

50-305

RESPONSE TO NUREG-0737 ITEM II.D.1

Docket # *50-305*

Control # *8403280048*

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

.0010	1.	1.	2.	-0.	0.	-0.	0.000	0.000	-0.000	-0.000	0.000	-0.000	0.
.0020	9.	8.	3.	-0.	0.	-0.	0.001	0.000	-0.001	-0.001	0.002	0.000	0.
.0030	35.	15.	-1.	-0.	0.	-0.	0.002	-0.000	-0.004	0.000	0.006	0.004	0.
.0040	85.	8.	-30.	-0.	0.	-0.	0.005	-0.000	-0.009	0.004	0.012	0.012	0.
.0050	150.	-18.	-71.	-0.	0.	-0.	0.008	-0.000	-0.018	0.011	0.024	0.023	0.
.0060	253.	-54.	-137.	-0.	0.	-0.	0.012	0.000	-0.030	0.020	0.041	0.038	0.
.0070	404.	-91.	-254.	-0.	0.	-0.	0.018	0.002	-0.048	0.032	0.067	0.064	0.
.0080	626.	-133.	-498.	-0.	0.	-0.	0.028	0.005	-0.077	0.046	0.099	0.109	0.
.0090	998.	-203.	-1057.	-0.	0.	-0.	0.046	0.011	-0.121	0.062	0.138	0.172	0.
.0100	1483.	-299.	-1833.	-0.	0.	-0.	0.076	0.021	-0.179	0.077	0.188	0.253	0.
.0110	1937.	-382.	-2498.	-0.	0.	-0.	0.117	0.036	-0.248	0.083	0.251	0.354	0.

ADLPIPE PAGE 559

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.15.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK

2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	11	MEMBER	2	SEQUENCE	842	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ									STRESS
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)									(PSI)
.0120	2296.	-425.	-2913.	-0.	0.	-0.	0.0168	0.0057	-0.0324	0.0076	0.0327	0.0474	0.		
.0130	2626.	-432.	-3205.	-0.	0.	-0.	0.0230	0.0084	-0.0404	0.0053	0.0418	0.0602	0.		
.0140	3012.	-406.	-3558.	-0.	0.	-0.	0.0299	0.0118	-0.0485	0.0009	0.0531	0.0728	0.		
.0150	3483.	-327.	-4064.	-0.	0.	-0.	0.0376	0.0158	-0.0568	-0.0057	0.0672	0.0856	0.		
.0160	4116.	-192.	-4962.	-0.	0.	-0.	0.0457	0.0203	-0.0654	-0.0139	0.0840	0.0988	0.		
.0170	4655.	-31.	-5793.	-0.	0.	-0.	0.0538	0.0249	-0.0743	-0.0225	0.1015	0.1124	0.		
.0180	4569.	126.	-5473.	0.	-0.	0.	0.0613	0.0295	-0.0828	-0.0295	0.1169	0.1266	0.		
.0190	3719.	263.	-3746.	0.	-0.	0.	0.0685	0.0337	-0.0906	-0.0340	0.1276	0.1408	0.		
.0200	2090.	405.	-805.	0.	-0.	0.	0.0755	0.0375	-0.0978	-0.0365	0.1271	0.1528	0.		
.0210	542.	590.	1333.	0.	0.	0.	0.0833	0.0406	-0.1063	-0.0403	0.1129	0.1584	0.		
.0220	-114.	938.	1699.	-0.	0.	-0.	0.0913	0.0427	-0.1140	-0.0490	0.0942	0.1554	0.		
.0230	-59.	1558.	2032.	-0.	0.	-0.	0.0976	0.0432	-0.1170	-0.0612	0.0748	0.1464	0.		
.0240	-43.	2121.	137.	-0.	0.	-0.	0.1015	0.0413	-0.1168	-0.0700	0.0571	0.1275	0.		
.0250	388.	2324.	-1551.	-0.	0.	-0.	0.1019	0.0362	-0.1133	-0.0691	0.0386	0.0978	0.		
.0260	-2049.	2330.	3272.	-0.	0.	-0.	0.0960	0.0275	-0.1016	-0.0581	0.0145	0.0660	0.		
.0270	-4687.	2115.	9323.	0.	-0.	0.	0.0840	0.0153	-0.0832	-0.0397	-0.0079	0.0309	0.		
.0280	-4235.	1385.	8039.	0.	-0.	0.	0.0693	0.0001	-0.0675	-0.0175	-0.0333	-0.0188	0.		
.0290	-3295.	569.	4030.	0.	-0.	0.	0.0525	-0.0171	-0.0559	0.0015	-0.0746	-0.0755	0.		
.0300	-2575.	559.	820.	0.	-0.	0.	0.0327	-0.0352	-0.0431	0.0130	-0.1185	-0.1159	0.		
.0310	-1794.	1042.	-1580.	0.	-0.	0.	0.0115	-0.0541	-0.0283	0.0247	-0.1547	-0.1439	0.		
.0320	-3208.	516.	880.	0.	-0.	0.	-0.0106	-0.0744	-0.0093	0.0521	-0.1864	-0.1772	0.		
.0330	-4192.	-1613.	2593.	0.	-0.	-0.	-0.0306	-0.0951	0.0102	0.0946	-0.2042	-0.2197	0.		
.0340	-2203.	-3600.	-1047.	-0.	0.	-0.	-0.0464	-0.1130	0.0279	0.1258	-0.1973	-0.2559	0.		
.0350	-551.	-3522.	-2908.	-0.	0.	-0.	-0.0602	-0.1255	0.0479	0.1247	-0.1754	-0.2693	0.		
.0360	-1578.	-2169.	1091.	-0.	0.	-0.	-0.0734	-0.1328	0.0721	0.1053	-0.1534	-0.2606	0.		
.0370	-1900.	-1905.	3243.	-0.	0.	-0.	-0.0846	-0.1365	0.0950	0.0940	-0.1310	-0.2528	0.		
.0380	108.	-3016.	497.	0.	0.	-0.	-0.0938	-0.1372	0.1142	0.0874	-0.1045	-0.2649	0.		
.0390	679.	-3289.	528.	0.	-0.	0.	-0.1039	-0.1332	0.1336	0.0606	-0.0849	-0.2749	0.		
.0400	-1539.	-1575.	4440.	0.	-0.	0.	-0.1150	-0.1246	0.1519	0.0116	-0.0901	-0.2468	0.		
.0410	-1895.	308.	3547.	0.	-0.	0.	-0.1240	-0.1138	0.1636	-0.0353	-0.1060	-0.2068	0.		
.0420	-1203.	598.	576.	-0.	-0.	0.	-0.1300	-0.1033	0.1699	-0.0634	-0.1251	-0.2025	0.		
.0430	-2789.	97.	1857.	-0.	0.	0.	-0.1337	-0.0937	0.1743	-0.0778	-0.1549	-0.2116	0.		
.0440	-4131.	219.	1756.	-0.	0.	-0.	-0.1324	-0.0844	0.1751	-0.0895	-0.1823	-0.1878	0.		
.0450	-3377.	717.	-1187.	-0.	0.	-0.	-0.1246	-0.0755	0.1728	-0.1004	-0.1846	-0.1528	0.		
.0460	-2764.	674.	-962.	-0.	0.	-0.	-0.1111	-0.0677	0.1711	-0.1021	-0.1587	-0.1450	0.		
.0470	-3119.	96.	1772.	-0.	0.	-0.	-0.0929	-0.0609	0.1698	-0.0865	-0.1192	-0.1409	0.		
.0480	-2379.	-531.	1470.	-0.	0.	-0.	-0.0698	-0.0541	0.1655	-0.0600	-0.0704	-0.1147	0.		
.0490	-633.	-879.	331.	0.	-0.	0.	-0.0430	-0.0466	0.1585	-0.0414	-0.0084	-0.0919	0.		

ADLPIPE PAGE 560

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.16.

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

.0390	679.	-3289.	520.	0.	-0.	0.	-.039	-.1372	.1336	.0606	-.0849	-.2749	0.
.0400	-1539.	-1575.	4440.	0.	-0.	0.	-.1150	-.1246	.1519	.0116	-.0901	-.2468	0.
.0410	-1895.	308.	3547.	0.	-0.	0.	-.1240	-.1138	.1636	-.0353	-.1060	-.2068	0.
.0420	-1707.	598.	576.	-0.	-0.	0.	-.1300	-.1033	.1699	-.0634	-.1251	-.2025	0.
.0430	-2789.	97.	1857.	-0.	0.	0.	-.1337	-.0937	.1743	-.0778	-.1549	-.2116	0.
.0440	-4131.	219.	1756.	-0.	0.	-0.	-.1324	-.0844	.1751	-.0895	-.1823	-.1878	0.
.0450	-3377.	717.	-1187.	-0.	0.	-0.	-.1246	-.0755	.1728	-.1004	-.1846	-.1528	0.
.0460	-2764.	674.	-962.	-0.	0.	-0.	-.1111	-.0677	.1711	-.1021	-.1587	-.1450	0.
.0470	-3110.	96.	1772.	-0.	0.	-0.	-.0929	-.0609	.1698	-.0865	-.1192	-.1409	0.
.0480	-2379.	-521.	1470.	-0.	0.	-0.	-.0698	-.0541	.1655	-.0600	-.0704	-.1147	0.
.0490	-637.	-879.	331.	0.	-0.	0.	-.0430	-.0466	.1585	-.0414	-.0084	-.0919	0.

ADLPIPE PAGE 560

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CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	11	MEMBER	2	SEQUENCE	842	LOCATION	END	TYPE	RU						
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)		
.0500	252.	-534.	2193.	0.	-0.	0.	-.0150	-.0379	.1500	-.0399	.0554	-.0832	0.		
.0510	864.	522.	3106.	0.	-0.	0.	.0129	-.0285	.1378	-.0427	.1037	-.0582	0.		
.0520	1996.	1398.	930.	0.	-0.	0.	.0394	-.0201	.1209	-.0341	.1343	-.0195	0.		
.0530	2413.	1578.	174.	0.	-0.	0.	.0629	-.0138	.1023	-.0155	.1557	-.0022	0.		
.0540	2030.	1913.	1118.	-0.	0.	-0.	.0829	-.0100	.0830	.0034	.1720	.0058	0.		
.0550	2008.	2955.	77.	-0.	0.	-0.	.0997	-.0094	.0623	.0251	.1830	.0417	0.		
.0560	1789.	3554.	-939.	-0.	0.	-0.	.1136	-.0133	.0414	.0631	.1921	.0861	0.		
.0570	887.	2648.	743.	-0.	0.	-0.	.1248	-.0224	.0215	.1242	.2044	.1011	0.		
.0580	691.	1118.	1604.	-0.	0.	-0.	.1347	-.0353	.0004	.1985	.2175	.1071	0.		
.0590	1416.	320.	82.	-0.	-0.	-0.	.1434	-.0500	-.0228	.2685	.2254	.1382	0.		
.0600	1680.	49.	-133.	0.	-0.	0.	.1499	-.0650	-.0461	.3254	.2288	.1749	0.		
.0610	1583.	-688.	1013.	0.	-0.	0.	.1537	-.0798	-.0692	.3745	.2284	.1898	0.		
.0620	2298.	-1970.	-193.	0.	-0.	0.	.1547	-.0934	-.0933	.4208	.2199	.1970	0.		
.0630	2947.	-3037.	-2163.	0.	-0.	-0.	.1522	-.1038	-.1166	.4553	.2004	.2123	0.		
.0640	2549.	-3314.	-1594.	0.	-0.	-0.	.1449	-.1095	-.1363	.4624	.1771	.2246	0.		
.0650	2335.	-2826.	-991.	0.	0.	-0.	.1334	-.1101	-.1529	.4397	.1555	.2303	0.		
.0660	2796.	-2142.	-2500.	0.	0.	-0.	.1179	-.1065	-.1671	.4010	.1305	.2398	0.		
.0670	2302.	-1887.	-2769.	-0.	0.	-0.	.0981	-.0996	-.1770	.3581	.0954	.2464	0.		
.0680	779.	-1912.	-864.	0.	0.	-0.	.0749	-.0898	-.1828	.3084	.0527	.2372	0.		
.0690	-0.	-1360.	-700.	0.	0.	0.	.0506	-.0772	-.1870	.2442	.0060	.2237	0.		
.0700	-147.	26.	-2718.	0.	-0.	0.	.0264	-.0628	-.1898	.1678	-.0456	.2209	0.		
.0710	-854.	1301.	-3811.	0.	-0.	0.	.0029	-.0486	-.1888	.0942	-.0979	.2150	0.		
.0720	-1625.	1518.	-3861.	0.	-0.	0.	-.0188	-.0364	-.1823	.0377	-.1389	.1869	0.		
.0730	-1961.	909.	-3891.	-0.	-0.	0.	-.0378	-.0265	-.1703	-.0003	-.1541	.1443	0.		
.0740	-2587.	361.	-2930.	-0.	0.	0.	-.0534	-.0180	-.1528	-.0296	-.1769	.1052	0.		
.0750	-3042.	271.	-1688.	-0.	0.	-0.	-.0649	-.0101	-.1310	-.0598	-.1755	.0689	0.		
.0760	-2251.	411.	-2033.	-0.	0.	-0.	-.0719	-.0027	-.1065	-.0916	-.1583	.0262	0.		
.0770	-1224.	475.	-2316.	-0.	0.	-0.	-.0757	.0040	-.0789	-.1200	-.1336	-.0211	0.		
.0780	-1334.	387.	-363.	-0.	0.	-0.	-.0776	.0099	-.0479	-.1424	-.1123	-.0660	0.		
.0790	-1479.	360.	1493.	0.	-0.	0.	-.0776	.0152	-.0164	-.1643	-.0956	-.1101	0.		
.0800	-400.	814.	813.	0.	-0.	0.	-.0756	.0198	.0132	-.1933	-.0804	-.1560	0.		
.0810	612.	1916.	-143.	0.	-0.	0.	-.0732	.0230	.0416	-.2282	-.0713	-.1966	0.		
.0820	397.	3081.	607.	0.	-0.	0.	-.0717	.0231	.0700	-.2553	-.0717	-.2278	0.		
.0830	-119.	3404.	1452.	0.	-0.	-0.	-.0707	.0185	.0973	-.2610	-.0763	-.2597	0.		
.0840	-369.	2784.	1641.	-0.	0.	-0.	-.0695	.0088	.1224	-.2451	-.0810	-.2992	0.		
.0850	-957.	2086.	2245.	-0.	0.	-0.	-.0676	-.0051	.1448	-.2179	-.0878	-.3315	0.		
.0860	-1591.	1885.	2640.	-0.	0.	-0.	-.0642	-.0221	.1636	-.1856	-.0962	-.3422	0.		
.0870	-1595.	1661.	2067.	-0.	0.	-0.	-.0584	-.0419	.1783	-.1437	-.1015	-.3409	0.		

ADLPIPE PAGE 561

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.16.

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

CONDITION 24

LOADS

SHOCK

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ENGLISH UNITS

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

.0770	-1224.	475.	2316.	-0.	0.	-0.	-0.	-.757	.0040	-.0789	-.1200	-.1336	-.0211	0.
.0780	-1334.	387.	-363.	-0.	0.	-0.	-0.	-.776	.0099	-.0479	-.1424	-.1123	-.0660	0.
.0790	-1479.	360.	1492.	0.	-0.	0.	0.	-.0776	.0152	-.0164	-.1643	-.0956	-.1101	0.
.0800	-400.	814.	817.	0.	-0.	0.	0.	-.0756	.0198	.0132	-.1933	-.0804	-.1560	0.
.0810	612.	1916.	-143.	0.	-0.	0.	0.	-.0732	.0230	.0416	-.2282	-.0713	-.1966	0.
.0820	397.	3091.	607.	0.	-0.	0.	0.	-.0717	.0231	.0700	-.2553	-.0717	-.2278	0.
.0830	-119.	3404.	1452.	0.	-0.	0.	0.	-.0707	.0185	.0973	-.2610	-.0763	-.2597	0.
.0840	-369.	2784.	1641.	-0.	0.	-0.	-0.	-.0695	.0088	.1224	-.2451	-.0810	-.2992	0.
.0850	-957.	2086.	2245.	-0.	0.	-0.	-0.	-.0676	-.0051	.1448	-.2179	-.0878	-.3315	0.
.0860	-1591.	1885.	2640.	-0.	0.	-0.	-0.	-.0642	-.0221	.1636	-.1856	-.0962	-.3422	0.
.0870	-1595.	1661.	2067.	-0.	0.	-0.	-0.	-.0584	-.0419	.1783	-.1437	-.1015	-.3409	0.

ADLPIPE PAGE 561

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.16.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	11	MEMBER	2	SEQUENCE	842	LOCATION	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)		
.0880	-1526.	675.	1984.	-0.	0.	-0.	-.0501	-.0640	.1897	-.0866	-.1030	-.3420	0.		
.0890	-1822.	-872.	2762.	-0.	-0.	-0.	-.0394	-.0868	.1977	-.0188	-.1026	-.3394	0.		
.0900	-1723.	-2108.	2592.	0.	-0.	-0.	-.0259	-.1080	.2014	.0456	-.0972	-.3209	0.		
.0910	-972.	-2570.	1483.	0.	-0.	0.	-.0099	-.1259	.2012	.0953	-.0811	-.2900	0.		
.0920	-311.	-2570.	1173.	0.	-0.	0.	.0074	-.1397	.1987	.1323	-.0535	-.2546	0.		
.0930	32.	-2687.	1609.	0.	-0.	0.	.0250	-.1495	.1945	.1653	-.0176	-.2141	0.		
.0940	773.	-3122.	1917.	0.	-0.	0.	.0422	-.1550	.1881	.1959	.0247	-.1702	0.		
.0950	683.	-3484.	2435.	0.	-0.	-0.	.0586	-.1556	.1790	.2151	.0710	-.1274	0.		
.0960	1009.	-3206.	2914.	0.	0.	0.	.0736	-.1509	.1662	.2152	.1167	-.0802	0.		
.0970	1629.	-2305.	2288.	0.	0.	0.	.0868	-.1414	.1493	.2001	.1569	-.0234	0.		
.0980	2227.	-1503.	1221.	0.	0.	0.	.0973	-.1285	.1292	.1810	.1894	.0317	0.		
.0990	2355.	-1360.	1002.	-0.	-0.	0.	.1042	-.1132	.1073	.1651	.2144	.0718	0.		
.1000	2348.	-1583.	947.	-0.	-0.	0.	.1073	-.0958	.0839	.1502	.2326	.1026	0.		
.1010	2562.	-1556.	233.	-0.	-0.	0.	.1068	-.0761	.0591	.1294	.2437	.1337	0.		
.1020	2612.	-1212.	-187.	-0.	-0.	0.	.1024	-.0541	.0339	.1011	.2464	.1598	0.		
.1030	2262.	-988.	98.	-0.	-0.	0.	.0941	-.0303	.0089	.0706	.2382	.1723	0.		
.1040	1864.	-1080.	-8.	-0.	0.	0.	.0824	-.0051	-.0163	.0416	.2162	.1747	0.		
.1050	1394.	-1135.	-503.	-0.	0.	0.	.0680	.0217	-.0415	.0095	.1795	.1726	0.		
.1060	565.	-689.	-435.	-0.	0.	-0.	.0518	.0500	-.0661	-.0339	.1300	.1664	0.		
.1070	-107.	305.	-641.	-0.	0.	-0.	.0348	.0792	-.0900	-.0881	.0728	.1571	0.		
.1080	-629.	1464.	-1383.	-0.	0.	-0.	.0185	.1076	-.1134	-.1436	.0085	.1478	0.		
.1090	-1483.	2413.	-1766.	-0.	0.	-0.	.0046	.1336	-.1368	-.1925	-.0645	.1358	0.		
.1100	-783.	3017.	-3830.	0.	0.	-0.	-.0065	.1558	-.1580	-.2359	-.1183	.1102	0.		
.1110	-615.	3658.	-3953.	-0.	0.	-0.	-.0158	.1732	-.1742	-.2734	-.1549	.0849	0.		
.1120	-1431.	4249.	-2104.	-0.	0.	-0.	-.0233	.1848	-.1855	-.2966	-.1792	.0719	0.		
.1130	-1464.	4146.	-1411.	-0.	0.	-0.	-.0283	.1899	-.1941	-.2983	-.1870	.0563	0.		
.1140	-721.	3338.	-1498.	-0.	0.	-0.	-.0308	.1888	-.2009	-.2829	-.1809	.0274	0.		
.1150	-301.	2669.	-1075.	-0.	0.	-0.	-.0320	.1826	-.2059	-.2614	-.1720	.0045	0.		
.1160	199.	2485.	-1542.	-0.	-0.	-0.	-.0325	.1723	-.2094	-.2378	-.1639	.0022	0.		
.1170	577.	2091.	-1960.	0.	0.	-0.	-.0332	.1584	-.2108	-.2073	-.1559	.0025	0.		
.1180	1742.	979.	-3298.	-0.	0.	-0.	-.0350	.1415	-.2087	-.1665	-.1393	-.0100	0.		
.1190	1173.	-187.	-1828.	-0.	-0.	-0.	-.0396	.1233	-.2013	-.1206	-.1282	-.0179	0.		
.1200	-166.	-743.	-152.	0.	-0.	-0.	-.0464	.1054	-.1903	-.0792	-.1248	-.0066	0.		
.1210	418.	-882.	-2409.	-0.	-0.	-0.	-.0531	.0888	-.1786	-.0486	-.1180	.0082	0.		
.1220	8.	-952.	-2286.	0.	-0.	-0.	-.0603	.0737	-.1636	-.0292	-.1146	.0112	0.		
.1230	-736.	-1004.	-1720.	0.	-0.	-0.	-.0672	.0601	-.1451	-.0143	-.1142	.0175	0.		
.1240	-1608.	-1145.	-1441.	0.	0.	-0.	-.0731	.0482	-.1238	.0017	-.1169	.0326	0.		
.1250	-2404.	-1533.	-589.	0.	0.	0.	-.0769	.0381	-.0997	.0156	-.1155	.0377	0.		

ADLPIPE PAGE 562

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.16.

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

.1140	-721.	3338.	-1075.	-0.	0.	-0.	-0.	-.0320	.1826	-.2009	-.2829	-.1809	.0274	0.
.1150	-301.	2869.	-1542.	-0.	0.	-0.	-0.	-.0325	.1723	-.2004	-.2378	-.1639	.0022	0.
.1160	199.	2485.	-1960.	0.	0.	-0.	-0.	-.0332	.1584	-.2108	-.2073	-.1559	.0025	0.
.1170	577.	979.	-3298.	-0.	0.	-0.	-0.	-.0350	.1415	-.2087	-.1665	-.1393	-.0100	0.
.1180	1742.	-187.	-1828.	-0.	-0.	-0.	-0.	-.0396	.1233	-.2013	-.1206	-.1282	-.0179	0.
.1190	1173.	-743.	-152.	0.	-0.	-0.	-0.	-.0464	.1054	-.1903	-.0792	-.1248	-.0066	0.
.1200	-166.	-882.	-2409.	-0.	-0.	-0.	-0.	-.0531	.0888	-.1786	-.0486	-.1180	.0082	0.
.1210	478.	-952.	-2286.	0.	-0.	-0.	-0.	-.0603	.0737	-.1636	-.0292	-.1146	.0112	0.
.1220	8.	-1004.	-1720.	0.	-0.	-0.	-0.	-.0672	.0601	-.1451	-.0143	-.1142	.0175	0.
.1230	-736.	-1145.	-1441.	0.	0.	-0.	-0.	-.0731	.0482	-.1238	.0017	-.1169	.0326	0.
.1240	-1608.	-1533.	-589.	0.	0.	0.	0.	-.0769	.0381	-.0997	.0156	-.1155	.0377	0.

ADLPIPE PAGE 562

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.16.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	11	MEMBER	2	SEQUENCE	842	LOCATION	END	TYPE	RU					
TIM (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)				DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
.1260	-2000.	-1781.	-867.	0.	0.	-0.	-0.	-.0773	.0304	-.0743	.0204	-.1031	.0325	0.
.1270	-2590.	-1391.	379.	0.	0.	0.	-0.	-.0748	.0255	-.0475	.0151	-.0953	.0381	0.
.1280	-2325.	-926.	-414.	0.	-0.	0.	-0.	-.0682	.0226	-.0214	.0065	-.0855	.0511	0.
.1290	-1779.	-1183.	-788.	0.	0.	0.	-0.	-.0581	.0213	.0050	-.0006	-.0572	.0454	0.
.1300	-1728.	-1777.	682.	-0.	-0.	0.	-0.	-.0454	.0219	.0324	-.0089	-.0421	.0273	0.
.1310	-467.	-1781.	-215.	-0.	0.	0.	-0.	-.0305	.0252	.0592	-.0236	-.0073	.0228	0.
.1320	85.	-1201.	262.	-0.	-0.	0.	-0.	-.0151	.0311	.0865	-.0458	.0305	.0256	0.
.1330	720.	-792.	1314.	-0.	-0.	0.	-0.	-.0001	-.0388	.1131	-.0707	.0747	.0146	0.
.1340	1208.	-723.	2490.	-0.	-0.	0.	-0.	.0136	.0476	.1377	-.0938	.1150	-.0046	0.
.1350	1455.	-542.	2967.	-0.	-0.	0.	-0.	.0251	.0575	.1587	-.1166	.1423	-.0156	0.
.1360	2366.	-30.	1803.	-0.	-0.	0.	-0.	.0342	.0681	.1753	-.1434	.1623	-.0242	0.
.1370	2174.	754.	2948.	0.	-0.	0.	-0.	.0397	.0786	.1888	-.1735	.1718	-.0397	0.
.1380	2564.	1574.	2593.	0.	0.	0.	-0.	.0416	.0878	.1980	-.1980	.1751	-.0514	0.
.1390	2834.	2033.	1749.	0.	0.	-0.	-0.	.0394	.0945	.2035	-.2086	.1701	-.0567	0.
.1400	2150.	1839.	2800.	0.	0.	-0.	-0.	.0327	.0981	.2064	-.2049	.1599	-.0695	0.
.1410	2067.	1312.	2987.	0.	-0.	0.	-0.	.0226	.0989	.2053	-.1924	.1513	-.0884	0.
.1420	1388.	1034.	3631.	0.	-0.	-0.	-0.	.0093	.0977	.1997	-.1754	.1337	-.0974	0.
.1430	1022.	897.	2992.	0.	-0.	0.	-0.	-.0061	.0949	.1888	-.1529	.1090	-.0955	0.
.1440	464.	435.	2815.	-0.	-0.	-0.	-0.	-.0230	.0909	.1735	-.1244	.0789	-.0985	0.
.1450	-271.	-288.	3140.	-0.	-0.	-0.	-0.	-.0407	.0863	.1542	-.0930	.0444	-.1051	0.
.1460	-217.	-802.	1673.	-0.	0.	-0.	-0.	-.0580	.0822	.1305	-.0641	.0087	-.1000	0.
.1470	-1189.	-946.	1824.	-0.	0.	-0.	-0.	-.0748	.0793	.1043	-.0412	-.0330	-.0837	0.
.1480	-1566.	-976.	1085.	-0.	0.	-0.	-0.	-.0897	.0780	.0756	-.0240	-.0687	-.0676	0.
.1490	-1651.	-918.	-49.	-0.	0.	-0.	-0.	-.1021	.0781	.0455	-.0111	-.0973	-.0505	0.
.1500	-2342.	-673.	-92.	-0.	0.	-0.	-0.	-.1120	.0796	.0157	-.0017	-.1218	-.0240	0.
.1510	-2473.	-424.	-790.	0.	-0.	-0.	-0.	-.1183	.0821	-.0136	.0046	-.1352	.0083	0.
.1520	-2868.	-309.	-304.	0.	0.	-0.	-0.	-.1207	.0853	-.0417	.0079	-.1403	.0366	0.
.1530	-2459.	-202.	-890.	0.	0.	0.	-0.	-.1188	.0889	-.0690	.0085	-.1359	.0641	0.
.1540	-2322.	53.	-985.	0.	0.	0.	-0.	-.1131	.0928	-.0949	.0076	-.1302	.0972	0.
.1550	-2389.	274.	-620.	0.	0.	0.	-0.	-.1041	.0965	-.1189	.0070	-.1237	.1309	0.
.1560	-1086.	271.	-2419.	0.	0.	0.	-0.	-.0917	.0999	-.1415	.0072	-.1078	.1576	0.
.1570	-714.	224.	-2360.	0.	0.	0.	-0.	-.0778	.1028	-.1601	.0076	-.0916	.1805	0.
.1580	-366.	215.	-2363.	-0.	0.	0.	-0.	-.0629	.1053	-.1750	.0090	-.0724	.2058	0.
.1590	769.	81.	-3556.	0.	0.	0.	-0.	-.0478	.1075	-.1859	.0125	-.0455	.2272	0.
.1600	997.	-166.	-2565.	-0.	-0.	0.	-0.	-.0339	.1095	-.1915	.0165	-.0180	.2386	0.
.1610	594.	-273.	-742.	-0.	0.	0.	-0.	-.0217	.1119	-.1931	.0184	.0043	.2481	0.
.1620	1474.	-127.	-2099.	-0.	-0.	0.	-0.	-.0105	.1145	-.1933	.0159	.0233	.2597	0.
.1630	1444.	202.	-2016.	-0.	0.	0.	-0.	-.0016	.1173	-.1906	.0074	.0324	.2634	0.

ADLPIPE PAGE 563

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.16.

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

.1530	-2459.	-202.	-890.	0.	0.	0.	0.	-.1188	.0889	-.0690	.0085	-.1359	.0641	0.
.1540	-2322.	53.	-985.	0.	0.	0.	0.	-.1131	.0928	-.0949	.0076	-.1302	.0972	0.
.1550	-2389.	274.	-620.	0.	0.	0.	0.	-.1041	.0965	-.1189	.0070	-.1237	.1309	0.
.1560	-1086.	271.	-2419.	0.	0.	0.	0.	-.0917	.0999	-.1415	.0072	-.1078	.1576	0.
.1570	-714.	224.	-2360.	0.	0.	0.	0.	-.0778	.1028	-.1601	.0076	-.0916	.1805	0.
.1580	-366.	215.	-2363.	-0.	0.	0.	0.	-.0629	.1053	-.1750	.0090	-.0724	.2058	0.
.1590	769.	81.	-2556.	0.	0.	0.	0.	-.0478	.1075	-.1859	.0125	-.0455	.2272	0.
.1600	997.	-166.	-2565.	-0.	-0.	0.	0.	-.0339	.1095	-.1915	.0165	-.0180	.2386	0.
.1610	594.	-273.	-742.	-0.	0.	0.	0.	-.0217	.1119	-.1931	.0184	.0043	.2481	0.
.1620	1474.	-127.	-2099.	-0.	-0.	0.	0.	-.0105	.1145	-.1923	.0159	.0233	.2597	0.
.1630	1444.	202.	-2016.	-0.	0.	0.	0.	-.0016	.1173	-.1906	.0074	.0324	.2634	0.

ADLPIPE PAGE 563

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.16.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	11	MEMBER	2	SEQUENCE	842	LOCATION	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)		
.1640	1017.	646.	-1349.	-0.	-0.	-0.	.0053	.1197	-.1849	-.0049	.0348	.2596	0.		
.1650	1325.	1177.	-2542.	-0.	0.	-0.	.0106	.1210	-.1770	-.0162	.0348	.2566	0.		
.1660	732.	1640.	-2176.	0.	0.	-0.	.0139	.1205	-.1654	-.0239	.0302	.2501	0.		
.1670	321.	1849.	-1669.	-0.	0.	-0.	.0161	.1174	-.1506	-.0268	.0297	.2332	0.		
.1680	-76.	1911.	-1015.	0.	0.	-0.	.0177	.1114	-.1331	-.0252	.0316	.2115	0.		
.1690	186.	1930.	-1689.	0.	-0.	-0.	.0193	.1025	-.1137	-.0188	.0372	.1918	0.		
.1700	138.	1785.	-1534.	0.	-0.	0.	.0208	.0907	-.0921	-.0070	.0439	.1687	0.		
.1710	-1099.	1359.	1039.	0.	-0.	0.	.0220	.0763	-.0684	.0106	.0465	.1381	0.		
.1720	-520.	773.	79.	0.	-0.	-0.	.0247	.0598	-.0458	.0317	.0532	.1077	0.		
.1730	-88.	345.	-589.	0.	-0.	-0.	.0280	.0423	-.0232	.0507	.0575	.0803	0.		
.1740	-207.	143.	211.	-0.	-0.	-0.	.0313	.0243	.0002	.0653	.0612	.0536	0.		
.1750	291.	-56.	155.	-0.	-0.	-0.	.0349	.0062	.0232	.0784	.0687	.0275	0.		
.1760	493.	-413.	645.	-0.	-0.	-0.	.0378	-.0117	.0461	.0925	.0751	.0021	0.		
.1770	1120.	-828.	476.	-0.	-0.	-0.	.0398	-.0289	.0680	.1053	.0842	-.0225	0.		
.1780	1083.	-980.	1599.	-0.	-0.	-0.	.0399	-.0447	.0891	.1118	.0911	-.0447	0.		
.1790	1482.	-816.	1685.	0.	-0.	-0.	.0381	-.0590	.1080	.1117	.0972	-.0611	0.		
.1800	2132.	-630.	1014.	0.	-0.	0.	.0340	-.0720	.1244	.1091	.1001	-.0744	0.		
.1810	1353.	-664.	2676.	0.	-0.	0.	.0267	-.0840	.1390	.1074	.0921	-.0894	0.		
.1820	1247.	-864.	2576.	0.	-0.	0.	.0172	-.0949	.1497	.1062	.0796	-.1042	0.		
.1830	1112.	-932.	1998.	0.	0.	0.	.0056	-.1044	.1569	.1017	.0599	-.1159	0.		
.1840	601.	-781.	1820.	0.	-0.	0.	-.0076	-.1125	.1611	.0931	.0346	-.1246	0.		
.1850	70.	-636.	1443.	0.	-0.	0.	-.0216	-.1193	.1625	.0841	.0075	-.1319	0.		
.1860	-819.	-756.	1517.	0.	0.	0.	-.0358	-.1252	.1620	.0789	-.0209	-.1405	0.		
.1870	-1066.	-1150.	607.	-0.	0.	0.	-.0487	-.1298	.1594	.0772	-.0430	-.1516	0.		
.1880	-1828.	-1489.	1131.	-0.	0.	0.	-.0600	-.1325	.1561	.0743	-.0615	-.1625	0.		
.1890	-2330.	-1540.	1512.	-0.	-0.	0.	-.0686	-.1331	.1514	.0675	-.0742	-.1689	0.		
.1900	-2053.	-1425.	691.	0.	0.	0.	-.0738	-.1312	.1447	.0579	-.0805	-.1724	0.		
.1910	-2316.	-1365.	1184.	-0.	0.	0.	-.0759	-.1272	.1370	.0478	-.0860	-.1777	0.		
.1920	-2292.	-1357.	1351.	-0.	0.	0.	-.0745	-.1211	.1276	.0374	-.0885	-.1829	0.		
.1930	-1988.	-1161.	1027.	-0.	0.	0.	-.0698	-.1130	.1164	.0244	-.0891	-.1836	0.		
.1940	-1770.	-681.	951.	-0.	0.	-0.	-.0622	-.1033	.1039	.0075	-.0880	-.1798	0.		
.1950	-1490.	-100.	870.	-0.	0.	-0.	-.0520	-.0926	.0900	-.0100	-.0839	-.1736	0.		
.1960	-970.	355.	405.	0.	0.	0.	-.0398	-.0818	.0751	-.0236	-.0759	-.1656	0.		
.1970	-559.	632.	255.	0.	0.	0.	-.0262	-.0717	.0597	-.0315	-.0650	-.1556	0.		
.1980	-409.	822.	712.	0.	0.	0.	-.0119	-.0626	.0440	-.0350	-.0522	-.1433	0.		
.1990	-146.	1003.	896.	0.	0.	-0.	.0028	-.0548	.0273	-.0354	-.0381	-.1278	0.		
.2000	328.	1173.	483.	0.	-0.	-0.	.0175	-.0487	.0094	-.0323	-.0245	-.1094	0.		
.2010	698.	1281.	104.	0.	-0.	0.	.0315	-.0443	-.0089	-.0249	-.0132	-.0892	0.		

ADLPIPE PAGE 564

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.16.

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

.1910	-2316.	-1365.	1154.	-0.	0.	0.	-0.759	-0.1272	.1370	.0478	-0.0860	-0.1777	0.
.1920	-2292.	-1357.	1351.	-0.	0.	0.	-0.745	-0.1211	.1276	.0374	-0.0885	-0.1829	0.
.1930	-1983.	-1161.	1027.	-0.	0.	0.	-0.698	-0.1130	.1164	.0244	-0.0891	-0.1836	0.
.1940	-1770.	-681.	951.	-0.	0.	-0.	-0.622	-0.1033	.1039	.0075	-0.0880	-0.1798	0.
.1950	-1490.	-100.	870.	-0.	0.	-0.	-0.520	-0.0926	.0900	-0.0100	-0.0839	-0.1736	0.
.1960	-970.	355.	405.	0.	0.	0.	-0.398	-0.0818	.0751	-0.0236	-0.0759	-0.1656	0.
.1970	-559.	632.	255.	0.	0.	0.	-0.262	-0.0717	.0597	-0.0315	-0.0650	-0.1556	0.
.1980	-409.	822.	712.	0.	0.	0.	-0.119	-0.0626	.0440	-0.0350	-0.0522	-0.1433	0.
.1990	-146.	1003.	896.	0.	0.	-0.	.0023	-0.0548	.0273	-0.0354	-0.0381	-0.1278	0.
.2000	328.	1173.	487.	0.	-0.	-0.	.0175	-0.0487	.0094	-0.0323	-0.0245	-0.1094	0.
.2010	690.	1281.	104.	0.	-0.	0.	.0315	-0.0443	-0.0089	-0.0249	-0.0132	-0.0892	0.

ADLPIPE PAGE 564

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.16.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	11	MEMBER	2	SEQUENCE	842	LOCATION	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)		
.2020	933.	1301.	-121.	0.	-0.	-0.	.0443	-0.0420	-0.0273	-0.0129	-0.0042	-0.0676	0.		
.2030	1187.	1250.	-477.	-0.	-0.	-0.	.0555	-0.0417	-0.0454	.0031	.0036	-0.0444	0.		
.2040	1348.	1161.	-764.	-0.	-0.	-0.	.0647	-0.0433	-0.0625	.0218	.0103	-0.0201	0.		
.2050	1378.	1059.	-923.	-0.	0.	-0.	.0717	-0.0466	-0.0784	.0426	.0161	.0049	0.		
.2060	1404.	942.	-1250.	-0.	-0.	-0.	.0765	-0.0516	-0.0926	.0657	.0215	.0305	0.		
.2070	1343.	786.	-1523.	-0.	0.	-0.	.0791	-0.0579	-0.1049	.0912	.0264	.0561	0.		
.2080	1017.	566.	-1401.	-0.	-0.	-0.	.0796	-0.0654	-0.1147	.1185	.0298	.0805	0.		
.2090	619.	286.	-1276.	-0.	-0.	0.	.0786	-0.0736	-0.1224	.1463	.0318	.1033	0.		
.2100	400.	-24.	-1573.	0.	0.	0.	.0766	-0.0822	-0.1280	.1731	.0332	.1241	0.		
.2110	179.	-341.	-1810.	0.	-0.	0.	.0740	-0.0907	-0.1311	.1977	.0341	.1419	0.		
.2120	-149.	-664.	-1732.	-0.	-0.	0.	.0712	-0.0985	-0.1315	.2195	.0347	.1560	0.		
.2130	-358.	-1005.	-1782.	0.	-0.	0.	.0687	-0.1053	-0.1293	.2374	.0366	.1658	0.		
.2140	-374.	-1333.	-2013.	0.	-0.	0.	.0668	-0.1104	-0.1244	.2495	.0411	.1703	0.		
.2150	-342.	-1576.	-2020.	0.	-0.	0.	.0655	-0.1134	-0.1165	.2537	.0486	.1693	0.		
.2160	-260.	-1684.	-1786.	-0.	-0.	0.	.0647	-0.1140	-0.1056	.2492	.0588	.1635	0.		
.2170	-13.	-1685.	-1551.	0.	0.	0.	.0643	-0.1119	-0.0921	.2364	.0706	.1527	0.		
.2180	328.	-1608.	-1218.	-0.	0.	-0.	.0639	-0.1073	-0.0763	.2159	.0822	.1354	0.		
.2190	686.	-1401.	-781.	-0.	-0.	-0.	.0630	-0.1002	-0.0588	.1876	.0911	.1125	0.		
.2200	1100.	-1008.	-513.	-0.	0.	-0.	.0609	-0.0911	-0.0402	.1520	.0952	.0863	0.		
.2210	1463.	-493.	-329.	-0.	-0.	-0.	.0571	-0.0805	-0.0209	.1118	.0929	.0569	0.		
.2220	1595.	-2.	36.	-0.	-0.	0.	.0511	-0.0693	-0.0012	.0706	.0831	.0234	0.		
.2230	1546.	392.	355.	0.	-0.	0.	.0426	-0.0581	.0183	.0314	.0660	-0.0133	0.		
.2240	1410.	717.	408.	0.	-0.	-0.	.0318	-0.0476	.0372	-0.0042	.0430	-0.0506	0.		
.2250	1093.	995.	507.	0.	-0.	-0.	.0189	-0.0383	.0555	-0.0354	.0161	-0.0872	0.		
.2260	560.	1170.	834.	-0.	0.	-0.	.0045	-0.0306	.0728	-0.0609	-0.0127	-0.1223	0.		
.2270	-46.	1164.	1116.	0.	0.	-0.	-0.0107	-0.0247	.0887	-0.0790	-0.0414	-0.1549	0.		
.2280	-647.	982.	1254.	0.	0.	-0.	-0.0257	-0.0205	.1029	-0.0897	-0.0582	-0.1839	0.		
.2290	-1229.	741.	1384.	0.	0.	-0.	-0.0396	-0.0179	.1151	-0.0952	-0.0912	-0.2078	0.		
.2300	-1671.	572.	1428.	0.	0.	-0.	-0.0515	-0.0164	.1251	-0.0979	-0.1080	-0.2248	0.		
.2310	-1901.	489.	1326.	-0.	0.	-0.	-0.0608	-0.0157	.1329	-0.0987	-0.1170	-0.2338	0.		
.2320	-2003.	390.	1311.	-0.	-0.	-0.	-0.0671	-0.0158	.1386	-0.0968	-0.1177	-0.2361	0.		
.2330	-1991.	215.	1443.	-0.	-0.	0.	-0.0703	-0.0164	.1422	-0.0920	-0.1101	-0.2330	0.		
.2340	-1782.	51.	1522.	-0.	0.	-0.	-0.0705	-0.0174	.1436	-0.0858	-0.0947	-0.2237	0.		
.2350	-1442.	13.	1568.	-0.	0.	-0.	-0.0680	-0.0184	.1427	-0.0798	-0.0738	-0.2075	0.		
.2360	-1095.	80.	1694.	-0.	0.	-0.	-0.0634	-0.0194	.1393	-0.0740	-0.0502	-0.1854	0.		
.2370	-719.	107.	1732.	-0.	0.	0.	-0.0571	-0.0205	.1333	-0.0667	-0.0267	-0.1597	0.		
.2380	-311.	8.	1582.	-0.	0.	0.	-0.0498	-0.0217	.1246	-0.0565	-0.0056	-0.1324	0.		
.2390	-2.	-163.	1447.	-0.	0.	0.	-0.0420	-0.0229	.1136	-0.0442	.0110	-0.1038	0.		

ADLPIPE PAGE 565

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.16.

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

.2290	-1225.	741.	1384.	0.	0.	-0.	-0.	-0.396	-0.0179	.1151	-0.0952	-0.0912	-0.2078	0.
.2300	-1671.	572.	1428.	0.	0.	-0.	-0.	-0.515	-0.0164	.1251	-0.0979	-0.1080	-0.2248	0.
.2310	-1901.	499.	1326.	-0.	0.	-0.	-0.	-0.608	-0.0157	.1329	-0.0987	-0.1170	-0.2338	0.
.2320	-2007.	390.	1311.	-0.	-0.	-0.	-0.	-0.671	-0.0158	.1386	-0.0968	-0.1177	-0.2361	0.
.2330	-1991.	211.	1442.	-0.	-0.	-0.	-0.	-0.703	-0.0164	.1422	-0.0920	-0.1101	-0.2330	0.
.2340	-1782.	51.	1522.	-0.	0.	-0.	-0.	-0.705	-0.0174	.1436	-0.0858	-0.0947	-0.2237	0.
.2350	-1442.	13.	1568.	-0.	0.	-0.	-0.	-0.680	-0.0184	.1427	-0.0798	-0.0738	-0.2075	0.
.2360	-1095.	80.	1694.	-0.	0.	-0.	-0.	-0.634	-0.0194	.1393	-0.0740	-0.0502	-0.1854	0.
.2370	-719.	107.	1732.	-0.	0.	-0.	-0.	-0.571	-0.0205	.1333	-0.0667	-0.0267	-0.1597	0.
.2380	-311.	8.	1582.	-0.	0.	-0.	-0.	-0.498	-0.0217	.1246	-0.0565	-0.0056	-0.1324	0.
.2390	-2.	-163.	1447.	-0.	0.	-0.	-0.	-0.420	-0.0229	.1136	-0.0442	.0110	-0.1038	0.

ADLPIPE PAGE 565

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.16.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	11	MEMBER	2	SEQUENCE	842	LOCATION	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)	
.2400	170.	-328.	1359.	0.	0.	0.		-0.0344	-0.0237	.1004	-0.0309	.0221	-0.0741	0.	
.2410	304.	-491.	1090.	0.	0.	0.		-0.0270	-0.0241	.0852	-0.0170	.0276	-0.0443	0.	
.2420	386.	-716.	666.	0.	0.	0.		-0.0201	-0.0236	.0684	-0.0021	.0282	-0.0167	0.	
.2430	315.	-1018.	340.	0.	-0.	0.		-0.0139	-0.0219	.0507	.0131	.0248	.0079	0.	
.2440	125.	-1325.	149.	0.	-0.	0.		-0.0081	-0.0187	.0325	.0269	.0191	.0296	0.	
.2450	-77.	-1538.	-16.	-0.	-0.	0.		-0.0026	-0.0134	.0142	.0371	.0129	.0491	0.	
.2460	-234.	-1602.	-197.	-0.	-0.	0.		.0031	-0.0057	-0.0040	.0419	.0076	.0661	0.	
.2470	-298.	-1518.	-444.	-0.	0.	0.		.0091	.0044	-0.0217	.0409	.0044	.0808	0.	
.2480	-226.	-1307.	-757.	-0.	-0.	0.		.0154	.0167	-0.0387	.0344	.0046	.0932	0.	
.2490	-78.	-988.	-922.	0.	0.	0.		.0221	.0310	-0.0543	.0229	.0087	.1035	0.	
.2500	89.	-588.	-848.	-0.	0.	-0.		.0288	.0467	-0.0686	.0072	.0163	.1120	0.	
.2510	379.	-144.	-840.	-0.	-0.	0.		.0353	.0632	-0.0815	-0.0113	.0269	.1187	0.	
.2520	834.	303.	-1054.	0.	-0.	0.		.0411	.0798	-0.0930	-0.0315	.0394	.1236	0.	
.2530	1276.	719.	-1175.	0.	-0.	-0.		.0456	.0959	-0.1029	-0.0518	.0522	.1267	0.	
.2540	1552.	1049.	-1011.	0.	-0.	0.		.0482	.1107	-0.1111	-0.0707	.0529	.1280	0.	
.2550	1693.	1233.	-794.	0.	-0.	-0.		.0484	.1238	-0.1178	-0.0870	.0696	.1276	0.	
.2560	1749.	1267.	-728.	-0.	0.	-0.		.0460	.1350	-0.1233	-0.1008	.0704	.1250	0.	
.2570	1674.	1236.	-743.	0.	-0.	0.		.0411	.1442	-0.1277	-0.1133	.0544	.1208	0.	
.2580	1444.	1224.	-783.	-0.	0.	-0.		.0336	.1514	-0.1310	-0.1254	.0514	.1166	0.	
.2590	1085.	1212.	-846.	-0.	0.	-0.		.0240	.1567	-0.1330	-0.1367	.0320	.1125	0.	
.2600	617.	1127.	-886.	-0.	-0.	-0.		.0129	.1602	-0.1337	-0.1465	.0081	.1070	0.	
.2610	132.	985.	-968.	-0.	0.	-0.		.0009	.1619	-0.1331	-0.1551	-0.0180	.0999	0.	
.2620	-271.	887.	-1165.	0.	0.	0.		-0.0112	.1621	-0.1309	-0.1636	-0.0434	.0930	0.	
.2630	-607.	871.	-1289.	-0.	-0.	-0.		-0.0227	.1610	-0.1269	-0.1718	-0.0557	.0868	0.	
.2640	-902.	856.	-1194.	-0.	-0.	-0.		-0.0333	.1585	-0.1210	-0.1785	-0.0832	.0800	0.	
.2650	-1071.	752.	-1063.	-0.	0.	-0.		-0.0424	.1547	-0.1132	-0.1823	-0.0951	.0719	0.	
.2660	-1062.	578.	-1035.	0.	-0.	0.		-0.0499	.1498	-0.1038	-0.1834	-0.1011	.0632	0.	
.2670	-961.	426.	-956.	-0.	0.	-0.		-0.0557	.1440	-0.0929	-0.1830	-0.1019	.0550	0.	
.2680	-829.	327.	-767.	-0.	0.	-0.		-0.0600	.1376	-0.0805	-0.1817	-0.0985	.0476	0.	
.2690	-648.	215.	-640.	0.	0.	0.		-0.0631	.1307	-0.0670	-0.1787	-0.0922	.0405	0.	
.2700	-449.	86.	-609.	0.	0.	0.		-0.0652	.1236	-0.0525	-0.1734	-0.0843	.0329	0.	
.2710	-315.	-203.	-532.	0.	0.	0.		-0.0666	.1165	-0.0371	-0.1667	-0.0756	.0247	0.	
.2720	-260.	-385.	-373.	-0.	0.	0.		-0.0675	.1098	-0.0210	-0.1601	-0.0564	.0168	0.	
.2730	-269.	-501.	-164.	0.	0.	0.		-0.0681	.1036	-0.0044	-0.1543	-0.0571	.0091	0.	
.2740	-364.	-610.	129.	-0.	-0.	0.		-0.0682	.0983	.0124	-0.1487	-0.0485	.0007	0.	
.2750	-493.	-736.	430.	0.	0.	0.		-0.0678	.0940	.0288	-0.1435	-0.0408	-0.0090	0.	
.2760	-581.	-807.	637.	-0.	-0.	0.		-0.0666	.0908	.0446	-0.1397	-0.0337	-0.0192	0.	
.2770	-640.	-753.	835.	0.	-0.	0.		-0.0645	.0888	.0597	-0.1384	-0.0272	-0.0289	0.	

ADLPIPE PAGE 566

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.16.

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

.2660	-1002.	576.	-1035.	0.	-0.	0.	-0.499	.1498	-.1038	-.1834	-.1011	.0632	0.
.2670	-961.	426.	-956.	-0.	0.	-0.	-.557	.1440	-.0929	-.1830	-.1019	.0550	0.
.2680	-829.	327.	-767.	-0.	0.	-0.	-.600	.1376	-.0805	-.1817	-.0985	.0476	0.
.2690	-648.	215.	-640.	0.	0.	0.	-.631	.1307	-.0670	-.1787	-.0922	.0405	0.
.2700	-449.	26.	-609.	0.	0.	0.	-.652	.1236	-.0525	-.1734	-.0843	.0329	0.
.2710	-315.	-203.	-532.	0.	0.	0.	-.666	.1165	-.0371	-.1667	-.0756	.0247	0.
.2720	-260.	-335.	-373.	-0.	0.	0.	-.675	.1098	-.0210	-.1601	-.0564	.0168	0.
.2730	-269.	-501.	-164.	0.	0.	0.	-.681	.1036	-.0044	-.1543	-.0571	.0091	0.
.2740	-364.	-610.	129.	-0.	-0.	0.	-.682	.0983	.0124	-.1487	-.0485	.0007	0.
.2750	-493.	-736.	430.	0.	0.	0.	-.678	.0940	.0288	-.1435	-.0408	-.0090	0.
.2760	-581.	-807.	637.	-0.	-0.	0.	-.666	.0908	.0446	-.1397	-.0337	-.0192	0.
.2770	-640.	-753.	835.	0.	-0.	0.	-.645	.0888	.0593	-.1384	-.0272	-.0289	0.

ADLPIPE PAGE 566

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.16.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	11	MEMBER	2	SEQUENCE	842	LOCATION	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)	
.2780	-680.	-609.	1080.	0.	0.	0.		-.0614	.0889	.0725	-.1390	-.0207	-.0382	0.	
.2790	-635.	-463.	1250.	0.	0.	0.		-.0574	.0881	.0841	-.1397	-.0138	-.0477	0.	
.2800	-488.	-352.	1320.	0.	0.	0.		-.0524	.0889	.0937	-.1398	-.0060	-.0572	0.	
.2810	-312.	-234.	1432.	0.	0.	0.		-.0466	.0902	.1012	-.1393	.0027	-.0656	0.	
.2820	-137.	-88.	1609.	0.	0.	-0.		-.0404	.0918	.1064	-.1383	.0119	-.0720	0.	
.2830	59.	46.	1728.	0.	-0.	0.		-.0341	.0936	.1091	-.1361	.0209	-.0761	0.	
.2840	241.	122.	1764.	0.	0.	-0.		-.0279	.0952	.1092	-.1321	.0287	-.0780	0.	
.2850	363.	154.	1755.	0.	-0.	0.		-.0221	.0967	.1065	-.1265	.0343	-.0772	0.	
.2860	433.	196.	1667.	-0.	-0.	-0.		-.0169	.0978	.1012	-.1203	.0373	-.0727	0.	
.2870	469.	274.	1488.	0.	-0.	-0.		-.0124	.0987	.0934	-.1138	.0381	-.0640	0.	
.2880	459.	362.	1272.	-0.	0.	-0.		-.0086	.0991	.0833	-.1070	.0372	-.0516	0.	
.2890	423.	424.	1032.	-0.	0.	-0.		-.0056	.0989	.0714	-.0993	.0355	-.0357	0.	
.2900	391.	453.	778.	0.	0.	-0.		-.0032	.0981	.0579	-.0906	.0341	-.0169	0.	
.2910	359.	467.	592.	-0.	0.	-0.		-.0014	.0965	.0434	-.0811	.0338	.0045	0.	
.2920	331.	478.	490.	-0.	-0.	-0.		-.0002	.0943	.0280	-.0709	.0349	.0280	0.	
.2930	348.	469.	365.	0.	0.	0.		.0005	.0913	.0119	-.0598	.0370	.0527	0.	
.2940	414.	415.	182.	-0.	-0.	-0.		.0007	.0876	-.0046	-.0475	.0396	.0774	0.	
.2950	481.	317.	11.	-0.	-0.	0.		.0002	.0832	-.0213	-.0341	.0417	.1010	0.	
.2960	522.	197.	-144.	-0.	-0.	0.		-.0011	.0785	-.0379	-.0200	.0426	.1228	0.	
.2970	542.	73.	-351.	-0.	-0.	-0.		-.0031	.0734	-.0542	-.0057	.0414	.1423	0.	
.2980	525.	-57.	-610.	0.	0.	0.		-.0059	.0682	-.0699	.0086	.0378	.1584	0.	
.2990	441.	-186.	-871.	-0.	0.	-0.		-.0096	.0632	-.0845	.0223	.0314	.1706	0.	
.3000	280.	-291.	-1110.	-0.	0.	-0.		-.0138	.0585	-.0976	.0349	.0225	.1790	0.	
.3010	46.	-356.	-1302.	-0.	0.	-0.		-.0184	.0542	-.1090	.0457	.0113	.1833	0.	
.3020	-245.	-377.	-1437.	0.	0.	0.		-.0231	.0504	-.1183	.0543	-.0015	.1835	0.	
.3030	-545.	-348.	-1563.	0.	-0.	0.		-.0272	.0473	-.1253	.0605	-.0152	.1797	0.	
.3040	-309.	-254.	-1705.	0.	0.	0.		-.0305	.0446	-.1299	.0641	-.0289	.1725	0.	
.3050	-1026.	-97.	-1801.	0.	0.	0.		-.0326	.0423	-.1318	.0650	-.0413	.1623	0.	
.3060	-1178.	91.	-1813.	-0.	-0.	-0.		-.0330	.0402	-.1309	.0640	-.0511	.1494	0.	
.3070	-1222.	275.	-1785.	-0.	-0.	-0.		-.0315	.0378	-.1272	.0618	-.0574	.1341	0.	
.3080	-1144.	445.	-1728.	0.	0.	0.		-.0283	.0350	-.1208	.0591	-.0591	.1173	0.	
.3090	-963.	605.	-1595.	-0.	0.	-0.		-.0233	.0315	-.1118	.0560	-.0561	.0998	0.	
.3100	-692.	745.	-1379.	0.	0.	-0.		-.0169	.0270	-.1003	.0533	-.0483	.0822	0.	
.3110	-374.	838.	-1122.	0.	-0.	-0.		-.0094	.0214	-.0868	.0516	-.0366	.0650	0.	
.3120	-26.	867.	-840.	-0.	-0.	-0.		-.0015	.0144	-.0717	.0514	-.0222	.0482	0.	
.3130	303.	346.	-546.	0.	0.	-0.		.0064	.0062	-.0554	.0527	-.0066	.0324	0.	
.3140	592.	806.	-281.	0.	-0.	-0.		.0138	-.0034	-.0383	.0553	.0088	.0180	0.	
.3150	809.	758.	-55.	0.	-0.	-0.		.0202	-.0141	-.0209	.0592	.0228	.0053	0.	

ADLPIPE PAGE 567

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.16.

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

.3050	-1026.	-97.	-1801.	0.	0.	0.	0.	-.0326	.0423	-.1318	.0650	-.0413	.1623	0.
.3060	-1178.	91.	-1813.	-0.	-0.	-0.	-0.	-.0330	.0402	-.1309	.0640	-.0511	.1494	0.
.3070	-1222.	275.	-1785.	-0.	-0.	-0.	-0.	-.0315	.0378	-.1272	.0618	-.0574	.1341	0.
.3080	-1144.	445.	-1728.	0.	0.	0.	0.	-.0283	.0350	-.1208	.0591	-.0591	.1173	0.
.3090	-963.	605.	-1595.	-0.	0.	-0.	-0.	-.0233	.0315	-.1118	.0560	-.0561	.0998	0.
.3100	-699.	745.	-1379.	0.	0.	-0.	-0.	-.0169	.0270	-.1003	.0523	-.0483	.0822	0.
.3110	-374.	838.	-1122.	0.	-0.	-0.	-0.	-.0094	.0214	-.0868	.0516	-.0366	.0650	0.
.3120	-26.	867.	-840.	-0.	-0.	-0.	-0.	-.0015	.0144	-.0717	.0514	-.0222	.0482	0.
.3130	303.	846.	-546.	0.	0.	-0.	-0.	.0064	.0062	-.0554	.0527	-.0066	.0324	0.
.3140	592.	806.	-281.	0.	-0.	-0.	-0.	.0138	-.0034	-.0383	.0553	.0088	.0180	0.
.3150	809.	758.	-55.	0.	-0.	-0.	-0.	.0202	-.0141	-.0209	.0592	.0228	.0053	0.

ADLPIPE PAGE 567

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.16.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	11	MEMBER	2	SEQUENCE	042	LOCATION	END	TYPE	RU					
TIME	FX	FY	FZ	HX	MY	MZ				DZ	RX	RY	RZ	STRESS
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)				(IN)	(DEG)	(DEG)	(DEG)	(PSI)
.3160	932.	689.	139.	0.	-0.	-0.		.0253	-.0260	-.0035	.0647	.0346	-.0061	0.
.3170	957.	584.	296.	0.	-0.	-0.		.0290	-.0390	.0137	.0719	.0436	-.0164	0.
.3180	888.	454.	429.	0.	-0.	-0.		.0312	-.0527	.0303	.0807	.0499	-.0255	0.
.3190	736.	323.	553.	-0.	-0.	-0.		.0320	-.0671	.0461	.0908	.0537	-.0334	0.
.3200	525.	195.	670.	-0.	-0.	-0.		.0318	-.0820	.0611	.1018	.0554	-.0401	0.
.3210	298.	52.	751.	-0.	-0.	-0.		.0307	-.0971	.0749	.1139	.0556	-.0462	0.
.3220	78.	-120.	806.	-0.	-0.	-0.		.0293	-.1122	.0876	.1267	.0548	-.0518	0.
.3230	-128.	-315.	874.	0.	-0.	0.		.0277	-.1270	.0989	.1400	.0535	-.0571	0.
.3240	-296.	-514.	946.	-0.	-0.	-0.		.0264	-.1413	.1089	.1528	.0520	-.0621	0.
.3250	-388.	-708.	974.	-0.	-0.	-0.		.0256	-.1547	.1174	.1647	.0508	-.0670	0.
.3260	-412.	-898.	975.	-0.	-0.	-0.		.0254	-.1669	.1244	.1751	.0499	-.0722	0.
.3270	-385.	-1084.	984.	0.	-0.	0.		.0258	-.1778	.1298	.1836	.0495	-.0777	0.
.3280	-323.	-1249.	1002.	0.	-0.	0.		.0268	-.1868	.1337	.1896	.0496	-.0835	0.
.3290	-228.	-1369.	1030.	-0.	-0.	-0.		.0282	-.1940	.1360	.1925	.0499	-.0896	0.
.3300	-125.	-1430.	1072.	-0.	-0.	0.		.0301	-.1990	.1368	.1918	.0502	-.0960	0.
.3310	-17.	-1428.	1096.	-0.	-0.	-0.		.0320	-.2018	.1359	.1877	.0500	-.1026	0.
.3320	84.	-1367.	1100.	-0.	-0.	-0.		.0340	-.2024	.1333	.1803	.0488	-.1094	0.
.3330	149.	-1242.	1116.	-0.	0.	-0.		.0359	-.2010	.1291	.1701	.0463	-.1162	0.
.3340	177.	-1059.	1124.	0.	-0.	0.		.0375	-.1976	.1231	.1575	.0422	-.1230	0.
.3350	197.	-833.	1061.	-0.	-0.	-0.		.0388	-.1927	.1155	.1433	.0365	-.1296	0.
.3360	209.	-588.	938.	-0.	-0.	-0.		.0398	-.1866	.1062	.1286	.0293	-.1359	0.
.3370	196.	-345.	815.	-0.	-0.	-0.		.0405	-.1797	.0956	.1142	.0212	-.1417	0.
.3380	167.	-122.	697.	0.	-0.	0.		.0408	-.1722	.0838	.1010	.0123	-.1466	0.
.3390	140.	63.	562.	0.	-0.	0.		.0410	-.1647	.0710	.0895	.0033	-.1504	0.
.3400	121.	201.	420.	-0.	0.	-0.		.0409	-.1573	.0574	.0799	-.0156	-.1528	0.
.3410	97.	296.	280.	-0.	-0.	-0.		.0406	-.1502	.0432	.0722	-.0143	-.1534	0.
.3420	67.	377.	139.	-0.	-0.	-0.		.0402	-.1437	.0287	.0664	-.0227	-.1516	0.
.3430	22.	382.	1.	-0.	-0.	-0.		.0397	-.1377	.0140	.0620	-.0310	-.1473	0.
.3440	-44.	385.	-139.	0.	-0.	-0.		.0391	-.1324	-.0005	.0587	-.0389	-.1403	0.
.3450	-118.	378.	-315.	-0.	-0.	-0.		.0387	-.1277	-.0148	.0562	-.0462	-.1306	0.
.3460	-197.	370.	-520.	-0.	-0.	-0.		.0384	-.1235	-.0285	.0541	-.0526	-.1180	0.
.3470	-288.	359.	-700.	-0.	-0.	-0.		.0385	-.1200	-.0417	.0525	-.0574	-.1032	0.
.3480	-380.	326.	-840.	0.	-0.	0.		.0390	-.1170	-.0530	.0515	-.0600	-.0866	0.
.3490	-440.	298.	-972.	-0.	-0.	-0.		.0400	-.1146	-.0633	.0512	-.0500	-.0687	0.
.3500	-448.	247.	-1096.	0.	0.	0.		.0418	-.1125	-.0721	.0515	-.0569	-.0503	0.
.3510	-402.	187.	-1182.	0.	-0.	0.		.0442	-.1109	-.0791	.0526	-.0508	-.0320	0.
.3520	-301.	116.	-1224.	-0.	-0.	0.		.0472	-.1096	-.0842	.0543	-.0420	-.0147	0.
.3530	-144.	28.	-1243.	0.	-0.	0.		.0506	-.1084	-.0874	.0569	-.0311	.0010	0.

ADLPIPE PAGE 567

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.16.

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

.3430	22.	382.	1.	-0.	-0.	-0.	-0.	.0397	-.1377	.0140	.0620	-.0310	-.1473	0.
.3440	-44.	385.	-139.	0.	-0.	-0.	-0.	.0391	-.1324	-.0005	.0587	-.0389	-.1403	0.
.3450	-118.	378.	-315.	-0.	-0.	-0.	-0.	.0387	-.1277	-.0148	.0562	-.0462	-.1306	0.
.3460	-197.	370.	-520.	-0.	-0.	-0.	-0.	.0384	-.1235	-.0285	.0541	-.0526	-.1180	0.
.3470	-288.	359.	-700.	-0.	-0.	-0.	-0.	.0385	-.1200	-.0417	.0525	-.0574	-.1032	0.
.3480	-380.	346.	-840.	0.	-0.	0.	0.	.0390	-.1170	-.0530	.0515	-.0600	-.0866	0.
.3490	-440.	298.	-972.	-0.	-0.	-0.	-0.	.0400	-.1146	-.0633	.0512	-.0500	-.0687	0.
.3500	-448.	247.	-1096.	0.	0.	0.	0.	.0418	-.1125	-.0721	.0515	-.0569	-.0503	0.
.3510	-402.	187.	-1182.	0.	-0.	0.	0.	.0442	-.1109	-.0791	.0526	-.0508	-.0320	0.
.3520	-301.	116.	-1224.	-0.	-0.	0.	0.	.0472	-.1096	-.0842	.0543	-.0420	-.0147	0.
.3530	-144.	28.	-1243.	0.	-0.	0.	0.	.0506	-.1084	-.0874	.0569	-.0311	.0010	0.

ADLPIPE PAGE 568

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.16.

S/RV PIPING KEWAUNEE GKWC02F 2 RUP DISK

2 SAFETY COLD FRW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU									
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)		
.3540	54.	-76.	-1246.	0.	-0.	0.	.0542	-.1072	-.0887	.0599	-.0191	.0143	0.		
.3550	276.	-131.	-1237.	0.	-0.	0.	.0576	-.1059	-.0881	.0631	-.0067	.0247	0.		
.3560	497.	-272.	-1218.	0.	-0.	0.	.0606	-.1043	-.0856	.0659	.0049	.0320	0.		
.3570	679.	-347.	-1163.	-0.	-0.	-0.	.0628	-.1023	-.0817	.0681	.0150	.0359	0.		
.3580	796.	-416.	-1062.	0.	-0.	0.	.0639	-.0997	-.0750	.0694	.0227	.0363	0.		
.3590	845.	-475.	-941.	0.	-0.	0.	.0637	-.0965	-.0672	.0695	.0276	.0330	0.		
.3600	829.	-507.	-822.	0.	-0.	0.	.0623	-.0926	-.0580	.0679	.0295	.0267	0.		
.3610	745.	-501.	-689.	0.	-0.	0.	.0596	-.0879	-.0476	.0643	.0285	.0178	0.		
.3620	604.	-465.	-536.	-0.	-0.	-0.	.0557	-.0824	-.0362	.0587	.0252	.0068	0.		
.3630	434.	-418.	-384.	0.	-0.	0.	.0510	-.0762	-.0241	.0514	.0203	-.0060	0.		
.3640	258.	-368.	-238.	-0.	-0.	-0.	.0456	-.0695	-.0114	.0425	.0147	-.0198	0.		
.3650	98.	-309.	-84.	0.	-0.	-0.	.0399	-.0621	.0016	.0322	.0094	-.0341	0.		
.3660	-27.	-241.	80.	0.	-0.	0.	.0340	-.0543	.0147	.0206	.0051	-.0483	0.		
.3670	-102.	-176.	258.	0.	-0.	0.	.0282	-.0462	.0275	.0084	.0025	-.0618	0.		
.3680	-130.	-128.	452.	0.	-0.	-0.	.0225	-.0379	.0299	-.0042	.0016	-.0743	0.		
.3690	-109.	-96.	650.	0.	-0.	-0.	.0171	-.0293	.0516	-.0168	.0023	-.0855	0.		
.3700	-43.	-65.	827.	0.	0.	-0.	.0119	-.0207	.0621	-.0295	.0041	-.0948	0.		
.3710	52.	-21.	983.	0.	-0.	-0.	.0067	-.0120	.0714	-.0420	.0063	-.1019	0.		
.3720	150.	32.	1117.	0.	-0.	-0.	.0014	-.0032	.0790	-.0542	.0082	-.1066	0.		
.3730	234.	79.	1215.	0.	0.	-0.	-.0041	.0054	.0849	-.0655	.0090	-.1087	0.		
.3740	288.	117.	1271.	0.	0.	-0.	-.0100	.0139	.0889	-.0755	.0084	-.1084	0.		
.3750	295.	151.	1298.	0.	-0.	0.	-.0162	.0222	.0910	-.0843	.0061	-.1054	0.		
.3760	245.	181.	130.	0.	0.	0.	-.0230	.0303	.0910	-.0915	.0019	-.0998	0.		
.3770	144.	192.	1271.	0.	-0.	0.	-.0300	.0380	.0891	-.0968	-.0039	-.0917	0.		
.3780	-1.	170.	1206.	0.	0.	0.	-.0372	.0455	.0852	-.1001	-.0111	-.0815	0.		
.3790	-178.	120.	1112.	0.	0.	0.	-.0444	.0527	.0794	-.1015	-.0190	-.0693	0.		
.3800	-366.	56.	985.	0.	0.	0.	-.0513	.0597	.0720	-.1013	-.0271	-.0551	0.		
.3810	-542.	-16.	826.	0.	0.	0.	-.0575	.0666	.0632	-.0999	-.0345	-.0392	0.		
.3820	-692.	-96.	655.	0.	0.	0.	-.0629	.0735	.0531	-.0976	-.0406	-.0220	0.		
.3830	-807.	-182.	482.	0.	0.	0.	-.0672	.0806	.0420	-.0947	-.0448	-.0039	0.		
.3840	-876.	-258.	313.	0.	0.	0.	-.0702	.0880	.0303	-.0916	-.0468	.0148	0.		
.3850	-896.	-307.	156.	-0.	0.	-0.	-.0718	.0957	.0182	-.0890	-.0463	.0339	0.		
.3860	-871.	-319.	2.	0.	-0.	0.	-.0721	.1039	.0059	-.0871	-.0434	.0530	0.		
.3870	-807.	-298.	-88.	0.	0.	0.	-.0711	.1126	-.0064	-.0859	-.0385	.0716	0.		
.3880	-711.	-250.	-182.	0.	0.	0.	-.0688	.1217	-.0185	-.0854	-.0321	.0894	0.		
.3890	-591.	-170.	-261.	0.	0.	0.	-.0655	.1312	-.0303	-.0856	-.0247	.1061	0.		
.3900	-452.	-56.	-335.	0.	0.	0.	-.0613	.1408	-.0416	-.0865	-.0169	.1216	0.		
.3910	-298.	83.	-414.	-0.	0.	-0.	-.0564	.1506	-.0523	-.0877	-.0091	.1356	0.		

ADLPIPE PAGE 569

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.16.

S/RV PIPING KEWAUNEE GKWC02F 2 RUP DISK

2 SAFETY COLD FRW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

.3800	-366.	56.	85.	0.	0.	0.	-0.513	.0597	.0720	-.1013	-.0271	-.0551	0.
.3810	-542.	-16.	826.	0.	0.	0.	-.0575	.0666	.0632	-.0999	-.0345	-.0392	0.
.3820	-692.	-96.	655.	0.	0.	0.	-.0629	.0735	.0531	-.0976	-.0406	-.0220	0.
.3830	-807.	-182.	482.	0.	0.	0.	-.0672	.0806	.0420	-.0947	-.0448	-.0039	0.
.3840	-876.	-258.	313.	0.	0.	0.	-.0702	.0880	.0303	-.0916	-.0466	.0148	0.
.3850	-896.	-307.	156.	-0.	0.	-0.	-.0718	.0957	.0182	-.0890	-.0463	.0339	0.
.3860	-871.	-319.	23.	0.	-0.	0.	-.0721	.1039	.0059	-.0871	-.0434	.0530	0.
.3870	-807.	-298.	-88.	0.	0.	0.	-.0711	.1126	-.0064	-.0859	-.0385	.0716	0.
.3880	-711.	-250.	-182.	0.	0.	0.	-.0688	.1217	-.0185	-.0854	-.0321	.0894	0.
.3890	-591.	-170.	-261.	0.	0.	0.	-.0655	.1312	-.0303	-.0856	-.0247	.1061	0.
.3900	-452.	-56.	-335.	0.	0.	0.	-.0613	.1408	-.0416	-.0865	-.0169	.1216	0.
.3910	-298.	83.	-414.	-0.	0.	-0.	-.0564	.1506	-.0523	-.0877	-.0091	.1356	0.

ADLPIPE PAGE 560

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.16.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FRW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	11	MEMBER	2	SEQUENCE	842	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.3920	-142.	226.	-487.	-0.	0.	-0.	-.0511	.1601	-.0624	-.0887	-.0016	.1479	0.		
.3930	2.	355.	-542.	0.	0.	-0.	-.0457	.1693	-.0716	-.0893	.0053	.1583	0.		
.3940	133.	473.	-588.	0.	0.	-0.	-.0403	.1778	-.0800	-.0893	.0115	.1671	0.		
.3950	254.	585.	-633.	0.	0.	-0.	-.0351	.1856	-.0875	-.0889	.0169	.1745	0.		
.3960	357.	686.	-670.	-0.	0.	-0.	-.0304	.1925	-.0940	-.0881	.0215	.1805	0.		
.3970	437.	764.	-692.	-0.	0.	-0.	-.0262	.1982	-.0994	-.0868	.0251	.1853	0.		
.3980	489.	818.	-706.	0.	0.	-0.	-.0228	.2028	-.1037	-.0852	.0277	.1890	0.		
.3990	519.	862.	-728.	-0.	-0.	-0.	-.0201	.2061	-.1069	-.0834	.0292	.1920	0.		
.4000	536.	906.	-767.	-0.	0.	-0.	-.0182	.2080	-.1090	-.0819	.0299	.1943	0.		

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)		
.0300	-2575.	559.	820.	0.	-0.	0.	.0327	-.0352	-.0431	.0130	-.1185	-.1159	0.		

SECTION	12	MEMBER	1	SEQUENCE	841	LOCATION	BEG	TYPE	TE						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
0.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.		
.0010	-1.	1.	3.	-1.	3.	-0.	.0000	-.0000	-.0000	-.0000	.0000	-.0000	4.		
.0020	1.	7.	16.	-3.	16.	-3.	.0000	-.0000	-.0001	-.0000	.0001	.0001	23.		
.0030	34.	23.	28.	1.	30.	-3.	.0001	.0000	-.0004	.0001	.0004	.0004	43.		
.0040	109.	40.	29.	17.	40.	5.	.0002	.0001	-.0010	.0004	.0009	.0012	62.		
.0050	216.	44.	24.	48.	48.	28.	.0003	.0003	-.0019	.0010	.0018	.0022	104.		
.0060	382.	44.	2.	93.	49.	62.	.0004	.0006	-.0032	.0018	.0033	.0038	173.		
.0070	633.	70.	-42.	152.	37.	101.	.0005	.0011	-.0052	.0028	.0053	.0063	263.		
.0080	1038.	134.	-114.	232.	-4.	150.	.0010	.0019	-.0082	.0040	.0079	.0107	390.		
.0090	1795.	199.	-293.	342.	-156.	234.	.0021	.0032	-.0128	.0054	.0109	.0169	626.		
.0100	2613.	252.	-549.	491.	-379.	356.	.0041	.0048	-.0188	.0065	.0149	.0249	1011.		
.0110	3727.	359.	-740.	682.	-515.	473.	.0070	.0070	-.0260	.0067	.0202	.0349	1383.		
.0120	4375.	558.	-820.	897.	-508.	568.	.0108	.0096	-.0339	.0058	.0267	.0469	1663.		
.0130	4927.	782.	-900.	1104.	-461.	637.	.0153	.0126	-.0427	.0035	.0348	.0597	1914.		
.0140	5627.	977.	-1144.	1288.	-528.	695.	.0202	.0159	-.0511	-.0008	.0450	.0723	2198.		
.0150	6576.	1205.	-1652.	1468.	-601.	714.	.0253	.0194	-.0601	-.0070	.0578	.0852	2569.		

ADLPIPE PAGE 570

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.16.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FRW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

.0050	216.	44.	24.	48.	48.	28.	.0003	.0003	-.0019	.0010	.0018	.0022	104.
.0060	382.	44.	2.	93.	49.	62.	.0004	.0006	-.0032	.0018	.0033	.0038	173.
.0070	633.	70.	-42.	152.	37.	101.	.0005	.0011	-.0052	.0028	.0053	.0063	263.
.0080	1038.	134.	-114.	232.	-4.	150.	.0010	.0019	-.0082	.0040	.0079	.0107	390.
.0090	1795.	199.	-293.	342.	-156.	234.	.0021	.0032	-.0128	.0054	.0109	.0169	626.
.0100	2513.	252.	-549.	491.	-379.	356.	.0041	.0048	-.0188	.0065	.0149	.0249	1011.
.0110	3727.	359.	-740.	682.	-515.	473.	.0070	.0070	-.0260	.0067	.0202	.0349	1383.
.0120	4375.	558.	-820.	897.	-508.	568.	.0108	.0096	-.0339	.0058	.0267	.0469	1663.
.0130	4927.	782.	-900.	1104.	-461.	637.	.0153	.0126	-.0423	.0035	.0348	.0597	1914.
.0140	5627.	977.	-1144.	1288.	-528.	695.	.0202	.0159	-.0511	-.0008	.0450	.0723	2198.
.0150	6576.	1205.	-1652.	1468.	-601.	714.	.0253	.0194	-.0601	-.0070	.0578	.0852	2569.

ADLPIPE PAGE 570

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.16.

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

SECTION	12	MEMBER	1	SEQUENCE	841	LOCATION	BEG	TYPE	TE						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.0160	7979.	1506.	-2528.	1652.	-1405.	678.	.0304	.0230	-.0695	-.0147	.0730	.0986	3210.		
.0170	9282.	1855.	-3503.	1824.	-2106.	603.	.0353	.0268	-.0792	-.0226	.0893	.1124	4027.		
.0180	9233.	2281.	-3958.	1979.	-2316.	489.	.0401	.0309	-.0886	-.0290	.1047	.1267	4358.		
.0190	7401.	2810.	-3539.	2116.	-1734.	328.	.0454	.0351	-.0970	-.0329	.1167	.1411	3892.		
.0200	3722.	3384.	-1933.	2185.	-201.	137.	.0526	.0390	-.1045	-.0349	.1195	.1533	3105.		
.0210	366.	3747.	53.	2115.	1354.	19.	.0632	.0417	-.1124	-.0379	.1090	.1591	3547.		
.0220	-817.	3891.	1273.	1924.	2022.	-48.	.0746	.0420	-.1191	-.0451	.0926	.1565	3943.		
.0230	-1701.	4347.	2247.	1725.	2517.	-350.	.0843	.0399	-.1211	-.0548	.0748	.1483	4339.		
.0240	-218.	4679.	1968.	1461.	1784.	-758.	.0914	.0354	-.1198	-.0612	.0571	.1301	3428.		
.0250	1281.	4391.	1354.	1054.	765.	-1014.	.0950	.0288	-.1152	-.0595	.0389	.1006	2331.		
.0260	-3776.	4227.	3236.	740.	2456.	-1366.	.0936	.0204	-.1026	-.0485	.0189	.0689	4105.		
.0270	-9875.	4312.	5381.	764.	4588.	-1893.	.0858	.0097	-.0834	-.0309	.0001	.0335	7093.		
.0280	-8582.	3426.	4470.	961.	3260.	-2091.	.0756	-.0042	-.0663	-.0117	-.0256	-.0171	5637.		
.0290	-4677.	1756.	2400.	1033.	355.	-1921.	.0660	-.0209	-.0522	.0039	-.0659	-.0748	3121.		
.0300	-1010.	1427.	452.	1002.	-2420.	-2187.	.0541	-.0391	-.0369	.0153	-.1088	-.1152	4820.		
.0310	1644.	2371.	-773.	1029.	-4315.	-2957.	.0392	-.0574	-.0200	.0290	-.1453	-.1426	7530.		
.0320	-1453.	2183.	582.	1278.	-3430.	-3175.	.0228	-.0745	.0005	.0543	-.1742	-.1766	6845.		
.0330	-3237.	-534.	908.	1706.	-3217.	-2086.	.0061	-.0897	.0208	.0879	-.1900	-.2217	5927.		
.0340	1785.	-3545.	-2159.	1994.	-5951.	-721.	-.0111	-.1037	.0384	.1109	-.1869	-.2603	8924.		
.0350	5112.	-3878.	-4374.	1846.	-7515.	-574.	-.0289	-.1172	.0574	.1101	-.1696	-.2736	10960.		
.0360	1510.	-2241.	-3260.	1321.	-5620.	-1298.	-.0460	-.1276	.0802	.0964	-.1482	-.2633	8358.		
.0370	-534.	-7362.	-2699.	577.	-4263.	-1118.	-.0612	-.1329	.1017	.0861	-.1271	-.2552	6278.		
.0380	2845.	-5548.	-4357.	-404.	-5170.	440.	-.0752	-.1352	.1197	.0749	-.1055	-.2686	7351.		
.0390	2782.	-7981.	-4161.	-1424.	-4399.	1580.	-.0889	-.1366	.1381	.0470	-.0884	-.2789	6902.		
.0400	-3552.	-6234.	-754.	-2162.	-890.	940.	-.0989	-.1354	.1564	.0051	-.0692	-.2488	3560.		
.0410	-5360.	-5894.	1057.	-3043.	678.	126.	-.1049	-.1310	.1690	-.0340	-.1025	-.2064	4407.		
.0420	-4306.	-5349.	1838.	-4416.	1028.	844.	-.1077	-.1253	.1765	-.0609	-.1209	-.2018	6514.		
.0430	-8396.	-7763.	5218.	-5370.	3729.	1864.	-.1059	-.1187	.1823	-.0773	-.1456	-.2115	9602.		
.0440	-11904.	-6834.	8141.	-5054.	5998.	1537.	-.0996	-.1102	.1846	-.0886	-.1673	-.1875	11290.		
.0450	-10555.	-4745.	8374.	-4305.	6090.	728.	-.0914	-.1015	.1826	-.0975	-.1691	-.1520	10585.		
.0460	-9717.	-4893.	8405.	-4091.	6618.	671.	-.0826	-.0936	.1795	-.0993	-.1460	-.1441	11030.		
.0470	-11378.	-5426.	9126.	-3855.	8166.	680.	-.0714	-.0837	.1760	-.0861	-.1085	-.1408	12792.		
.0480	-10477.	-4424.	8168.	-3073.	8232.	180.	-.0571	-.0708	.1691	-.0622	-.0623	-.1154	12414.		
.0490	-6994.	-3839.	5770.	-2463.	7121.	-51.	-.0415	-.0587	.1590	-.0450	-.0062	-.0930	10644.		
.0500	-5345.	-3971.	4313.	-2381.	6950.	-3.	-.0248	-.0493	.1469	-.0421	.0516	-.0839	10377.		
.0510	-4345.	-2466.	3440.	-2216.	6930.	-542.	-.0057	-.0393	.1321	-.0405	.0963	-.0576	10305.		
.0520	-1804.	-435.	1980.	-2016.	5880.	-1090.	.0153	-.0273	.1138	-.0283	.1249	-.0178	8914.		
.0530	-252.	-837.	880.	-2441.	5017.	-542.	.0350	-.0168	.0941	-.0090	.1454	-.0003	7918.		

ADLPIPE PAGE 571

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.16.

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

.0430	-8396.	-7763.	5218.	-5370.	3729.	1864.	-.059	-.1187	.1823	-.0773	-.1456	-.2115	9602.
.0440	-11904.	-6834.	8141.	-5954.	5992.	1537.	-.0996	-.1102	.1846	-.0886	-.1673	-.1875	11290.
.0450	-10555.	-4745.	8374.	-4305.	6090.	728.	-.0914	-.1015	.1826	-.0975	-.1591	-.1520	10585.
.0460	-9717.	-4893.	8405.	-4091.	6618.	671.	-.0828	-.0936	.1795	-.0993	-.1460	-.1441	11030.
.0470	-11378.	-5426.	9126.	-3955.	8166.	680.	-.0714	-.0837	.1760	-.0861	-.1085	-.1408	12792.
.0480	-10477.	-4424.	8168.	-3073.	8232.	150.	-.0571	-.0708	.1691	-.0622	-.0523	-.1154	12414.
.0490	-8994.	-3839.	5770.	-2463.	7121.	-51.	-.0415	-.0587	.1590	-.0450	-.0062	-.0930	10644.
.0500	-5345.	-3971.	4313.	-2381.	6950.	-3.	-.0248	-.0493	.1469	-.0421	.0516	-.0839	10377.
.0510	-4345.	-2466.	3440.	-2216.	6930.	-542.	-.0057	-.0393	.1321	-.0405	.0963	-.0576	10305.
.0520	-1804.	-435.	1980.	-2016.	5880.	-1090.	.0153	-.0273	.1138	-.0283	.1249	-.0178	8914.
.0530	-252.	-837.	880.	-2441.	5017.	-542.	.0350	-.0168	.0941	-.0090	.1454	-.0003	7918.

ADLPIPE PAGE 571

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.16.

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	12	MEMBER	1	SEQUENCE	841	LOCATION	BEG	TYPE	TE						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.0540	-344.	-1674.	420.	-3012.	4674.	172.	.0521	-.0093	.0739	.0114	.1522	.0082	7857.		
.0550	164.	465.	-469.	-2688.	3742.	-288.	.0670	-.0030	.0526	.0374	.1746	.0453	6521.		
.0560	244.	3169.	-1393.	-1742.	2788.	-898.	.0792	.0021	.0313	.0779	.1358	.0905	4814.		
.0570	-1170.	2779.	-1613.	-1011.	2652.	-253.	.0884	.0048	.0106	.1352	.1998	.1044	4024.		
.0580	-1326.	1576.	-1978.	-226.	2290.	675.	.0960	.0055	-.0112	.2031	.2127	.1085	3387.		
.0590	291.	3042.	-2694.	1179.	1360.	508.	.1032	.0050	-.0347	.2698	.2195	.1386	2641.		
.0600	1010.	5401.	-2800.	2796.	964.	-27.	.1090	.0021	-.0582	.3256	.2220	.1749	4178.		
.0610	1223.	5839.	-2551.	4113.	866.	204.	.1129	-.0032	-.0813	.3717	.2206	.1890	5944.		
.0620	3392.	5287.	-3011.	5279.	-163.	855.	.1154	-.0080	-.1048	.4127	.2106	.1946	7556.		
.0630	5579.	5285.	-3447.	6257.	-1362.	1275.	.1162	-.0113	-.1270	.4428	.1909	.2086	9222.		
.0640	5747.	5349.	-3186.	6600.	-1818.	1551.	.1132	-.0151	-.1455	.4486	.1585	.2205	9914.		
.0650	6591.	5345.	-3528.	6404.	-2776.	1695.	.1055	-.0195	-.1611	.4280	.1471	.2268	10146.		
.0660	9048.	5754.	-4810.	6183.	-4712.	1586.	.0944	-.0224	-.1738	.3921	.1220	.2372	11207.		
.0670	9412.	5627.	-5237.	5855.	-5885.	1636.	.0809	-.0228	-.1819	.3502	.0893	.2441	11951.		
.0680	7411.	4208.	-4462.	4999.	-5933.	2068.	.0654	-.0223	-.1855	.3005	.0505	.2348	11340.		
.0690	6922.	3170.	-4053.	3777.	-6487.	2159.	.0495	-.0219	-.1872	.2385	.0069	.2220	11033.		
.0700	7814.	3926.	-4033.	2668.	-7587.	1402.	.0346	-.0214	-.1872	.1679	-.0417	.2209	11531.		
.0710	7315.	4884.	-3342.	1712.	-7964.	504.	.0205	-.0207	-.1833	.0996	-.0897	.2166	11529.		
.0720	6006.	4123.	-2310.	744.	-7685.	241.	.0061	-.0200	-.1747	.0440	-.1275	.1887	10910.		
.0730	4746.	2439.	-1403.	-128.	-7123.	283.	-.0084	-.0190	-.1614	.0035	-.1512	.1454	10071.		
.0740	2355.	1551.	-247.	-808.	-5941.	-48.	-.0216	-.0177	-.1432	-.0281	-.1625	.1056	8469.		
.0750	266.	1419.	501.	-1504.	-4806.	-737.	-.0334	-.0172	-.1217	-.0587	-.1509	.0692	7190.		
.0760	748.	1118.	4.	-2381.	-4605.	-1415.	-.0435	-.0177	-.0980	-.0899	-.1465	.0267	7591.		
.0770	1379.	521.	-539.	-3288.	-4272.	-1975.	-.0518	-.0185	-.0716	-.1180	-.1257	-.0205	8110.		
.0780	-851.	-124.	147.	-4091.	-2691.	-2426.	-.0575	-.0189	-.0419	-.1408	-.1064	-.0655	7719.		
.0790	-2521.	-969.	892.	-4955.	-1149.	-2691.	-.0605	-.0198	-.0114	-.1628	-.0913	-.1097	8127.		
.0800	-1274.	-1897.	425.	-6030.	-975.	-2862.	-.0613	-.0229	.0174	-.1900	-.0798	-.1550	9528.		
.0810	235.	-2178.	-143.	-7089.	-1075.	-3232.	-.0606	-.0282	.0454	-.2203	-.0737	-.1943	11109.		
.0820	-629.	-1861.	156.	-7769.	-444.	-3701.	-.0590	-.0346	.0737	-.2425	-.0741	-.2240	12172.		
.0830	-1905.	-2322.	426.	-8005.	92.	-3680.	-.0571	-.0420	.1012	-.2469	-.0776	-.2556	12446.		
.0840	-2310.	-4093.	221.	-7889.	110.	-3003.	-.0551	-.0508	.1266	-.2336	-.0815	-.2957	11925.		
.0850	-2317.	-5512.	242.	-7310.	266.	-2389.	-.0520	-.0615	.1492	-.2093	-.0866	-.3290	10869.		
.0860	-4273.	-5200.	427.	-6142.	491.	-2392.	-.0470	-.0733	.1685	-.1777	-.0929	-.3399	9338.		
.0870	-4036.	-4329.	439.	-4579.	508.	-2518.	-.0402	-.0856	.1835	-.1368	-.0974	-.3388	7415.		
.0880	-4006.	-4558.	967.	-2851.	1046.	-2073.	-.0317	-.0975	.1950	-.0838	-.0991	-.3412	5193.		
.0890	-5098.	-5360.	2300.	-952.	2383.	-1242.	-.0210	-.1079	.2029	-.0224	-.0985	-.3405	4028.		
.0900	-5504.	-5344.	3447.	1029.	2576.	-601.	-.0085	-.1166	.2064	.0368	-.0933	-.3235	5324.		
.0910	-4593.	-4537.	3954.	2716.	4294.	-198.	.0046	-.1239	.2054	.0847	-.0789	-.2932	7182.		

ADLPIPE PAGE 572

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.16.

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

CONDITION 24

LOADS

.0810	235.	-2178.	-143.	-7089.	-1075.	-3232.	-.0606	-.0282	.0454	-.2203	-.0737	-.1943	11109.
.0820	-629.	-1861.	156.	-7769.	-444.	-3701.	-.0570	-.0346	.0737	-.2425	-.0741	-.2240	12172.
.0830	-1905.	-2322.	426.	-8005.	92.	-3680.	-.0571	-.0420	.1012	-.2469	-.0776	-.2556	12446.
.0840	-2359.	-4093.	221.	-7889.	110.	-3003.	-.0551	-.0508	.1266	-.2336	-.0815	-.2957	11925.
.0850	-3313.	-5512.	242.	-7310.	266.	-2389.	-.0520	-.0615	.1492	-.2093	-.0866	-.3290	10869.
.0860	-4273.	-5200.	427.	-6143.	491.	-2392.	-.0470	-.0733	.1685	-.1777	-.0929	-.3399	9338.
.0870	-4036.	-4329.	439.	-4579.	508.	-2518.	-.0402	-.0856	.1835	-.1368	-.0974	-.3388	7415.
.0880	-4006.	-4558.	967.	-2851.	1046.	-2073.	-.0317	-.0975	.1950	-.0838	-.0991	-.3412	5193.
.0890	-5098.	-5360.	2300.	-952.	2383.	-1242.	-.0210	-.1079	.2029	-.0224	-.0985	-.3405	4028.
.0900	-5504.	-5344.	3447.	1029.	3576.	-601.	-.0085	-.1166	.2064	.0368	-.0933	-.3235	5324.
.0910	-4593.	-4537.	3954.	2716.	4294.	-198.	.0046	-.1239	.2054	.0847	-.0789	-.2932	7182.

ADLPIPE PAGE 572

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.16.

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	12	MEMBER	1	SEQUENCE	841	LOCATION	BEG	TYPE	TE						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.0920	-4037.	-3740.	4396.	3912.	5195.	271.	.0169	-.1293	.2015	.1216	-.0537	-.2577	9193.		
.0930	-4382.	-3249.	4890.	4804.	6372.	956.	.0281	-.1311	.1953	.1542	-.0197	-.2174	11353.		
.0940	-4852.	-3223.	5083.	5499.	7418.	1901.	.0378	-.1288	.1867	.1830	.0208	-.1740	13317.		
.0950	-5291.	-3610.	5007.	5859.	8287.	2997.	.0459	-.1237	.1750	.2006	.0652	-.1317	14947.		
.0960	-5390.	-3502.	4653.	5901.	8840.	3804.	.0527	-.1165	.1599	.2019	.1090	-.0841	15945.		
.0970	-4516.	-2315.	3821.	5821.	8757.	4063.	.0588	-.1068	.1409	.1905	.1473	-.0262	15923.		
.0980	-3434.	-1136.	2862.	5654.	8368.	4191.	.0634	-.0945	.1191	.1748	.1786	.0298	15444.		
.0990	-3156.	-1102.	2191.	5362.	8124.	4620.	.0658	-.0799	.0959	.1595	.2034	.0701	15224.		
.1000	-2917.	-1453.	1450.	5095.	7684.	5030.	.0657	-.0635	.0716	.1436	.2217	.1006	14834.		
.1010	-1952.	-941.	330.	4956.	6697.	4886.	.0632	-.0459	.0463	.1230	.2328	.1318	13642.		
.1020	-1139.	127.	-713.	4772.	5596.	4274.	.0583	-.0276	.0210	.0961	.2358	.1583	12015.		
.1030	-966.	764.	-1391.	4389.	4616.	3614.	.0515	-.0086	-.0037	.0665	.2287	.1711	10345.		
.1040	-629.	923.	-1970.	3880.	3416.	2994.	.0438	.0116	-.0277	.0372	.2085	.1734	8438.		
.1050	-218.	1170.	-2296.	3285.	2113.	2209.	.0360	.0326	-.0509	.0048	.1743	.1712	6339.		
.1060	-449.	1799.	-1974.	2503.	1141.	1132.	.0286	.0528	-.0729	-.0367	.1282	.1655	4202.		
.1070	-259.	2812.	-1509.	1526.	90.	-196.	.0219	.0717	-.0938	-.0868	.0741	.1575	2177.		
.1080	285.	4022.	-870.	460.	-980.	-1600.	.0170	.0897	-.1138	-.1376	.0128	.1496	2729.		
.1090	-12.	4905.	624.	-681.	-1402.	-2790.	.0163	.1063	-.1333	-.1825	-.0562	.1387	4515.		
.1100	2921.	4625.	506.	-1076.	-3056.	-3414.	.0147	.1194	-.1515	-.2234	-.1103	.1139	6993.		
.1110	4356.	4647.	513.	-2710.	-4115.	-4069.	.0118	.1287	-.1657	-.2583	-.1475	.0894	9026.		
.1120	3281.	5710.	1038.	-2985.	-4256.	-5004.	.0087	.1354	-.1759	-.2790	-.1707	.0771	10192.		
.1130	3807.	5970.	431.	-3134.	-5145.	-5420.	.0051	.1394	-.1841	-.2812	-.1792	.0614	11447.		
.1140	6009.	4550.	-1065.	-3422.	-6652.	-4982.	.0014	.1396	-.1913	-.2691	-.1761	.0315	12696.		
.1150	7361.	3589.	-2152.	-3403.	-7697.	-4578.	-.0013	.1361	-.1968	-.2504	-.1594	.0078	13532.		
.1160	8723.	4347.	-3195.	-2761.	-8708.	-4691.	-.0033	.1299	-.2007	-.2275	-.1628	.0053	14505.		
.1170	9784.	4820.	-4074.	-1922.	-9519.	-4513.	-.0055	.1215	-.2024	-.1987	-.1559	.0051	15126.		
.1180	12491.	3429.	-5761.	-1318.	-10934.	-3457.	-.0104	.1113	-.2011	-.1624	-.1425	-.0088	16304.		
.1190	11193.	2085.	-5810.	-767.	-10705.	-2385.	-.0169	.1009	-.1944	-.1214	-.1308	-.0182	15530.		
.1200	8144.	2279.	-5223.	-125.	-9920.	-1911.	-.0242	.0911	-.1837	-.0823	-.1239	-.0075	14270.		
.1210	9459.	2535.	-6483.	266.	-10952.	-1418.	-.0322	.0807	-.1723	-.0523	-.1168	.0071	15603.		
.1220	8612.	1720.	-6580.	343.	-10833.	-504.	-.0399	.0692	-.1574	-.0332	-.1118	.0100	15326.		
.1230	6605.	1197.	-5881.	608.	-9944.	280.	-.0468	.0586	-.1390	-.0184	-.1090	.0163	14077.		
.1240	3844.	1326.	-4620.	1125.	-8497.	783.	-.0522	.0502	-.1175	-.0031	-.1085	.0312	12157.		
.1250	1085.	450.	-3170.	1322.	-6710.	1622.	-.0561	.0430	-.0936	.0092	-.1049	.0358	9928.		
.1260	835.	-1096.	-2582.	1140.	-5577.	2602.	-.0588	.0360	-.0688	.0130	-.0937	.0303	8840.		
.1270	-1844.	-1052.	-651.	1197.	-3172.	2783.	-.0576	.0303	-.0425	.0093	-.0851	.0364	6196.		
.1280	-2844.	-138.	696.	1614.	-1317.	2925.	-.0528	.0266	-.0169	.0026	-.0754	.0500	4623.		
.1290	-2234.	-970.	1746.	1924.	471.	2839.	-.0460	.0237	.0086	-.0055	-.0589	.0440	4948.		

ADLPIPE PAGE 572

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.16.

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

CONDITION 24

.1190	11193.	2305.	-5010.	-767.	-10795.	-2385.	-0.169	.1009	-.1944	-.1214	-.1308	-.0082	15304.
.1200	8144.	2279.	-5223.	-125.	-9920.	-1911.	-.0242	.0911	-.1537	-.0823	-.1239	-.0075	14270.
.1210	9459.	2535.	-6183.	266.	-10952.	-1418.	-.0322	.0207	-.1723	-.0523	-.1168	.0071	15603.
.1220	8632.	1720.	-6580.	343.	-10833.	-504.	-.0399	.0692	-.1574	-.0332	-.1118	.0100	15326.
.1230	8607.	1197.	-5581.	608.	-9944.	230.	-.0468	.0586	-.1390	-.0184	-.1090	.0163	14077.
.1240	3844.	1328.	-4520.	1121.	-8497.	783.	-.0522	.0502	-.1175	-.0031	-.1085	.0312	12157.
.1250	1085.	450.	-3170.	1322.	-6710.	1622.	-.0561	.0430	-.0936	.0092	-.1049	.0358	9928.
.1260	835.	-1096.	-2582.	1140.	-5577.	2602.	-.0588	.0360	-.0688	.0130	-.0937	.0303	8840.
.1270	-1844.	-1052.	-651.	1197.	-3172.	2783.	-.0576	.0303	-.0425	.0093	-.0851	.0364	6196.
.1280	-2844.	-138.	696.	1614.	-1317.	2525.	-.0528	.0266	-.0169	.0026	-.0754	.0500	4623.
.1290	-3234.	-970.	1749.	1924.	471.	2839.	-.0460	.0237	.0086	-.0055	-.0589	.0440	4948.

ADLPIPE PAGE 573

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.16.

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	TYPE	TE								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)
.1300	-4799.	-2755.	3254.	2102.	2900.	3506.	-.0378	.0220	.0346	-.0162	-.0358	.0251	7079.
.1310	-3939.	-2870.	3519.	2408.	4246.	3299.	-.0291	.0224	.0596	-.0310	-.0051	.0206	8322.
.1320	-4620.	-1860.	4113.	2589.	6043.	2491.	-.0206	.0244	.0848	-.0508	.0299	.0241	9931.
.1330	-4860.	-2014.	4174.	2317.	7475.	2085.	-.0135	.0270	.1091	-.0740	.0701	.0136	11439.
.1340	-5202.	-2957.	4166.	1907.	8730.	2001.	-.0070	.0308	.1315	-.0968	.1070	-.0055	12934.
.1350	-5922.	-3098.	4409.	1681.	9878.	1623.	-.0003	.0360	.1510	-.1188	.1326	-.0163	14337.
.1360	-4899.	-2883.	3983.	1292.	10100.	1122.	.0051	.0413	.1666	-.1435	.1502	-.0243	14470.
.1370	-5871.	-3068.	4487.	487.	11008.	777.	.0089	.0456	.1795	-.1704	.1592	-.0388	15602.
.1380	-5301.	-2943.	4353.	-322.	11032.	361.	.0102	.0497	.1886	-.1915	.1613	-.0495	15597.
.1390	-4845.	-2468.	4189.	-803.	10781.	-105.	.0088	.0542	.1944	-.2002	.1563	-.0542	15270.
.1400	-6248.	-2893.	4586.	-1151.	10987.	-129.	.0041	.0578	.1978	-.1973	.1476	-.0672	15605.
.1410	-6018.	-3982.	4002.	-1477.	10187.	186.	-.0045	.0599	.1971	-.1870	.1390	-.0868	14542.
.1420	-6719.	-4107.	3718.	-1591.	9437.	162.	-.0146	.0613	.1924	-.1711	.1235	-.0961	13519.
.1430	-6374.	-3417.	3034.	-1549.	8021.	-126.	-.0256	.0626	.1829	-.1492	.1011	-.0944	11540.
.1440	-6162.	-3498.	2547.	-1626.	6614.	-45.	-.0371	.0635	.1692	-.1226	.0735	-.0979	9621.
.1450	-6205.	-4221.	2340.	-1733.	5337.	353.	-.0486	.0642	.1516	-.0942	.0417	-.1055	7942.
.1460	-4474.	-4145.	1502.	-1599.	3304.	495.	-.0596	.0656	.1299	-.0675	.0075	-.1010	5232.
.1470	-4809.	-3284.	1627.	-1378.	2102.	346.	-.0689	.0677	.1059	-.0452	-.0303	-.0849	3584.
.1480	-3624.	-2799.	994.	-1441.	230.	353.	-.0773	.0702	.0791	-.0280	-.0535	-.0688	2121.
.1490	-1781.	-2553.	-91.	-1737.	-1940.	453.	-.0847	.0736	.0506	-.0149	-.0904	-.0517	3733.
.1500	-1484.	-1724.	-633.	-1942.	-3418.	332.	-.0901	.0781	.0222	-.0045	-.1120	-.0248	5572.
.1510	-257.	-725.	-1644.	-2014.	-5104.	190.	-.0940	.0834	-.0064	.0028	-.1239	.0078	7755.
.1520	85.	-301.	-2190.	-2114.	-6100.	300.	-.0955	.0887	-.0342	.0066	-.1280	.0362	9129.
.1530	1786.	-44.	-3124.	-2211.	-7289.	499.	-.0944	.0938	-.0618	.0077	-.1246	.0638	10782.
.1540	2476.	732.	-3306.	-2178.	-7672.	506.	-.0897	.0992	-.0879	.0078	-.1194	.0973	11287.
.1550	2405.	1536.	-2854.	-2080.	-7379.	520.	-.0818	.1046	-.1123	.0081	-.1130	.1313	10854.
.1560	5082.	1710.	-3441.	-2002.	-7953.	791.	-.0724	.1094	-.1356	.0083	-.1003	.1580	11638.
.1570	5462.	1835.	-2999.	-1809.	-7405.	1037.	-.0614	.1136	-.1551	.0085	-.0958	.1808	10865.
.1580	5552.	2446.	-2527.	-1396.	-6691.	1041.	-.0500	.1177	-.1710	.0099	-.0679	.2060	9765.
.1590	7218.	2884.	-2910.	-986.	-6625.	1051.	-.0397	.1216	-.1832	.0129	-.0444	.2273	9577.
.1600	6821.	2735.	-2563.	-777.	-5697.	1185.	-.0308	.1251	-.1904	.0158	-.0190	.2384	8292.
.1610	5079.	2814.	-1756.	-608.	-4340.	1121.	-.0225	.1282	-.1933	.0173	.0028	.2477	6389.
.1620	6343.	3419.	-2314.	-470.	-4445.	784.	-.0148	.1310	-.1944	.0154	.0198	.2595	6402.
.1630	5952.	3769.	-2170.	-426.	-3999.	467.	-.0075	.1325	-.1921	.0082	.0289	.2637	5718.
.1640	4936.	3861.	-1785.	-604.	-3415.	184.	-.0010	.1325	-.1866	-.0022	.0322	.2604	4906.
.1650	5605.	4332.	-2215.	-734.	-3695.	-284.	.0042	.1315	-.1787	-.0114	.0325	.2581	5336.
.1660	4341.	4801.	-1925.	-846.	-3272.	-775.	.0084	.1292	-.1669	-.0171	.0299	.2521	4898.
.1670	3510.	4573.	-1967.	-1039.	-3060.	-987.	.0108	.1247	-.1520	-.0191	.0304	.2355	4772.

ADLPIPE PAGE 574

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.17.

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

.1560	5022.	1710.	-441.	-2002.	-7953.	791.	-724	.1094	-.1356	.0083	-.1003	.1580	11638.
.1570	5462.	1835.	-1999.	-1809.	-7405.	1037.	-.0614	.1136	-.1551	.0085	-.0358	.1808	10865.
.1580	5552.	2446.	-2527.	-1396.	-6691.	1041.	-.0500	.1177	-.1710	.0099	-.0679	.2060	9765.
.1590	7218.	2884.	-2910.	-986.	-6625.	1051.	-.0397	.1216	-.1832	.0129	-.0444	.2273	9577.
.1600	6821.	2735.	-2563.	-777.	-5697.	1185.	-.0308	.1251	-.1904	.0158	-.0190	.2384	8292.
.1610	5079.	2014.	-1756.	-600.	-4340.	1121.	-.0225	.1282	-.1933	.0173	.0028	.2477	6389.
.1620	6247.	3419.	-1314.	-470.	-4445.	784.	-.0148	.1310	-.1944	.0154	.0198	.2595	6402.
.1630	5952.	3769.	-2170.	-426.	-3999.	467.	-.0075	.1325	-.1921	.0082	.0289	.2637	5718.
.1640	4936.	3861.	-1785.	-604.	-3415.	184.	-.0010	.1325	-.1866	-.0022	.0322	.2604	4906.
.1650	5605.	4332.	-2215.	-734.	-3695.	-284.	.0042	.1315	-.1787	-.0114	.0325	.2581	5336.
.1660	4341.	4001.	-1925.	-846.	-3272.	-775.	.0084	.1292	-.1669	-.0171	.0299	.2521	4898.
.1670	3510.	4573.	-1967.	-1079.	-3060.	-987.	.0106	.1247	-.1520	-.0191	.0304	.2355	4772.

ADLPIPE PAGE 574

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.17.

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	12	MEMBER	1	SEQUENCE	841	LOCATION	BEG	TYPE	TE	TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)										
.1680	2681.	4165.	-2117.	-1123.	-2883.	-1109.	.0121	.1179	-.1346	-.0172	.0332	.2138	4642.										
.1690	3171.	4138.	-2899.	-949.	-3271.	-1334.	.0127	.1091	-.1156	-.0108	.0385	.1942	5166.										
.1700	2823.	3930.	-3279.	-692.	-3200.	-1433.	.0130	.0982	-.0943	.0004	.0452	.1709	5048.										
.1710	-249.	3105.	-2283.	-481.	-1808.	-1234.	.0139	.0853	-.0709	.0162	.0498	.1398	3166.										
.1720	509.	2139.	-2669.	-228.	-1834.	-894.	.0153	.0710	-.0486	.0349	.0552	.1086	2900.										
.1730	772.	1477.	-2532.	69.	-1423.	-625.	.0178	.0555	-.0262	.0522	.0585	.0807	2197.										
.1740	-395.	973.	-1527.	304.	-155.	-391.	.0205	.0387	-.0030	.0659	.0618	.0538	733.										
.1750	-434.	404.	-852.	478.	819.	-97.	.0226	.0216	.0196	.0782	.0673	.0274	1347.										
.1760	-1219.	-345.	217.	609.	2157.	294.	.0244	.0049	.0421	.0908	.0723	.0016	3193.										
.1770	-1039.	-1279.	803.	620.	3049.	771.	.0247	-.0112	.0635	.1019	.0790	-.0235	4527.										
.1780	-2184.	-1984.	1845.	498.	4369.	1121.	.0235	-.0271	.0842	.1077	.0847	-.0459	6409.										
.1790	-2195.	-2171.	2268.	338.	5017.	1227.	.0207	-.0423	.1028	.1083	.0890	-.0621	7310.										
.1800	-1394.	-2247.	2229.	174.	5108.	1273.	.0160	-.0565	.1190	.1065	.0901	-.0752	7439.										
.1810	-3393.	-2686.	3319.	-11.	6143.	1446.	.0101	-.0695	.1339	.1047	.0832	-.0903	8914.										
.1820	-3599.	-3314.	3551.	-184.	6172.	1691.	.0029	-.0814	.1453	.1026	.0712	-.1052	9044.										
.1830	-3553.	-3667.	3611.	-331.	5847.	1795.	-.0052	-.0923	.1536	.0978	.0528	-.1171	8652.										
.1840	-4004.	-3683.	3780.	-480.	5508.	1727.	-.0138	-.1024	.1591	.0898	.0299	-.1256	8181.										
.1850	-4247.	-3626.	3689.	-609.	4871.	1615.	-.0230	-.1113	.1620	.0815	.0054	-.1327	7300.										
.1860	-5169.	-3817.	3721.	-678.	4353.	1599.	-.0320	-.1184	.1630	.0758	-.0193	-.1414	6619.										
.1870	-4749.	-4378.	3033.	-733.	3232.	1732.	-.0409	-.1239	.1617	.0724	-.0393	-.1530	5282.										
.1880	-5585.	-4904.	2834.	-832.	2713.	1822.	-.0489	-.1277	.1593	.0681	-.0553	-.1644	4763.										
.1890	-6012.	-4938.	2483.	-966.	2150.	1685.	-.0552	-.1298	.1552	.0611	-.0664	-.1708	4093.										
.1900	-4913.	-4714.	1573.	-1152.	1121.	1425.	-.0593	-.1299	.1489	.0520	-.0728	-.1741	3035.										
.1910	-5174.	-4744.	1439.	-1436.	888.	1247.	-.0604	-.1279	.1414	.0421	-.0778	-.1794	2965.										
.1920	-4983.	-4922.	1305.	-1775.	684.	1119.	-.0586	-.1240	.1322	.0318	-.0807	-.1846	3117.										
.1930	-4318.	-4735.	1135.	-2096.	446.	823.	-.0538	-.1182	.1210	.0196	-.0821	-.1850	3242.										
.1940	-3905.	-4108.	1175.	-2400.	427.	313.	-.0464	-.1113	.1084	.0047	-.0818	-.1806	3471.										
.1950	-3350.	-3342.	1172.	-2683.	404.	-277.	-.0370	-.1035	.0944	-.0105	-.0788	-.1737	3852.										
.1960	-2277.	-2627.	908.	-2879.	177.	-846.	-.0262	-.0948	.0791	-.0221	-.0724	-.1651	4246.										
.1970	-1479.	-1957.	704.	-2921.	65.	-1380.	-.0146	-.0855	.0631	-.0289	-.0630	-.1548	4564.										
.1980	-1235.	-1240.	663.	-2789.	159.	-1897.	-.0026	-.0764	.0467	-.0316	-.0513	-.1423	4769.										
.1990	-605.	-408.	385.	-2500.	19.	-2398.	.0096	-.0679	.0292	-.0312	-.0386	-.1266	4893.										
.2000	671.	483.	-191.	-2106.	-468.	-2840.	.0218	-.0603	.0107	-.0275	-.0265	-.1080	5018.										
.2010	1845.	1294.	-682.	-1662.	-947.	-3153.	.0338	-.0536	-.0083	-.0196	-.0163	-.0876	5209.										
.2020	2780.	1968.	-1032.	-1191.	-1342.	-3296.	.0450	-.0480	-.0271	-.0075	-.0079	-.0660	5301.										
.2030	3789.	2531.	-1420.	-690.	-1804.	-3269.	.0547	-.0436	-.0455	.0083	-.0008	-.0429	5363.										
.2040	4630.	2992.	-1775.	-172.	-2251.	-3087.	.0627	-.0406	-.0630	.0266	.0056	-.0187	5402.										
.2050	5197.	3369.	-2075.	333.	-2653.	-2775.	.0687	-.0389	-.0792	.0470	.0115	.0062	5443.										

ADLPIPE PAGE 575

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.17.

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

.1745	-340.	-410.	1175.	-2400.	427.	313.	-.464	-.1113	.1084	.0047	-.0818	-.1806	3471.
.1950	-3350.	-3342.	1172.	-2683.	404.	-277.	-.370	-.1035	.0944	-.0105	-.0788	-.1737	3852.
.1960	-2277.	-2627.	908.	-2879.	177.	-844.	-.262	-.0948	.0791	-.0221	-.0724	-.1651	4246.
.1970	-1479.	-1957.	704.	-2921.	65.	-1380.	-.0146	-.0855	.0631	-.0289	-.0530	-.1548	4564.
.1980	-1235.	-1240.	663.	-2789.	159.	-1897.	-.0026	-.0764	.0467	-.0316	-.0513	-.1423	4769.
.1990	-605.	-408.	385.	-2500.	19.	-2378.	.0096	-.0679	.0292	-.0312	-.0386	-.1266	4893.
.2000	671.	483.	-191.	-2106.	-468.	-2810.	.0218	-.0603	.0107	-.0275	-.0265	-.1080	5038.
.2010	1845.	1294.	-682.	-1662.	-947.	-3153.	.0338	-.0536	-.0083	-.0196	-.0163	-.0876	5209.
.2020	2780.	1968.	-1032.	-1191.	-1342.	-3296.	.0450	-.0480	-.0271	-.0075	-.0079	-.0660	5301.
.2030	3789.	2531.	-1420.	-690.	-1804.	-3269.	.0547	-.0436	-.0455	.0083	-.0008	-.0429	5363.
.2040	4630.	2992.	-1775.	-172.	-2251.	-3087.	.0627	-.0406	-.0630	.0266	.0056	-.0187	5402.
.2050	5197.	3369.	-2075.	333.	-2653.	-2775.	.0687	-.0389	-.0792	.0470	.0115	.0062	5443.

ADLPIPE PAGE 575

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.17.

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	TE								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)	
.2060	5744.	3678.	-2450.	791.	-3121.	-2355.	.0726	-.0384	-.0937	.0696	.0172	.0317	5635.	
.2070	6042.	3888.	-2795.	1182.	-3540.	-1835.	.0743	-.0388	-.1061	.0944	.0227	.0571	5874.	
.2080	5674.	3978.	-2874.	1537.	-3690.	-1232.	.0742	-.0401	-.1162	.1208	.0273	.0812	5908.	
.2090	5052.	3998.	-2809.	1908.	-3710.	-592.	.0729	-.0422	-.1240	.1475	.0308	.1036	5951.	
.2100	4723.	3985.	-2810.	2303.	-3796.	50.	.0707	-.0449	-.1296	.1730	.0334	.1241	6272.	
.2110	4257.	3925.	-2671.	2684.	-3725.	665.	.0679	-.0480	-.1328	.1963	.0355	.1415	6553.	
.2120	3389.	3821.	-2277.	3027.	-3367.	1219.	.0651	-.0512	-.1332	.2167	.0375	.1552	6623.	
.2130	2644.	3658.	-1898.	3323.	-2968.	1693.	.0623	-.0542	-.1311	.2333	.0403	.1646	6732.	
.2140	2238.	3393.	-1697.	3551.	-2649.	2086.	.0595	-.0569	-.1264	.2440	.0451	.1687	6916.	
.2150	1855.	3076.	-1565.	3691.	-2281.	2357.	.0569	-.0592	-.1189	.2472	.0525	.1673	6974.	
.2160	1458.	2822.	-1460.	3736.	-1828.	2450.	.0543	-.0609	-.1085	.2422	.0520	.1615	6818.	
.2170	1309.	2561.	-1447.	3644.	-1391.	2391.	.0518	-.0616	-.0957	.2295	.0726	.1506	6462.	
.2180	1332.	2143.	-1455.	3360.	-946.	2249.	.0493	-.0616	-.0806	.2093	.0824	.1334	5865.	
.2190	1426.	1654.	-1411.	2894.	-480.	2004.	.0467	-.0608	-.0636	.1818	.0892	.1108	5018.	
.2200	1702.	1303.	-1342.	2311.	-83.	1590.	.0439	-.0594	-.0452	.1479	.0913	.0850	3964.	
.2210	1963.	1043.	-1173.	1642.	287.	1053.	.0405	-.0576	-.0258	.1098	.0872	.0563	2785.	
.2220	1862.	657.	-788.	897.	725.	512.	.0362	-.0555	-.0056	.0706	.0764	.0234	1782.	
.2230	1538.	129.	-293.	120.	1121.	2.	.0307	-.0532	.0148	.0330	.0592	-.0128	1593.	
.2240	1188.	-382.	181.	-630.	1366.	-514.	.0240	-.0511	.0349	-.0012	.0367	-.0497	2245.	
.2250	566.	-813.	704.	-1311.	1574.	-1038.	.0160	-.0493	.0546	-.0313	.0109	-.0859	3244.	
.2260	-456.	-1231.	1305.	-1886.	1822.	-1513.	.0067	-.0480	.0734	-.0561	-.0161	-.1208	4277.	
.2270	-1600.	-1703.	1856.	-2325.	2014.	-1879.	-.0034	-.0470	.0908	-.0742	-.0426	-.1535	5092.	
.2280	-2713.	-2249.	2306.	-2645.	2123.	-2107.	-.0135	-.0463	.1064	-.0856	-.0671	-.1827	5639.	
.2290	-3786.	-2789.	2671.	-2889.	2202.	-2216.	-.0233	-.0458	.1198	-.0921	-.0878	-.2069	6010.	
.2300	-4606.	-3159.	2877.	-3066.	2217.	-2269.	-.0322	-.0457	.1307	-.0956	-.1028	-.2241	6232.	
.2310	-5065.	-3321.	2881.	-3162.	2155.	-2272.	-.0398	-.0456	.1390	-.0967	-.1108	-.2332	6286.	
.2320	-5371.	-3459.	2766.	-3176.	2122.	-2147.	-.0460	-.0455	.1447	-.0951	-.1111	-.2356	6189.	
.2330	-5539.	-3710.	2544.	-3129.	2128.	-1843.	-.0506	-.0451	.1479	-.0911	-.1036	-.2327	5945.	
.2340	-5373.	-3938.	2147.	-3026.	2085.	-1436.	-.0535	-.0444	.1485	-.0855	-.0892	-.2236	5573.	
.2350	-4978.	-3936.	1652.	-2861.	2023.	-1035.	-.0548	-.0435	.1465	-.0798	-.0697	-.2075	5160.	
.2360	-4566.	-3725.	1188.	-2618.	2009.	-652.	-.0543	-.0423	.1418	-.0737	-.0478	-.1853	4752.	
.2370	-4043.	-3496.	763.	-2274.	1992.	-223.	-.0523	-.0407	.1346	-.0662	-.0259	-.1596	4282.	
.2380	-3386.	-3340.	417.	-1809.	1957.	271.	-.0488	-.0387	.1248	-.0565	-.0062	-.1324	3784.	
.2390	-2870.	-3154.	296.	-1228.	2013.	760.	-.0440	-.0362	.1129	-.0449	.0093	-.1040	3499.	
.2400	-2548.	-2816.	410.	-550.	2155.	1172.	-.0383	-.0331	.0991	-.0323	.0197	-.0745	3550.	
.2410	-2167.	-2358.	607.	188.	2235.	1502.	-.0319	-.0294	.0836	-.0190	.0250	-.0449	3813.	
.2420	-1751.	-1930.	839.	944.	2230.	1797.	-.0252	-.0248	.0669	-.0051	.0258	-.0175	4259.	
.2430	-1553.	-1595.	1152.	1675.	2226.	2071.	-.0183	-.0191	.0493	.0089	.0230	.0066	4903.	

ADLPIPE PAGE 576

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.17.

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

.2330	-5539.	-3710.	544.	-3129.	2128.	-1843.	-.5506	-.0451	.1479	-.0911	-.1036	-.2327	5945.
.2340	-5373.	-3938.	2147.	-3026.	2085.	-1436.	-.535	-.0444	.1485	-.0855	-.0892	-.2236	5573.
.2350	-4678.	-3936.	1652.	-2891.	2023.	-1035.	-.0548	-.0435	.1465	-.0798	-.0697	-.2075	5160.
.2360	-4566.	-3725.	1188.	-2618.	2009.	-.652.	-.0543	-.0423	.1418	-.0737	-.0478	-.1853	4752.
.2370	-4043.	-3496.	763.	-2274.	1992.	-.223.	-.0523	-.0407	.1346	-.0662	-.0259	-.1596	4282.
.2380	-3386.	-3340.	417.	-1809.	1957.	271.	-.0488	-.0387	.1248	-.0565	-.0062	-.1324	3784.
.2390	-2870.	-3154.	296.	-1228.	2013.	760.	-.0440	-.0362	.1129	-.0449	.0093	-.1040	3499.
.2400	-2548.	-2816.	410.	-.550.	2155.	1172.	-.0383	-.0331	.0991	-.0323	.0197	-.0745	3550.
.2410	-2107.	-2358.	607.	188.	2235.	1502.	-.0319	-.0294	.0836	-.0190	.0250	-.0449	3813.
.2420	-1711.	-1930.	839.	944.	2230.	1777.	-.0252	-.0248	.0669	-.0051	.0258	-.0175	4259.
.2430	-1553.	-1595.	1152.	1675.	2226.	2071.	-.0183	-.0191	.0493	.0089	.0230	.0066	4903.

ADLPIPE PAGE 576

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.17.

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	12	MEMBER	1	SEQUENCE	841	LOCATION	BEG	TYPE	TE						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.2440	-1546.	-1276.	1492.	2336.	2217.	2281.	-.0115	-.0122	.0315	.0214	.0184	.0280	5574.		
.2450	-1521.	-891.	1745.	2873.	2130.	2379.	-.0048	-.0040	-.0135	.0307	.0132	.0472	6067.		
.2460	-1363.	-439.	1854.	3232.	1933.	2358.	.0018	.0054	-.0044	.0353	.0088	.0642	6276.		
.2470	-991.	48.	1769.	3392.	1606.	2229.	.0083	.0161	-.0219	.0346	.0062	.0789	6165.		
.2480	-369.	553.	1465.	3364.	1158.	2003.	.0146	.0279	-.0388	.0290	.0065	.0916	5767.		
.2490	303.	1076.	1044.	3174.	706.	1689.	.0205	.0406	-.0547	.0188	.0101	.1023	5175.		
.2500	901.	1613.	571.	2860.	309.	1297.	.0259	.0540	-.0694	.0048	.0170	.1112	4457.		
.2510	1699.	2152.	-65.	2470.	-171.	847.	.0305	.0675	-.0828	-.0119	.0263	.1185	3696.		
.2520	2822.	2660.	-910.	2042.	-805.	369.	.0340	.0807	-.0950	-.0302	.0372	.1240	3143.		
.2530	3868.	3121.	-1765.	1615.	-1422.	-115.	.0362	.0932	-.1056	-.0489	.0483	.1275	3044.		
.2540	4498.	3522.	-2450.	1242.	-1888.	-582.	.0369	.1047	-.1143	-.0664	.0578	.1293	3296.		
.2550	4843.	3799.	-2987.	957.	-2280.	-985.	.0359	.1149	-.1214	-.0819	.0635	.1291	3759.		
.2560	5085.	3885.	-3420.	753.	-2687.	-1286.	.0334	.1235	-.1270	-.0956	.0641	.1265	4340.		
.2570	5150.	3854.	-3674.	608.	-3063.	-1509.	.0295	.1303	-.1310	-.1082	.0584	.1223	4899.		
.2580	4955.	3856.	-3685.	516.	-3349.	-1713.	.0243	.1351	-.1336	-.1204	.0463	.1181	5363.		
.2590	4526.	3862.	-3461.	465.	-3533.	-1878.	.0182	.1382	-.1346	-.1317	.0286	.1139	5690.		
.2600	3918.	3688.	-3052.	424.	-3627.	-1923.	.0114	.1397	-.1341	-.1418	.0066	.1084	5829.		
.2610	3310.	3325.	-2574.	377.	-3694.	-1845.	.0041	.1395	-.1321	-.1510	-.0173	.1011	5856.		
.2620	2867.	2974.	-2135.	331.	-3782.	-1729.	-.0034	.1379	-.1285	-.1599	-.0408	.0941	5892.		
.2630	2488.	2717.	-1723.	280.	-3817.	-1614.	-.0110	.1349	-.1234	-.1682	-.0616	.0878	5868.		
.2640	2076.	2408.	-1326.	206.	-3743.	-1446.	-.0184	.1308	-.1165	-.1750	-.0780	.0811	5675.		
.2650	1808.	1938.	-1032.	123.	-3634.	-1180.	-.0254	.1260	-.1081	-.1792	-.0893	.0729	5400.		
.2660	1790.	1385.	-882.	61.	-3533.	-856.	-.0318	.1204	-.0984	-.1810	-.0954	.0639	5136.		
.2670	1823.	901.	-779.	34.	-3354.	-549.	-.0374	.1143	-.0874	-.1812	-.0967	.0555	4801.		
.2680	1778.	535.	-657.	42.	-3054.	-288.	-.0424	.1078	-.0752	-.1804	-.0941	.0480	4333.		
.2690	1727.	200.	-543.	82.	-2693.	-44.	-.0466	.1011	-.0620	-.1778	-.0887	.0408	3806.		
.2700	1631.	-212.	-427.	146.	-2290.	224.	-.0501	.0945	-.0480	-.1733	-.0817	.0330	3256.		
.2710	1335.	-677.	-257.	222.	-1801.	501.	-.0531	.0882	-.0331	-.1675	-.0736	.0245	2659.		
.2720	808.	-1063.	-27.	307.	-1229.	727.	-.0557	.0822	-.0175	-.1617	-.0649	.0163	2062.		
.2730	97.	-1348.	248.	386.	-598.	889.	-.0579	.0767	-.0014	-.1564	-.0558	.0085	1609.		
.2740	-814.	-1662.	595.	431.	100.	1039.	-.0595	.0720	.0149	-.1512	-.0471	-.0000	1595.		
.2750	-1784.	-2074.	976.	417.	814.	1204.	-.0605	.0681	.0310	-.1465	-.0393	-.0099	2136.		
.2760	-2633.	-2471.	1334.	350.	1482.	1335.	-.0605	.0650	.0463	-.1431	-.0321	-.0202	2860.		
.2770	-3389.	-2720.	1689.	239.	2128.	1373.	-.0596	.0628	.0606	-.1416	-.0255	-.0298	3593.		
.2780	-4057.	-2855.	2038.	91.	2755.	1330.	-.0577	.0613	.0736	-.1415	-.0192	-.0390	4323.		
.2790	-4466.	-2993.	2287.	-88.	3274.	1259.	-.0549	.0608	.0847	-.1416	-.0127	-.0483	4956.		
.2800	-4568.	-3150.	2387.	-277.	3648.	1169.	-.0512	.0611	.0939	-.1412	-.0056	-.0576	5425.		
.2810	-4521.	-3226.	2390.	-453.	3927.	1026.	-.0471	.0620	.1009	-.1403	.0022	-.0659	5769.		

ADLPIPE PAGE 577

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.17.

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

.2710	1335.	-677.	-257.	222.	-1801.	501.	-.531	.0882	-.0331	-.1675	-.0736	.0245	2659.
.2720	808.	-1063.	-27.	307.	-1229.	727.	-.557	.0822	-.0175	-.1617	-.0649	.0163	2062.
.2730	97.	-1348.	248.	386.	-598.	889.	-.0579	.0767	-.0014	-.1564	-.0558	.0085	1609.
.2740	-814.	-1662.	595.	431.	100.	1039.	-.0595	.0720	.0149	-.1512	-.0471	-.0000	1595.
.2750	-1784.	-2074.	976.	417.	814.	1204.	-.0605	.0601	.0310	-.1465	-.0393	-.0099	2136.
.2760	-2633.	-2471.	1334.	350.	1462.	1335.	-.0605	.0650	.0463	-.1431	-.0321	-.0202	2860.
.2770	-3369.	-2720.	1689.	239.	2128.	1373.	-.0596	.0628	.0606	-.1416	-.0255	-.0298	3593.
.2780	-4057.	-2855.	2038.	91.	2755.	1330.	-.0577	.0613	.0736	-.1415	-.0192	-.0390	4323.
.2790	-4466.	-2993.	2287.	-88.	3274.	1259.	-.0549	.0608	.0847	-.1416	-.0127	-.0483	4956.
.2800	-4568.	-3150.	2387.	-277.	3648.	1169.	-.0512	.0611	.0939	-.1412	-.0056	-.0576	5425.
.2810	-4521.	-3226.	2390.	-453.	3927.	1026.	-.0471	.0620	.1009	-.1403	.0022	-.0659	5769.

ADLPIPE PAGE 577

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.17.

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	12	MEMBER	1	SEQUENCE	841	LOCATION	BEG	TYPE	TE					
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.2820	-4381.	-3159.	2311.	-598.	4119.	813.	-.0426	.0635	.1056	-.1387	.0105	-.0721	5990.	
.2830	-4084.	-3002.	2128.	-701.	4178.	565.	-.0379	.0654	.1079	-.1359	.0186	-.0761	6037.	
.2840	-3688.	-2837.	1885.	-760.	4120.	333.	-.0331	.0676	.1075	-.1316	.0255	-.0779	5937.	
.2850	-3304.	-2656.	1660.	-776.	3997.	131.	-.0283	.0701	.1046	-.1259	.0306	-.0770	5754.	
.2860	-2937.	-2391.	1476.	-758.	3022.	-57.	-.0236	.0726	.0991	-.1194	.0335	-.0724	5504.	
.2870	-2575.	-2028.	1340.	-714.	3606.	-230.	-.0192	.0750	.0912	-.1127	.0344	-.0637	5202.	
.2880	-2265.	-1624.	1262.	-650.	3373.	-356.	-.0153	.0773	.0812	-.1055	.0337	-.0511	4878.	
.2890	-1995.	-1237.	1218.	-564.	3125.	-404.	-.0119	.0793	.0694	-.0975	.0325	-.0352	4522.	
.2900	-1729.	-881.	1171.	-460.	2855.	-371.	-.0093	.0810	.0561	-.0887	.0316	-.0164	4118.	
.2910	-1496.	-533.	1121.	-344.	2582.	-275.	-.0075	.0823	.0415	-.0792	.0316	.0050	3700.	
.2920	-1284.	-175.	1051.	-218.	2302.	-134.	-.0064	.0831	.0261	-.0689	.0329	.0286	3271.	
.2930	-975.	175.	906.	-83.	1954.	49.	-.0061	.0834	.0099	-.0579	.0351	.0533	2764.	
.2940	-536.	471.	674.	58.	1518.	280.	-.0064	.0831	-.0067	-.0458	.0376	.0777	2182.	
.2950	-56.	707.	398.	197.	1024.	541.	-.0073	.0825	-.0235	-.0328	.0397	.1013	1660.	
.2960	430.	924.	94.	327.	475.	798.	-.0087	.0813	-.0402	-.0192	.0406	.1230	1391.	
.2970	963.	1141.	-264.	437.	-164.	1024.	-.0105	.0799	-.0564	-.0054	.0396	.1423	1589.	
.2980	1526.	1328.	-676.	507.	-896.	1210.	-.0127	.0781	-.0718	.0083	.0363	.1583	2244.	
.2990	2046.	1478.	-1115.	526.	-1691.	1344.	-.0152	.0762	-.0861	.0215	.0306	.1704	3140.	
.3000	2477.	1628.	-1557.	494.	-2513.	1400.	-.0178	.0741	-.0987	.0336	.0227	.1786	4122.	
.3010	2786.	1790.	-1970.	405.	-3320.	1367.	-.0204	.0720	-.1095	.0442	.0127	.1829	5103.	
.3020	2975.	1936.	-2328.	249.	-4072.	1256.	-.0228	.0698	-.1181	.0528	.0013	.1831	6029.	
.3030	3103.	2057.	-2622.	23.	-4747.	1076.	-.0245	.0675	-.1244	.0591	-.0110	.1793	6876.	
.3040	3207.	2181.	-2839.	-263.	-5313.	826.	-.0253	.0651	-.1282	.0630	-.0234	.1722	7603.	
.3050	3250.	2307.	-2941.	-588.	-5706.	520.	-.0251	.0625	-.1295	.0646	-.0348	.1622	8135.	
.3060	3229.	2396.	-2919.	-932.	-5891.	191.	-.0237	.0594	-.1280	.0644	-.0440	.1495	8429.	
.3070	3207.	2417.	-2809.	-1272.	-5882.	-132.	-.0212	.0559	-.1240	.0630	-.0501	.1345	8503.	
.3080	3211.	2378.	-2640.	-1585.	-5693.	-439.	-.0176	.0517	-.1175	.0609	-.0523	.1179	8370.	
.3090	3202.	2306.	-2420.	-1851.	-5323.	-728.	-.0132	.0467	-.1087	.0586	-.0501	.1006	8026.	
.3100	3163.	2207.	-2170.	-2049.	-4796.	-987.	-.0082	.0407	-.0977	.0564	-.0437	.0832	7497.	
.3110	3098.	2059.	-1914.	-2169.	-4154.	-1197.	-.0029	.0339	-.0848	.0550	-.0337	.0660	6832.	
.3120	2976.	1838.	-1657.	-2211.	-3432.	-1336.	.0025	.0260	-.0705	.0550	-.0211	.0493	6068.	
.3130	2773.	1562.	-1392.	-2184.	-2663.	-1405.	.0075	.0172	-.0550	.0562	-.0072	.0335	5254.	
.3140	2500.	1272.	-1136.	-2099.	-1891.	-1417.	.0121	.0073	-.0388	.0586	.0067	.0190	4464.	
.3150	2133.	988.	-881.	-1968.	-1139.	-1377.	.0160	-.0034	-.0221	.0624	.0195	.0062	3754.	
.3160	1658.	683.	-622.	-1803.	-425.	-1273.	.0190	-.0149	-.0053	.0675	.0305	-.0052	3175.	
.3170	1090.	334.	-366.	-1618.	231.	-1099.	.0211	-.0271	.0114	.0743	.0393	-.0157	2782.	
.3180	436.	-33.	-112.	-1419.	826.	-871.	.0222	-.0398	.0276	.0826	.0457	-.0250	2625.	
.3190	-288.	-375.	140.	-1211.	1361.	-617.	.0224	-.0528	.0433	.0921	.0500	-.0330	2717.	

ADLPIPE PAGE 578

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.17.

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

.3090	3202.	2306.	-2420.	-1851.	3202.	-5323.	-728.	-.0132	.0467	-.1087	.0586	-.0501	.1006	8026.
.3100	3163.	2207.	-2170.	-2049.	-4796.	-987.	-.0082	.0407	-.0977	.0564	-.0437	.0832	7497.	
.3110	3098.	2059.	-1914.	-2169.	-4154.	-1197.	-.0029	.0339	-.0848	.0550	-.0337	.0660	6832.	
.3120	2976.	1838.	-1655.	-2211.	-3432.	-1336.	.0025	.0260	-.0705	.0550	-.0211	.0493	6068.	
.3130	2773.	1562.	-1392.	-2184.	-2663.	-1455.	.0075	.0172	-.0550	.0562	-.0072	.0335	5254.	
.3140	2500.	1272.	-1136.	-2099.	-1891.	-1417.	.0121	.0073	-.0388	.0586	.0067	.0190	4464.	
.3150	2133.	988.	-881.	-1968.	-1139.	-1377.	.0160	-.0034	-.0221	.0624	.0195	.0062	3754.	
.3160	1658.	693.	-622.	-1803.	-425.	-1273.	.0190	-.0149	-.0053	.0675	.0305	-.0052	3175.	
.3170	1090.	334.	-366.	-1618.	231.	-1099.	.0211	-.0271	.0114	.0743	.0393	-.0157	2782.	
.3180	436.	-33.	-112.	-1419.	826.	-871.	.0222	-.0398	.0276	.0826	.0457	-.0250	2625.	
.3190	-288.	-375.	140.	-1211.	1361.	-617.	.0224	-.0528	.0433	.0921	.0500	-.0330	2717.	

ADLPIPE PAGE 578

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.17.

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	12	MEMBER	1	SEQUENCE	841	LOCATION	BEG	TYPE	TE								
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS				
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)				
.3200	-1046.	-679.	391.	-996.	1840.	-349.	.0218	-.0660	.0581	.1026	.0524	-.0399	2996.				
.3210	-1768.	-971.	627.	-777.	2258.	-64.	.0208	-.0793	.0720	.1141	.0535	-.0461	3374.				
.3220	-2430.	-1271.	861.	-552.	2633.	236.	.0195	-.0923	.0846	.1262	.0535	-.0520	3814.				
.3230	-3052.	-1558.	1119.	-318.	2999.	536.	.0182	-.1051	.0961	.1386	.0529	-.0575	4326.				
.3240	-3596.	-1810.	1398.	-76.	3358.	816.	.0172	-.1173	.1061	.1507	.0520	-.0627	4882.				
.3250	-3987.	-2030.	1666.	168.	3685.	1071.	.0166	-.1288	.1147	.1618	.0512	-.0679	5426.				
.3260	-4240.	-2237.	1921.	403.	3982.	1299.	.0165	-.1395	.1217	.1714	.0505	-.0733	5944.				
.3270	-4398.	-2434.	2165.	620.	4254.	1495.	.0170	-.1491	.1271	.1791	.0500	-.0790	6429.				
.3280	-4459.	-2608.	2374.	808.	4482.	1643.	.0180	-.1574	.1310	.1844	.0497	-.0850	6839.				
.3290	-4429.	-2740.	2528.	953.	4644.	1728.	.0194	-.1643	.1333	.1868	.0496	-.0913	7128.				
.3300	-4327.	-2818.	2615.	1045.	4725.	1740.	.0211	-.1698	.1341	.1859	.0494	-.0977	7264.				
.3310	-4138.	-2843.	2619.	1075.	4699.	1675.	.0231	-.1737	.1332	.1818	.0487	-.1043	7208.				
.3320	-3876.	-2814.	2540.	1035.	4562.	1531.	.0253	-.1760	.1307	.1747	.0471	-.1110	6952.				
.3330	-3590.	-2720.	2406.	927.	4331.	1307.	.0276	-.1767	.1265	.1649	.0443	-.1178	6522.				
.3340	-3276.	-2550.	2218.	761.	4003.	1006.	.0299	-.1760	.1208	.1531	.0401	-.1243	5929.				
.3350	-2871.	-2312.	1956.	552.	3557.	639.	.0323	-.1740	.1135	.1399	.0343	-.1306	5164.				
.3360	-2382.	-2026.	1630.	312.	3009.	228.	.0345	-.1708	.1046	.1262	.0273	-.1366	4285.				
.3370	-1875.	-1702.	1276.	59.	2402.	-209.	.0367	-.1668	.0944	.1128	.0193	-.1421	3406.				
.3380	-1355.	-1347.	904.	-185.	1756.	-655.	.0386	-.1620	.0831	.1005	.0108	-.1467	2661.				
.3390	-798.	-982.	510.	-402.	1080.	-1086.	.0404	-.1567	.0708	.0897	.0020	-.1503	2236.				
.3400	-221.	-627.	111.	-577.	394.	-1477.	.0419	-.1512	.0577	.0807	-.0066	-.1526	2308.				
.3410	344.	-280.	-269.	-698.	-273.	-1819.	.0431	-.1455	.0440	.0735	-.0150	-.1530	2778.				
.3420	870.	64.	-608.	-759.	-897.	-2101.	.0442	-.1399	.0299	.0678	-.0232	-.1512	3401.				
.3430	1329.	388.	-885.	-761.	-1459.	-2312.	.0452	-.1345	.0157	.0636	-.0310	-.1468	4008.				
.3440	1710.	682.	-1095.	-705.	-1950.	-2441.	.0460	-.1294	.0015	.0603	-.0385	-.1398	4524.				
.3450	2032.	957.	-1253.	-591.	-2380.	-2494.	.0469	-.1246	-.0124	.0578	-.0454	-.1301	4940.				
.3460	2295.	1225.	-1368.	-418.	-2745.	-2478.	.0478	-.1202	-.0257	.0557	-.0511	-.1176	5257.				
.3470	2465.	1476.	-1434.	-195.	-3024.	-2307.	.0487	-.1161	-.0383	.0540	-.0553	-.1027	5458.				
.3480	2552.	1696.	-1466.	72.	-3215.	-2254.	.0497	-.1125	-.0498	.0529	-.0574	-.0861	5547.				
.3490	2617.	1886.	-1495.	377.	-3338.	-2060.	.0508	-.1091	-.0601	.0524	-.0570	-.0683	5567.				
.3500	2700.	2054.	-1539.	712.	-3400.	-1832.	.0520	-.1061	-.0690	.0526	-.0537	-.0500	5548.				
.3510	2791.	2202.	-1586.	1066.	-3389.	-1584.	.0533	-.1033	-.0763	.0533	-.0477	-.0318	5495.				
.3520	2893.	2329.	-1629.	1426.	-3300.	-1329.	.0547	-.1007	-.0819	.0548	-.0393	-.0145	5414.				
.3530	3014.	2423.	-1662.	1776.	-3143.	-1074.	.0562	-.0982	-.0857	.0570	-.0290	.0010	5320.				
.3540	3147.	2468.	-1679.	2098.	-2927.	-823.	.0576	-.0958	-.0876	.0596	-.0178	.0142	5218.				
.3550	3275.	2471.	-1673.	2376.	-2665.	-590.	.0588	-.0934	-.0877	.0623	-.0063	.0245	5111.				
.3560	3366.	2448.	-1634.	2597.	-2364.	-386.	.0597	-.0909	-.0857	.0648	.0044	.0317	4991.				
.3570	3360.	2390.	-1542.	2752.	-2024.	-220.	.0601	-.0883	-.0819	.0666	.0136	.0355	4835.				

ADLPIPE PAGE 579

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.17.

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

.3850	-1927.	-1518.	158.	-717.	425.	1016.	-.0635	.0817	.0206	-.0903	-.0428	.0335	1857.
.3860	-1518.	-1257.	812.	-608.	-15.	1096.	-.0643	.0913	.0082	-.0884	-.0399	.0526	1770.
.3870	-1074.	-994.	439.	-521.	-437.	1145.	-.0641	.1011	-.0044	-.0871	-.0351	.0712	1881.
.3880	-621.	-710.	64.	-465.	-821.	1165.	-.0630	.1113	-.0168	-.0865	-.0290	.0891	2117.
.3890	-170.	-411.	-289.	-440.	-1156.	1149.	-.0610	.1215	-.0289	-.0863	-.0220	.1059	2385.
.3900	272.	-83.	-605.	-445.	-1438.	1092.	-.0582	.1319	-.0407	-.0867	-.0146	.1216	2626.
.3910	698.	266.	-875.	-474.	-1665.	996.	-.0548	.1421	-.0518	-.0873	-.0073	.1357	2821.
.3920	1088.	611.	-1092.	-522.	-1836.	872.	-.0508	.1521	-.0623	-.0878	-.0004	.1482	2964.
.3930	1426.	938.	-1253.	-583.	-1952.	729.	-.0466	.1617	-.0719	-.0878	.0060	.1587	3057.
.3940	1720.	1257.	-1373.	-647.	-2030.	566.	-.0423	.1707	-.0806	-.0873	.0117	.1677	3114.
.3950	1986.	1578.	-1467.	-704.	-2087.	385.	-.0381	.1789	-.0883	-.0865	.0166	.1752	3158.

ADLPIPE PAGE 580

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.17.

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	12	MEMBER	1	SEQUENCE	841	LOCATION	BEG	TYPE	TE	TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(PSI)
.3960	2220.	1884.	-1541.	-750.	-2127.	201.	-.0342	.1862	-.0950	-.0853	.0208	.1813	3199.										
.3970	2408.	2149.	-1592.	-787.	-2152.	32.	-.0307	.1925	-.1006	-.0837	.0241	.1862	3237.										
.3980	2550.	2361.	-1623.	-815.	-2167.	-108.	-.0277	.1975	-.1051	-.0818	.0265	.1900	3273.										
.3990	2662.	2526.	-1641.	-834.	-2179.	-214.	-.0253	.2012	-.1084	-.0799	.0280	.1930	3310.										
.4000	2755.	2649.	-1654.	-845.	-2196.	-282.	-.0236	.2036	-.1105	-.0782	.0286	.1954	3347.										

MAXIMUM VALUE OF STRESS OCCURS AT

TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
.1180	-12491.	-3429.	5761.	1318.	10934.	3457.	-.0104	.1113	-.2011	-.1624	-.1425	-.0088	16304.

SECTION	12	MEMBER	1	SEQUENCE	232	LOCATION	END	TYPE	TE	TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.
.0010	1.	-1.	-3.	1.	-1.	0.	.0000	-.0000	-.0000	-.0000	.0000	-.0000	2.										
.0020	-1.	-7.	-16.	4.	-9.	-1.	.0000	-.0000	-.0001	.0000	.0001	.0001	14.										
.0030	-34.	-23.	-28.	2.	-23.	-7.	.0001	-.0000	-.0004	.0001	.0003	.0004	34.										
.0040	-109.	-40.	-29.	-12.	-41.	-23.	.0002	.0000	-.0009	.0003	.0007	.0011	68.										
.0050	-216.	-44.	-24.	-43.	-66.	-48.	.0003	.0001	-.0017	.0007	.0015	.0020	130.										
.0060	-382.	-44.	-2.	-87.	-99.	-82.	.0003	.0003	-.0029	.0012	.0029	.0033	220.										
.0070	-633.	-70.	42.	-143.	-140.	-133.	.0004	.0006	-.0047	.0018	.0049	.0057	339.										
.0080	-1038.	-134.	114.	-214.	-186.	-211.	.0007	.0010	-.0074	.0025	.0074	.0096	499.										
.0090	-1795.	-199.	293.	-316.	-215.	-324.	.0017	.0017	-.0116	.0031	.0108	.0153	707.										
.0100	-2813.	-252.	549.	-458.	-242.	-470.	.0035	.0027	-.0171	.0032	.0153	.0225	988.										
.0110	-3727.	-359.	740.	-634.	-314.	-640.	.0062	.0039	-.0237	.0022	.0207	.0317	1347.										
.0120	-4375.	-558.	820.	-823.	-443.	-819.	.0098	.0053	-.0310	-.0001	.0269	.0428	1755.										
.0130	-4927.	-782.	900.	-1000.	-599.	-988.	.0140	.0070	-.0387	-.0038	.0345	.0549	2159.										
.0140	-5627.	-977.	1144.	-1158.	-735.	-1134.	.0186	.0090	-.0464	-.0092	.0445	.0669	2514.										
.0150	-6576.	-1205.	1652.	-1307.	-816.	-1256.	.0233	.0110	-.0540	-.0166	.0578	.0794	2808.										
.0160	-7979.	-1506.	2528.	-1452.	-793.	-1354.	.0278	.0131	-.0616	-.0254	.0746	.0925	3020.										
.0170	-9282.	-1855.	3503.	-1577.	-703.	-1437.	.0321	.0153	-.0695	-.0343	.0930	.1062	3173.										
.0180	-9233.	-2281.	3958.	-1676.	-692.	-1514.	.0365	.0177	-.0773	-.0415	.1089	.1206	3336.										
.0190	-7401.	-2810.	3539.	-1742.	-841.	-1591.	.0416	.0203	-.0849	-.0460	.1191	.1352	3538.										

ADLPIPE PAGE 581

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.17.

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

.0090	-1795.	-199.	293.	-316.	-215.	-324.	.0017	.0017	-.0116	.0031	.0108	.0153	707.
.0100	-2813.	-252.	549.	-458.	-242.	-470.	.0035	.0027	-.0171	.0032	.0153	.0225	988.
.0110	-3727.	-359.	740.	-634.	-314.	-640.	.0062	.0039	-.0237	.0022	.0207	.0317	1347.
.0120	-4375.	-558.	820.	-823.	-443.	-819.	.0098	.0053	-.0310	-.0001	.0269	.0428	1755.
.0130	-4927.	-782.	900.	-1000.	-599.	-988.	.0140	.0070	-.0387	-.0038	.0345	.0549	2159.
.0140	-5627.	-977.	1144.	-1158.	-735.	-1134.	.0186	.0090	-.0464	-.0092	.0445	.0669	2514.
.0150	-6176.	-1205.	1652.	-1307.	-816.	-1256.	.0233	.0110	-.0540	-.0166	.0578	.0794	2808.
.0160	-7979.	-1506.	2528.	-1452.	-793.	-1354.	.0278	.0131	-.0616	-.0254	.0746	.0925	3020.
.0170	-9282.	-1855.	3503.	-1577.	-703.	-1437.	.0321	.0153	-.0695	-.0343	.0930	.1062	3173.
.0180	-9233.	-2281.	3955.	-1676.	-692.	-1514.	.0365	.0177	-.0773	-.0415	.1089	.1206	3336.
.0190	-7401.	-2810.	3539.	-1742.	-341.	-1591.	.0416	.0203	-.0849	-.0460	.1191	.1352	3538.

ADLPIPE PAGE 581

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.17.

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	12	MEMBER	1	SEQUENCE	232	LOCATION	END	TYPE	TE					
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.0200	-3722.	-3384.	1933.	-1735.	-1164.	-1658.	.0491	.0229	-.0928	-.0482	.1170	.1477	3767.	
.0210	-366.	-3747.	-53.	-1616.	-1379.	-1703.	.0602	.0249	-.1024	-.0505	.1020	.1538	3845.	
.0220	817.	-3891.	-1273.	-1406.	-1341.	-1701.	.0722	.0253	-.1111	-.0564	.0839	.1515	3647.	
.0230	1701.	-4347.	-2247.	-1147.	-1281.	-1603.	.0826	.0235	-.1150	-.0645	.0649	.1444	3321.	
.0240	218.	-4679.	-1968.	-838.	-871.	-1345.	.0900	.0204	-.1152	-.0689	.0502	.1281	2554.	
.0250	-1281.	-4391.	-1354.	-470.	-327.	-959.	.0940	.0167	-.1119	-.0645	.0360	.1004	1577.	
.0260	3776.	-4227.	-3236.	-177.	-499.	-533.	.0936	.0115	-.1020	-.0513	.0113	.0709	1061.	
.0270	9875.	-4312.	-5381.	-190.	-855.	-45.	.0867	.0045	-.0856	-.0337	-.0140	.0381	1239.	
.0280	8582.	-3426.	-4430.	-505.	-127.	551.	.0771	-.0040	-.0705	-.0160	-.0344	-.0104	1071.	
.0290	4677.	-1756.	-2400.	-799.	1347.	1131.	.0682	-.0146	-.0590	-.0015	-.0634	-.0671	2729.	
.0300	1010.	-1427.	-452.	-812.	2758.	1546.	.0570	-.0286	-.0467	.0101	-.0955	-.1058	4610.	
.0310	-1644.	-2371.	773.	-713.	3748.	1892.	.0428	-.0444	-.0325	.0243	-.1245	-.1301	6016.	
.0320	1453.	-2183.	-582.	-988.	3885.	2194.	.0275	-.0576	-.0152	.0479	-.1553	-.1628	6455.	
.0330	3237.	534.	-908.	-1777.	4057.	2325.	.0114	-.0669	.0035	.0774	-.1712	-.2108	7065.	
.0340	-1785.	3545.	2159.	-2466.	4743.	2314.	-.0065	-.0759	.0226	.0968	-.1593	-.2532	8228.	
.0350	-5112.	3878.	4374.	-2362.	4869.	2317.	-.0251	-.0880	.0441	.0969	-.1376	-.2668	8315.	
.0360	-1510.	2241.	3260.	-1619.	3954.	2305.	-.0424	-.1001	.0681	.0874	-.1234	-.2544	6857.	
.0370	534.	2362.	2699.	-891.	3121.	2180.	-.0580	-.1065	.0912	.0820	-.1080	-.2468	5522.	
.0380	-2845.	5548.	4357.	-334.	2833.	2053.	-.0729	-.1069	.1117	.0755	-.0849	-.2643	4965.	
.0390	-2782.	7981.	4161.	362.	2159.	2007.	-.0870	-.1073	.1315	.0530	-.0714	-.2774	4195.	
.0400	3552.	6234.	754.	1332.	1024.	1862.	-.0963	-.1105	.1482	.0168	-.0342	-.2456	3542.	
.0410	5360.	3894.	-1057.	2524.	511.	1625.	-.1017	-.1116	.1588	-.0154	-.1030	-.2013	4301.	
.0420	4306.	5349.	-1838.	3704.	372.	1560.	-.1040	-.1066	.1644	-.0340	-.1226	-.1982	5701.	
.0430	8396.	7763.	-5218.	4337.	-267.	1625.	-.1010	-.0989	.1667	-.0454	-.1559	-.2100	6552.	
.0440	11904.	6834.	-8141.	4145.	-756.	1534.	-.0937	-.0932	.1658	-.0583	-.1848	-.1856	6333.	
.0450	10555.	4745.	-8374.	3674.	-922.	1404.	-.0855	-.0887	.1636	-.0710	-.1873	-.1485	5706.	
.0460	9717.	4893.	-8405.	3440.	-1547.	1528.	-.0773	-.0815	.1626	-.0743	-.1671	-.1403	5748.	
.0470	11378.	5426.	-9126.	3133.	-2551.	1758.	-.0670	-.0715	.1620	-.0628	-.1361	-.1365	6224.	
.0480	10477.	4424.	-8168.	2484.	-3167.	1808.	-.0540	-.0607	.1597	-.0435	-.0918	-.1099	6233.	
.0490	6994.	3839.	-5770.	1952.	-3597.	1776.	-.0403	-.0505	.1556	-.0301	-.0339	-.0872	6302.	
.0500	5345.	3971.	-4313.	1853.	-4300.	1787.	-.0254	-.0418	.1493	-.0277	.0226	-.0782	7079.	
.0510	4345.	2466.	-3440.	1887.	-4806.	1650.	-.0075	-.0345	.1388	-.0265	.0560	-.0509	7656.	
.0520	1804.	435.	-1980.	1958.	-4750.	1286.	.0124	-.0265	.1238	-.0147	.0974	-.0107	7481.	
.0530	252.	837.	-880.	2330.	-4588.	918.	.0313	-.0169	.1064	.0071	.1206	.0046	7383.	
.0540	344.	1674.	-420.	2789.	-4439.	581.	.0479	-.0092	.0879	.0306	.1387	.0105	7450.	
.0550	-164.	-465.	469.	2750.	-3975.	79.	.0624	-.0062	.0682	.0554	.1546	.0474	6829.	
.0560	-244.	-3169.	1393.	2163.	-3447.	-525.	.0742	-.0048	.0483	.0908	.1697	.0923	5795.	
.0570	1170.	-2779.	1613.	1380.	-3221.	-996.	.0830	-.0017	.0290	.1429	.1846	.1029	5146.	

ADLPIPE PAGE 582

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.17.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

.0470	11778.	5426.	-126.	3133.	-2551.	1758.	-.0670	-.0715	.1620	-.0628	-.1361	-.1365	6224.
.0480	10477.	4424.	-8168.	2494.	-3167.	1808.	-.0540	-.0607	.1597	-.0435	-.0918	-.1099	6233.
.0490	6994.	3839.	-5770.	1952.	-3597.	1776.	-.0403	-.0505	.1556	-.0301	-.0339	-.0872	6302.
.0500	5345.	3971.	-4313.	1853.	-4300.	1787.	-.0254	-.0418	.1493	-.0277	.0226	-.0782	7079.
.0510	4345.	2466.	-3440.	1887.	-4806.	1650.	-.0075	-.0345	.1388	-.0265	.0560	-.0509	7656.
.0520	1804.	435.	-1980.	1958.	-4750.	1286.	.0124	-.0265	.1238	-.0147	.0974	-.0107	7481.
.0530	252.	837.	-880.	2330.	-4588.	918.	.0313	-.0169	.1064	.0071	.1206	.0046	7383.
.0540	344.	1674.	-420.	2789.	-4439.	581.	.0479	-.0092	.0879	.0306	.1387	.0105	7450.
.0550	-164.	-465.	469.	2750.	-3975.	79.	.0624	-.0062	.0682	.0554	.1546	.0474	6829.
.0560	-244.	-3169.	1393.	2163.	-3447.	-525.	.0742	-.0048	.0483	.0908	.1697	.0923	5795.
.0570	1170.	-2779.	1613.	1300.	-3221.	-996.	.0830	-.0017	.0290	.1429	.1346	.1029	5146.

ADLPIPE PAGE 582 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.26.17.

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	12	MEMBER	1	SEQUENCE	232	LOCATION	END	TYPE	TE						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.0580	1326.	-1576.	1978.	436.	-3002.	-1383.	.0902	.0009	.0085	.2049	.1990	.1032	4709.		
.0590	-291.	-3042.	2694.	-774.	-2609.	-1874.	.0971	-.0009	-.0140	.2629	.2092	.1318	4667.		
.0600	-1010.	-5401.	2800.	-2077.	-2357.	-2400.	.1028	-.0064	-.0371	.3091	.2134	.1676	5584.		
.0610	-1223.	-5839.	2551.	-3376.	-2175.	-2829.	.1066	-.0118	-.0603	.3465	.2128	.1794	6899.		
.0620	-3392.	-5287.	3011.	-4575.	-1641.	-3231.	.1093	-.0158	-.0844	.3794	.2068	.1817	8244.		
.0630	-5579.	-5285.	3447.	-5553.	-930.	-3650.	.1104	-.0196	-.1080	.4028	.1920	.1931	9478.		
.0640	-5747.	-5349.	3186.	-5888.	-378.	-3955.	.1080	-.0243	-.1286	.4063	.1722	.2033	10033.		
.0650	-6591.	-5345.	3528.	-5693.	313.	-4097.	.1008	-.0299	-.1458	.3869	.1551	.2089	9917.		
.0660	-9048.	-5754.	4810.	-5417.	1346.	-4172.	.0901	-.0347	-.1602	.3527	.1377	.2195	9843.		
.0670	-9412.	-5627.	5237.	-5106.	2279.	-4165.	.0774	-.0369	-.1709	.3129	.1104	.2264	9848.		
.0680	-7411.	-4208.	4462.	-4438.	2941.	-3959.	.0631	-.0365	-.1784	.2681	.0735	.2169	9372.		
.0690	-6922.	-3170.	4053.	-3355.	3745.	-3584.	.0484	-.0364	-.1842	.2138	.0333	.2053	8721.		
.0700	-7814.	-3926.	4033.	-2145.	4735.	-3166.	.0347	-.0379	-.1884	.1511	-.0099	.2078	8597.		
.0710	-7315.	-4884.	3342.	-1062.	5489.	-2699.	.0219	-.0391	-.1891	.0898	-.0549	.2075	8769.		
.0720	-6006.	-4123.	2310.	-196.	5847.	-2094.	.0087	-.0372	-.1843	.0404	-.0925	.1824	8777.		
.0730	-4746.	-2439.	1403.	453.	5861.	-1379.	-.0049	-.0329	-.1735	.0051	-.1177	.1412	8529.		
.0740	-2355.	-1551.	247.	1014.	5516.	-649.	-.0177	-.0287	-.1570	-.0222	-.1329	.1044	7975.		
.0750	-266.	-1419.	-501.	1693.	4996.	100.	-.0292	-.0256	-.1357	-.0480	-.1356	.0721	7452.		
.0760	-748.	-1118.	-4.	2530.	4507.	913.	-.0398	-.0231	-.1107	-.0733	-.1229	.0339	7414.		
.0770	-1379.	-521.	539.	3358.	3847.	1740.	-.0487	-.0202	-.0823	-.0953	-.1047	-.0092	7619.		
.0780	651.	124.	-147.	4075.	2843.	2482.	-.0547	-.0170	-.0513	-.1128	-.0921	-.0508	7845.		
.0790	2521.	969.	-892.	4826.	1885.	3126.	-.0579	-.0142	-.0200	-.1293	-.0834	-.0922	8547.		
.0800	1274.	1897.	-425.	5777.	1335.	3715.	-.0591	-.0135	.0100	-.1497	-.0738	-.1351	9883.		
.0810	-235.	2178.	143.	6799.	979.	4210.	-.0587	-.0159	.0387	-.1729	-.0684	-.1717	11380.		
.0820	629.	1861.	-156.	7522.	598.	4538.	-.0569	-.0204	.0668	-.1904	-.0714	-.1990	12437.		
.0830	1905.	2322.	-426.	7696.	353.	4724.	-.0548	-.0247	.0938	-.1934	-.0770	-.2300	12765.		
.0840	2359.	4093.	-221.	7345.	303.	4842.	-.0527	-.0290	.1188	-.1817	-.0810	-.2718	12433.		
.0850	3313.	5512.	-242.	6576.	284.	4866.	-.0494	-.0356	.1409	-.1620	-.0865	-.3068	11562.		
.0860	4273.	5200.	-427.	5451.	270.	4729.	-.0441	-.0456	.1594	-.1380	-.0934	-.3186	10200.		
.0870	4036.	4329.	-439.	4003.	227.	4463.	-.0373	-.0571	.1740	-.1071	-.0982	-.3186	8474.		
.0880	4006.	4558.	-967.	2244.	-78.	4121.	-.0286	-.0673	.1851	-.0657	-.1020	-.3237	6629.		
.0890	5098.	5360.	-2300.	239.	-671.	3651.	-.0177	-.0758	.1926	-.0174	-.1063	-.3273	5255.		
.0900	5504.	5344.	-3447.	-1740.	-1294.	3003.	-.0052	-.0845	.1960	.0285	-.1059	-.3145	5232.		
.0910	4593.	4537.	-3954.	-3320.	-1906.	2237.	.0074	-.0935	.1962	.0653	-.0949	-.2880	6263.		
.0920	4037.	3740.	-4396.	-4410.	-2682.	1410.	.0191	-.1013	.1944	.0945	-.0740	-.2565	7557.		
.0930	4382.	3249.	-4890.	-5237.	-3591.	505.	.0295	-.1059	.1910	.1210	-.0454	-.2207	8998.		
.0940	4852.	3223.	-5083.	-5928.	-4488.	-453.	.0381	-.1067	.1859	.1448	-.0100	-.1827	10522.		
.0950	5291.	3610.	-5007.	-6340.	-5332.	-1375.	.0450	-.1048	.1782	.1595	.0300	-.1458	11861.		

ADLPIPE PAGE 583 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.26.17.

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

.0850	3313.	5512.	-242.	6576.	284.	4866.	-.494	-.0356	.1409	-.1620	-.0865	-.3068	11562.
.0860	4273.	5200.	-427.	5451.	270.	4729.	-.6441	-.0456	.1594	-.1380	-.0934	-.3186	10200.
.0870	4036.	4329.	-439.	4003.	227.	4463.	-.0373	-.0571	.1740	-.1071	-.0982	-.3186	8474.
.0880	4006.	4558.	-967.	2244.	-78.	4121.	-.0286	-.0673	.1851	-.0657	-.1020	-.3237	6629.
.0890	5098.	5360.	-2300.	239.	-671.	3651.	-.0177	-.0758	.1926	-.0174	-.1063	-.3273	5255.
.0900	5504.	5344.	-3447.	-1740.	-1294.	3003.	-.0052	-.0845	.1960	.0285	-.1059	-.3145	5232.
.0910	4593.	4537.	-3954.	-3320.	-1906.	2237.	.0074	-.0935	.1962	.0653	-.0949	-.2880	6263.
.0920	4037.	3740.	-4396.	-4410.	-2682.	1410.	.0191	-.1013	.1944	.0945	-.0740	-.2565	7557.
.0930	4382.	3249.	-4890.	-5237.	-3591.	505.	.0295	-.1059	.1910	.1210	-.0454	-.2207	8998.
.0940	4852.	3223.	-5063.	-5928.	-4488.	-453.	.0381	-.1067	.1859	.1448	-.0100	-.1827	10522.
.0950	5291.	3610.	-5007.	-6340.	-5332.	-1375.	.0450	-.1048	.1782	.1595	.0300	-.1458	11861.

ADLPIPE PAGE 583

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.17.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FW24F--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	TE								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	5390.	3502.	-4653.	-6367.	-6032.	-2230.	.0507	-.1019	.1671	.1602	.0705	-.1027	12782.	
.0970	4516.	2315.	-3821.	-6129.	-6439.	-3023.	.0556	-.0981	.1519	.1496	.1081	-.0475	13263.	
.0980	3434.	1136.	-2862.	-5805.	-6625.	-3680.	.0593	-.0916	.1334	.1353	.1399	.0066	13484.	
.0990	3156.	1102.	-2191.	-5508.	-6724.	-4125.	.0609	-.0811	.1127	.1218	.1651	.0447	13590.	
.1000	2917.	1453.	-1450.	-5288.	-6644.	-4377.	.0603	-.0679	.0903	.1074	.1347	.0735	13494.	
.1010	1952.	941.	-330.	-5081.	-6288.	-4463.	.0573	-.0539	.0664	.0879	.1992	.1050	13044.	
.1020	1139.	-127.	713.	-4755.	-5765.	-4331.	.0522	-.0391	.0419	.0629	.2065	.1335	12200.	
.1030	966.	-764.	1391.	-4287.	-5113.	-3958.	.0454	-.0224	.0169	.0363	.2035	.1493	10958.	
.1040	629.	-923.	1970.	-3757.	-4217.	-3408.	.0382	-.0034	-.0086	.0107	.1888	.1548	9318.	
.1050	218.	-1170.	2296.	-3129.	-3116.	-2735.	.0312	.0167	-.0347	-.0174	.1608	.1568	7337.	
.1060	449.	-1799.	1974.	-2264.	-1969.	-1940.	.0251	.0360	-.0608	-.0531	.1202	.1564	5047.	
.1070	259.	-2812.	1509.	-1152.	-733.	-1068.	.0198	.0539	-.0867	-.0958	.0719	.1546	2448.	
.1080	-285.	-4022.	870.	75.	551.	-207.	.0166	.0707	-.1122	-.1385	.0168	.1532	838.	
.1090	12.	-4905.	-624.	1334.	1685.	586.	.0178	.0868	-.1383	-.1751	-.0482	.1481	3146.	
.1100	-2921.	-4625.	-506.	2491.	2895.	1336.	.0174	.1010	-.1611	-.2080	-.0950	.1274	5715.	
.1110	-4356.	-4647.	-513.	3328.	3766.	1981.	.0155	.1115	-.1785	-.2371	-.1271	.1067	7630.	
.1120	-3281.	-5710.	-1038.	3745.	4286.	2438.	.0130	.1185	-.1909	-.2553	-.1486	.0982	8746.	
.1130	-3807.	-5970.	-431.	3928.	4832.	2737.	.0096	.1238	-.1997	-.2562	-.1535	.0844	9608.	
.1140	-6009.	-4550.	1065.	4028.	5374.	2938.	.0056	.1275	-.2059	-.2429	-.1451	.0540	10354.	
.1150	-7361.	-3589.	2152.	3881.	5750.	2965.	.0024	.1269	-.2103	-.2248	-.1347	.0293	10656.	
.1160	-8723.	-4347.	3195.	3339.	6111.	2737.	.0001	.1215	-.2132	-.2059	-.1245	.0262	10569.	
.1170	-9784.	-4820.	4074.	2563.	6386.	2346.	-.0024	.1137	-.2139	-.1824	-.1148	.0242	10270.	
.1180	-12491.	-3429.	5761.	1775.	6682.	1916.	-.0080	.1063	-.2106	-.1511	-.0970	.0061	10134.	
.1190	-11193.	-2085.	5810.	1044.	6605.	1448.	-.0148	.0984	-.2029	-.1146	-.0861	-.0076	9664.	
.1200	-8144.	-2279.	5223.	429.	6489.	887.	-.0221	.0887	-.1919	-.0798	-.0815	-.0000	9270.	
.1210	-9459.	-2535.	6483.	72.	6780.	279.	-.0303	.0778	-.1793	-.0526	-.0710	.0116	9585.	
.1220	-8612.	-1720.	6580.	-114.	6730.	-269.	-.0382	.0669	-.1640	-.0346	-.0565	.0106	9515.	
.1230	-6605.	-1197.	5881.	-449.	6422.	-818.	-.0450	.0564	-.1457	-.0222	-.0667	.0132	9166.	
.1240	-3844.	-1326.	4620.	-949.	5909.	-1379.	-.0501	.0472	-.1248	-.0104	-.0713	.0251	8675.	
.1250	-1085.	-450.	3170.	-1263.	5141.	-1824.	-.0538	.0401	-.1013	-.0000	-.0743	.0262	7909.	
.1260	-835.	1096.	2582.	-1286.	4306.	-2109.	-.0567	.0342	-.0758	.0040	-.0582	.0173	7012.	
.1270	1844.	1052.	651.	-1338.	3125.	-2310.	-.0554	.0279	-.0497	-.0001	-.0688	.0224	5805.	
.1280	2844.	138.	-696.	-1632.	2008.	-2463.	-.0506	.0225	-.0239	-.0091	-.0568	.0361	5046.	
.1290	3234.	970.	-1749.	-2053.	745.	-2453.	-.0441	.0202	.0026	-.0198	-.0582	.0290	4639.	
.1300	4799.	2755.	-3254.	-2468.	-799.	-2268.	-.0362	.0203	.0299	-.0325	-.0454	.0089	4867.	
.1310	3939.	2870.	-3519.	-2790.	-2141.	-2009.	-.0284	.0207	.0574	-.0492	-.0216	.0055	5721.	
.1320	4620.	1860.	-4113.	-2837.	-3580.	-1655.	-.0206	.0214	.0854	-.0696	.0050	.0120	6863.	
.1330	4860.	2014.	-4174.	-2585.	-4952.	-1180.	-.0145	.0243	.1131	-.0908	.0380	.0040	8064.	

ADLPIPE PAGE 584

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.17.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
2 SAFETY COLD FW24F--2 PSV

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

.1230	-6605.	-1197.	5881.	-449.	6422.	-818.	-0450	.0564	-.1457	-.0222	-.0567	.0132	9515.
.1240	-3844.	-1326.	4620.	-949.	5909.	-1379.	-.0501	.0472	-.1248	-.0104	-.0713	.0251	8675.
.1250	-1085.	-450.	3170.	-1263.	5141.	-1824.	-.0538	.0401	-.1013	-.0000	-.0743	.0262	7909.
.1260	-835.	1096.	2582.	-1286.	4306.	-2109.	-.0567	.0342	-.0752	.0040	-.0582	.0173	7012.
.1270	1844.	1052.	651.	-1338.	3125.	-2310.	-.0554	.0279	-.0497	-.0001	-.0588	.0224	5805.
.1280	2844.	138.	-696.	-1632.	2008.	-2463.	-.0506	.0225	-.0239	-.0091	-.0568	.0361	5046.
.1290	3234.	970.	-1749.	-2053.	745.	-2453.	-.0441	.0202	.0026	-.0198	-.0582	.0290	4639.
.1300	4799.	2755.	-3254.	-2468.	-799.	-2268.	-.0362	.0203	.0299	-.0325	-.0454	.0089	4867.
.1310	3939.	2870.	-3519.	-2790.	-2141.	-2009.	-.0284	.0207	.0574	-.0492	-.0216	.0055	5721.
.1320	4620.	1860.	-4113.	-2837.	-3580.	-1655.	-.0206	.0214	.0854	-.0696	.0050	.0120	6863.
.1330	4860.	2014.	-4174.	-2585.	-4952.	-1180.	-.0145	.0243	.1131	-.0908	.0380	.0040	8064.

ADLPIPE PAGE 584

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.17.

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	12	MEMBER	1	SEQUENCE	232	LOCATION	END	TYPE	TE					
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	FX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.1340	5202.	2957.	-4166.	-2301.	-6165.	-672.	-.0090	.0294	.1386	-.1112	.0585	-.0135	9343.	
.1350	5922.	3098.	-4409.	-2093.	-7108.	-230.	-.0029	.0350	.1602	-.1317	.0887	-.0220	10472.	
.1360	4899.	2883.	-3983.	-1676.	-7658.	174.	.0020	.0403	.1775	-.1535	.1044	-.0274	11076.	
.1370	5871.	3068.	-4487.	-996.	-8209.	601.	.0056	.0451	.1910	-.1750	.1095	-.0395	11695.	
.1380	5301.	2943.	-4353.	-69.	-8370.	961.	.0069	.0496	.2003	-.1905	.1112	-.0478	11900.	
.1390	4845.	2468.	-4189.	474.	-8253.	1214.	.0056	.0541	.2057	-.1957	.1071	-.0504	11802.	
.1400	6248.	2893.	-4586.	766.	-8094.	1429.	.0012	.0591	.2081	-.1906	.0983	-.0627	11660.	
.1410	6018.	3982.	-4002.	947.	-7587.	1603.	-.0072	.0636	.2069	-.1787	.0931	-.0825	11035.	
.1420	6719.	4107.	-3718.	1044.	-6872.	1683.	-.0169	.0664	.2010	-.1621	.0814	-.0915	10102.	
.1430	6374.	3417.	-3034.	1094.	-5809.	1662.	-.0274	.0680	.1898	-.1401	.0654	-.0891	8673.	
.1440	6162.	3498.	-2547.	1160.	-4650.	1617.	-.0383	.0700	.1739	-.1130	.0444	-.0930	7144.	
.1450	6205.	4221.	-2340.	1171.	-3460.	1544.	-.0490	.0724	.1537	-.0844	.0190	-.1017	5602.	
.1460	4474.	4145.	-1502.	1047.	-2034.	1368.	-.0593	.0741	.1295	-.0586	-.0063	-.0981	3765.	
.1470	4809.	3284.	-1627.	941.	-731.	1130.	-.0676	.0751	.1022	-.0373	-.0376	-.0823	2320.	
.1480	3624.	2799.	-994.	1068.	699.	905.	-.0753	.0766	.0728	-.0196	-.0523	-.0668	2210.	
.1490	1781.	2553.	91.	1397.	2136.	695.	-.0822	.0786	.0425	-.0045	-.0799	-.0504	3736.	
.1500	1484.	1724.	633.	1712.	3331.	442.	-.0872	.0808	.0125	.0075	-.0945	-.0237	5327.	
.1510	257.	725.	1644.	1918.	4399.	136.	-.0910	.0831	-.0166	.0158	-.0994	.0085	6782.	
.1520	-85.	301.	2190.	2074.	5105.	-165.	-.0924	.0857	-.0445	.0203	-.0991	.0358	7786.	
.1530	-1786.	44.	3124.	2205.	5647.	-479.	-.0916	.0883	-.0712	.0220	-.0912	.0621	8590.	
.1540	-2476.	-732.	3306.	2276.	5857.	-835.	-.0872	.0905	-.0967	.0222	-.0845	.0947	8953.	
.1550	-2405.	-1536.	2854.	2284.	5776.	-1210.	-.0794	.0925	-.1207	.0221	-.0790	.1276	8938.	
.1560	-5082.	-1710.	3441.	2230.	5730.	-1560.	-.0705	.0948	-.1424	.0218	-.0550	.1527	8960.	
.1570	-5462.	-1835.	2999.	2053.	5330.	-1862.	-.0599	.0969	-.1608	.0206	-.0529	.1740	8485.	
.1580	-5552.	-2446.	2527.	1722.	4816.	-2140.	-.0490	.0985	-.1752	.0195	-.0382	.1983	7831.	
.1590	-7218.	-2884.	2910.	1370.	4357.	-2347.	-.0394	.1005	-.1851	.0199	-.0160	.2188	7253.	
.1600	-6821.	-2735.	2563.	1141.	3637.	-2414.	-.0311	.1030	-.1902	.0214	.0051	.2293	6373.	
.1610	-5079.	-2814.	1756.	983.	2875.	-2385.	-.0232	.1053	-.1916	.0218	.0214	.2388	5456.	
.1620	-6343.	-3419.	2314.	875.	2560.	-2320.	-.0161	.1067	-.1909	.0190	.0379	.2516	5034.	
.1630	-5952.	-3769.	2170.	927.	2231.	-2161.	-.0089	.1074	-.1879	.0121	.0449	.2570	4579.	
.1640	-4936.	-3861.	1785.	1118.	1956.	-1919.	-.0024	.1074	-.1824	.0030	.0461	.2552	4180.	
.1650	-5605.	-4332.	2215.	1311.	1953.	-1663.	.0027	.1062	-.1742	-.0049	.0471	.2549	4069.	
.1660	-4341.	-4801.	1925.	1485.	1830.	-1382.	.0071	.1041	-.1628	-.0095	.0430	.2510	3859.	
.1670	-3510.	-4573.	1967.	1648.	1709.	-1068.	.0095	.1011	-.1480	-.0103	.0427	.2358	3676.	
.1680	-2681.	-4165.	2117.	1677.	1575.	-762.	.0108	.0964	-.1304	-.0079	.0447	.2154	3423.	
.1690	-3171.	-4138.	2899.	1499.	1546.	-526.	.0112	.0896	-.1106	-.0025	.0509	.1969	3131.	
.1700	-2823.	-3930.	3279.	1216.	1351.	-333.	.0112	.0812	-.0887	.0069	.0569	.1742	2610.	
.1710	249.	-3105.	2283.	894.	815.	-161.	.0123	.0718	-.0654	.0210	.0565	.1429	1725.	

ADLPIPE PAGE 585

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.17.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK

2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.1610	-5079.	-2814.	1756.	983.	2875.	-2385.	-.0232	.1053	-.1916	.0218	.0214	.2388	5456.
.1620	-6343.	-3419.	2314.	875.	2560.	-2320.	-.0161	.1067	-.1909	.0190	.0379	.2516	5034.
.1630	-5952.	-3769.	2170.	927.	2271.	-2161.	-.0089	.1074	-.1879	.0121	.0449	.2570	4579.
.1640	-4936.	-3861.	1785.	1118.	1956.	-1919.	-.0024	.1074	-.1824	.0030	.0461	.2552	4180.
.1650	-5605.	-4332.	2215.	1311.	1953.	-1663.	.0027	.1062	-.1742	-.0049	.0471	.2549	4069.
.1660	-4341.	-4801.	1925.	1489.	1830.	-1382.	.0071	.1041	-.1628	-.0095	.0430	.2510	3859.
.1670	-3510.	-4573.	1967.	1648.	1709.	-1068.	.0095	.1011	-.1480	-.0103	.0427	.2358	3676.
.1680	-2681.	-4165.	2117.	1677.	1575.	-762.	.0108	.0964	-.1304	-.0079	.0447	.2154	3423.
.1690	-3171.	-4138.	2899.	1499.	1546.	-526.	.0112	.0896	-.1106	-.0025	.0509	.1969	3131.
.1700	-2823.	-3930.	3279.	1216.	1351.	-333.	.0112	.0812	-.0887	.0069	.0569	.1742	2610.
.1710	249.	-3105.	2283.	894.	815.	-161.	.0123	.0718	-.0654	.0210	.0565	.1429	1725.

ADLPIPE PAGE 585

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.17.

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	12	MEMBER	1	SEQUENCE	232	LOCATION	END	TYPE	TE						
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)		
.1720	-509.	-2139.	2669.	512.	566.	-67.	.0136	.0613	-.0426	.0375	.0614	.1110	1083.		
.1730	-772.	-1477.	2532.	128.	182.	-39.	.0159	.0490	-.0199	.0525	.0627	.0823	319.		
.1740	395.	-973.	1527.	-175.	-479.	-46.	.0187	.0352	.0030	.0644	.0509	.0546	723.		
.1750	434.	-404.	852.	-424.	-1144.	-85.	.0208	.0211	.0258	.0752	.0522	.0273	1728.		
.1760	1219.	345.	-217.	-655.	-1897.	-139.	.0226	.0074	.0483	.0866	.0618	.0002	2842.		
.1770	1039.	1279.	-803.	-791.	-2550.	-196.	.0228	-.0058	.0700	.0970	.0546	-.0264	3781.		
.1780	2184.	1984.	-1845.	-762.	-3249.	-229.	.0217	-.0192	.0908	.1033	.0650	-.0497	4725.		
.1790	2195.	2171.	-2268.	-627.	-3705.	-252.	.0187	-.0328	.1095	.1048	.0665	-.0662	5319.		
.1800	1394.	2247.	-2229.	-473.	-3921.	-263.	.0140	-.0458	.1259	.1040	.0567	-.0794	5590.		
.1810	3393.	2686.	-3319.	-347.	-4199.	-239.	.0085	-.0573	.1397	.1032	.0565	-.0948	5961.		
.1820	3599.	3314.	-3551.	-257.	-4098.	-202.	.0016	-.0677	.1499	.1020	.0447	-.1103	5807.		
.1830	3553.	3667.	-3611.	-158.	-3752.	-147.	-.0059	-.0775	.1565	.0980	.0280	-.1222	5308.		
.1840	4004.	3683.	-3780.	-11.	-3277.	-72.	-.0140	-.0870	.1599	.0910	.0072	-.1302	4629.		
.1850	4247.	3626.	-3689.	126.	-2648.	14.	-.0225	-.0955	.1607	.0835	-.0140	-.1368	3745.		
.1860	5169.	3817.	-3721.	170.	-1992.	117.	-.0308	-.1020	.1594	.0783	-.0357	-.1452	2829.		
.1870	4749.	4378.	-3033.	150.	-1237.	236.	-.0393	-.1063	.1566	.0750	-.0509	-.1567	1792.		
.1880	5585.	4904.	-2834.	179.	-696.	382.	-.0468	-.1091	.1528	.0712	-.0641	-.1680	1150.		
.1890	6012.	4938.	-2483.	308.	-234.	534.	-.0528	-.1108	.1479	.0650	-.0726	-.1736	932.		
.1900	4913.	4714.	-1573.	525.	240.	693.	-.0569	-.1109	.1414	.0573	-.0751	-.1757	1274.		
.1910	5174.	4744.	-1439.	804.	447.	885.	-.0579	-.1087	.1335	.0494	-.0790	-.1799	1803.		
.1920	4983.	4922.	-1305.	1119.	565.	1093.	-.0560	-.1045	.1240	.0413	-.0810	-.1841	2350.		
.1930	4318.	4735.	-1135.	1465.	639.	1305.	-.0512	-.0992	.1129	.0314	-.0816	-.1830	2915.		
.1940	3905.	4108.	-1175.	1853.	621.	1533.	-.0438	-.0933	.1003	.0189	-.0813	-.1765	3508.		
.1950	3350.	3342.	-1172.	2238.	568.	1779.	-.0345	-.0868	.0866	.0062	-.0784	-.1672	4117.		
.1960	2277.	2627.	-908.	2529.	534.	2027.	-.0240	-.0794	.0721	-.0037	-.0714	-.1564	4640.		
.1970	1479.	1957.	-704.	2661.	448.	2259.	-.0128	-.0716	.0570	-.0097	-.0620	-.1440	4971.		
.1980	1235.	1240.	-663.	2624.	303.	2454.	-.0011	-.0640	.0417	-.0129	-.0510	-.1296	5093.		
.1990	605.	408.	-385.	2446.	235.	2581.	.0107	-.0572	.0255	-.0139	-.0380	-.1124	5034.		
.2000	-671.	-483.	191.	2170.	293.	2623.	.0225	-.0515	.0084	-.0122	-.0245	-.0926	4826.		
.2010	-1845.	-1294.	682.	1835.	395.	2571.	.0341	-.0468	-.0094	-.0069	-.0128	-.0717	4496.		
.2020	-2780.	-1968.	1032.	1453.	508.	2411.	.0449	-.0430	-.0273	.0024	-.0032	-.0503	4041.		
.2030	-3789.	-2531.	1420.	1027.	662.	2132.	.0544	-.0405	-.0448	.0151	.0056	-.0282	3471.		
.2040	-4630.	-2992.	1775.	571.	837.	1742.	.0621	-.0393	-.0615	.0301	.0136	-.0058	2847.		
.2050	-5197.	-3369.	2075.	115.	1029.	1261.	.0679	-.0394	-.0770	.0471	.0210	.0168	2304.		
.2060	-5744.	-3678.	2450.	-301.	1256.	702.	.0715	-.0406	-.0908	.0666	.0285	.0395	2076.		
.2070	-6042.	-3888.	2795.	-664.	1480.	87.	.0730	-.0427	-.1025	.0887	.0356	.0618	2294.		
.2080	-5674.	-3978.	2874.	-1007.	1643.	-555.	.0728	-.0454	-.1121	.1126	.0411	.0824	2833.		
.2090	-5052.	-3998.	2809.	-1376.	1775.	-1205.	.0714	-.0487	-.1196	.1365	.0449	.1013	3600.		

ADLPIPE PAGE 586

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.17.

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	605.	408.	-385.	2446.	235.	2581.	-.0107	-.0572	.0255	-.0139	-.0380	-.1124	5093.
.2000	-671.	-483.	191.	2170.	293.	2623.	.0225	-.0515	.0084	-.0122	-.0245	-.0926	4826.
.2010	-1845.	-1294.	682.	1825.	395.	2571.	.0341	-.0468	-.0094	-.0069	-.0128	-.0717	4496.
.2020	-2780.	-1968.	1032.	1453.	508.	2411.	.0449	-.0430	-.0273	.0024	-.0032	-.0503	4041.
.2030	-3789.	-2531.	1420.	1027.	662.	2132.	.0544	-.0405	-.0448	.0151	.0056	-.0282	3471.
.2040	-4630.	-2992.	1775.	571.	837.	1742.	.0621	-.0393	-.0615	.0301	.0136	-.0058	2847.
.2050	-5197.	-3369.	2075.	115.	1029.	1261.	.0679	-.0394	-.0770	.0471	.0210	.0168	2304.
.2060	-5744.	-3678.	2450.	-301.	1256.	702.	.0715	-.0406	-.0908	.0666	.0285	.0395	2076.
.2070	-6042.	-3888.	2795.	-664.	1480.	87.	.0730	-.0427	-.1025	.0887	.0356	.0618	2294.
.2080	-5674.	-3978.	2874.	-1007.	1643.	-555.	.0728	-.0454	-.1121	.1126	.0411	.0824	2833.
.2090	-5052.	-3998.	2809.	-1376.	1775.	-1205.	.0714	-.0487	-.1196	.1365	.0449	.1013	3600.

ADLPIPE PAGE 586

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.17.

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	12	MEMBER	1	SEQUENCE	232	LOCATION	END	TYPE	TE						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.2100	-4723.	-3985.	2810.	-1772.	1905.	-1841.	.0691	-.0525	-.1250	.1592	.0482	.1182	4501.		
.2110	-4257.	-3925.	2671.	-2161.	1958.	-2429.	.0664	-.0565	-.1280	.1797	.0502	.1323	5361.		
.2120	-3389.	-3821.	2277.	-2518.	1893.	-2936.	.0636	-.0603	-.1284	.1976	.0511	.1430	6083.		
.2130	-2644.	-3658.	1898.	-2837.	1763.	-3337.	.0607	-.0636	-.1262	.2119	.0525	.1500	6668.		
.2140	-2238.	-3393.	1697.	-3099.	1589.	-3610.	.0579	-.0663	-.1212	.2209	.0560	.1522	7086.		
.2150	-1855.	-3076.	1565.	-3281.	1330.	-3740.	.0551	-.0683	-.1131	.2229	.0618	.1497	7274.		
.2160	-1458.	-2822.	1460.	-3360.	978.	-3718.	.0523	-.0694	-.1020	.2175	.0593	.1436	7212.		
.2170	-1309.	-2561.	1447.	-3303.	566.	-3541.	.0496	-.0695	-.0882	.2053	.0776	.1334	6887.		
.2180	-1332.	-2143.	1455.	-3074.	115.	-3212.	.0468	-.0683	-.0723	.1869	.0851	.1176	6282.		
.2190	-1426.	-1654.	1411.	-2674.	-343.	-2747.	.0441	-.0661	-.0548	.1624	.0896	.0970	5437.		
.2200	-1702.	-1303.	1342.	-2137.	-747.	-2176.	.0412	-.0633	-.0364	.1324	.0896	.0741	4435.		
.2210	-1963.	-1043.	1173.	-1503.	-1075.	-1522.	.0379	-.0598	-.0174	.0989	.0837	.0489	3382.		
.2220	-1862.	-657.	788.	-810.	-1327.	-807.	.0340	-.0558	.0016	.0647	.0711	.0196	2474.		
.2230	-1538.	-129.	293.	-103.	-1458.	-60.	.0291	-.0512	.0202	.0323	.0525	-.0130	2066.		
.2240	-1188.	382.	-181.	579.	-1443.	686.	.0231	-.0465	.0381	.0030	.0294	-.0463	2400.		
.2250	-566.	813.	-704.	1202.	-1333.	1404.	.0158	-.0421	.0551	-.0225	.0034	-.0790	3219.		
.2260	456.	1231.	-1305.	1722.	-1175.	2067.	.0073	-.0382	.0712	-.0434	-.0238	-.1106	4147.		
.2270	1600.	1703.	-1856.	2099.	-967.	2645.	-.0019	-.0346	.0860	-.0586	-.0503	-.1406	4961.		
.2280	2713.	2249.	-2306.	2346.	-726.	3117.	-.0113	-.0314	.0991	-.0681	-.0744	-.1678	5605.		
.2290	3786.	2789.	-2671.	2517.	-498.	3470.	-.0204	-.0288	.1105	-.0731	-.0948	-.1907	6096.		
.2300	4606.	3159.	-2877.	2646.	-311.	3689.	-.0288	-.0271	.1199	-.0755	-.1093	-.2071	6427.		
.2310	5065.	3321.	-2881.	2720.	-186.	3765.	-.0362	-.0262	.1274	-.0760	-.1168	-.2160	6565.		
.2320	5371.	3459.	-2766.	2716.	-163.	3701.	-.0424	-.0257	.1332	-.0745	-.1170	-.2189	6489.		
.2330	5539.	3710.	-2544.	2635.	-247.	3510.	-.0472	-.0253	.1371	-.0710	-.1097	-.2173	6210.		
.2340	5373.	3938.	-2147.	2502.	-405.	3205.	-.0506	-.0252	.1391	-.0663	-.0956	-.2102	5772.		
.2350	4978.	3936.	-1652.	2337.	-618.	2804.	-.0524	-.0256	.1390	-.0618	-.0766	-.1962	5229.		
.2360	4566.	3725.	-1188.	2122.	-868.	2326.	-.0526	-.0263	.1365	-.0575	-.0552	-.1764	4613.		
.2370	4043.	3496.	-763.	1808.	-1111.	1794.	-.0512	-.0269	.1314	-.0524	-.0339	-.1534	3926.		
.2380	3386.	3340.	-417.	1365.	-1319.	1230.	-.0483	-.0271	.1236	-.0458	-.0147	-.1292	3195.		
.2390	2870.	3154.	-296.	808.	-1498.	657.	-.0440	-.0269	.1132	-.0382	.0002	-.1038	2577.		
.2400	2548.	2916.	-410.	176.	-1631.	94.	-.0386	-.0262	.1003	-.0301	.0099	-.0772	2321.		
.2410	2167.	2358.	-607.	-502.	-1674.	-442.	-.0324	-.0249	.0853	-.0217	.0149	-.0502	2546.		
.2420	1751.	1930.	-839.	-1201.	-1620.	-930.	-.0256	-.0226	.0686	-.0127	.0158	-.0252	3136.		
.2430	1553.	1595.	-1152.	-1887.	-1502.	-1355.	-.0187	-.0188	.0507	-.0036	.0134	-.0032	3907.		
.2440	1546.	1276.	-1492.	-2506.	-1341.	-1707.	-.0117	-.0137	.0324	.0046	.0092	.0164	4683.		
.2450	1521.	891.	-1745.	-2991.	-1143.	-1979.	-.0049	-.0071	.0139	.0105	.0048	.0344	5317.		
.2460	1363.	439.	-1854.	-3290.	-919.	-2161.	.0018	.0007	-.0043	.0128	.0014	.0508	5709.		
.2470	991.	-48.	-1769.	-3385.	-680.	-2250.	.0084	.0099	-.0220	.0114	.0003	.0656	5821.		

ADLPIPE PAGE 587

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.18.

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	4043.	3496.	-763.	1808.	-1111.	1794.	-.0512	-.0269	.1314	-.0524	-.0339	-.1534	3926.
.2380	3386.	3340.	-417.	1365.	-1319.	1230.	-.0483	-.0271	.1236	-.0458	-.0147	-.1292	3195.
.2390	2870.	3154.	-296.	808.	-1498.	657.	-.0440	-.0269	.1132	-.0382	.0002	-.1038	2577.
.2400	2548.	2816.	-410.	176.	-1631.	74.	-.0386	-.0262	.1003	-.0301	.0099	-.0772	2321.
.2410	2167.	2358.	-607.	-502.	-1674.	-442.	-.0324	-.0249	.0853	-.0217	.0149	-.0502	2546.
.2420	1751.	1930.	-839.	-1201.	-1620.	-930.	-.0256	-.0226	.0686	-.0127	.0158	-.0252	3136.
.2430	1553.	1595.	-1152.	-1387.	-1502.	-1355.	-.0187	-.0188	.0507	-.0036	.0134	-.0032	3907.
.2440	1546.	1276.	-1492.	-2506.	-1341.	-1707.	-.0117	-.0137	.0324	.0046	.0092	.0164	4683.
.2450	1521.	891.	-1745.	-2991.	-1143.	-1979.	-.0049	-.0071	.0139	.0105	.0048	.0344	5317.
.2460	1363.	439.	-1854.	-3290.	-919.	-2161.	.0013	.0007	-.0043	.0128	.0014	.0508	5709.
.2470	991.	-48.	-1769.	-3385.	-680.	-2250.	.0084	.0099	-.0220	.0114	.0003	.0656	5821.

ADLPIPE PAGE 587

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.18.

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	12	MEMBER	1	SEQUENCE	232	LOCATION	END	TYPE	TE						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.2480	369.	-553.	-1465.	-3290.	-450.	-2252.	.0146	.0202	-.0387	.0061	.0023	.0789	5667.		
.2490	-303.	-1076.	-1044.	-3030.	-277.	-2173.	.0203	.0316	-.0541	-.0025	.0076	.0908	5281.		
.2500	-901.	-1613.	-571.	-2645.	-172.	-2022.	.0254	.0435	-.0679	-.0140	.0158	.1013	4709.		
.2510	-1699.	-2152.	65.	-2183.	-85.	-1814.	.0296	.0557	-.0802	-.0278	.0266	.1105	4011.		
.2520	-2822.	-2660.	910.	-1688.	20.	-1565.	.0328	.0677	-.0911	-.0429	.0394	.1181	3251.		
.2530	-3868.	-3121.	1765.	-1200.	114.	-1288.	.0346	.0792	-.1003	-.0584	.0523	.1238	2492.		
.2540	-4498.	-3522.	2450.	-773.	189.	-1001.	.0348	.0899	-.1079	-.0731	.0531	.1278	1806.		
.2550	-4843.	-3799.	2987.	-451.	293.	-722.	.0336	.0996	-.1143	-.0865	.0702	.1295	1271.		
.2560	-5085.	-3885.	3420.	-236.	473.	-460.	.0310	.1080	-.1196	-.0986	.0722	.1285	990.		
.2570	-5150.	-3854.	3674.	-95.	727.	-223.	.0272	.1147	-.1241	-.1103	.0582	.1256	1082.		
.2580	-4955.	-3856.	3685.	-3.	1033.	-19.	.0225	.1196	-.1277	-.1217	.0576	.1224	1459.		
.2590	-4526.	-3862.	3461.	49.	1375.	142.	.0168	.1227	-.1304	-.1326	.0412	.1192	1954.		
.2600	-3918.	-3688.	3052.	67.	1734.	265.	.0107	.1244	-.1320	-.1425	.0205	.1141	2479.		
.2610	-3310.	-3325.	2574.	66.	2097.	351.	.0041	.1248	-.1323	-.1516	-.0024	.1069	3004.		
.2620	-2867.	-2974.	2135.	65.	2441.	393.	-.0028	.1236	-.1310	-.1603	-.0247	.0996	3493.		
.2630	-2488.	-2717.	1723.	82.	2712.	394.	-.0097	.1211	-.1279	-.1685	-.0447	.0931	3872.		
.2640	-2076.	-2408.	1326.	115.	2871.	364.	-.0166	.1176	-.1227	-.1749	-.0609	.0858	4091.		
.2650	-1808.	-1938.	1032.	135.	2930.	309.	-.0233	.1135	-.1154	-.1788	-.0724	.0768	4165.		
.2660	-1790.	-1385.	882.	124.	2898.	234.	-.0295	.1089	-.1063	-.1805	-.0788	.0668	4111.		
.2670	-1823.	-901.	779.	86.	2761.	144.	-.0351	.1038	-.0955	-.1809	-.0809	.0574	3907.		
.2680	-1778.	-535.	657.	29.	2522.	48.	-.0401	.0981	-.0832	-.1804	-.0797	.0489	3563.		
.2690	-1727.	-200.	543.	-55.	2219.	-46.	-.0444	.0922	-.0696	-.1783	-.0761	.0408	3136.		
.2700	-1631.	212.	427.	-174.	1880.	-129.	-.0481	.0867	-.0550	-.1744	-.0710	.0320	2674.		
.2710	-1335.	677.	257.	-312.	1508.	-197.	-.0512	.0814	-.0395	-.1694	-.0651	.0225	2193.		
.2720	-808.	1063.	27.	-448.	1109.	-249.	-.0540	.0765	-.0233	-.1644	-.0588	.0135	1726.		
.2730	-97.	1348.	-248.	-566.	696.	-283.	-.0564	.0720	-.0065	-.1597	-.0525	.0052	1329.		
.2740	814.	1662.	-595.	-652.	276.	-292.	-.0581	.0682	.0103	-.1551	-.0467	-.0038	1082.		
.2750	1784.	2074.	-976.	-693.	-137.	-272.	-.0592	.0655	.0269	-.1505	-.0417	-.0140	1070.		
.2760	2633.	2471.	-1334.	-678.	-532.	-224.	-.0593	.0636	.0427	-.1468	-.0373	-.0245	1258.		
.2770	3389.	2720.	-1689.	-601.	-918.	-151.	-.0585	.0624	.0573	-.1447	-.0334	-.0340	1564.		
.2780	4057.	2855.	-2038.	-471.	-1299.	-47.	-.0567	.0618	.0706	-.1436	-.0297	-.0427	1952.		
.2790	4466.	2993.	-2287.	-311.	-1652.	87.	-.0540	.0622	.0823	-.1426	-.0254	-.0514	2378.		
.2800	4568.	3150.	-2387.	-142.	-1967.	246.	-.0505	.0633	.0920	-.1410	-.0201	-.0601	2807.		
.2810	4521.	3226.	-2390.	24.	-2251.	423.	-.0466	.0651	.0997	-.1388	-.0138	-.0674	3236.		
.2820	4381.	3159.	-2311.	177.	-2497.	607.	-.0423	.0671	.1051	-.1362	-.0066	-.0725	3639.		
.2830	4084.	3002.	-2128.	302.	-2678.	784.	-.0378	.0694	.1082	-.1326	.0009	-.0753	3965.		
.2840	3688.	2837.	-1885.	383.	-2782.	942.	-.0332	.0719	.1085	-.1277	.0077	-.0760	4184.		
.2850	3304.	2656.	-1660.	423.	-2811.	1062.	-.0286	.0743	.1061	-.1217	.0130	-.0743	4286.		

ADLPIPE PAGE 588

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.18.

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	1784.	2074.	-976.	-693.	-137.	-272.	-.0592	.0655	.0269	-.1505	-.0417	-.0140	1070.
.2760	2633.	2471.	-1334.	-678.	-532.	-224.	-.0593	.0636	.0427	-.1468	-.0373	-.0245	1258.
.2770	3389.	2720.	-1689.	-601.	-918.	-151.	-.0585	.0624	.0573	-.1447	-.0334	-.0340	1564.
.2780	4057.	2855.	-2038.	-471.	-1299.	-47.	-.0567	.0618	.0706	-.1436	-.0297	-.0427	1952.
.2790	4466.	2993.	-2287.	-311.	-1652.	87.	-.0540	.0622	.0823	-.1426	-.0254	-.0514	2378.
.2800	4568.	3150.	-2387.	-142.	-1967.	246.	-.0505	.0633	.0920	-.1410	-.0201	-.0601	2807.
.2810	4521.	3226.	-2390.	24.	-2251.	423.	-.0466	.0651	.0997	-.1388	-.0138	-.0674	3236.
.2820	4381.	3159.	-2311.	177.	-2497.	607.	-.0423	.0671	.1051	-.1362	-.0066	-.0725	3639.
.2830	4084.	3002.	-2128.	302.	-2678.	784.	-.0378	.0694	.1082	-.1326	.0009	-.0753	3965.
.2840	3688.	2837.	-1885.	383.	-2782.	942.	-.0332	.0719	.1085	-.1277	.0077	-.0760	4184.
.2850	3304.	2656.	-1660.	423.	-2811.	1062.	-.0286	.0743	.1061	-.1217	.0130	-.0743	4286.

ADLPIPE PAGE 588

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.18.

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	EIND	TYPE	TE							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)
.2860	2937.	2391.	-1476.	439.	-2768.	1132.	-.0241	.0765	.1010	-.1153	.0165	-.0690	4269.
.2870	2575.	2028.	-1340.	444.	-2661.	1142.	-.0198	.0782	.0933	-.1086	.0182	-.0598	4138.
.2880	2265.	1624.	-1262.	434.	-2505.	1085.	-.0159	.0794	.0833	-.1016	.0186	-.0471	3904.
.2890	1995.	1237.	-1218.	399.	-2312.	960.	-.0125	.0801	.0715	-.0940	.0184	-.0314	3581.
.2900	1729.	881.	-1171.	342.	-2098.	767.	-.0099	.0802	.0581	-.0858	.0188	-.0132	3192.
.2910	1496.	533.	-1121.	273.	-1879.	515.	-.0081	.0797	.0437	-.0770	.0201	.0073	2779.
.2920	1284.	175.	-1051.	195.	-1659.	213.	-.0071	.0785	.0284	-.0675	.0227	.0296	2378.
.2930	975.	-175.	-906.	106.	-1418.	-128.	-.0069	.0767	.0126	-.0573	.0264	.0529	2016.
.2940	536.	-471.	-674.	5.	-1144.	-491.	-.0073	.0745	-.0037	-.0461	.0307	.0759	1759.
.2950	56.	-707.	-398.	-103.	-838.	-859.	-.0083	.0720	-.0201	-.0341	.0349	.0976	1701.
.2960	-430.	-924.	-94.	-204.	-490.	-1214.	-.0098	.0692	-.0365	-.0214	.0381	.1176	1871.
.2970	-963.	-1141.	264.	-285.	-83.	-1536.	-.0117	.0663	-.0526	-.0083	.0398	.1354	2210.
.2980	-1526.	-1328.	676.	-330.	389.	-1807.	-.0139	.0635	-.0680	.0049	.0396	.1502	2652.
.2990	-2046.	-1478.	1115.	-330.	917.	-2008.	-.0163	.0608	-.0825	.0180	.0374	.1614	3153.
.3000	-2477.	-1628.	1557.	-277.	1484.	-2131.	-.0188	.0583	-.0957	.0304	.0330	.1691	3689.
.3010	-2786.	-1790.	1970.	-167.	2063.	-2171.	-.0212	.0560	-.1071	.0416	.0266	.1734	4237.
.3020	-2975.	-1936.	2328.	9.	2630.	-2126.	-.0233	.0540	-.1166	.0512	.0186	.1741	4776.
.3030	-3103.	-2057.	2622.	251.	3156.	-2000.	-.0247	.0523	-.1238	.0592	.0094	.1712	5289.
.3040	-3207.	-2181.	2839.	553.	3610.	-1806.	-.0253	.0506	-.1286	.0651	-.0004	.1654	5755.
.3050	-3250.	-2307.	2941.	895.	3951.	-1557.	-.0248	.0488	-.1308	.0691	-.0099	.1570	6131.
.3060	-3229.	-2396.	2919.	1251.	4149.	-1288.	-.0232	.0469	-.1302	.0713	-.0181	.1461	6378.
.3070	-3207.	-2417.	2809.	1594.	4193.	-954.	-.0205	.0446	-.1268	.0722	-.0241	.1329	6478.
.3080	-3211.	-2378.	2640.	1902.	4079.	-630.	-.0168	.0419	-.1206	.0723	-.0270	.1181	6419.
.3090	-3202.	-2306.	2420.	2157.	3809.	-309.	-.0124	.0384	-.1116	.0719	-.0265	.1025	6199.
.3100	-3163.	-2207.	2170.	2343.	3399.	-5.	-.0075	.0341	-.1002	.0711	-.0225	.0867	5831.
.3110	-3098.	-2059.	1914.	2443.	2882.	271.	-.0025	.0287	-.0866	.0706	-.0155	.0708	5350.
.3120	-2976.	-1838.	1655.	2455.	2293.	510.	.0026	.0225	-.0713	.0707	-.0063	.0552	4799.
.3130	-2773.	-1562.	1392.	2392.	1668.	703.	.0074	.0151	-.0547	.0717	.0040	.0400	4237.
.3140	-2500.	-1272.	1136.	2268.	1047.	845.	.0117	.0068	-.0374	.0735	.0143	.0259	3726.
.3150	-2133.	-988.	881.	2099.	459.	933.	.0153	-.0026	-.0198	.0763	.0237	.0132	3309.
.3160	-1658.	-683.	622.	1894.	-75.	966.	.0181	-.0128	-.0022	.0802	.0314	.0015	3006.
.3170	-1090.	-334.	366.	1662.	-541.	949.	.0200	-.0238	.0151	.0856	.0373	-.0096	2810.
.3180	-436.	33.	112.	1415.	-934.	886.	.0210	-.0352	.0317	.0923	.0412	-.0197	2702.
.3190	288.	375.	-140.	1161.	-1260.	785.	.0211	-.0471	.0476	.1002	.0432	-.0288	2662.
.3200	1046.	679.	-391.	906.	-1525.	654.	.0206	-.0593	.0625	.1091	.0437	-.0368	2671.
.3210	1768.	971.	-627.	648.	-1741.	501.	.0196	-.0715	.0763	.1189	.0431	-.0443	2717.
.3220	2430.	1271.	-861.	383.	-1922.	335.	.0184	-.0836	.0888	.1293	.0418	-.0515	2809.
.3230	3052.	1558.	-1119.	111.	-2089.	165.	.0172	-.0954	.1001	.1400	.0398	-.0584	2965.

ADLPIPE PAGE 589

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.29.

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

.3130	-2773.	-1562.	1392.	2392.	1668.	703.	.0074	.0151	-.0547	.0717	.0040	.0400	4237.
.3140	-2500.	-1272.	1136.	2268.	1047.	845.	.0117	.0068	-.0374	.0735	.0143	.0259	3726.
.3150	-2133.	-988.	881.	2099.	459.	933.	.0153	-.0026	-.0198	.0763	.0237	.0132	3309.
.3160	-1658.	-683.	622.	1894.	-75.	966.	.0181	-.0128	-.0022	.0802	.0314	.0015	3006.
.3170	-1090.	-374.	366.	1662.	-541.	949.	.0200	-.0238	.0151	.0856	.0373	-.0096	2810.
.3180	-436.	33.	112.	1415.	-934.	886.	.0210	-.0352	.0317	.0923	.0412	-.0197	2702.
.3190	288.	375.	-140.	1161.	-1260.	785.	.0211	-.0471	.0476	.1002	.0432	-.0288	2662.
.3200	1046.	679.	-391.	906.	-1525.	654.	.0206	-.0593	.0625	.1091	.0437	-.0368	2671.
.3210	1768.	971.	-627.	648.	-1741.	501.	.0196	-.0715	.0763	.1189	.0431	-.0443	2717.
.3220	2430.	1271.	-861.	383.	-1922.	335.	.0184	-.0836	.0888	.1293	.0418	-.0515	2809.
.3230	3052.	1558.	-1119.	111.	-2089.	165.	.0172	-.0954	.1001	.1400	.0398	-.0584	2965.

ADLPIPE PAGE 589

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.29.

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	12	MEMBER	1	SEQUENCE	232	LOCATION	END	TYPE	TE					
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.3240	3596.	1810.	-1398.	-165.	-2251.	-3.	.0162	-.1067	.1099	.1503	.0376	-.0649	3188.	
.3250	3987.	2030.	-1666.	-438.	-2406.	-159.	.0157	-.1174	.1182	.1595	.0354	-.0713	3461.	
.3260	4240.	2237.	-1921.	-701.	-2554.	-294.	.0157	-.1272	.1250	.1674	.0336	-.0777	3764.	
.3270	4398.	2434.	-2165.	-944.	-2696.	-401.	.0162	-.1360	.1303	.1736	.0320	-.0843	4075.	
.3280	4459.	2608.	-2374.	-1155.	-2822.	-471.	.0172	-.1435	.1341	.1775	.0308	-.0910	4358.	
.3290	4429.	2740.	-2528.	-1318.	-2919.	-497.	.0186	-.1498	.1364	.1788	.0301	-.0976	4578.	
.3300	4327.	2818.	-2615.	-1420.	-2974.	-473.	.0204	-.1546	.1370	.1773	.0295	-.1041	4703.	
.3310	4138.	2843.	-2619.	-1453.	-2971.	-397.	.0224	-.1580	.1361	.1730	.0289	-.1103	4706.	
.3320	3876.	2814.	-2540.	-1409.	-2904.	-267.	.0246	-.1599	.1335	.1662	.0278	-.1163	4575.	
.3330	3590.	2720.	-2406.	-1289.	-2772.	-85.	.0269	-.1603	.1292	.1573	.0260	-.1219	4319.	
.3340	3276.	2550.	-2218.	-1101.	-2571.	140.	.0293	-.1594	.1232	.1468	.0231	-.1270	3955.	
.3350	2871.	2312.	-1956.	-859.	-2296.	400.	.0318	-.1573	.1154	.1352	.0192	-.1315	3509.	
.3360	2382.	2026.	-1630.	-582.	-1959.	682.	.0342	-.1541	.1061	.1233	.0145	-.1356	3043.	
.3370	1875.	1702.	-1276.	-286.	-1578.	974.	.0364	-.1500	.0954	.1119	.0091	-.1390	2651.	
.3380	1355.	1347.	-904.	5.	-1170.	1261.	.0386	-.1453	.0835	.1015	.0032	-.1416	2429.	
.3390	798.	982.	-510.	271.	-744.	1527.	.0404	-.1401	.0706	.0925	-.0027	-.1433	2430.	
.3400	221.	627.	-111.	493.	-315.	1759.	.0421	-.1348	.0569	.0849	-.0084	-.1438	2619.	
.3410	-344.	280.	269.	660.	106.	1945.	.0435	-.1294	.0427	.0787	-.0140	-.1428	2905.	
.3420	-870.	-64.	608.	767.	508.	2073.	.0447	-.1243	.0280	.0738	-.0196	-.1398	3203.	
.3430	-1329.	-388.	885.	812.	884.	2137.	.0458	-.1195	.0133	.0697	-.0250	-.1347	3463.	
.3440	-1710.	-682.	1095.	796.	1231.	2135.	.0469	-.1152	-.0014	.0663	-.0303	-.1274	3657.	
.3450	-2032.	-957.	1253.	718.	1546.	2064.	.0479	-.1114	-.0158	.0631	-.0352	-.1178	3781.	
.3460	-2295.	-1225.	1368.	581.	1825.	1928.	.0489	-.1083	-.0296	.0599	-.0393	-.1057	3838.	
.3470	-2465.	-1476.	1434.	391.	2052.	1734.	.0499	-.1058	-.0424	.0568	-.0422	-.0917	3834.	
.3480	-2552.	-1696.	1466.	154.	2217.	1492.	.0509	-.1037	-.0541	.0539	-.0434	-.0762	3780.	
.3490	-2617.	-1886.	1495.	-126.	2318.	1213.	.0519	-.1020	-.0643	.0514	-.0423	-.0598	3699.	
.3500	-2700.	-2054.	1539.	-439.	2350.	909.	.0530	-.1007	-.0729	.0493	-.0389	-.0430	3612.	
.3510	-2791.	-2202.	1586.	-773.	2305.	595.	.0542	-.0996	-.0796	.0477	-.0330	-.0264	3535.	
.3520	-2893.	-2329.	1629.	-1116.	2183.	283.	.0554	-.0986	-.0845	.0468	-.0251	-.0108	3486.	
.3530	-3014.	-2423.	1662.	-1454.	1995.	-15.	.0565	-.0975	-.0873	.0466	-.0157	.0032	3487.	
.3540	-3147.	-2468.	1679.	-1770.	1754.	-286.	.0577	-.0962	-.0883	.0470	-.0057	.0148	3542.	
.3550	-3275.	-2471.	1673.	-2047.	1477.	-521.	.0586	-.0946	-.0873	.0478	.0044	.0237	3640.	
.3560	-3366.	-2448.	1634.	-2271.	1182.	-712.	.0592	-.0927	-.0844	.0487	.0135	.0298	3754.	
.3570	-3360.	-2390.	1542.	-2434.	883.	-854.	.0593	-.0904	-.0798	.0494	.0211	.0327	3851.	
.3580	-3220.	-2270.	1390.	-2529.	596.	-942.	.0589	-.0875	-.0735	.0498	.0265	.0323	3904.	
.3590	-2962.	-2085.	1189.	-2556.	335.	-975.	.0578	-.0841	-.0657	.0496	.0293	.0286	3893.	
.3600	-2603.	-1861.	950.	-2514.	111.	-953.	.0560	-.0801	-.0566	.0482	.0296	.0221	3801.	
.3610	-2138.	-1622.	673.	-2409.	-77.	-879.	.0535	-.0757	-.0463	.0454	.0274	.0134	3624.	

ADLPIPE PAGE 590

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.29.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.3500	-2700.	-2054.	1586.	-773.	2305.	595.	.0530	-.1007	-.0729	.0493	-.0389	-.0430	3612.
.3510	-2791.	-2202.	1586.	-773.	2305.	595.	.0542	-.0996	-.0796	.0477	-.0330	-.0264	3535.
.3520	-2893.	-2329.	1629.	-1116.	2183.	283.	.0554	-.0986	-.0845	.0468	-.0251	-.0198	3486.
.3530	-3014.	-2423.	1662.	-1454.	1995.	-15.	.0565	-.0975	-.0873	.0466	-.0157	.0032	3487.
.3540	-3147.	-2468.	1679.	-1770.	1754.	-236.	.0577	-.0962	-.0883	.0470	-.0057	.0148	3542.
.3550	-3275.	-2471.	1673.	-2047.	1477.	-521.	.0586	-.0946	-.0873	.0478	.0044	.0237	3640.
.3560	-3366.	-2448.	1634.	-2271.	1182.	-712.	.0592	-.0927	-.0847	.0487	.0135	.0298	3754.
.3570	-3360.	-2390.	1542.	-2434.	883.	-854.	.0593	-.0904	-.0798	.0494	.0211	.0327	3851.
.3580	-3220.	-2270.	1390.	-2529.	596.	-942.	.0589	-.0875	-.0735	.0498	.0265	.0323	3904.
.3590	-2962.	-2085.	1189.	-2556.	335.	-975.	.0578	-.0841	-.0657	.0496	.0293	.0286	3893.
.3600	-2603.	-1861.	950.	-2514.	111.	-953.	.0560	-.0801	-.0566	.0482	.0296	.0221	3801.
.3610	-2138.	-1622.	673.	-2409.	-77.	-879.	.0535	-.0757	-.0463	.0454	.0274	.0134	3624.

ADLPIPE PAGE 590

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.29.

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	12	MEMBER	1	SEQUENCE	232	LOCATION	END	TYPE	TE						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.3620	-1586.	-1365.	369.	-2252.	-234.	-758.	.0504	-.0709	-.0352	.0412	.0231	.0028	3373.		
.3630	-997.	-1076.	63.	-2060.	-364.	-594.	.0468	-.0657	-.0233	.0354	.0175	-.0092	3071.		
.3640	-412.	-760.	-220.	-1846.	-477.	-396.	.0426	-.0601	-.0110	.0284	.0114	-.0223	2750.		
.3650	141.	-439.	-464.	-1621.	-584.	-173.	.0380	-.0543	.0017	.0200	.0055	-.0356	2446.		
.3660	632.	-130.	-655.	-1391.	-696.	65.	.0331	-.0482	.0145	.0105	.0006	-.0486	2200.		
.3670	1045.	174.	-789.	-1165.	-822.	307.	.0278	-.0420	.0272	.0001	-.0029	-.0610	2060.		
.3680	1383.	489.	-876.	-947.	-964.	542.	.0224	-.0357	.0394	-.0106	-.0048	-.0726	2057.		
.3690	1641.	813.	-925.	-737.	-1120.	761.	.0169	-.0293	.0510	-.0215	-.0055	-.0829	2178.		
.3700	1812.	1120.	-947.	-531.	-1282.	954.	.0113	-.0228	.0615	-.0324	-.0051	-.0914	2379.		
.3710	1921.	1389.	-966.	-324.	-1441.	1114.	.0057	-.0163	.0707	-.0433	-.0044	-.0978	2613.		
.3720	2002.	1622.	-1006.	-117.	-1586.	1234.	.0000	-.0098	.0783	-.0537	-.0039	-.1019	2844.		
.3730	2071.	1835.	-1074.	88.	-1702.	1313.	-.0056	-.0033	.0842	-.0634	-.0042	-.1038	3039.		
.3740	2140.	2025.	-1170.	284.	-1777.	1348.	-.0113	.0031	.0881	-.0719	-.0056	-.1037	3175.		
.3750	2234.	2172.	-1296.	466.	-1800.	1339.	-.0171	.0096	.0900	-.0793	-.0083	-.1005	3236.		
.3760	2361.	2265.	-1443.	625.	-1767.	1286.	-.0230	.0159	.0898	-.0853	-.0123	-.0951	3211.		
.3770	2504.	2319.	-1593.	755.	-1673.	1194.	-.0288	.0223	.0876	-.0898	-.0174	-.0875	3093.		
.3780	2645.	2350.	-1731.	847.	-1520.	1066.	-.0345	.0287	.0835	-.0926	-.0233	-.0781	2883.		
.3790	2768.	2350.	-1842.	895.	-1314.	908.	-.0401	.0351	.0775	-.0939	-.0295	-.0667	2587.		
.3800	2838.	2300.	-1904.	900.	-1065.	725.	-.0453	.0416	.0699	-.0940	-.0354	-.0535	2219.		
.3810	2829.	2199.	-1901.	864.	-785.	522.	-.0501	.0482	.0609	-.0933	-.0405	-.0387	1806.		
.3820	2733.	2066.	-1826.	796.	-490.	308.	-.0542	.0549	.0508	-.0919	-.0441	-.0226	1390.		
.3830	2550.	1912.	-1678.	706.	-194.	89.	-.0577	.0619	.0398	-.0901	-.0459	-.0056	1042.		
.3840	2278.	1733.	-1453.	608.	90.	-127.	-.0603	.0691	.0282	-.0882	-.0456	.0120	886.		
.3850	1927.	1518.	-1158.	515.	352.	-334.	-.0622	.0766	.0163	-.0865	-.0430	.0302	1000.		
.3860	1518.	1267.	-812.	439.	522.	-527.	-.0631	.0844	.0043	-.0853	-.0383	.0485	1271.		
.3870	1076.	994.	-439.	389.	777.	-699.	-.0631	.0925	-.0077	-.0845	-.0319	.0665	1575.		
.3880	621.	710.	-64.	370.	932.	-846.	-.0622	.1009	-.0193	-.0841	-.0244	.0840	1853.		
.3890	170.	411.	289.	386.	1049.	-964.	-.0605	.1095	-.0307	-.0841	-.0163	.1005	2085.		
.3900	-272.	83.	605.	434.	1130.	-1054.	-.0579	.1183	-.0416	-.0843	-.0080	.1161	2267.		
.3910	-698.	-266.	875.	509.	1179.	-1115.	-.0547	.1271	-.0519	-.0845	.0000	.1304	2402.		
.3920	-1088.	-611.	1092.	603.	1201.	-1146.	-.0510	.1359	-.0616	-.0845	.0075	.1431	2495.		
.3930	-1426.	-938.	1253.	708.	1200.	-1150.	-.0470	.1444	-.0706	-.0840	.0141	.1540	2552.		
.3940	-1720.	-1257.	1373.	814.	1185.	-1131.	-.0429	.1525	-.0788	-.0829	.0200	.1635	2583.		
.3950	-1986.	-1578.	1467.	914.	1163.	-1095.	-.0389	.1599	-.0860	-.0815	.0250	.1716	2599.		
.3960	-2220.	-1884.	1541.	1001.	1139.	-1048.	-.0351	.1666	-.0923	-.0798	.0292	.1784	2604.		
.3970	-2408.	-2149.	1592.	1073.	1117.	-998.	-.0317	.1723	-.0975	-.0777	.0326	.1839	2602.		
.3980	-2550.	-2361.	1623.	1129.	1098.	-953.	-.0288	.1770	-.1017	-.0755	.0349	.1882	2600.		
.3990	-2662.	-2526.	1641.	1170.	1088.	-921.	-.0265	.1805	-.1049	-.0734	.0364	.1916	2605.		

ADLPIPE PAGE 591

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.29.

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	170.	411.	289.	386.	1049.	-964.	-.605	.1095	-.0307	-.0841	-.0244	.0840	1853.
.3900	-272.	83.	605.	434.	1130.	-1054.	-.579	.1183	-.0416	-.0843	-.0080	.1161	2267.
.3910	-699.	-266.	875.	509.	1179.	-1115.	-.0547	.1271	-.0519	-.0845	.0000	.1304	2402.
.3920	-1088.	-611.	1092.	603.	1201.	-1146.	-.0510	.1359	-.0616	-.0845	.0075	.1431	2495.
.3930	-1426.	-938.	1257.	708.	1200.	-1150.	-.0470	.1444	-.0706	-.0840	.0141	.1540	2552.
.3940	-1720.	-1257.	1373.	814.	1185.	-1131.	-.0429	.1525	-.0788	-.0829	.0200	.1635	2583.
.3950	-1986.	-1578.	1467.	914.	1163.	-1095.	-.0389	.1599	-.0860	-.0815	.0250	.1716	2599.
.3960	-2220.	-1884.	1541.	1001.	1139.	-1048.	-.0351	.1666	-.0923	-.0798	.0292	.1784	2604.
.3970	-2408.	-2149.	1592.	1073.	1117.	-998.	-.0317	.1723	-.0975	-.0777	.0326	.1839	2602.
.3980	-2550.	-2301.	1623.	1129.	1098.	-953.	-.0288	.1770	-.1017	-.0755	.0349	.1882	2600.
.3990	-2662.	-2526.	1641.	1170.	1088.	-921.	-.0265	.1805	-.1049	-.0734	.0364	.1916	2605.

ADLPIPE PAGE 591

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.29.

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	12	MEMBER	1	SEQUENCE	232	LOCATION	END	TYPE	TE					
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	RX	RY	RZ	STRESS
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
.4000	-2755.	-2649.	1654.	1198.	1085.	-908.		-.0247	.1826	-.1069	-.0716	.0371	.1942	2619.

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)
.0990	3156.	1102.	-2191.	-5508.	-6724.	-4125.		.0609	-.0811	.1127	.1218	.1551	.0447	13590.

SECTION	12	MEMBER	2	SEQUENCE	233	LOCATION	END	TYPE	RU					
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	RX	RY	RZ	STRESS
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
0.0000	0.	0.	0.	0.	0.	0.		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.
.0010	1.	-1.	-3.	1.	-1.	0.		.0000	-.0000	-.0000	-.0000	.0000	-.0000	2.
.0020	-1.	-7.	-16.	4.	-9.	-1.		.0000	-.0000	-.0001	.0000	.0001	.0001	14.
.0030	-34.	-23.	-28.	2.	-23.	-7.		.0001	-.0000	-.0004	.0001	.0003	.0004	34.
.0040	-109.	-40.	-29.	-12.	-41.	-23.		.0002	.0000	-.0009	.0003	.0007	.0011	69.
.0050	-216.	-44.	-24.	-43.	-66.	-48.		.0003	.0001	-.0017	.0007	.0015	.0020	130.
.0060	-362.	-44.	-2.	-87.	-99.	-92.		.0003	.0003	-.0029	.0012	.0029	.0033	220.
.0070	-633.	-70.	42.	-143.	-141.	-133.		.0004	.0006	-.0047	.0018	.0049	.0057	340.
.0080	-1038.	-134.	114.	-214.	-186.	-211.		.0007	.0010	-.0074	.0024	.0074	.0096	499.
.0090	-1795.	-199.	293.	-316.	-216.	-324.		.0017	.0017	-.0116	.0031	.0108	.0153	708.
.0100	-2813.	-252.	549.	-458.	-245.	-470.		.0035	.0027	-.0171	.0032	.0153	.0225	989.
.0110	-3727.	-359.	740.	-634.	-317.	-640.		.0062	.0039	-.0237	.0021	.0207	.0317	1349.
.0120	-4375.	-558.	820.	-823.	-447.	-820.		.0098	.0053	-.0310	-.0001	.0269	.0428	1758.
.0130	-4927.	-782.	900.	-1000.	-603.	-989.		.0140	.0070	-.0386	-.0038	.0345	.0549	2162.
.0140	-5627.	-977.	1144.	-1157.	-739.	-1136.		.0186	.0089	-.0464	-.0092	.0445	.0669	2518.
.0150	-6576.	-1205.	1652.	-1307.	-822.	-1258.		.0233	.0110	-.0539	-.0166	.0577	.0793	2813.
.0160	-7979.	-1506.	2528.	-1451.	-801.	-1357.		.0278	.0131	-.0616	-.0254	.0746	.0925	3026.
.0170	-9282.	-1855.	3503.	-1576.	-714.	-1440.		.0321	.0153	-.0695	-.0343	.0929	.1062	3180.
.0180	-9233.	-2281.	3958.	-1675.	-703.	-1518.		.0365	.0177	-.0773	-.0415	.1089	.1206	3343.
.0190	-7401.	-2810.	3539.	-1741.	-850.	-1596.		.0416	.0203	-.0848	-.0461	.1190	.1352	3545.
.0200	-3722.	-3384.	1933.	-1733.	-1169.	-1663.		.0490	.0229	-.0927	-.0482	.1169	.1477	3773.
.0210	-366.	-3747.	-53.	-1614.	-1379.	-1779.		.0602	.0248	-.1024	-.0506	.1019	.1538	3849.
.0220	817.	-3891.	-1273.	-1404.	-1339.	-1707.		.0722	.0252	-.1111	-.0565	.0839	.1514	3650.
.0230	1701.	-4347.	-2247.	-1145.	-1277.	-1610.		.0826	.0234	-.1150	-.0646	.0649	.1443	3323.

ADLPIPE PAGE 592

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.29.

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	-4927.	-732.	900.	-1000.	-603.	-939.	.0140	.0070	-.0386	-.0038	.0345	.0549	2162.
.0140	-5627.	-977.	1144.	-1157.	-739.	-1136.	.0186	.0089	-.0464	-.0092	.0445	.0669	2518.
.0150	-6576.	-1205.	1652.	-1307.	-822.	-1258.	.0233	.0110	-.0539	-.0166	.0577	.0793	2813.
.0160	-7979.	-1506.	2523.	-1451.	-801.	-1357.	.0278	.0131	-.0616	-.0254	.0746	.0925	3026.
.0170	-9282.	-1855.	3503.	-1576.	-714.	-1440.	.0321	.0153	-.0695	-.0343	.0929	.1062	3180.
.0180	-9233.	-2221.	3958.	-1675.	-703.	-1518.	.0365	.0177	-.0773	-.0415	.1089	.1206	3343.
.0190	-7401.	-2810.	3539.	-1741.	-850.	-1596.	.0416	.0203	-.0848	-.0461	.1190	.1352	3545.
.0200	-3722.	-3384.	1933.	-1733.	-1169.	-1663.	.0490	.0229	-.0927	-.0482	.1169	.1477	3773.
.0210	-366.	-3747.	53.	-1614.	-1379.	-1709.	.0602	.0248	-.1024	-.0506	.1019	.1538	3849.
.0220	817.	-3891.	-1273.	-1404.	-1339.	-1707.	.0722	.0252	-.1111	-.0565	.0839	.1514	3650.
.0230	1701.	-4347.	-2247.	-1145.	-1277.	-1610.	.0826	.0234	-.1150	-.0646	.0649	.1443	3323.

ADLPIPE PAGE 592

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.29.

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	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)
12	.0240	218.	-4679.	-1968.	-835.	-867.	-1353.	.0900	.0204	-.1151	-.0689	.0502	.1280	2558.
	.0250	-1281.	-4391.	-1354.	-468.	-325.	-966.	.0940	.0166	-.1119	-.0645	.0360	.1004	1584.
	.0260	3776.	-4227.	-3236.	-175.	-492.	-540.	.0936	.0115	-.1020	-.0513	.0113	.0709	1061.
	.0270	9875.	-4312.	-5381.	-188.	-841.	-52.	.0867	.0044	-.0856	-.0337	-.0140	.0381	1220.
	.0280	8582.	-3426.	-4430.	-503.	-116.	546.	.0771	-.0040	-.0705	-.0160	-.0344	-.0104	1061.
	.0290	4677.	-1756.	-2400.	-798.	1353.	1128.	.0682	-.0146	-.0591	-.0015	-.0633	-.0671	2732.
	.0300	1010.	-1427.	-452.	-812.	2759.	1543.	.0570	-.0286	-.0467	.0101	-.0954	-.1057	4610.
	.0310	-1644.	-2371.	773.	-712.	3746.	1888.	.0428	-.0443	-.0325	.0242	-.1244	-.1301	6010.
	.0320	1453.	-2183.	-582.	-987.	3887.	2191.	.0275	-.0576	-.0152	.0479	-.1552	-.1628	6455.
	.0330	3237.	534.	-908.	-1777.	4060.	2326.	.0114	-.0668	.0034	.0773	-.1711	-.2107	7027.
	.0340	-1785.	3545.	2159.	-2468.	4739.	2320.	-.0065	-.0758	.0225	.0968	-.1592	-.2532	8270.
	.0350	-5112.	3878.	4374.	-2364.	4859.	2323.	-.0251	-.0879	.0440	.0968	-.1375	-.2668	8308.
	.0360	-1510.	2241.	3260.	-1621.	3948.	2309.	-.0424	-.1000	.0681	.0874	-.1234	-.2543	6853.
	.0370	534.	2362.	2699.	-892.	3116.	2184.	-.0580	-.1064	.0911	.0820	-.1080	-.2467	5521.
	.0380	-2845.	5548.	4357.	-337.	2825.	2062.	-.0729	-.1068	.1117	.0755	-.0848	-.2643	4963.
	.0390	-2782.	7981.	4161.	358.	2151.	2020.	-.0870	-.1072	.1315	.0530	-.0714	-.2774	4198.
	.0400	3552.	6234.	754.	1329.	1024.	1872.	-.0963	-.1104	.1481	.0168	-.0842	-.2455	3551.
	.0410	5360.	3894.	-1057.	2522.	515.	1631.	-.1017	-.1116	.1588	-.0153	-.1030	-.2013	4305.
	.0420	4306.	5349.	-1838.	3701.	377.	1569.	-.1040	-.1066	.1644	-.0339	-.1226	-.1981	5703.
	.0430	8396.	7763.	-5218.	4333.	-254.	1638.	-.1009	-.0988	.1666	-.0453	-.1559	-.2100	6552.
	.0440	11904.	6834.	-8141.	4141.	-736.	1546.	-.0936	-.0932	.1657	-.0582	-.1848	-.1855	6330.
	.0450	10555.	4745.	-8374.	3672.	-903.	1412.	-.0855	-.0886	.1635	-.0709	-.1873	-.1484	5701.
	.0460	9717.	4893.	-8405.	3437.	-1528.	1536.	-.0773	-.0815	.1626	-.0742	-.1671	-.1402	5740.
	.0470	11378.	5426.	-9126.	3131.	-2530.	1767.	-.0670	-.0715	.1620	-.0628	-.1362	-.1365	6209.
	.0480	10477.	4424.	-8168.	2482.	-3148.	1815.	-.0540	-.0607	.1597	-.0434	-.0918	-.1099	6216.
	.0490	6994.	3839.	-5770.	1950.	-3584.	1782.	-.0403	-.0504	.1555	-.0300	-.0340	-.0872	6289.
	.0500	5345.	3971.	-4313.	1851.	-4290.	1794.	-.0254	-.0418	.1493	-.0277	.0225	-.0782	7070.
	.0510	4345.	2466.	-3440.	1886.	-4798.	1654.	-.0075	-.0345	.1388	-.0265	.0559	-.0509	7648.
	.0520	1804.	435.	-1980.	1958.	-4746.	1286.	.0124	-.0265	.1238	-.0146	.0973	-.0106	7476.
	.0530	252.	837.	-880.	2330.	-4586.	919.	.0313	-.0169	.1064	.0071	.1206	.0046	7381.
	.0540	344.	1674.	-420.	2788.	-4438.	584.	.0479	-.0092	.0880	.0306	.1386	.0105	7449.
	.0550	-164.	-465.	469.	2750.	-3976.	79.	.0624	-.0062	.0683	.0554	.1546	.0474	6830.
	.0560	-244.	-3169.	1393.	1165.	-3449.	-531.	.0742	-.0048	.0484	.0909	.1696	.0923	5800.
	.0570	1170.	-2779.	1613.	1382.	-3223.	-1000.	.0830	-.0018	.0291	.1429	.1845	.1029	5151.
	.0580	1326.	-1576.	1978.	437.	-3005.	-1386.	.0902	.0008	.0086	.2049	.1990	.1031	4715.
	.0590	-291.	-3042.	2694.	-773.	-2613.	-1880.	.0971	-.0010	-.0139	.2628	.2092	.1318	4676.
	.0600	-1010.	-5401.	2800.	-2075.	-2362.	-2409.	.1028	-.0064	-.0370	.3090	.2133	.1676	5594.
	.0610	-1223.	-5839.	2551.	-3333.	-2180.	-2838.	.1066	-.0118	-.0603	.3464	.2127	.1793	6907.

ADLPIPE PAGE 593

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.29.

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	4145.	2466.	440.	1888.	-4798.	1654.	-.075	-.0341	.1388	-.0265	.0559	-.0509	7648.
.0520	1804.	435.	-1980.	1958.	-4746.	1286.	.124	-.0265	.1238	-.0146	.0973	-.0106	7476.
.0530	252.	837.	-880.	2330.	-4586.	919.	.0313	-.0169	.1064	.0071	.1206	.0046	7381.
.0540	344.	1674.	-420.	2788.	-4438.	584.	.0479	-.0092	.0880	.0306	.1386	.0105	7449.
.0550	-164.	-465.	469.	2750.	-3976.	79.	.0624	-.0062	.0683	.0554	.1546	.0474	6830.
.0560	-244.	-1169.	1393.	2165.	-3449.	-531.	.0742	-.0048	.0484	.0909	.1596	.0923	5800.
.0570	1170.	-2779.	1613.	1382.	-3223.	-1000.	.0830	-.0018	.0291	.1429	.1845	.1029	5151.
.0580	1326.	-1576.	1978.	437.	-3005.	-1386.	.0902	.0008	.0086	.2049	.1990	.1031	4715.
.0590	-291.	-3042.	2694.	-773.	-2613.	-1880.	.0971	-.0010	-.0139	.2628	.2092	.1318	4676.
.0600	-1010.	-5401.	2800.	-2075.	-2362.	-2409.	.1028	-.0064	-.0370	.3090	.2133	.1676	5594.
.0610	-1223.	-5839.	2551.	-3333.	-2180.	-2838.	.1066	-.0118	-.0603	.3464	.2127	.1793	6907.

ADLPIPE PAGE 593

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.29.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU								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)	
.0620	-3392.	-5287.	3011.	-4572.	-1648.	-3240.	.1093	-.0158	-.0844	.3792	.2067	.1817	8250.	
.0630	-5579.	-5285.	3447.	-5551.	-938.	-3659.	.1104	-.0196	-.1079	.4027	.1920	.1930	9484.	
.0640	-5747.	-5349.	3186.	-5885.	-386.	-3964.	.1080	-.0243	-.1285	.4062	.1722	.2032	10037.	
.0650	-6591.	-5345.	3528.	-5690.	304.	-4106.	.1008	-.0299	-.1458	.3867	.1551	.2088	9921.	
.0660	-9048.	-5754.	4810.	-5415.	1333.	-4181.	.0901	-.0348	-.1601	.3526	.1377	.2194	9845.	
.0670	-9412.	-5627.	5237.	-5103.	2265.	-4174.	.0773	-.0369	-.1709	.3128	.1104	.2263	9847.	
.0680	-7411.	-4208.	4462.	-4436.	2930.	-3966.	.0631	-.0366	-.1784	.2680	.0735	.2168	9369.	
.0690	-6922.	-3170.	4053.	-3354.	3734.	-3589.	.0484	-.0364	-.1842	.2137	.0334	.2052	8716.	
.0700	-7814.	-3926.	4033.	-2143.	4724.	-3172.	.0347	-.0380	-.1884	.1511	-.0098	.2077	8589.	
.0710	-7315.	-4884.	3342.	-1059.	5480.	-2707.	.0219	-.0391	-.1891	.0898	-.0548	.2075	8762.	
.0720	-6006.	-4123.	2310.	-194.	5840.	-2101.	.0087	-.0373	-.1843	.0404	-.0924	.1823	8771.	
.0730	-4746.	-2439.	1403.	454.	5856.	-1383.	-.0049	-.0330	-.1735	.0051	-.1176	.1411	8524.	
.0740	-2355.	-1551.	247.	1015.	5515.	-651.	-.0177	-.0287	-.1570	-.0222	-.1328	.1044	7974.	
.0750	-266.	-1419.	-501.	1694.	4997.	97.	-.0292	-.0256	-.1357	-.0479	-.1355	.0721	7454.	
.0760	-748.	-1118.	-4.	2531.	4507.	911.	-.0398	-.0231	-.1107	-.0732	-.1228	.0339	7413.	
.0770	-1379.	-521.	539.	3358.	3845.	1740.	-.0487	-.0202	-.0823	-.0952	-.1046	-.0092	7618.	
.0780	651.	124.	-147.	4075.	2844.	2483.	-.0547	-.0170	-.0514	-.1127	-.0920	-.0508	7846.	
.0790	2521.	969.	-892.	4825.	1888.	3128.	-.0579	-.0142	-.0200	-.1292	-.0834	-.0922	8549.	
.0800	1274.	1897.	-425.	5776.	1337.	3718.	-.0591	-.0135	.0100	-.1495	-.0738	-.1350	9885.	
.0810	-235.	2178.	143.	6798.	979.	4214.	-.0586	-.0159	.0387	-.1728	-.0683	-.1716	11382.	
.0820	629.	1861.	-156.	7521.	599.	4541.	-.0569	-.0203	.0668	-.1902	-.0713	-.1989	12438.	
.0830	1905.	2322.	-426.	7695.	355.	4728.	-.0548	-.0247	.0938	-.1932	-.0769	-.2299	12767.	
.0840	2359.	4093.	-221.	7343.	304.	4849.	-.0527	-.0289	.1187	-.1815	-.0810	-.2717	12436.	
.0850	3313.	5512.	-242.	6573.	286.	4875.	-.0493	-.0355	.1409	-.1618	-.0865	-.3067	11567.	
.0860	4273.	5200.	-427.	5449.	273.	4738.	-.0441	-.0455	.1594	-.1379	-.0934	-.3185	10206.	
.0870	4036.	4329.	-439.	4000.	229.	4471.	-.0372	-.0570	.1740	-.1070	-.0982	-.3185	6480.	
.0880	4006.	4558.	-967.	2242.	-75.	4129.	-.0286	-.0671	.1851	-.0656	-.1020	-.3237	6637.	
.0890	5098.	5360.	-2300.	236.	-665.	3660.	-.0177	-.0757	.1925	-.0174	-.1064	-.3272	5265.	
.0900	5504.	5344.	-3447.	-1743.	-1286.	3012.	-.0052	-.0844	.1960	.0284	-.1059	-.3145	5240.	
.0910	4593.	4537.	-3954.	-3322.	-1897.	2245.	.0074	-.0934	.1962	.0652	-.0949	-.2880	6266.	
.0920	4037.	3740.	-4396.	-4411.	-2672.	1416.	.0191	-.1012	.1943	.0944	-.0741	-.2564	7555.	
.0930	4382.	3249.	-4890.	-5239.	-3581.	510.	.0295	-.1058	.1910	.1209	-.0455	-.2207	8992.	
.0940	4852.	3223.	-5083.	-5930.	-4477.	-447.	.0381	-.1066	.1859	.1447	-.0101	-.1827	10514.	
.0950	5291.	3610.	-5007.	-6342.	-5321.	-1369.	.0450	-.1047	.1782	.1593	.0299	-.1458	11852.	
.0960	5390.	3502.	-4653.	-6369.	-6021.	-2224.	.0507	-.1019	.1671	.1600	.0704	-.1027	12772.	
.0970	4516.	2315.	-3821.	-6131.	-6430.	-3019.	.0556	-.0981	.1520	.1495	.1079	-.0475	13254.	
.0980	3434.	1136.	-2862.	-5806.	-6618.	-3678.	.0592	-.0916	.1334	.1352	.1398	.0065	13477.	
.0990	3156.	1102.	-2191.	-5509.	-6719.	-4123.	.0609	-.0811	.1127	.1217	.1650	.0446	13584.	

ADLPIPE PAGE 594

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.29.

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

.0880	4306.	4358.	-967.	2242.	-75.	4129.	-.0286	-.0671	.1851	-.0656	-.1020	-.3237	6637.
.0890	5098.	5360.	-2300.	236.	-665.	3660.	-.0177	-.0757	.1925	-.0174	-.1064	-.3272	5265.
.0900	5504.	5344.	-3447.	-1743.	-1286.	3012.	-.0052	-.0844	.1960	.0284	-.1059	-.3145	5240.
.0910	4593.	4537.	-3954.	-3322.	-1897.	2245.	.0074	-.0934	.1962	.0652	-.0949	-.2880	6266.
.0920	4037.	3740.	-4396.	-4411.	-2672.	1416.	.0191	-.1012	.1943	.0944	-.0741	-.2564	7555.
.0930	4382.	3249.	-4890.	-5239.	-3581.	510.	.0295	-.1058	.1910	.1209	-.0455	-.2207	8992.
.0940	4852.	7223.	-5083.	-5930.	-4477.	-447.	.0381	-.1066	.1859	.1447	-.0101	-.1827	10514.
.0950	5291.	3610.	-5007.	-6342.	-5321.	-1369.	.0450	-.1047	.1782	.1593	.0299	-.1458	11852.
.0960	5390.	3502.	-4653.	-6369.	-6021.	-2224.	.0507	-.1019	.1671	.1600	.0704	-.1027	12772.
.0970	4516.	2315.	-3821.	-6131.	-6430.	-3019.	.0556	-.0981	.1520	.1495	.1079	-.0475	13254.
.0980	3434.	1136.	-2862.	-5806.	-6618.	-3678.	.0592	-.0916	.1334	.1352	.1398	.0065	13477.
.0990	3156.	1102.	-2191.	-5509.	-6719.	-4123.	.0609	-.0811	.1127	.1217	.1650	.0446	13584.

ADLPIPE PAGE 594

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.29.

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

SECTION	12	MEMBER	2	SEQUENCE	233	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.1000	2917.	1453.	-1450.	-5289.	-6640.	-4375.	.0602	-.0679	.0903	.1073	.1846	.0734	13489.		
.1010	1952.	941.	-330.	-5082.	-6287.	-4462.	.0573	-.0539	.0665	.0878	.1991	.1049	13042.		
.1020	1139.	-127.	713.	-4755.	-5765.	-4331.	.0521	-.0392	.0419	.0628	.2064	.1334	12201.		
.1030	966.	-764.	1391.	-4287.	-5115.	-3959.	.0454	-.0225	.0170	.0362	.2034	.1492	10960.		
.1040	629.	-923.	1970.	-3757.	-4220.	-3410.	.0381	-.0034	-.0085	.0106	.1887	.1547	9322.		
.1050	218.	-1170.	2296.	-3129.	-3120.	-2737.	.0312	.0167	-.0346	-.0175	.1507	.1567	7341.		
.1060	449.	-1799.	1974.	-2263.	-1972.	-1943.	.0250	.0360	-.0608	-.0531	.1201	.1563	5051.		
.1070	259.	-2812.	1509.	-1150.	-736.	-1072.	.0198	.0538	-.0866	-.0958	.0719	.1546	2452.		
.1080	-285.	-4022.	870.	77.	549.	-214.	.0166	.0707	-.1122	-.1385	.0168	.1532	840.		
.1090	12.	-4905.	-624.	1336.	1686.	578.	.0178	.0867	-.1383	-.1751	-.0482	.1481	3146.		
.1100	-2921.	-4625.	-506.	2494.	2894.	1328.	.0174	.1009	-.1611	-.2080	-.0949	.1274	5713.		
.1110	-4356.	-4647.	-513.	3331.	3764.	1973.	.0155	.1114	-.1786	-.2370	-.1270	.1067	7627.		
.1120	-3281.	-5710.	-1038.	3748.	4286.	2428.	.0130	.1184	-.1910	-.2552	-.1485	.0983	8743.		
.1130	-3807.	-5970.	-431.	3931.	4831.	2727.	.0096	.1237	-.1997	-.2561	-.1534	.0845	9604.		
.1140	-6009.	-4550.	1065.	4030.	5369.	2930.	.0056	.1274	-.2059	-.2428	-.1450	.0540	10346.		
.1150	-7361.	-3589.	2152.	3882.	5743.	2959.	.0024	.1269	-.2103	-.2247	-.1346	.0294	10646.		
.1160	-8723.	-4347.	3195.	3342.	6102.	2730.	.0001	.1214	-.2132	-.2058	-.1244	.0263	10555.		
.1170	-9784.	-4820.	4074.	2566.	6375.	2338.	-.0024	.1137	-.2139	-.1824	-.1147	.0242	10253.		
.1180	-12491.	-3429.	5761.	1776.	6666.	1910.	-.0079	.1063	-.2106	-.1511	-.0969	.0061	10111.		
.1190	-11193.	-2085.	5810.	1045.	6589.	1444.	-.0148	.0984	-.2029	-.1146	-.0860	-.0076	9642.		
.1200	-8144.	-2279.	5223.	430.	6476.	883.	-.0221	.0887	-.1920	-.0798	-.0814	-.0000	9252.		
.1210	-9459.	-2535.	6483.	73.	6764.	275.	-.0303	.0778	-.1793	-.0526	-.0709	.0116	9562.		
.1220	-8612.	-1720.	6580.	-113.	6715.	-272.	-.0382	.0669	-.1640	-.0346	-.0663	.0106	9494.		
.1230	-6605.	-1197.	5881.	-448.	6409.	-820.	-.0450	.0564	-.1458	-.0222	-.0666	.0131	9148.		
.1240	-3844.	-1326.	4620.	-948.	5899.	-1382.	-.0501	.0472	-.1249	-.0104	-.0712	.0251	8662.		
.1250	-1085.	-450.	3170.	-1262.	5135.	-1825.	-.0538	.0401	-.1013	-.0001	-.0742	.0261	7902.		
.1260	-835.	1096.	2582.	-1286.	4301.	-2107.	-.0567	.0342	-.0759	.0040	-.0681	.0173	7005.		
.1270	1844.	1052.	651.	-1338.	3125.	-2308.	-.0554	.0279	-.0497	-.0002	-.0687	.0224	5804.		
.1280	2844.	138.	-696.	-1632.	2011.	-2463.	-.0506	.0224	-.0239	-.0092	-.0667	.0360	5048.		
.1290	3234.	970.	-1749.	-2054.	750.	-2451.	-.0441	.0201	.0025	-.0198	-.0582	.0289	4640.		
.1300	4799.	2755.	-3254.	-2470.	-791.	-2263.	-.0362	.0203	.0299	-.0326	-.0454	.0088	4862.		
.1310	3939.	2870.	-3519.	-2791.	-2133.	-2005.	-.0284	.0207	.0574	-.0493	-.0216	.0054	5713.		
.1320	4620.	1860.	-4113.	-2838.	-3571.	-1652.	-.0206	.0214	.0854	-.0696	.0049	.0120	6852.		
.1330	4660.	2014.	-4174.	-2586.	-4942.	-1177.	-.0145	.0243	.1131	-.0909	.0379	.0039	8052.		
.1340	5202.	2957.	-4166.	-2302.	-6155.	-667.	-.0090	.0294	.1387	-.1113	.0684	-.0135	9330.		
.1350	5922.	3098.	-4409.	-2095.	-7098.	-225.	-.0029	.0350	.1603	-.1317	.0886	-.0220	10458.		
.1360	4899.	2883.	-3983.	-1677.	-7649.	178.	.0020	.0403	.1775	-.1535	.1042	-.0274	11064.		
.1370	5871.	3068.	-4487.	-897.	-8199.	607.	.0056	.0451	.1910	-.1750	.1094	-.0395	11682.		

ADLPIPE PAGE 595

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.29.

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

.1270	1844.	1052.	651.	-1338.	3125.	-2308.	-1554.	.0279	-.0497	-.0002	-.0687	.0224	5804.
.1280	2844.	138.	-696.	-1632.	2011.	-2463.	-.0506	.0224	-.0239	-.0092	-.0667	.0360	5048.
.1290	3234.	970.	-1749.	-2054.	750.	-2451.	-.0441	.0201	.0025	-.0198	-.0582	.0289	4640.
.1300	4799.	2755.	-3254.	-2470.	-791.	-2263.	-.0362	.0203	.0299	-.0326	-.0454	.0088	4862.
.1310	3939.	2870.	-3519.	-2791.	-2133.	-2005.	-.0284	.0207	.0574	-.0493	-.0216	.0054	5713.
.1320	4620.	1860.	-4113.	-2838.	-3571.	-1652.	-.0206	.0214	.0854	-.0696	.0049	.0120	6852.
.1330	4860.	2014.	-4174.	-2586.	-4942.	-1177.	-.0145	.0243	.1131	-.0909	.0379	.0039	8052.
.1340	5202.	2957.	-4166.	-2302.	-6155.	-667.	-.0090	.0294	.1387	-.1113	.0684	-.0135	9330.
.1350	5922.	3098.	-4409.	-2095.	-7098.	-225.	-.0029	.0350	.1603	-.1317	.0586	-.0220	10458.
.1360	4899.	2883.	-3583.	-1677.	-7649.	173.	.0020	.0403	.1775	-.1535	.1042	-.0274	11064.
.1370	5871.	3068.	-4487.	-897.	-8199.	607.	.0056	.0451	.1910	-.1750	.1094	-.0395	11682.

ADLPIPE PAGE 595

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.29.

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	12	MEMBER	2	SEQUENCE	233	LOCATION	END	TYPE	RU						
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)		
.1380	5301.	2943.	-4353.	-71.	-8360.	966.	.0068	.0496	.2003	-.1905	.1111	-.0478	11887.		
.1390	4845.	2468.	-4189.	473.	-8244.	1218.	.0056	.0541	.2057	-.1957	.1069	-.0504	11789.		
.1400	6248.	2893.	-4586.	765.	-8083.	1434.	.0012	.0591	.2082	-.1906	.0981	-.0627	11646.		
.1410	6018.	3982.	-4002.	945.	-7578.	1610.	-.0072	.0636	.2069	-.1787	.0930	-.0825	11023.		
.1420	6719.	4107.	-3718.	1042.	-6862.	1690.	-.0169	.0664	.2010	-.1620	.0812	-.0915	10090.		
.1430	6374.	3417.	-3034.	1092.	-5301.	1667.	-.0274	.0680	.1898	-.1401	.0653	-.0891	8664.		
.1440	6162.	3498.	-2547.	1158.	-4642.	1623.	-.0383	.0700	.1739	-.1130	.0443	-.0929	7137.		
.1450	6205.	4221.	-2340.	1169.	-3453.	1551.	-.0490	.0724	.1537	-.0844	.0189	-.1017	5596.		
.1460	4474.	4143.	-1502.	1045.	-2029.	1375.	-.0593	.0741	.1295	-.0585	-.0063	-.0981	3763.		
.1470	4809.	3284.	-1627.	940.	-726.	1135.	-.0676	.0751	.1022	-.0373	-.0376	-.0823	2320.		
.1480	3624.	2799.	-994.	1067.	702.	909.	-.0753	.0766	.0728	-.0196	-.0623	-.0668	2215.		
.1490	1781.	2553.	91.	1396.	2136.	699.	-.0822	.0787	.0425	-.0045	-.0798	-.0503	3737.		
.1500	1484.	1724.	633.	1711.	3331.	445.	-.0872	.0808	.0125	.0076	-.0945	-.0237	5326.		
.1510	257.	725.	1644.	1918.	4397.	137.	-.0909	.0831	-.0166	.0158	-.0993	.0085	6778.		
.1520	-85.	301.	2190.	2074.	5101.	-165.	-.0924	.0857	-.0445	.0204	-.0990	.0358	7781.		
.1530	-1786.	44.	3124.	2205.	5641.	-479.	-.0916	.0883	-.0712	.0221	-.0911	.0621	8582.		
.1540	-2476.	-732.	3306.	2276.	5850.	-836.	-.0872	.0904	-.0968	.0223	-.0844	.0947	8945.		
.1550	-2405.	-1536.	2854.	2285.	5770.	-1212.	-.0794	.0925	-.1207	.0222	-.0789	.1276	8932.		
.1560	-5082.	-1710.	3441.	2231.	5722.	-1562.	-.0705	.0948	-.1424	.0218	-.0549	.1526	8951.		
.1570	-5462.	-1835.	2999.	2054.	5322.	-1865.	-.0599	.0968	-.1608	.0207	-.0528	.1739	8477.		
.1580	-5552.	-2446.	2527.	1723.	4809.	-2144.	-.0490	.0985	-.1752	.0195	-.0381	.1982	7825.		
.1590	-7218.	-2884.	2910.	1371.	4348.	-2352.	-.0394	.1004	-.1851	.0199	-.0159	.2187	7247.		
.1600	-6821.	-2735.	2563.	1142.	3629.	-2418.	-.0311	.1029	-.1902	.0214	.0052	.2292	6368.		
.1610	-5079.	-2814.	1756.	984.	2869.	-2390.	-.0232	.1052	-.1915	.0218	.0215	.2387	5455.		
.1620	-6343.	-3419.	2314.	877.	2553.	-2326.	-.0161	.1066	-.1909	.0190	.0379	.2515	5033.		
.1630	-5952.	-3769.	2170.	929.	2225.	-2167.	-.0089	.1073	-.1879	.0121	.0450	.2569	4579.		
.1640	-4936.	-3861.	1785.	1120.	1951.	-1925.	-.0024	.1073	-.1823	.0031	.0461	.2552	4182.		
.1650	-5605.	-4332.	2215.	1313.	1947.	-1670.	.0027	.1061	-.1742	-.0049	.0471	.2548	4070.		
.1660	-4341.	-4801.	1925.	1488.	1824.	-1390.	.0071	.1040	-.1628	-.0095	.0431	.2510	3862.		
.1670	-3510.	-4573.	1967.	1650.	1704.	-1076.	.0095	.1010	-.1480	-.0102	.0428	.2358	3678.		
.1680	-2681.	-4165.	2117.	1679.	1570.	-769.	.0108	.0963	-.1304	-.0079	.0447	.2153	3424.		
.1690	-3171.	-4138.	2899.	1501.	1539.	-532.	.0112	.0895	-.1106	-.0025	.0509	.1969	3129.		
.1700	-2823.	-3930.	3279.	1218.	1344.	-340.	.0112	.0811	-.0887	.0070	.0570	.1742	2606.		
.1710	249.	-3105.	2283.	896.	812.	-166.	.0123	.0718	-.0654	.0210	.0566	.1429	1724.		
.1720	-509.	-2139.	2669.	513.	562.	-70.	.0135	.0612	-.0426	.0375	.0614	.1110	1079.		
.1730	-772.	-1477.	2532.	128.	178.	-41.	.0159	.0490	-.0199	.0525	.0627	.0823	315.		
.1740	395.	-973.	1527.	-174.	-481.	-48.	.0187	.0352	.0031	.0644	.0509	.0546	726.		
.1750	434.	-404.	852.	-424.	-1145.	-85.	.0208	.0211	.0259	.0752	.0622	.0273	1729.		

ADLPIPE PAGE 596

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.29.

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	-5605.	-4332.	2215.	1313.	1947.	-1670.	.0027	.1061	-.1742	-.0049	.0471	.2548	4070.
.1660	-4341.	-4801.	1925.	1488.	1824.	-1370.	.0071	.1040	-.1628	-.0095	.0431	.2510	3862.
.1670	-3510.	-4573.	1967.	1650.	1704.	-1076.	.0095	.1010	-.1480	-.0102	.0428	.2358	3678.
.1680	-2681.	-4165.	2117.	1679.	1570.	-769.	.0108	.0963	-.1304	-.0079	.0447	.2153	3424.
.1690	-3171.	-4138.	2399.	1501.	1539.	-532.	.0112	.0895	-.1106	-.0025	.0509	.1969	3129.
.1700	-2823.	-3930.	3279.	1218.	1344.	-340.	.0112	.0811	-.0887	.0070	.0570	.1742	2606.
.1710	249.	-3105.	2283.	896.	312.	-166.	.0123	.0718	-.0654	.0210	.0566	.1429	1724.
.1720	-509.	-2139.	2669.	513.	562.	-70.	.0135	.0612	-.0426	.0375	.0614	.1110	1079.
.1730	-772.	-1477.	2532.	128.	178.	-41.	.0159	.0490	-.0199	.0525	.0627	.0823	315.
.1740	395.	-973.	1527.	-174.	-481.	-48.	.0187	.0352	.0031	.0644	.0509	.0546	726.
.1750	434.	-404.	852.	-424.	-1145.	-85.	.0208	.0211	.0259	.0752	.0622	.0273	1729.

ADLPIPE PAGE 596

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.29.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	12	MEMBER	2	SEQUENCE	233	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.1760	1219.	345.	-217.	-656.	-1896.	-138.	.0226	.0074	.0483	.0866	.0518	.0002	2840.		
.1770	1039.	1279.	-803.	-791.	-2548.	-194.	.0227	-.0058	.0700	.0970	.0545	-.0264	3778.		
.1780	2184.	1984.	-1845.	-763.	-3245.	-226.	.0217	-.0192	.0908	.1033	.0549	-.0497	4719.		
.1790	2195.	2171.	-2268.	-628.	-3700.	-248.	.0187	-.0328	.1095	.1048	.0664	-.0662	5313.		
.1800	1394.	2247.	-2229.	-474.	-3916.	-259.	.0140	-.0457	.1259	.1040	.0567	-.0794	5584.		
.1810	3393.	2686.	-3319.	-348.	-4192.	-235.	.0085	-.0573	.1397	.1032	.0564	-.0948	5951.		
.1820	3599.	3314.	-3551.	-259.	-4090.	-197.	.0016	-.0676	.1499	.1019	.0446	-.1103	5795.		
.1830	3553.	3667.	-3611.	-159.	-3744.	-141.	-.0059	-.0775	.1565	.0980	.0280	-.1222	5297.		
.1840	4004.	3683.	-3780.	-12.	-3268.	-66.	-.0140	-.0870	.1599	.0910	.0071	-.1302	4617.		
.1850	4247.	3626.	-3689.	124.	-2640.	20.	-.0225	-.0954	.1607	.0836	-.0141	-.1368	3733.		
.1860	5169.	3817.	-3721.	168.	-1984.	123.	-.0308	-.1019	.1594	.0783	-.0357	-.1452	2817.		
.1870	4749.	4378.	-3033.	148.	-1230.	243.	-.0393	-.1062	.1565	.0750	-.0509	-.1567	1783.		
.1880	5585.	4904.	-2834.	176.	-689.	390.	-.0468	-.1090	.1528	.0712	-.0641	-.1679	1146.		
.1890	6012.	4938.	-2483.	306.	-227.	543.	-.0528	-.1107	.1478	.0651	-.0726	-.1736	936.		
.1900	4913.	4714.	-1573.	522.	245.	701.	-.0569	-.1108	.1413	.0573	-.0751	-.1757	1282.		
.1910	5174.	4744.	-1439.	802.	452.	893.	-.0579	-.1087	.1335	.0494	-.0790	-.1798	1812.		
.1920	4983.	4922.	-1305.	1117.	570.	1101.	-.0560	-.1045	.1240	.0414	-.0810	-.1840	2357.		
.1930	4318.	4735.	-1135.	1463.	643.	1313.	-.0512	-.0991	.1129	.0314	-.0816	-.1830	2922.		
.1940	3905.	4108.	-1175.	1851.	625.	1540.	-.0438	-.0932	.1003	.0190	-.0813	-.1764	3514.		
.1950	3350.	3342.	-1172.	2236.	572.	1785.	-.0345	-.0867	.0866	.0062	-.0783	-.1672	4121.		
.1960	2277.	2627.	-908.	2528.	537.	2031.	-.0240	-.0794	.0720	-.0036	-.0714	-.1563	4643.		
.1970	1479.	1957.	-704.	2660.	450.	2262.	-.0128	-.0715	.0570	-.0097	-.0520	-.1440	4973.		
.1980	1235.	1240.	-663.	2623.	305.	2456.	-.0011	-.0639	.0416	-.0128	-.0510	-.1296	5094.		
.1990	605.	408.	-385.	2446.	236.	2582.	.0107	-.0572	.0255	-.0138	-.0380	-.1123	5034.		
.2000	-671.	-483.	191.	2170.	293.	2622.	.0225	-.0515	.0083	-.0122	-.0245	-.0925	4826.		
.2010	-1845.	-1294.	682.	1835.	393.	2569.	.0341	-.0467	-.0094	-.0068	-.0128	-.0717	4494.		
.2020	-2780.	-1968.	1032.	1454.	505.	2408.	.0449	-.0430	-.0273	.0025	-.0032	-.0503	4037.		
.2030	-3789.	-2531.	1420.	1028.	658.	2127.	.0544	-.0405	-.0448	.0151	.0056	-.0282	3465.		
.2040	-4630.	-2992.	1775.	572.	832.	1737.	.0621	-.0393	-.0615	.0301	.0136	-.0057	2838.		
.2050	-5197.	-3369.	2075.	117.	1023.	1255.	.0679	-.0394	-.0770	.0471	.0210	.0168	2293.		
.2060	-5744.	-3678.	2450.	-299.	1240.	696.	.0715	-.0406	-.0908	.0666	.0285	.0396	2063.		
.2070	-6042.	-3888.	2795.	-662.	1472.	81.	.0730	-.0427	-.1025	.0887	.0357	.0618	2283.		
.2080	-5674.	-3978.	2874.	-1005.	1636.	-562.	.0728	-.0454	-.1121	.1125	.0411	.0824	2826.		
.2090	-5052.	-3998.	2809.	-1374.	1768.	-1212.	.0714	-.0488	-.1196	.1365	.0450	.1013	3596.		
.2100	-4723.	-3985.	2810.	-1770.	1898.	-1847.	.0691	-.0526	-.1250	.1591	.0482	.1182	4499.		
.2110	-4257.	-3925.	2671.	-2159.	1952.	-2436.	.0664	-.0565	-.1280	.1796	.0503	.1322	5361.		
.2120	-3389.	-3821.	2277.	-2516.	1887.	-2943.	.0635	-.0604	-.1284	.1975	.0511	.1430	6084.		
.2130	-2644.	-3658.	1898.	-2835.	1758.	-3343.	.0607	-.0637	-.1262	.2118	.0525	.1499	6670.		

ADLPIPE PAGE 597

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.30.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

.2030	-3789.	-2531.	1420.	1028.	658.	2127.	.0544	-.0405	-.0448	.0151	.0056	-.0282	3465.
.2040	-4630.	-2992.	1775.	572.	832.	1737.	.0621	-.0393	-.0615	.0301	.0136	-.0057	2838.
.2050	-5197.	-3369.	2075.	117.	1023.	1255.	.0679	-.0394	-.0770	.0471	.0210	.0168	2293.
.2060	-5744.	-3678.	2450.	-299.	1249.	696.	.0715	-.0406	-.0908	.0666	.0285	.0396	2063.
.2070	-6042.	-3888.	2795.	-662.	1472.	81.	.0730	-.0427	-.1025	.0887	.0357	.0618	2283.
.2080	-5674.	-3778.	2874.	-1005.	1636.	-562.	.0728	-.0454	-.1121	.1125	.0411	.0824	2826.
.2090	-5052.	-3998.	2809.	-1374.	1768.	-1212.	.0714	-.0488	-.1196	.1365	.0450	.1013	3596.
.2100	-4723.	-3985.	2810.	-1770.	1898.	-1847.	.0691	-.0526	-.1250	.1591	.0482	.1182	4499.
.2110	-4257.	-3925.	2671.	-2159.	1952.	-2436.	.0664	-.0565	-.1280	.1796	.0503	.1322	5361.
.2120	-3389.	-3821.	2277.	-2516.	1887.	-2943.	.0635	-.0604	-.1284	.1975	.0511	.1430	6084.
.2130	-2644.	-3658.	1898.	-2835.	1758.	-3343.	.0607	-.0637	-.1262	.2118	.0525	.1499	6670.

ADLPIPE PAGE 597

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.30.

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	12	MEMBER	2	SEQUENCE	233	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.2140	-2238.	-3393.	1697.	-3098.	1585.	-3616.	.0579	-.0663	-.1212	.2208	.0561	.1521	7088.		
.2150	-1855.	-3076.	1565.	-3280.	1327.	-3745.	.0551	-.0683	-.1131	.2228	.0519	.1497	7277.		
.2160	-1458.	-2822.	1460.	-3359.	974.	-3723.	.0523	-.0695	-.1020	.2174	.0693	.1436	7215.		
.2170	-1309.	-2561.	1447.	-3302.	563.	-3546.	.0496	-.0695	-.0882	.2052	.0777	.1334	6890.		
.2180	-1337.	-2143.	1455.	-3073.	112.	-3216.	.0468	-.0684	-.0723	.1868	.0851	.1175	6285.		
.2190	-1426.	-1654.	1411.	-2673.	-346.	-2750.	.0441	-.0661	-.0548	.1624	.0896	.0970	5439.		
.2200	-1702.	-1303.	1342.	-2137.	-750.	-2178.	.0412	-.0633	-.0363	.1324	.0895	.0741	4438.		
.2210	-1963.	-1043.	1173.	-1502.	-1078.	-1524.	.0379	-.0599	-.0174	.0988	.0337	.0488	3384.		
.2220	-1862.	-657.	788.	-809.	-1329.	-808.	.0340	-.0558	.0016	.0646	.0711	.0196	2477.		
.2230	-1538.	-129.	293.	-103.	-1459.	-61.	.0291	-.0511	.0202	.0323	.0525	-.0130	2068.		
.2240	-1188.	382.	-181.	579.	-1443.	686.	.0231	-.0465	.0381	.0030	.0294	-.0463	2400.		
.2250	-566.	813.	-704.	1202.	-1332.	1405.	.0158	-.0421	.0551	-.0225	.0034	-.0789	3219.		
.2260	456.	1231.	-1305.	1722.	-1173.	2069.	.0073	-.0382	.0712	-.0434	-.0238	-.1106	4147.		
.2270	1600.	1703.	-1856.	2098.	-963.	2648.	-.0019	-.0346	.0860	-.0586	-.0503	-.1405	4962.		
.2280	2713.	2249.	-2306.	2344.	-720.	3121.	-.0113	-.0314	.0991	-.0680	-.0745	-.1677	5607.		
.2290	3786.	2789.	-2671.	2516.	-492.	3474.	-.0204	-.0287	.1104	-.0730	-.0948	-.1907	6099.		
.2300	4606.	3159.	-2877.	2644.	-304.	3694.	-.0288	-.0270	.1199	-.0754	-.1093	-.2070	6431.		
.2310	5065.	3321.	-2881.	2718.	-179.	3770.	-.0362	-.0261	.1274	-.0759	-.1168	-.2159	6570.		
.2320	5371.	3459.	-2766.	2714.	-156.	3707.	-.0424	-.0256	.1331	-.0744	-.1170	-.2188	6493.		
.2330	5539.	3710.	-2544.	2634.	-240.	3516.	-.0472	-.0253	.1371	-.0709	-.1097	-.2172	6215.		
.2340	5373.	3938.	-2147.	2500.	-399.	3212.	-.0506	-.0252	.1391	-.0663	-.0956	-.2101	5777.		
.2350	4978.	3936.	-1652.	2335.	-612.	2811.	-.0524	-.0255	.1390	-.0618	-.0766	-.1961	5233.		
.2360	4566.	3725.	-1188.	2120.	-863.	2333.	-.0526	-.0262	.1365	-.0574	-.0552	-.1763	4616.		
.2370	4043.	3496.	-763.	1807.	-1108.	1800.	-.0512	-.0269	.1314	-.0523	-.0339	-.1534	3928.		
.2380	3386.	3340.	-417.	1363.	-1317.	1236.	-.0483	-.0270	.1236	-.0458	-.0147	-.1291	3196.		
.2390	2870.	3154.	-296.	806.	-1496.	662.	-.0440	-.0268	.1132	-.0382	.0002	-.1038	2576.		
.2400	2548.	2816.	-410.	174.	-1629.	98.	-.0386	-.0262	.1003	-.0301	.0099	-.0772	2318.		
.2410	2167.	2358.	-607.	-503.	-1672.	-438.	-.0324	-.0249	.0853	-.0217	.0149	-.0502	2542.		
.2420	1751.	1930.	-839.	-1202.	-1617.	-927.	-.0256	-.0226	.0686	-.0128	.0158	-.0252	3132.		
.2430	1553.	1595.	-1152.	-1888.	-1499.	-1352.	-.0187	-.0188	.0507	-.0036	.0134	-.0032	3904.		
.2440	1546.	1276.	-1492.	-2506.	-1338.	-1705.	-.0117	-.0137	.0324	.0046	.0091	.0164	4680.		
.2450	1521.	891.	-1745.	-2992.	-1139.	-1978.	-.0049	-.0071	.0139	.0104	.0047	.0344	5315.		
.2460	1363.	439.	-1854.	-3290.	-915.	-2160.	.0018	.0007	-.0043	.0127	.0014	.0508	5708.		
.2470	991.	-48.	-1769.	-3385.	-676.	-2250.	.0084	.0099	-.0220	.0113	.0003	.0656	5821.		
.2480	369.	-553.	-1465.	-3290.	-448.	-2253.	.0146	.0202	-.0387	.0061	.0023	.0789	5667.		
.2490	-303.	-1076.	-1044.	-3030.	-276.	-2175.	.0203	.0315	-.0541	-.0026	.0076	.0907	5282.		
.2500	-901.	-1613.	-571.	-2645.	-172.	-2025.	.0254	.0435	-.0679	-.0141	.0158	.1013	4711.		
.2510	-1699.	-2152.	65.	-2182.	-86.	-1818.	.0296	.0556	-.0802	-.0275	.0266	.1104	4013.		

ADLPIPE PAGE 598

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.30.

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

.2400	2540.	2316.	-410.	17.	-1629.	98.	-.0386	-.0262	.1003	-.0301	.0099	-.0772	2318.
.2410	2167.	2358.	-607.	-503.	-1672.	-438.	-.0324	-.0249	.0853	-.0217	.0149	-.0502	2542.
.2420	1751.	1930.	-839.	-1202.	-1617.	-927.	-.0256	-.0226	.0686	-.0128	.0158	-.0252	3132.
.2430	1553.	1595.	-1152.	-1888.	-1499.	-1352.	-.0187	-.0188	.0507	-.0036	.0134	-.0032	3904.
.2440	1546.	1276.	-1492.	-2506.	-1338.	-1705.	-.0117	-.0137	.0324	.0046	.0091	.0164	4680.
.2450	1521.	891.	-1745.	-2592.	-1139.	-1978.	-.0049	-.0071	.0139	.0104	.0047	.0344	5315.
.2460	1363.	439.	-1854.	-3290.	-915.	-2160.	.0018	.0007	-.0043	.0127	.0014	.0508	5708.
.2470	991.	-48.	-1769.	-3385.	-676.	-2250.	.0084	.0099	-.0220	.0113	.0003	.0656	5821.
.2480	369.	-553.	-1465.	-3290.	-448.	-2253.	.0146	.0202	-.0387	.0061	.0023	.0789	5667.
.2490	-303.	-1076.	-1044.	-3030.	-276.	-2175.	.0203	.0315	-.0541	-.0026	.0076	.0907	5282.
.2500	-901.	-1613.	-571.	-2645.	-172.	-2025.	.0254	.0435	-.0679	-.0141	.0158	.1013	4711.
.2510	-1699.	-2152.	65.	-2182.	-60.	-1818.	.0296	.0556	-.0802	-.0279	.0266	.1104	4013.

ADLPIPE PAGE 598

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.30.

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	12	MEMBER	2	SEQUENCE	233	LOCATION	END	TYPE	RU					
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.2520	-2822.	-2660.	910.	-1606.	17.	-1569.	.0328	.0677	-.0911	-.0430	.0394	.1181	3254.	
.2530	-3868.	-3121.	1765.	-1198.	109.	-1293.	.0345	.0792	-.1003	-.0584	.0523	.1238	2495.	
.2540	-4498.	-3522.	2450.	-771.	182.	-1007.	.0348	.0899	-.1079	-.0731	.0631	.1277	1810.	
.2550	-4843.	-3799.	2987.	-449.	285.	-728.	.0336	.0995	-.1142	-.0865	.0702	.1295	1274.	
.2560	-5085.	-3885.	3420.	-234.	465.	-467.	.0310	.1079	-.1196	-.0986	.0722	.1285	987.	
.2570	-5150.	-3854.	3674.	-93.	718.	-229.	.0272	.1146	-.1241	-.1103	.0682	.1256	1072.	
.2580	-4955.	-3856.	3685.	-1.	1024.	-26.	.0224	.1195	-.1277	-.1217	.0577	.1224	1447.	
.2590	-4526.	-3862.	3461.	51.	1367.	136.	.0168	.1227	-.1304	-.1326	.0413	.1192	1942.	
.2600	-3918.	-3688.	3052.	69.	1727.	259.	.0107	.1244	-.1320	-.1425	.0205	.1141	2468.	
.2610	-3310.	-3325.	2574.	68.	2091.	345.	.0041	.1247	-.1323	-.1516	-.0023	.1069	2995.	
.2620	-2867.	-2974.	2135.	66.	2436.	388.	-.0028	.1236	-.1310	-.1603	-.0247	.0996	3485.	
.2630	-2488.	-2717.	1723.	83.	2708.	389.	-.0097	.1210	-.1279	-.1685	-.0447	.0931	3866.	
.2640	-2076.	-2408.	1326.	116.	2868.	360.	-.0166	.1175	-.1227	-.1749	-.0609	.0858	4086.	
.2650	-1808.	-1938.	1032.	136.	2927.	306.	-.0233	.1135	-.1155	-.1788	-.0723	.0768	4161.	
.2660	-1790.	-1385.	882.	124.	2896.	231.	-.0295	.1089	-.1064	-.1805	-.0788	.0668	4107.	
.2670	-1823.	-901.	779.	86.	2759.	142.	-.0351	.1037	-.0956	-.1809	-.0809	.0574	3904.	
.2680	-1778.	-535.	657.	30.	2520.	47.	-.0401	.0980	-.0832	-.1804	-.0796	.0489	3560.	
.2690	-1727.	-200.	543.	-55.	2218.	-46.	-.0444	.0922	-.0696	-.1783	-.0760	.0408	3134.	
.2700	-1631.	212.	427.	-174.	1879.	-129.	-.0481	.0866	-.0550	-.1744	-.0709	.0320	2671.	
.2710	-1335.	677.	257.	-313.	1507.	-196.	-.0512	.0814	-.0395	-.1694	-.0651	.0225	2191.	
.2720	-808.	1063.	27.	-449.	1108.	-247.	-.0540	.0765	-.0233	-.1644	-.0588	.0135	1725.	
.2730	-97.	1348.	-248.	-566.	696.	-281.	-.0564	.0720	-.0065	-.1598	-.0525	.0052	1329.	
.2740	814.	1662.	-595.	-653.	277.	-289.	-.0581	.0682	.0103	-.1551	-.0467	-.0038	1082.	
.2750	1784.	2074.	-976.	-694.	-135.	-268.	-.0592	.0655	.0269	-.1505	-.0417	-.0140	1069.	
.2760	2633.	2471.	-1334.	-680.	-528.	-220.	-.0593	.0636	.0426	-.1468	-.0373	-.0245	1255.	
.2770	3389.	2720.	-1689.	-603.	-913.	-146.	-.0585	.0624	.0573	-.1447	-.0334	-.0340	1559.	
.2780	4057.	2855.	-2038.	-472.	-1293.	-43.	-.0567	.0618	.0706	-.1436	-.0297	-.0427	1946.	
.2790	4466.	2993.	-2287.	-312.	-1646.	92.	-.0540	.0622	.0822	-.1426	-.0254	-.0514	2370.	
.2800	4568.	3150.	-2387.	-144.	-1961.	252.	-.0505	.0634	.0920	-.1410	-.0201	-.0600	2800.	
.2810	4521.	3226.	-2390.	22.	-2245.	429.	-.0466	.0651	.0997	-.1388	-.0138	-.0674	3229.	
.2820	4381.	3159.	-2311.	176.	-2491.	612.	-.0423	.0671	.1051	-.1362	-.0067	-.0725	3632.	
.2830	4084.	3002.	-2128.	300.	-2673.	789.	-.0378	.0694	.1082	-.1326	.0008	-.0753	3959.	
.2840	3688.	2837.	-1885.	381.	-2777.	946.	-.0332	.0719	.1085	-.1277	.0077	-.0760	4179.	
.2850	3304.	2656.	-1660.	422.	-2807.	1067.	-.0286	.0743	.1061	-.1217	.0130	-.0743	4283.	
.2860	2937.	2391.	-1476.	438.	-2764.	1136.	-.0241	.0765	.1010	-.1152	.0164	-.0690	4266.	
.2870	2575.	2028.	-1340.	443.	-2657.	1145.	-.0198	.0782	.0933	-.1086	.0181	-.0598	4135.	
.2880	2265.	1624.	-1262.	433.	-2501.	1088.	-.0159	.0794	.0833	-.1016	.0185	-.0471	3901.	
.2890	1995.	1237.	-1218.	399.	-2309.	962.	-.0125	.0801	.0715	-.0940	.0184	-.0314	3578.	

ADLPIPE PAGE 599

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.30.

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

.2790	4466.	2993.	-2287.	-312.	-1646.	92.	-.0540	.0622	.0822	-.1426	-.0254	-.0514	2370.
.2800	4568.	3150.	-2387.	-144.	-1961.	252.	-.0505	.0634	.0920	-.1410	-.0201	-.0600	2800.
.2810	4521.	3226.	-2390.	72.	-2245.	429.	-.0466	.0651	.0997	-.1388	-.0138	-.0674	3229.
.2820	4381.	3159.	-2311.	176.	-2491.	612.	-.0423	.0671	.1051	-.1362	-.0067	-.0725	3632.
.2830	4084.	3032.	-2128.	300.	-2673.	789.	-.0378	.0694	.1082	-.1326	.0008	-.0753	3959.
.2840	3688.	2837.	-1885.	381.	-2777.	946.	-.0332	.0719	.1085	-.1277	.0077	-.0760	4179.
.2850	3304.	2656.	-1660.	422.	-2807.	1067.	-.0286	.0743	.1061	-.1217	.0130	-.0743	4283.
.2860	2937.	2391.	-1476.	438.	-2764.	1136.	-.0241	.0765	.1010	-.1152	.0164	-.0690	4266.
.2870	2575.	2028.	-1340.	443.	-2657.	1145.	-.0198	.0782	.0933	-.1086	.0181	-.0598	4135.
.2880	2265.	1624.	-1262.	433.	-2501.	1088.	-.0159	.0794	.0833	-.1016	.0185	-.0471	3901.
.2890	1995.	1231.	-1218.	399.	-2309.	962.	-.0125	.0801	.0715	-.0940	.0184	-.0314	3578.

ADLPIPE PAGE 599

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.30.

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	12	MEMBER	2	SEQUENCE	233	LOCATION	END	TYPE	RU						
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)				DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
.2900	1729.	881.	-1171.	342.	-2095.	768.		-.0099	.0802	.0581	-.0850	.0187	-.0132	3189.	
.2910	1496.	533.	-1121.	272.	-1877.	516.		-.0081	.0796	.0437	-.0770	.0201	.0073	2776.	
.2920	1284.	175.	-1051.	195.	-1656.	213.		-.0071	.0785	.0284	-.0675	.0226	.0296	2375.	
.2930	975.	-175.	-906.	107.	-1416.	-128.		-.0069	.0767	.0126	-.0573	.0263	.0529	2013.	
.2940	536.	-471.	-674.	5.	-1143.	-492.		-.0073	.0745	-.0037	-.0461	.0307	.0759	1757.	
.2950	56.	-707.	-398.	-102.	-837.	-860.		-.0083	.0720	-.0201	-.0341	.0349	.0976	1702.	
.2960	-430.	-924.	-94.	-204.	-490.	-1215.		-.0098	.0692	-.0365	-.0214	.0381	.1176	1873.	
.2970	-963.	-1141.	264.	-284.	-84.	-1538.		-.0117	.0663	-.0525	-.0083	.0398	.1354	2213.	
.2980	-1526.	-1328.	676.	-330.	388.	-1809.		-.0139	.0634	-.0680	.0049	.0396	.1501	2654.	
.2990	-2046.	-1478.	1115.	-329.	915.	-2011.		-.0163	.0607	-.0825	.0180	.0374	.1613	3154.	
.3000	-2477.	-1628.	1557.	-276.	1480.	-2134.		-.0188	.0582	-.0957	.0304	.0330	.1691	3689.	
.3010	-2766.	-1790.	1970.	-166.	2059.	-2174.		-.0212	.0560	-.1071	.0416	.0267	.1734	4236.	
.3020	-2975.	-1936.	2328.	10.	2624.	-2129.		-.0233	.0540	-.1166	.0512	.0187	.1740	4773.	
.3030	-3103.	-2057.	2622.	252.	3150.	-2004.		-.0247	.0522	-.1238	.0592	.0094	.1712	5285.	
.3040	-3207.	-2181.	2839.	554.	3604.	-1809.		-.0253	.0505	-.1286	.0652	-.0003	.1654	5749.	
.3050	-3250.	-2307.	2941.	897.	3945.	-1561.		-.0248	.0488	-.1308	.0691	-.0098	.1570	6124.	
.3060	-3229.	-2396.	2919.	1253.	4143.	-1272.		-.0232	.0468	-.1302	.0713	-.0180	.1460	6372.	
.3070	-3207.	-2417.	2809.	1595.	4187.	-958.		-.0205	.0446	-.1268	.0723	-.0240	.1329	6472.	
.3080	-3211.	-2378.	2640.	1903.	4073.	-634.		-.0168	.0419	-.1206	.0724	-.0270	.1181	6413.	
.3090	-3202.	-2306.	2420.	2159.	3803.	-313.		-.0124	.0384	-.1116	.0719	-.0265	.1025	6193.	
.3100	-3163.	-2207.	2170.	2344.	3394.	-8.		-.0075	.0340	-.1002	.0711	-.0225	.0867	5826.	
.3110	-3098.	-2059.	1914.	2444.	2877.	268.		-.0025	.0287	-.0866	.0706	-.0154	.0709	5345.	
.3120	-2976.	-1838.	1655.	2456.	2289.	507.		.0026	.0224	-.0713	.0708	-.0063	.0552	4796.	
.3130	-2773.	-1562.	1392.	2392.	1665.	701.		.0074	.0151	-.0547	.0718	.0040	.0400	4234.	
.3140	-2500.	-1272.	1136.	2269.	1044.	843.		.0117	.0068	-.0374	.0736	.0143	.0259	3724.	
.3150	-2133.	-988.	881.	2100.	456.	931.		.0153	-.0026	-.0198	.0763	.0237	.0132	3308.	
.3160	-1658.	-683.	622.	1895.	-77.	965.		.0181	-.0128	-.0022	.0802	.0314	.0015	3005.	
.3170	-1090.	-334.	366.	1663.	-542.	948.		.0200	-.0237	.0151	.0856	.0373	-.0095	2810.	
.3180	-436.	33.	112.	1415.	-934.	886.		.0209	-.0352	.0318	.0923	.0411	-.0197	2702.	
.3190	288.	375.	-140.	1161.	-1259.	786.		.0211	-.0471	.0476	.1003	.0432	-.0288	2662.	
.3200	1046.	679.	-391.	906.	-1524.	655.		.0206	-.0593	.0625	.1092	.0437	-.0368	2670.	
.3210	1768.	971.	-627.	648.	-1739.	502.		.0196	-.0715	.0763	.1189	.0431	-.0443	2715.	
.3220	2430.	1271.	-861.	383.	-1920.	337.		.0184	-.0836	.0889	.1293	.0417	-.0515	2806.	
.3230	3052.	1558.	-1119.	110.	-1086.	167.		.0172	-.0954	.1001	.1400	.0398	-.0584	2960.	
.3240	3596.	1810.	-1398.	-166.	-2247.	0.		.0162	-.1067	.1099	.1503	.0375	-.0649	3182.	
.3250	3987.	2030.	-1666.	-439.	-2401.	-155.		.0157	-.1173	.1182	.1595	.0354	-.0713	3454.	
.3260	4240.	2237.	-1921.	-702.	-2549.	-290.		.0157	-.1271	.1250	.1674	.0335	-.0777	3757.	
.3270	4398.	2434.	-2165.	-945.	-2690.	-397.		.0162	-.1359	.1303	.1735	.0319	-.0844	4067.	

ADLPIPE PAGE 600

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.30.

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	-1090.	-334.	366.	1663.	-542.	948.	.200	-.0128	-.0022	.0856	.0373	-.0095	2810.
.3180	-436.	33.	112.	1415.	-934.	386.	.209	-.0352	.0318	.0923	.0411	-.0197	2702.
.3190	238.	375.	-140.	1161.	-1259.	786.	.0211	-.0471	.0476	.1003	.0432	-.0288	2662.
.3200	1046.	679.	-391.	906.	-1524.	655.	.0206	-.0593	.0625	.1092	.0437	-.0368	2670.
.3210	1766.	971.	-627.	648.	-1739.	502.	.0196	-.0715	.0763	.1189	.0431	-.0443	2715.
.3220	2430.	1271.	-861.	387.	-1920.	337.	.0184	-.0836	.0889	.1293	.0417	-.0515	2806.
.3230	3052.	1558.	-1119.	110.	-2066.	167.	.0172	-.0954	.1001	.1400	.0398	-.0584	2960.
.3240	3596.	1810.	-1398.	-166.	-2247.	0.	.0162	-.1067	.1099	.1503	.0375	-.0649	3182.
.3250	3987.	2030.	-1666.	-439.	-2401.	-155.	.0157	-.1173	.1182	.1595	.0354	-.0713	3454.
.3260	4240.	2237.	-1921.	-702.	-2549.	-290.	.0157	-.1271	.1250	.1674	.0335	-.0777	3757.
.3270	4398.	2434.	-2165.	-945.	-2690.	-397.	.0162	-.1359	.1303	.1735	.0319	-.0844	4067.

ADLPIPE PAGE 600

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.30.

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	12	MEMBER	2	SEQUENCE	233	LOCATION	END	TYPE	RU					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	4459.	2658.	-2374.	-1156.	-2816.	-466.		.0172	-.1435	.1341	.1775	.0308	-.0910	4349.
.3290	4429.	2740.	-2528.	-1319.	-2913.	-492.		.0186	-.1497	.1364	.1788	.0300	-.0976	4569.
.3300	4327.	2818.	-2615.	-1422.	-2967.	-469.		.0204	-.1546	.1370	.1773	.0295	-.1041	4694.
.3310	4138.	2843.	-2619.	-1454.	-2965.	-392.		.0224	-.1580	.1361	.1730	.0288	-.1103	4698.
.3320	3876.	2814.	-2540.	-1411.	-2898.	-262.		.0246	-.1598	.1335	.1662	.0278	-.1163	4568.
.3330	3590.	2720.	-2406.	-1290.	-2766.	-81.		.0269	-.1603	.1292	.1573	.0259	-.1219	4312.
.3340	3276.	2550.	-2218.	-1102.	-2565.	145.		.0293	-.1594	.1232	.1468	.0230	-.1270	3949.
.3350	2871.	2312.	-1956.	-861.	-2292.	404.		.0318	-.1572	.1154	.1352	.0192	-.1315	3504.
.3360	2382.	2026.	-1630.	-583.	-1955.	686.		.0342	-.1541	.1061	.1233	.0145	-.1356	3040.
.3370	1875.	1702.	-1276.	-287.	-1575.	977.		.0364	-.1500	.0954	.1119	.0090	-.1390	2650.
.3380	1355.	1347.	-904.	5.	-1168.	1263.		.0386	-.1452	.0835	.1015	.0032	-.1416	2430.
.3390	798.	982.	-510.	270.	-743.	1529.		.0404	-.1401	.0706	.0925	-.0027	-.1432	2431.
.3400	221.	627.	-111.	493.	-314.	1760.		.0421	-.1347	.0569	.0849	-.0084	-.1438	2620.
.3410	-344.	280.	269.	660.	106.	1945.		.0435	-.1293	.0427	.0788	-.0140	-.1428	2905.
.3420	-870.	-64.	608.	767.	507.	2073.		.0447	-.1242	.0280	.0738	-.0195	-.1398	3203.
.3430	-1329.	-388.	885.	813.	882.	2137.		.0458	-.1194	.0133	.0697	-.0250	-.1347	3461.
.3440	-1710.	-682.	1095.	796.	1228.	2133.		.0469	-.1151	-.0014	.0663	-.0303	-.1274	3654.
.3450	-2032.	-957.	1253.	718.	1543.	2062.		.0479	-.1114	-.0158	.0631	-.0352	-.1177	3777.
.3460	-2295.	-1225.	1368.	582.	1822.	1926.		.0489	-.1083	-.0296	.0599	-.0393	-.1057	3833.
.3470	-2465.	-1476.	1434.	392.	2048.	1731.		.0499	-.1057	-.0425	.0568	-.0422	-.0917	3828.
.3480	-2552.	-1696.	1466.	155.	2213.	1489.		.0509	-.1037	-.0541	.0539	-.0433	-.0762	3774.
.3490	-2617.	-1886.	1495.	-125.	2314.	1210.		.0519	-.1020	-.0643	.0514	-.0423	-.0598	3692.
.3500	-2700.	-2054.	1539.	-438.	2346.	906.		.0530	-.1007	-.0729	.0493	-.0388	-.0429	3605.
.3510	-2791.	-2202.	1586.	-772.	2301.	591.		.0542	-.0996	-.0796	.0477	-.0330	-.0264	3528.
.3520	-2893.	-2329.	1629.	-1115.	2179.	279.		.0554	-.0986	-.0845	.0468	-.0251	-.0108	3480.
.3530	-3014.	-2423.	1662.	-1453.	1991.	-19.		.0565	-.0975	-.0873	.0465	-.0157	.0031	3481.
.3540	-3147.	-2468.	1679.	-1768.	1749.	-290.		.0577	-.0962	-.0883	.0469	-.0056	.0148	3537.
.3550	-3275.	-2471.	1673.	-2046.	1473.	-525.		.0586	-.0946	-.0873	.0477	.0044	.0237	3637.
.3560	-3366.	-2448.	1634.	-2270.	1178.	-716.		.0592	-.0927	-.0844	.0486	.0136	.0298	3751.
.3570	-3360.	-2390.	1542.	-2472.	879.	-858.		.0593	-.0904	-.0798	.0494	.0211	.0327	3849.
.3580	-3220.	-2270.	1390.	-2520.	592.	-946.		.0589	-.0875	-.0734	.0498	.0265	.0323	3903.
.3590	-2962.	-2085.	1189.	-2555.	332.	-978.		.0578	-.0841	-.0657	.0495	.0294	.0286	3892.
.3600	-2603.	-1861.	950.	-2513.	109.	-956.		.0560	-.0801	-.0565	.0482	.0296	.0221	3801.
.3610	-2138.	-1622.	673.	-2400.	-79.	-882.		.0535	-.0757	-.0463	.0454	.0274	.0134	3625.
.3620	-1586.	-1365.	369.	-2252.	-235.	-760.		.0504	-.0709	-.0352	.0411	.0231	.0028	3373.
.3630	-997.	-1076.	63.	-2059.	-365.	-596.		.0468	-.0657	-.0233	.0354	.0175	-.0092	3071.
.3640	-412.	-760.	-220.	-1846.	-477.	-397.		.0426	-.0601	-.0110	.0283	.0114	-.0223	2750.
.3650	141.	-439.	-464.	-1621.	-583.	-174.		.0380	-.0542	.0017	.0199	.0055	-.0356	2445.

ADLPIPE PAGE 601

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.30.

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	-2147.	-2468.	1679.	-1788.	1749.	-290.	.0577	-.0962	-.0883	.0469	-.0056	.0148	3537.
.3550	-3275.	-2471.	1673.	-2046.	1473.	-525.	.0586	-.0946	-.0873	.0477	.0044	.0237	3637.
.3560	-3366.	-2448.	1634.	-2270.	1178.	-716.	.0592	-.0927	-.0844	.0486	.0136	.0298	3751.
.3570	-3760.	-2390.	1542.	-2472.	879.	-858.	.0593	-.0904	-.0798	.0494	.0211	.0327	3849.
.3580	-3220.	-2270.	1390.	-2520.	592.	-946.	.0589	-.0875	-.0734	.0498	.0265	.0323	3903.
.3590	-2962.	-2085.	1189.	-2555.	337.	-978.	.0578	-.0841	-.0657	.0495	.0294	.0286	3892.
.3600	-2603.	-1861.	950.	-2513.	109.	-956.	.0560	-.0801	-.0565	.0482	.0296	.0221	3801.
.3610	-2138.	-1622.	673.	-2408.	-79.	-882.	.0535	-.0757	-.0463	.0454	.0274	.0134	3625.
.3620	-1586.	-1365.	369.	-2252.	-235.	-760.	.0504	-.0709	-.0352	.0411	.0231	.0028	3373.
.3630	-997.	-1076.	63.	-2059.	-365.	-596.	.0468	-.0657	-.0233	.0354	.0175	-.0092	3071.
.3640	-412.	-760.	-220.	-1846.	-477.	-397.	.0426	-.0601	-.0110	.0283	.0114	-.0223	2750.
.3650	141.	-439.	-464.	-1621.	-583.	-174.	.0380	-.0542	.0017	.0199	.0055	-.0356	2445.

ADLPIPE PAGE 601

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.30.

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	12	MEMBER	2	SEQUENCE	233	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ									STRESS
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.3660	632.	-130.	-655.	-1391.	-695.	65.	.0331	-.0482	.0145	.0104	.0006	-.0486	2199.		
.3670	1045.	174.	-789.	-1165.	-820.	307.	.0278	-.0420	.0272	.0001	-.0029	-.0610	2059.		
.3680	1283.	489.	-876.	-947.	-962.	543.	.0224	-.0357	.0394	-.0106	-.0049	-.0726	2056.		
.3690	1641.	813.	-925.	-737.	-1118.	763.	.0169	-.0292	.0510	-.0215	-.0055	-.0828	2177.		
.3700	1812.	1120.	-947.	-531.	-1280.	956.	.0113	-.0227	.0615	-.0325	-.0051	-.0914	2378.		
.3710	1921.	1389.	-966.	-325.	-1439.	1116.	.0057	-.0163	.0707	-.0433	-.0044	-.0978	2613.		
.3720	2002.	1622.	-1006.	-118.	-1584.	1237.	.0000	-.0098	.0783	-.0537	-.0039	-.1019	2843.		
.3730	2071.	1835.	-1074.	87.	-1700.	1316.	-.0056	-.0033	.0842	-.0634	-.0042	-.1037	3039.		
.3740	2140.	2025.	-1170.	283.	-1774.	1351.	-.0113	.0032	.0881	-.0719	-.0056	-.1033	3175.		
.3750	2234.	2172.	-1296.	465.	-1797.	1342.	-.0171	.0096	.0900	-.0793	-.0084	-.1004	3235.		
.3760	2361.	2265.	-1443.	624.	-1764.	1290.	-.0229	.0160	.0898	-.0853	-.0124	-.0951	3210.		
.3770	2504.	2319.	-1593.	754.	-1670.	1198.	-.0288	.0223	.0876	-.0897	-.0175	-.0875	3091.		
.3780	2645.	2350.	-1731.	845.	-1516.	1070.	-.0345	.0287	.0835	-.0925	-.0233	-.0780	2881.		
.3790	2768.	2350.	-1842.	894.	-1310.	912.	-.0401	.0352	.0775	-.0939	-.0295	-.0667	2584.		
.3800	2838.	2300.	-1904.	899.	-1060.	729.	-.0453	.0416	.0699	-.0940	-.0355	-.0535	2217.		
.3810	2829.	2119.	-1901.	863.	-780.	526.	-.0501	.0482	.0609	-.0933	-.0405	-.0386	1803.		
.3820	2733.	2066.	-1826.	795.	-485.	311.	-.0542	.0549	.0508	-.0919	-.0441	-.0226	1387.		
.3830	2550.	1912.	-1678.	705.	-190.	92.	-.0577	.0618	.0397	-.0901	-.0459	-.0056	1040.		
.3840	2278.	1733.	-1453.	607.	93.	-124.	-.0603	.0691	.0282	-.0881	-.0456	.0120	885.		
.3850	1927.	1518.	-1158.	515.	354.	-332.	-.0622	.0765	.0163	-.0865	-.0430	.0302	999.		
.3860	1518.	1267.	-812.	439.	584.	-525.	-.0631	.0843	.0042	-.0853	-.0383	.0485	1271.		
.3870	1076.	994.	-439.	389.	778.	-697.	-.0631	.0924	-.0077	-.0845	-.0319	.0665	1574.		
.3880	621.	710.	-64.	370.	933.	-844.	-.0622	.1008	-.0194	-.0841	-.0244	.0839	1853.		
.3890	170.	411.	289.	386.	1049.	-964.	-.0605	.1095	-.0307	-.0840	-.0163	.1005	2084.		
.3900	-272.	83.	605.	434.	1129.	-1054.	-.0579	.1183	-.0416	-.0843	-.0080	.1161	2266.		
.3910	-698.	-266.	375.	509.	1177.	-1115.	-.0547	.1271	-.0519	-.0845	.0000	.1303	2401.		
.3920	-1088.	-611.	1092.	603.	1198.	-1147.	-.0510	.1358	-.0616	-.0845	.0075	.1430	2493.		
.3930	-1426.	-938.	1253.	708.	1197.	-1152.	-.0470	.1443	-.0706	-.0840	.0141	.1540	2551.		
.3940	-1720.	-1257.	1373.	815.	1181.	-1133.	-.0429	.1524	-.0787	-.0829	.0200	.1635	2583.		
.3950	-1986.	-1578.	1467.	914.	1160.	-1097.	-.0389	.1599	-.0860	-.0814	.0250	.1716	2599.		
.3960	-2220.	-1884.	1541.	1002.	1136.	-1051.	-.0351	.1665	-.0923	-.0797	.0293	.1784	2604.		
.3970	-2408.	-2149.	1592.	1074.	1113.	-1002.	-.0317	.1723	-.0975	-.0777	.0326	.1839	2602.		
.3980	-2550.	-2361.	1623.	1130.	1094.	-957.	-.0288	.1769	-.1017	-.0755	.0350	.1882	2601.		
.3990	-2662.	-2526.	1641.	1172.	1084.	-925.	-.0265	.1804	-.1049	-.0734	.0364	.1916	2606.		
.4000	-2755.	-2649.	1654.	1199.	1081.	-913.	-.0247	.1825	-.1069	-.0716	.0371	.1942	2620.		

ADLPIPE PAGE 602

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.30.

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

.3930	-1426.	-938.	1253.	708.	1197.	-1152.	-.0470	.1443	-.0706	-.0840	.0141	.1540	2551.
.3940	-1720.	-1257.	1373.	815.	1181.	-1133.	-.0429	.1524	-.0707	-.0829	.0200	.1635	2583.
.3950	-1986.	-1578.	1467.	914.	1160.	-1097.	-.0389	.1599	-.0860	-.0814	.0250	.1716	2599.
.3960	-2220.	-1884.	1541.	1002.	1136.	-1051.	-.0351	.1665	-.0923	-.0797	.0293	.1784	2604.
.3970	-2408.	-2149.	1592.	1074.	1113.	-1002.	-.0317	.1723	-.0975	-.0777	.0326	.1839	2602.
.3980	-2550.	-2361.	1623.	1130.	1094.	-957.	-.0288	.1769	-.1017	-.0755	.0350	.1882	2601.
.3990	-2662.	-2526.	1641.	1172.	1084.	-925.	-.0265	.1804	-.1049	-.0734	.0364	.1916	2606.
.4000	-2755.	-2649.	1654.	1199.	1081.	-913.	-.0247	.1825	-.1069	-.0716	.0371	.1942	2620.

ADLPIPE PAGE 602

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.30.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

MAXIMUM VALUE OF STRESS OCCURS AT

TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
.0990	3156.	1102.	-2191.	-5509.	-6719.	-4123.	.0609	-.0811	.1127	.1217	.1650	.0446	13584.

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)
12	3	843					0.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.
							.0010	1.	-1.	-3.	1.	-1.	-0.	.0000	-.0000	-.0000	.0000	-.0000	-.0000	1.
							.0020	-1.	-7.	-16.	4.	-4.	-3.	.0000	-.0000	-.0001	.0000	-.0001	.0000	9.
							.0030	-34.	-23.	-28.	3.	-16.	-14.	.0001	-.0000	-.0004	.0001	-.0001	.0002	30.
							.0040	-109.	-40.	-29.	-11.	-35.	-34.	.0002	-.0000	-.0009	.0003	-.0001	.0005	71.
							.0050	-216.	-44.	-24.	-41.	-65.	-61.	.0003	.0000	-.0017	.0006	.0001	.0009	139.
							.0060	-382.	-44.	-2.	-86.	-109.	-95.	.0003	.0001	-.0028	.0009	.0006	.0016	238.
							.0070	-633.	-70.	42.	-141.	-170.	-154.	.0003	.0003	-.0044	.0013	.0014	.0029	380.
							.0080	-1038.	-134.	114.	-210.	-248.	-250.	.0006	.0006	-.0071	.0018	.0025	.0051	579.
							.0090	-1795.	-199.	293.	-310.	-350.	-382.	.0016	.0010	-.0111	.0022	.0044	.0084	853.
							.0100	-2813.	-252.	549.	-451.	-480.	-544.	.0033	.0016	-.0163	.0018	.0070	.0125	1206.
							.0110	-3727.	-359.	740.	-624.	-632.	-745.	.0060	.0023	-.0227	.0003	.0098	.0180	1638.
							.0120	-4375.	-558.	820.	-808.	-803.	-982.	.0095	.0031	-.0296	-.0026	.0127	.0251	2125.
							.0130	-4927.	-782.	900.	-979.	-998.	-1217.	.0137	.0041	-.0369	-.0068	.0164	.0332	2618.
							.0140	-5627.	-977.	1144.	-1131.	-1224.	-1421.	.0182	.0054	-.0441	-.0126	.0223	.0418	3093.
							.0150	-6576.	-1205.	1652.	-1274.	-1480.	-1609.	.0228	.0067	-.0509	-.0205	.0318	.0511	3574.
							.0160	-7979.	-1506.	2528.	-1411.	-1752.	-1796.	.0272	.0080	-.0574	-.0297	.0457	.0615	4065.
							.0170	-9282.	-1855.	3503.	-1527.	-1984.	-1980.	.0313	.0093	-.0641	-.0390	.0623	.0726	4508.
							.0180	-9233.	-2281.	3958.	-1613.	-2104.	-2183.	.0356	.0108	-.0709	-.0465	.0771	.0842	4851.
							.0190	-7401.	-2810.	3539.	-1665.	-2080.	-2414.	.0407	.0125	-.0779	-.0511	.0862	.0956	5079.
							.0200	-3722.	-3384.	1933.	-1642.	-1832.	-2650.	.0483	.0143	-.0863	-.0530	.0841	.1048	5107.
							.0210	-366.	-3747.	-53.	-1514.	-1373.	-2801.	.0596	.0159	-.0971	-.0547	.0724	.1087	4897.
							.0220	817.	-3891.	-1273.	-1299.	-946.	-2041.	.0718	.0164	-.1069	-.0597	.0596	.1056	4611.
							.0230	1701.	-4347.	-2247.	-1028.	-576.	-2877.	.0823	.0150	-.1120	-.0666	.0454	.0988	4392.
							.0240	218.	-4679.	-1968.	-710.	-288.	-2716.	.0897	.0127	-.1128	-.0699	.0379	.0864	3986.
							.0250	-1281.	-4391.	-1354.	-350.	35.	-2246.	.0938	.0104	-.1100	-.0645	.0326	.0672	3211.
							.0260	3776.	-4227.	-3236.	-61.	553.	-1772.	.0936	.0069	-.1018	-.0506	.0127	.0467	2623.
							.0270	9875.	-4312.	-5381.	-72.	992.	-1308.	.0871	.0017	-.0873	-.0338	-.0104	.0240	2321.
							.0280	8582.	-3426.	-4430.	-412.	1405.	-453.	.0775	-.0041	-.0729	-.0186	-.0189	-.0088	2165.
							.0290	4677.	-1756.	-2400.	-751.	2178.	617.	.0687	-.0114	-.0622	-.0066	-.0247	-.0476	3368.
							.0300	1010.	-1427.	-452.	-773.	2918.	1127.	.0575	-.0232	-.0507	.0043	-.0345	-.0764	4551.
							.0310	-1644.	-2371.	773.	-649.	3477.	1197.	.0434	-.0377	-.0376	.0185	-.0475	-.0966	5274.
							.0320	1453.	-2183.	-582.	-928.	4096.	1555.	.0284	-.0490	-.0222	.0404	-.0696	-.1220	6325.

.0330	3237.	534.	-900.	-1791.	4411.	2482.	.0124	-.0551	-.0044	.0655	-.0799	-.1574	7584.
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.0170	-9223.	-2281.	1957.	-1613.	-2104.	-2183.	.7356	.0108	-.0709	-.0465	.0771	.0842	4508.
.0180	-7401.	-2810.	3539.	-1665.	-2080.	-2414.	.407	.0125	-.0779	-.0511	.0962	.0956	5079.
.0200	-3722.	-3384.	1933.	-1642.	-1832.	-2650.	.0483	.0143	-.0863	-.0530	.0841	.1048	5107.
.0210	-366.	-3747.	-57.	-1514.	-1373.	-2801.	.0596	.0159	-.0971	-.0547	.0724	.1087	4897.
.0220	817.	-3891.	-1273.	-1299.	-946.	-2041.	.0718	.0164	-.1069	-.0597	.0596	.1056	4611.
.0230	1701.	-4347.	-2247.	-1028.	-576.	-2877.	.0823	.0150	-.1120	-.0666	.0454	.0988	4392.
.0240	218.	-4679.	-1968.	-710.	-288.	-2716.	.0897	.0127	-.1128	-.0699	.0379	.0864	3986.
.0250	-1281.	-4391.	-1354.	-350.	35.	-2246.	.0938	.0104	-.1100	-.0645	.0326	.0672	3211.
.0260	3776.	-4227.	-3236.	-61.	552.	-1772.	.0936	.0069	-.1018	-.0506	.0127	.0467	2623.
.0270	9875.	-4312.	-5381.	-72.	992.	-1308.	.0871	.0017	-.0873	-.0338	-.0104	.0240	2321.
.0280	8582.	-3426.	-4430.	-412.	1405.	-453.	.0775	-.0041	-.0729	-.0186	-.0189	-.0088	2165.
.0290	4677.	-1756.	-2400.	-751.	2178.	617.	.0687	-.0114	-.0622	-.0066	-.0247	-.0476	3368.
.0300	1010.	-1427.	-452.	-773.	2918.	1127.	.0575	-.0232	-.0507	.0043	-.0345	-.0764	4551.
.0310	-1644.	-2371.	773.	-649.	3477.	1197.	.0434	-.0377	-.0276	.0185	-.0475	-.0966	5274.
.0320	1453.	-2183.	-582.	-928.	4096.	1555.	.0284	-.0490	-.0222	.0404	-.0696	-.1220	6325.

.0330	3237.	534.	-908.	-1791.	4411.	2482.	.0124	-.0551	-.0044	.0655	-.0799	-.1574	7584.
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ADLPIPE PAGE 603

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.30.

S/RV PIPING KEWAUNLE 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

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	12	MEMBER	3	SEQUENCE	843	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	-1785.	3545.	2159.	-2563.	4062.	3353.		-.0057	-.0613	.0161	.0813	-.0554	-.1897	8273.	
.0350	-5112.	3878.	4374.	-2468.	3447.	7454.		-.0246	-.0725	.0391	.0818	-.0496	-.2023	7724.	
.0360	-1510.	2241.	3260.	-1681.	2957.	7962.		-.0419	-.0855	.0633	.0761	-.0498	-.1964	6371.	
.0370	534.	2362.	2699.	-956.	2344.	2872.		-.0574	-.0922	.0868	.0742	-.0494	-.1921	5407.	
.0380	-2845.	5548.	4357.	-486.	1479.	3679.		-.0726	-.0912	.1086	.0699	-.0393	-.2032	5643.	
.0390	-2782.	7981.	4161.	144.	864.	4346.		-.0867	-.0907	.1288	.0502	-.0397	-.2107	6262.	
.0400	3552.	6234.	754.	1162.	900.	3689.		-.0958	-.0960	.1437	.0190	-.0629	-.1889	5609.	
.0410	5360.	3894.	-1057.	2418.	967.	2766.		-.1010	-.1000	.1528	-.0069	-.0860	-.1588	5366.	
.0420	4306.	5349.	-1838.	3558.	1028.	3128.		-.1031	-.0950	.1571	-.0202	-.1067	-.1542	6847.	
.0430	8396.	7763.	-5218.	4124.	1491.	3900.		-.0998	-.0865	.1566	-.0292	-.1411	-.1581	8290.	
.0440	11904.	6834.	-8141.	3958.	1955.	3537.		-.0922	-.0824	.1535	-.0427	-.1695	-.1382	7990.	
.0450	10555.	4745.	-8374.	3544.	1821.	2795.		-.0840	-.0803	.1511	-.0571	-.1754	-.1097	6874.	
.0460	9717.	4893.	-8405.	3306.	1182.	2962.		-.0760	-.0737	.1509	-.0616	-.1690	-.0980	6488.	
.0470	11378.	5426.	-9126.	2985.	435.	3348.		-.0658	-.0640	.1515	-.0520	-.1565	-.0873	6366.	
.0480	10477.	4424.	-8168.	2363.	-487.	3105.		-.0531	-.0549	.1516	-.0356	-.1287	-.0618	5554.	
.0490	6994.	3839.	-5770.	1847.	-1715.	2901.		-.0398	-.0460	.1508	-.0244	-.0893	-.0408	5428.	
.0500	5345.	3971.	-4313.	1744.	-2890.	2951.		-.0253	-.0379	.1476	-.0226	-.0533	-.0310	6333.	
.0510	4345.	2466.	-3440.	1820.	-3679.	2372.		-.0077	-.0323	.1395	-.0208	-.0240	-.0114	6697.	
.0520	1804.	435.	-1980.	1947.	-4121.	1413.		.0120	-.0266	.1265	-.0077	.0028	.0148	6739.	
.0530	252.	837.	-880.	2307.	-4323.	1163.		.0307	-.0175	.1107	.0162	.0253	.0230	7114.	
.0540	344.	1674.	-420.	2743.	-4306.	1072.		.0472	-.0097	.0935	.0422	.0451	.0237	7369.	
.0550	-164.	-465.	469.	2763.	-4117.	-57.		.0615	-.0086	.0751	.0680	.0580	.0434	7004.	
.0560	-244.	-3169.	1393.	2250.	-3861.	-1454.		.0733	-.0096	.0566	.1021	.0914	.0680	6638.	
.0570	1170.	-2779.	1613.	1456.	-3662.	-1810.		.0820	-.0066	.0383	.1512	.1112	.0711	6125.	
.0580	1326.	-1576.	1978.	479.	-3546.	-1845.		.0891	-.0035	.0189	.2092	.1292	.0684	5686.	
.0590	-291.	-3042.	2694.	-691.	-3406.	-2766.		.0959	-.0066	-.0027	.2627	.1448	.0840	6274.	
.0600	-1010.	-5401.	2800.	-1930.	-3205.	-3983.		.1016	-.0138	-.0254	.3044	.1536	.1034	7718.	
.0610	-1223.	-5839.	2551.	-3176.	-2956.	-4540.		.1054	-.0196	-.0486	.3364	.1576	.1066	8870.	
.0620	-3392.	-5287.	3011.	-4430.	-2616.	-4780.		.1080	-.0234	-.0727	.3641	.1605	.1042	9920.	
.0630	-5579.	-5285.	3447.	-5409.	-2092.	-5199.		.1092	-.0276	-.0966	.3837	.1585	.1082	11002.	
.0640	-5747.	-5349.	3186.	-5742.	-1469.	-5523.		.1068	-.0327	-.1181	.3862	.1512	.1123	11442.	
.0650	-6591.	-5345.	3528.	-5547.	-901.	-5663.		.0997	-.0386	-.1359	.3673	.1474	.1146	11269.	
.0660	-9048.	-5754.	4810.	-5260.	-311.	-5858.		.0890	-.0443	-.1506	.3351	.1469	.1219	11129.	
.0670	-9412.	-5627.	5237.	-4952.	487.	-5814.		.0764	-.0471	-.1624	.2967	.1381	.1289	10809.	
.0680	-7411.	-4208.	4462.	-4323.	1431.	-5192.		.0674	-.0464	-.1717	.2544	.1187	.1271	9755.	
.0690	-6922.	-3170.	4053.	-3269.	2368.	-4513.		.0479	-.0459	-.1795	.2044	.0973	.1251	8552.	
.0700	-7814.	-3926.	4033.	-2038.	3340.	-4317.		.0344	-.0482	-.1857	.1467	.0750	.1321	8229.	
.0710	-7315.	-4884.	3342.	-928.	4310.	-4130.		.0219	-.0499	-.1887	.0899	.0485	.1370	8533.	

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.0610	-1227.	-5235.	2151.	-3176.	-2956.	-4540.	.0054	-.0196	-.0486	.3364	.1576	.1066	8870.
.0620	-3392.	-5287.	3011.	-4420.	-2616.	-4780.	.1080	-.0234	-.0727	.3641	.1605	.1042	9920.
.0630	-5579.	-5235.	3447.	-5409.	-2092.	-5199.	.1092	-.0276	-.0966	.3837	.1585	.1082	11002.
.0640	-5747.	-5349.	3176.	-5742.	-1469.	-5523.	.1068	-.0327	-.1181	.3862	.1512	.1123	11442.
.0650	-6591.	-5345.	3528.	-5547.	-901.	-5663.	.0997	-.0386	-.1359	.3678	.1474	.1146	11269.
.0660	-9048.	-5754.	4810.	-5260.	-311.	-5258.	.0890	-.0443	-.1506	.3351	.1469	.1219	11129.
.0670	-9412.	-5627.	5237.	-4952.	487.	-5814.	.0764	-.0471	-.1624	.2967	.1381	.1289	10809.
.0680	-7411.	-4266.	4462.	-4323.	1431.	-5192.	.0674	-.0464	-.1717	.2544	.1187	.1271	9755.
.0690	-6922.	-3170.	4053.	-3269.	2368.	-4513.	.0479	-.0459	-.1795	.2044	.0973	.1251	8552.
.0700	-7314.	-3926.	4033.	-2078.	3340.	-4317.	.0344	-.0482	-.1857	.1467	.0750	.1321	8229.
.0710	-7315.	-4884.	3342.	-928.	4310.	-4170.	.0219	-.0499	-.1887	.0899	.0485	.1370	8533.

ADLPIPE PAGE 604

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.30.

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	12	MEMBER	3	SEQUENCE	843	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	-6006.	-4123.	2310.	-83.	5006.	-3302.	.0090	-.0471	-.1860	.0434	.0224	.1257	8471.		
.0730	-4746.	-2439.	1403.	520.	5320.	-2094.	-.0045	-.0408	-.1768	.0097	.0010	.1038	8109.		
.0740	-2355.	-1551.	247.	1057.	5380.	-1103.	-.0171	-.0348	-.1615	-.0163	-.0168	.0844	7899.		
.0750	-266.	-1419.	-501.	1732.	5135.	-316.	-.0285	-.0303	-.1408	-.0401	-.0272	.0672	7668.		
.0760	-748.	-1118.	-4.	2561.	4488.	585.	-.0392	-.0260	-.1153	-.0628	-.0268	.0458	7345.		
.0770	-1379.	-521.	539.	3372.	3651.	1586.	-.0482	-.0211	-.0862	-.0824	-.0247	.0206	7369.		
.0780	651.	124.	-147.	4071.	2904.	2519.	-.0542	-.0157	-.0551	-.0979	-.0304	-.0044	7909.		
.0790	2521.	969.	-892.	4799.	2215.	3411.	-.0573	-.0108	-.0239	-.1120	-.0390	-.0308	8885.		
.0800	1274.	1897.	-425.	5725.	1494.	4271.	-.0586	-.0079	.0063	-.1290	-.0432	-.0598	10307.		
.0810	-235.	2178.	143.	6739.	931.	4849.	-.0583	-.0084	.0352	-.1484	-.0480	-.0866	11800.		
.0820	629.	1861.	-156.	7471.	661.	5083.	-.0565	-.0114	.0628	-.1630	-.0577	-.1091	12798.		
.0830	1905.	2322.	-426.	7633.	530.	5405.	-.0543	-.0140	.0893	-.1655	-.0671	-.1350	13232.		
.0840	2359.	4093.	-221.	7233.	432.	6042.	-.0521	-.0156	.1140	-.1560	-.0726	-.1682	13326.		
.0850	3313.	5512.	-242.	6426.	445.	6482.	-.0488	-.0199	.1358	-.1401	-.0780	-.1972	12907.		
.0860	4273.	5200.	-427.	5309.	512.	6253.	-.0435	-.0291	.1538	-.1210	-.0842	-.2111	11609.		
.0870	4036.	4329.	-439.	3884.	465.	5732.	-.0366	-.0405	.1681	-.0962	-.0899	-.2172	9802.		
.0880	4006.	4558.	-967.	2119.	315.	5457.	-.0279	-.0500	.1788	-.0624	-.0986	-.2261	8281.		
.0890	5098.	5360.	-2300.	93.	142.	5222.	-.0170	-.0579	.1855	-.0228	-.1109	-.2340	7380.		
.0900	5504.	5344.	-3447.	-1886.	-134.	4570.	-.0044	-.0668	.1885	.0150	-.1200	-.2319	6985.		
.0910	4593.	4537.	-3954.	-3444.	-622.	3567.	.0082	-.0769	.1889	.0458	-.1210	-.2216	7058.		
.0920	4037.	3740.	-4396.	-4512.	-1283.	2506.	.0198	-.0861	.1878	.0714	-.1156	-.2083	7511.		
.0930	4382.	3249.	-4890.	-5326.	-2038.	1457.	.0300	-.0922	.1856	.0956	-.1048	-.1919	8313.		
.0940	4852.	3223.	-5083.	-6016.	-2865.	492.	.0384	-.0947	.1821	.1177	-.0877	-.1731	9438.		
.0950	5291.	3610.	-5007.	-6438.	-3721.	-316.	.0452	-.0944	.1763	.1318	-.0658	-.1537	10513.		
.0960	5390.	3502.	-4653.	-6463.	-4521.	-1204.	.0506	-.0936	.1672	.1337	-.0413	-.1290	11269.		
.0970	4516.	2315.	-3821.	-6193.	-5196.	-2344.	.0553	-.0928	.1541	.1256	-.0156	-.0945	11888.		
.0980	3434.	1136.	-2862.	-5836.	-5692.	-3347.	.0587	-.0893	.1375	.1140	.0088	-.0585	12448.		
.0990	3156.	1102.	-2191.	-5539.	-5996.	-3802.	.0602	-.0809	.1183	.1026	.0296	-.0303	12719.		
.1000	2917.	1453.	-1450.	-5328.	-6139.	-3951.	.0594	-.0694	.0972	.0895	.0484	-.0060	12767.		
.1010	1952.	941.	-330.	-5107.	-6138.	-4187.	.0563	-.0573	.0745	.0712	.0666	.0217	12736.		
.1020	1139.	-127.	713.	-4751.	-5942.	-4368.	.0511	-.0446	.0508	.0476	.0814	.0492	12392.		
.1030	966.	-764.	1391.	-4267.	-5494.	-4181.	.0444	-.0292	.0261	.0227	.0902	.0701	11464.		
.1040	629.	-923.	1970.	-3722.	-4773.	-3679.	.0371	-.0110	.0003	-.0013	.0326	.0859	10016.		
.1050	218.	-1170.	2296.	-3097.	-3783.	-3078.	.0303	.0084	-.0267	-.0274	.0870	.1003	8161.		
.1060	449.	-1799.	1974.	-2215.	-2535.	-2468.	.0244	.0271	-.0546	-.0602	.0720	.1134	5896.		
.1070	259.	-2812.	1509.	-1075.	-1168.	-1892.	.0194	.0443	-.0826	-.0990	.0516	.1251	3488.		
.1080	-285.	-4022.	870.	185.	288.	-1386.	.0165	.0604	-.1108	-.1372	.0257	.1361	2016.		
.1090	12.	-4905.	-624.	1468.	1268.	-852.	.0180	.0761	-.1402	-.1690	-.0102	.1430	3565.		

ADLPIPE PAGE 605

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.30.

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	3156.	1102.	-1191.	-5539.	-5996.	-2802.	.6602	-.0809	.1183	.1026	.0296	-.0303	12719.
.1000	2917.	1453.	-1450.	-5228.	-6139.	-2951.	.594	-.0694	.0972	.0895	.0484	-.0060	12767.
.1010	1952.	941.	-330.	-5107.	-6138.	-4187.	.0563	-.0573	.0745	.0712	.0566	.0217	12736.
.1020	1129.	-127.	717.	-4751.	-5942.	-4360.	.0511	-.0446	.0508	.0476	.0814	.0492	12392.
.1030	966.	-764.	1391.	-4267.	-5494.	-4181.	.0444	-.0292	.0261	.0227	.0902	.0701	11464.
.1040	629.	-923.	1970.	-3772.	-4770.	-3679.	.0371	-.0110	.0003	-.0013	.0926	.0859	10016.
.1050	218.	-1170.	2296.	-3097.	-3783.	-3078.	.0303	-.0084	-.0267	-.0274	.0970	.1003	8161.
.1060	449.	-1799.	1974.	-2215.	-2535.	-2468.	.0244	.0271	-.0546	-.0602	.0720	.1134	5896.
.1070	259.	-2812.	1509.	-1075.	-1168.	-1892.	.0194	.0443	-.0826	-.0990	.0516	.1251	3488.
.1080	-285.	-4002.	870.	185.	288.	-1386.	.0165	.0604	-.1108	-.1372	.0257	.1361	2016.
.1090	12.	-4905.	-624.	1468.	1260.	-852.	.0180	.0761	-.1402	-.1690	-.0102	.1430	3565.

ADLPIPE PAGE 605

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.30.

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	12	MEMBER	3	SEQUENCE	843	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	-2921.	-4625.	-506.	2618.	2963.	-20.	.0178	.0910	-.1650	-.1978	-.0329	.1372	5585.		
.1110	-4356.	-4647.	-513.	3455.	3797.	619.	.0160	.1023	-.1839	-.2240	-.0471	.1287	7304.		
.1120	-3281.	-5710.	-1038.	3901.	4500.	764.	.0137	.1094	-.1973	-.2408	-.0552	.1260	8482.		
.1130	-3807.	-5970.	-431.	4091.	4854.	988.	.0103	.1153	-.2060	-.2412	-.0506	.1174	9075.		
.1140	-6009.	-4550.	1065.	4152.	4898.	1604.	.0061	.1209	-.2112	-.2281	-.0363	.0954	9348.		
.1150	-7361.	-3589.	2152.	3979.	4918.	1913.	.0029	.1221	-.2147	-.2108	-.0220	.0745	9335.		
.1160	-8723.	-4347.	3195.	3458.	4937.	1463.	.0004	.1169	-.2166	-.1939	-.0081	.0651	8761.		
.1170	-9784.	-4820.	4074.	2695.	4925.	934.	-.0022	.1096	-.2165	-.1734	.0042	.0546	8039.		
.1180	-12491.	-3429.	5761.	1868.	4653.	911.	-.0079	.1037	-.2119	-.1453	.0218	.0330	7198.		
.1190	-11193.	-2085.	5810.	1101.	4596.	836.	-.0148	.0972	-.2035	-.1117	.0315	.0147	6779.		
.1200	-8144.	-2279.	5223.	491.	4736.	219.	-.0220	.0875	-.1924	-.0788	.0370	.0108	6732.		
.1210	-9459.	-2535.	6483.	141.	4621.	-464.	-.0304	.0765	-.1789	-.0522	.0491	.0094	6563.		
.1220	-8612.	-1720.	6580.	-67.	4566.	-773.	-.0382	.0661	-.1633	-.0345	.0527	-.0003	6542.		
.1230	-6605.	-1197.	5881.	-416.	4518.	-1169.	-.0450	.0559	-.1453	-.0228	.0490	-.0071	6618.		
.1240	-3844.	-1326.	4620.	-913.	4450.	-1768.	-.0499	.0463	-.1251	-.0124	.0388	-.0067	6885.		
.1250	-1085.	-450.	3170.	-1250.	4183.	-1956.	-.0535	.0396	-.1023	-.0030	.0254	-.0117	6757.		
.1260	-835.	1096.	2582.	-1316.	3526.	-1788.	-.0564	.0345	-.0770	.0012	.0155	-.0217	5886.		
.1270	1844.	1052.	651.	-1366.	2985.	-2002.	-.0550	.0279	-.0518	-.0029	-.0030	-.0209	5431.		
.1280	2844.	138.	-696.	-1636.	2290.	-2422.	-.0502	.0216	-.0267	-.0129	-.0202	-.0128	5245.		
.1290	3234.	970.	-1749.	-2080.	1346.	-2168.	-.0437	.0197	-.0006	-.0257	-.0351	-.0165	4650.		
.1300	4799.	2755.	-3254.	-2544.	286.	-1460.	-.0358	.0210	.0264	-.0409	-.0499	-.0265	4162.		
.1310	3939.	2870.	-3519.	-2868.	-1002.	-1168.	-.0281	.0213	.0545	-.0595	-.0544	-.0236	4598.		
.1320	4620.	1860.	-4113.	-2888.	-2249.	-1110.	-.0204	.0212	.0832	-.0804	-.0564	-.0127	5402.		
.1330	4860.	2014.	-4174.	-2640.	-3596.	-590.	-.0145	.0242	.1120	-.1012	-.0525	-.0106	6356.		
.1340	5202.	2957.	-4166.	-2382.	-4802.	195.	-.0091	.0300	.1386	-.1213	-.0478	-.0148	7576.		
.1350	5922.	3098.	-4409.	-2178.	-5654.	678.	-.0031	.0358	.1608	-.1415	-.0467	-.0140	8612.		
.1360	4899.	2883.	-3983.	-1755.	-6357.	1018.	.0017	.0410	.1786	-.1620	-.0447	-.0122	9426.		
.1370	5871.	3068.	-4487.	-979.	-6734.	1501.	.0054	.0462	.1921	-.1805	-.0492	-.0159	9843.		
.1380	5301.	2943.	-4353.	-150.	-6949.	1823.	.0065	.0510	.2013	-.1928	-.0517	-.0183	10150.		
.1390	4845.	2468.	-4189.	407.	-6893.	1937.	.0053	.0555	.2066	-.1958	-.0540	-.0179	10130.		
.1400	6248.	2893.	-4586.	687.	-6579.	2277.	.0010	.0612	.2086	-.1898	-.0575	-.0247	9882.		
.1410	6018.	3982.	-4002.	839.	-6250.	2770.	-.0074	.0670	.2074	-.1775	-.0538	-.0377	9729.		
.1420	6719.	4107.	-3718.	932.	-5599.	2887.	-.0171	.0703	.2012	-.1665	-.0507	-.0448	8994.		
.1430	6374.	3417.	-3034.	1000.	-4746.	2663.	-.0275	.0718	.1899	-.1382	-.0463	-.0451	7816.		
.1440	6162.	3498.	-2547.	1064.	-3735.	2642.	-.0383	.0743	.1734	-.1108	-.0441	-.0497	6635.		
.1450	6205.	4221.	-2340.	1056.	-2605.	2782.	-.0489	.0775	.1525	-.0821	-.0447	-.0578	5585.		
.1460	4474.	4145.	-1502.	934.	-1471.	2583.	-.0591	.0792	.1277	-.0565	-.0429	-.0579	4401.		
.1470	4809.	3284.	-1627.	852.	-123.	2092.	-.0672	.0795	.0993	-.0353	-.0457	-.0497	3195.		

ADLPIPE PAGE 606

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.30.

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