

50-305

RESPONSE TO NUREG-0737 ITEM II.D.1

Docket # *50-305*

Control # *8403280048*

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

.0130	-127.	-288.	47.	1348.	-1389.	-233.	.0051	.0085	-.0212	-.0070	.0349	.0087	430.
.0140	-218.	-92.	711.	1660.	103.	-275.	.0142	.0158	-.0327	-.0208	.0451	.0015	379.
.0160	-838.	77.	-348.	1801.	865.	-257.	.0200	.0203	-.0379	-.0305	.0480	-.0046	448.
.0170	-1874.	377.	-1655.	1782.	1496.	-69.	.0267	.0252	-.0417	-.0413	.0502	-.0120	518.
.0180	-3004.	837.	-2920.	1536.	1981.	344.	.0349	.0301	-.0434	-.0522	.0524	-.0199	563.
.0190	-3550.	1347.	-3660.	1103.	2374.	875.	.0451	.0344	-.0425	-.0618	.0550	-.0265	614.
.0200	-3373.	1719.	-3358.	612.	2193.	1310.	.0576	.0375	-.0390	-.0682	.0599	-.0296	584.
.0210	-2543.	1654.	-2009.	414.	1347.	1311.	.0724	.0388	-.0338	-.0702	.0687	-.0261	428.
.0220	1342.	846.	54.	906.	2459.	549.	.0890	.0382	-.0282	-.0679	.0753	-.0148	596.
.0230	6664.	-509.	2025.	1839.	4953.	-801.	.1043	.0366	-.0229	-.0637	.0768	-.0003	1189.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.30.

S/RV PIPING KEWAUNEE GKWDRF 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	29	MEMBER	2	SEQUENCE	844	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)		
.0240	9194.	-1741.	3096.	2352.	5599.	-2111.	.1145	.0352	-.0179	-.0602	.0733	.0096	1430.		
.0250	6981.	-2141.	2994.	1731.	2960.	-2565.	.1184	.0350	-.0122	-.0584	.0689	.0110	953.		
.0260	5081.	-1683.	2629.	243.	1151.	-1840.	.1191	.0364	-.0054	-.0574	.0546	.0087	486.		
.0270	10010.	-1255.	3261.	-988.	4720.	-757.	.1178	.0385	.0029	-.0570	.0524	.0102	1086.		
.0280	11812.	-1494.	3563.	-1394.	5429.	-372.	.1101	.0405	.0125	-.0570	.0386	.0155	1250.		
.0290	2091.	-1868.	2244.	-1584.	-2935.	-356.	.0948	.0423	.0234	-.0567	.0347	.0194	746.		
.0300	-1468.	-1485.	2602.	-2393.	-7135.	662.	.0793	.0438	.0338	-.0549	.0293	.0195	1681.		
.0310	4084.	-489.	4602.	-3645.	-4186.	2508.	.0658	.0444	.0423	-.0496	.0198	.0178	1355.		
.0320	6015.	104.	5352.	-4455.	-2752.	3574.	.0495	.0430	.0474	-.0398	.0128	.0174	1411.		
.0330	3059.	-406.	4551.	-4189.	-4115.	2938.	.0289	.0390	.0491	-.0275	.0040	.0204	1461.		
.0340	2250.	-1449.	3504.	-3248.	-3371.	1520.	.0062	.0335	.0477	-.0160	-.0127	.0231	1095.		
.0350	1559.	-1799.	1870.	-2710.	-1735.	906.	-.0174	.0279	.0444	-.0071	-.0296	.0183	744.		
.0360	-2167.	-991.	-630.	-3101.	-1704.	1693.	-.0415	.0227	.0403	-.0005	-.0395	.0050	873.		
.0370	-3597.	266.	-2461.	-3819.	-441.	3093.	-.0636	.0176	.0364	.0050	-.0492	-.0086	1098.		
.0380	-1365.	878.	-2959.	-3752.	2124.	3699.	-.0837	.0113	.0342	.0108	-.0656	-.0152	1264.		
.0390	-3733.	453.	-3566.	-2431.	12.	2887.	-.1040	.0033	.0344	.0163	-.0824	-.0170	840.		
.0400	-12095.	-83.	-4688.	-752.	-6906.	1896.	-.1225	-.0056	.0342	.0224	-.0883	-.0201	1602.		
.0410	-10580.	416.	-3662.	-55.	-6680.	2249.	-.1328	-.0145	.0315	.0309	-.0931	-.0261	1568.		
.0420	-3236.	1686.	-1940.	-257.	-1470.	3243.	-.1364	-.0235	.0251	.0438	-.0966	-.0329	794.		
.0430	-1438.	2137.	-705.	79.	-1074.	2908.	-.1359	-.0335	.0211	.0562	-.0933	-.0363	690.		
.0440	-3509.	997.	91.	1868.	-4026.	689.	-.1327	-.0443	.0181	.0633	-.0883	-.0355	999.		
.0450	-640.	-313.	1290.	3775.	-2872.	-1554.	-.1256	-.0543	.0150	.0657	-.0888	-.0348	1111.		
.0460	4596.	-121.	2264.	4060.	875.	-2061.	-.1161	-.0620	.0127	.0662	-.0902	-.0414	1031.		
.0470	3306.	1360.	1744.	2938.	451.	-1101.	-.1082	-.0675	.0113	.0658	-.0834	-.0562	705.		
.0480	-1772.	2843.	492.	1843.	-2504.	144.	-.1013	-.0724	.0105	.0654	-.0711	-.0692	693.		
.0490	-2403.	3534.	202.	1626.	-2364.	891.	-.0909	-.0782	.0117	.0678	-.0600	-.0702	669.		
.0500	-1063.	3207.	539.	2348.	-1054.	635.	-.0765	-.0856	.0148	.0748	-.0476	-.0590	590.		
.0510	-1489.	2080.	1230.	3388.	-1837.	-514.	-.0597	-.0944	.0188	.0844	-.0313	-.0433	865.		
.0520	-1601.	946.	2428.	3648.	-2948.	-1650.	-.0404	-.1034	.0226	.0952	-.0132	-.0293	1106.		
.0530	84.	301.	3381.	2786.	-1927.	-2249.	-.0187	-.1117	.0250	.1083	.0052	-.0170	905.		
.0540	1589.	-471.	3041.	1914.	698.	-2933.	.0038	-.1191	.0249	.1230	.0246	-.0032	795.		
.0550	1145.	-1946.	1259.	1872.	3278.	-4188.	.0251	-.1248	.0230	.1358	.0440	.0124	1254.		
.0560	-760.	-3318.	-1331.	1644.	5251.	-5159.	.0448	-.1275	.0207	.1443	.0610	.0248	1678.		
.0570	-1992.	-3440.	-3656.	-155.	7099.	-4748.	.0638	-.1264	.0200	.1482	.0727	.0277	1900.		
.0580	-1817.	-2493.	-4844.	-3166.	8333.	-3164.	.0819	-.1217	.0219	.1470	.0788	.0207	2104.		
.0590	-2117.	-1548.	-5016.	-5916.	7439.	-1479.	.0985	-.1152	.0262	.1414	.0827	.0105	2140.		
.0600	-2928.	-1157.	-4642.	-7642.	5237.	-311.	.1135	-.1086	.0319	.1348	.0864	.0052	2062.		
.0610	-2745.	-1140.	-4051.	-8490.	3852.	401.	.1270	-.1028	.0369	.1309	.0910	.0067	2076.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.30.

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

CONDITION 24
LOADS
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ENGLISH UNITS

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

.0500	-1063.	207.	139.	2348.	-1054.	635.	-1765	-.0856	.0148	.0748	-.0476	-.0590	590.
.0510	-1489.	2080.	1230.	3388.	-1837.	-514.	-.0597	-.0944	.0188	.0844	-.0313	-.0433	865.
.0520	-1601.	946.	2428.	3648.	-2948.	-1650.	-.0404	-.1034	.0226	.0952	-.0132	-.0293	1106.
.0530	84.	301.	3381.	2786.	-1927.	-2249.	-.0187	-.1117	.0250	.1083	.0052	-.0170	905.
.0540	1589.	-471.	3041.	1914.	698.	-2933.	.0038	-.1191	.0249	.1230	.0246	-.0032	795.
.0550	1145.	-1946.	1259.	1872.	3278.	-4188.	.0251	-.1248	.0230	.1358	.0440	.0124	1254.
.0560	-760.	-3318.	-1331.	1644.	5251.	-5159.	.0448	-.1275	.0207	.1443	.0610	.0248	1678.
.0570	-1992.	-3440.	-3656.	-155.	7099.	-4748.	.0638	-.1264	.0200	.1482	.0727	.0277	1900.
.0580	-1817.	-2493.	-4844.	-3166.	8333.	-3164.	.0819	-.1217	.0219	.1470	.0788	.0207	2104.
.0590	-2117.	-1548.	-5016.	-5916.	7439.	-1479.	.0985	-.1152	.0262	.1414	.0827	.0105	2140.
.0600	-2928.	-1157.	-4642.	-7642.	5237.	-311.	.1135	-.1086	.0319	.1348	.0864	.0052	2062.
.0610	-2745.	-1140.	-4051.	-8470.	3852.	401.	.1270	-.1028	.0369	.1309	.0910	.0067	2076.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.30.

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	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)
29	2	844					.0620	-1202.	-1158.	-3328.	-8815.	3845.	898.	.1390	-.0984	.0399	.1309	.0968	.0105	2149.
							.0630	-178.	-979.	-2854.	-8948.	3834.	1308.	.1484	-.0955	.0406	.1331	.1036	.0108	2185.
							.0640	84.	-699.	-2890.	-8901.	3764.	1424.	.1543	-.0944	.0394	.1349	.1072	.0059	2173.
							.0650	551.	-782.	-3399.	-8147.	4375.	757.	.1561	-.0950	.0359	.1350	.1039	-.0016	2064.
							.0660	409.	-1363.	-4277.	-6403.	4760.	-704.	.1534	-.0969	.0310	.1333	.0957	-.0091	1782.
							.0670	-1268.	-1794.	-5383.	-4333.	4036.	-2043.	.1469	-.0989	.0260	.1308	.0882	-.0164	1394.
							.0680	-1667.	-1432.	-5867.	-2733.	3925.	-2320.	.1384	-.1002	.0221	.1270	.0824	-.0243	1183.
							.0690	398.	-554.	-5156.	-1418.	4747.	-1736.	.1283	-.1006	.0197	.1212	.0769	-.0315	1168.
							.0700	564.	65.	-4039.	278.	3234.	-1298.	.1152	-.1008	.0185	.1142	.0735	-.0356	778.
							.0710	-1981.	136.	-3118.	2349.	-578.	-1492.	.0997	-.1009	.0176	.1078	.0713	-.0352	632.
							.0720	-1490.	-68.	-1804.	4186.	-1849.	-2009.	.0844	-.1006	.0159	.1025	.0649	-.0312	1112.
							.0730	2636.	-267.	-173.	5413.	94.	-2549.	.0693	-.0994	.0130	.0975	.0529	-.0271	1331.
							.0740	3992.	-365.	569.	6039.	598.	-3086.	.0519	-.0968	.0092	.0915	.0406	-.0268	1515.
							.0750	1583.	-276.	250.	6108.	-1131.	-3438.	.0316	-.0923	.0051	.0835	.0291	-.0304	1580.
							.0760	155.	76.	-81.	5675.	-1858.	-3263.	.0106	-.0859	.0016	.0730	.0162	-.0345	1514.
							.0770	121.	631.	-34.	4951.	-1608.	-2529.	-.0094	-.0777	-.0004	.0614	.0038	-.0358	1288.
							.0780	-1099.	1229.	207.	4144.	-2640.	-1522.	-.0281	-.0684	-.0003	.0501	-.0054	-.0335	1144.
							.0790	-1898.	1719.	1054.	3317.	-4107.	-502.	-.0444	-.0589	.0019	.0396	-.0145	-.0281	1180.
							.0800	-330.	1919.	2686.	2572.	-4505.	277.	-.0575	-.0497	.0054	.0296	-.0271	-.0200	1156.
							.0810	564.	1661.	4074.	2130.	-5344.	517.	-.0680	-.0415	.0094	.0212	-.0403	-.0097	1285.
							.0820	-589.	963.	4409.	2055.	-6718.	188.	-.0762	-.0342	.0125	.0157	-.0509	.0029	1563.
							.0830	-368.	68.	3976.	2122.	-5640.	-361.	-.0809	-.0272	.0144	.0128	-.0606	.0174	1343.
							.0840	1416.	-797.	2930.	2105.	-2212.	-848.	-.0826	-.0198	.0154	.0105	-.0695	.0317	705.
							.0850	702.	-1553.	1127.	1969.	-288.	-1244.	-.0832	-.0112	.0165	.0060	-.0749	.0417	522.
							.0860	-2054.	-2096.	-610.	1643.	-599.	-1406.	-.0826	-.0008	.0191	-.0029	-.0775	.0450	499.
							.0870	-2554.	-2217.	-1046.	903.	-628.	-1002.	-.0792	.0116	.0239	-.0158	-.0806	.0426	331.
							.0880	-793.	-1887.	-124.	-278.	-360.	11.	-.0730	.0258	.0307	-.0305	-.0829	.0373	101.
							.0890	187.	-1380.	1372.	-1540.	-1595.	1281.	-.0654	.0410	.0383	-.0451	-.0813	.0316	570.
							.0900	383.	-916.	2949.	-2578.	-3626.	2554.	-.0571	.0562	.0450	-.0583	-.0759	.0262	1141.
							.0910	1161.	-427.	4187.	-3496.	-4531.	3864.	-.0484	.0705	.0487	-.0694	-.0686	.0206	1536.
							.0920	1852.	159.	4519.	-4531.	-4195.	5157.	-.0399	.0833	.0481	-.0780	-.0603	.0135	1790.
							.0930	1581.	671.	3804.	-5632.	-3317.	6105.	-.0322	.0938	.0431	-.0844	-.0518	.0046	1990.
							.0940	866.	901.	2409.	-6532.	-1933.	6436.	-.0256	.1014	.0342	-.0887	-.0446	-.0049	2085.
							.0950	32.	834.	680.	-6987.	-157.	6199.	-.0201	.1057	.0222	-.0909	-.0381	-.0133	2078.
							.0960	-962.	613.	-1036.	-6881.	1607.	5673.	-.0156	.1070	.0077	-.0909	-.0303	-.0203	2016.
							.0970	-1787.	442.	-2327.	-6270.	3187.	5149.	-.0123	.1056	-.0084	-.0881	-.0206	-.0265	1939.
							.0980	-2351.	498.	-3041.	-5361.	4437.	4770.	-.0099	.1019	-.0255	-.0813	-.0099	-.0322	1877.
							.0990	-2755.	717.	-3289.	-4243.	5277.	4391.	-.0086	.0963	-.0430	-.0708	-.0003	-.0370	1795.

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S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
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INTERNAL FORCES IN THE PIPING
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.0890	187.	-1380.	1372.	-1540.	-1595.	1281.	-.0654	.0410	.0383	-.0451	-.0813	.0316	570.
.0900	383.	-916.	2949.	-2578.	-3626.	2554.	-.0571	.0562	.0450	-.0583	-.0759	.0262	1141.
.0910	1161.	-427.	4187.	-3496.	-4531.	3864.	-.0484	.0705	.0487	-.0694	-.0586	.0206	1536.
.0920	1852.	159.	4510.	-4531.	-4195.	5157.	-.0309	.0833	.0481	-.0780	-.0603	.0135	1790.
.0930	1581.	671.	3804.	-5632.	-3317.	6105.	-.0322	.0938	.0431	-.0844	-.0518	.0046	1990.
.0940	866.	901.	2409.	-6532.	-1933.	6436.	-.0256	.1014	.0342	-.0887	-.0446	-.0049	2085.
.0950	32.	834.	680.	-6987.	-157.	6199.	-.0201	.1057	.0222	-.0909	-.0381	-.0133	2078.
.0960	-962.	613.	-1036.	-6881.	1607.	5673.	-.0156	.1070	.0077	-.0909	-.0303	-.0203	2016.
.0970	-1787.	442.	-2327.	-6270.	3187.	5149.	-.0123	.1056	-.0084	-.0881	-.0206	-.0265	1939.
.0980	-2351.	498.	-3041.	-5361.	4437.	4770.	-.0099	.1019	-.0255	-.0813	-.0099	-.0322	1877.
.0990	-2755.	717.	-3289.	-4243.	5277.	4371.	-.0086	.0963	-.0430	-.0708	-.0003	-.0370	1795.

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ADLPIPE STRESS ANALYSIS

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

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

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)
29	2	844					.1000	-2666.	788.	-3142.	-2780.	5954.	3677.	-.0078	.0894	-.0602	-.0587	.0057	-.0408	1675.
							.1010	-1997.	546.	-2712.	-948.	6535.	2480.	-.0071	.0816	-.0762	-.0475	.0068	-.0446	1569.
							.1020	-1481.	230.	-2288.	883.	6625.	1069.	-.0063	.0739	-.0901	-.0388	.0042	-.0498	1506.
							.1030	-1480.	204.	-2036.	2254.	6138.	-83.	-.0051	.0672	-.1011	-.0331	.0005	-.0572	1455.
							.1040	-1341.	562.	-1772.	3064.	5555.	-698.	-.0028	.0621	-.1084	-.0313	-.0024	-.0655	1420.
							.1050	-1038.	1163.	-1373.	3594.	4805.	-850.	.0011	.0584	-.1114	-.0327	-.0027	-.0726	1348.
							.1060	-944.	1833.	-807.	4124.	3490.	-798.	.0069	.0557	-.1101	-.0360	-.0005	-.0774	1215.
							.1070	-256.	2457.	137.	4670.	2072.	-733.	.0144	.0532	-.1048	-.0402	.0022	-.0803	1148.
							.1080	610.	3044.	1553.	4968.	112.	-628.	.0236	.0506	-.0966	-.0449	.0064	-.0818	1114.
							.1090	1272.	3622.	3572.	4880.	-2702.	-413.	.0352	.0473	-.0868	-.0475	.0168	-.0802	1244.
							.1100	6580.	3571.	5618.	5322.	-1246.	-965.	.0478	.0427	-.0771	-.0454	.0206	-.0709	1235.
							.1110	8764.	2533.	5799.	6480.	-363.	-2527.	.0577	.0370	-.0683	-.0424	.0241	-.0540	1549.
							.1120	5382.	1030.	4018.	7493.	-2081.	-4188.	.0634	.0315	-.0605	-.0427	.0314	-.0337	1965.
							.1130	2759.	60.	1755.	7501.	-2279.	-4877.	.0671	.0275	-.0530	-.0435	.0387	-.0138	2054.
							.1140	2469.	-251.	-267.	6734.	-425.	-4720.	.0702	.0253	-.0450	-.0409	.0451	-.0057	1832.
							.1150	925.	-826.	-1984.	6198.	-3.	-4702.	.0720	.0250	-.0361	-.0376	.0530	.0269	1731.
							.1160	-703.	-2157.	-2640.	6293.	-883.	-5201.	.0726	.0267	-.0262	-.0371	.0590	.0501	1827.
							.1170	-784.	-3540.	-2196.	6415.	-1591.	-5695.	.0727	.0311	-.0161	-.0377	.0609	.0710	1941.
							.1180	3706.	-4122.	-607.	5845.	573.	-5592.	.0715	.0392	-.0068	-.0374	.0525	.0823	1804.
							.1190	2932.	-3671.	-137.	4217.	-744.	-4588.	.0659	.0512	.0010	-.0401	.0446	.0792	1396.
							.1200	-1737.	-2454.	-803.	1719.	-4132.	-2538.	.0569	.0664	.0069	-.0495	.0393	.0650	1145.
							.1210	-198.	-881.	-620.	-965.	-2577.	158.	.0484	.0834	.0105	-.0621	.0292	.0481	613.
							.1220	259.	351.	-1204.	-2844.	-1091.	2211.	.0394	.1000	.0122	-.0717	.0206	.0337	837.
							.1230	-567.	751.	-1879.	-3680.	-898.	3099.	.0292	.1149	.0128	-.0799	.0102	.0226	1089.
							.1240	-2281.	732.	-2184.	-4167.	-2164.	2499.	.0181	.1276	.0127	-.0891	-.0018	.0122	1303.
							.1250	-2079.	1062.	-1798.	-4831.	-2538.	4169.	.0073	.1378	.0118	-.0959	-.0158	.0008	1528.
							.1260	1833.	1719.	-461.	-5215.	-580.	4932.	-.0034	.1450	.0095	-.0966	-.0329	-.0103	1602.
							.1270	-275.	2077.	-77.	-4622.	-2876.	5163.	-.0160	.1490	.0058	-.0930	-.0396	-.0179	1669.
							.1280	-1512.	1866.	810.	-3095.	-4617.	4929.	-.0283	.1497	.0002	-.0888	-.0411	-.0182	1653.
							.1290	536.	1384.	2158.	-1088.	-3532.	4376.	-.0386	.1481	-.0070	-.0844	-.0409	-.0127	1274.
							.1300	2027.	918.	3004.	991.	-2288.	3458.	-.0480	.1451	-.0153	-.0807	-.0391	-.0086	948.
							.1310	3639.	622.	3740.	2608.	-976.	2440.	-.0578	.1418	-.0244	-.0828	-.0417	-.0129	824.
							.1320	1332.	793.	3454.	3223.	-2197.	1819.	-.0687	.1390	-.0338	-.0919	-.0440	-.0260	957.
							.1330	841.	1452.	3237.	3066.	-1763.	1772.	-.0788	.1367	-.0434	-.1034	-.0495	-.0412	880.
							.1340	706.	2117.	2786.	3087.	-590.	1795.	-.0875	.1344	-.0522	-.1119	-.0533	-.0507	805.
							.1350	-765.	2442.	2091.	3587.	-286.	1701.	-.0945	.1317	-.0595	-.1179	-.0527	-.0522	885.
							.1360	1041.	2678.	2558.	3841.	1557.	1911.	-.0989	.1286	-.0642	-.1247	-.0547	-.0487	1015.
							.1370	1673.	3115.	3300.	3369.	1613.	2395.	-.1019	.1249	-.0660	-.1312	-.0580	-.0454	987.

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.1260	1833.	1719.	-461.	-5215.	-580.	4932.	-.0034	.1450	.0095	-.0966	-.0329	-.0103	1602.
.1270	-275.	2077.	-77.	-4622.	-2876.	5163.	-.0160	.1490	.0058	-.0930	-.0396	-.0179	1669.
.1280	-1512.	1866.	810.	-3095.	-4617.	4929.	-.0283	.1497	.0002	-.0888	-.0411	-.0182	1653.
.1290	536.	1384.	2158.	-1088.	-3532.	4376.	-.0386	.1481	-.0070	-.0844	-.0409	-.0127	1274.
.1300	2027.	918.	3004.	991.	-2288.	3458.	-.0480	.1451	-.0153	-.0807	-.0391	-.0086	948.
.1310	3639.	622.	3740.	2608.	-976.	2440.	-.0578	.1418	-.0244	-.0828	-.0417	-.0129	824.
.1320	1332.	793.	3454.	3223.	-2197.	1819.	-.0687	.1390	-.0338	-.0919	-.0440	-.0260	957.
.1330	841.	1452.	3237.	3066.	-1763.	1772.	-.0788	.1367	-.0434	-.1034	-.0495	-.0412	880.
.1340	706.	2117.	2786.	3087.	-590.	1795.	-.0875	.1344	-.0522	-.1119	-.0533	-.0507	805.
.1350	-765.	2442.	2091.	3587.	-286.	1701.	-.0945	.1317	-.0595	-.1179	-.0527	-.0522	885.
.1360	1041.	2678.	2558.	3841.	1557.	1911.	-.0989	.1286	-.0642	-.1247	-.0547	-.0487	1015.
.1370	1673.	3115.	3300.	3369.	1613.	2395.	-.1019	.1249	-.0660	-.1312	-.0580	-.0454	987.

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INTERNAL FORCES IN THE PIPING
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SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	HX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
29	2	844					.1380	2827.	3470.	4556.	2532.	1006.	2627.	-.1040	.1199	-.0652	-.1356	-.0572	-.0434	842.
							.1390	2289.	3342.	5245.	1808.	-830.	2238.	-.1057	.1132	-.0626	-.1369	-.0785	-.0397	666.
							.1400	1152.	2741.	4910.	1267.	-1982.	1479.	-.1063	.1048	-.0594	-.1350	-.0893	-.0306	618.
							.1410	3701.	1904.	4463.	909.	525.	693.	-.1051	.0949	-.0558	-.1283	-.1025	-.0165	280.
							.1420	2496.	1025.	2817.	770.	926.	-176.	-.1043	.0841	-.0512	-.1159	-.1106	-.0014	271.
							.1430	-331.	255.	1098.	533.	-283.	-932.	-.1033	.0731	-.0449	-.1000	-.1167	.0115	247.
							.1440	-2201.	-333.	76.	-39.	-1592.	-1376.	-.1003	.0627	-.0360	-.0834	-.1220	.0231	468.
							.1450	-1574.	-950.	77.	-535.	-1923.	-1748.	-.0938	.0531	-.0245	-.0664	-.1270	.0355	590.
							.1460	1744.	-1793.	1137.	-502.	-1165.	-2354.	-.0848	.0447	-.0111	-.0494	-.1326	.0478	595.
							.1470	950.	-2503.	1522.	-318.	-3432.	-2895.	-.0755	.0383	.0032	-.0340	-.1306	.0558	1001.
							.1480	1126.	-2482.	1890.	-754.	-4600.	-2554.	-.0658	.0342	.0166	-.0221	-.1256	.0563	1182.
							.1490	1649.	-1601.	1794.	-1828.	-4583.	-1269.	-.0559	.0321	.0281	-.0125	-.1159	.0488	1133.
							.1500	-303.	-382.	600.	-2856.	-5259.	182.	-.0463	.0309	.0371	-.0029	-.0997	.0361	1332.
							.1510	-814.	599.	-637.	-3403.	-4358.	1168.	-.0363	.0293	.0434	.0067	-.0834	.0219	1257.
							.1520	-1621.	1196.	-1905.	-3543.	-3597.	1538.	-.0261	.0261	.0475	.0160	-.0656	.0085	1174.
							.1530	-496.	1504.	-2209.	-3378.	-2207.	1446.	-.0155	.0210	.0501	.0263	-.0495	-.0034	954.
							.1540	-1082.	1664.	-2177.	-2863.	-2780.	1035.	-.0056	.0138	.0514	.0397	-.0297	-.0126	917.
							.1550	-2355.	1729.	-1961.	-2006.	-4038.	566.	.0042	.0047	.0516	.0563	-.0051	-.0166	1011.
							.1560	784.	1605.	-857.	-823.	-2036.	166.	.0147	-.0061	.0502	.0741	.0178	-.0132	490.
							.1570	854.	1181.	-602.	755.	-1735.	-498.	.0236	-.0180	.0471	.0923	.0441	-.0043	435.
							.1580	-327.	515.	-821.	2539.	-2122.	-1508.	.0309	-.0303	.0424	.1088	.0680	.0059	809.
							.1590	606.	-74.	-847.	3937.	-773.	-2508.	.0372	-.0420	.0361	.1207	.0833	.0129	1053.
							.1600	347.	-341.	-1357.	4562.	-80.	-3242.	.0418	-.0521	.0288	.1264	.0938	.0141	1245.
							.1610	-1414.	-391.	-2220.	4716.	-357.	-3727.	.0451	-.0603	.0211	.1264	.1017	.0115	1340.
							.1620	206.	-364.	-2160.	4805.	1479.	-3972.	.0483	-.0665	.0135	.1226	.1045	.0085	1425.
							.1630	174.	-228.	-2283.	4877.	2141.	-3995.	.0504	-.0707	.0068	.1171	.1090	.0066	1481.
							.1640	-28.	13.	-2148.	4791.	2431.	-3710.	.0513	-.0730	.0013	.1093	.1127	.0056	1452.
							.1650	1721.	321.	-1153.	4457.	3459.	-3158.	.0512	-.0737	-.0026	.0988	.1115	.0041	1438.
							.1660	943.	727.	-434.	3809.	2331.	-2523.	.0490	-.0731	-.0049	.0875	.1091	.0014	1141.
							.1670	1034.	1095.	396.	2937.	1718.	-1936.	.0456	-.0719	-.0059	.0761	.1014	-.0012	871.
							.1680	621.	1132.	713.	2203.	1183.	-1636.	.0411	-.0704	-.0063	.0652	.0917	-.0013	665.
							.1690	1255.	776.	871.	1783.	1806.	-1638.	.0362	-.0692	-.0062	.0559	.0799	.0019	672.
							.1700	1150.	337.	629.	1448.	2232.	-1749.	.0302	-.0679	-.0057	.0504	.0689	.0070	708.
							.1710	-2292.	11.	-521.	1016.	665.	-1829.	.0236	-.0666	-.0047	.0491	.0631	.0126	488.
							.1720	-1367.	-357.	-723.	600.	1991.	-1841.	.0184	-.0649	-.0030	.0499	.0544	.0189	618.
							.1730	-891.	-868.	-886.	367.	2771.	-2008.	.0140	-.0628	-.0000	.0521	.0475	.0253	766.
							.1740	-1144.	-1436.	-979.	254.	2627.	-2347.	.0099	-.0598	.0042	.0556	.0410	.0304	786.
							.1750	391.	-1927.	-488.	83.	3260.	-2658.	.0060	-.0555	.0096	.0589	.0315	.0329	936.

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.1740	-28.	13.	147.	4791.	2431.	-3710.	.0513	-.0730	.0013	.1093	.1127	.0056	1452.
.1650	1721.	721.	-1153.	4457.	3459.	-3158.	.0512	-.0727	-.0026	.0988	.1115	.0041	1438.
.1660	943.	727.	-434.	3809.	2331.	-2523.	.0490	-.0731	-.0049	.0875	.1091	.0014	1141.
.1670	1034.	1095.	396.	2937.	1718.	-1936.	.0456	-.0719	-.0059	.0761	.1014	-.0012	871.
.1680	621.	1132.	713.	2203.	1183.	-1636.	.0411	-.0704	-.0063	.0652	.0917	-.0013	665.
.1690	1255.	776.	871.	1783.	1806.	-1638.	.0362	-.0692	-.0062	.0559	.0799	.0019	672.
.1700	1150.	337.	629.	1448.	2232.	-1749.	.0302	-.0679	-.0057	.0504	.0689	.0070	708.
.1710	-2292.	11.	-521.	1016.	665.	-1829.	.0236	-.0666	-.0047	.0491	.0631	.0126	488.
.1720	-1367.	-357.	-723.	600.	1991.	-1841.	.0184	-.0649	-.0030	.0499	.0544	.0189	618.
.1730	-891.	-868.	-886.	367.	2771.	-2008.	.0140	-.0628	-.0000	.0521	.0475	.0253	766.
.1740	-1144.	-1436.	-979.	254.	2627.	-2347.	.0099	-.0598	.0042	.0556	.0410	.0304	786.
.1750	391.	-1927.	-488.	83.	3260.	-2658.	.0060	-.0555	.0096	.0589	.0315	.0329	936.

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INTERNAL FORCES IN THE PIPING
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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)
29	2	844					.1760	372.	-2189.	-289.	-301.	2686.	-2713.	.0016	-.0496	.0163	.0608	.0236	.0317	852.
							.1770	1272.	-2081.	50.	-966.	2750.	-2250.	-.0035	-.0419	.0238	.0606	.0148	.0271	819.
							.1780	264.	-1598.	-196.	-1769.	1751.	-1318.	-.0097	-.0327	.0321	.0589	.0088	.0195	627.
							.1790	151.	-946.	-287.	-2518.	1396.	-121.	-.0163	-.0226	.0408	.0553	.0022	.0100	641.
							.1800	825.	-292.	7.	-3170.	1269.	1090.	-.0234	-.0127	.0496	.0500	-.0059	-.0008	797.
							.1810	-1672.	336.	-103.	-3728.	-1337.	2134.	-.0314	-.0036	.0582	.0445	-.0112	-.0124	1001.
							.1820	-1225.	886.	630.	-4088.	-2183.	3022.	-.0384	.0039	.0658	.0398	-.0194	-.0230	1231.
							.1830	13.	1284.	1537.	-4125.	-2381.	3671.	-.0446	.0091	.0719	.0366	-.0271	-.0316	1338.
							.1840	645.	1502.	2192.	-3886.	-2690.	4053.	-.0508	.0117	.0757	.0348	-.0331	-.0381	1385.
							.1850	859.	1559.	2524.	-3468.	-2870.	4186.	-.0571	.0117	.0770	.0347	-.0378	-.0420	1368.
							.1860	-506.	1471.	2136.	-2903.	-3526.	4060.	-.0635	.0092	.0759	.0367	-.0398	-.0425	1359.
							.1870	85.	1237.	1810.	-2261.	-2361.	3751.	-.0691	.0044	.0726	.0401	-.0430	-.0397	1107.
							.1880	-668.	896.	969.	-1651.	-1812.	3271.	-.0741	-.0021	.0680	.0437	-.0441	-.0348	909.
							.1890	-1566.	490.	163.	-1137.	-1514.	2691.	-.0782	-.0099	.0628	.0468	-.0446	-.0290	732.
							.1900	-1325.	97.	-83.	-728.	-919.	2090.	-.0809	-.0184	.0574	.0496	-.0451	-.0225	533.
							.1910	-2710.	-207.	-328.	-426.	-1829.	1532.	-.0821	-.0273	.0522	.0532	-.0410	-.0151	539.
							.1920	-2888.	-408.	-80.	-184.	-2113.	1122.	-.0807	-.0362	.0471	.0568	-.0340	-.0069	534.
							.1930	-2166.	-552.	428.	94.	-1752.	813.	-.0766	-.0448	.0420	.0600	-.0238	.0014	430.
							.1940	-1866.	-630.	828.	399.	-1614.	512.	-.0701	-.0530	.0369	.0625	-.0107	.0078	387.
							.1950	-1824.	-593.	1061.	592.	-1559.	212.	-.0616	-.0605	.0317	.0635	.0032	.0104	374.
							.1960	-1461.	-448.	1142.	598.	-1098.	-67.	-.0509	-.0673	.0266	.0628	.0163	.0091	279.
							.1970	-1148.	-289.	945.	549.	-402.	-375.	-.0384	-.0736	.0217	.0610	.0289	.0052	173.
							.1980	-1096.	-218.	460.	664.	371.	-772.	-.0240	-.0794	.0172	.0594	.0414	.0010	241.
							.1990	-944.	-266.	-133.	1018.	1338.	-1226.	-.0098	-.0847	.0133	.0588	.0535	-.0021	463.
							.2000	-898.	-377.	-708.	1498.	2145.	-1639.	.0055	-.0897	.0103	.0597	.0654	-.0040	687.
							.2010	-1231.	-479.	-1178.	1956.	2424.	-1951.	.0210	-.0939	.0082	.0625	.0770	-.0053	818.
							.2020	-1195.	-576.	-1349.	2326.	2626.	-2200.	.0365	-.0974	.0071	.0670	.0868	-.0062	921.
							.2030	-373.	-760.	-1218.	2622.	3112.	-2518.	.0518	-.1000	.0065	.0729	.0934	-.0071	1065.
							.2040	306.	-1091.	-1113.	2840.	3402.	-2990.	.0660	-.1014	.0062	.0789	.0970	-.0083	1189.
							.2050	370.	-1458.	-1263.	2858.	3371.	-3472.	.0784	-.1012	.0060	.0842	.0982	-.0107	1250.
							.2060	433.	-1620.	-1627.	2473.	3598.	-3653.	.0890	-.0992	.0056	.0886	.0974	-.0152	1266.
							.2070	619.	-1448.	-2143.	1597.	4161.	-3359.	.0976	-.0953	.0053	.0916	.0953	-.0217	1242.
							.2080	265.	-1067.	-2801.	398.	4422.	-2719.	.1039	-.0897	.0052	.0932	.0930	-.0293	1158.
							.2090	-493.	-694.	-3404.	-825.	4237.	-1985.	.1079	-.0830	.0058	.0935	.0904	-.0359	1057.
							.2100	-774.	-424.	-3657.	-1898.	4066.	-1281.	.1101	-.0759	.0071	.0930	.0871	-.0404	1038.
							.2110	-576.	-215.	-3518.	-2818.	3894.	-601.	.1107	-.0688	.0091	.0921	.0838	-.0430	1078.
							.2120	-334.	-28.	-3124.	-3598.	3528.	67.	.1096	-.0621	.0116	.0908	.0814	-.0442	1121.
							.2130	-157.	117.	-2654.	-4163.	3119.	662.	.1066	-.0563	.0139	.0894	.0802	-.0441	1167.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.31.

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

.2020	-1195.	-576.	-1049.	2326.	2626.	-2200.	.0365	-.0974	.0071	.0670	.0868	-.0062	921.
.2030	-373.	-760.	-1218.	2622.	3112.	-2518.	.0518	-.1000	.0065	.0729	.0934	-.0071	1065.
.2040	306.	-1091.	-1113.	2840.	3402.	-2990.	.0660	-.1014	.0062	.0789	.0970	-.0083	1189.
.2050	370.	-1458.	-1263.	2858.	3371.	-3472.	.0784	-.1012	.0060	.0842	.0982	-.0107	1250.
.2060	433.	-1620.	-1627.	2473.	2598.	-3653.	.0890	-.0992	.0056	.0886	.0974	-.0152	1266.
.2070	619.	-1448.	-2143.	1597.	4161.	-3359.	.0976	-.0953	.0053	.0916	.0953	-.0217	1242.
.2080	265.	-1067.	-2801.	398.	4422.	-2719.	.1039	-.0897	.0052	.0932	.0930	-.0293	1158.
.2090	-493.	-694.	-3404.	-825.	4237.	-1985.	.1079	-.0830	.0058	.0935	.0904	-.0359	1057.
.2100	-774.	-424.	-3657.	-1898.	4066.	-1281.	.1101	-.0759	.0071	.0930	.0871	-.0404	1038.
.2110	-576.	-215.	-3518.	-2818.	3894.	-601.	.1107	-.0688	.0091	.0921	.0838	-.0430	1078.
.2120	-334.	-28.	-3124.	-3598.	3528.	67.	.1096	-.0621	.0116	.0908	.0814	-.0442	1121.
.2130	-157.	117.	-2654.	-4163.	3119.	662.	.1066	-.0563	.0139	.0894	.0802	-.0441	1167.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.31.

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	29	MEMBER	2	SEQUENCE	844	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	-181.	164.	-2328.	-4387.	2830.	1081.		.1016	-.0516	.0157	.0879	.0801	-.0422	1186.	
.2150	-562.	66.	-2283.	-4198.	2685.	1250.		.0949	-.0481	.0167	.0862	.0811	-.0385	1143.	
.2160	-1064.	-146.	-2431.	-3665.	2755.	1196.		.0868	-.0456	.0170	.0837	.0822	-.0339	1054.	
.2170	-1323.	-361.	-2559.	-2970.	3029.	1019.		.0776	-.0440	.0170	.0801	.0821	-.0298	971.	
.2180	-1491.	-482.	-2535.	-2254.	3110.	798.		.0676	-.0428	.0169	.0755	.0799	-.0269	873.	
.2190	-1747.	-524.	-2298.	-1522.	2714.	548.		.0569	-.0418	.0170	.0699	.0754	-.0248	703.	
.2200	-1793.	-544.	-1811.	-728.	2096.	287.		.0460	-.0408	.0174	.0636	.0587	-.0226	498.	
.2210	-1472.	-535.	-1154.	86.	1536.	70.		.0351	-.0395	.0178	.0568	.0601	-.0197	343.	
.2220	-1048.	-438.	-480.	787.	986.	-51.		.0242	-.0378	.0179	.0501	.0496	-.0166	281.	
.2230	-682.	-244.	119.	1262.	392.	-90.		.0134	-.0356	.0176	.0432	.0371	-.0144	295.	
.2240	-379.	-17.	584.	1488.	-189.	-132.		.0026	-.0330	.0164	.0362	.0219	-.0136	335.	
.2250	-157.	157.	849.	1532.	-676.	-277.		-.0081	-.0301	.0144	.0290	.0042	-.0143	378.	
.2260	93.	225.	930.	1492.	-936.	-565.		-.0187	-.0269	.0116	.0224	-.0153	-.0157	411.	
.2270	436.	204.	905.	1407.	-957.	-933.		-.0290	-.0235	.0080	.0167	-.0356	-.0172	432.	
.2280	615.	166.	820.	1254.	-994.	-1250.		-.0391	-.0197	.0042	.0120	-.0549	-.0186	452.	
.2290	492.	169.	723.	1027.	-1214.	-1415.		-.0490	-.0155	.0004	.0084	-.0720	-.0199	474.	
.2300	359.	197.	719.	786.	-1469.	-1424.		-.0582	-.0106	-.0030	.0054	-.0865	-.0208	487.	
.2310	340.	195.	830.	588.	-1685.	-1346.		-.0665	-.0052	-.0057	.0026	-.0984	-.0212	497.	
.2320	186.	143.	953.	416.	-1987.	-1242.		-.0737	.0009	-.0078	-.0006	-.1073	-.0214	530.	
.2330	-95.	81.	1000.	217.	-2266.	-1106.		-.0796	.0076	-.0094	-.0045	-.1132	-.0222	563.	
.2340	-271.	78.	943.	-45.	-2265.	-883.		-.0838	.0151	-.0104	-.0095	-.1161	-.0243	541.	
.2350	-505.	182.	728.	-375.	-2060.	-530.		-.0863	.0233	-.0110	-.0154	-.1155	-.0279	480.	
.2360	-1027.	395.	348.	-744.	-1865.	-53.		-.0869	.0319	-.0112	-.0223	-.1110	-.0327	447.	
.2370	-1557.	677.	-50.	-1094.	-1628.	494.		-.0856	.0407	-.0108	-.0295	-.1030	-.0380	450.	
.2380	-1757.	980.	-284.	-1375.	-1302.	1047.		-.0820	.0493	-.0096	-.0366	-.0925	-.0429	481.	
.2390	-1713.	1266.	-278.	-1572.	-1102.	1555.		-.0763	.0574	-.0078	-.0434	-.0802	-.0469	550.	
.2400	-1533.	1499.	-37.	-1690.	-1154.	1984.		-.0687	.0647	-.0054	-.0497	-.0666	-.0496	634.	
.2410	-1189.	1642.	370.	-1720.	-1343.	2300.		-.0596	.0708	-.0028	-.0551	-.0526	-.0505	705.	
.2420	-859.	1669.	759.	-1638.	-1575.	2465.		-.0494	.0756	-.0007	-.0592	-.0382	-.0489	746.	
.2430	-691.	1572.	959.	-1435.	-1735.	2463.		-.0385	.0790	.0004	-.0614	-.0239	-.0447	742.	
.2440	-445.	1352.	976.	-1132.	-1575.	2306.		-.0271	.0811	.0001	-.0623	-.0101	-.0382	670.	
.2450	-76.	1039.	865.	-780.	-1132.	2013.		-.0154	.0819	-.0014	-.0623	.0023	-.0303	542.	
.2460	91.	688.	645.	-437.	-743.	1617.		-.0041	.0819	-.0043	-.0620	.0130	-.0221	408.	
.2470	-81.	364.	315.	-176.	-519.	1177.		.0066	.0813	-.0086	-.0618	.0221	-.0146	288.	
.2480	-101.	117.	-25.	111.	-77.	779.		.0166	.0805	-.0143	-.0617	.0293	-.0080	176.	
.2490	356.	-25.	-270.	298.	769.	477.		.0257	.0797	-.0210	-.0622	.0346	-.0024	212.	
.2500	868.	-74.	-438.	431.	1608.	266.		.0337	.0789	-.0283	-.0637	.0381	-.0022	375.	
.2510	1073.	-59.	-550.	522.	2073.	110.		.0401	.0785	-.0356	-.0664	.0398	.0055	476.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.31.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

.2410	-1189.	1642.	370.	-1720.	-1343.	2300.	-.0596	.0708	-.0028	-.0551	-.0526	-.0505	705.
.2420	-859.	1669.	759.	-1678.	-1575.	2465.	-.0494	.0756	-.0007	-.0592	-.0382	-.0489	746.
.2430	-691.	1572.	959.	-1435.	-1735.	2463.	-.0385	.0790	.0004	-.0614	-.0239	-.0447	742.
.2440	-447.	1352.	976.	-1132.	-1575.	2306.	-.0271	.0811	.0001	-.0623	-.0101	-.0382	670.
.2450	-76.	1079.	865.	-780.	-1132.	2013.	-.0154	.0819	-.0014	-.0623	.0027	-.0303	542.
.2460	91.	688.	645.	-437.	-743.	1617.	-.0041	.0819	-.0043	-.0620	.0130	-.0221	408.
.2470	-81.	364.	315.	-136.	-519.	1177.	.0066	.0813	-.0086	-.0618	.0221	-.0146	288.
.2480	-107.	117.	-25.	111.	-77.	779.	.0166	.0805	-.0143	-.0617	.0293	-.0080	176.
.2490	356.	-25.	-270.	298.	769.	477.	.0257	.0797	-.0210	-.0622	.0346	-.0024	212.
.2500	868.	-74.	-438.	471.	1608.	266.	.0337	.0789	-.0283	-.0637	.0381	.0022	375.
.2510	1073.	-55.	-550.	522.	2073.	110.	.0401	.0785	-.0356	-.0664	.0398	.0055	476.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

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)
.2520	1060.	4.	-601.	586.	2216.	-2.	.0448	.0782	-.0427	-.0700	.0396	.0078	510.							
.2530	1013.	110.	-615.	641.	2252.	-70.	.0480	.0781	-.0494	-.0743	.0379	.0095	521.							
.2540	1009.	222.	-619.	728.	2298.	-120.	.0498	.0780	-.0554	-.0787	.0350	.0110	537.							
.2550	1019.	285.	-608.	903.	2304.	-223.	.0503	.0779	-.0606	-.0829	.0310	.0128	553.							
.2560	935.	275.	-568.	1190.	2117.	-427.	.0497	.0778	-.0650	-.0868	.0261	.0148	549.							
.2570	738.	210.	-482.	1556.	1690.	-712.	.0481	.0777	-.0684	-.0904	.0204	.0166	535.							
.2580	695.	139.	-299.	1949.	1216.	-1011.	.0459	.0777	-.0706	-.0939	.0142	.0180	558.							
.2590	987.	102.	-1.	2309.	854.	-1261.	.0431	.0780	-.0719	-.0975	.0074	.0188	615.							
.2600	1367.	99.	325.	2592.	493.	-1439.	.0399	.0788	-.0722	-.1014	.0004	.0193	669.							
.2610	1567.	93.	577.	2804.	12.	-1569.	.0360	.0801	-.0718	-.1058	-.0067	.0198	715.							
.2620	1644.	63.	728.	2971.	-485.	-1661.	.0314	.0820	-.0709	-.1107	-.0141	.0205	765.							
.2630	1713.	41.	785.	3054.	-872.	-1674.	.0261	.0846	-.0695	-.1159	-.0217	.0214	799.							
.2640	1708.	67.	745.	2985.	-1184.	-1561.	.0201	.0878	-.0679	-.1212	-.0296	.0221	794.							
.2650	1581.	131.	637.	2770.	-1491.	-1336.	.0134	.0916	-.0661	-.1267	-.0377	.0229	760.							
.2660	1413.	183.	535.	2490.	-1800.	-1056.	.0061	.0959	-.0641	-.1323	-.0461	.0240	723.							
.2670	1270.	207.	492.	2210.	-2104.	-749.	-.0014	.1005	-.0619	-.1380	-.0545	.0254	699.							
.2680	1237.	238.	550.	1922.	-2363.	-392.	-.0092	.1053	-.0596	-.1436	-.0627	.0268	683.							
.2690	1312.	314.	709.	1582.	-2578.	53.	-.0170	.1102	-.0570	-.1493	-.0707	.0279	673.							
.2700	1335.	435.	900.	1189.	-2812.	570.	-.0247	.1149	-.0544	-.1549	-.0782	.0286	691.							
.2710	1250.	562.	1038.	814.	-3016.	1081.	-.0324	.1193	-.0518	-.1597	-.0851	.0290	736.							
.2720	1213.	657.	1102.	542.	-3026.	1501.	-.0398	.1231	-.0493	-.1630	-.0916	.0295	761.							
.2730	1271.	708.	1108.	366.	-2831.	1812.	-.0469	.1261	-.0468	-.1648	-.0976	.0302	752.							
.2740	1201.	730.	1071.	201.	-2663.	2071.	-.0536	.1282	-.0443	-.1657	-.1026	.0314	752.							
.2750	1031.	734.	1066.	20.	-2597.	2310.	-.0599	.1295	-.0416	-.1657	-.1061	.0333	773.							
.2760	960.	711.	1173.	-102.	-2548.	2490.	-.0654	.1298	-.0386	-.1643	-.1080	.0362	793.							
.2770	986.	651.	1409.	-107.	-2532.	2580.	-.0703	.1291	-.0354	-.1611	-.1078	.0401	805.							
.2780	1012.	574.	1746.	-48.	-2598.	2627.	-.0743	.1274	-.0321	-.1566	-.1055	.0446	822.							
.2790	1041.	509.	2150.	-2.	-2701.	2681.	-.0775	.1248	-.0289	-.1515	-.1011	.0493	847.							
.2800	1045.	472.	2549.	36.	-2796.	2715.	-.0799	.1214	-.0261	-.1453	-.0952	.0535	867.							
.2810	937.	455.	2847.	107.	-2861.	2673.	-.0814	.1172	-.0238	-.1379	-.0880	.0569	871.							
.2820	769.	437.	2999.	203.	-2800.	2560.	-.0819	.1122	-.0222	-.1298	-.0799	.0593	845.							
.2830	627.	404.	3013.	290.	-2555.	2419.	-.0812	.1065	-.0212	-.1218	-.0712	.0610	786.							
.2840	440.	350.	2907.	374.	-2238.	2252.	-.0793	.1001	-.0208	-.1140	-.0623	.0622	711.							
.2850	192.	279.	2723.	492.	-1947.	2033.	-.0761	.0933	-.0207	-.1059	-.0533	.0630	636.							
.2860	66.	195.	2542.	648.	-1628.	1770.	-.0715	.0860	-.0207	-.0974	-.0448	.0632	554.							
.2870	155.	102.	2412.	812.	-1267.	1499.	-.0656	.0784	-.0208	-.0890	-.0372	.0626	473.							
.2880	319.	8.	2310.	966.	-981.	1224.	-.0585	.0705	-.0208	-.0808	-.0310	.0611	410.							
.2890	463.	-70.	2194.	1108.	-816.	925.	-.0507	.0625	-.0208	-.0725	-.0265	.0583	369.							

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ADLPIPE STRESS ANALYSIS

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18.27.31.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.2790	1041.	509.	2150.	-2.	-2701.	2681.	-.0775	.1248	-.0289	-.1515	-.1011	.0493	847.
.2800	1045.	472.	2549.	36.	-2796.	2715.	-.0799	.1214	-.0261	-.1453	-.0952	.0535	867.
.2810	937.	455.	2847.	107.	-2861.	2673.	-.0814	.1172	-.0238	-.1379	-.0880	.0569	871.
.2820	769.	437.	2999.	203.	-2800.	2560.	-.0819	.1122	-.0222	-.1298	-.0799	.0593	845.
.2830	627.	404.	3013.	290.	-2555.	2419.	-.0812	.1065	-.0212	-.1218	-.0712	.0610	786.
.2840	440.	350.	2907.	374.	-2238.	2252.	-.0793	.1001	-.0208	-.1140	-.0623	.0622	711.
.2850	192.	279.	2723.	492.	-1947.	2033.	-.0761	.0933	-.0207	-.1059	-.0533	.0630	636.
.2860	66.	195.	2542.	648.	-1628.	1770.	-.0715	.0860	-.0207	-.0974	-.0448	.0632	554.
.2870	155.	102.	2412.	812.	-1267.	1499.	-.0656	.0784	-.0208	-.0890	-.0372	.0626	473.
.2880	319.	8.	2210.	966.	-981.	1224.	-.0585	.0705	-.0208	-.0808	-.0310	.0611	410.
.2890	463.	-70.	2194.	1108.	-816.	925.	-.0507	.0625	-.0208	-.0725	-.0265	.0583	369.

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ADLPIPE STRESS ANALYSIS

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	29	MEMBER	2	SEQUENCE	844	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)		
.2900	656.	-115.	2043.	1215.	-678.	615.	-.0422	.0545	-.0206	-.0642	-.0239	.0541	338.		
.2910	896.	-113.	1837.	1251.	-524.	333.	-.0333	.0465	-.0204	-.0560	-.0232	.0484	311.		
.2920	1076.	-63.	1563.	1202.	-427.	96.	-.0243	.0386	-.0199	-.0481	-.0240	.0415	285.		
.2930	1158.	22.	1243.	1082.	-433.	-107.	-.0154	.0307	-.0192	-.0402	-.0259	.0339	260.		
.2940	1190.	113.	915.	918.	-518.	-285.	-.0067	.0228	-.0179	-.0320	-.0283	.0264	243.		
.2950	1226.	182.	617.	742.	-638.	-445.	.0016	.0148	-.0161	-.0233	-.0307	.0198	239.		
.2960	1307.	217.	366.	591.	-742.	-597.	.0095	.0065	-.0139	-.0137	-.0325	.0145	250.		
.2970	1413.	221.	156.	477.	-841.	-746.	.0168	-.0020	-.0111	-.0030	-.0334	.0106	272.		
.2980	1450.	202.	-52.	378.	-930.	-880.	.0234	-.0107	-.0080	.0085	-.0330	.0081	297.		
.2990	1371.	161.	-297.	283.	-993.	-984.	.0291	-.0197	-.0046	.0204	-.0311	.0068	317.		
.3000	1214.	97.	-595.	211.	-963.	-1070.	.0339	-.0289	-.0010	.0326	-.0275	.0069	324.		
.3010	1005.	16.	-935.	178.	-832.	-1155.	.0377	-.0382	.0028	.0450	-.0223	.0080	319.		
.3020	711.	-73.	-1287.	162.	-676.	-1231.	.0407	-.0475	.0068	.0573	-.0155	.0100	314.		
.3030	341.	-163.	-1599.	136.	-560.	-1272.	.0429	-.0568	.0109	.0689	-.0073	.0128	311.		
.3040	-36.	-253.	-1817.	124.	-494.	-1285.	.0443	-.0660	.0153	.0799	.0021	.0165	308.		
.3050	-342.	-354.	-1912.	170.	-461.	-1307.	.0452	-.0750	.0199	.0907	.0123	.0209	311.		
.3060	-537.	-471.	-1882.	278.	-439.	-1356.	.0456	-.0837	.0245	.1010	.0226	.0261	323.		
.3070	-629.	-593.	-1753.	407.	-421.	-1411.	.0456	-.0919	.0289	.1104	.0324	.0315	340.		
.3080	-678.	-700.	-1578.	522.	-411.	-1453.	.0452	-.0996	.0331	.1184	.0413	.0365	355.		
.3090	-721.	-779.	-1418.	619.	-382.	-1488.	.0443	-.1066	.0367	.1249	.0487	.0408	368.		
.3100	-741.	-831.	-1308.	701.	-274.	-1528.	.0430	-.1128	.0398	.1298	.0544	.0437	379.		
.3110	-746.	-861.	-1267.	759.	-72.	-1569.	.0412	-.1181	.0420	.1331	.0581	.0452	388.		
.3120	-781.	-868.	-1290.	788.	185.	-1602.	.0388	-.1225	.0435	.1349	.0599	.0452	399.		
.3130	-831.	-854.	-1344.	795.	473.	-1623.	.0359	-.1260	.0442	.1356	.0599	.0438	416.		
.3140	-833.	-832.	-1380.	788.	796.	-1631.	.0325	-.1285	.0443	.1354	.0583	.0412	440.		
.3150	-804.	-817.	-1370.	765.	1103.	-1623.	.0285	-.1301	.0440	.1344	.0553	.0376	469.		
.3160	-783.	-814.	-1307.	718.	1342.	-1594.	.0239	-.1307	.0433	.1330	.0511	.0333	490.		
.3170	-766.	-811.	-1199.	622.	1514.	-1526.	.0188	-.1303	.0424	.1311	.0460	.0284	498.		
.3180	-765.	-795.	-1071.	445.	1633.	-1390.	.0134	-.1288	.0415	.1287	.0404	.0230	487.		
.3190	-827.	-753.	-958.	167.	1695.	-1164.	.0076	-.1264	.0407	.1255	.0346	.0169	459.		
.3200	-1001.	-671.	-892.	-212.	1681.	-847.	.0017	-.1230	.0400	.1218	.0288	.0102	421.		
.3210	-1249.	-541.	-874.	-678.	1618.	-455.	-.0041	-.1188	.0395	.1178	.0233	.0030	403.		
.3220	-1503.	-371.	-884.	-1219.	1542.	-8.	-.0096	-.1141	.0393	.1135	.0182	-.0046	437.		
.3230	-1728.	-182.	-898.	-1805.	1457.	468.	-.0144	-.1090	.0393	.1089	.0136	-.0122	527.		
.3240	-1879.	-6.	-888.	-2381.	1371.	926.	-.0185	-.1040	.0396	.1044	.0097	-.0193	645.		
.3250	-1930.	134.	-843.	-2884.	1286.	1309.	-.0217	-.0994	.0402	.1003	.0062	-.0255	760.		
.3260	-1939.	220.	-772.	-3286.	1161.	1588.	-.0238	-.0953	.0412	.0966	.0034	-.0305	852.		
.3270	-1929.	243.	-688.	-3585.	1000.	1766.	-.0249	-.0920	.0423	.0933	.0012	-.0341	916.		

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S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
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CONDITION 24

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INTERNAL FORCES IN THE PIPING
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.3170	-766.	-811.	-1199.	622.	1514.	-1526.	.0108	-.1303	.0424	.1311	.0460	.0284	498.
.3180	-765.	-795.	-1071.	445.	1633.	-1390.	.0134	-.1288	.0415	.1287	.0404	.0230	487.
.3190	-827.	-753.	-958.	167.	1695.	-1164.	.0076	-.1264	.0407	.1255	.0346	.0169	459.
.3200	-1001.	-671.	-897.	-212.	1681.	-847.	.0017	-.1230	.0400	.1218	.0288	.0102	421.
.3210	-1249.	-541.	-874.	-678.	1618.	-455.	-.0041	-.1188	.0395	.1178	.0233	.0030	403.
.3220	-1503.	-371.	-884.	-1219.	1542.	-8.	-.0096	-.1141	.0393	.1135	.0182	-.0046	437.
.3230	-1728.	-182.	-898.	-1805.	1457.	468.	-.0144	-.1090	.0393	.1089	.0136	-.0122	527.
.3240	-1879.	-6.	-888.	-2381.	1371.	926.	-.0185	-.1040	.0396	.1044	.0097	-.0193	645.
.3250	-1930.	134.	-843.	-2884.	1286.	1309.	-.0217	-.0994	.0402	.1003	.0062	-.0255	760.
.3260	-1929.	220.	-772.	-3286.	1161.	1588.	-.0238	-.0953	.0412	.0966	.0034	-.0305	852.
.3270	-1929.	243.	-688.	-3585.	1000.	1766.	-.0249	-.0920	.0423	.0933	.0012	-.0341	916.

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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)	
.3280	-1862.	202.	-606.	-3770.	865.	1846.	-.0250	-.0895	.0435	.0901	-.0005	-.0363	953.	
.3290	-1781.	100.	-550.	-3822.	751.	1817.	-.0240	-.0879	.0447	.0872	-.0017	-.0369	956.	
.3300	-1768.	-50.	-541.	-3749.	610.	1681.	-.0221	-.0871	.0457	.0845	-.0026	-.0365	924.	
.3310	-1790.	-226.	-567.	-3593.	464.	1472.	-.0194	-.0871	.0464	.0817	-.0033	-.0352	870.	
.3320	-1765.	-396.	-603.	-3404.	374.	1237.	-.0158	-.0877	.0468	.0786	-.0038	-.0334	810.	
.3330	-1680.	-544.	-643.	-3205.	355.	1001.	-.0115	-.0888	.0465	.0753	-.0041	-.0313	751.	
.3340	-1561.	-667.	-690.	-2999.	393.	764.	-.0065	-.0901	.0457	.0719	-.0040	-.0289	694.	
.3350	-1404.	-773.	-745.	-2801.	493.	529.	-.0011	-.0917	.0443	.0685	-.0035	-.0262	644.	
.3360	-1235.	-859.	-818.	-2636.	650.	317.	.0047	-.0933	.0422	.0652	-.0023	-.0233	608.	
.3370	-1090.	-920.	-924.	-2518.	841.	143.	.0107	-.0949	.0395	.0621	-.0004	-.0202	592.	
.3380	-971.	-962.	-1062.	-2445.	1064.	2.	.0166	-.0964	.0364	.0592	.0022	-.0168	593.	
.3390	-886.	-1001.	-1224.	-2392.	1297.	-120.	.0225	-.0978	.0328	.0568	.0055	-.0132	606.	
.3400	-879.	-1054.	-1403.	-2333.	1482.	-242.	.0281	-.0991	.0290	.0549	.0095	-.0093	617.	
.3410	-946.	-1121.	-1574.	-2244.	1590.	-366.	.0333	-.1001	.0251	.0534	.0142	-.0053	617.	
.3420	-1009.	-1192.	-1699.	-2120.	1653.	-487.	.0383	-.1008	.0212	.0522	.0195	-.0014	608.	
.3430	-1025.	-1256.	-1757.	-1958.	1690.	-598.	.0430	-.1011	.0173	.0513	.0253	.0020	591.	
.3440	-1028.	-1311.	-1758.	-1750.	1677.	-703.	.0475	-.1009	.0136	.0504	.0314	.0047	562.	
.3450	-1039.	-1359.	-1718.	-1489.	1620.	-812.	.0517	-.1000	.0100	.0492	.0377	.0065	522.	
.3460	-1028.	-1395.	-1657.	-1184.	1568.	-922.	.0557	-.0985	.0066	.0474	.0439	.0072	483.	
.3470	-975.	-1401.	-1597.	-874.	1565.	-1011.	.0595	-.0961	.0033	.0448	.0497	.0065	458.	
.3480	-900.	-1364.	-1556.	-596.	1615.	-1055.	.0632	-.0928	.0002	.0411	.0547	.0045	449.	
.3490	-832.	-1280.	-1542.	-372.	1689.	-1046.	.0665	-.0886	-.0028	.0362	.0588	.0011	450.	
.3500	-784.	-1159.	-1550.	-204.	1758.	-991.	.0695	-.0834	-.0056	.0303	.0616	-.0032	451.	
.3510	-731.	-1009.	-1560.	-104.	1819.	-894.	.0721	-.0773	-.0083	.0236	.0631	-.0083	452.	
.3520	-629.	-838.	-1550.	-84.	1882.	-753.	.0742	-.0706	-.0107	.0162	.0630	-.0136	451.	
.3530	-481.	-656.	-1510.	-150.	1930.	-571.	.0759	-.0633	-.0129	.0083	.0616	-.0189	449.	
.3540	-333.	-482.	-1452.	-293.	1937.	-373.	.0770	-.0556	-.0150	.0004	.0588	-.0237	444.	
.3550	-198.	-344.	-1393.	-493.	1912.	-192.	.0774	-.0478	-.0168	-.0072	.0548	-.0277	441.	
.3560	-58.	-258.	-1350.	-731.	1898.	-52.	.0770	-.0400	-.0185	-.0145	.0497	-.0305	453.	
.3570	89.	-232.	-1334.	-997.	1921.	43.	.0758	-.0323	-.0200	-.0212	.0437	-.0321	482.	
.3580	222.	-262.	-1349.	-1277.	1971.	90.	.0738	-.0250	-.0214	-.0273	.0369	-.0323	523.	
.3590	333.	-341.	-1380.	-1551.	2027.	92.	.0708	-.0180	-.0224	-.0326	.0298	-.0311	568.	
.3600	419.	-458.	-1398.	-1795.	2060.	56.	.0668	-.0113	-.0230	-.0373	.0225	-.0289	608.	
.3610	487.	-589.	-1374.	-1992.	2043.	5.	.0618	-.0049	-.0231	-.0414	.0153	-.0258	635.	
.3620	555.	-708.	-1278.	-2138.	1969.	-31.	.0559	.0012	-.0226	-.0450	.0087	-.0222	647.	
.3630	621.	-794.	-1097.	-2233.	1828.	-35.	.0489	.0071	-.0216	-.0493	.0027	-.0183	642.	
.3640	650.	-836.	-837.	-2270.	1600.	-1.	.0411	.0129	-.0199	-.0515	-.0023	-.0146	618.	
.3650	623.	-833.	-518.	-2241.	1292.	63.	.0325	.0185	-.0179	-.0545	-.0064	-.0111	576.	

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2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

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

.3550	-198.	-344.	-1393.	-493.	1912.	-192.	.0774	-.0478	-.0168	-.0072	.0548	-.0277	441.
.3560	-58.	-258.	-1350.	-731.	1898.	-52.	.0770	-.0400	-.0185	-.0145	.0497	-.0305	453.
.3570	89.	-232.	-1334.	-997.	1921.	43.	.0758	-.0323	-.0200	-.0212	.0437	-.0321	482.
.3580	222.	-262.	-1349.	-1277.	1971.	90.	.0738	-.0250	-.0214	-.0273	.0369	-.0323	523.
.3590	333.	-341.	-1380.	-1551.	2027.	92.	.0708	-.0180	-.0224	-.0326	.0298	-.0311	568.
.3600	419.	-458.	-1398.	-1795.	2060.	56.	.0668	-.0113	-.0230	-.0373	.0225	-.0289	608.
.3610	487.	-589.	-1374.	-1992.	2043.	5.	.0618	-.0049	-.0231	-.0414	.0153	-.0258	635.
.3620	555.	-708.	-1278.	-2138.	1969.	-31.	.0559	.0012	-.0226	-.0450	.0087	-.0222	647.
.3630	621.	-794.	-1097.	-2233.	1828.	-35.	.0489	.0071	-.0216	-.0483	.0027	-.0183	642.
.3640	650.	-836.	-837.	-2270.	1600.	-1.	.0411	.0129	-.0199	-.0515	-.0023	-.0146	618.
.3650	627.	-833.	-518.	-2241.	1292.	63.	.0325	.0185	-.0179	-.0545	-.0064	-.0111	576.

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

SECTION	29	MEMBER	2	SEQUENCE	844	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)	
.3660	569.	-786.	-158.	-2142.	951.	147.	.0231	.0239	-.0155	-.0573	-.0096	-.0083	523.	
.3670	502.	-698.	223.	-1980.	608.	242.	.0133	.0291	-.0131	-.0597	-.0119	-.0060	464.	
.3680	400.	-578.	599.	-1764.	262.	341.	.0031	.0341	-.0106	-.0617	-.0135	-.0043	404.	
.3690	265.	-441.	957.	-1497.	-81.	438.	-.0071	.0387	-.0083	-.0633	-.0145	-.0030	347.	
.3700	135.	-302.	1292.	-1182.	-402.	521.	-.0172	.0430	-.0062	-.0642	-.0151	-.0019	301.	
.3710	27.	-167.	1600.	-832.	-702.	586.	-.0268	.0470	-.0043	-.0646	-.0157	-.0010	275.	
.3720	-60.	-36.	1872.	-480.	-989.	640.	-.0358	.0505	-.0028	-.0645	-.0163	-.0002	283.	
.3730	-117.	94.	2096.	-158.	-1256.	695.	-.0440	.0537	-.0018	-.0641	-.0174	.0005	321.	
.3740	-137.	215.	2259.	114.	-1480.	746.	-.0511	.0566	-.0011	-.0636	-.0191	.0011	371.	
.3750	-130.	315.	2346.	337.	-1678.	774.	-.0571	.0590	-.0009	-.0631	-.0217	.0017	418.	
.3760	-96.	395.	2351.	505.	-1823.	768.	-.0620	.0611	-.0012	-.0626	-.0252	.0020	454.	
.3770	-27.	466.	2287.	599.	-1919.	743.	-.0656	.0629	-.0018	-.0622	-.0296	.0023	477.	
.3780	72.	536.	2169.	608.	-1980.	715.	-.0679	.0643	-.0027	-.0622	-.0346	.0024	487.	
.3790	184.	601.	2020.	546.	-2032.	685.	-.0691	.0653	-.0038	-.0627	-.0401	.0025	492.	
.3800	313.	648.	1863.	446.	-2087.	639.	-.0691	.0658	-.0049	-.0637	-.0457	.0029	496.	
.3810	473.	673.	1718.	329.	-2143.	575.	-.0680	.0660	-.0060	-.0650	-.0512	.0036	499.	
.3820	647.	687.	1592.	204.	-2203.	500.	-.0659	.0657	-.0069	-.0665	-.0561	.0048	505.	
.3830	806.	698.	1475.	79.	-2265.	419.	-.0631	.0649	-.0076	-.0680	-.0501	.0063	513.	
.3840	934.	697.	1350.	-28.	-2303.	328.	-.0595	.0635	-.0082	-.0693	-.0628	.0084	517.	
.3850	1017.	671.	1200.	-91.	-2290.	208.	-.0554	.0616	-.0087	-.0703	-.0539	.0110	512.	
.3860	1050.	617.	1018.	-94.	-2216.	47.	-.0509	.0592	-.0091	-.0707	-.0533	.0144	494.	
.3870	1043.	538.	814.	-45.	-2076.	-147.	-.0461	.0562	-.0094	-.0704	-.0606	.0184	463.	
.3880	1015.	439.	614.	34.	-1876.	-353.	-.0411	.0528	-.0096	-.0695	-.0559	.0231	425.	
.3890	978.	315.	443.	145.	-1649.	-567.	-.0360	.0490	-.0098	-.0678	-.0493	.0285	389.	
.3900	937.	163.	321.	312.	-1418.	-806.	-.0308	.0449	-.0098	-.0651	-.0408	.0344	369.	
.3910	905.	-3.	256.	539.	-1200.	-1068.	-.0258	.0408	-.0097	-.0612	-.0309	.0406	377.	
.3920	883.	-154.	245.	789.	-998.	-1313.	-.0209	.0368	-.0096	-.0561	-.0199	.0467	407.	
.3930	859.	-266.	270.	1023.	-810.	-1497.	-.0163	.0330	-.0094	-.0504	-.0083	.0524	442.	
.3940	816.	-332.	307.	1232.	-638.	-1612.	-.0121	.0297	-.0092	-.0444	-.0036	.0574	473.	
.3950	752.	-357.	336.	1429.	-477.	-1683.	-.0083	.0268	-.0090	-.0380	.0151	.0614	502.	
.3960	691.	-343.	350.	1611.	-312.	-1721.	-.0048	.0246	-.0090	-.0317	.0256	.0641	529.	
.3970	663.	-287.	352.	1761.	-126.	-1717.	-.0019	.0230	-.0091	-.0256	.0349	.0656	548.	
.3980	680.	-192.	346.	1874.	87.	-1668.	.0006	.0220	-.0094	-.0200	.0427	.0657	559.	
.3990	726.	-74.	332.	1978.	312.	-1596.	.0025	.0216	-.0097	-.0147	.0489	.0646	570.	
.4000	782.	44.	307.	2106.	528.	-1528.	.0038	.0217	-.0100	-.0097	.0534	.0627	591.	

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

.3930	859.	-266.	270.	1023.	-810.	-1497.	-.0163	.0730	-.0094	-.0504	-.0083	.0524	442.
.3940	816.	-332.	307.	1232.	-638.	-1612.	-.0121	.0297	-.0092	-.0444	.0036	.0574	473.
.3950	752.	-357.	336.	1429.	-477.	-1683.	-.0083	.0268	-.0090	-.0380	.0151	.0614	502.
.3960	691.	-343.	350.	1611.	-312.	-1721.	-.0048	.0246	-.0090	-.0317	.0256	.0641	529.
.3970	663.	-287.	352.	1761.	-126.	-1717.	-.0019	.0230	-.0091	-.0256	.0349	.0656	548.
.3980	680.	-192.	346.	1874.	87.	-1668.	.0006	.0220	-.0094	-.0200	.0427	.0657	559.
.3990	726.	-74.	332.	1978.	312.	-1596.	.0025	.0216	-.0097	-.0147	.0489	.0646	570.
.4000	782.	14.	307.	2106.	528.	-1528.	.0038	.0217	-.0100	-.0097	.0534	.0627	591.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.31.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

MAXIMUM VALUE OF STRESS OCCURS AT

TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
.0630	-178.	-979.	-2854.	-8948.	3834.	1308.	.1484	-.0955	.0406	.1331	.1036	.0108	2185.

SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	RU	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
30	1	844					0.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.
							.0010	-2.	0.	-1.	1.	3.	-1.	-.0000	.0000	-.0000	.0000	.0000	-.0000	1.
							.0020	-12.	2.	-9.	8.	25.	-4.	-.0000	.0000	-.0000	.0000	.0001	-.0000	6.
							.0030	-39.	-0.	-30.	10.	77.	-3.	-.0001	-.0000	-.0001	.0001	.0002	.0001	17.
							.0040	-84.	-12.	-68.	-8.	163.	13.	-.0002	.0000	-.0002	.0003	.0005	.0004	36.
							.0050	-140.	-36.	-128.	-54.	263.	48.	-.0003	.0000	-.0006	.0005	.0011	.0009	61.
							.0060	-205.	-67.	-215.	-116.	354.	85.	-.0006	.0002	-.0012	.0007	.0018	.0016	85.
							.0070	-294.	-100.	-315.	-172.	516.	106.	-.0010	.0004	-.0021	.0008	.0030	.0022	123.
							.0080	-437.	-132.	-399.	-217.	901.	105.	-.0015	.0009	-.0034	.0007	.0050	.0027	208.
							.0090	-619.	-178.	-481.	-302.	1463.	104.	-.0018	.0016	-.0053	.0005	.0085	.0037	333.
							.0100	-777.	-252.	-602.	-492.	1951.	132.	-.0016	.0026	-.0079	.0001	.0137	.0053	448.
							.0110	-854.	-348.	-785.	-785.	2136.	183.	-.0005	.0040	-.0115	-.0010	.0204	.0075	508.
							.0120	-838.	-442.	-1021.	-1100.	1920.	223.	.0018	.0059	-.0160	-.0032	.0279	.0090	495.
							.0130	-760.	-514.	-1263.	-1346.	1369.	233.	.0051	.0085	-.0212	-.0070	.0349	.0087	430.
							.0140	-648.	-565.	-1423.	-1524.	658.	246.	.0093	.0118	-.0269	-.0129	.0408	.0061	373.
							.0150	-493.	-600.	-1428.	-1680.	-103.	275.	.0142	.0158	-.0327	-.0208	.0451	.0015	379.
							.0160	-257.	-592.	-1231.	-1801.	-865.	257.	.0200	.0203	-.0379	-.0305	.0480	-.0046	448.
							.0170	90.	-492.	-770.	-1782.	-1496.	69.	.0267	.0252	-.0417	-.0413	.0502	-.0120	518.
							.0180	563.	-266.	-73.	-1536.	-1981.	-344.	.0349	.0301	-.0434	-.0522	.0524	-.0199	563.
							.0190	1092.	67.	692.	-1103.	-2374.	-875.	.0451	.0344	-.0425	-.0618	.0550	-.0265	614.
							.0200	1464.	429.	1403.	-612.	-2193.	-1310.	.0576	.0375	-.0390	-.0682	.0599	-.0296	584.
							.0210	1563.	665.	1917.	-414.	-1347.	-1311.	.0724	.0388	-.0338	-.0702	.0687	-.0261	428.
							.0220	1737.	624.	1504.	-908.	-2459.	-549.	.0890	.0382	-.0282	-.0679	.0753	-.0148	596.
							.0230	1926.	361.	475.	-1839.	-4953.	801.	.1043	.0366	-.0229	-.0637	.0768	-.0003	1189.
							.0240	1669.	131.	-30.	-2352.	-5599.	2111.	.1145	.0352	-.0179	-.0602	.0733	.0096	1430.
							.0250	1038.	223.	733.	-1731.	-2960.	2565.	.1184	.0350	-.0122	-.0584	.0689	.0110	953.
							.0260	1018.	718.	1765.	-243.	-1151.	1840.	.1191	.0364	-.0054	-.0574	.0646	.0087	486.
							.0270	2053.	1345.	1460.	988.	-4720.	757.	.1178	.0385	.0029	-.0570	.0524	.0102	1086.
							.0280	2436.	1721.	1854.	1394.	-5429.	372.	.1101	.0405	.0125	-.0570	.0386	.0155	1250.
							.0290	1288.	1879.	4730.	1584.	2935.	356.	.0948	.0423	.0234	-.0567	.0347	.0194	746.
							.0300	692.	2275.	5936.	2393.	7135.	-662.	.0793	.0438	.0338	-.0549	.0293	.0195	1681.
							.0310	1139.	2797.	4658.	3645.	4186.	-2508.	.0658	.0444	.0423	-.0496	.0198	.0178	1355.
							.0320	1219.	2882.	3570.	4455.	2752.	-3574.	.0495	.0430	.0474	-.0398	.0128	.0174	1411.

.0330	475.	2341.	2970.	4189.	4115.	-2938.	.0289	.0390	.0491	-.0275	.0040	.0204	1461.
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.0170	90.	-49.	770.	-1787.	-1496.	89.	.0267	.0252	-.0417	-.0413	.0502	-.0120	518.
.0180	563.	-266.	-73.	-1536.	-1981.	-344.	.0349	.0301	-.0434	-.0522	.0524	-.0199	563.
.0190	1092.	67.	692.	-1103.	-2374.	-875.	.0451	.0344	-.0425	-.0618	.0550	-.0265	614.
.0200	1464.	429.	1403.	-612.	-2193.	-1310.	.0576	.0375	-.0390	-.0682	.0599	-.0296	584.
.0210	1563.	665.	1917.	-414.	-1347.	-1311.	.0724	.0388	-.0338	-.0702	.0687	-.0261	428.
.0220	1737.	624.	1504.	-908.	-2459.	-549.	.0890	.0382	-.0282	-.0679	.0753	-.0148	596.
.0230	1926.	361.	475.	-1839.	-4953.	801.	.1043	.0366	-.0229	-.0637	.0768	-.0003	1189.
.0240	1669.	131.	-30.	-2352.	-5599.	2111.	.1145	.0352	-.0179	-.0602	.0733	.0096	1430.
.0250	1038.	223.	733.	-1731.	-2960.	2565.	.1184	.0350	-.0122	-.0584	.0689	.0110	953.
.0260	1018.	718.	1765.	-243.	-1151.	1840.	.1191	.0364	-.0054	-.0574	.0646	.0087	486.
.0270	2057.	1345.	1460.	988.	-4720.	757.	.1178	.0385	.0029	-.0570	.0524	.0102	1086.
.0280	2436.	1721.	1854.	1394.	-5429.	372.	.1101	.0405	.0125	-.0570	.0386	.0155	1250.
.0290	1288.	1879.	4730.	1584.	2935.	356.	.0948	.0423	.0234	-.0567	.0347	.0194	746.
.0300	692.	2275.	5936.	2393.	7135.	-662.	.0793	.0438	.0338	-.0549	.0293	.0195	1681.
.0310	1139.	2797.	4658.	3645.	4186.	-2508.	.0658	.0444	.0423	-.0496	.0198	.0178	1355.
.0320	1219.	2882.	3570.	4455.	2752.	-3574.	.0495	.0430	.0474	-.0398	.0128	.0174	1411.

.0330 475. 2341. 2970. 4189. 4115. -2938. .0289 .0390 .0491 -.0275 .0040 .0204 1461.

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

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

SECTION	MEMBER	SEQUENCE	LOCATION	DEG	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)		
.0340	-208.	1552.	1629.	3248.	3371.	-1520.	.0062	.0335	.0477	-.0160	-.0127	.0231	1095.		
.0350	-395.	998.	516.	2710.	1735.	-906.	-.0174	.0279	.0444	-.0071	-.0296	.0183	744.		
.0360	-172.	900.	616.	3101.	1704.	-1693.	-.0415	.0227	-.0403	-.0005	-.0395	.0050	873.		
.0370	461.	1116.	670.	3819.	441.	-3093.	-.0636	.0176	.0364	.0050	-.0492	-.0086	1098.		
.0380	984.	1185.	221.	3752.	-2124.	-3699.	-.0837	.0113	.0342	.0108	-.0656	-.0152	1264.		
.0390	427.	755.	903.	2431.	-12.	-2887.	-.1040	.0033	.0344	.0163	-.0824	-.0170	840.		
.0400	-997.	83.	2508.	752.	6906.	-1896.	-.1225	-.0056	.0342	.0224	-.0883	-.0201	1602.		
.0410	-1436.	-276.	1375.	55.	6680.	-2249.	-.1328	-.0145	.0315	.0309	-.0931	-.0261	1568.		
.0420	-1137.	-419.	-1496.	257.	1470.	-3243.	-.1364	-.0235	.0251	.0438	-.0966	-.0329	794.		
.0430	-1576.	-880.	-2765.	-79.	1074.	-2908.	-.1359	-.0335	.0211	.0562	-.0933	-.0363	690.		
.0440	-2708.	-1752.	-3044.	-1868.	4026.	-689.	-.1327	-.0443	.0181	.0633	-.0883	-.0355	999.		
.0450	-3115.	-2458.	-4218.	-3775.	2872.	1554.	-.1256	-.0543	.0150	.0657	-.0888	-.0348	1111.		
.0460	-2607.	-2525.	-5345.	-4060.	-875.	2061.	-.1161	-.0620	.0127	.0662	-.0902	-.0414	1031.		
.0470	-2311.	-2161.	-4640.	-2938.	-451.	1101.	-.1082	-.0675	.0113	.0658	-.0834	-.0562	705.		
.0480	-2339.	-1747.	-3100.	-1843.	2504.	-144.	-.1013	-.0724	.0105	.0654	-.0711	-.0692	693.		
.0490	-1912.	-1454.	-2438.	-1626.	2364.	-891.	-.0909	-.0782	.0117	.0678	-.0600	-.0702	669.		
.0500	-1313.	-1466.	-2083.	-2348.	1054.	-635.	-.0765	-.0856	.0148	.0748	-.0476	-.0590	590.		
.0510	-1200.	-1679.	-1297.	-3388.	1837.	514.	-.0597	-.0944	.0188	.0844	-.0313	-.0433	865.		
.0520	-1288.	-1690.	-604.	-3648.	2948.	1650.	-.0404	-.1034	.0226	.0952	-.0132	-.0293	1106.		
.0530	-916.	-1412.	-441.	-2786.	1927.	2249.	-.0187	-.1117	.0250	.1083	.0052	-.0170	905.		
.0540	-67.	-1257.	-590.	-1914.	-698.	2933.	.0038	-.1191	.0249	.1230	.0246	-.0032	795.		
.0550	866.	-1423.	-659.	-1872.	-3278.	4188.	.0251	-.1248	.0230	.1358	.0440	.0124	1254.		
.0560	1782.	-1461.	-312.	-1644.	-5251.	5159.	.0448	-.1275	.0207	.1443	.0610	.0248	1678.		
.0570	2798.	-883.	489.	155.	-7099.	4748.	.0638	-.1264	.0200	.1482	.0727	.0277	1900.		
.0580	3685.	187.	1671.	3166.	-8333.	3164.	.0819	-.1217	.0219	.1470	.0788	.0207	2104.		
.0590	4050.	1275.	3334.	5916.	-7439.	1479.	.0985	-.1152	.0262	.1414	.0827	.0105	2140.		
.0600	4043.	2123.	5055.	7642.	-5237.	311.	.1135	-.1086	.0319	.1348	.0864	.0052	2062.		
.0610	4056.	2675.	6065.	8490.	-3852.	-401.	.1270	-.1028	.0369	.1309	.0910	.0067	2076.		
.0620	4171.	2928.	6154.	8815.	-3845.	-898.	.1390	-.0984	.0399	.1309	.0968	.0105	2149.		
.0630	4205.	2957.	5902.	8948.	-3834.	-1308.	.1484	-.0955	.0406	.1331	.1036	.0108	2185.		
.0640	4126.	2823.	5475.	8901.	-3764.	-1424.	.1543	-.0944	.0394	.1349	.1072	.0059	2173.		
.0650	3929.	2400.	4648.	8147.	-4375.	-757.	.1561	-.0950	.0359	.1350	.1039	-.0016	2064.		
.0660	3546.	1637.	3861.	6403.	-4760.	704.	.1534	-.0969	.0310	.1333	.0957	-.0091	1782.		
.0670	3140.	833.	3684.	4333.	-4036.	2043.	.1469	-.0989	.0260	.1308	.0882	-.0164	1394.		
.0680	3095.	385.	3608.	2733.	-3925.	2320.	.1384	-.1002	.0221	.1270	.0824	-.0243	1183.		
.0690	3233.	242.	3229.	1418.	-4747.	1736.	.1283	-.1006	.0197	.1212	.0769	-.0315	1168.		
.0700	2833.	1.	3316.	-278.	-3234.	1298.	.1152	-.1008	.0185	.1142	.0735	-.0356	778.		
.0710	1875.	-478.	3821.	-2349.	578.	1492.	.0997	-.1009	.0176	.1078	.0713	-.0352	632.		

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

.0610	4056.	2675.	6065.	8490.	-3252.	-401.	1270	-.1028	.0369	.1309	.0910	.0067	2076.
.0620	4171.	2928.	6154.	8815.	-3845.	-898.	.1390	-.0984	.0399	.1309	.0968	.0105	2149.
.0630	4205.	2957.	5902.	8948.	-3834.	-1308.	.1484	-.0955	.0406	.1331	.1036	.0108	2185.
.0640	4126.	2823.	5475.	8901.	-3764.	-1424.	.1543	-.0944	.0394	.1349	.1072	.0059	2173.
.0650	3929.	2400.	4648.	8147.	-4375.	-757.	.1561	-.0950	.0359	.1350	.1039	-.0016	2064.
.0660	3546.	1637.	3861.	6402.	-4760.	704.	.1534	-.0969	.0310	.1333	.0957	-.0091	1782.
.0670	3140.	833.	3684.	4333.	-4036.	2043.	.1469	-.0989	.0260	.1308	.0882	-.0164	1394.
.0680	3095.	385.	3608.	2733.	-3925.	2320.	.1384	-.1002	.0221	.1270	.0824	-.0243	1183.
.0690	3233.	242.	3227.	1418.	-4747.	1736.	.1283	-.1006	.0197	.1212	.0769	-.0315	1168.
.0700	2833.	1.	3216.	-278.	-3234.	1298.	.1152	-.1008	.0185	.1142	.0735	-.0356	778.
.0710	1875.	-478.	3821.	-2349.	578.	1492.	.0997	-.1009	.0176	.1078	.0713	-.0352	632.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.31.

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

SECTION	MEMBER	SEQUENCE	LOCATION	BEG	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)	
.0720	1136.	-978.	3273.	-4186.	1849.	2009.	.0844	-.1006	.0159	.1025	.0549	-.0312	1112.	
.0730	764.	-1392.	1519.	-5413.	-94.	2549.	.0693	-.0994	.0130	.0975	.0529	-.0271	1331.	
.0740	153.	-1802.	119.	-6039.	-598.	3086.	.0519	-.0968	.0092	.0915	.0406	-.0268	1515.	
.0750	-719.	-2136.	-567.	-6108.	1131.	3438.	.0316	-.0923	.0051	.0835	.0291	-.0304	1580.	
.0760	-1282.	-2204.	-1425.	-5675.	1858.	3263.	.0106	-.0859	.0016	.0730	.0162	-.0345	1514.	
.0770	-1463.	-2008.	-2292.	-4951.	1608.	2529.	-.0094	-.0777	-.0004	.0614	.0038	-.0358	1288.	
.0780	-1637.	-1691.	-2411.	-4144.	2640.	1522.	-.0281	-.0684	-.0003	.0501	-.0054	-.0335	1144.	
.0790	-1869.	-1294.	-2181.	-3317.	4107.	502.	-.0444	-.0589	.0019	.0396	-.0145	-.0281	1180.	
.0800	-2107.	-858.	-2214.	-2572.	4505.	-277.	-.0575	-.0497	.0054	.0296	-.0271	-.0200	1156.	
.0810	-2524.	-564.	-2033.	-2130.	5344.	-517.	-.0680	-.0415	.0094	.0212	-.0403	-.0097	1285.	
.0820	-2940.	-513.	-1518.	-2055.	6718.	-188.	-.0762	-.0342	.0125	.0157	-.0509	.0029	1563.	
.0830	-2762.	-569.	-1529.	-2122.	5640.	361.	-.0809	-.0272	.0144	.0128	-.0506	.0174	1343.	
.0840	-1981.	-589.	-2027.	-2105.	2212.	848.	-.0826	-.0198	.0154	.0105	-.0695	.0317	705.	
.0850	-1261.	-564.	-1911.	-1969.	288.	1244.	-.0832	-.0112	.0165	.0060	-.0749	.0417	522.	
.0860	-856.	-434.	-1101.	-1643.	599.	1406.	-.0826	-.0008	.0191	-.0029	-.0775	.0450	499.	
.0870	-484.	-53.	-457.	-903.	628.	1002.	-.0792	.0116	.0239	-.0158	-.0806	.0426	331.	
.0880	-173.	567.	-28.	-278.	360.	-11.	-.0730	.0258	.0307	-.0305	-.0829	.0373	101.	
.0890	-236.	1211.	627.	1540.	1595.	-1281.	-.0654	.0410	.0383	-.0451	-.0813	.0316	570.	
.0900	-585.	1720.	1228.	2578.	3626.	-2554.	-.0571	.0562	.0450	-.0583	-.0759	.0262	1141.	
.0910	-822.	2115.	1343.	3496.	4531.	-3864.	-.0484	.0705	.0487	-.0694	-.0686	.0206	1536.	
.0920	-791.	2452.	1176.	4531.	4195.	-5157.	-.0399	.0833	.0481	-.0780	-.0503	.0135	1790.	
.0930	-572.	2705.	1051.	5632.	3317.	-6105.	-.0322	.0938	.0431	-.0844	-.0518	.0046	1990.	
.0940	-218.	2825.	968.	6532.	1933.	-6436.	-.0256	.1014	.0342	-.0887	-.0446	-.0049	2085.	
.0950	230.	2788.	876.	6987.	157.	-6199.	-.0201	.1057	.0222	-.0909	-.0381	-.0133	2078.	
.0960	660.	2591.	694.	6881.	-1607.	-5673.	-.0156	.1070	.0077	-.0909	-.0303	-.0203	2016.	
.0970	945.	2237.	249.	6270.	-3187.	-5149.	-.0123	.1056	-.0084	-.0881	-.0206	-.0265	1939.	
.0980	989.	1738.	-493.	5361.	-4437.	-4770.	-.0099	.1019	-.0255	-.0813	-.0099	-.0322	1877.	
.0990	751.	1096.	-1463.	4243.	-5277.	-4391.	-.0086	.0963	-.0430	-.0708	-.0003	-.0370	1795.	
.1000	268.	311.	-2656.	2780.	-5954.	-3677.	-.0078	.0894	-.0602	-.0587	.0057	-.0408	1675.	
.1010	-357.	-573.	-3901.	948.	-6535.	-2480.	-.0071	.0816	-.0762	-.0475	.0068	-.0446	1569.	
.1020	-981.	-1408.	-4794.	-883.	-6625.	-1069.	-.0063	.0739	-.0901	-.0388	.0042	-.0498	1506.	
.1030	-1436.	-2004.	-5155.	-2254.	-6138.	83.	-.0051	.0672	-.1011	-.0331	.0005	-.0572	1455.	
.1040	-1615.	-2256.	-5204.	-3064.	-5555.	698.	-.0028	.0621	-.1084	-.0313	-.0024	-.0655	1420.	
.1050	-1605.	-2275.	-5062.	-3594.	-4805.	850.	.0011	.0584	-.1114	-.0327	-.0027	-.0726	1348.	
.1060	-1615.	-2251.	-4732.	-4124.	-3490.	798.	.0069	.0557	-.1101	-.0360	-.0005	-.0774	1215.	
.1070	-1771.	-2251.	-4514.	-4670.	-2072.	733.	.0144	.0532	-.1048	-.0402	.0022	-.0803	1148.	
.1080	-2218.	-2171.	-4376.	-4968.	-112.	628.	.0236	.0506	-.0966	-.0449	.0064	-.0818	1114.	
.1090	-2889.	-1965.	-4164.	-4880.	2702.	413.	.0352	.0473	-.0868	-.0475	.0168	-.0802	1244.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.31.

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

.0990	51.	1096.	-1467.	4243.	-5277.	-4391.	-.0086	.0963	-.0430	-.0708	-.0003	-.0370	1795.
.1000	268.	311.	-2656.	2780.	-5954.	-3677.	-.0078	.0894	-.0602	-.0587	.0057	-.0408	1675.
.1010	-357.	-573.	-3901.	948.	-6535.	-2480.	-.0071	.0816	-.0762	-.0475	.0068	-.0446	1569.
.1020	-981.	-1408.	-4794.	-883.	-6625.	-1069.	-.0063	.0739	-.0901	-.0388	.0042	-.0498	1506.
.1030	-1436.	-2004.	-5155.	-2254.	-6138.	83.	-.0051	.0672	-.1011	-.0331	.0005	-.0572	1455.
.1040	-1615.	-2256.	-5204.	-3064.	-5555.	698.	-.0028	.0621	-.1084	-.0313	-.0024	-.0655	1420.
.1050	-1605.	-2275.	-5062.	-3594.	-4805.	850.	.0011	.0584	-.1114	-.0327	-.0027	-.0726	1348.
.1060	-1615.	-2251.	-4732.	-4124.	-3490.	798.	.0069	.0557	-.1101	-.0360	-.0005	-.0774	1215.
.1070	-1771.	-2251.	-4514.	-4670.	-2072.	733.	.0144	.0532	-.1048	-.0402	.0022	-.0803	1148.
.1080	-2218.	-2171.	-4376.	-4968.	-112.	628.	.0236	.0506	-.0966	-.0449	.0064	-.0818	1114.
.1090	-2889.	-1965.	-4164.	-4880.	2702.	413.	.0352	.0473	-.0868	-.0475	.0168	-.0802	1244.

ADLPIPE PAGE 1301

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.31.

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	30	MEMBER	1	SEQUENCE	844	LOCATION	BEG	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.1100	-2867.	-2108.	-4861.	-5322.	1246.	965.		.0478	.0427	-.0771	-.0454	.0206	-.0709	1235.	
.1110	-2684.	-2535.	-4853.	-6480.	363.	2527.		.0577	.0370	-.0683	-.0424	.0241	-.0540	1549.	
.1120	-2550.	-2688.	-3600.	-7493.	2081.	4198.		.0634	.0315	-.0605	-.0427	.0314	-.0337	1965.	
.1130	-1732.	-2339.	-2153.	-7501.	2279.	4677.		.0671	.0275	-.0530	-.0435	.0387	-.0138	2054.	
.1140	-203.	-1802.	-704.	-6734.	425.	4720.		.0702	.0253	-.0450	-.0409	.0451	.0057	1832.	
.1150	1078.	-1378.	1138.	-6198.	3.	4702.		.0720	.0250	-.0361	-.0376	.0530	.0269	1731.	
.1160	1630.	-1055.	2612.	-6293.	883.	5201.		.0726	.0267	-.0262	-.0371	.0590	.0501	1827.	
.1170	1697.	-817.	3337.	-6415.	1591.	5695.		.0727	.0311	-.0161	-.0377	.0509	.0710	1941.	
.1180	1806.	-697.	2745.	-5845.	-573.	5592.		.0715	.0392	-.0068	-.0374	.0525	.0823	1804.	
.1190	1343.	-486.	3000.	-4217.	744.	4588.		.0659	.0512	.0010	-.0401	.0446	.0792	1396.	
.1200	693.	160.	3771.	-1719.	4132.	2538.		.0569	.0664	.0069	-.0495	.0393	.0650	1145.	
.1210	922.	1090.	3051.	965.	2577.	-158.		.0484	.0834	.0105	-.0621	.0292	.0481	613.	
.1220	1492.	1627.	2849.	2844.	1091.	-2211.		.0394	.1000	.0122	-.0717	.0206	.0337	837.	
.1230	1818.	1775.	3157.	3680.	898.	-3099.		.0292	.1149	.0128	-.0799	.0102	.0226	1089.	
.1240	1652.	1966.	3696.	4167.	2164.	-3499.		.0181	.1276	.0127	-.0891	-.0018	.0122	1303.	
.1250	1402.	2243.	3775.	4831.	2538.	-4169.		.0073	.1378	.0118	-.0959	-.0158	.0008	1528.	
.1260	1254.	2222.	2846.	5215.	580.	-4932.		-.0034	.1450	.0095	-.0966	-.0329	-.0103	1602.	
.1270	380.	1692.	2865.	4622.	2876.	-5163.		-.0160	.1490	.0058	-.0930	-.0396	-.0179	1669.	
.1280	-596.	1022.	2130.	3095.	4617.	-4929.		-.0283	.1497	.0002	-.0888	-.0411	-.0182	1653.	
.1290	-1070.	319.	440.	1088.	3532.	-4376.		-.0386	.1481	-.0070	-.0844	-.0409	-.0127	1274.	
.1300	-1263.	-517.	-913.	-991.	2288.	-3458.		-.0480	.1451	-.0153	-.0807	-.0391	-.0086	948.	
.1310	-1431.	-1226.	-2062.	-2608.	976.	-2440.		-.0578	.1418	-.0244	-.0828	-.0417	-.0129	824.	
.1320	-1909.	-1518.	-2238.	-3223.	2197.	-1819.		-.0687	.1390	-.0338	-.0919	-.0440	-.0260	957.	
.1330	-2124.	-1503.	-2865.	-3066.	1763.	-1772.		-.0788	.1367	-.0434	-.1034	-.0495	-.0412	880.	
.1340	-2115.	-1630.	-3594.	-3087.	590.	-1795.		-.0875	.1344	-.0522	-.1119	-.0533	-.0507	805.	
.1350	-2162.	-1985.	-4034.	-3587.	286.	-1701.		-.0945	.1317	-.0595	-.1179	-.0527	-.0522	885.	
.1360	-2125.	-2009.	-5144.	-3841.	-1557.	-1911.		-.0989	.1286	-.0642	-.1247	-.0547	-.0487	1015.	
.1370	-2381.	-1728.	-5592.	-3369.	-1613.	-2395.		-.1019	.1249	-.0660	-.1312	-.0580	-.0454	987.	
.1380	-2815.	-1425.	-5648.	-2532.	-1006.	-2627.		-.1040	.1199	-.0652	-.1356	-.0672	-.0434	842.	
.1390	-3300.	-1229.	-5025.	-1808.	830.	-2238.		-.1057	.1132	-.0626	-.1369	-.0785	-.0397	666.	
.1400	-3360.	-998.	-4315.	-1267.	1982.	-1479.		-.1063	.1048	-.0594	-.1350	-.0893	-.0306	618.	
.1410	-2675.	-748.	-4630.	-909.	-525.	-693.		-.1051	.0949	-.0558	-.1283	-.1025	-.0165	280.	
.1420	-2113.	-742.	-4133.	-770.	-926.	176.		-.1043	.0841	-.0512	-.1159	-.1106	-.0014	271.	
.1430	-1860.	-805.	-3230.	-533.	283.	932.		-.1033	.0731	-.0449	-.1000	-.1167	.0115	247.	
.1440	-1744.	-667.	-2414.	39.	1592.	1376.		-.1003	.0627	-.0360	-.0834	-.1220	.0231	468.	
.1450	-1592.	-446.	-1900.	535.	1923.	1748.		-.0938	.0531	-.0245	-.0664	-.1270	.0355	590.	
.1460	-1428.	-389.	-1704.	502.	1165.	2354.		-.0848	.0447	-.0111	-.0494	-.1326	.0478	595.	
.1470	-1601.	-411.	-393.	318.	3432.	2895.		-.0755	.0383	.0032	-.0340	-.1306	.0558	1001.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.31.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.1370	-2381.	-1728.	-5592.	-3369.	-1613.	-2395.	-.1019	.1249	-.0660	-.1312	-.0580	-.0454	987.
.1380	-2815.	-1425.	-5648.	-2532.	-1006.	-2627.	-.1040	.1199	-.0652	-.1356	-.0672	-.0434	842.
.1390	-3300.	-1229.	-5025.	-1808.	830.	-2238.	-.1057	.1132	-.0626	-.1369	-.0785	-.0397	666.
.1400	-3360.	-998.	-4315.	-1267.	1982.	-1479.	-.1063	.1048	-.0594	-.1350	-.0893	-.0306	618.
.1410	-2675.	-748.	-4630.	-909.	-525.	-893.	-.1051	.0949	-.0558	-.1283	-.1025	-.0165	280.
.1420	-2113.	-742.	-4133.	-770.	-926.	176.	-.1043	.0841	-.0512	-.1159	-.1106	-.0014	271.
.1430	-1860.	-805.	-3230.	-533.	283.	532.	-.1033	.0731	-.0449	-.1000	-.1167	.0115	247.
.1440	-1744.	-667.	-2414.	39.	1592.	1376.	-.1003	.0627	-.0360	-.0834	-.1220	.0231	468.
.1450	-1592.	-446.	-1900.	535.	1923.	1748.	-.0938	.0531	-.0245	-.0664	-.1270	.0355	590.
.1460	-1428.	-389.	-1704.	502.	1165.	2354.	-.0848	.0447	-.0111	-.0494	-.1326	.0478	595.
.1470	-1601.	-411.	-393.	318.	3432.	2895.	-.0755	.0383	.0032	-.0340	-.1306	.0558	1001.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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18.27.31.

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	30	MEMBER	1	SEQUENCE	844	LOCATION	BEG	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.1480	-1482.	-105.	654.	754.	4600.	2554.	-.0658	.0342	.0166	-.0221	-.1256	.0563	1182.		
.1490	-964.	461.	1490.	1828.	4583.	1269.	-.0559	.0321	.0281	-.0125	-.1159	.0488	1133.		
.1500	-342.	882.	2712.	2856.	5259.	-182.	-.0463	.0309	.0371	-.0029	-.0997	.0361	1332.		
.1510	427.	1061.	3315.	3403.	4358.	-1168.	-.0363	.0293	.0434	.0067	-.0834	.0219	1257.		
.1520	987.	1088.	3698.	3543.	3597.	-1538.	-.0261	.0261	.0475	.0160	-.0656	.0085	1174.		
.1530	1275.	995.	3456.	3378.	2207.	-1446.	-.0155	.0210	.0501	.0263	-.0495	-.0034	954.		
.1540	1088.	676.	3559.	2863.	2780.	-1035.	-.0056	.0138	.0514	.0397	-.0297	-.0126	917.		
.1550	827.	239.	3780.	2006.	4038.	-566.	.0042	.0047	.0516	.0563	-.0051	-.0166	1011.		
.1560	1051.	-137.	2874.	823.	2036.	-166.	.0147	-.0061	.0502	.0741	.0178	-.0132	490.		
.1570	1156.	-609.	2612.	-755.	1735.	498.	.0236	-.0180	.0471	.0923	.0441	-.0043	435.		
.1580	1171.	-1204.	2688.	-2539.	2122.	1508.	.0309	-.0303	.0424	.1088	.0680	.0059	809.		
.1590	1372.	-1675.	2317.	-3937.	773.	2508.	-.0372	-.0420	.0361	.1207	.0833	.0129	1053.		
.1600	1473.	-1888.	2244.	-4562.	80.	3242.	.0418	-.0521	.0288	.1264	.0938	.0141	1245.		
.1610	1398.	-1944.	2428.	-4716.	357.	3727.	.0451	-.0603	.0211	.1264	.1017	.0115	1340.		
.1620	1478.	-1970.	1673.	-4805.	-1479.	3972.	.0483	-.0665	.0135	.1226	.1045	.0085	1425.		
.1630	1420.	-2040.	1144.	-4877.	-2141.	3995.	.0504	-.0707	.0068	.1171	.1090	.0066	1481.		
.1640	1270.	-2019.	525.	-4791.	-2431.	3710.	.0513	-.0730	.0013	.1093	.1127	.0056	1452.		
.1650	1075.	-1847.	-540.	-4457.	-3459.	3158.	.0512	-.0737	-.0026	.0988	.1115	.0041	1438.		
.1660	578.	-1618.	-813.	-3809.	-2331.	2523.	.0490	-.0731	-.0049	.0875	.1091	.0014	1141.		
.1670	186.	-1315.	-1036.	-2937.	-1718.	1936.	.0456	-.0719	-.0059	.0761	.1014	-.0012	871.		
.1680	-40.	-996.	-985.	-2203.	-1183.	1636.	.0411	-.0704	-.0063	.0652	.0917	-.0013	665.		
.1690	7.	-711.	-1116.	-1783.	-1806.	1638.	.0362	-.0692	-.0062	.0559	.0799	.0019	672.		
.1700	141.	-510.	-1024.	-1448.	-2232.	1749.	.0302	-.0679	-.0057	.0504	.0689	.0070	708.		
.1710	168.	-378.	-119.	-1016.	-665.	1829.	.0236	-.0666	-.0047	.0491	.0631	.0126	488.		
.1720	518.	-198.	-260.	-600.	-1991.	1841.	.0184	-.0649	-.0030	.0499	.0544	.0189	618.		
.1730	724.	-90.	-346.	-367.	-2771.	2008.	.0140	-.0628	-.0000	.0521	.0475	.0253	766.		
.1740	686.	-100.	-220.	-254.	-2627.	2347.	.0099	-.0598	.0042	.0556	.0410	.0304	786.		
.1750	625.	-121.	-446.	-83.	-3260.	2658.	.0060	-.0555	.0096	.0589	.0315	.0329	936.		
.1760	447.	-56.	-245.	301.	-2686.	2713.	.0016	-.0496	.0163	.0608	.0236	.0317	852.		
.1770	444.	180.	-194.	966.	-2750.	2250.	-.0035	-.0419	.0238	.0606	.0148	.0271	819.		
.1780	503.	491.	382.	1769.	-1751.	1318.	-.0097	-.0327	.0321	.0589	.0088	.0195	627.		
.1790	721.	839.	788.	2518.	-1396.	121.	-.0163	-.0226	.0408	.0553	.0022	.0100	641.		
.1800	883.	1196.	987.	3170.	-1269.	-1090.	-.0234	-.0127	.0496	.0500	-.0059	-.0008	797.		
.1810	622.	1469.	1868.	3728.	1337.	-2134.	-.0314	-.0036	.0582	.0445	-.0112	-.0124	1001.		
.1820	409.	1656.	1963.	4088.	2183.	-3022.	-.0384	.0039	.0658	.0398	-.0194	-.0230	1231.		
.1830	191.	1692.	1706.	4125.	2381.	-3671.	-.0446	.0091	.0719	.0366	-.0271	-.0316	1338.		
.1840	-101.	1601.	1361.	3886.	2690.	-4053.	-.0508	.0117	.0757	.0348	-.0331	-.0381	1385.		
.1850	-401.	1422.	917.	3468.	2870.	-4186.	-.0571	.0117	.0770	.0347	-.0378	-.0420	1368.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.31.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.1750	625.	-121.	-446.	-83.	-3260.	2658.	.0060	-.0555	.0096	.0589	.0315	.0329	936.
.1760	447.	-56.	-245.	301.	-2686.	2713.	.0016	-.0496	.0163	.0608	.0236	.0317	852.
.1770	444.	180.	-194.	966.	-2750.	2250.	-.0035	-.0419	.0238	.0606	.0148	.0271	819.
.1780	503.	491.	382.	1769.	-1751.	1318.	-.0097	-.0327	.0321	.0589	.0088	.0195	627.
.1790	721.	839.	788.	2518.	-1396.	121.	-.0163	-.0226	.0408	.0553	.0022	.0100	641.
.1800	883.	1196.	987.	3170.	-1269.	-1070.	-.0234	-.0127	.0496	.0500	-.0059	-.0008	797.
.1810	622.	1469.	1868.	3728.	1337.	-2134.	-.0314	-.0036	.0582	.0445	-.0112	-.0124	1001.
.1820	409.	1656.	1963.	4088.	2183.	-3022.	-.0384	.0039	.0658	.0398	-.0194	-.0230	1231.
.1830	191.	1692.	1706.	4125.	2381.	-3671.	-.0446	.0091	.0719	.0366	-.0271	-.0316	1338.
.1840	-101.	1601.	1361.	3886.	2690.	-4653.	-.0508	.0117	.0757	.0348	-.0331	-.0381	1385.
.1850	-401.	1422.	917.	3468.	2870.	-4186.	-.0571	.0117	.0770	.0347	-.0378	-.0420	1368.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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18.27.31.

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	RU	TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	PX	RY	RZ	STRESS
30	1	844	BEG				(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
.1860	-662.	1149.	767.	2903.	3526.	-4060.	-.0635	.0092	.0759	.0367	-.0398	-.0425	1359.							
.1870	-588.	877.	200.	2261.	2361.	-3751.	-.0691	.0044	.0726	.0401	-.0430	-.0397	1107.							
.1880	-471.	640.	49.	1651.	1812.	-3271.	-.0741	-.0021	.0680	.0437	-.0441	-.0348	909.							
.1890	-388.	472.	47.	1137.	1514.	-2691.	-.0782	-.0099	.0628	.0468	-.0446	-.0290	732.							
.1900	-367.	350.	-133.	728.	919.	-2090.	-.0809	-.0184	.0574	.0496	-.0451	-.0225	533.							
.1910	-590.	221.	67.	426.	1829.	-1532.	-.0821	-.0273	.0522	.0532	-.0410	-.0151	539.							
.1920	-775.	126.	-123.	184.	2113.	-1122.	-.0807	-.0362	.0471	.0568	-.0340	-.0069	534.							
.1930	-880.	35.	-660.	-94.	1752.	-813.	-.0766	-.0448	.0420	.0600	-.0238	.0014	430.							
.1940	-1009.	-93.	-1154.	-399.	1614.	-512.	-.0701	-.0530	.0369	.0625	-.0107	.0078	387.							
.1950	-1122.	-210.	-1516.	-592.	1559.	-212.	-.0616	-.0605	.0317	.0635	.0032	.0104	374.							
.1960	-1107.	-245.	-1796.	-598.	1098.	67.	-.0509	-.0673	.0266	.0628	.0163	.0091	279.							
.1970	-939.	-227.	-1875.	-549.	402.	375.	-.0384	-.0736	.0217	.0610	.0289	.0052	173.							
.1980	-635.	-236.	-1715.	-664.	-371.	772.	-.0246	-.0794	.0172	.0594	.0414	.0010	241.							
.1990	-221.	-292.	-1449.	-1018.	-1338.	1226.	-.0098	-.0847	.0133	.0588	.0535	-.0021	463.							
.2000	201.	-360.	-1084.	-1498.	-2145.	1639.	.0055	-.0897	.0103	.0597	.0654	-.0040	687.							
.2010	538.	-423.	-581.	-1956.	-2424.	1951.	.0210	-.0939	.0082	.0625	.0770	-.0053	818.							
.2020	808.	-491.	-130.	-2326.	-2626.	2200.	.0365	-.0974	.0071	.0670	.0868	-.0062	921.							
.2030	1029.	-581.	127.	-2622.	-3112.	2518.	.0518	-.1000	.0065	.0729	.0934	-.0071	1065.							
.2040	1146.	-695.	349.	-2840.	-3402.	2990.	.0660	-.1014	.0062	.0789	.0970	-.0083	1189.							
.2050	1204.	-785.	631.	-2858.	-3371.	3472.	.0784	-.1012	.0060	.0842	.0982	-.0107	1250.							
.2060	1355.	-766.	861.	-2473.	-3598.	3653.	.0890	-.0992	.0056	.0886	.0974	-.0152	1266.							
.2070	1642.	-586.	1045.	-1597.	-4161.	3359.	.0976	-.0953	.0053	.0916	.0953	-.0217	1242.							
.2080	1933.	-284.	1349.	-398.	-4422.	2719.	.1039	-.0897	.0052	.0932	.0930	-.0293	1158.							
.2090	2129.	54.	1759.	825.	-4237.	1985.	.1079	-.0830	.0058	.0935	.0904	-.0359	1057.							
.2100	2244.	372.	2097.	1898.	-4066.	1281.	.1101	-.0759	.0071	.0930	.0871	-.0404	1038.							
.2110	2281.	667.	2356.	2818.	-3894.	601.	.1107	-.0688	.0091	.0921	.0838	-.0430	1078.							
.2120	2239.	941.	2588.	3598.	-3528.	-67.	.1096	-.0621	.0116	.0908	.0814	-.0442	1121.							
.2130	2166.	1159.	2743.	4163.	-3119.	-662.	.1066	-.0563	.0139	.0894	.0802	-.0441	1167.							
.2140	2118.	1261.	2788.	4387.	-2830.	-1081.	.1016	-.0516	.0157	.0879	.0801	-.0422	1186.							
.2150	2120.	1223.	2732.	4198.	-2685.	-1250.	.0949	-.0481	.0167	.0862	.0811	-.0385	1143.							
.2160	2171.	1085.	2556.	3665.	-2755.	-1196.	.0868	-.0456	.0170	.0837	.0822	-.0339	1054.							
.2170	2229.	901.	2267.	2970.	-3029.	-1019.	.0776	-.0440	.0170	.0801	.0821	-.0298	971.							
.2180	2191.	701.	1986.	2254.	-3110.	-798.	.0676	-.0428	.0169	.0755	.0799	-.0269	873.							
.2190	1988.	485.	1778.	1522.	-2714.	-548.	.0569	-.0418	.0170	.0699	.0754	-.0248	703.							
.2200	1665.	262.	1547.	728.	-2096.	-287.	.0460	-.0408	.0174	.0636	.0687	-.0226	498.							
.2210	1312.	48.	1238.	-86.	-1536.	-70.	.0351	-.0395	.0178	.0568	.0601	-.0197	343.							
.2220	964.	-138.	917.	-787.	-986.	51.	.0242	-.0378	.0179	.0501	.0496	-.0166	281.							
.2230	613.	-275.	627.	-1262.	-392.	90.	.0134	-.0356	.0176	.0432	.0371	-.0144	295.							

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ADLPIPE STRESS ANALYSIS

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2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

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ENGLISH UNITS

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

.2130	2166.	1159.	2743.	4163.	-3119.	-662.	.1066	-.0563	.0139	.0894	.0802	-.0441	1167.
.2140	2118.	1261.	2788.	4387.	-2830.	-1081.	.1016	-.0516	.0157	.0879	.0801	-.0422	1186.
.2150	2120.	1223.	2732.	4198.	-2685.	-1250.	.0949	-.0481	.0167	.0862	.0811	-.0385	1143.
.2160	2171.	1075.	2556.	3665.	-2755.	-1196.	.0868	-.0456	.0170	.0837	.0822	-.0339	1054.
.2170	2229.	901.	2267.	2970.	-3029.	-1019.	.0776	-.0440	.0170	.0801	.0821	-.0298	971.
.2180	2191.	701.	1976.	2254.	-3110.	-798.	.0676	-.0428	.0169	.0755	.0799	-.0269	873.
.2190	1988.	485.	1778.	1522.	-2714.	-549.	.0569	-.0418	.0170	.0699	.0754	-.0248	703.
.2200	1665.	262.	1547.	728.	-2096.	-287.	.0460	-.0408	.0174	.0636	.0687	-.0226	498.
.2210	1312.	48.	1238.	-86.	-1536.	-70.	.0351	-.0395	.0178	.0568	.0601	-.0197	343.
.2220	964.	-138.	917.	-787.	-986.	51.	.0242	-.0378	.0179	.0501	.0496	-.0166	281.
.2230	613.	-275.	627.	-1262.	-392.	90.	.0134	-.0356	.0176	.0432	.0371	-.0144	295.

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ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	RU	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
30	1	844					.2240	256.	-363.	353.	-1488.	189.	132.	.0026	-.0330	.0164	.0362	.0219	-.0136	335.
							.2250	-93.	-434.	81.	-1532.	676.	277.	-.0081	-.0301	.0144	.0290	.0042	-.0143	378.
							.2260	-411.	-525.	-234.	-1492.	936.	565.	-.0187	-.0269	.0116	.0224	-.0153	-.0157	411.
							.2270	-695.	-642.	-618.	-1407.	957.	933.	-.0290	-.0235	.0080	.0167	-.0356	-.0172	432.
							.2280	-973.	-757.	-1004.	-1254.	994.	1250.	-.0391	-.0197	.0042	.0120	-.0549	-.0186	452.
							.2290	-1249.	-848.	-1321.	-1027.	1214.	1415.	-.0490	-.0155	.0004	.0084	-.0720	-.0199	474.
							.2300	-1491.	-917.	-1586.	-786.	1469.	1424.	-.0582	-.0106	-.0030	.0054	-.0865	-.0208	487.
							.2310	-1689.	-966.	-1787.	-588.	1685.	1346.	-.0665	-.0052	-.0057	.0026	-.0984	-.0212	497.
							.2320	-1847.	-989.	-1844.	-416.	1987.	1242.	-.0737	.0009	-.0078	-.0006	-.1073	-.0214	530.
							.2330	-1927.	-972.	-1764.	-217.	2266.	1106.	-.0796	.0076	-.0094	-.0045	-.1132	-.0222	563.
							.2340	-1879.	-911.	-1631.	45.	2265.	883.	-.0838	.0151	-.0104	-.0095	-.1161	-.0243	541.
							.2350	-1713.	-811.	-1460.	375.	2060.	530.	-.0863	.0233	-.0110	-.0154	-.1155	-.0279	480.
							.2360	-1480.	-684.	-1241.	744.	1865.	53.	-.0869	.0319	-.0112	-.0223	-.1110	-.0327	447.
							.2370	-1209.	-549.	-1038.	1094.	1628.	-494.	-.0856	.0407	-.0108	-.0295	-.1030	-.0380	450.
							.2380	-929.	-426.	-891.	1375.	1302.	-1047.	-.0820	.0493	-.0096	-.0366	-.0925	-.0429	481.
							.2390	-699.	-316.	-742.	1572.	1102.	-1555.	-.0763	.0574	-.0078	-.0434	-.0802	-.0469	550.
							.2400	-545.	-204.	-548.	1690.	1154.	-1984.	-.0687	.0647	-.0054	-.0497	-.0666	-.0496	634.
							.2410	-438.	-92.	-319.	1720.	1343.	-2300.	-.0596	.0708	-.0028	-.0551	-.0526	-.0505	705.
							.2420	-329.	-4.	-44.	1638.	1575.	-2465.	-.0494	.0756	-.0007	-.0592	-.0382	-.0489	746.
							.2430	-173.	41.	268.	1435.	1735.	-2463.	-.0385	.0790	.0004	-.0614	-.0239	-.0447	742.
							.2440	63.	55.	531.	1132.	1575.	-2306.	-.0271	.0811	.0001	-.0623	-.0101	-.0382	670.
							.2450	337.	52.	721.	780.	1132.	-2013.	-.0154	.0819	-.0014	-.0623	.0023	-.0303	542.
							.2460	557.	33.	895.	437.	743.	-1617.	-.0041	.0819	-.0043	-.0620	.0130	-.0221	408.
							.2470	681.	-10.	1041.	136.	519.	-1177.	.0066	.0813	-.0086	-.0618	.0221	-.0146	298.
							.2480	766.	-67.	1015.	-111.	77.	-779.	.0166	.0805	-.0143	-.0617	.0293	-.0080	176.
							.2490	858.	-119.	773.	-298.	-769.	-477.	.0257	.0797	-.0210	-.0622	.0346	-.0024	212.
							.2500	906.	-155.	458.	-431.	-1608.	-266.	.0337	.0789	-.0283	-.0637	.0381	.0022	375.
							.2510	855.	-172.	198.	-522.	-2073.	-110.	.0401	.0785	-.0356	-.0664	.0398	.0055	476.
							.2520	734.	-170.	6.	-586.	-2216.	3.	.0448	.0782	-.0427	-.0700	.0396	.0078	510.
							.2530	611.	-156.	-155.	-641.	-2252.	70.	.0480	.0781	-.0494	-.0743	.0379	.0095	521.
							.2540	517.	-144.	-321.	-728.	-2298.	120.	.0498	.0780	-.0554	-.0787	.0350	.0110	537.
							.2550	418.	-161.	-509.	-903.	-2304.	223.	.0503	.0779	-.0606	-.0829	.0310	.0128	553.
							.2560	263.	-229.	-697.	-1190.	-2117.	427.	.0497	.0778	-.0650	-.0868	.0261	.0148	549.
							.2570	40.	-338.	-869.	-1556.	-1690.	712.	.0481	.0777	-.0684	-.0904	.0204	.0166	535.
							.2580	-206.	-467.	-1053.	-1949.	-1216.	1011.	.0459	.0777	-.0706	-.0939	.0142	.0180	558.
							.2590	-430.	-591.	-1265.	-2309.	-854.	1261.	.0431	.0780	-.0719	-.0975	.0074	.0188	615.
							.2600	-638.	-682.	-1452.	-2592.	-493.	1439.	.0399	.0788	-.0722	-.1014	.0004	.0193	669.
							.2610	-840.	-735.	-1564.	-2804.	-12.	1569.	.0360	.0801	-.0718	-.1058	-.0067	.0198	715.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.2510	855.	-172.	198.	-522.	-2073.	-110.	.0401	.0785	-.0356	-.0664	.0398	.0055	476.
.2520	734.	-170.	6.	-586.	-2216.	3.	.0448	.0782	-.0427	-.0700	.0396	.0078	510.
.2530	611.	-156.	-155.	-641.	-2252.	70.	.0480	.0781	-.0494	-.0743	.0379	.0095	521.
.2540	517.	-144.	-321.	-728.	-2298.	120.	.0498	.0780	-.0554	-.0787	.0350	.0110	537.
.2550	418.	-161.	-509.	-903.	-2304.	223.	.0503	.0779	-.0606	-.0829	.0310	.0128	553.
.2560	263.	-229.	-697.	-1190.	-2117.	427.	.0497	.0778	-.0650	-.0868	.0261	.0148	549.
.2570	40.	-338.	-869.	-1556.	-1690.	712.	.0481	.0777	-.0684	-.0904	.0204	.0166	535.
.2580	-206.	-467.	-1053.	-1949.	-1216.	1011.	.0459	.0777	-.0706	-.0939	.0142	.0180	558.
.2590	-430.	-591.	-1265.	-2309.	-854.	1261.	.0431	.0780	-.0719	-.0975	.0074	.0188	615.
.2600	-638.	-682.	-1452.	-2592.	-493.	1439.	.0399	.0788	-.0722	-.1014	.0004	.0193	669.
.2610	-840.	-735.	-1564.	-2804.	-12.	1569.	.0360	.0801	-.0718	-.1058	-.0067	.0198	715.

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

SECTION	30	MEMBER	1	SEQUENCE	844	LOCATION	BEG	TYPE	RU					
TIME	FX	FY	FZ	HX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.2620	-1011.	-768.	-1610.	-2971.	485.	1661.	.0314	.0820	-.0709	-.1107	-.0141	.0205	765.	
.2630	-1124.	-776.	-1613.	-3054.	872.	1674.	.0261	.0846	-.0695	-.1159	-.0217	.0214	799.	
.2640	-1193.	-735.	-1581.	-2985.	1184.	1561.	.0201	.0878	-.0679	-.1212	-.0296	.0221	794.	
.2650	-1251.	-649.	-1522.	-2770.	1491.	1336.	.0134	.0916	-.0661	-.1267	-.0377	.0229	760.	
.2660	-1320.	-542.	-1463.	-2490.	1800.	1056.	.0061	.0959	-.0641	-.1323	-.0461	.0240	723.	
.2670	-1401.	-436.	-1415.	-2210.	2104.	749.	-.0014	.1005	-.0619	-.1380	-.0545	.0254	699.	
.2680	-1486.	-326.	-1388.	-1922.	2363.	392.	-.0092	.1053	-.0596	-.1436	-.0527	.0268	683.	
.2690	-1576.	-187.	-1393.	-1582.	2578.	-53.	-.0170	.1102	-.0570	-.1493	-.0707	.0279	673.	
.2700	-1681.	-15.	-1413.	-1189.	2812.	-570.	-.0247	.1149	-.0544	-.1549	-.0782	.0286	691.	
.2710	-1783.	150.	-1442.	-814.	3016.	-1081.	-.0324	.1193	-.0518	-.1597	-.0851	.0290	736.	
.2720	-1845.	247.	-1496.	-542.	3026.	-1501.	-.0398	.1231	-.0493	-.1630	-.0916	.0295	761.	
.2730	-1866.	282.	-1575.	-366.	2831.	-1812.	-.0469	.1261	-.0468	-.1648	-.0976	.0302	752.	
.2740	-1890.	328.	-1640.	-201.	2663.	-2071.	-.0536	.1282	-.0443	-.1657	-.1026	.0314	752.	
.2750	-1930.	414.	-1684.	-20.	2597.	-2310.	-.0599	.1295	-.0416	-.1657	-.1061	.0333	773.	
.2760	-1963.	483.	-1722.	102.	2548.	-2490.	-.0654	.1298	-.0386	-.1643	-.1080	.0362	793.	
.2770	-1987.	493.	-1752.	107.	2532.	-2580.	-.0703	.1291	-.0354	-.1611	-.1078	.0401	805.	
.2780	-2022.	486.	-1799.	48.	2598.	-2627.	-.0743	.1274	-.0321	-.1566	-.1055	.0446	822.	
.2790	-2078.	509.	-1905.	2.	2701.	-2681.	-.0775	.1248	-.0289	-.1515	-.1011	.0493	847.	
.2800	-2141.	524.	-2052.	-36.	2796.	-2715.	-.0799	.1214	-.0261	-.1453	-.0952	.0535	867.	
.2810	-2184.	478.	-2191.	-107.	2861.	-2673.	-.0814	.1172	-.0238	-.1379	-.0880	.0569	871.	
.2820	-2182.	398.	-2330.	-203.	2800.	-2560.	-.0819	.1122	-.0222	-.1298	-.0799	.0593	845.	
.2830	-2128.	346.	-2488.	-290.	2555.	-2419.	-.0812	.1065	-.0212	-.1218	-.0712	.0610	786.	
.2840	-2033.	323.	-2609.	-374.	2238.	-2252.	-.0793	.1001	-.0208	-.1140	-.0623	.0622	711.	
.2850	-1901.	286.	-2635.	-492.	1947.	-2033.	-.0761	.0933	-.0207	-.1059	-.0533	.0630	636.	
.2860	-1733.	235.	-2594.	-648.	1628.	-1770.	-.0715	.0860	-.0207	-.0974	-.0448	.0632	554.	
.2870	-1556.	200.	-2537.	-812.	1267.	-1499.	-.0656	.0784	-.0208	-.0890	-.0372	.0626	473.	
.2880	-1409.	181.	-2462.	-966.	981.	-1224.	-.0585	.0705	-.0208	-.0808	-.0310	.0611	410.	
.2890	-1304.	146.	-2356.	-1108.	816.	-925.	-.0507	.0625	-.0208	-.0725	-.0265	.0583	369.	
.2900	-1215.	95.	-2243.	-1215.	678.	-615.	-.0422	.0545	-.0206	-.0642	-.0239	.0541	338.	
.2910	-1126.	55.	-2132.	-1251.	524.	-333.	-.0333	.0465	-.0204	-.0560	-.0232	.0484	311.	
.2920	-1040.	38.	-1992.	-1202.	427.	-96.	-.0243	.0386	-.0199	-.0481	-.0240	.0415	285.	
.2930	-957.	38.	-1795.	-1082.	433.	107.	-.0154	.0307	-.0192	-.0402	-.0259	.0339	260.	
.2940	-872.	54.	-1545.	-918.	518.	285.	-.0067	.0228	-.0179	-.0320	-.0283	.0264	243.	
.2950	-779.	84.	-1264.	-742.	638.	445.	.0016	.0148	-.0161	-.0233	-.0307	.0198	239.	
.2960	-676.	108.	-963.	-591.	749.	597.	.0095	.0065	-.0139	-.0137	-.0325	.0145	250.	
.2970	-567.	109.	-647.	-477.	841.	746.	.0168	-.0020	-.0111	-.0030	-.0334	.0106	272.	
.2980	-458.	100.	-319.	-378.	930.	880.	.0234	-.0107	-.0080	.0085	-.0330	.0081	297.	
.2990	-339.	102.	8.	-283.	993.	984.	.0291	-.0197	-.0046	.0204	-.0311	.0068	317.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.32.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

.2890	-1704.	146.	-356.	-1108.	816.	-925.	-.507	.0625	-.0208	-.0725	-.0265	.0583	369.
.2900	-1215.	95.	-2243.	-1215.	678.	-615.	-.422	.0545	-.0206	-.0642	-.0239	.0541	338.
.2910	-1126.	55.	-2132.	-1251.	524.	-333.	-.0333	.0465	-.0204	-.0560	-.0232	.0484	311.
.2920	-1040.	38.	-1992.	-1202.	427.	-96.	-.0243	.0386	-.0199	-.0481	-.0240	.0415	285.
.2930	-957.	38.	-1795.	-1082.	437.	107.	-.0154	.0307	-.0192	-.0402	-.0259	.0339	260.
.2940	-872.	54.	-1545.	-911.	518.	285.	-.0067	.0228	-.0179	-.0320	-.0283	.0264	243.
.2950	-779.	84.	-1264.	-742.	638.	445.	.0016	.0148	-.0161	-.0233	-.0307	.0198	239.
.2960	-676.	108.	-963.	-591.	749.	597.	.0095	.0065	-.0139	-.0137	-.0325	.0145	250.
.2970	-567.	109.	-647.	-477.	841.	746.	.0168	-.0020	-.0111	-.0030	-.0334	.0106	272.
.2980	-458.	100.	-319.	-378.	930.	880.	.0234	-.0107	-.0080	.0085	-.0330	.0081	297.
.2990	-339.	102.	8.	-283.	993.	984.	.0291	-.0197	-.0046	.0204	-.0311	.0068	317.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

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

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

SECTION	30	MEMBER	1	SEQUENCE	844	LOCATION	BEG	TYPE	RU						
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)		
.3000	-186.	102.	326.	-211.	963.	1070.	.0339	-.0289	-.0010	.0326	-.0275	.0069	324.		
.3010	13.	83.	646.	-178.	832.	1155.	.0377	-.0382	.0028	.0450	-.0223	.0080	319.		
.3020	242.	61.	970.	-162.	676.	1231.	.0407	-.0475	.0068	.0573	-.0155	.0100	314.		
.3030	471.	64.	1279.	-136.	560.	1272.	.0429	-.0568	.0109	.0689	-.0073	.0128	311.		
.3040	682.	78.	1553.	-124.	494.	1285.	.0443	-.0660	.0153	.0799	.0021	.0165	308.		
.3050	867.	64.	1780.	-170.	461.	1307.	.0452	-.0750	.0199	.0907	.0123	.0209	311.		
.3060	1019.	16.	1948.	-278.	439.	1356.	.0456	-.0837	.0245	.1010	.0226	.0261	323.		
.3070	1128.	-36.	2048.	-407.	421.	1411.	.0456	-.0919	.0289	.1104	.0324	.0315	340.		
.3080	1197.	-75.	2101.	-522.	411.	1453.	.0452	-.0996	.0331	.1184	.0413	.0365	355.		
.3090	1247.	-112.	2134.	-619.	382.	1488.	.0443	-.1066	.0367	.1249	.0487	.0408	368.		
.3100	1305.	-150.	2154.	-701.	274.	1528.	.0430	-.1128	.0398	.1298	.0544	.0437	379.		
.3110	1372.	-181.	2151.	-759.	72.	1569.	.0412	-.1181	.0420	.1331	.0581	.0452	388.		
.3120	1436.	-205.	2126.	-788.	-185.	1602.	.0388	-.1225	.0435	.1349	.0599	.0452	399.		
.3130	1482.	-235.	2062.	-795.	-473.	1623.	.0359	-.1260	.0442	.1356	.0599	.0438	416.		
.3140	1498.	-274.	1932.	-788.	-796.	1631.	.0325	-.1285	.0443	.1354	.0583	.0412	440.		
.3150	1469.	-319.	1734.	-765.	-1103.	1623.	.0285	-.1301	.0440	.1344	.0553	.0376	469.		
.3160	1389.	-367.	1494.	-718.	-1342.	1594.	.0239	-.1307	.0433	.1330	.0511	.0333	490.		
.3170	1274.	-408.	1237.	-622.	-1514.	1526.	.0188	-.1303	.0424	.1311	.0460	.0284	498.		
.3180	1150.	-418.	990.	-445.	-1633.	1390.	.0134	-.1288	.0415	.1287	.0404	.0230	487.		
.3190	1037.	-375.	779.	-167.	-1695.	1164.	.0076	-.1264	.0407	.1255	.0346	.0169	459.		
.3200	948.	-283.	636.	212.	-1681.	847.	.0017	-.1230	.0400	.1218	.0288	.0102	421.		
.3210	888.	-159.	562.	678.	-1618.	455.	-.0041	-.1188	.0395	.1178	.0233	.0030	403.		
.3220	852.	-6.	533.	1219.	-1542.	8.	-.0096	-.1141	.0393	.1135	.0182	-.0046	437.		
.3230	824.	178.	516.	1805.	-1457.	-468.	-.0144	-.1090	.0393	.1089	.0136	-.0122	527.		
.3240	792.	368.	496.	2381.	-1371.	-926.	-.0185	-.1040	.0396	.1044	.0097	-.0193	645.		
.3250	754.	529.	477.	2884.	-1286.	-1309.	-.0217	-.0994	.0402	.1003	.0062	-.0255	760.		
.3260	711.	655.	482.	3286.	-1161.	-1588.	-.0238	-.0953	.0412	.0966	.0034	-.0305	852.		
.3270	675.	763.	516.	3585.	-1000.	-1766.	-.0249	-.0920	.0423	.0933	.0012	-.0341	916.		
.3280	666.	861.	574.	3770.	-865.	-1846.	-.0250	-.0895	.0435	.0901	-.0005	-.0363	953.		
.3290	689.	930.	675.	3822.	-751.	-1817.	-.0240	-.0879	.0447	.0872	-.0017	-.0369	956.		
.3300	735.	959.	832.	3749.	-610.	-1681.	-.0221	-.0871	.0457	.0845	-.0026	-.0365	924.		
.3310	791.	966.	1018.	3593.	-464.	-1472.	-.0194	-.0871	.0464	.0817	-.0033	-.0352	870.		
.3320	846.	970.	1185.	3404.	-374.	-1237.	-.0158	-.0877	.0468	.0786	-.0038	-.0334	810.		
.3330	894.	968.	1314.	3205.	-355.	-1001.	-.0115	-.0888	.0465	.0753	-.0041	-.0313	751.		
.3340	931.	948.	1407.	2999.	-393.	-764.	-.0065	-.0901	.0457	.0719	-.0040	-.0289	694.		
.3350	961.	916.	1459.	2801.	-493.	-529.	-.0011	-.0917	.0443	.0685	-.0035	-.0262	644.		
.3360	991.	888.	1479.	2636.	-650.	-317.	.0047	-.0933	.0422	.0652	-.0023	-.0233	608.		
.3370	1029.	871.	1490.	2518.	-841.	-143.	.0107	-.0949	.0395	.0621	-.0004	-.0202	592.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.32.

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

.3270	675.	763.	516.	3585.	-1000.	-1766.	-.0249	-.0920	.0423	.0933	.0012	-.0341	916.
.3280	666.	861.	574.	3770.	-865.	-1846.	-.0250	-.0895	.0435	.0901	-.0005	-.0363	953.
.3290	689.	930.	675.	3822.	-751.	-1817.	-.0240	-.0879	.0447	.0872	-.0017	-.0369	956.
.3300	735.	959.	832.	3749.	-610.	-1651.	-.0221	-.0871	.0457	.0845	-.0026	-.0365	924.
.3310	791.	966.	1018.	3593.	-464.	-1472.	-.0194	-.0871	.0464	.0817	-.0033	-.0352	870.
.3320	846.	970.	1185.	3404.	-374.	-1237.	-.0158	-.0877	.0468	.0786	-.0038	-.0334	810.
.3330	894.	968.	1314.	3205.	-355.	-1001.	-.0115	-.0888	.0465	.0753	-.0041	-.0313	751.
.3340	931.	948.	1407.	2999.	-393.	-764.	-.0065	-.0901	.0457	.0719	-.0040	-.0289	694.
.3350	961.	916.	1459.	2801.	-493.	-529.	-.0011	-.0917	.0443	.0685	-.0035	-.0262	644.
.3360	991.	888.	1479.	2676.	-650.	-317.	.0047	-.0933	.0422	.0652	-.0023	-.0233	608.
.3370	1029.	871.	1490.	2518.	-841.	-143.	.0107	-.0949	.0395	.0621	-.0004	-.0202	592.

ADLPIPE PAGE 1307 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.27.32.

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

CONDITION 24
LOADS
SHOCK
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ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	RU	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	HX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
.3380	1086.	863.	1501.	2445.	-1064.	-2.	.0166	-.0964	.0364	.0592	.0022	-.0168	593.							
.3390	1156.	856.	1518.	2392.	-1297.	120.	.0225	-.0978	.0328	.0568	.0055	-.0132	606.							
.3400	1222.	844.	1546.	2333.	-1482.	242.	.0281	-.0991	.0290	.0549	.0095	-.0093	617.							
.3410	1268.	818.	1577.	2244.	-1590.	366.	.0333	-.1001	.0251	.0534	.0142	-.0053	617.							
.3420	1294.	775.	1592.	2120.	-1653.	487.	.0383	-.1008	.0212	.0522	.0195	-.0014	608.							
.3430	1300.	718.	1579.	1958.	-1690.	598.	.0430	-.1011	.0173	.0513	.0253	.0020	591.							
.3440	1286.	644.	1547.	1750.	-1677.	703.	.0475	-.1009	.0136	.0504	.0314	.0047	562.							
.3450	1254.	551.	1506.	1489.	-1620.	812.	.0517	-.1000	.0100	.0492	.0377	.0065	522.							
.3460	1222.	445.	1460.	1184.	-1568.	922.	.0557	-.0985	.0066	.0474	.0439	.0072	483.							
.3470	1205.	343.	1410.	874.	-1565.	1011.	.0595	-.0961	.0033	.0448	.0497	.0065	458.							
.3480	1205.	260.	1364.	596.	-1615.	1055.	.0632	-.0928	.0002	.0411	.0547	.0045	449.							
.3490	1212.	202.	1327.	372.	-1689.	1046.	.0665	-.0886	-.0028	.0362	.0588	.0011	450.							
.3500	1216.	166.	1304.	204.	-1758.	991.	.0695	-.0834	-.0056	.0303	.0616	-.0032	451.							
.3510	1210.	153.	1290.	104.	-1819.	894.	.0721	-.0773	-.0083	.0236	.0631	-.0083	452.							
.3520	1193.	169.	1270.	84.	-1882.	753.	.0742	-.0706	-.0107	.0162	.0630	-.0136	451.							
.3530	1162.	217.	1242.	150.	-1930.	571.	.0759	-.0633	-.0129	.0083	.0616	-.0189	449.							
.3540	1115.	289.	1214.	293.	-1937.	373.	.0770	-.0556	-.0150	.0004	.0588	-.0237	444.							
.3550	1057.	374.	1182.	493.	-1912.	192.	.0774	-.0478	-.0168	-.0072	.0548	-.0277	441.							
.3560	999.	466.	1136.	731.	-1898.	52.	.0770	-.0400	-.0185	-.0145	.0497	-.0305	453.							
.3570	947.	563.	1068.	997.	-1921.	-43.	.0758	-.0323	-.0200	-.0212	.0437	-.0321	482.							
.3580	889.	660.	980.	1277.	-1971.	-90.	.0738	-.0250	-.0214	-.0273	.0369	-.0323	523.							
.3590	831.	752.	876.	1551.	-2027.	-92.	.0708	-.0180	-.0224	-.0326	.0298	-.0311	568.							
.3600	765.	831.	763.	1795.	-2060.	-56.	.0668	-.0113	-.0230	-.0373	.0225	-.0289	608.							
.3610	685.	897.	648.	1992.	-2043.	-5.	.0618	-.0049	-.0231	-.0414	.0153	-.0258	635.							
.3620	593.	953.	529.	2138.	-1969.	31.	.0559	.0012	-.0226	-.0450	.0087	-.0222	647.							
.3630	489.	1001.	403.	2233.	-1828.	35.	.0489	.0071	-.0216	-.0483	.0027	-.0183	642.							
.3640	369.	1038.	269.	2270.	-1600.	1.	.0411	.0129	-.0199	-.0515	-.0023	-.0146	618.							
.3650	232.	1057.	122.	2241.	-1292.	-63.	.0325	.0185	-.0179	-.0545	-.0064	-.0111	576.							
.3660	83.	1050.	-52.	2142.	-951.	-147.	.0231	.0239	-.0155	-.0573	-.0096	-.0083	523.							
.3670	-74.	1012.	-259.	1980.	-608.	-242.	.0133	.0291	-.0131	-.0597	-.0119	-.0060	464.							
.3680	-238.	946.	-493.	1764.	-262.	-341.	.0031	.0341	-.0106	-.0617	-.0135	-.0043	404.							
.3690	-407.	856.	-745.	1497.	81.	-478.	-.0071	.0387	-.0083	-.0633	-.0145	-.0030	347.							
.3700	-575.	744.	-1001.	1182.	402.	-521.	-.0172	.0430	-.0062	-.0642	-.0151	-.0019	301.							
.3710	-734.	613.	-1240.	832.	702.	-586.	-.0268	.0470	-.0043	-.0646	-.0157	-.0010	275.							
.3720	-883.	474.	-1443.	480.	989.	-640.	-.0358	.0505	-.0028	-.0645	-.0163	-.0002	283.							
.3730	-1020.	346.	-1606.	158.	1256.	-695.	-.0440	.0537	-.0018	-.0641	-.0174	.0005	321.							
.3740	-1144.	237.	-1738.	-114.	1488.	-746.	-.0511	.0566	-.0011	-.0636	-.0191	.0011	371.							
.3750	-1254.	139.	-1837.	-337.	1678.	-774.	-.0571	.0590	-.0009	-.0631	-.0217	.0017	418.							

ADLPIPE PAGE 1308 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.27.32.

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

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

.3650	232.	1057.	122.	2241.	-1292.	-63.	.0325	.0185	-.0179	-.0545	-.0064	-.0111	576.
.3660	83.	1050.	-52.	2142.	-951.	-147.	.0231	.0239	-.0155	-.0573	-.0096	-.0083	523.
.3670	-74.	1012.	-259.	1980.	-608.	-242.	.0133	.0291	-.0131	-.0597	-.0119	-.0060	464.
.3680	-238.	946.	-493.	1764.	-262.	-341.	.0031	.0341	-.0106	-.0617	-.0135	-.0043	404.
.3690	-467.	856.	-745.	1497.	81.	-438.	-.0071	.0387	-.0083	-.0633	-.0145	-.0030	347.
.3700	-575.	744.	-1001.	1182.	402.	-521.	-.0172	.0430	-.0062	-.0642	-.0151	-.0019	301.
.3710	-734.	613.	-1240.	832.	702.	-586.	-.0268	.0470	-.0043	-.0646	-.0157	-.0010	275.
.3720	-883.	474.	-1443.	480.	989.	-640.	-.0358	.0505	-.0028	-.0645	-.0163	-.0002	283.
.3730	-1020.	346.	-1606.	158.	1256.	-695.	-.0440	.0537	-.0018	-.0641	-.0174	-.0005	321.
.3740	-1144.	237.	-1730.	-114.	1488.	-746.	-.0511	.0566	-.0011	-.0636	-.0191	.0011	371.
.3750	-1254.	139.	-1837.	-337.	1678.	-774.	-.0571	.0590	-.0009	-.0631	-.0217	.0017	418.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.32.

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	30	MEMBER	1	SEQUENCE	844	LOCATION	BEG	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.3760	-1350.	46.	-1904.	-505.	1823.	-768.	-.0620	.0611	-.0012	-.0626	-.0252	.0020	454.		
.3770	-1431.	-34.	-1949.	-599.	1919.	-743.	-.0656	.0629	-.0018	-.0622	-.0296	.0023	477.		
.3780	-1499.	-89.	-1976.	-608.	1980.	-715.	-.0679	.0643	-.0027	-.0622	-.0346	.0024	487.		
.3790	-1556.	-116.	-1979.	-546.	2032.	-685.	-.0691	.0653	-.0038	-.0627	-.0401	.0025	492.		
.3800	-1601.	-126.	-1952.	-446.	2087.	-639.	-.0691	.0658	-.0049	-.0637	-.0457	.0029	496.		
.3810	-1633.	-119.	-1893.	-329.	2143.	-575.	-.0680	.0660	-.0060	-.0650	-.0512	.0036	499.		
.3820	-1648.	-96.	-1794.	-204.	2203.	-500.	-.0659	.0657	-.0069	-.0665	-.0561	.0048	505.		
.3830	-1642.	-64.	-1654.	-79.	2265.	-419.	-.0631	.0649	-.0076	-.0680	-.0601	.0063	513.		
.3840	-1610.	-24.	-1486.	28.	2303.	-328.	-.0595	.0635	-.0082	-.0693	-.0528	.0084	517.		
.3850	-1547.	10.	-1301.	91.	2290.	-208.	-.0554	.0616	-.0087	-.0703	-.0539	.0110	512.		
.3860	-1450.	23.	-1103.	94.	2216.	-47.	-.0509	.0592	-.0091	-.0707	-.0533	.0144	494.		
.3870	-1323.	18.	-904.	45.	2076.	147.	-.0461	.0562	-.0094	-.0704	-.0506	.0184	463.		
.3880	-1176.	12.	-727.	-34.	1878.	353.	-.0411	.0528	-.0096	-.0695	-.0559	.0231	425.		
.3890	-1023.	9.	-583.	-145.	1649.	567.	-.0360	.0490	-.0098	-.0678	-.0493	.0285	389.		
.3900	-872.	-13.	-464.	-312.	1418.	806.	-.0308	.0449	-.0098	-.0651	-.0408	.0344	369.		
.3910	-728.	-71.	-365.	-539.	1200.	1068.	-.0258	.0408	-.0097	-.0612	-.0309	.0406	377.		
.3920	-594.	-147.	-289.	-789.	998.	1313.	-.0209	.0368	-.0096	-.0561	-.0199	.0467	407.		
.3930	-471.	-214.	-243.	-1023.	810.	1497.	-.0163	.0330	-.0094	-.0504	-.0083	.0524	442.		
.3940	-363.	-268.	-220.	-1232.	630.	1612.	-.0121	.0297	-.0092	-.0444	.0036	.0574	473.		
.3950	-267.	-325.	-207.	-1429.	477.	1683.	-.0083	.0268	-.0090	-.0380	.0151	.0614	502.		
.3960	-184.	-386.	-200.	-1611.	312.	1721.	-.0048	.0246	-.0090	-.0317	.0256	.0641	529.		
.3970	-114.	-439.	-209.	-1761.	126.	1717.	-.0019	.0230	-.0091	-.0256	.0349	.0656	548.		
.3980	-58.	-476.	-242.	-1874.	-87.	1668.	.0006	.0220	-.0094	-.0200	.0427	.0657	559.		
.3990	-19.	-513.	-299.	-1978.	-312.	1596.	.0025	.0216	-.0097	-.0147	.0489	.0646	570.		
.4000	3.	-569.	-372.	-2106.	-528.	1528.	.0038	.0217	-.0100	-.0097	.0534	.0627	591.		

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)		
.0630	-4205.	-2957.	-5902.	-8948.	3834.	1308.	.1484	-.0955	.0406	.1331	.1036	.0108	2185.		

SECTION	30	MEMBER	1	SEQUENCE	254	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)		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.32.

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

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)
.0630	-4205.	-2957.	-5907.	-8948.	3834.	1308.	.1484	-.0955	.0406	.1331	.1036	.0108	2185.

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)
30	1	254																		

ADLPIPE PAGE 1309

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.32.

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	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)
30	1	254					0.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.
							.0010	2.	-0.	1.	-1.	-3.	1.	-.0000	.0000	-.0000	.0000	.0000	-.0000	1.
							.0020	12.	-2.	9.	-7.	-22.	4.	-.0000	.0000	-.0000	.0000	.0001	-.0000	5.
							.0030	39.	0.	30.	-10.	-67.	4.	-.0001	.0000	-.0001	.0001	.0002	.0001	15.
							.0040	84.	12.	68.	3.	-142.	-11.	-.0002	.0000	-.0002	.0003	.0005	.0003	32.
							.0050	140.	36.	128.	38.	-232.	-39.	-.0004	.0000	-.0005	.0005	.0010	.0009	53.
							.0060	205.	67.	215.	86.	-315.	-69.	-.0008	.0002	-.0011	.0008	.0017	.0015	74.
							.0070	294.	100.	315.	128.	-462.	-83.	-.0013	.0004	-.0019	.0009	.0027	.0021	108.
							.0080	437.	132.	399.	158.	-805.	-73.	-.0019	.0008	-.0031	.0008	.0046	.0027	183.
							.0090	619.	178.	481.	224.	-1306.	-62.	-.0026	.0015	-.0049	.0007	.0078	.0036	295.
							.0100	777.	252.	602.	381.	-1753.	-72.	-.0028	.0023	-.0073	.0003	.0127	.0053	399.
							.0110	854.	348.	785.	632.	-1948.	-100.	-.0023	.0035	-.0105	-.0006	.0193	.0074	456.
							.0120	838.	442.	1021.	905.	-1795.	-117.	-.0007	.0052	-.0146	-.0026	.0269	.0089	448.
							.0130	760.	514.	1263.	1120.	-1337.	-111.	.0019	.0075	-.0195	-.0063	.0342	.0086	389.
							.0140	648.	565.	1423.	1275.	-713.	-111.	.0055	.0104	-.0249	-.0121	.0404	.0061	326.
							.0150	493.	600.	1428.	1416.	-21.	-132.	.0101	.0139	-.0305	-.0199	.0451	.0015	316.
							.0160	257.	592.	1231.	1540.	685.	-116.	.0155	.0178	-.0355	-.0295	.0484	-.0046	376.
							.0170	-90.	492.	770.	1565.	1273.	48.	.0221	.0221	-.0392	-.0404	.0510	-.0119	449.
							.0180	-563.	266.	73.	1420.	1717.	407.	.0300	.0263	-.0407	-.0514	.0534	-.0195	504.
							.0190	-1092.	-67.	-692.	1132.	2060.	859.	.0399	.0301	-.0397	-.0611	.0562	-.0259	557.
							.0200	-1464.	-429.	-1403.	801.	1884.	1208.	.0520	.0327	-.0360	-.0678	.0609	-.0287	529.
							.0210	-1563.	-665.	-1917.	706.	1118.	1152.	.0661	.0336	-.0304	-.0698	.0693	-.0253	390.
							.0220	-1737.	-624.	-1504.	1182.	2055.	400.	.0819	.0327	-.0244	-.0673	.0765	-.0145	535.
							.0230	-1926.	-361.	-475.	1998.	4220.	-887.	.0971	.0308	-.0190	-.0626	.0792	-.0007	1057.
							.0240	-1669.	-131.	30.	2410.	4859.	-2142.	.1075	.0292	-.0141	-.0590	.0761	.0084	1297.
							.0250	-1038.	-223.	-733.	1829.	2679.	-2618.	.1119	.0292	-.0087	-.0576	.0704	.0094	927.
							.0260	-1018.	-718.	-1765.	558.	1125.	-2011.	.1131	.0307	-.0021	-.0573	.0652	.0075	528.
							.0270	-2053.	-1345.	-1460.	-397.	4166.	-1078.	.1128	.0327	.0055	-.0574	.0548	.0095	961.
							.0280	-2436.	-1721.	-1854.	-637.	4801.	-783.	.1064	.0344	.0145	-.0577	.0413	.0150	1091.
							.0290	-1288.	-1879.	-4730.	-758.	-2373.	-804.	.0917	.0360	.0250	-.0574	.0333	.0189	582.
							.0300	-692.	-2275.	-5936.	-1394.	-6023.	120.	.0769	.0376	.0351	-.0559	.0258	.0197	1376.
							.0310	-1139.	-2797.	-4658.	-2416.	-3575.	1840.	.0641	.0387	.0431	-.0512	.0177	.0190	1044.
							.0320	-1219.	-2882.	-3570.	-3189.	-2436.	2886.	.0484	.0381	.0480	-.0417	.0114	.0192	1100.
							.0330	-475.	-2341.	-2970.	-3161.	-3615.	2380.	.0287	.0352	.0492	-.0294	.0019	.0219	1192.
							.0340	208.	-1552.	-1629.	-2566.	-2891.	1149.	.0075	.0307	.0470	-.0176	-.0144	.0238	897.
							.0350	395.	-998.	-516.	-2271.	-1439.	668.	-.0147	.0262	.0429	-.0084	-.0304	.0187	616.
							.0360	172.	-900.	-616.	-2706.	-1151.	1478.	-.0378	.0223	.0383	-.0021	-.0404	.0059	761.
							.0370	-461.	-1116.	-670.	-3329.	-484.	2827.	-.0591	.0183	.0340	.0032	-.0495	-.0069	978.

ADLPIPE PAGE 1310

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.32.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

.0270	-2053.	-1345.	-1460.	-397.	4166.	-1078.	.1128	.0327	.0055	-.0574	.0548	.0095	961.
.0280	-2436.	-1721.	-1854.	-637.	4801.	-783.	.1064	.0344	.0145	-.0577	.0413	.0150	1091.
.0290	-1288.	-1879.	-4730.	-758.	-2373.	-804.	.0917	.0360	.0750	-.0574	.0333	.0189	582.
.0300	-692.	-2275.	-5936.	-1394.	-6023.	120.	.0769	.0376	.0351	-.0559	.0258	.0197	1376.
.0310	-1139.	-2797.	-4658.	-2416.	-3575.	1840.	.0641	.0287	.0431	-.0512	.0177	.0190	1044.
.0320	-1219.	-2882.	-3570.	-3189.	-2436.	2886.	.0484	.0381	.0480	-.0417	.0114	.0192	1100.
.0330	-475.	-2341.	-2970.	-3161.	-3615.	2380.	.0287	.0352	.0492	-.0294	.0019	.0219	1192.
.0340	208.	-1552.	-1629.	-2566.	-2891.	1149.	.0075	.0307	.0470	-.0176	-.0144	.0238	897.
.0350	395.	-998.	-516.	-2271.	-1439.	668.	-.0147	.0262	.0429	-.0084	-.0304	.0187	616.
.0360	172.	-900.	-616.	-2706.	-1481.	1478.	-.0378	.0223	.0383	-.0021	-.0404	.0059	761.
.0370	-461.	-1116.	-670.	-3329.	-484.	2827.	-.0591	.0183	.0340	.0032	-.0495	-.0069	978.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.32.

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	30	MEMBER	1	SEQUENCE	254	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)	
.0380	-984.	-1185.	-221.	-3231.	1745.	3416.	-.0778	.0128	.0309	.0090	-.0545	-.0131	1116.	
.0390	-427.	-755.	-903.	-2099.	40.	2707.	-.0965	.0055	.0303	.0152	-.0824	-.0153	762.	
.0400	997.	-83.	-2508.	-716.	-5869.	1876.	-.1141	-.0026	.0296	.0221	-.0917	-.0189	1380.	
.0410	1436.	236.	-1375.	-159.	-5721.	2305.	-.1240	-.0104	.0267	.0309	-.0963	-.0246	1373.	
.0420	1137.	419.	1496.	-441.	-1327.	3343.	-.1275	-.0179	.0203	.0439	-.0973	-.0307	806.	
.0430	1576.	880.	2765.	-307.	-1042.	3118.	-.1272	-.0265	.0164	.0563	-.0938	-.0344	735.	
.0440	2708.	1752.	3044.	1098.	-3562.	1107.	-.1245	-.0366	.0137	.0642	-.0903	-.0348	865.	
.0450	3115.	2458.	4218.	2695.	-2510.	-968.	-.1173	-.0463	.0105	.0674	-.0902	-.0354	847.	
.0460	2607.	2525.	5345.	2950.	745.	-1458.	-.1078	-.0536	.0082	.0681	-.0897	-.0424	751.	
.0470	2311.	2161.	4640.	1988.	359.	-585.	-.1005	-.0585	.0072	.0671	-.0832	-.0565	468.	
.0480	2339.	1747.	3100.	1076.	-2216.	561.	-.0947	-.0628	.0069	.0662	-.0724	-.0689	562.	
.0490	1912.	1454.	2438.	987.	-2106.	1238.	-.0853	-.0683	.0087	.0686	-.0512	-.0694	586.	
.0500	1313.	1466.	2083.	1704.	-974.	935.	-.0721	-.0757	.0124	.0760	-.0482	-.0583	488.	
.0510	1200.	1679.	1297.	2650.	-1619.	-114.	-.0567	-.0843	.0172	.0861	-.0322	-.0433	691.	
.0520	1288.	1690.	604.	2905.	-2526.	-1247.	-.0390	-.0930	.0219	.0970	-.0147	-.0300	900.	
.0530	916.	1412.	441.	2166.	-1630.	-1912.	-.0191	-.1008	.0252	.1096	.0043	-.0182	738.	
.0540	67.	1257.	590.	1362.	586.	-2633.	.0015	-.1074	.0262	.1237	.0249	-.0049	672.	
.0550	-866.	1423.	659.	1247.	2740.	-3848.	.0209	-.1127	.0252	.1364	.0456	.0099	1087.	
.0560	-1782.	1461.	312.	1002.	4394.	-4810.	.0390	-.1153	.0239	.1447	.0535	.0216	1466.	
.0570	-2798.	883.	-489.	-543.	5986.	-4538.	.0568	-.1140	.0238	.1477	.0761	.0247	1675.	
.0580	-3685.	-187.	-1671.	-3084.	7112.	-3209.	.0744	-.1093	.0259	.1450	.0829	.0185	1866.	
.0590	-4050.	-1275.	-3334.	-5356.	6455.	-1783.	.0906	-.1029	.0304	.1381	.0864	.0091	1908.	
.0600	-4043.	-2123.	-5055.	-6709.	4666.	-817.	.1053	-.0967	.0363	.1307	.0890	.0043	1827.	
.0610	-4056.	-2675.	-6065.	-7315.	3517.	-237.	.1185	-.0914	.0415	.1265	.0930	.0062	1806.	
.0620	-4171.	-2928.	-6154.	-7529.	3481.	199.	.1299	-.0872	.0447	.1264	.0988	.0103	1846.	
.0630	-4205.	-2957.	-5902.	-7649.	3395.	603.	.1387	-.0842	.0458	.1285	.1055	.0108	1867.	
.0640	-4126.	-2823.	-5475.	-7661.	3258.	751.	.1443	-.0826	.0448	.1303	.1091	.0060	1860.	
.0650	-3929.	-2400.	-4648.	-7092.	3757.	184.	.1463	-.0828	.0412	.1307	.1061	-.0018	1786.	
.0660	-3546.	-1637.	-3861.	-5683.	4123.	-1094.	.1444	-.0844	.0358	.1299	.0981	-.0101	1581.	
.0670	-3140.	-833.	-3684.	-3967.	3535.	-2242.	.1386	-.0862	.0304	.1283	.0902	-.0181	1283.	
.0680	-3095.	-385.	-3608.	-2564.	3427.	-2411.	.1307	-.0874	.0262	.1253	.0843	-.0260	1093.	
.0690	-3233.	-242.	-3229.	-1312.	4096.	-1794.	.1210	-.0879	.0236	.1203	.0793	-.0327	1037.	
.0700	-2833.	-1.	-3316.	278.	2780.	-1298.	.1233	-.0885	.0222	.1143	.0751	-.0365	685.	
.0710	-1875.	478.	-3821.	2139.	-491.	-1378.	.0932	-.0891	.0211	.1090	.0710	-.0360	576.	
.0720	-1136.	978.	-3273.	3756.	-1567.	-1776.	.0785	-.0894	.0191	.1046	.0640	-.0321	988.	
.0730	-764.	1392.	-1519.	4801.	120.	-2216.	.0644	-.0889	.0156	.1002	.0530	-.0283	1177.	
.0740	-153.	1802.	-119.	5247.	560.	-2656.	.0481	-.0867	.0112	.0945	.0409	-.0283	1314.	
.0750	719.	2136.	567.	5169.	-950.	-2928.	.0289	-.0828	.0065	.0865	.0285	-.0321	1339.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.32.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.0650	-3929.	-2400.	-4648.	-7092.	3757.	184.	.1463	-.0828	.0412	.1307	.1061	-.0018	1786.
.0660	-3546.	-1677.	-3861.	-5683.	4123.	-1094.	.1444	-.0844	.0358	.1299	.0981	-.0101	1581.
.0670	-3140.	-833.	-3624.	-3967.	3535.	-2242.	.1386	-.0862	.0304	.1283	.0902	-.0181	1283.
.0680	-3095.	-385.	-3608.	-2564.	3427.	-2411.	.1307	-.0874	.0262	.1253	.0843	-.0260	1093.
.0690	-3233.	-242.	-3229.	-1312.	4096.	-1794.	.1210	-.0879	.0236	.1203	.0793	-.0327	1037.
.0700	-2833.	-1.	-3316.	278.	2780.	-1298.	.1083	-.0885	.0222	.1143	.0751	-.0365	685.
.0710	-1875.	478.	-3821.	2139.	-491.	-1378.	.0932	-.0891	.0211	.1090	.0710	-.0360	576.
.0720	-1136.	978.	-3273.	3756.	-1567.	-1776.	.0785	-.0894	.0191	.1046	.0640	-.0321	988.
.0730	-764.	1392.	-1519.	4801.	120.	-2216.	.0644	-.0889	.0156	.1002	.0530	-.0283	1177.
.0740	-153.	1802.	-119.	5247.	560.	-2656.	.0481	-.0867	.0112	.0945	.0409	-.0283	1314.
.0750	719.	2136.	567.	5169.	-950.	-2928.	.0289	-.0828	.0065	.0865	.0285	-.0321	1339.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.32.

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	30	MEMBER	1	SEQUENCE	254	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)		
.0760	1282.	2204.	1425.	4707.	-1635.	-2737.	.0092	-.0771	.0024	.0757	.0153	-.0361	1265.		
.0770	1463.	2008.	2292.	4069.	-1512.	-2050.	-.0096	-.0700	-.0002	.0638	.0030	-.0370	1068.		
.0780	1637.	1691.	2411.	3401.	-2495.	-1119.	-.0275	-.0620	-.0006	.0522	-.0068	-.0341	971.		
.0790	1869.	1294.	2181.	2749.	-3806.	-193.	-.0429	-.0537	.0011	.0412	-.0166	-.0281	1045.		
.0800	2107.	858.	2214.	2195.	-4108.	482.	-.0548	-.0459	.0040	.0310	-.0294	-.0196	1042.		
.0810	2524.	564.	2033.	1882.	-4720.	651.	-.0641	-.0390	.0073	.0224	-.0429	-.0092	1140.		
.0820	2940.	513.	1518.	1829.	-5788.	310.	-.0712	-.0328	.0099	.0168	-.0542	.0032	1352.		
.0830	2762.	569.	1529.	1872.	-4791.	-225.	-.0751	-.0268	.0113	.0139	-.0533	.0173	1145.		
.0840	1981.	589.	2027.	1846.	-1826.	-708.	-.0761	-.0203	.0119	.0116	-.0705	.0313	599.		
.0850	1261.	564.	1911.	1721.	-190.	-1110.	-.0763	-.0126	.0128	.0069	-.0750	.0410	458.		
.0860	856.	434.	1101.	1452.	-485.	-1302.	-.0755	-.0033	.0153	-.0021	-.0778	.0442	447.		
.0870	484.	53.	457.	879.	-524.	-990.	-.0718	.0081	.0199	-.0153	-.0809	.0420	317.		
.0880	173.	-567.	28.	-28.	-291.	-125.	-.0654	.0211	.0265	-.0306	-.0831	.0373	71.		
.0890	236.	-1211.	-627.	-1008.	-1342.	992.	-.0578	.0351	.0342	-.0457	-.0820	.0322	434.		
.0900	585.	-1720.	-1228.	-1822.	-3076.	2144.	-.0500	.0493	.0412	-.0594	-.0776	.0276	927.		
.0910	822.	-2115.	-1343.	-2567.	-3849.	3359.	-.0419	.0629	.0452	-.0709	-.0708	.0228	1272.		
.0920	791.	-2452.	-1176.	-3453.	-3567.	4571.	-.0342	.0752	.0450	-.0800	-.0623	.0164	1501.		
.0930	572.	-2705.	-1051.	-4443.	-2815.	5459.	-.0273	.0855	.0404	-.0868	-.0534	.0080	1687.		
.0940	218.	-2825.	-968.	-5290.	-1606.	5762.	-.0215	.0931	.0319	-.0916	-.0455	-.0013	1776.		
.0950	-230.	-2788.	-876.	-5762.	-49.	5534.	-.0166	.0976	.0202	-.0941	-.0382	-.0099	1777.		
.0960	-660.	-2591.	-694.	-5743.	1483.	5054.	-.0129	.0993	.0062	-.0941	-.0295	-.0172	1734.		
.0970	-945.	-2237.	-249.	-5287.	2831.	4615.	-.0105	.0985	-.0094	-.0910	-.0190	-.0237	1684.		
.0980	-989.	-1738.	493.	-4597.	3884.	4355.	-.0092	.0957	-.0259	-.0838	-.0077	-.0296	1653.		
.0990	-751.	-1096.	1463.	-3761.	4598.	4129.	-.0087	.0915	-.0429	-.0728	.0023	-.0345	1609.		
.1000	-268.	-311.	2656.	-2643.	5203.	3603.	-.0085	.0859	-.0598	-.0600	.0086	-.0386	1526.		
.1010	357.	573.	3901.	-1200.	5761.	2617.	-.0079	.0794	-.0757	-.0480	.0100	-.0430	1433.		
.1020	981.	1408.	4794.	264.	5912.	1405.	-.0069	.0729	-.0897	-.0384	.0076	-.0490	1353.		
.1030	1436.	2004.	5155.	1373.	5539.	395.	-.0054	.0672	-.1009	-.0321	.0036	-.0570	1273.		
.1040	1615.	2256.	5204.	2073.	5023.	-159.	-.0028	.0627	-.1084	-.0299	.0004	-.0656	1209.		
.1050	1605.	2275.	5062.	2595.	4302.	-307.	.0013	.0593	-.1115	-.0310	-.0003	-.0728	1120.		
.1060	1615.	2251.	4732.	3135.	3071.	-261.	.0068	.0564	-.1100	-.0339	.0013	-.0775	978.		
.1070	1771.	2251.	4514.	3681.	1773.	-196.	.0142	.0538	-.1046	-.0379	.0033	-.0803	910.		
.1080	2218.	2171.	4376.	4014.	42.	-110.	.0231	.0508	-.0962	-.0423	.0065	-.0818	893.		
.1090	2889.	1965.	4164.	4017.	-2426.	56.	.0338	.0471	-.0860	-.0450	.0154	-.0800	1044.		
.1100	2867.	2108.	4861.	4395.	-1146.	-462.	.0460	.0423	-.0760	-.0427	.0199	-.0710	1016.		
.1110	2684.	2535.	4853.	5366.	-341.	-1922.	.0555	.0361	-.0671	-.0392	.0239	-.0550	1270.		
.1120	2550.	2688.	3600.	6312.	-1819.	-3546.	.0606	.0297	-.0589	-.0390	.0304	-.0358	1661.		
.1130	1732.	2339.	2153.	6473.	-2032.	-4319.	.0636	.0245	-.0511	-.0398	.0375	-.0163	1789.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.32.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK

2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.1030	1436.	2004.	5155.	1373.	5539.	395.	-.0054	.0672	-.1009	-.0321	.0036	-.0570	1273.
.1040	1615.	2256.	5204.	2073.	5023.	-159.	-.0028	.0627	-.1084	-.0299	.0004	-.0656	1209.
.1050	1605.	2275.	5062.	2595.	4302.	-307.	.0013	.0593	-.1115	-.0310	-.0003	-.0728	1120.
.1060	1615.	2251.	4732.	3135.	3071.	-261.	.0068	.0564	-.1100	-.0339	.0013	-.0775	978.
.1070	1771.	2251.	4514.	3681.	1777.	-196.	.0142	.0538	-.1046	-.0379	.0033	-.0803	910.
.1080	2218.	2171.	4276.	4014.	42.	-110.	.0231	.0508	-.0962	-.0423	.0065	-.0818	893.
.1090	2889.	1965.	4164.	4017.	-2426.	56.	.0338	.0471	-.0860	-.0450	.0154	-.0800	1044.
.1100	2867.	2108.	4861.	4395.	-1146.	-462.	.0460	.0423	-.0760	-.0427	.0199	-.0710	1016.
.1110	2684.	2535.	4853.	5366.	-341.	-1922.	.0555	.0361	-.0671	-.0392	.0239	-.0550	1270.
.1120	2550.	2658.	3600.	6312.	-1819.	-3546.	.0606	.0297	-.0589	-.0390	.0304	-.0358	1661.
.1130	1732.	2339.	2153.	6473.	-2032.	-4319.	.0636	.0245	-.0511	-.0398	.0375	-.0163	1789.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.32.

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	30	MEMBER	1	SEQUENCE	254	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)		
.1140	203.	1802.	704.	5942.	-503.	-4290.	.0661	.0216	-.0428	-.0377	.0449	.0032	1634.		
.1150	-1078.	1378.	-1138.	5593.	-205.	-4373.	.0671	.0205	-.0334	-.0346	.0529	.0243	1580.		
.1160	-1630.	1055.	-2612.	5830.	-976.	-4949.	.0671	.0210	-.0233	-.0341	.0585	.0472	1715.		
.1170	-1697.	817.	-3337.	6056.	-1540.	-5500.	.0671	.0244	-.0131	-.0345	.0601	.0678	1852.		
.1180	-1806.	697.	-2745.	5539.	434.	-5426.	.0667	.0319	-.0042	-.0345	.0527	.0791	1728.		
.1190	-1343.	486.	-3000.	4003.	-619.	-4472.	.0618	.0437	.0032	-.0380	.0443	.0765	1342.		
.1200	-693.	-160.	-3771.	1739.	-3537.	-2577.	.0534	.0587	.0088	-.0487	.0373	.0635	1052.		
.1210	-922.	-1090.	-3051.	-486.	-2254.	-102.	.0458	.0752	.0119	-.0625	.0279	.0481	514.		
.1220	-1492.	-1627.	-2849.	-2130.	-1066.	1823.	.0375	.0916	.0132	-.0730	.0200	.0349	667.		
.1230	-1818.	-1775.	-3157.	-2900.	-944.	2676.	.0282	.1062	.0133	-.0816	.0097	.0243	903.		
.1240	-1652.	-1966.	-3696.	-3303.	-2000.	3030.	.0183	.1185	.0126	-.0910	-.0029	.0140	1093.		
.1250	-1402.	-2243.	-3775.	-3845.	-2253.	3634.	.0089	.1286	.0109	-.0981	-.0171	.0031	1279.		
.1260	-1254.	-2222.	-2846.	-4239.	-451.	4402.	-.0003	.1364	.0078	-.0990	-.0332	-.0076	1363.		
.1270	-380.	-1692.	-2865.	-3878.	-2359.	4759.	-.0123	.1410	.0037	-.0950	-.0410	-.0149	1463.		
.1280	596.	-1022.	-2130.	-2646.	-3847.	4685.	-.0244	.1423	-.0019	-.0901	-.0434	-.0153	1472.		
.1290	1070.	-319.	-440.	-948.	-2957.	4300.	-.0348	.1409	-.0091	-.0847	-.0426	-.0099	1180.		
.1300	1263.	517.	913.	764.	-1951.	3582.	-.0443	.1381	-.0173	-.0800	-.0402	-.0062	923.		
.1310	1431.	1226.	2062.	2070.	-839.	2733.	-.0539	.1350	-.0265	-.0813	-.0421	-.0110	785.		
.1320	1909.	1518.	2238.	2556.	-1892.	2181.	-.0645	.1320	-.0361	-.0901	-.0451	-.0245	858.		
.1330	2124.	1503.	2865.	2406.	-1514.	2131.	-.0742	.1294	-.0458	-.1017	-.0503	-.0397	790.		
.1340	2115.	1660.	3594.	2357.	-518.	2191.	-.0826	.1268	-.0549	-.1102	-.0536	-.0492	725.		
.1350	2162.	1985.	4034.	2714.	-299.	2174.	-.0896	.1237	-.0620	-.1160	-.0528	-.0507	777.		
.1360	2125.	2009.	5144.	2958.	1263.	2391.	-.0939	.1198	-.0669	-.1226	-.0540	-.0471	892.		
.1370	2381.	1728.	5592.	2610.	1325.	2807.	-.0966	.1152	-.0688	-.1293	-.0573	-.0435	902.		
.1380	2815.	1425.	5648.	1906.	895.	2967.	-.0978	.1097	-.0684	-.1341	-.0667	-.0414	809.		
.1390	3300.	1229.	5025.	1268.	-579.	2531.	-.0984	.1027	-.0665	-.1359	-.0789	-.0380	643.		
.1400	3360.	998.	4315.	829.	-1536.	1717.	-.0980	.0940	-.0639	-.1343	-.0902	-.0295	545.		
.1410	2675.	748.	4630.	580.	596.	872.	-.0957	.0840	-.0609	-.1279	-.1022	-.0159	268.		
.1420	2113.	742.	4133.	444.	868.	1.	-.0941	.0736	-.0567	-.1155	-.1102	-.0014	217.		
.1430	1860.	805.	3230.	179.	-237.	-739.	-.0926	.0634	-.0507	-.0999	-.1168	.0110	177.		
.1440	1744.	667.	2414.	-332.	-1401.	-1217.	-.0890	.0539	-.0421	-.0836	-.1227	.0223	419.		
.1450	1592.	446.	1900.	-731.	-1677.	-1641.	-.0820	.0452	-.0309	-.0669	-.1279	.0343	547.		
.1460	1428.	389.	1704.	-672.	-945.	-2261.	-.0725	.0378	-.0177	-.0499	-.1331	.0463	565.		
.1470	1601.	411.	393.	-499.	-2822.	-2796.	-.0634	.0324	-.0034	-.0344	-.1323	.0540	891.		
.1480	1482.	105.	-654.	-800.	-3792.	-2529.	-.0541	.0293	.0103	-.0227	-.1278	.0546	1030.		
.1490	964.	-461.	-1490.	-1626.	-3804.	-1379.	-.0450	.0285	.0222	-.0136	-.1181	.0478	970.		
.1500	342.	-882.	-2712.	-2469.	-4462.	-29.	-.0369	.0288	.0320	-.0044	-.1023	.0360	1134.		
.1510	-427.	-1061.	-3315.	-2937.	-3755.	915.	-.0285	.0286	.0391	.0049	-.0855	.0224	1080.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.32.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.1410	2675.	748.	4630.	580.	596.	872.	-.0957	.0840	-.0609	-.1279	-.1022	-.0159	268.
.1420	2113.	742.	4133.	444.	868.	1.	-.0941	.0736	-.0567	-.1155	-.1102	-.0014	217.
.1430	1860.	805.	3230.	179.	-237.	-739.	-.0926	.0634	-.0507	-.0999	-.1168	.0110	177.
.1440	1744.	667.	2414.	-331.	-1401.	-1217.	-.0890	.0539	-.0421	-.0836	-.1227	.0223	419.
.1450	1592.	446.	1900.	-731.	-1677.	-1641.	-.0820	.0452	-.0309	-.0669	-.1279	.0343	547.
.1460	1428.	329.	1704.	-672.	-945.	-2261.	-.0725	.0378	-.0177	-.0499	-.1331	.0463	565.
.1470	1601.	411.	793.	-499.	-2322.	-2796.	-.0634	.0324	-.0034	-.0344	-.1323	.0540	891.
.1480	1482.	105.	-654.	-800.	-3792.	-2529.	-.0541	.0293	.0103	-.0227	-.1278	.0546	1030.
.1490	964.	-461.	-1490.	-1626.	-3804.	-1379.	-.0450	.0285	.0222	-.0136	-.1181	.0478	970.
.1500	742.	-882.	-2712.	-2469.	-4462.	-29.	-.0369	.0288	.0320	-.0044	-.1023	.0360	1134.
.1510	-427.	-1061.	-3315.	-2937.	-3755.	915.	-.0285	.0286	.0391	.0049	-.0855	.0224	1080.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.32.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	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)
30	1	254					.1520	-987.	-1088.	-3698.	-3065.	-3148.	1279.	-.0199	.0270	.0442	.0142	-.0674	.0092	1018.
							.1530	-1275.	-995.	-3456.	-2941.	-1942.	1209.	-.0109	.0235	.0475	.0246	-.0506	-.0028	829.
							.1540	-1088.	-676.	-3559.	-2566.	-2409.	873.	-.0028	.0180	.0499	.0382	-.0310	-.0122	807.
							.1550	-827.	-239.	-3780.	-1901.	-3499.	509.	.0048	.0106	.0513	.0552	-.0071	-.0163	893.
							.1560	-1051.	137.	-2874.	-883.	-1812.	198.	.0131	.0014	.0510	.0736	.0167	-.0131	450.
							.1570	-1156.	609.	-2612.	488.	-1620.	-353.	.0196	-.0093	.0493	.0926	.0432	-.0045	384.
							.1580	-1171.	1204.	-2688.	2011.	-1995.	-1220.	.0247	-.0205	.0457	.1100	.0569	.0052	686.
							.1590	-1372.	1675.	-2317.	3201.	-823.	-2109.	.0295	-.0313	.0402	.1226	.0829	.0116	872.
							.1600	-1473.	1888.	-2244.	3733.	-192.	-2791.	.0332	-.0409	.0335	.1285	.0937	.0124	1038.
							.1610	-1398.	1944.	-2428.	3862.	-392.	-3263.	.0357	-.0490	.0262	.1286	.1015	.0095	1128.
							.1620	-1478.	1970.	-1673.	3939.	1229.	-3502.	.0386	-.0554	.0188	.1249	.1053	.0063	1204.
							.1630	-1420.	2040.	-1144.	3981.	1790.	-3508.	.0402	-.0600	.0122	.1194	.1100	.0044	1246.
							.1640	-1270.	2019.	-525.	3903.	1998.	-3228.	.0408	-.0630	.0070	.1115	.1139	.0036	1211.
							.1650	-1075.	1847.	540.	3645.	2858.	-2717.	.0408	-.0646	.0030	.1009	.1132	.0025	1195.
							.1660	-578.	1618.	813.	3098.	1883.	-2137.	.0389	-.0650	.0006	.0893	.1102	.0001	936.
							.1670	-186.	1315.	1036.	2359.	1389.	-1622.	.0362	-.0646	-.0008	.0775	.1022	-.0022	708.
							.1680	40.	996.	985.	1765.	965.	-1399.	.0327	-.0643	-.0016	.0663	.0923	-.0022	545.
							.1690	-7.	711.	1116.	1471.	1537.	-1469.	.0287	-.0640	-.0021	.0568	.0808	.0010	575.
							.1700	-141.	510.	1024.	1224.	1926.	-1628.	.0238	-.0635	-.0022	.0511	.0700	.0060	624.
							.1710	-168.	378.	119.	850.	562.	-1739.	.0178	-.0626	-.0016	.0495	.0634	.0115	448.
							.1720	-518.	198.	269.	513.	1699.	-1794.	.0133	-.0612	-.0002	.0501	.0554	.0178	561.
							.1730	-724.	90.	346.	327.	2370.	-1987.	.0095	-.0592	.0024	.0522	.0488	.0241	692.
							.1740	-686.	100.	220.	210.	2273.	-2323.	.0060	-.0562	.0063	.0556	.0423	.0289	725.
							.1750	-625.	121.	446.	30.	2879.	-2629.	.0030	-.0517	.0113	.0588	.0332	.0312	867.
							.1760	-447.	56.	245.	-325.	2431.	-2699.	-.0007	-.0456	.0175	.0605	.0249	.0300	811.
							.1770	-444.	-180.	194.	-886.	2509.	-2293.	-.0049	-.0376	.0246	.0599	.0162	.0255	781.
							.1780	-503.	-491.	-382.	-1553.	1622.	-1435.	-.0105	-.0283	.0326	.0578	.0097	.0185	593.
							.1790	-721.	-839.	-788.	-2150.	1267.	-322.	-.0165	-.0181	.0409	.0540	.0030	.0097	560.
							.1800	-883.	-1196.	-987.	-2645.	1117.	805.	-.0229	-.0082	.0493	.0484	-.0053	-.0004	663.
							.1810	-622.	-1469.	-1868.	-3082.	-1165.	1783.	-.0303	.0010	.0576	.0427	-.0118	-.0113	834.
							.1820	-409.	-1656.	-1963.	-3360.	-1895.	2627.	-.0366	.0085	.0648	.0379	-.0205	-.0214	1038.
							.1830	-191.	-1692.	-1706.	-3382.	-2057.	3267.	-.0421	.0138	.0704	.0347	-.0283	-.0296	1142.
							.1840	101.	-1601.	-1361.	-3182.	-2321.	3671.	-.0476	.0166	.0740	.0330	-.0344	-.0358	1198.
							.1850	401.	-1422.	-917.	-2844.	-2475.	3847.	-.0535	.0168	.0750	.0331	-.0393	-.0396	1198.
							.1860	662.	-1149.	-767.	-2398.	-3052.	3786.	-.0597	.0145	.0738	.0355	-.0415	-.0401	1206.
							.1870	588.	-877.	-200.	-1876.	-2055.	3542.	-.0650	.0099	.0705	.0391	-.0442	-.0374	1002.
							.1880	471.	-640.	-49.	-1369.	-1594.	3118.	-.0700	.0035	.0658	.0430	-.0450	-.0328	837.
							.1890	388.	-472.	-47.	-929.	-1332.	2578.	-.0741	-.0042	.0605	.0463	-.0453	-.0273	678.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.32.

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

.1790	-721.	-839.	-788.	-2150.	1267.	-322.	-.0165	-.0181	.0409	.0540	.0030	.0097	560.
.1800	-883.	-1196.	-987.	-2645.	1117.	805.	-.0229	-.0082	.0493	.0484	-.0053	-.0004	663.
.1810	-622.	-1469.	-1868.	-3082.	-1165.	1783.	-.0303	.0010	.0576	.0427	-.0118	-.0113	834.
.1820	-409.	-1656.	-1963.	-3360.	-1895.	2627.	-.0366	.0085	.0648	.0379	-.0205	-.0214	1038.
.1830	-191.	-1692.	-1706.	-3382.	-2057.	3267.	-.0421	.0138	.0704	.0347	-.0283	-.0296	1142.
.1840	161.	-1601.	-1361.	-2182.	-2321.	3671.	-.0476	.0166	.0740	.0330	-.0344	-.0358	1198.
.1850	401.	-1422.	-917.	-2844.	-2475.	3847.	-.0535	.0168	.0750	.0331	-.0393	-.0396	1198.
.1860	662.	-1149.	-767.	-2398.	-3052.	3786.	-.0597	.0145	.0738	.0355	-.0415	-.0401	1206.
.1870	588.	-877.	-200.	-1876.	-2055.	3542.	-.0650	.0099	.0705	.0391	-.0442	-.0374	1002.
.1880	471.	-640.	-49.	-1369.	-1594.	3118.	-.0700	.0035	.0658	.0430	-.0450	-.0328	837.
.1890	388.	-472.	-47.	-929.	-1332.	2578.	-.0741	-.0042	.0605	.0463	-.0453	-.0273	678.

ADLPIPE PAGE 1314

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.32.

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

CONDITION 24
LOADS
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ENGLISH UNITS

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

SECTION	30	MEMBER	1	SEQUENCE	254	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)	
.1900	367.	-350.	133.	-574.	-789.	2006.	-.0767	-.0128	.0552	.0494	-.0456	-.0212	496.	
.1910	590.	-221.	-67.	-328.	-1554.	1479.	-.0782	-.0217	.0502	.0531	-.0419	-.0142	483.	
.1920	775.	-126.	123.	-129.	-1802.	1092.	-.0775	-.0307	.0454	.0568	-.0350	-.0062	470.	
.1930	880.	-35.	660.	110.	-1523.	805.	-.0743	-.0394	.0408	.0601	-.0247	.0019	384.	
.1940	1009.	93.	1154.	358.	-1445.	534.	-.0691	-.0476	.0363	.0627	-.0115	.0081	352.	
.1950	1122.	210.	1516.	500.	-1428.	262.	-.0618	-.0551	.0319	.0638	.0024	.0106	342.	
.1960	1107.	245.	1796.	491.	-1040.	-8.	-.0524	-.0620	.0275	.0631	.0158	.0091	256.	
.1970	939.	227.	1875.	449.	-436.	-321.	-.0411	-.0682	.0232	.0612	.0287	.0050	157.	
.1980	635.	236.	1715.	560.	241.	-716.	-.0284	-.0739	.0193	.0597	.0415	.0005	209.	
.1990	221.	292.	1449.	889.	1089.	-1156.	-.0148	-.0792	.0160	.0593	.0541	-.0028	405.	
.2000	-201.	360.	1084.	1339.	1798.	-1553.	-.0006	-.0839	.0136	.0604	.0664	-.0049	607.	
.2010	-538.	423.	581.	1770.	2049.	-1850.	.0138	-.0878	.0121	.0634	.0782	-.0064	730.	
.2020	-808.	491.	130.	2111.	2240.	-2083.	.0284	-.0908	.0114	.0681	.0581	-.0075	827.	
.2030	-1029.	581.	-127.	2367.	2690.	-2380.	.0431	-.0928	.0112	.0741	.0950	-.0085	957.	
.2040	-1146.	695.	-349.	2535.	2982.	-2824.	.0569	-.0936	.0111	.0802	.0987	-.0100	1074.	
.2050	-1204.	785.	-631.	2513.	2993.	-3285.	.0693	-.0928	.0109	.0855	.0999	-.0127	1136.	
.2060	-1355.	766.	-861.	2137.	3208.	-3470.	.0799	-.0902	.0105	.0896	.0992	-.0173	1154.	
.2070	-1642.	586.	-1045.	1339.	3689.	-3219.	.0887	-.0857	.0101	.0922	.0974	-.0238	1129.	
.2080	-1933.	284.	-1349.	274.	3894.	-2652.	.0952	-.0796	.0099	.0932	.0952	-.0310	1050.	
.2090	-2129.	-54.	-1759.	-801.	3721.	-1997.	.0994	-.0726	.0104	.0929	.0925	-.0372	956.	
.2100	-2244.	-372.	-2097.	-1734.	3580.	-1370.	.1020	-.0653	.0115	.0919	.0891	-.0414	936.	
.2110	-2281.	-667.	-2356.	-2524.	3454.	-760.	.1029	-.0582	.0134	.0906	.0857	-.0437	967.	
.2120	-2239.	-941.	-2588.	-3184.	3162.	-158.	.1020	-.0517	.0157	.0889	.0832	-.0445	999.	
.2130	-2166.	-1159.	-2743.	-3654.	2822.	386.	.0991	-.0460	.0180	.0872	.0817	-.0440	1031.	
.2140	-2118.	-1261.	-2758.	-3833.	2564.	780.	.0942	-.0415	.0198	.0856	.0816	-.0418	1041.	
.2150	-2120.	-1223.	-2732.	-3660.	2405.	958.	.0874	-.0384	.0208	.0840	.0825	-.0381	997.	
.2160	-2171.	-1085.	-2556.	-3189.	2411.	937.	.0791	-.0364	.0212	.0818	.0836	-.0335	913.	
.2170	-2229.	-901.	-2267.	-2574.	2591.	804.	.0699	-.0353	.0211	.0786	.0836	-.0294	832.	
.2180	-2191.	-701.	-1986.	-1946.	2621.	630.	.0601	-.0346	.0209	.0743	.0814	-.0265	740.	
.2190	-1988.	-485.	-1778.	-1309.	2265.	433.	.0499	-.0342	.0208	.0692	.0767	-.0246	590.	
.2200	-1665.	-262.	-1547.	-613.	1734.	224.	.0396	-.0338	.0209	.0632	.0698	-.0224	412.	
.2210	-1312.	-48.	-1238.	107.	1255.	58.	.0295	-.0333	.0208	.0569	.0608	-.0196	280.	
.2220	-964.	138.	-917.	726.	781.	-18.	.0196	-.0323	.0204	.0505	.0501	-.0166	237.	
.2230	-613.	275.	-627.	1141.	272.	-24.	.0100	-.0309	.0194	.0439	.0372	-.0143	261.	
.2240	-256.	363.	-353.	1328.	-218.	-45.	.0006	-.0289	.0175	.0370	.0218	-.0136	300.	
.2250	93.	434.	-81.	1342.	-615.	-174.	-.0085	-.0266	.0146	.0298	.0039	-.0144	331.	
.2260	411.	525.	234.	1261.	-811.	-440.	-.0172	-.0240	.0108	.0231	-.0158	-.0159	348.	
.2270	695.	642.	618.	1125.	-799.	-780.	-.0257	-.0211	.0062	.0173	-.0360	-.0177	353.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.32.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

.2170	-2229.	-901.	-2267.	-2574.	2591.	804.	.0699	-.0353	.0211	.0786	.0836	-.0294	832.
.2180	-2191.	-701.	-1986.	-1946.	2621.	630.	.0601	-.0346	.0209	.0743	.0814	-.0265	740.
.2190	-1988.	-485.	-1778.	-1309.	2265.	433.	.0499	-.0342	.0208	.0692	.0767	-.0246	590.
.2200	-1665.	-262.	-1547.	-613.	1734.	224.	.0396	-.0338	.0209	.0632	.0698	-.0224	412.
.2210	-1312.	-48.	-1238.	107.	1255.	58.	.0295	-.0333	.0208	.0569	.0508	-.0196	280.
.2220	-964.	138.	-917.	726.	781.	-18.	.0196	-.0323	.0204	.0505	.0501	-.0166	237.
.2230	-612.	275.	-627.	1141.	272.	-24.	.0100	-.0309	.0194	.0439	.0372	-.0143	261.
.2240	-256.	363.	-353.	1328.	-218.	-45.	.0006	-.0289	.0175	.0370	.0218	-.0136	300.
.2250	93.	434.	-81.	1342.	-615.	-174.	-.0085	-.0266	.0146	.0298	.0039	-.0144	331.
.2260	411.	525.	234.	1261.	-811.	-440.	-.0172	-.0240	.0108	.0231	-.0158	-.0159	348.
.2270	695.	642.	618.	1125.	-799.	-780.	-.0257	-.0211	.0062	.0173	-.0360	-.0177	353.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.32.

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								
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)	
.2280	973.	757.	1004.	922.	-806.	-1070.	-.0340	-.0176	.0014	.0126	-.0554	-.0193	362.	
.2290	1249.	848.	1321.	654.	-981.	-1213.	-.0423	-.0136	-.0032	.0088	-.0726	-.0207	376.	
.2300	1491.	917.	1586.	383.	-1192.	-1205.	-.0502	-.0090	-.0073	.0057	-.0872	-.0216	387.	
.2310	1689.	966.	1787.	163.	-1369.	-1116.	-.0574	-.0038	-.0107	.0027	-.0992	-.0220	395.	
.2320	1847.	989.	1844.	-18.	-1616.	-1006.	-.0638	.0019	-.0132	-.0005	-.1083	-.0222	423.	
.2330	1927.	972.	1764.	-210.	-1840.	-874.	-.0691	.0084	-.0150	-.0046	-.1143	-.0229	456.	
.2340	1879.	911.	1631.	-445.	-1829.	-656.	-.0730	.0155	-.0162	-.0096	-.1172	-.0248	444.	
.2350	1713.	811.	1460.	-731.	-1656.	-336.	-.0756	.0233	-.0168	-.0158	-.1165	-.0282	410.	
.2360	1480.	684.	1241.	-1044.	-1510.	110.	-.0766	.0315	-.0167	-.0228	-.1118	-.0328	409.	
.2370	1209.	549.	1038.	-1336.	-1344.	625.	-.0760	.0399	-.0159	-.0301	-.1038	-.0378	444.	
.2380	929.	426.	891.	-1562.	-1106.	1148.	-.0734	.0481	-.0143	-.0374	-.0932	-.0423	497.	
.2390	699.	316.	742.	-1711.	-972.	1630.	-.0689	.0557	-.0118	-.0442	-.0807	-.0460	569.	
.2400	545.	204.	548.	-1780.	-1045.	2033.	-.0625	.0625	-.0087	-.0505	-.0672	-.0484	645.	
.2410	438.	92.	319.	-1760.	-1226.	2321.	-.0548	.0682	-.0054	-.0560	-.0532	-.0491	703.	
.2420	329.	4.	44.	-1640.	-1441.	2466.	-.0459	.0726	-.0026	-.0599	-.0390	-.0474	733.	
.2430	173.	-41.	-268.	-1417.	-1595.	2454.	-.0363	.0755	-.0009	-.0621	-.0248	-.0432	723.	
.2440	-63.	-55.	-531.	-1108.	-1476.	2293.	-.0261	.0772	-.0004	-.0628	-.0109	-.0367	655.	
.2450	-337.	-52.	-721.	-757.	-1108.	2000.	-.0156	.0777	-.0014	-.0626	.0017	-.0290	536.	
.2460	-557.	-33.	-895.	-422.	-775.	1609.	-.0053	.0773	-.0037	-.0622	.0126	-.0211	408.	
.2470	-681.	10.	-1041.	-140.	-570.	1180.	.0046	.0764	-.0075	-.0618	.0218	-.0139	293.	
.2480	-766.	67.	-1015.	81.	-171.	794.	.0139	.0752	-.0128	-.0616	.0293	-.0075	182.	
.2490	-858.	119.	-773.	246.	576.	505.	.0225	.0741	-.0193	-.0620	.0349	-.0020	179.	
.2500	-906.	155.	-458.	363.	1319.	303.	.0301	.0730	-.0264	-.0635	.0388	.0024	312.	
.2510	-855.	172.	-198.	446.	1745.	151.	.0363	.0721	-.0336	-.0661	.0408	.0056	402.	
.2520	-734.	170.	-6.	511.	1895.	38.	.0411	.0714	-.0407	-.0697	.0407	.0079	437.	
.2530	-611.	156.	155.	572.	1947.	-33.	.0444	.0708	-.0474	-.0740	.0390	.0095	451.	
.2540	-517.	144.	321.	664.	1994.	-86.	.0465	.0703	-.0536	-.0783	.0361	.0110	468.	
.2550	-418.	161.	509.	832.	1999.	-185.	.0474	.0697	-.0591	-.0825	.0321	.0127	483.	
.2560	-263.	229.	697.	1089.	1835.	-372.	.0472	.0691	-.0637	-.0862	.0271	.0146	482.	
.2570	-40.	338.	869.	1407.	1465.	-632.	.0462	.0686	-.0673	-.0896	.0213	.0163	473.	
.2580	206.	467.	1053.	1743.	1055.	-900.	.0445	.0682	-.0699	-.0929	.0148	.0175	496.	
.2590	430.	591.	1265.	2049.	742.	-1120.	.0424	.0682	-.0715	-.0963	.0078	.0181	545.	
.2600	638.	682.	1452.	2292.	427.	-1277.	.0399	.0686	-.0722	-.1001	.0006	.0185	591.	
.2610	840.	735.	1564.	2482.	8.	-1393.	.0366	.0695	-.0722	-.1045	-.0067	.0190	633.	
.2620	1011.	768.	1610.	2634.	-425.	-1478.	.0327	.0710	-.0716	-.1093	-.0143	.0197	678.	
.2630	1124.	776.	1613.	2713.	-763.	-1489.	.0281	.0730	-.0706	-.1143	-.0222	.0205	709.	
.2640	1193.	735.	1581.	2662.	-1037.	-1386.	.0228	.0757	-.0693	-.1197	-.0302	.0214	706.	
.2650	1251.	649.	1522.	2485.	-1305.	-1181.	.0169	.0789	-.0680	-.1253	-.0385	.0223	677.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.32.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.2550	-418.	161.	509.	832.	1999.	-185.	.0474	.0697	-.0591	-.0825	.0321	.0127	488.
.2560	-263.	229.	697.	1089.	1835.	-372.	.0472	.0691	-.0637	-.0862	.0271	.0146	482.
.2570	-40.	338.	869.	1407.	1465.	-632.	.0462	.0686	-.0673	-.0896	.0213	.0163	473.
.2580	766.	467.	1053.	1743.	1055.	-900.	.0445	.0682	-.0699	-.0929	.0148	.0175	496.
.2590	430.	591.	1265.	2049.	742.	-1120.	.0424	.0682	-.0715	-.0963	.0078	.0181	545.
.2600	638.	682.	1452.	2292.	427.	-1277.	.0399	.0686	-.0722	-.1001	.0006	.0185	591.
.2610	840.	735.	1564.	2482.	8.	-1393.	.0366	.0695	-.0722	-.1045	-.0067	.0190	633.
.2620	1011.	768.	1610.	2634.	-425.	-1478.	.0327	.0710	-.0716	-.1093	-.0143	.0197	678.
.2630	1124.	776.	1613.	2713.	-763.	-1489.	.0281	.0730	-.0706	-.1143	-.0222	.0205	709.
.2640	1193.	735.	1561.	2662.	-1037.	-1386.	.0228	.0757	-.0693	-.1197	-.0302	.0214	706.
.2650	1251.	649.	1522.	2485.	-1305.	-1181.	.0169	.0789	-.0680	-.1253	-.0385	.0223	677.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.32.

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	30	MEMBER	1	SEQUENCE	254	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)	
.2660	1320.	542.	1463.	2252.	-1569.	-926.	.0105	.0826	-.0664	-.1311	-.0470	.0235	644.	
.2670	1401.	436.	1415.	2018.	-1825.	-645.	.0036	.0866	-.0647	-.1368	-.0555	.0251	622.	
.2680	1486.	326.	1388.	1778.	-2041.	-314.	-.0033	.0908	-.0627	-.1426	-.0539	.0267	606.	
.2690	1576.	187.	1393.	1500.	-2218.	97.	-.0104	.0951	-.0606	-.1484	-.0720	.0281	596.	
.2700	1681.	15.	1413.	1183.	-2410.	573.	-.0174	.0992	-.0583	-.1542	-.0796	.0290	611.	
.2710	1783.	-150.	1442.	880.	-2577.	1045.	-.0244	.1031	-.0561	-.1591	-.0866	.0297	649.	
.2720	1845.	-247.	1496.	650.	-2572.	1442.	-.0313	.1066	-.0539	-.1626	-.0931	.0305	672.	
.2730	1866.	-282.	1575.	490.	-2366.	1745.	-.0378	.1094	-.0517	-.1644	-.0990	.0314	667.	
.2740	1890.	-328.	1640.	345.	-2224.	1993.	-.0441	.1114	-.0495	-.1654	-.1039	.0327	669.	
.2750	1930.	-414.	1684.	201.	-2151.	2211.	-.0500	.1125	-.0469	-.1655	-.1074	.0348	688.	
.2760	1963.	-483.	1722.	110.	-2097.	2375.	-.0554	.1128	-.0440	-.1641	-.1092	.0378	705.	
.2770	1987.	-493.	1752.	110.	-2077.	2463.	-.0602	.1122	-.0408	-.1609	-.1091	.0417	717.	
.2780	2022.	-486.	1799.	165.	-2139.	2510.	-.0645	.1107	-.0374	-.1564	-.1067	.0463	735.	
.2790	2078.	-509.	1905.	222.	-2243.	2559.	-.0681	.1084	-.0340	-.1512	-.1024	.0510	759.	
.2800	2141.	-524.	2052.	266.	-2344.	2590.	-.0710	.1053	-.0309	-.1450	-.0965	.0553	779.	
.2810	2184.	-478.	2191.	317.	-2424.	2559.	-.0732	.1016	-.0282	-.1376	-.0894	.0586	787.	
.2820	2182.	-398.	2330.	378.	-2397.	2465.	-.0744	.0972	-.0262	-.1295	-.0812	.0609	770.	
.2830	2128.	-346.	2488.	447.	-2214.	2337.	-.0745	.0922	-.0248	-.1215	-.0725	.0626	723.	
.2840	2033.	-323.	2609.	516.	-1967.	2175.	-.0735	.0865	-.0239	-.1136	-.0634	.0637	663.	
.2850	1901.	-286.	2635.	618.	-1741.	1964.	-.0711	.0804	-.0233	-.1054	-.0543	.0643	600.	
.2860	1733.	-235.	2594.	751.	-1486.	1714.	-.0673	.0739	-.0229	-.0969	-.0456	.0644	532.	
.2870	1556.	-200.	2537.	900.	-1189.	1452.	-.0621	.0670	-.0226	-.0884	-.0379	.0637	463.	
.2880	1409.	-181.	2462.	1046.	-949.	1181.	-.0556	.0600	-.0223	-.0801	-.0315	.0620	409.	
.2890	1304.	-146.	2356.	1172.	-806.	890.	-.0482	.0529	-.0221	-.0718	-.0269	.0590	373.	
.2900	1215.	-95.	2243.	1257.	-679.	593.	-.0400	.0459	-.0218	-.0635	-.0243	.0546	344.	
.2910	1126.	-55.	2132.	1276.	-538.	320.	-.0312	.0390	-.0215	-.0553	-.0235	.0487	316.	
.2920	1040.	-38.	1992.	1219.	-445.	86.	-.0221	.0321	-.0211	-.0474	-.0242	.0416	289.	
.2930	957.	-38.	1795.	1099.	-440.	-116.	-.0130	.0253	-.0204	-.0395	-.0261	.0339	265.	
.2940	872.	-54.	1545.	941.	-504.	-298.	-.0041	.0186	-.0193	-.0315	-.0286	.0263	247.	
.2950	779.	-84.	1264.	779.	-597.	-465.	.0045	.0116	-.0177	-.0229	-.0310	.0196	242.	
.2960	676.	-108.	963.	639.	-682.	-622.	.0125	.0045	-.0155	-.0134	-.0329	.0141	250.	
.2970	567.	-109.	647.	524.	-746.	-772.	.0200	-.0028	-.0128	-.0028	-.0338	.0101	266.	
.2980	458.	-100.	319.	422.	-805.	-904.	.0265	-.0104	-.0096	.0087	-.0335	.0075	285.	
.2990	339.	-102.	-3.	328.	-842.	-1009.	.0320	-.0182	-.0061	.0205	-.0316	.0062	301.	
.3000	186.	-102.	-326.	256.	-804.	-1094.	.0364	-.0262	-.0024	.0327	-.0280	.0062	307.	
.3010	-13.	-83.	-646.	214.	-684.	-1175.	.0398	-.0344	.0016	.0451	-.0227	.0073	306.	
.3020	-242.	-61.	-970.	188.	-551.	-1245.	.0422	-.0428	.0060	.0573	-.0159	.0092	306.	
.3030	-471.	-64.	-1279.	165.	-461.	-1287.	.0435	-.0511	.0105	.0689	-.0075	.0120	306.	

ADLPIPE PAGE 1317

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.32.

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

.2930	957.	-38.	1795.	1099.	-440.	-116.	-.0130	.0253	-.0204	-.0395	-.0261	.0339	265.
.2940	872.	-54.	1545.	941.	-504.	-298.	-.0041	.0186	-.0193	-.0315	-.0286	.0263	247.
.2950	779.	-84.	1264.	779.	-597.	-465.	.0045	.0116	-.0177	-.0229	-.0310	.0196	242.
.2960	676.	-108.	963.	639.	-682.	-622.	.0175	.0045	-.0155	-.0134	-.0329	.0141	250.
.2970	567.	-109.	647.	524.	-746.	-772.	.0200	-.0028	-.0128	-.0028	-.0338	.0101	266.
.2980	458.	-100.	319.	422.	-805.	-904.	.0265	-.0104	-.0096	.0087	-.0335	.0075	285.
.2990	339.	-102.	-8.	328.	-842.	-1009.	.0320	-.0182	-.0061	.0205	-.0316	.0062	301.
.3000	186.	-102.	-326.	256.	-804.	-1094.	.0364	-.0262	-.0024	.0327	-.0280	.0062	307.
.3010	-13.	-83.	-646.	214.	-684.	-1175.	.0398	-.0344	.0016	.0451	-.0227	.0073	306.
.3020	-242.	-61.	-970.	108.	-551.	-1245.	.0422	-.0428	.0060	.0573	-.0159	.0092	306.
.3030	-471.	-64.	-1279.	165.	-461.	-1287.	.0435	-.0511	.0105	.0689	-.0075	.0120	306.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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

CONDITION 24
LOADS
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ENGLISH UNITS

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

SECTION	30	MEMBER	1	SEQUENCE	254	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)	
.3040	-682.	-78.	-1553.	158.	-424.	-1304.		.0441	-.0595	.0154	.0799	.0019	.0156	307.	
.3050	-867.	-64.	-1780.	198.	-417.	-1323.		.0441	-.0677	.0205	.0907	.0121	.0201	312.	
.3060	-1019.	-16.	-1948.	285.	-422.	-1360.		.0436	-.0756	.0256	.1011	.0224	.0252	323.	
.3070	-1128.	36.	-2048.	391.	-427.	-1403.		.0427	-.0833	.0305	.1106	.0322	.0306	338.	
.3080	-1197.	75.	-2101.	490.	-435.	-1435.		.0414	-.0905	.0351	.1186	.0411	.0356	351.	
.3090	-1247.	112.	-2134.	570.	-421.	-1461.		.0399	-.0971	.0392	.1251	.0485	.0398	361.	
.3100	-1305.	150.	-2154.	635.	-334.	-1492.		.0380	-.1029	.0424	.1301	.0542	.0428	368.	
.3110	-1372.	181.	-2151.	679.	-161.	-1526.		.0358	-.1080	.0449	.1334	.0580	.0443	373.	
.3120	-1436.	205.	-2126.	698.	61.	-1553.		.0333	-.1123	.0464	.1353	.0600	.0442	379.	
.3130	-1482.	235.	-2062.	692.	314.	-1567.		.0304	-.1156	.0472	.1359	.0601	.0428	387.	
.3140	-1498.	274.	-1932.	668.	599.	-1566.		.0271	-.1181	.0472	.1357	.0586	.0402	401.	
.3150	-1469.	319.	-1734.	625.	871.	-1547.		.0233	-.1195	.0467	.1347	.0558	.0366	419.	
.3160	-1389.	367.	-1494.	556.	1088.	-1507.		.0191	-.1201	.0458	.1333	.0517	.0323	432.	
.3170	-1274.	408.	-1237.	442.	1249.	-1429.		.0145	-.1196	.0447	.1313	.0468	.0275	434.	
.3180	-1150.	418.	-990.	262.	1364.	-1291.		.0096	-.1181	.0436	.1288	.0412	.0221	422.	
.3190	-1037.	375.	-779.	2.	1425.	-1075.		.0044	-.1156	.0425	.1255	.0354	.0162	397.	
.3200	-948.	283.	-636.	-336.	1416.	-779.		-.0010	-.1123	.0415	.1216	.0296	.0097	367.	
.3210	-888.	159.	-562.	-748.	1362.	-417.		-.0063	-.1081	.0407	.1174	.0241	.0027	358.	
.3220	-852.	6.	-533.	-1221.	1294.	-7.		-.0113	-.1034	.0402	.1128	.0189	-.0047	396.	
.3230	-824.	-178.	-516.	-1727.	1218.	426.		-.0158	-.0985	.0400	.1080	.0143	-.0120	480.	
.3240	-792.	-368.	-496.	-2219.	1142.	838.		-.0195	-.0936	.0401	.1032	.0103	-.0189	586.	
.3250	-754.	-529.	-477.	-2651.	1069.	1183.		-.0223	-.0890	.0406	.0988	.0069	-.0249	688.	
.3260	-711.	-655.	-482.	-2998.	963.	1432.		-.0242	-.0850	.0413	.0950	.0040	-.0297	770.	
.3270	-675.	-763.	-516.	-3249.	826.	1583.		-.0251	-.0818	.0423	.0915	.0017	-.0333	825.	
.3280	-666.	-861.	-574.	-3391.	709.	1640.		-.0250	-.0795	.0435	.0882	-.0001	-.0354	853.	
.3290	-689.	-930.	-675.	-3414.	609.	1596.		-.0239	-.0782	.0446	.0852	-.0014	-.0361	849.	
.3300	-735.	-959.	-822.	-3328.	485.	1452.		-.0219	-.0777	.0456	.0826	-.0023	-.0357	815.	
.3310	-791.	-966.	-1018.	-3169.	359.	1241.		-.0191	-.0780	.0463	.0798	-.0031	-.0345	761.	
.3320	-846.	-970.	-1185.	-2978.	285.	1006.		-.0155	-.0790	.0466	.0769	-.0036	-.0329	702.	
.3330	-894.	-968.	-1314.	-2779.	276.	771.		-.0111	-.0804	.0463	.0736	-.0039	-.0309	645.	
.3340	-931.	-948.	-1407.	-2583.	320.	538.		-.0062	-.0822	.0455	.0704	-.0038	-.0286	591.	
.3350	-961.	-916.	-1459.	-2399.	419.	311.		-.0008	-.0842	.0441	.0671	-.0032	-.0261	546.	
.3360	-991.	-888.	-1479.	-2245.	567.	105.		.0049	-.0862	.0421	.0639	-.0020	-.0233	516.	
.3370	-1029.	-871.	-1490.	-2136.	744.	-65.		.0107	-.0883	.0395	.0607	-.0000	-.0203	503.	
.3380	-1086.	-863.	-1501.	-2066.	946.	-204.		.0164	-.0902	.0365	.0579	.0027	-.0170	507.	
.3390	-1156.	-856.	-1518.	-2016.	1152.	-325.		.0219	-.0920	.0331	.0555	.0061	-.0135	522.	
.3400	-1222.	-844.	-1546.	-1962.	1314.	-443.		.0271	-.0936	.0295	.0536	.0103	-.0097	534.	
.3410	-1268.	-818.	-1577.	-1885.	1409.	-562.		.0320	-.0950	.0258	.0522	.0150	-.0057	538.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.32.

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

.3310	-791.	-966.	-1018.	-3169.	359.	1241.	-.0191	-.0780	.0463	.0798	-.0031	-.0345	761.
.3320	-846.	-970.	-1185.	-2978.	285.	1006.	-.0155	-.0790	.0466	.0769	-.0036	-.0329	702.
.3330	-894.	-968.	-1314.	-2779.	276.	771.	-.0111	-.0804	.0463	.0736	-.0039	-.0309	645.
.3340	-931.	-948.	-1407.	-2583.	320.	536.	-.0062	-.0822	.0455	.0704	-.0038	-.0286	591.
.3350	-961.	-916.	-1459.	-2399.	419.	311.	-.0008	-.0842	.0441	.0671	-.0032	-.0261	546.
.3360	-991.	-888.	-1479.	-2245.	567.	105.	.0049	-.0862	.0421	.0639	-.0020	-.0233	516.
.3370	-1029.	-871.	-1490.	-2136.	744.	-65.	.0107	-.0883	.0395	.0607	-.0000	-.0203	503.
.3380	-1086.	-863.	-1501.	-2066.	946.	-204.	.0164	-.0902	.0365	.0579	.0027	-.0170	507.
.3390	-1156.	-856.	-1518.	-2016.	1152.	-325.	.0219	-.0920	.0331	.0555	.0061	-.0135	522.
.3400	-1222.	-844.	-1546.	-1962.	1314.	-443.	.0271	-.0936	.0295	.0536	.0103	-.0097	534.
.3410	-1268.	-818.	-1577.	-1885.	1409.	-562.	.0320	-.0950	.0258	.0522	.0150	-.0057	538.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.32.

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	30	MEMBER	1	SEQUENCE	254	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)		
.3420	-1294.	-775.	-1592.	-1779.	1465.	-672.	.0364	-.0960	.0222	.0511	.0203	-.0019	534.		
.3430	-1300.	-718.	-1579.	-1642.	1495.	-769.	.0406	-.0965	.0186	.0503	.0261	.0014	523.		
.3440	-1286.	-644.	-1547.	-1468.	1482.	-857.	.0445	-.0965	.0152	.0494	.0322	.0041	502.		
.3450	-1254.	-551.	-1506.	-1246.	1428.	-943.	.0482	-.0959	.0119	.0483	.0385	.0058	471.		
.3460	-1222.	-445.	-1460.	-988.	1379.	-1028.	.0516	-.0945	.0088	.0467	.0447	.0064	441.		
.3470	-1205.	-343.	-1410.	-723.	1372.	-1092.	.0549	-.0924	.0058	.0442	.0504	.0058	422.		
.3480	-1205.	-260.	-1364.	-482.	1411.	-1117.	.0581	-.0893	.0029	.0407	.0555	.0037	414.		
.3490	-1212.	-202.	-1327.	-283.	1472.	-1094.	.0610	-.0853	.0002	.0360	.0596	.0004	413.		
.3500	-1216.	-166.	-1304.	-131.	1535.	-1031.	.0637	-.0804	-.0025	.0302	.0525	-.0039	412.		
.3510	-1210.	-153.	-1290.	-37.	1595.	-931.	.0662	-.0748	-.0051	.0235	.0540	-.0009	411.		
.3520	-1193.	-169.	-1270.	-9.	1660.	-793.	.0684	-.0684	-.0075	.0161	.0540	-.0141	409.		
.3530	-1162.	-217.	-1242.	-54.	1716.	-623.	.0702	-.0616	-.0098	.0082	.0525	-.0193	406.		
.3540	-1115.	-289.	-1214.	-166.	1737.	-442.	.0715	-.0544	-.0120	.0003	.0598	-.0240	400.		
.3550	-1057.	-374.	-1182.	-328.	1729.	-282.	.0723	-.0471	-.0141	-.0075	.0558	-.0279	397.		
.3560	-999.	-466.	-1136.	-526.	1731.	-163.	.0724	-.0398	-.0160	-.0149	.0507	-.0306	404.		
.3570	-943.	-563.	-1068.	-750.	1761.	-91.	.0718	-.0327	-.0178	-.0217	.0446	-.0322	426.		
.3580	-889.	-660.	-980.	-987.	1814.	-67.	.0703	-.0260	-.0195	-.0279	.0379	-.0323	460.		
.3590	-831.	-752.	-876.	-1221.	1871.	-88.	.0680	-.0195	-.0209	-.0334	.0308	-.0312	497.		
.3600	-765.	-831.	-763.	-1429.	1906.	-143.	.0647	-.0134	-.0219	-.0382	.0235	-.0291	531.		
.3610	-685.	-897.	-648.	-1597.	1897.	-209.	.0603	-.0075	-.0223	-.0424	.0164	-.0260	554.		
.3620	-593.	-953.	-529.	-1720.	1835.	-259.	.0550	-.0019	-.0222	-.0461	.0097	-.0224	562.		
.3630	-489.	-1001.	-403.	-1793.	1709.	-274.	.0486	.0035	-.0214	-.0495	.0036	-.0186	555.		
.3640	-369.	-1038.	-269.	-1814.	1502.	-249.	.0413	.0088	-.0200	-.0527	-.0015	-.0148	527.		
.3650	-232.	-1057.	-122.	-1776.	1220.	-150.	.0330	.0139	-.0182	-.0557	-.0057	-.0113	481.		
.3660	-83.	-1050.	52.	-1681.	902.	-104.	.0240	.0190	-.0160	-.0584	-.0091	-.0084	425.		
.3670	74.	-1012.	259.	-1536.	578.	1.	.0143	.0238	-.0136	-.0607	-.0116	-.0060	365.		
.3680	238.	-946.	493.	-1348.	249.	116.	.0044	.0285	-.0113	-.0626	-.0134	-.0042	306.		
.3690	407.	-856.	745.	-1120.	-79.	233.	-.0058	.0330	-.0090	-.0640	-.0145	-.0028	255.		
.3700	575.	-744.	1001.	-855.	-389.	343.	-.0158	.0371	-.0069	-.0648	-.0153	-.0017	222.		
.3710	734.	-613.	1240.	-563.	-675.	440.	-.0254	.0410	-.0051	-.0650	-.0160	-.0007	219.		
.3720	883.	-474.	1443.	-271.	-945.	527.	-.0343	.0446	-.0037	-.0647	-.0168	.0002	248.		
.3730	1020.	-346.	1606.	-6.	-1191.	612.	-.0423	.0478	-.0026	-.0641	-.0180	.0009	298.		
.3740	1144.	-237.	1738.	218.	-1400.	690.	-.0493	.0507	-.0021	-.0635	-.0199	.0016	351.		
.3750	1254.	-139.	1837.	398.	-1565.	741.	-.0551	.0532	-.0020	-.0628	-.0225	.0022	395.		
.3760	1350.	-46.	1904.	525.	-1685.	757.	-.0596	.0553	-.0024	-.0622	-.0261	.0026	427.		
.3770	1431.	34.	1949.	584.	-1756.	751.	-.0628	.0570	-.0033	-.0618	-.0305	.0028	444.		
.3780	1499.	89.	1976.	569.	-1793.	736.	-.0647	.0584	-.0045	-.0619	-.0356	.0029	449.		
.3790	1556.	116.	1979.	495.	-1820.	713.	-.0653	.0594	-.0058	-.0624	-.0411	.0030	449.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.32.

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

.3700	575.	-744.	1001.	-855.	-389.	343.	-.0158	.0371	-.0069	-.0648	-.0153	-.0017	222.
.3710	734.	-613.	1240.	-563.	-675.	440.	-.0254	.0410	-.0051	-.0650	-.0160	-.0007	219.
.3720	883.	-474.	1443.	-271.	-945.	527.	-.0343	.0446	-.0037	-.0647	-.0168	.0002	248.
.3730	1020.	-346.	1606.	-6.	-1191.	612.	-.0423	.0478	-.0026	-.0641	-.0180	.0009	298.
.3740	1144.	-237.	1738.	218.	-1400.	690.	-.0493	.0507	-.0021	-.0635	-.0199	.0016	351.
.3750	1254.	-139.	1837.	398.	-1565.	741.	-.0551	.0532	-.0020	-.0628	-.0225	.0022	395.
.3760	1350.	-46.	1904.	529.	-1685.	757.	-.0596	.0553	-.0024	-.0622	-.0261	.0026	427.
.3770	1431.	84.	1949.	584.	-1756.	751.	-.0628	.0570	-.0033	-.0618	-.0305	.0028	444.
.3780	1499.	89.	1976.	569.	-1793.	736.	-.0647	.0584	-.0045	-.0619	-.0356	.0029	449.
.3790	1556.	116.	1979.	465.	-1820.	713.	-.0653	.0594	-.0058	-.0624	-.0411	.0030	449.

ADLPIPE PAGE 1319

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

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.32.

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	30	MEMBER	1	SEQUENCE	254	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)		
.3800	1601.	126.	1952.	391.	-1849.	669.	-.0648	.0599	-.0072	-.0634	-.0468	.0034	446.		
.3810	1633.	119.	1893.	277.	-1877.	603.	-.0632	.0599	-.0086	-.0647	-.0523	.0041	443.		
.3820	1648.	96.	1794.	162.	-1908.	523.	-.0607	.0593	-.0097	-.0663	-.0572	.0051	441.		
.3830	1642.	64.	1654.	51.	-1938.	434.	-.0575	.0583	-.0107	-.0679	-.0512	.0066	442.		
.3840	1610.	24.	1486.	-39.	-1950.	333.	-.0537	.0567	-.0114	-.0693	-.0639	.0086	440.		
.3850	1547.	-10.	1301.	-87.	-1921.	206.	-.0495	.0546	-.0119	-.0704	-.0651	.0112	430.		
.3860	1450.	-23.	1103.	-84.	-1842.	41.	-.0450	.0520	-.0123	-.0708	-.0543	.0144	410.		
.3870	1323.	-18.	904.	-38.	-1710.	-151.	-.0405	.0488	-.0125	-.0704	-.0616	.0183	382.		
.3880	1176.	-12.	727.	39.	-1535.	-356.	-.0359	.0452	-.0125	-.0695	-.0568	.0229	351.		
.3890	1023.	-9.	583.	149.	-1338.	-570.	-.0314	.0413	-.0123	-.0678	-.0500	.0282	325.		
.3900	872.	13.	464.	307.	-1145.	-803.	-.0270	.0372	-.0119	-.0650	-.0415	.0339	319.		
.3910	728.	71.	365.	508.	-968.	-1051.	-.0229	.0332	-.0113	-.0610	-.0315	.0400	337.		
.3920	594.	147.	289.	725.	-808.	-1278.	-.0190	.0293	-.0106	-.0558	-.0204	.0459	373.		
.3930	471.	214.	243.	929.	-661.	-1446.	-.0155	.0258	-.0098	-.0500	-.0086	.0515	410.		
.3940	363.	268.	220.	1114.	-531.	-1548.	-.0124	.0228	-.0090	-.0438	.0033	.0564	440.		
.3950	267.	325.	207.	1286.	-409.	-1605.	-.0096	.0204	-.0083	-.0374	.0148	.0604	467.		
.3960	184.	386.	200.	1441.	-279.	-1629.	-.0072	.0186	-.0078	-.0309	.0255	.0632	488.		
.3970	114.	439.	209.	1568.	-126.	-1613.	-.0051	.0175	-.0074	-.0248	.0349	.0646	501.		
.3980	58.	476.	242.	1665.	55.	-1555.	-.0034	.0170	-.0072	-.0191	.0428	.0647	507.		
.3990	19.	513.	299.	1753.	249.	-1473.	-.0020	.0171	-.0072	-.0138	.0491	.0637	512.		
.4000	-3.	569.	372.	1856.	438.	-1393.	-.0011	.0177	-.0073	-.0087	.0537	.0619	525.		

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)
.0590	-4050.	-1275.	-3334.	-5356.	6455.	-1783.	.0906	-.1029	.0304	.1381	.0864	.0091	1908.

SECTION	30	MEMBER	2	SEQUENCE	55	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
0.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.		
.0010	2.	-0.	1.	-0.	-0.	0.	-.0000	.0000	-.0000	-.0000	-.0000	-.0000	0.		
.0020	12.	-2.	9.	-3.	-2.	2.	-.0000	.0000	-.0000	-.0000	-.0000	.0000	2.		
.0030	39.	0.	30.	-11.	-7.	4.	-.0001	.0000	-.0001	.0000	-.0000	.0001	6.		

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

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.32.

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	30	MEMBER	2	SEQUENCE	55	LOCATION	END	TYPE	RU	RU	RZ	RX	RY	RZ	STRESS
TIME	FX	FY	FZ	MX	MY	MZ			DY	DZ	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
(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.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.
.0010	2.	-0.	1.	-0.	-0.	-0.	0.	-0.0000	0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	0.
.0020	12.	-2.	2.	-3.	-2.	2.	2.	-0.0000	0.0000	-0.0000	-0.0000	-0.0000	-0.0000	0.0000	2.
.0030	39.	0.	30.	-11.	-7.	4.	4.	-0.0001	0.0000	-0.0001	0.0000	-0.0000	-0.0000	0.0001	6.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.32.

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

SECTION	30	MEMBER	2	SEQUENCE	55	LOCATION	END	TYPE	RU	RU	RZ	RX	RY	RZ	STRESS
TIME	FX	FY	FZ	MX	MY	MZ			DY	DZ	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)			(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
.0040	84.	12.	68.	-29.	-19.	7.	-0.0003	0.0001	-0.0002	0.0002	-0.0000	0.0003	0.0003	0.0003	14.
.0050	140.	36.	128.	-56.	-45.	12.	-0.0006	0.0001	-0.0004	0.0005	0.0002	0.0008	0.0008	0.0008	29.
.0060	205.	67.	215.	-92.	-84.	28.	-0.0013	0.0002	-0.0008	0.0007	0.0005	0.0014	0.0014	0.0014	51.
.0070	294.	100.	315.	-136.	-137.	61.	-0.0021	0.0004	-0.0014	0.0008	0.0010	0.0021	0.0021	0.0021	81.
.0080	437.	132.	399.	-191.	-223.	116.	-0.0033	0.0006	-0.0023	0.0007	0.0016	0.0028	0.0028	0.0028	127.
.0090	619.	178.	481.	-246.	-362.	194.	-0.0051	0.0009	-0.0034	0.0006	0.0029	0.0041	0.0041	0.0041	192.
.0100	777.	252.	602.	-283.	-567.	288.	-0.0074	0.0013	-0.0047	0.0007	0.0060	0.0061	0.0061	0.0061	279.
.0110	854.	348.	785.	-286.	-821.	398.	-0.0102	0.0017	-0.0061	0.0006	0.0113	0.0086	0.0086	0.0086	384.
.0120	838.	442.	1021.	-261.	-1047.	516.	-0.0129	0.0021	-0.0078	-0.0004	0.0186	0.0106	0.0106	0.0106	480.
.0130	760.	514.	1263.	-234.	-1141.	624.	-0.0148	0.0027	-0.0102	-0.0034	0.0270	0.0108	0.0108	0.0108	530.
.0140	648.	565.	1423.	-214.	-1040.	698.	-0.0154	0.0034	-0.0133	-0.0085	0.0353	0.0086	0.0086	0.0086	510.
.0150	493.	600.	1428.	-166.	-766.	727.	-0.0144	0.0041	-0.0170	-0.0158	0.0428	0.0041	0.0041	0.0041	429.
.0160	257.	592.	1231.	-22.	-400.	732.	-0.0118	0.0047	-0.0205	-0.0246	0.0492	-0.0019	-0.0019	-0.0019	335.
.0170	-90.	492.	770.	268.	-67.	753.	-0.0076	0.0052	-0.0230	-0.0344	0.0545	-0.0084	-0.0084	-0.0084	322.
.0180	-563.	266.	73.	719.	128.	788.	-0.0017	0.0054	-0.0236	-0.0443	0.0588	-0.0144	-0.0144	-0.0144	431.
.0190	-1092.	-67.	-692.	1308.	171.	764.	0.0062	0.0052	-0.0215	-0.0529	0.0527	-0.0191	-0.0191	-0.0191	612.
.0200	-1464.	-429.	-1403.	1931.	33.	595.	0.0158	0.0046	-0.0166	-0.0586	0.0665	-0.0212	-0.0212	-0.0212	811.
.0210	-1563.	-665.	-1917.	2459.	-258.	201.	0.0263	0.0036	-0.0091	-0.0594	0.0719	-0.0192	-0.0192	-0.0192	995.
.0220	-1737.	-624.	-1504.	2827.	-372.	-493.	0.0372	0.0022	-0.0003	-0.0548	0.0814	-0.0133	-0.0133	-0.0133	1161.
.0230	-1926.	-361.	-475.	2948.	-178.	-1403.	0.0481	0.0008	0.0074	-0.0481	0.0910	-0.0071	-0.0071	-0.0071	1312.
.0240	-1669.	-131.	30.	2755.	416.	-2329.	0.0593	0.0000	0.0120	-0.0446	0.0914	-0.0058	-0.0058	-0.0058	1458.
.0250	-1038.	-223.	-733.	2416.	991.	-2937.	0.0693	0.0000	0.0143	-0.0464	0.0811	-0.0090	-0.0090	-0.0090	1577.
.0260	-1018.	-718.	-1765.	2451.	967.	-3039.	0.0752	0.0003	0.0182	-0.0498	0.0713	-0.0096	-0.0096	-0.0096	1614.
.0270	-2053.	-1345.	-1460.	3150.	842.	-3004.	0.0769	0.0001	0.0247	-0.0503	0.0694	-0.0041	-0.0041	-0.0041	1779.
.0280	-2436.	-1721.	-1854.	3901.	1033.	-3247.	0.0771	-0.0002	0.0301	-0.0490	0.0583	0.0018	0.0018	0.0018	2079.
.0290	-1288.	-1879.	-4730.	4197.	1003.	-3495.	0.0756	0.0004	0.0331	-0.0483	0.0293	0.0047	0.0047	0.0047	2228.
.0300	-692.	-2275.	-5936.	4605.	649.	-3137.	0.0696	0.0013	0.0383	-0.0470	0.0102	0.0100	0.0100	0.0100	2251.
.0310	-1139.	-2797.	-4658.	4957.	91.	-2163.	0.0585	0.0027	0.0456	-0.0434	0.0076	0.0187	0.0187	0.0187	2171.
.0320	-1219.	-2882.	-3570.	4408.	-540.	-1238.	0.0451	0.0052	0.0493	-0.0373	0.0027	0.0256	0.0256	0.0256	1850.
.0330	-475.	-2341.	-2970.	3012.	-615.	-972.	0.0322	0.0082	0.0469	-0.0293	-0.0104	0.0269	0.0269	0.0269	1294.
.0340	208.	-1552.	-1629.	1526.	-11.	-1073.	0.0190	0.0107	0.0406	-0.0208	-0.0228	0.0237	0.0237	0.0237	749.
.0350	395.	-998.	-516.	360.	340.	-760.	0.0038	0.0129	0.0328	-0.0144	-0.0336	0.0176	0.0176	0.0176	364.
.0360	172.	-900.	-616.	-370.	-147.	190.	-0.0136	0.0149	0.0251	-0.0109	-0.0451	0.0108	0.0108	0.0108	165.
.0370	-461.	-1116.	-670.	-388.	-741.	1230.	-0.0309	0.0157	0.0186	-0.0069	-0.0530	0.0064	0.0064	0.0064	597.
.0380	-984.	-1185.	-221.	-105.	-535.	1719.	-0.0442	0.0150	0.0126	0.0005	-0.0610	0.0041	0.0041	0.0041	724.
.0390	-427.	-755.	-903.	-107.	207.	1625.	-0.0511	0.0137	0.0056	0.0099	-0.0317	-0.0006	-0.0006	-0.0006	659.
.0400	997.	-83.	-2508.	-497.	350.	1757.	-0.0564	0.0126	-0.0020	0.0196	-0.1078	-0.0063	-0.0063	-0.0063	746.
.0410	1436.	236.	-1375.	-790.	32.	2642.	-0.0637	0.0115	-0.0061	0.0298	-0.1129	-0.0072	-0.0072	-0.0072	1106.

ADLPIPE PAGE 1321

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.33.

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

.0310	-1139.	-2797.	-4658.	4957.	91.	-2163.	.0585	.0027	.0456	-.0434	.0076	.0187	2171.
.0320	-1219.	-2882.	-3570.	4408.	-540.	-1238.	.0451	.0052	.0493	-.0373	.0027	.0256	1850.
.0330	-475.	-2341.	-2970.	3012.	-615.	-972.	.0322	.0082	.0469	-.0293	-.0104	.0269	1294.
.0340	208.	-1552.	-1629.	1926.	-11.	-1073.	.0190	.0107	.0406	-.0208	-.0228	.0237	749.
.0350	395.	-998.	-516.	360.	740.	-760.	.0030	.0129	.0328	-.0144	-.0336	.0176	364.
.0360	172.	-900.	-616.	-333.	-147.	190.	-.0136	.0149	.0251	-.0109	-.0451	.0108	165.
.0370	-461.	-1116.	-670.	-388.	-741.	1230.	-.0309	.0157	.0186	-.0069	-.0530	.0064	597.
.0380	-984.	-1181.	-221.	-105.	-535.	1719.	-.0442	.0150	.0126	.0005	-.0610	.0041	724.
.0390	-427.	-755.	-903.	-107.	207.	1625.	-.0511	.0137	.0056	.0099	-.0817	-.0006	659.
.0400	997.	-83.	-2508.	-497.	350.	1757.	-.0564	.0126	-.0020	.0196	-.1078	-.0063	746.
.0410	1436.	236.	-1375.	-780.	32.	2642.	-.0637	.0115	-.0061	.0298	-.1129	-.0072	1106.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.33.

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	30	MEMBER	2	SEQUENCE	55	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)		
.0420	1137.	419.	1496.	-1546.	-470.	3943.	-.0718	.0114	-.0097	.0403	-.1026	-.0053	1710.		
.0430	1576.	880.	2765.	-2628.	-846.	4378.	-.0736	.0106	-.0123	.0499	-.0993	-.0085	2077.		
.0440	2708.	1752.	3044.	-3522.	-779.	3615.	-.0696	.0079	-.0156	.0583	-.1030	-.0187	2049.		
.0450	3115.	2458.	4218.	-3785.	-335.	2551.	-.0640	.0037	-.0178	.0646	-.0985	-.0301	1837.		
.0460	2607.	2525.	5345.	-3706.	-32.	2156.	-.0589	-.0004	-.0176	.0660	-.0876	-.0401	1721.		
.0470	2311.	2161.	4640.	-3709.	-189.	2508.	-.0547	-.0034	-.0170	.0625	-.0827	-.0503	1798.		
.0480	2329.	1747.	3100.	-3530.	-487.	3062.	-.0516	-.0065	-.0160	.0599	-.0802	-.0567	1886.		
.0490	1912.	1454.	2438.	-2846.	-555.	3319.	-.0485	-.0110	-.0109	.0644	-.0690	-.0537	1769.		
.0500	1313.	1466.	2083.	-2162.	-494.	3084.	-.0439	-.0162	-.0026	.0761	-.0525	-.0439	1524.		
.0510	1200.	1679.	1297.	-1775.	-311.	2289.	-.0367	-.0215	.0066	.0896	-.0378	-.0352	1169.		
.0520	1288.	1690.	604.	-1550.	7.	1171.	-.0277	-.0268	.0159	.1011	-.0220	-.0298	779.		
.0530	916.	1412.	441.	-1558.	154.	110.	-.0194	-.0314	.0255	.1108	-.0000	-.0244	630.		
.0540	67.	1257.	590.	-1953.	-82.	-834.	-.0130	-.0347	.0341	.1206	.0264	-.0176	553.		
.0550	-866.	1423.	659.	-2504.	-485.	-1812.	-.0075	-.0367	.0407	.1304	.0522	-.0109	1256.		
.0560	-1782.	1461.	312.	-2851.	-750.	-2718.	-.0013	-.0379	.0457	.1362	.0742	-.0061	1609.		
.0570	-2798.	883.	-489.	-2872.	-693.	-3273.	.0074	-.0379	.0503	.1342	.0916	-.0046	1769.		
.0580	-3685.	-187.	-1671.	-2589.	-213.	-3477.	.0196	-.0367	.0552	.1249	.1030	-.0076	1742.		
.0590	-4050.	-1275.	-3334.	-1994.	549.	-3608.	.0344	-.0349	.0603	.1133	.1068	-.0130	1669.		
.0600	-4043.	-2123.	-5055.	-1112.	1241.	-3856.	.0495	-.0333	.0657	.1046	.1063	-.0153	1686.		
.0610	-4056.	-2675.	-6065.	-263.	1506.	-4066.	.0618	-.0317	.0713	.1013	.1076	-.0120	1743.		
.0620	-4171.	-2928.	-6154.	190.	1293.	-3992.	.0701	-.0292	.0762	.1021	.1127	-.0060	1686.		
.0630	-4205.	-2957.	-5902.	148.	757.	-3631.	.0755	-.0257	.0792	.1040	.1176	-.0028	1489.		
.0640	-4126.	-2823.	-5475.	-218.	218.	-3290.	.0795	-.0220	.0791	.1048	.1192	-.0060	1326.		
.0650	-3929.	-2400.	-4648.	-763.	50.	-3252.	.0827	-.0187	.0749	.1051	.1172	-.0158	1341.		
.0660	-3546.	-1637.	-3861.	-1368.	300.	-3437.	.0847	-.0158	.0676	.1062	.1110	-.0290	1489.		
.0670	-3140.	-833.	-3684.	-1771.	530.	-3434.	.0840	-.0133	.0595	.1084	.1020	-.0406	1565.		
.0680	-3095.	-385.	-3608.	-1549.	432.	-2962.	.0794	-.0119	.0535	.1105	.0956	-.0468	1353.		
.0690	-3233.	-242.	-3229.	-674.	194.	-2140.	.0718	-.0120	.0497	.1126	.0918	-.0476	904.		
.0700	-2833.	-1.	-3316.	280.	57.	-1299.	.0631	-.0128	.0461	.1150	.0833	-.0456	534.		
.0710	-1875.	478.	-3821.	878.	36.	-693.	.0543	-.0141	.0416	.1176	.0697	-.0424	449.		
.0720	-1136.	978.	-3273.	1177.	122.	-375.	.0449	-.0157	.0369	.1192	.0597	-.0381	498.		
.0730	-764.	1392.	-1519.	1130.	279.	-223.	.0348	-.0171	.0315	.1178	.0542	-.0349	475.		
.0740	-153.	1302.	-119.	496.	326.	-76.	.0247	-.0175	.0239	.1114	.0435	-.0360	240.		
.0750	719.	2136.	567.	-463.	136.	130.	.0144	-.0172	.0145	.1001	.0261	-.0405	201.		
.0760	1282.	2204.	1425.	-1105.	-295.	418.	.0030	-.0172	.0060	.0861	.0096	-.0431	488.		
.0770	1463.	2008.	2292.	-1226.	-934.	825.	-.0089	-.0179	-.0002	.0722	-.0041	-.0404	701.		
.0780	1637.	1691.	2411.	-1058.	-1630.	1302.	-.0199	-.0186	-.0043	.0595	-.0188	-.0326	939.		
.0790	1869.	1294.	2181.	-663.	-1096.	1659.	-.0281	-.0195	-.0066	.0483	-.0336	-.0221	1076.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.33.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNIT

INTERNAL FORCES IN THE PIPING

.0680	-2697.	-385.	2600.	-1549.	432.	-2962.	.0704	-.0119	.0535	.1105	.0956	-.0468	1353.
.0690	-3233.	-242.	-3229.	-674.	194.	-2140.	.0718	-.0120	.0497	.1126	.0918	-.0476	904.
.0700	-2833.	-1.	-3316.	280.	57.	-1299.	.0631	-.0128	.0461	.1150	.0833	-.0456	534.
.0710	-1875.	478.	-3821.	870.	36.	-693.	.0543	-.0141	.0416	.1176	.0697	-.0424	449.
.0720	-1136.	978.	-3277.	1177.	122.	-375.	.0449	-.0157	.0369	.1192	.0597	-.0381	498.
.0730	-764.	1392.	-1519.	1170.	279.	-223.	.0348	-.0171	.0315	.1178	.0542	-.0349	475.
.0740	-153.	1802.	-110.	496.	326.	-76.	.0247	-.0175	.0239	.1114	.0435	-.0360	240.
.0750	719.	2136.	567.	-463.	136.	130.	.0144	-.0172	.0145	.1001	.0261	-.0405	201.
.0760	1282.	2204.	1425.	-1105.	-295.	418.	.0030	-.0172	.0060	.0861	.0096	-.0431	488.
.0770	1463.	2008.	2292.	-1226.	-934.	825.	-.0089	-.0179	-.0002	.0722	-.0041	-.0404	701.
.0780	1637.	1691.	2411.	-1058.	-1630.	1302.	-.0199	-.0186	-.0043	.0595	-.0188	-.0326	939.
.0790	1869.	1294.	2181.	-663.	-1999.	1659.	-.0281	-.0195	-.0066	.0483	-.0336	-.0221	1076.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.33.

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	30	MEMBER	2	SEQUENCE	55	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	FX	PY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.0800	2107.	858.	2214.	-67.	-1723.	1710.	-.0327	-.0209	-.0076	.0384	-.0464	-.0109	975.		
.0810	2524.	564.	2033.	394.	-977.	1459.	-.0340	-.0221	-.0087	.0303	-.0595	-.0007	722.		
.0820	2940.	513.	1518.	476.	-210.	1045.	-.0338	-.0224	-.0101	.0245	-.0717	.0089	468.		
.0830	2762.	569.	1529.	372.	303.	589.	-.0341	-.0218	-.0106	.0211	-.0764	.0195	305.		
.0840	1981.	589.	2027.	294.	497.	135.	-.0349	-.0204	-.0101	.0181	-.0744	.0300	238.		
.0850	1261.	564.	1911.	234.	400.	-302.	-.0347	-.0180	-.0095	.0125	-.0744	.0367	222.		
.0860	856.	434.	1101.	307.	197.	-680.	-.0319	-.0147	-.0082	.0026	-.0786	.0377	310.		
.0870	484.	53.	457.	739.	100.	-913.	-.0265	-.0108	-.0046	-.0110	-.0821	.0357	473.		
.0880	173.	-567.	28.	1467.	126.	-937.	-.0192	-.0062	.0015	-.0265	-.0336	.0340	700.		
.0890	236.	-1211.	-627.	2184.	178.	-741.	-.0109	-.0008	.0087	-.0419	-.0854	.0336	928.		
.0900	585.	-1720.	-1228.	2712.	225.	-318.	-.0034	.0055	.0158	-.0560	-.0859	.0345	1100.		
.0910	822.	-2115.	-1343.	3010.	242.	331.	.0019	.0124	.0213	-.0682	-.0814	.0362	1219.		
.0920	791.	-2452.	-1176.	3012.	202.	1081.	.0046	.0196	.0235	-.0793	-.0721	.0365	1284.		
.0930	572.	-2705.	-1051.	2689.	199.	1587.	.0055	.0266	.0225	-.0897	-.0510	.0327	1255.		
.0940	218.	-2825.	-968.	2158.	355.	1718.	.0055	.0328	.0172	-.0986	-.0492	.0244	1116.		
.0950	-230.	-2788.	-876.	1588.	300.	1543.	.0043	.0379	.0088	-.1046	-.0365	.0140	921.		
.0960	-660.	-2591.	-694.	1089.	738.	1346.	.0012	.0420	-.0016	-.1063	-.0230	.0041	755.		
.0970	-945.	-2237.	-249.	611.	696.	1413.	-.0038	.0455	-.0131	-.1034	-.0087	-.0038	678.		
.0980	-989.	-1738.	497.	-15.	570.	1668.	-.0100	.0492	-.0255	-.0959	.0053	-.0089	784.		
.0990	-751.	-1096.	1463.	-870.	523.	2559.	-.0159	.0533	-.0389	-.0848	.0172	-.0121	1105.		
.1000	-268.	-311.	2656.	-1824.	695.	3159.	-.0199	.0573	-.0533	-.0714	.0258	-.0159	1490.		
.1010	357.	573.	3901.	-2710.	1119.	3437.	-.0208	.0608	-.0682	-.0579	.0301	-.0227	1813.		
.1020	981.	1408.	4794.	-3449.	1636.	3421.	-.0188	.0638	-.0827	-.0465	.0296	-.0328	2057.		
.1030	1436.	2004.	5155.	-3911.	1947.	3264.	-.0147	.0660	-.0952	-.0386	.0254	-.0447	2188.		
.1040	1615.	2256.	5204.	-3875.	1830.	3070.	-.0096	.0666	-.1039	-.0344	.0204	-.0558	2116.		
.1050	1605.	2275.	5062.	-3404.	1289.	2950.	-.0041	.0656	-.1079	-.0325	.0160	-.0636	1880.		
.1060	1615.	2251.	4732.	-2799.	554.	2961.	.0024	.0634	-.1069	-.0319	.0118	-.0677	1650.		
.1070	1771.	2251.	4514.	-2252.	-21.	3026.	.0104	.0602	-.1019	-.0324	.0084	-.0696	1514.		
.1080	2218.	2171.	4376.	-1710.	-374.	2998.	.0199	.0558	-.0938	-.0341	.0055	-.0705	1393.		
.1090	2889.	1965.	4164.	-1165.	-770.	2869.	.0288	.0503	-.0826	-.0350	.0061	-.0685	1280.		
.1100	2867.	2108.	4861.	-1164.	-544.	2556.	.0369	.0449	-.0704	-.0319	.0150	-.0623	1148.		
.1110	2684.	2535.	4853.	-1319.	-213.	1707.	.0431	.0382	-.0596	-.0267	.0222	-.0543	870.		
.1120	2550.	2688.	3600.	-776.	-248.	302.	.0464	.0288	-.0506	-.0230	.0244	-.0454	348.		
.1130	1732.	2339.	2153.	305.	-549.	-971.	.0458	.0187	-.0410	-.0207	.0300	-.0328	464.		
.1140	203.	1802.	704.	1192.	-976.	-1711.	.0423	.0109	-.0298	-.0176	.0405	-.0158	924.		
.1150	-1078.	1378.	-1138.	1959.	-1419.	-2400.	.0386	.0052	-.0181	-.0135	.0482	.0027	1367.		
.1160	-1630.	1055.	-2612.	3048.	-1533.	-3429.	.0365	.0005	-.0070	-.0095	.0512	.0203	1944.		
.1170	-1697.	817.	-3337.	3902.	-1237.	-4370.	.0361	-.0015	.0032	-.0071	.0520	.0361	2391.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.33.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

.1070	1771.	2251.	4514.	-2252.	-21.	3026.	.0104	.0602	-.1019	-.0324	.0084	-.0696	1514.
.1080	2218.	2171.	4376.	-1710.	-374.	2998.	.0199	.0558	-.0938	-.0341	.0055	-.0705	1393.
.1090	2889.	1965.	4164.	-1165.	-770.	2669.	.0288	.0503	-.0826	-.0350	.0061	-.0685	1280.
.1100	2867.	2108.	4861.	-1164.	-544.	2556.	.0369	.0449	-.0704	-.0319	.0150	-.0623	1148.
.1110	2664.	2535.	4853.	-1319.	-213.	1707.	.0431	.0382	-.0596	-.0267	.0222	-.0543	870.
.1120	2550.	2688.	3600.	-776.	-248.	302.	.0464	.0288	-.0506	-.0230	.0244	-.0454	348.
.1130	1732.	2339.	2153.	305.	-549.	-971.	.0458	.0187	-.0410	-.0207	.0300	-.0328	464.
.1140	203.	1802.	704.	1192.	-976.	-1711.	.0423	.0109	-.0298	-.0176	.0405	-.0158	924.
.1150	-1078.	1378.	-1138.	1959.	-1419.	-2400.	.0386	.0052	-.0181	-.0135	.0482	.0027	1367.
.1160	-1630.	1055.	-2612.	3048.	-1533.	-3439.	.0365	.0005	-.0070	-.0095	.0512	.0203	1944.
.1170	-1697.	817.	-3337.	3902.	-1237.	-4330.	.0361	-.0015	.0032	-.0071	.0520	.0361	2391.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.33.

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	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	FX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
.1180								-1806.	697.	-2745.	3700.	-399.	-4427.	.0370	.0019	.0115	-.0094	.0528	.0471	2321.
.1190								-1343.	486.	-3000.	2723.	135.	-3776.	.0379	.0095	.0158	-.0201	.0429	.0493	1869.
.1200								-693.	-160.	-3771.	2212.	35.	-2806.	.0370	.0181	.0172	-.0382	.0271	.0456	1434.
.1210								-922.	-1090.	-3051.	2388.	-318.	-1662.	.0331	.0269	.0184	-.0572	.0204	.0424	1174.
.1220								-1492.	-1627.	-2849.	2160.	-923.	-506.	.0279	.0378	.0180	-.0724	.0142	.0396	964.
.1230								-1818.	-1775.	-3157.	1780.	-1219.	134.	.0243	.0491	.0150	-.0841	.0034	.0339	868.
.1240								-1652.	-1966.	-3696.	1879.	-1073.	216.	.0226	.0585	.0097	-.0943	-.0119	.0252	873.
.1250								-1402.	-2243.	-3775.	2069.	-547.	423.	.0211	.0669	.0038	-.1021	-.0253	.0170	875.
.1260								-1254.	-2222.	-2846.	1619.	318.	1221.	.0183	.0760	-.0027	-.1051	-.0336	.0117	824.
.1270								-380.	-1692.	-2865.	584.	739.	2337.	.0129	.0847	-.0103	-.1027	-.0457	.0094	1011.
.1280								596.	-1022.	-2130.	47.	773.	3223.	.0040	.0900	-.0175	-.0953	-.0523	.0122	1330.
.1290								1070.	-319.	-440.	-106.	493.	3843.	-.0077	.0922	-.0237	-.0850	-.0498	.0189	1555.
.1300								1263.	517.	913.	-599.	72.	4322.	-.0196	.0933	-.0305	-.0766	-.0457	.0222	1751.
.1310								1431.	1226.	2062.	-1163.	-16.	4488.	-.0294	.0928	-.0395	-.0758	-.0446	.0153	1860.
.1320								1909.	1518.	2238.	-1446.	-63.	4354.	-.0371	.0899	-.0506	-.0843	-.0508	-.0006	1841.
.1330								2124.	1503.	2865.	-1557.	-16.	4282.	-.0443	.0853	-.0616	-.0967	-.0548	-.0164	1828.
.1340								2115.	1660.	3594.	-2020.	-85.	4568.	-.0520	.0805	-.0709	-.1067	-.0554	-.0248	2005.
.1350								2162.	1985.	4034.	-2519.	-373.	5016.	-.0597	.0748	-.0777	-.1128	-.0542	-.0248	2257.
.1360								2125.	2009.	5144.	-2338.	-497.	5266.	-.0651	.0664	-.0818	-.1178	-.0518	-.0194	2321.
.1370								2381.	1726.	5592.	-1945.	-401.	5280.	-.0661	.0565	-.0845	-.1243	-.0546	-.0142	2264.
.1380								2815.	1425.	5648.	-1852.	232.	5007.	-.0618	.0468	-.0872	-.1310	-.0635	-.0128	2144.
.1390								3300.	1229.	5025.	-1971.	928.	4290.	-.0541	.0373	-.0898	-.1356	-.0779	-.0138	1931.
.1400								3360.	998.	4315.	-1802.	1147.	3146.	-.0463	.0272	-.0912	-.1355	-.0914	-.0124	1526.
.1410								2675.	748.	4630.	-1393.	1023.	1943.	-.0401	.0174	-.0904	-.1294	-.0975	-.0061	1043.
.1420								2117.	742.	4133.	-1513.	522.	1064.	-.0343	.0100	-.0886	-.1185	-.1061	.0020	771.
.1430								1860.	805.	3230.	-1943.	44.	413.	-.0276	.0049	-.0855	-.1055	-.1174	.0092	797.
.1440								1744.	667.	2414.	-2091.	-259.	-262.	-.0192	.0007	-.0796	-.0917	-.1276	.0161	352.
.1450								1592.	446.	1900.	-1907.	-198.	-1003.	-.0091	-.0023	-.0702	-.0761	-.1334	.0239	868.
.1460								1428.	389.	1704.	-1698.	381.	-1705.	.0022	-.0032	-.0580	-.0588	-.1348	.0311	978.
.1470								1601.	411.	393.	-1584.	836.	-2207.	.0130	-.0017	-.0447	-.0428	-.1381	.0352	1141.
.1480								1482.	105.	-654.	-1076.	1052.	-2379.	.0208	.0012	-.0304	-.0304	-.1358	.0362	1129.
.1490								964.	-461.	-1490.	-409.	871.	-2039.	.0246	.0058	-.0157	-.0212	-.1267	.0348	905.
.1500								342.	-822.	-2712.	-143.	324.	-1292.	.0249	.0127	-.0018	-.0130	-.1143	.0303	538.
.1510								-427.	-1061.	-3315.	-139.	-137.	-604.	.0233	.0204	.0106	-.0045	-.0969	.0224	255.
.1520								-987.	-1088.	-3698.	-197.	-457.	-278.	.0212	.0274	.0214	.0044	-.0779	.0116	229.
.1530								-1275.	-995.	-3456.	-316.	-356.	-216.	.0194	.0333	.0306	.0148	-.0573	-.0004	210.
.1540								-1088.	-676.	-3559.	-783.	-181.	-95.	.0172	.0387	.0385	.0281	-.0386	-.0106	325.
.1550								-827.	-239.	-3760.	-1270.	-270.	167.	.0130	.0428	.0463	.0456	-.0181	-.0151	525.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.33.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

.1450	1592.	446.	1900.	-1907.	-198.	-1003.	-0091	-0023	-0702	-0761	-1334	.0239	868.
.1460	1428.	389.	1704.	-1698.	381.	-1705.	0022	-0032	-0580	-0588	-1348	.0311	978.
.1470	1601.	411.	393.	-1584.	836.	-2207.	0130	-0017	-0447	-0428	-1381	.0352	1141.
.1480	1482.	105.	-654.	-1076.	1052.	-2379.	0208	0012	-0304	-0304	-1358	.0362	1129.
.1490	964.	-461.	-1490.	-409.	871.	-2039.	0246	0058	-0157	-0212	-1267	.0348	905.
.1500	342.	-882.	-2712.	-143.	324.	-1292.	0249	0127	-0018	-0130	-1143	.0303	538.
.1510	-427.	-1061.	-3315.	-139.	-137.	-604.	0233	0204	0106	-0045	-0969	.0224	255.
.1520	-987.	-1088.	-3698.	-197.	-457.	-278.	0212	0274	0214	0044	-0779	.0116	229.
.1530	-1275.	-995.	-3456.	-316.	-356.	-216.	0194	0333	0306	0148	-0573	-0004	210.
.1540	-1088.	-676.	-3559.	-783.	-181.	-95.	0172	0387	0385	0251	-0386	-0106	325.
.1550	-827.	-239.	-3780.	-1270.	-270.	167.	0130	0428	0463	0456	-0181	-0151	525.

ADLPIPE PAGE 1324 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.27.33.

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	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	Mx (FT-LB)	My (FT-LB)	Mz (FT-LB)	Dx (IN)	Dy (IN)	Dz (IN)	Rx (DEG)	Ry (DEG)	Rz (DEG)	STRESS (PSI)
.1560	-1051.	137.	-2874.	-1243.	-467.	394.	0061	0442	0544	0672	0101	-0118	556.							
.1570	-1156.	609.	-2612.	-1118.	-929.	519.	-0020	0436	0606	0907	0358	-0041	620.							
.1580	-1171.	1204.	-2688.	-1163.	-1233.	502.	-0095	0411	0639	1124	0575	-0029	709.							
.1590	-1372.	1675.	-2317.	-1215.	-1124.	289.	-0150	0378	0640	1281	0772	0058	674.							
.1600	-1473.	1888.	-2244.	-1244.	-863.	-89.	-0182	0325	0610	1352	0906	0030	609.							
.1610	-1398.	1944.	-2428.	-1264.	-602.	-480.	-0198	0258	0559	1353	0986	-0030	594.							
.1620	-1478.	1970.	-1673.	-1255.	-273.	-682.	-0211	0187	0509	1317	1080	-0077	584.							
.1630	-1420.	2040.	-1144.	-1398.	-316.	-588.	-0227	0116	0462	1259	1143	-0093	622.							
.1640	-1270.	2019.	-525.	-1420.	-599.	-338.	-0244	0041	0422	1179	1179	-0083	633.							
.1650	-1075.	1847.	540.	-1224.	-748.	-73.	-0250	-0037	0387	1074	1194	-0067	576.							
.1660	-578.	1618.	813.	-1168.	-805.	180.	-0240	-0108	0348	0946	1134	-0062	574.							
.1670	-186.	1315.	1036.	-1110.	-584.	261.	-0218	-0176	0307	0809	1046	-0066	514.							
.1680	40.	996.	985.	-860.	-340.	26.	-0193	-0242	0267	0686	0941	-0068	371.							
.1690	-7.	711.	1116.	-404.	-78.	-451.	-0177	-0302	0232	0594	0551	-0055	245.							
.1700	-141.	510.	1024.	-119.	88.	-899.	-0173	-0344	0202	0536	0759	-0027	365.							
.1710	-168.	378.	119.	-147.	-53.	-1198.	-0180	-0363	0178	0506	0549	0012	485.							
.1720	-518.	198.	269.	-10.	-52.	-1510.	-0193	-0367	0175	0504	0502	0061	606.							
.1730	-724.	90.	346.	90.	-33.	-1858.	-0204	-0354	0186	0521	0556	0104	746.							
.1740	-686.	100.	220.	-52.	149.	-2181.	-0202	-0319	0205	0544	0493	0128	877.							
.1750	-625.	171.	446.	-288.	593.	-2456.	-0191	-0264	0233	0561	0433	0128	1021.							
.1760	-447.	56.	245.	-473.	902.	-2619.	-0178	-0194	0268	0560	0346	0106	1128.							
.1770	-444.	-180.	194.	-411.	1061.	-2550.	-0174	-0114	0313	0541	0266	0077	1121.							
.1780	-503.	-491.	-382.	-258.	843.	-2139.	-0182	-0025	0367	0509	0169	0050	928.							
.1790	-721.	-839.	-788.	63.	494.	-1523.	-0200	0066	0427	0468	0081	0023	643.							
.1800	-883.	-1196.	-987.	508.	201.	-907.	-0216	0152	0484	0417	-0014	-0016	425.							
.1810	-622.	-1449.	-1868.	792.	-131.	-320.	-0224	0232	0530	0361	-0156	-0069	347.							
.1820	-409.	-1656.	-1963.	1006.	-162.	257.	-0230	0301	0571	0316	-0265	-0119	422.							
.1830	-191.	-1692.	-1706.	1081.	-118.	844.	-0239	0356	0604	0290	-0347	-0157	552.							
.1840	101.	-1601.	-1361.	1039.	-106.	1379.	-0250	0392	0620	0282	-0415	-0185	694.							
.1850	401.	-1422.	-917.	904.	-105.	1812.	-0288	0408	0615	0292	-0468	-0199	814.							
.1860	662.	-1149.	-767.	673.	-208.	2141.	-0329	0403	0592	0221	-0511	-0195	900.							
.1870	588.	-873.	-200.	437.	-218.	2286.	-0380	0377	0558	0368	-0508	-0170	938.							
.1880	471.	-640.	-49.	318.	-282.	2202.	-0430	0330	0512	0417	-0505	-0141	900.							
.1890	388.	-472.	-47.	316.	-243.	1902.	-0473	0264	0460	0461	-0499	-0115	780.							
.1900	367.	-350.	133.	350.	-13.	1505.	-0505	0186	0410	0500	-0479	-0086	620.							
.1910	590.	-221.	-67.	255.	98.	1163.	-0532	0103	0366	0538	-0461	-0047	479.							
.1920	775.	-126.	123.	204.	65.	911.	-0559	0015	0337	0578	-0401	0011	376.							
.1930	880.	-35.	660.	202.	-148.	755.	-0587	-0072	0325	0617	-0295	0076	319.							

ADLPIPE PAGE 1325 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.27.33.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

.1830	-191.	-1692.	-1706.	1081.	-118.	844.	-.0239	.0356	.0604	.0290	-.0347	-.0157	552.
.1840	101.	-1601.	-1361.	1039.	-106.	1379.	-.0258	.0392	.0620	.0282	-.0415	-.0185	694.
.1850	401.	-1422.	-017.	904.	-105.	1812.	-.0288	.0408	.0615	.0292	-.0468	-.0199	814.
.1860	662.	-1149.	-767.	873.	-208.	2141.	-.0329	.0403	.0592	.0321	-.0511	-.0195	900.
.1870	568.	-877.	-200.	437.	-218.	2286.	-.0380	.0377	.0558	.0368	-.0508	-.0170	938.
.1880	471.	-640.	-49.	316.	-282.	2202.	-.0470	.0330	.0512	.0417	-.0505	-.0141	900.
.1890	388.	-472.	-47.	316.	-243.	1902.	-.0473	.0264	.0460	.0461	-.0499	-.0115	780.
.1900	367.	-350.	133.	350.	-13.	1505.	-.0505	.0186	.0410	.0500	-.0479	-.0086	620.
.1910	590.	-221.	-67.	255.	98.	1163.	-.0532	.0103	.0366	.0538	-.0461	-.0047	479.
.1920	775.	-126.	123.	204.	65.	911.	-.0559	.0015	.0337	.0578	-.0401	.0011	376.
.1930	880.	-35.	660.	202.	-148.	755.	-.0587	-.0072	.0325	.0617	-.0295	.0076	319.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.33.

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	30	MEMBER	2	SEQUENCE	55	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)	
.1940	1009.	93.	1154.	112.	-437.	667.	-.0607	-.0154	.0320	.0646	-.0170	.0126	323.	
.1950	1122.	210.	1516.	-53.	-639.	562.	-.0610	-.0227	.0317	.0655	-.0036	.0137	342.	
.1960	1107.	245.	1796.	-156.	-692.	343.	-.0594	-.0293	.0316	.0643	.0107	.0104	316.	
.1970	939.	227.	1875.	-150.	-644.	5.	-.0560	-.0351	.0316	.0621	.0256	.0039	265.	
.1980	635.	236.	1715.	-62.	-540.	-378.	-.0514	-.0399	.0320	.0608	.0407	-.0032	266.	
.1990	221.	292.	1449.	121.	-403.	-739.	-.0458	-.0435	.0330	.0617	.0561	-.0092	341.	
.2000	-201.	360.	1084.	390.	-225.	-1037.	-.0393	-.0460	.0347	.0749	.0708	-.0136	459.	
.2010	-538.	423.	581.	654.	-201.	-1244.	-.0318	-.0470	.0369	.0698	.0836	-.0166	570.	
.2020	-808.	491.	130.	817.	-76.	-1381.	-.0230	-.0463	.0393	.0760	.0944	-.0189	645.	
.2030	-1029.	581.	-127.	836.	160.	-1549.	-.0128	-.0441	.0415	.0826	.1033	-.0214	709.	
.2040	-1146.	695.	-349.	703.	459.	-1830.	-.0015	-.0406	.0427	.0886	.1087	-.0255	808.	
.2050	-1204.	785.	-631.	442.	722.	-2160.	.0101	-.0358	.0429	.0927	.1107	-.0312	931.	
.2060	-1355.	766.	-861.	116.	868.	-2373.	.0208	-.0300	.0425	.0945	.1111	-.0375	1015.	
.2070	-1642.	586.	-1045.	-206.	857.	-2380.	.0299	-.0233	.0418	.0937	.1106	-.0435	1019.	
.2080	-1933.	284.	-1349.	-474.	730.	-2246.	.0374	-.0164	.0410	.0908	.1086	-.0486	967.	
.2090	-2129.	-54.	-1759.	-659.	627.	-2074.	.0433	-.0096	.0405	.0869	.1052	-.0524	909.	
.2100	-2244.	-372.	-2097.	-753.	665.	-1903.	.0479	-.0033	.0405	.0830	.1015	-.0541	863.	
.2110	-2281.	-667.	-2356.	-765.	812.	-1716.	.0508	.0023	.0413	.0794	.0982	-.0538	821.	
.2120	-2239.	-941.	-2588.	-702.	965.	-1505.	.0516	.0070	.0426	.0762	.0952	-.0519	771.	
.2130	-2166.	-1159.	-2743.	-599.	1039.	-1373.	.0499	.0105	.0442	.0736	.0930	-.0487	702.	
.2140	-2118.	-1261.	-2788.	-509.	970.	-1025.	.0454	.0130	.0458	.0720	.0919	-.0443	602.	
.2150	-2120.	-1223.	-2732.	-435.	725.	-794.	.0384	.0142	.0470	.0713	.0916	-.0390	465.	
.2160	-2171.	-1085.	-2556.	-329.	346.	-616.	.0296	.0142	.0476	.0710	.0916	-.0336	313.	
.2170	-2229.	-901.	-2267.	-197.	-40.	-487.	.0204	.0132	.0476	.0701	.0910	-.0293	211.	
.2180	-2191.	-701.	-1986.	-98.	-312.	-373.	.0119	.0116	.0467	.0681	.0881	-.0264	199.	
.2190	-1988.	-485.	-1778.	-29.	-429.	-262.	.0047	.0095	.0450	.0651	.0821	-.0244	202.	
.2200	-1665.	-262.	-1547.	78.	-441.	-151.	-.0011	.0070	.0426	.0616	.0735	-.0224	190.	
.2210	-1312.	-48.	-1238.	233.	-432.	-10.	-.0056	.0042	.0396	.0580	.0632	-.0193	197.	
.2220	-964.	138.	-917.	364.	-446.	179.	-.0089	.0016	.0358	.0539	.0511	-.0156	242.	
.2230	-613.	275.	-627.	416.	-448.	370.	-.0108	-.0008	.0306	.0489	.0367	-.0125	287.	
.2240	-256.	363.	-353.	370.	-387.	475.	-.0110	-.0027	.0238	.0424	.0200	-.0114	287.	
.2250	93.	434.	-81.	198.	-254.	447.	-.0098	-.0041	.0153	.0347	.0013	-.0128	221.	
.2260	411.	525.	234.	-123.	-64.	312.	-.0074	-.0047	.0055	.0266	-.0184	-.0160	137.	
.2270	695.	642.	618.	-567.	149.	139.	-.0048	-.0045	-.0050	.0188	-.0379	-.0198	242.	
.2280	973.	757.	1004.	-1074.	323.	14.	-.0025	-.0034	-.0155	.0117	-.0568	-.0231	450.	
.2290	1249.	848.	1321.	-1583.	420.	2.	-.0010	-.0015	-.0254	.0054	-.0742	-.0254	657.	
.2300	1491.	917.	1586.	-2074.	470.	107.	-.0005	.0011	-.0340	.0001	-.0893	-.0261	839.	
.2310	1689.	966.	1717.	-2385.	527.	260.	-.0010	.0043	-.0410	-.0045	-.1016	-.0258	986.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.33.

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

.2210	-1312.	-48.	-1238.	233.	-432.	-10.	-.0056	.0042	.0396	.0580	.0632	-.0193	197.
.2220	-964.	138.	-917.	364.	-446.	179.	-.0089	.0016	.0358	.0539	.0511	-.0156	242.
.2230	-613.	275.	-627.	416.	-448.	370.	-.0108	-.0008	.0306	.0489	.0367	-.0125	287.
.2240	-256.	363.	-353.	370.	-387.	475.	-.0110	-.0027	.0238	.0424	.0200	-.0114	287.
.2250	93.	434.	-11.	108.	-254.	447.	-.0098	-.0041	.0193	.0347	-.0013	-.0128	221.
.2260	411.	525.	234.	-123.	-64.	312.	-.0074	-.0047	.0055	.0266	-.0184	-.0160	137.
.2270	695.	642.	618.	-567.	149.	139.	-.0048	-.0045	-.0050	.0188	-.0379	-.0198	242.
.2280	973.	757.	1004.	-1074.	323.	14.	-.0025	-.0034	-.0155	.0117	-.0568	-.0231	450.
.2290	1249.	848.	1321.	-1583.	420.	2.	-.0010	-.0015	-.0254	.0054	-.0742	-.0254	657.
.2300	1491.	917.	1586.	-2034.	470.	107.	-.0005	.0011	-.0340	.0001	-.0893	-.0261	839.
.2310	1689.	966.	1787.	-2305.	527.	268.	-.0010	.0043	-.0410	-.0045	-.1016	-.0258	986.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.33.

S/RV PIPING KEWAUNEE GKWOPF 2 RUP DISK

2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU								
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
.2320	1847.	989.	1844.	-1626.	613.	410.	-.0020	.0079	-.0464	-.0090	-.1112	-.0253	1095.	
.2330	1927.	972.	1764.	-2773.	714.	518.	-.0037	.0119	-.0502	-.0140	-.1176	-.0253	1168.	
.2340	1879.	911.	1631.	-2847.	789.	638.	-.0062	.0163	-.0522	-.0199	-.1202	-.0261	1213.	
.2350	1713.	811.	1460.	-2868.	770.	824.	-.0093	.0211	-.0525	-.0268	-.1190	-.0278	1237.	
.2360	1480.	684.	1241.	-2846.	616.	1089.	-.0131	.0261	-.0510	-.0344	-.1145	-.0299	1248.	
.2370	1209.	549.	1038.	-2784.	357.	1412.	-.0171	.0312	-.0477	-.0422	-.1067	-.0319	1261.	
.2380	929.	426.	891.	-2687.	60.	1759.	-.0205	.0361	-.0428	-.0495	-.0962	-.0334	1289.	
.2390	699.	316.	742.	-2544.	-192.	2082.	-.0229	.0406	-.0366	-.0561	-.0841	-.0342	1321.	
.2400	545.	204.	548.	-2317.	-392.	2325.	-.0240	.0443	-.0296	-.0617	-.0714	-.0343	1326.	
.2410	438.	92.	319.	-2002.	-528.	2453.	-.0236	.0470	-.0223	-.0659	-.0584	-.0333	1288.	
.2420	329.	4.	44.	-1651.	-636.	2472.	-.0223	.0489	-.0154	-.0684	-.0451	-.0309	1220.	
.2430	173.	-41.	-268.	-1309.	-757.	2395.	-.0203	.0498	-.0095	-.0688	-.0316	-.0268	1137.	
.2440	-63.	-55.	-531.	-964.	-882.	2214.	-.0179	.0498	-.0049	-.0676	-.0178	-.0213	1032.	
.2450	-337.	-52.	-721.	-620.	-965.	1926.	-.0149	.0489	-.0019	-.0655	-.0044	-.0154	900.	
.2460	-557.	-33.	-895.	-336.	-963.	1562.	-.0110	.0472	-.0007	-.0634	.0075	-.0100	749.	
.2470	-681.	10.	-1041.	-167.	-876.	1194.	-.0065	.0452	-.0017	-.0618	.0176	-.0055	598.	
.2480	-766.	67.	-1015.	-94.	-738.	890.	-.0019	.0428	-.0044	-.0610	.0266	-.0015	465.	
.2490	-858.	119.	-773.	-66.	-580.	675.	.0026	.0402	-.0086	-.0610	.0349	.0023	358.	
.2500	-906.	155.	-458.	-46.	-414.	525.	.0071	.0374	-.0140	-.0622	.0415	.0055	269.	
.2510	-855.	172.	-198.	-7.	-227.	397.	.0117	.0343	-.0203	-.0645	.0452	.0077	184.	
.2520	-734.	170.	-6.	62.	-33.	282.	.0162	.0311	-.0273	-.0678	.0461	.0092	116.	
.2530	-611.	156.	155.	160.	114.	191.	.0204	.0279	-.0344	-.0716	.0450	.0103	110.	
.2540	-517.	144.	321.	286.	173.	119.	.0240	.0247	-.0414	-.0753	.0424	.0115	142.	
.2550	-418.	161.	509.	409.	168.	45.	.0271	.0217	-.0480	-.0786	.0384	.0127	178.	
.2560	-263.	229.	697.	485.	144.	-44.	.0299	.0190	-.0542	-.0814	.0329	.0137	204.	
.2570	-40.	338.	869.	515.	117.	-147.	.0326	.0166	-.0598	-.0839	.0259	.0142	220.	
.2580	206.	467.	1053.	512.	91.	-231.	.0351	.0147	-.0646	-.0863	.0181	.0142	228.	
.2590	430.	591.	1265.	490.	65.	-273.	.0373	.0131	-.0685	-.0889	.0101	.0141	227.	
.2600	638.	682.	1458.	494.	30.	-301.	.0391	.0117	-.0716	-.0920	.0019	.0139	232.	
.2610	840.	735.	1564.	545.	-17.	-342.	.0404	.0104	-.0740	-.0957	-.0068	.0139	258.	
.2620	1011.	788.	1610.	610.	-64.	-379.	.0412	.0093	-.0760	-.0998	-.0157	.0142	289.	
.2630	1124.	776.	1613.	667.	-109.	-378.	.0414	.0084	-.0776	-.1045	-.0247	.0151	311.	
.2640	1193.	735.	1581.	722.	-155.	-333.	.0410	.0078	-.0789	-.1098	-.0337	.0164	326.	
.2650	1251.	649.	1522.	774.	-185.	-252.	.0400	.0073	-.0802	-.1157	-.0428	.0183	335.	
.2660	1320.	542.	1463.	822.	-183.	-150.	.0385	.0070	-.0814	-.1219	-.0521	.0208	343.	
.2670	1401.	436.	1415.	870.	-156.	-22.	.0367	.0068	-.0824	-.1281	-.0613	.0237	355.	
.2680	1486.	326.	1388.	918.	-111.	153.	.0346	.0068	-.0831	-.1343	-.0702	.0271	376.	
.2690	1576.	197.	1302.	1005.	-56.	366.	.0323	.0068	-.0835	-.1405	-.0786	.0306	430.	

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ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.33.

S/RV PIPING KEWAUNEE GKWOPF 2 RUP DISK

2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

.2590	430.	591.	1265.	490.	65.	-273.	.0373	.0131	-.0685	-.0889	.0101	.0141	227.
.2600	638.	682.	1452.	494.	30.	-301.	.0391	.0117	-.0716	-.0920	.0019	.0139	232.
.2610	840.	735.	1564.	545.	-17.	-342.	.0404	.0104	-.0740	-.0957	-.0068	.0139	258.
.2620	1011.	768.	1610.	610.	-64.	-379.	.0412	.0093	-.0760	-.0998	-.0157	.0142	289.
.2630	1124.	776.	1613.	667.	-109.	-378.	.0414	.0084	-.0776	-.1045	-.0247	.0151	311.
.2640	1193.	735.	1581.	723.	-155.	-333.	.0410	.0078	-.0789	-.1098	-.0337	.0164	326.
.2650	1251.	649.	1522.	774.	-185.	-252.	.0400	.0073	-.0802	-.1157	-.0428	-.0183	335.
.2660	1320.	542.	1463.	822.	-183.	-150.	.0385	.0070	-.0814	-.1219	-.0521	.0208	343.
.2670	1401.	436.	1415.	870.	-156.	-22.	.0367	.0068	-.0824	-.1281	-.0513	.0237	355.
.2680	1486.	326.	1388.	918.	-111.	153.	.0346	.0068	-.0831	-.1343	-.0702	.0271	376.
.2690	1576.	187.	1393.	1005.	-56.	366.	.0323	.0068	-.0835	-.1405	-.0786	.0306	430.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	30	MEMBER	2	SEQUENCE	55	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)		
.2700	1681.	15.	1413.	1144.	0.	594.	.0296	.0068	-.0836	-.1465	-.0866	.0341	517.		
.2710	1783.	-150.	1442.	1275.	61.	831.	.0267	.0070	-.0836	-.1517	-.0939	.0373	611.		
.2720	1845.	-247.	1496.	1301.	151.	1089.	.0234	.0078	-.0833	-.1555	-.1001	.0403	683.		
.2730	1866.	-282.	1575.	1233.	279.	1341.	.0199	.0088	-.0827	-.1579	-.1051	.0431	740.		
.2740	1890.	-328.	1640.	1210.	412.	1524.	.0160	.0095	-.0818	-.1592	-.1092	.0460	798.		
.2750	1930.	-414.	1684.	1292.	526.	1619.	.0119	.0096	-.0802	-.1594	-.1121	.0491	858.		
.2760	1963.	-483.	1722.	1384.	614.	1683.	.0074	.0095	-.0778	-.1580	-.1135	.0529	908.		
.2770	1987.	-493.	1752.	1410.	653.	1756.	.0025	.0094	-.0745	-.1546	-.1132	.0574	941.		
.2780	2022.	-486.	1799.	1448.	617.	1814.	-.0029	.0091	-.0705	-.1498	-.1112	.0624	964.		
.2790	2078.	-509.	1905.	1564.	510.	1830.	-.0088	.0083	-.0659	-.1441	-.1075	.0675	988.		
.2800	2141.	-524.	2052.	1648.	364.	1840.	-.0148	.0074	-.0610	-.1375	-.1023	.0719	1002.		
.2810	2184.	-478.	2191.	1577.	199.	1875.	-.0207	.0069	-.0563	-.1301	-.0958	.0752	986.		
.2820	2182.	-398.	2330.	1427.	21.	1895.	-.0264	.0064	-.0519	-.1223	-.0882	.0773	952.		
.2830	2128.	-346.	2488.	1355.	-163.	1841.	-.0315	.0054	-.0478	-.1143	-.0794	.0782	920.		
.2840	2033.	-323.	2609.	1367.	-341.	1713.	-.0357	.0040	-.0440	-.1063	-.0701	.0784	890.		
.2850	1901.	-286.	2635.	1373.	-500.	1554.	-.0386	.0025	-.0406	-.0979	-.0608	.0777	856.		
.2860	1733.	-235.	2594.	1370.	-629.	1378.	-.0399	.0011	-.0374	-.0891	-.0518	.0763	820.		
.2870	1556.	-200.	2537.	1427.	-719.	1165.	-.0393	-.0004	-.0346	-.0802	-.0434	.0739	794.		
.2880	1409.	-181.	2462.	1522.	-757.	922.	-.0366	-.0019	-.0323	-.0713	-.0365	.0705	776.		
.2890	1304.	-146.	2356.	1558.	-741.	681.	-.0319	-.0031	-.0306	-.0627	-.0314	.0656	744.		
.2900	1215.	-95.	2243.	1508.	-686.	457.	-.0253	-.0039	-.0294	-.0545	-.0283	.0593	690.		
.2910	1126.	-55.	2132.	1420.	-620.	241.	-.0172	-.0043	-.0288	-.0467	-.0269	.0517	629.		
.2920	1040.	-38.	1992.	1319.	-554.	32.	-.0078	-.0046	-.0286	-.0394	-.0271	.0430	574.		
.2930	957.	-38.	1795.	1198.	-485.	-170.	.0022	-.0047	-.0284	-.0325	-.0288	.0337	523.		
.2940	872.	-54.	1545.	1082.	-417.	-375.	.0125	-.0049	-.0281	-.0254	-.0313	.0246	489.		
.2950	779.	-84.	1264.	1001.	-353.	-586.	.0225	-.0051	-.0273	-.0178	-.0338	.0164	487.		
.2960	676.	-108.	963.	925.	-279.	-778.	.0317	-.0054	-.0257	-.0091	-.0357	.0097	498.		
.2970	567.	-109.	647.	811.	-176.	-928.	.0397	-.0057	-.0234	.0008	-.0365	.0045	500.		
.2980	458.	-100.	319.	686.	-53.	-1047.	.0460	-.0062	-.0202	.0114	-.0360	.0009	503.		
.2990	339.	-102.	-8.	596.	64.	-1154.	.0505	-.0072	-.0162	.0226	-.0339	-.0012	522.		
.3000	186.	-102.	-326.	524.	154.	-1240.	.0528	-.0085	-.0113	.0343	-.0299	-.0019	544.		
.3010	-13.	-83.	-646.	472.	205.	-1293.	.0531	-.0102	-.0056	.0462	-.0241	-.0014	553.		
.3020	-242.	-61.	-970.	349.	199.	-1332.	.0515	-.0124	.0008	.0580	-.0169	.0002	558.		
.3030	-471.	-64.	-1279.	334.	127.	-1379.	.0482	-.0152	.0079	.0694	-.0085	.0026	572.		
.3040	-682.	-78.	-1553.	365.	2.	-1416.	.0435	-.0185	.0155	.0805	.0007	.0060	587.		
.3050	-867.	-64.	-1780.	366.	-155.	-1414.	.0379	-.0221	.0236	.0915	.0104	.0105	590.		
.3060	-1019.	-16.	-1942.	327.	-319.	-1383.	.0317	-.0257	.0317	.1020	.0202	.0156	584.		
.3070	-1128.	36.	-2048.	297.	-469.	-1352.	.0254	-.0296	.0396	.1117	.0296	.0209	586.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.33.

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

CONDITION 24

LOADS

.2970	567.	-109.	647.	811.	-176.	-928.	.397	-.0057	-.0234	.0008	-.0365	.0045	500.
.2980	458.	-100.	319.	686.	-53.	-1047.	.460	-.0062	-.0202	.0114	-.0360	.0009	503.
.2990	339.	-102.	-8.	596.	64.	-1154.	.0505	-.0072	-.0162	.0226	-.0339	-.0012	522.
.3000	186.	-102.	-726.	524.	154.	-1240.	.0528	-.0085	-.0113	.0343	-.0299	-.0019	544.
.3010	-13.	-83.	-646.	471.	205.	-1293.	.0531	-.0102	-.0056	.0462	-.0241	-.0014	553.
.3020	-242.	-61.	-970.	349.	199.	-1332.	.0515	-.0124	.0008	.0580	-.0169	.0002	558.
.3030	-471.	-64.	-1279.	334.	127.	-1379.	.0482	-.0152	.0079	.0694	-.0085	.0026	572.
.3040	-682.	-78.	-1553.	365.	2.	-1416.	.0435	-.0185	.0155	.0805	.0007	.0060	587.
.3050	-867.	-64.	-1780.	366.	-155.	-1414.	.0370	-.0221	.0236	.0915	.0104	.0105	590.
.3060	-1019.	-16.	-1948.	327.	-319.	-1383.	.0317	-.0257	.0317	.1020	.0202	.0156	584.
.3070	-1128.	36.	-2048.	297.	-469.	-1352.	.0261	-.0296	.0396	.1117	.0296	.0209	586.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.33.

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	30	MEMBER	2	SEQUENCE	55	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)		
.3080	-1197.	75.	-2101.	292.	-583.	-1328.	.0193	-.0337	.0468	.1200	.0381	.0260	594.		
.3090	-1247.	112.	-2134.	276.	-654.	-1301.	.0137	-.0379	.0530	.1268	.0454	.0302	595.		
.3100	-1305.	150.	-2154.	239.	-691.	-1277.	.0086	-.0418	.0581	.1318	.0512	.0332	590.		
.3110	-1372.	181.	-2151.	201.	-700.	-1267.	.0041	-.0454	.0618	.1351	.0555	.0346	586.		
.3120	-1436.	205.	-2126.	156.	-682.	-1259.	.0002	-.0486	.0641	.1369	.0581	.0344	578.		
.3130	-1482.	235.	-2062.	73.	-642.	-1231.	-.0031	-.0512	.0650	.1373	.0592	.0330	558.		
.3140	-1498.	274.	-1932.	-55.	-586.	-1173.	-.0060	-.0531	.0649	.1366	.0587	.0306	527.		
.3150	-1469.	319.	-1734.	-216.	-519.	-1091.	-.0085	-.0541	.0637	.1350	.0568	.0273	492.		
.3160	-1389.	367.	-1494.	-411.	-436.	-981.	-.0108	-.0544	.0618	.1328	.0536	.0235	461.		
.3170	-1274.	408.	-1237.	-634.	-339.	-844.	-.0128	-.0538	.0594	.1299	.0494	.0193	445.		
.3180	-1150.	418.	-990.	-841.	-251.	-692.	-.0147	-.0526	.0567	.1263	.0445	.0148	448.		
.3190	-1037.	375.	-779.	-985.	-194.	-538.	-.0169	-.0507	.0539	.1219	.0390	.0101	457.		
.3200	-948.	283.	-636.	-1082.	-173.	-374.	-.0191	-.0482	.0512	.1168	.0332	.0050	465.		
.3210	-888.	159.	-562.	-1168.	-175.	-189.	-.0213	-.0451	.0487	.1112	.0276	-.0002	480.		
.3220	-852.	6.	-533.	-1237.	-190.	2.	-.0234	-.0417	.0466	.1051	.0222	-.0056	502.		
.3230	-824.	-178.	-516.	-1258.	-215.	171.	-.0252	-.0382	.0450	.0989	.0173	-.0110	517.		
.3240	-792.	-368.	-496.	-1250.	-236.	312.	-.0266	-.0348	.0439	.0928	.0130	-.0160	525.		
.3250	-754.	-529.	-477.	-1256.	-236.	425.	-.0274	-.0316	.0432	.0872	.0093	-.0205	541.		
.3260	-711.	-655.	-482.	-1272.	-222.	495.	-.0275	-.0289	.0431	.0824	.0061	-.0244	555.		
.3270	-675.	-763.	-516.	-1237.	-215.	491.	-.0270	-.0270	.0433	.0783	.0035	-.0275	541.		
.3280	-666.	-861.	-574.	-1120.	-223.	407.	-.0258	-.0261	.0438	.0749	.0014	-.0297	486.		
.3290	-689.	-930.	-675.	-963.	-243.	265.	-.0238	-.0260	.0444	.0723	-.0003	-.0310	412.		
.3300	-735.	-959.	-832.	-800.	-263.	80.	-.0212	-.0269	.0450	.0703	-.0017	-.0317	339.		
.3310	-791.	-966.	-1018.	-622.	-269.	-141.	-.0178	-.0286	.0454	.0684	-.0028	-.0320	278.		
.3320	-846.	-970.	-1185.	-421.	-250.	-383.	-.0138	-.0311	.0455	.0665	-.0035	-.0319	249.		
.3330	-894.	-968.	-1314.	-228.	-199.	-615.	-.0093	-.0344	.0451	.0643	-.0037	-.0314	275.		
.3340	-931.	-948.	-1407.	-84.	-120.	-819.	-.0045	-.0382	.0444	.0620	-.0032	-.0306	334.		
.3350	-961.	-916.	-1459.	16.	-25.	-1001.	.0004	-.0423	.0432	.0594	-.0021	-.0295	402.		
.3360	-991.	-888.	-1479.	96.	73.	-1166.	.0052	-.0466	.0417	.0568	-.0001	-.0279	471.		
.3370	-1029.	-871.	-1490.	161.	163.	-1312.	.0096	-.0510	.0398	.0541	.0026	-.0260	535.		
.3380	-1086.	-863.	-1501.	208.	232.	-1438.	.0135	-.0552	.0378	.0515	.0061	-.0236	591.		
.3390	-1156.	-856.	-1518.	242.	277.	-1551.	.0169	-.0592	.0356	.0493	.0103	-.0208	639.		
.3400	-1222.	-844.	-1546.	264.	305.	-1652.	.0196	-.0629	.0334	.0476	.0150	-.0178	682.		
.3410	-1268.	-818.	-1577.	272.	323.	-1733.	.0217	-.0660	.0312	.0463	.0201	-.0145	716.		
.3420	-1294.	-775.	-1592.	265.	332.	-1782.	.0231	-.0685	.0291	.0455	.0256	-.0113	735.		
.3430	-1300.	-718.	-1579.	250.	327.	-1797.	.0241	-.0703	.0273	.0450	.0314	-.0083	740.		
.3440	-1286.	-644.	-1547.	230.	307.	-1778.	.0246	-.0713	.0257	.0446	.0375	-.0058	730.		
.3450	-1254.	-551.	-1506.	207.	278.	-1732.	.0249	-.0715	.0243	.0441	.0435	-.0042	709.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.33.

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