400.	-731.	-868.	676.	1696.	.0009	-.0020	.0303	.0652	-.0169	-.0189	1362.		
.3350	152.	485.	-724.	-955.	443.	1675.	-.0040	-.0021	.0329	.0705	-.0110	-.0099	1318.		
.3360	30.	615.	-709.	-924.	208.	1622.	-.0076	-.0022	.0352	.0755	-.0048	-.0031	1286.		
.3370	-92.	745.	-673.	-1093.	-19.	1522.	-.0093	-.0024	.0370	.0799	.0012	.0009	1263.		
.3380	-210.	856.	-608.	-1224.	-223.	1374.	-.0090	-.0024	.0382	.0834	.0069	.0016	1249.		
.3390	-326.	959.	-518.	-1375.	-403.	1182.	-.0064	-.0025	.0387	.0857	.0122	-.0013	1252.		
.3400	-438.	1075.	-415.	-1551.	-554.	955.	-.0017	-.0026	.0383	.0870	.0168	-.0077	1283.		
.3410	-545.	1212.	-307.	-1750.	-674.	702.	.0048	-.0026	.0372	.0870	.0208	-.0170	1350.		

ADLPIPE PAGE 1144

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

83/12/02. 18.27.22.

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

.3300	289.	777.	-711.	-1181.	1300.	1557.	.0223	-.0019	.0204	.0511	-.0320	-.0575	1582.
.3310	342.	815.	-778.	-1048.	1214.	1623.	.0181	-.0019	.0222	.0527	-.0301	-.0494	1538.
.3320	353.	431.	-762.	-943.	1073.	1669.	.0125	-.0019	.0246	.0559	-.0267	-.0397	1481.
.3330	322.	400.	-743.	-880.	889.	1693.	.0066	-.0020	.0274	.0602	-.0223	-.0292	1419.
.3340	755.	430.	-731.	-860.	676.	1676.	.0009	-.0020	.0303	.0652	-.0169	-.0189	1362.
.3350	152.	485.	-724.	-905.	442.	1675.	-.0040	-.0021	.0329	.0705	-.0110	-.0099	1318.
.3360	30.	515.	-709.	-984.	206.	1622.	-.0076	-.0022	.0352	.0755	-.0048	-.0031	1286.
.3370	-92.	745.	-673.	-1093.	-19.	1522.	-.0093	-.0024	.0370	.0799	.0012	.0009	1263.
.3380	-210.	356.	-608.	-1224.	-223.	1374.	-.0090	-.0024	.0382	.0834	.0069	.0016	1249.
.3390	-326.	959.	-518.	-1375.	-403.	1182.	-.0064	-.0025	.0387	.0857	.0122	-.013	1252.
.3400	-438.	1070.	-415.	-1551.	-554.	955.	-.0017	-.0026	.0383	.0870	.0168	-.0077	1283.
.3410	-548.	1212.	-307.	-1750.	-674.	702.	.0048	-.0026	.0372	.0870	.0208	-.0170	1350.

ADLPIPE PAGE 1144

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.22.

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	25	MEMBER	2	SEQUENCE	812	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)	(PS.)		
.3420	-561.	1334.	-208.	-1970.	-771.	441.	.0126	-.0027	.0353	.0858	.0243	-.0287	1456.		
.3430	-782.	1614.	-127.	-2207.	-851.	192.	.0212	-.0027	.0328	.0839	.0273	-.0419	1600.		
.3440	-906.	1907.	-69.	-2457.	-919.	-33.	.0300	-.0027	.0300	.0815	.0301	-.0557	1768.		
.3450	-1031.	2234.	-31.	-2702.	-982.	-227.	.0384	-.0028	.0271	.0790	.0326	-.0692	1944.		
.3460	-1153.	2551.	-0.	-2918.	-1050.	-386.	.0458	-.0028	.0246	.0769	.0352	-.0814	2106.		
.3470	-1263.	2821.	38.	-3088.	-1126.	-511.	.0520	-.0029	.0228	.0756	.0379	-.0916	2242.		
.3480	-1353.	3011.	95.	-3199.	-1212.	-605.	.0566	-.0029	.0219	.0752	.0407	-.0990	2342.		
.3490	-1419.	3098.	174.	-3239.	-1308.	-669.	.0593	-.0030	.0219	.0757	.0437	-.1034	2397.		
.3500	-1462.	3081.	269.	-3207.	-1412.	-700.	.0602	-.0030	.0227	.0768	.0467	-.1046	2409.		
.3510	-1480.	2937.	366.	-3111.	-1519.	-697.	.0591	-.0030	.0241	.0782	.0497	-.1026	2380.		
.3520	-1478.	2852.	448.	-2965.	-1620.	-657.	.0563	-.0030	.0255	.0792	.0522	-.0979	2320.		
.3530	-1457.	2695.	505.	-2777.	-1709.	-583.	.0521	-.0030	.0267	.0792	.0543	-.0907	2233.		
.3540	-1415.	2518.	529.	-2553.	-1778.	-477.	.0466	-.0029	.0272	.0777	.0556	-.0818	2122.		
.3550	-1353.	2374.	522.	-2299.	-1820.	-350.	.0405	-.0027	.0268	.0741	.0560	-.0717	1991.		
.3560	-1275.	2111.	487.	-2022.	-1829.	-217.	.0341	-.0025	.0253	.0683	.0554	-.0612	1843.		
.3570	-1182.	1866.	438.	-1726.	-1800.	-94.	.0277	-.0022	.0226	.0602	.0538	-.0508	1682.		
.3580	-1073.	1570.	386.	-1413.	-1733.	4.	.0219	-.0018	.0189	.0500	.0511	-.0410	1507.		
.3590	-956.	1217.	341.	-1088.	-1631.	70.	.0168	-.0014	.0142	.0378	.0474	-.0321	1323.		
.3600	-840.	823.	305.	-765.	-1498.	97.	.0127	-.0009	.0088	.0242	.0430	-.0245	1135.		
.3610	-730.	475.	275.	-460.	-1335.	82.	.0095	-.0004	.0028	.0098	.0379	-.0183	953.		
.3620	-632.	54.	251.	-181.	-1151.	29.	.0073	.0000	-.0035	-.0049	.0322	-.0134	785.		
.3630	-553.	-303.	232.	67.	-952.	-52.	.0059	.0005	-.0098	-.0192	.0263	-.0098	644.		
.3640	-409.	-622.	217.	281.	-744.	-156.	.0052	.0009	-.0158	-.0327	.0202	-.0073	546.		
.3650	-433.	-894.	206.	461.	-529.	-273.	.0050	.0013	-.0213	-.0447	.0140	-.0055	508.		
.3660	-394.	-1128.	204.	615.	-313.	-394.	.0051	.0017	-.0259	-.0549	.0078	-.0043	535.		
.3670	-347.	-1344.	215.	756.	-100.	-504.	.0053	.0019	-.0295	-.0630	.0018	-.0034	616.		
.3680	-286.	-1544.	235.	891.	109.	-593.	.0054	.0021	-.0319	-.0690	-.0040	-.0024	725.		
.3690	-207.	-1712.	257.	1022.	311.	-645.	.0051	.0023	-.0331	-.0727	-.0096	-.0012	841.		
.3700	-109.	-1833.	269.	1152.	505.	-647.	.0042	.0023	-.0333	-.0744	-.0150	.0004	954.		
.3710	9.	-1900.	265.	1281.	687.	-592.	.0027	.0023	-.0325	-.0743	-.0261	.0027	1058.		
.3720	148.	-1910.	238.	1407.	857.	-430.	.0004	.0023	-.0310	-.0727	-.0249	.0058	1157.		
.3730	308.	-1862.	186.	1529.	1011.	-313.	-.0027	.0022	-.0288	-.0699	-.0294	.0098	1254.		
.3740	484.	-1759.	111.	1645.	1147.	-99.	-.0066	.0021	-.0263	-.0662	-.0334	.0146	1354.		
.3750	630.	-1616.	20.	1754.	1264.	145.	-.0111	.0020	-.0234	-.0618	-.0370	.0202	1461.		
.3760	795.	-1458.	-80.	1857.	1360.	403.	-.0161	.0018	-.0203	-.0570	-.0401	.0265	1575.		
.3770	954.	-1303.	-177.	1955.	1435.	657.	-.0212	.0017	-.0172	-.0520	-.0425	.0332	1693.		
.3780	1104.	-1166.	-264.	2045.	1487.	805.	-.0263	.0015	-.0141	-.0471	-.0444	.0399	1808.		
.3790	1241.	-1051.	-337.	2125.	1517.	1104.	-.0311	.0014	-.0112	-.0423	-.0456	.0464	1911.		

ADLPIPE PAGE 1145

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.22.

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

.3700	-109.	-1833.	265.	1152.	505.	-647.	.0042	.0027	-.0333	-.0744	-.0150	.0004	954.
.3710	9.	-1900.	265.	1281.	687.	-592.	.0027	.0023	-.0325	-.0743	-.0201	.0027	1058.
.3720	145.	-1910.	275.	1467.	857.	-430.	.0004	.0023	-.0310	-.0727	-.0249	.0058	1157.
.3730	262.	-1862.	176.	1629.	1011.	-313.	-.0027	.0022	-.0288	-.0699	-.0294	.0098	1254.
.3740	464.	-1759.	111.	1640.	1147.	-99.	-.0066	.0021	-.0263	-.0662	-.0334	.0146	1354.
.3750	630.	-1616.	20.	1754.	1264.	145.	-.0111	.0020	-.0234	-.0618	-.0370	.0202	1461.
.3760	795.	-1458.	-80.	1857.	1360.	403.	-.0161	.0018	-.0203	-.0570	-.0401	.0265	1575.
.3770	954.	-1302.	-177.	1955.	1435.	657.	-.0212	.0017	-.0172	-.0520	-.0425	.0332	1693.
.3780	1104.	-1166.	-264.	2045.	1487.	895.	-.0263	.0015	-.0141	-.0471	-.0444	.0399	1808.
.3790	1241.	-1051.	-337.	2125.	1517.	1104.	-.0311	.0014	-.0112	-.0423	-.0456	.0464	1911.

ADLPIPE PAGE 1145

DIG/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

13.27.22.

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	25	MEMBER	2	SEQUENCE	812	LOCATION	END	TYPE	EL	DZ	RX	RY	RZ	STRESS
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.3800	1357.	-954.	-399.	2189.	1527.	1275.	-.0354	.0013	-.0085	-.0380	-.0462	.0523	1994.	
.3810	1446.	-870.	-449.	2232.	1517.	1401.	-.0388	.0012	-.0062	-.0342	-.0463	.0573	2050.	
.3820	1507.	-798.	-485.	2251.	1490.	1478.	-.0414	.0011	-.0045	-.0311	-.0457	.0610	2074.	
.3830	1540.	-749.	-503.	2247.	1446.	1502.	-.0429	.0010	-.0033	-.0289	-.0446	.0635	2066.	
.3840	1544.	-729.	-503.	2222.	1387.	1471.	-.0432	.0010	-.0027	-.0276	-.0430	.0644	2025.	
.3850	1516.	-729.	-487.	2174.	1313.	1387.	-.0425	.0010	-.0028	-.0272	-.0409	.0640	1951.	
.3860	1458.	-735.	-458.	2099.	1226.	1254.	-.0438	.0010	-.0034	-.0277	-.0384	.0621	1844.	
.3870	1371.	-741.	-417.	1999.	1125.	1077.	-.0381	.0011	-.0046	-.0290	-.0354	.0590	1708.	
.3880	1259.	-749.	-365.	1877.	1009.	863.	-.0347	.0011	-.0063	-.0309	-.0319	.0550	1549.	
.3890	1126.	-751.	-303.	1731.	877.	618.	-.0307	.0012	-.0082	-.0331	-.0279	.0502	1373.	
.3900	974.	-731.	-234.	1560.	731.	347.	-.0264	.0012	-.0104	-.0354	-.0235	.0450	1185.	
.3910	802.	-681.	-161.	1366.	570.	57.	-.0219	.0013	-.0126	-.0374	-.0187	.0398	998.	
.3920	617.	-612.	-80.	1154.	394.	-248.	-.0175	.0013	-.0145	-.0389	-.0135	.0347	839.	
.3930	427.	-541.	14.	931.	207.	-564.	-.0133	.0013	-.0162	-.0397	-.0080	.0302	747.	
.3940	236.	-478.	120.	705.	13.	-887.	-.0095	.0014	-.0173	-.0396	-.0024	.0265	764.	
.3950	45.	-413.	231.	480.	-183.	-1208.	-.0063	.0013	-.0180	-.0386	.0033	.0237	885.	
.3960	-138.	-339.	339.	261.	-374.	-1511.	-.0036	.0013	-.0181	-.0367	.0039	.0217	1064.	
.3970	-304.	-263.	442.	57.	-553.	-1785.	-.0015	.0012	-.0177	-.0340	.0140	.0206	1260.	
.3980	-442.	-205.	537.	-117.	-712.	-2017.	-.0001	.0012	-.0170	-.0308	.0185	.0203	1444.	
.3990	-545.	-160.	614.	-254.	-842.	-2194.	.0007	.0011	-.0159	-.0275	.0223	.0206	1593.	
.4000	-611.	-119.	666.	-351.	-939.	-2303.	.0009	.0010	-.0146	-.0242	.0250	.0213	1693.	

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)
.0430	4224.	3664.	-2790.	1970.	3480.	8484.	-.0934	-.0053	.0936	.1583	-.1015	.0819	6318.

SECTION	26	MEMBER	1	SEQUENCE	812	LOCATION	BEG	TYPE	EL	DZ	RX	RY	RZ	STRESS
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
0.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.	
.0010	-0.	-0.	-0.	1.	-0.	-1.	.0000	-.0000	.0000	.0000	-.0000	-.0000	1.	
.0020	-2.	-4.	-1.	4.	-1.	-4.	.0000	-.0000	.0000	.0001	-.0000	-.0001	4.	
.0030	-5.	-19.	-4.	10.	-0.	-14.	.0000	-.0000	.0000	.0002	-.0000	-.0002	12.	

ADLPIPE PAGE 1146

DIG/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.22.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FKW24F--0 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING

SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	EL	DZ	FX	RY	PZ	STRESS		
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	FX	RY	PZ	STRESS
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
0.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.
.0010	-0.	-0.	-0.	1.	-0.	-1.	.0000	-.0000	.0000	.0000	-.0000	-.0000	1.
.0020	-2.	-4.	-1.	4.	-1.	-4.	.0000	-.0000	.0000	.0001	-.0000	-.0001	4.
.0030	-5.	-19.	-4.	10.	-0.	-14.	.0000	-.0000	.0000	.0002	-.0000	-.0002	12.

ADLPIPE PAGE 1146

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

03/12/02.

18.27.22.

S/RV PIPING KEWANEE GKW08F 2 RUP DICK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	EL	DZ	FX	RY	PZ	STRESS		
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	FX	RY	PZ	STRESS
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
.0040	-13.	-68.	-11.	25.	2.	-32.	.0000	-.0000	.0000	.0004	.0000	-.0004	28.
.0050	-24.	-162.	-23.	51.	5.	-59.	.0000	-.0001	.0001	.0009	.0001	-.0007	53.
.0060	-36.	-280.	-34.	87.	12.	-91.	.0000	-.0001	.0003	.0018	.0003	-.0012	85.
.0070	-48.	-401.	-41.	128.	19.	-127.	.0002	-.0002	.0007	.0031	.0005	-.0019	122.
.0080	-64.	-546.	-44.	177.	29.	-183.	.0003	-.0002	.0013	.0049	.0008	-.0029	173.
.0090	-95.	-775.	-45.	236.	50.	-278.	.0006	-.0004	.0022	.0073	.0015	-.0044	248.
.0100	-141.	-1125.	-45.	307.	91.	-415.	.0009	-.0005	.0034	.0106	.0027	-.0066	353.
.0110	-193.	-1550.	-35.	387.	153.	-571.	.0012	-.0007	.0050	.0148	.0045	-.0091	476.
.0120	-230.	-1922.	4.	451.	244.	-714.	.0017	-.0010	.0072	.0199	.0071	-.0116	592.
.0130	-263.	-2159.	83.	480.	376.	-814.	.0022	-.0012	.0099	.0254	.0110	-.0137	685.
.0140	-257.	-2276.	189.	484.	552.	-838.	.0028	-.0014	.0130	.0310	.0161	-.0151	751.
.0150	-205.	-2279.	298.	479.	761.	-750.	.0034	-.0015	.0159	.0361	.0221	-.0154	789.
.0160	-92.	-2089.	400.	453.	987.	-522.	.0043	-.0015	.0182	.0396	.0286	-.0145	813.
.0170	79.	-1642.	481.	384.	1213.	-177.	.0055	-.0014	.0191	.0400	.0351	-.0129	866.
.0180	285.	-988.	517.	263.	1422.	211.	.0071	-.0012	.0181	.0360	.0410	-.0113	985.
.0190	495.	-242.	474.	105.	1604.	567.	.0090	-.0008	.0145	.0269	.0461	-.0107	1149.
.0200	679.	441.	316.	-43.	1733.	821.	.0114	-.0003	.0080	.0127	.0496	-.0118	1293.
.0210	811.	870.	33.	-182.	1841.	938.	.0137	.0003	-.0014	-.0063	.0523	-.0146	1398.
.0220	881.	810.	-359.	-303.	2074.	955.	.0157	.0008	-.0128	-.0282	.0583	-.0179	1553.
.0230	978.	459.	-831.	-310.	2359.	1081.	.0173	.0014	-.0247	-.0498	.0655	-.0199	1761.
.0240	1265.	855.	-1246.	-305.	2552.	1674.	.0191	.0021	-.0360	-.0710	.0704	-.0169	2068.
.0250	1707.	2438.	-1498.	-462.	2631.	2622.	.0210	.0031	-.0462	-.0932	.0723	-.0097	2523.
.0260	2069.	4172.	-1672.	-712.	2746.	3378.	.0226	.0040	-.0555	-.1147	.0752	-.0038	2973.
.0270	2335.	5004.	-1953.	-774.	2971.	3986.	.0235	.0047	-.0645	-.1329	.0810	.0012	3391.
.0280	2737.	4947.	-2447.	-389.	2826.	4966.	.0243	.0052	-.0736	-.1457	.0764	.0093	3860.
.0290	3140.	4706.	-2945.	69.	2193.	5849.	.0259	.0056	-.0820	-.1561	.0586	.0149	4211.
.0300	3051.	4399.	-3060.	-166.	1975.	5467.	.0272	.0059	-.0877	-.1689	.0525	.0089	3920.
.0310	2802.	5551.	-2917.	-731.	1758.	4690.	.0280	.0062	-.0906	-.1802	.0466	.0003	3412.
.0320	2752.	5698.	-2862.	-838.	713.	4428.	.0285	.0062	-.0908	-.1814	.0182	-.0031	3077.
.0330	2479.	4975.	-2739.	-891.	-452.	3780.	.0270	.0058	-.0876	-.1747	.0140	-.0074	2639.
.0340	1645.	4289.	-2208.	-1579.	-959.	2056.	.0219	.0052	-.0798	-.1662	-.0280	-.0156	1853.
.0350	713.	4299.	-1426.	-2406.	-1473.	344.	.0136	.0046	-.0678	-.1521	-.0422	-.0173	1916.
.0360	9.	4503.	-686.	-2777.	-2545.	-561.	.0027	.0040	-.0524	-.1272	-.0720	-.0063	2548.
.0370	-924.	4429.	82.	-2964.	-3331.	-1690.	-.0118	.0031	-.0346	-.0962	-.0942	.0085	3214.
.0380	-2325.	3219.	900.	-3328.	-3347.	-3643.	-.0298	.0019	-.0152	-.0628	-.0957	.0208	4019.
.0390	-3640.	947.	1501.	-3188.	-3477.	-5281.	-.0485	.0003	-.0049	-.0219	-.1007	.0364	4773.
.0400	-4572.	-1444.	1932.	-2500.	-4052.	-6128.	-.0651	-.0013	.0260	.0265	-.1174	.0559	5231.
.0410	-5430.	-2619.	2633.	-2216.	-4064.	-7054.	-.0790	-.0027	.0488	.0724	-.1182	.0708	5687.

ADLPIPE PAGE 1147

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

03/12/02.

18.27.22.

S/RV PIPING KEWANEE GKW08F 2 RUP DICK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

.0310	2802.	5551.	-2917.	-731.	1758.	4690.	.0280	.0062	-.0906	-.1802	.0466	.0003	3412.
.0320	2752.	5698.	-2862.	-838.	723.	4428.	.0285	.0062	-.0908	-.1814	.0182	-.0031	3077.
.0330	2479.	4975.	-2739.	-891.	-452.	3786.	.0270	.0058	-.0876	-.1747	-.0140	-.0074	2639.
.0340	1645.	4289.	-2208.	-1579.	-919.	2056.	.0219	.0052	-.0798	-.1662	-.0280	-.0156	1863.
.0350	713.	4299.	-1426.	-2406.	-1473.	344.	.0136	.0046	-.0678	-.1521	-.0422	-.0173	1916.
.0360	9.	4503.	-686.	-2777.	-2546.	-561.	.0027	.0040	-.0524	-.1272	-.0720	-.0063	2548.
.0370	-924.	4429.	82.	-2964.	-3331.	-1670.	-.0118	.0031	-.0346	-.0962	-.0942	.0085	3214.
.0380	-2325.	3219.	900.	-3328.	-3347.	-3643.	-.0298	.0019	-.0152	-.0628	-.0957	.0208	4019.
.0390	-3640.	947.	1501.	-3186.	-3477.	-5281.	-.0485	.0007	.0049	-.0219	-.1005	.0364	4773.
.0400	-4572.	-1444.	1932.	-2500.	-4052.	-6128.	-.0651	-.0013	.0260	.0265	-.1174	.0559	5231.
.0410	-5439.	-2619.	2633.	-2216.	-4064.	-7054.	-.0790	-.0027	.0488	.0724	-.1182	.0708	5687.

ADLPIPE PAGE 1147

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.22.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	BEG	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)	(PSI)
.0420	-6201.	-2830.	3540.	-2316.	-3607.	-8079.	-.0889	-.0039	.0720	.1141	-.1054	.0786	6164.
.0430	-6527.	-3618.	4173.	-1930.	-3488.	-8484.	-.0934	-.0053	.0936	.1583	-.1015	.0819	6313.
.0440	-6470.	-5210.	4489.	-1120.	-3443.	-8340.	-.0927	-.0066	.1122	.2019	-.0992	.0808	6128.
.0450	-6203.	-6415.	4746.	-471.	-2946.	-8036.	-.0877	-.0078	.1272	.2369	-.0842	.073	5778.
.0460	-5584.	-6555.	4915.	127.	-2361.	-7283.	-.0780	-.0085	.1381	.2626	-.0563	.063	5161.
.0470	-4495.	-5830.	4839.	932.	-2121.	-5786.	-.0635	-.0087	.1434	.2791	-.0578	.0525	4201.
.0480	-3252.	-4916.	4528.	1685.	-1834.	-4169.	-.0461	-.0085	.1417	.2823	-.0479	.0376	3274.
.0490	-2145.	-4758.	3935.	2329.	-1227.	-3013.	-.0271	-.0082	.1326	.2717	-.0296	.0149	2697.
.0500	-1011.	-5495.	2960.	3184.	-785.	-1914.	-.0067	-.0078	.1167	.2517	-.0161	-.0119	2559.
.0510	273.	-5957.	1810.	4042.	-679.	-565.	.0150	-.0071	.0957	.2224	-.0121	-.0381	2789.
.0520	1462.	-5230.	646.	4308.	-476.	506.	.0366	-.0059	.0722	.1812	-.0053	-.0660	2941.
.0530	2408.	-3727.	106.	4007.	-52.	1052.	.0569	-.0044	.0480	.1321	.0075	-.0959	2793.
.0540	3302.	-2164.	-621.	3680.	266.	1694.	.0746	-.0030	.0237	.0826	.0170	-.1202	2737.
.0550	4219.	-754.	-1408.	3548.	399.	2773.	.0883	-.0015	-.0001	.0361	.0211	-.1332	3047.
.0560	4904.	427.	-2146.	3418.	640.	3735.	.0970	-.0000	-.0223	-.0072	.0274	-.1384	3440.
.0570	5201.	1417.	-2746.	3182.	1139.	4207.	.1003	.0012	-.0415	-.0460	.0404	-.1389	3637.
.0580	5308.	2390.	-3245.	3034.	1674.	4651.	.0987	.0023	-.0572	-.0774	.0540	-.1309	3910.
.0590	5368.	3070.	-3709.	3170.	2011.	5362.	.0930	.0032	-.0688	-.0982	.0518	-.1130	4412.
.0600	5190.	2913.	-4074.	3438.	2312.	5783.	.0839	.0036	-.0755	-.1076	.0584	-.0928	4795.
.0610	4655.	2127.	-4168.	3514.	2787.	5506.	.0726	.0035	-.0760	-.1071	.0799	-.0757	4787.
.0620	4014.	1621.	-3905.	3354.	3248.	5072.	.0603	.0032	-.0699	-.0972	.0914	-.0586	4627.
.0630	3505.	1899.	-3323.	3102.	3396.	4835.	.0484	.0028	-.0574	-.0774	.0949	-.0387	4498.
.0640	2985.	2700.	-2459.	2682.	3403.	4544.	.0368	.0023	-.0400	-.0506	.0949	-.0199	4232.
.0650	2269.	3379.	-1424.	2056.	3571.	3767.	.0250	.0015	-.0199	-.0209	.0995	-.0056	3764.
.0660	1493.	3245.	-513.	1644.	3692.	2853.	.0132	.0006	.0002	.0117	.1027	.0066	3335.
.0670	812.	2066.	72.	1771.	3463.	2117.	.0023	-.0005	.0183	.0474	.0961	.0181	2985.
.0680	101.	325.	404.	2096.	3157.	1171.	-.0071	-.0018	.0340	.0815	.0873	.0244	2673.
.0690	-704.	-1503.	837.	2269.	3063.	-218.	-.0144	-.0030	.0477	.1106	.0845	.0222	2573.
.0700	-1344.	-3449.	1107.	2517.	2862.	-1517.	-.0181	-.0042	.0599	.1378	.0791	.0145	2765.
.0710	-1628.	-5399.	1281.	296.	2333.	-2327.	-.0172	-.0054	.0712	.1655	.0552	.0033	2985.
.0720	-1674.	-6776.	1562.	3189.	1845.	-2919.	-.0122	-.0064	.0825	.1901	.0531	-.0127	3169.
.0730	-1543.	-7967.	2036.	3020.	1562.	-3396.	-.0037	-.0072	.0936	.2092	.0471	-.0329	3239.
.0740	-1107.	-8539.	2521.	2777.	1137.	-3364.	.0075	-.0076	.1031	.2236	.0376	-.0523	3039.
.0750	-420.	-5493.	2861.	2624.	529.	-2796.	.0198	-.0077	.1090	.2317	.0229	-.0680	2609.
.0760	221.	-4496.	2982.	2480.	75.	-2205.	.0308	-.0075	.1093	.2298	.0120	-.0811	2237.
.0770	674.	-4257.	2749.	2496.	-239.	-1815.	.0389	-.0072	.1029	.2181	.0040	-.0917	2087.
.0780	995.	-4905.	2106.	2835.	-681.	-1445.	.0438	-.0068	.0901	.1989	-.0095	-.0975	2193.
.0790	1168.	-5833.	1255.	3231.	-1154.	-1125.	.0451	-.0061	.0727	.1724	-.0225	-.0977	2434.

ADLPIPE PAGE 1147

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.22.

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

CONDITION 24
LOADS
SHOCK
PRESSURE

.0690	-704.	-1503.	831.	2269.	3063.	-218.	-.0144	-.0030	.0340	.1106	.0845	.0222	2573.
.0700	-1344.	-3449.	1107.	2517.	2862.	-1517.	-.0181	-.0042	.0599	.1378	.0791	.0145	2765.
.0710	-1628.	-5399.	1281.	2960.	2333.	-2327.	-.0172	-.0054	.0712	.1655	.0552	.0033	2985.
.0720	-1674.	-6726.	1562.	3189.	1845.	-2919.	-.0122	-.0064	.0825	.1901	.0531	-.0127	3169.
.0730	-1543.	-7067.	2036.	3020.	1562.	-3396.	-.0037	-.0072	.0936	.2092	.0471	-.0329	3239.
.0740	-1107.	-6539.	2521.	2777.	1137.	-3364.	.0075	-.0076	.1031	.2236	.0376	-.0523	3039.
.0750	-420.	-5493.	2861.	2624.	529.	-2796.	.0198	-.0077	.1090	.2317	.0229	-.0680	2609.
.0760	221.	-4496.	2982.	2480.	75.	-2205.	.0308	-.0075	.1093	.2298	.0120	-.0811	2237.
.0770	674.	-4257.	2749.	2496.	-239.	-1815.	.0389	-.0072	.1029	.2181	.0040	-.0917	2087.
.0780	995.	-4905.	2106.	2639.	-681.	-1445.	.0436	-.0068	.0901	.1889	-.0085	-.0975	2193.
.0790	1168.	-5333.	1255.	3231.	-1154.	-1125.	.0451	-.0061	.0727	.1724	-.0225	-.0977	2434.

ADLPIPE PAGE 1148

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.22.

S/RV PIPING KEWAUNEE GKWOBF 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	MEMBER	SEQUENCE	LOCATION	BEG	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)	(PSI)
.0800	1132.	-6428.	473.	3322.	-1443.	-1029.	.0431	-.0053	.0538	.1396	-.0320	-.0937	2544.
.0810	980.	-6350.	-100.	3081.	-1693.	-1010.	.0384	-.0043	.0360	.1047	-.0405	-.0850	2465.
.0820	814.	-5280.	-370.	2461.	-2029.	-859.	.0317	-.0031	.0211	.0702	-.0513	-.0705	2226.
.0830	582.	-3224.	-290.	1394.	-2262.	-635.	.0226	-.0019	.0098	.0365	-.0592	-.0505	1849.
.0840	223.	-729.	27.	48.	-2325.	-609.	.0110	-.0004	.0013	.0047	-.0524	-.0266	1620.
.0850	-225.	1727.	385.	-1273.	-2389.	-549.	-.0028	.0008	-.0058	-.0243	-.0659	.0012	1862.
.0860	-772.	3946.	668.	-2458.	-2436.	-536.	-.0188	.0021	-.0131	-.0522	-.0593	.0322	2360.
.0870	-1479.	5452.	778.	-3419.	-2319.	-746.	-.0366	.0032	-.0218	-.0794	-.0685	.0635	2830.
.0880	-2288.	5721.	612.	-3959.	-2128.	-1156.	-.0547	.0040	-.0320	-.1036	-.0560	.0923	3129.
.0890	-3058.	5068.	241.	-4124.	-1999.	-1590.	-.0711	.0046	-.0425	-.1238	-.0553	.1172	3270.
.0900	-3697.	4385.	-93.	-4249.	-1836.	-1997.	-.0842	.0050	-.0516	-.1409	-.0630	.1363	3398.
.0910	-4121.	4232.	-223.	-4516.	-1584.	-2313.	-.0924	.0053	-.0575	-.1542	-.0575	.1479	3583.
.0920	-4202.	4809.	-135.	-4868.	-1386.	-2317.	-.0947	.0056	-.0594	-.1619	-.0523	.1524	3752.
.0930	-3919.	6163.	138.	-5285.	-1285.	-1940.	-.0911	.0060	-.0581	-.1653	-.0488	.1510	3892.
.0940	-3417.	7786.	482.	-5719.	-1157.	-1442.	-.0829	.0062	-.0554	-.1668	-.0479	.1424	4051.
.0950	-2840.	8768.	675.	-5917.	-972.	-1036.	-.0713	.0063	-.0535	-.1666	-.0371	.1264	4102.
.0960	-2209.	8703.	547.	-5652.	-818.	-672.	-.0575	.0062	-.0541	-.1649	-.0312	.1051	3876.
.0970	-1544.	7738.	91.	-4933.	-697.	-305.	-.0426	.0059	-.0575	-.1630	-.0265	.0808	3364.
.0980	-917.	5920.	-614.	-3863.	-529.	-86.	-.0268	.0054	-.0629	-.1600	-.0206	.0530	2629.
.0990	-336.	3359.	-1444.	-2541.	-291.	-42.	-.0103	.0047	-.0680	-.1533	-.0127	.0212	1724.
.1000	319.	663.	-2218.	-1120.	-34.	94.	.0075	.0038	-.0705	-.1405	-.0041	-.0119	758.
.1010	1150.	-1477.	-2749.	221.	195.	552.	.0265	.0028	-.0681	-.1205	.0043	-.0437	422.
.1020	2127.	-2778.	-2920.	1327.	405.	1249.	.0469	.0018	-.0597	-.0927	.0128	-.0747	1258.
.1030	3146.	-3188.	-2701.	2084.	639.	1994.	.0676	.0007	-.0457	-.0593	.0225	-.1052	1991.
.1040	4130.	-2887.	-2191.	2525.	880.	2739.	.0872	-.0003	-.0281	-.0233	.0327	-.1328	2581.
.1050	4995.	-2499.	-1614.	2878.	1040.	3443.	.1038	-.0013	-.0097	.0130	.0403	-.1555	3105.
.1060	5592.	-2672.	-1157.	3271.	1108.	3907.	.1156	-.0022	.0066	.0467	.0446	-.1723	3515.
.1070	5786.	-3324.	-845.	3620.	1198.	3926.	.1211	-.0031	.0131	.0738	.0484	-.1825	3689.
.1080	5561.	-4320.	-680.	3877.	1286.	3514.	.1195	-.0038	.0274	.0925	.0511	-.1846	3632.
.1090	4934.	-5425.	-622.	4028.	1306.	2703.	.1110	-.0043	.0318	.1036	.0507	-.1782	3386.
.1100	4014.	-6465.	-564.	3921.	1475.	1799.	.0954	-.0046	.0336	.1071	.0535	-.1599	3073.
.1110	2948.	-7557.	-510.	3727.	1548.	1011.	.0746	-.0047	.0345	.1080	.0529	-.1309	2804.
.1120	1817.	-7660.	-258.	3209.	1556.	345.	.0501	-.0045	.0360	.1057	.0502	-.0935	2415.
.1130	666.	-5568.	405.	1963.	1750.	-156.	.0233	-.0037	.0383	.0949	.0527	-.0481	1776.
.1140	-413.	-2543.	1184.	449.	1996.	-415.	-.0048	-.0026	.0397	.0789	.0566	.0027	1407.
.1150	-1432.	-662.	1640.	-646.	2096.	-515.	-.0324	-.0016	.0382	.0630	.0561	.0533	1518.
.1160	-2457.	300.	1792.	-1488.	2254.	-736.	-.0587	-.0007	.0326	.0430	.0571	.0993	1887.
.1170	-3376.	1361.	1770.	-2326.	2485.	-960.	-.0819	.0004	.0222	.0145	.0601	.1400	2384.

ADLPIPE PAGE 1149

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.22.

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

.1070	5786.	-3324.	-845.	3620.	1198.	3626.	.1211	-.0031	.0191	.0738	.0484	-.1825	3689.
.1080	5561.	-4320.	-680.	3877.	1286.	3514.	.1195	-.0038	.0274	.0925	.0511	-.1846	3632.
.1090	4934.	-5425.	-622.	4028.	1306.	2703.	.1110	-.0043	.0318	.1036	.0507	-.1782	3386.
.1100	4014.	-6465.	-564.	3921.	1475.	1799.	.0954	-.0042	.0336	.1071	.0535	-.1599	3073.
.1110	2948.	-7557.	-510.	3727.	1548.	1011.	.0746	-.0047	.0345	.1080	.0529	-.1309	2804.
.1120	1812.	-7660.	-250.	3209.	1556.	345.	.0501	-.0045	.0360	.1057	.0502	-.0935	2415.
.1130	666.	-5568.	405.	1963.	1750.	-166.	.0233	-.0037	.0383	.0949	.0527	-.0481	1776.
.1140	-413.	-2543.	1184.	449.	1996.	-415.	-.0048	-.0026	.0397	.0788	.0566	.0027	1407.
.1150	-1432.	-662.	1640.	-646.	2096.	-515.	-.0324	-.0016	.0382	.0630	.0561	.0533	1518.
.1160	-2457.	300.	1792.	-1488.	2254.	-736.	-.0587	-.0007	.0326	.0430	.0571	.0993	1887.
.1170	-3376.	1361.	1770.	-2326.	2485.	-960.	-.0819	.0004	.0222	.0145	.0601	.1400	2384.

ADLPIPE PAGE 1149

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.22.

S/RV PIPING KEWAUNEE GKW0RF 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	MEMBER	SEQUENCE	LOCATION	REG	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)	PX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
.1180	-4041.	1927.	1455.	-2830.	2720.	-961.	-.1003	.0016	.0082	-.0170	.0535	.1737	2724.	
.1190	-4233.	1825.	794.	-2744.	2476.	-426.	-.1114	.0026	-.0083	-.0461	.0543	.1987	2508.	
.1200	-4083.	2501.	197.	-2807.	2116.	217.	-.1144	.0037	-.0257	-.0791	.0430	.2110	2374.	
.1210	-3810.	4262.	-127.	-3399.	2137.	458.	-.1100	.0050	-.0424	-.1176	.0433	.2069	2724.	
.1220	-3138.	5555.	-559.	-3696.	1742.	1003.	-.0978	.0061	-.0586	-.1513	.0331	.1917	2836.	
.1230	-2155.	5514.	-1193.	-3501.	938.	1769.	-.0792	.0067	-.0735	-.1764	.0124	.1653	2719.	
.1240	-1165.	5511.	-1652.	-3533.	149.	2154.	-.0564	.0077	-.0861	-.1995	-.0072	.1280	2791.	
.1250	-320.	6578.	-1739.	-4102.	-419.	1966.	-.0319	.0076	-.0957	-.2236	-.0201	.0829	3079.	
.1260	457.	7726.	-1741.	-4601.	-974.	1662.	-.0089	.0080	-.1024	-.2418	-.0326	.0379	3362.	
.1270	1244.	7725.	-1951.	-4505.	-1992.	1648.	.0131	.0079	-.1073	-.2493	-.0582	-.0005	3501.	
.1280	1549.	6396.	-2170.	-4321.	-2662.	974.	.0285	.0075	-.1097	-.2500	-.0749	-.0360	3483.	
.1290	1319.	4426.	-2240.	-4257.	-2807.	-404.	.0370	.0067	-.1084	-.2444	-.0778	-.0665	3448.	
.1300	1001.	2514.	-2211.	-3939.	-2972.	-1418.	.0393	.0057	-.1021	-.2273	-.0819	-.0822	3460.	
.1310	743.	1146.	-2000.	-3428.	-3101.	-1734.	.0358	.0047	-.0897	-.1979	-.0853	-.0802	3328.	
.1320	409.	584.	-1460.	-3104.	-3043.	-1789.	.0274	.0037	-.0714	-.1609	-.0837	-.0661	3168.	
.1330	-174.	578.	-597.	-3117.	-2454.	-2087.	.0149	.0027	-.0487	-.1196	-.0677	-.0463	3021.	
.1340	-671.	798.	282.	-2988.	-1861.	-1932.	-.0001	.0017	-.0243	-.0745	-.0517	-.0176	2707.	
.1350	-927.	759.	948.	-2477.	-1545.	-1101.	-.0158	.0008	-.0015	-.0221	-.0137	.0189	2103.	
.1360	-1312.	172.	1457.	-1973.	-989.	-550.	-.0313	-.0002	.0179	.0126	-.0293	.0517	1533.	
.1370	-1745.	-333.	1847.	-1663.	-371.	-359.	-.0446	-.0009	.0322	.0420	-.0132	.0772	1174.	
.1380	-1977.	-225.	2054.	-4418.	82.	-2.	-.0545	-.0011	.0401	.0585	-.0015	.0985	958.	
.1390	-1852.	82.	1935.	-1000.	65.	817.	-.0597	-.0010	.0407	.0634	-.0027	.1160	871.	
.1400	-1648.	-96.	1546.	-618.	-126.	1388.	-.0601	-.0007	.0345	.0561	-.0085	.1221	1028.	
.1410	-1569.	-427.	1085.	-623.	-92.	1229.	-.0561	-.0003	.0228	.0350	-.0079	.1131	931.	
.1420	-1244.	18.	569.	-807.	-450.	1217.	-.0474	.0006	.0067	.0035	-.0175	.0977	1030.	
.1430	-673.	1045.	-2.	-1010.	-1180.	1455.	-.0350	.0016	-.0120	-.0377	-.0371	.0784	1435.	
.1440	-178.	1864.	-566.	-1333.	-1917.	1330.	-.0208	.0027	-.0314	-.0725	-.0567	.0523	1811.	
.1450	72.	2212.	-1044.	-1849.	-2423.	620.	-.0070	.0035	-.0498	-.1112	-.0699	.0208	2096.	
.1460	221.	2271.	-1449.	-2311.	-2811.	-150.	.0048	.0041	-.0653	-.1439	-.0800	-.0080	2455.	
.1470	461.	2326.	-1794.	-2471.	-3458.	-424.	.0133	.0045	-.0763	-.1652	-.0972	-.0269	2879.	
.1480	498.	2549.	-1866.	-2705.	-3771.	-781.	.0102	.0048	-.0809	-.1761	-.1055	-.0382	3172.	
.1490	255.	3095.	-1590.	-3141.	-3628.	-1329.	.0171	.0048	-.0787	-.1769	-.1015	-.0412	3356.	
.1500	-56.	3785.	-1135.	-3417.	-2792.	-1548.	.0108	.0046	-.0703	-.1653	-.0952	-.0313	3409.	
.1510	-428.	4215.	-628.	-3372.	-3012.	-1413.	-.0007	.0042	-.0570	-.1411	-.0854	-.0088	3193.	
.1520	-936.	4215.	-97.	-3121.	-2473.	-1206.	-.0165	.0035	-.0403	-.1084	-.0716	.0217	2804.	
.1530	-1674.	3696.	463.	-2827.	-1581.	-1291.	-.0352	.0026	-.0216	-.0713	-.0483	.0541	2300.	
.1540	-2405.	2817.	940.	-2317.	-731.	-1312.	-.0543	.0016	-.0025	-.0307	-.0264	.0875	1861.	
.1550	-2568.	1859.	1712.	-1609.	-47.	-1134.	-.0714	.0006	.0159	.0108	-.0087	.1193	1327.	

ADLPIPE PAGE 1150

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.22.

S/RV PIPING KEWAUNEE GKW0RF 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSVCONDITION 24
LOADS

.1990	-912.	2707.	-639.	-5976.	-727.	2251.	0.0000	-0.0000	-0.0000	0.0000	0.0000	-0.0000	4332.
.2000	-571.	3649.	-1024.	-7252.	-1302.	1273.	0.0000	-0.0000	-0.0000	0.0000	0.0000	0.0000	5040.
.2010	-266.	3584.	-1315.	-8185.	-1734.	435.	0.0000	-0.0000	-0.0000	0.0000	0.0000	-0.0000	5647.
.2020	-3.	3639.	-1475.	-8672.	-2077.	-222.	0.0000	-0.0000	-0.0000	-0.0000	0.0000	-0.0000	6012.
.2030	184.	3610.	-1523.	-8693.	-2326.	-585.	0.0000	0.0000	-0.0000	0.0000	0.0000	0.0000	6089.
.2040	209.	3496.	-1425.	-8220.	-2591.	-535.	0.0000	-0.0000	0.0000	-0.0000	0.0000	-0.0000	5821.
.2050	37.	3417.	-1156.	-7279.	-2664.	-44.	0.0000	0.0000	-0.0000	0.0000	0.0000	-0.0000	5225.
.2060	-295.	3179.	-792.	-6003.	-2702.	855.	-0.0000	-0.0000	-0.0000	0.0000	0.0000	-0.0000	4474.
.2070	-754.	2599.	-399.	-4521.	-2748.	2114.	0.0000	-0.0000	-0.0000	0.0000	0.0000	-0.0000	3840.
.2080	-1322.	1906.	48.	-2878.	-2729.	3617.	0.0000	-0.0000	-0.0000	0.0000	0.0000	0.0000	3619.
.2090	-1943.	1369.	558.	-1131.	-2630.	5132.	0.0000	-0.0000	0.0000	0.0000	0.0000	-0.0000	3990.

ADLPIPE PAGE 1195

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.25.

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	26	MEMBER	4	SEQUENCE	47	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.2100	-2516.	963.	1062.	587.	-2528.	6622.		0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000	4794.	
.2110	-2978.	626.	1500.	2139.	-2435.	7818.		0.0000	-0.0000	0.0000	0.0000	0.0000	0.0000	5705.	
.2120	-3310.	359.	1852.	3426.	-2302.	8705.		-0.0000	-0.0000	-0.0000	0.0000	-0.0000	-0.0000	6493.	
.2130	-3497.	68.	2077.	4353.	-2132.	9238.		-0.0000	-0.0000	-0.0000	0.0000	0.0000	-0.0000	7032.	
.2140	-3504.	-281.	2143.	4859.	-1963.	9355.		-0.0000	-0.0000	-0.0000	0.0000	0.0000	-0.0000	7228.	
.2150	-3313.	-114.	2070.	4956.	-1800.	8999.		0.0000	-0.0000	-0.0000	0.0000	0.0000	-0.0000	7030.	
.2160	-2955.	-556.	1892.	4682.	-1623.	8202.		-0.0000	-0.0000	-0.0000	0.0000	0.0000	-0.0000	6459.	
.2170	-2481.	-578.	1611.	4067.	-1431.	7078.		0.0000	-0.0000	-0.0000	0.0000	0.0000	0.0000	5586.	
.2180	-1920.	-617.	1243.	3162.	-1239.	5712.		-0.0000	-0.0000	-0.0000	0.0000	0.0000	0.0000	4479.	
.2190	-1294.	-486.	838.	2064.	-1057.	4152.		0.0000	-0.0000	-0.0000	0.0000	0.0000	-0.0000	3205.	
.2200	-655.	-133.	435.	857.	-884.	2503.		0.0000	-0.0000	-0.0000	0.0000	0.0000	-0.0000	1880.	
.2210	-76.	272.	40.	-406.	-704.	931.		0.0000	0.0000	-0.0000	0.0000	0.0000	0.0000	833.	
.2220	409.	616.	-344.	-1682.	-520.	-449.		0.0000	-0.0000	-0.0000	0.0000	0.0000	-0.0000	1225.	
.2230	794.	873.	-712.	-2925.	-361.	-1589.		0.0000	0.0000	0.0000	-0.0000	0.0000	0.0000	2257.	
.2240	1062.	970.	-1053.	-4064.	-223.	-2442.		0.0000	0.0000	0.0000	-0.0000	0.0000	0.0000	3199.	
.2250	1198.	892.	-1334.	-5000.	-68.	-2985.		0.0000	0.0000	-0.0000	0.0000	0.0000	0.0000	3925.	
.2260	1233.	782.	-1514.	-5628.	115.	-3287.		0.0000	0.0000	0.0000	-0.0000	-0.0000	0.0000	4394.	
.2270	1223.	778.	-1574.	-5880.	310.	-3449.		0.0000	0.0000	0.0000	-0.0000	0.0000	0.0000	4600.	
.2280	1196.	882.	-1515.	-5740.	526.	-3512.		0.0000	0.0000	-0.0000	0.0000	-0.0000	0.0000	4549.	
.2290	1153.	1045.	-1353.	-5240.	791.	-3474.		-0.0000	0.0000	-0.0000	0.0000	-0.0000	0.0000	4271.	
.2300	1107.	1235.	-1119.	-4466.	1093.	-3349.		0.0000	0.0000	-0.0000	0.0000	-0.0000	-0.0000	3834.	
.2310	1071.	1398.	-864.	-3537.	1403.	-3151.		0.0000	0.0000	0.0000	-0.0000	-0.0000	0.0000	3330.	
.2320	1040.	1470.	-631.	-2575.	1712.	-2871.		0.0000	0.0000	0.0000	-0.0000	-0.0000	0.0000	2844.	
.2330	1000.	1390.	-454.	-1685.	2013.	-2501.		0.0000	0.0000	-0.0000	-0.0000	-0.0000	-0.0000	2444.	
.2340	948.	1080.	-355.	-944.	2278.	-2053.		0.0000	0.0000	-0.0000	-0.0000	0.0000	0.0000	2163.	
.2350	891.	508.	-340.	-375.	2488.	-1567.		0.0000	0.0000	0.0000	-0.0000	0.0000	0.0000	1998.	
.2360	847.	-188.	-375.	67.	2635.	-1133.		0.0000	0.0000	0.0000	-0.0000	-0.0000	0.0000	1934.	
.2370	837.	-775.	-406.	458.	2711.	-858.		0.0000	0.0000	0.0000	-0.0000	-0.0000	0.0000	1941.	
.2380	870.	-1139.	-397.	853.	2708.	-805.		0.0000	-0.0000	-0.0000	-0.0000	-0.0000	0.0000	1989.	
.2390	939.	-1326.	-347.	1258.	2626.	-967.		0.0000	0.0000	0.0000	-0.0000	-0.0000	0.0000	2068.	
.2400	1035.	-1397.	-270.	1644.	2458.	-1314.		0.0000	0.0000	0.0000	-0.0000	-0.0000	0.0000	2181.	
.2410	1140.	-1395.	-186.	1972.	2195.	-1791.		0.0000	0.0000	0.0000	-0.0000	-0.0000	0.0000	2326.	
.2420	1227.	-1415.	-115.	2203.	1855.	-2306.		0.0000	0.0000	0.0000	-0.0000	-0.0000	0.0000	2487.	
.2430	1271.	-1556.	-77.	2315.	1456.	-2772.		0.0000	0.0000	0.0000	-0.0000	-0.0000	0.0000	2625.	
.2440	1270.	-1814.	-72.	2329.	1006.	-3141.		0.0000	0.0000	0.0000	-0.0000	-0.0000	0.0000	2721.	
.2450	1222.	-2111.	-77.	2304.	528.	-3385.		-0.0000	0.0000	0.0000	-0.0000	-0.0000	0.0000	2783.	
.2460	1121.	-2389.	-59.	2323.	68.	-3475.		-0.0000	0.0000	0.0000	-0.0000	-0.0000	-0.0000	2818.	
.2470	975.	-2583.	8.	2457.	-350.	-3405.		-0.0000	-0.0000	-0.0000	0.0000	0.0000	-0.0000	2840.	

ADLPIPE PAGE 1196

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.25.

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