

50-305

RESPONSE TO NUREG-0737 ITEM II.D.1

Docket # *50-305*

Control # *8403280048*

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

.3730	2931.	1661.	4066.	2470.	3273.	-3693.	-.0471	-.0108	.0729	.0269	-.0406	-.1141	3720.
.3740	2918.	1689.	4240.	2408.	3505.	-3611.	-.0511	-.0096	.0788	.0199	-.0463	-.1121	3760.
.3750	2814.	1668.	4305.	2278.	3686.	-3418.	-.0542	-.0082	.0833	.0124	-.0503	-.1071	3720.
.3760	2626.	1600.	4254.	2080.	3804.	-3127.	-.0564	-.0066	.0863	.0044	-.0527	-.0992	3603.
.3770	2362.	1486.	4092.	1815.	3853.	-2754.	-.0575	-.0048	.0877	-.0040	-.0537	-.0885	3419.
.3780	2039.	1336.	3829.	1492.	3824.	-2317.	-.0577	-.0025	.0875	-.0129	-.0534	-.0754	3177.
.3790	1670.	1160.	3473.	1122.	3710.	-1838.	-.0568	.0001	.0858	-.0220	-.0520	-.0601	2892.
.3800	1266.	967.	3030.	722.	3507.	-1336.	-.0548	.0033	.0824	-.0313	-.0496	-.0429	2576.
.3810	841.	768.	2517.	306.	3212.	-828.	-.0519	.0071	.0775	-.0406	-.0465	-.0242	2246.
.3820	413.	574.	1955.	-111.	2833.	-334.	-.0479	.0113	.0711	-.0497	-.0430	-.0042	1924.
.3830	3.	390.	1318.	-522.	2383.	129.	-.0430	.0162	.0634	-.0585	-.0394	.0165	1646.

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DIS/ADLPIPE ADLPIPE STRESS ANALYSIS

83/12/02. 18.25.58.

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	5	MEMBER	1	SEQUENCE	22	LOCATION	END	TYPE	EL					
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
.3840	-376.	224.	836.	-910.	1878.	548.	-.0373	.0216	.0546	-.0668	-.0360	.0377	1455.	
.3850	-719.	84.	311.	-1255.	1333.	918.	-.0309	.0274	.0447	-.0746	-.0328	.0588	1380.	
.3860	-1019.	-24.	-172.	-1539.	768.	1234.	-.0240	.0338	.0343	-.0820	-.0300	.0795	1427.	
.3870	-1266.	-97.	-589.	-1756.	216.	1489.	-.0168	.0405	.0235	-.0890	-.0273	.0993	1559.	
.3880	-1452.	-132.	-923.	-1896.	-294.	1680.	-.0096	.0476	.0126	-.0958	-.0248	.1177	1719.	
.3890	-1578.	-125.	-1181.	-1949.	-747.	1810.	-.0024	.0549	.0021	-.1027	-.0222	.1345	1862.	
.3900	-1652.	-80.	-1380.	-1913.	-1134.	1883.	.0044	.0623	-.0079	-.1098	-.0192	.1492	1964.	
.3910	-1680.	-2.	-1532.	-1801.	-1449.	1902.	.0106	.0698	-.0171	-.1172	-.0157	.1617	2018.	
.3920	-1665.	103.	-1645.	-1635.	-1697.	1867.	.0163	.0773	-.0253	-.1252	-.0118	.1718	2026.	
.3930	-1606.	224.	-1725.	-1438.	-1888.	1782.	.0212	.0845	-.0324	-.1336	-.0076	.1796	2000.	
.3940	-1511.	351.	-1792.	-1234.	-2038.	1652.	.0254	.0914	-.0384	-.1422	-.0032	.1852	1954.	
.3950	-1397.	478.	-1873.	-1038.	-2170.	1487.	.0288	.0979	-.0433	-.1509	.0015	.1890	1906.	
.3960	-1274.	601.	-1973.	-868.	-2297.	1296.	.0316	.1038	-.0473	-.1590	.0063	.1913	1872.	
.3970	-1142.	712.	-2077.	-742.	-2421.	1086.	.0338	.1090	-.0504	-.1661	.0111	.1927	1857.	
.3980	-1003.	806.	-2169.	-669.	-2536.	866.	.0354	.1134	-.0528	-.1716	.0158	.1937	1862.	
.3990	-870.	885.	-2251.	-644.	-2642.	651.	.0367	.1170	-.0546	-.1750	.0205	.1948	1885.	
.4000	-762.	948.	-2333.	-653.	-2741.	462.	.0376	.1195	-.0558	-.1761	.0251	.1962	1925.	

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)
.0930	6981.	5588.	6968.	10523.	6452.	-12247.	-.0747	.0164	.1168	.2721	.0436	-.1765	11721.

SECTION	5	MEMBER	2	SEQUENCE	23	LOCATION	END	TYPE	RU					
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
0.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.	
.0010	-7.	3.	-6.	-1.	0.	2.	-.0000	.0000	-.0000	-.0000	.0000	.0000	1.	
.0020	-43.	11.	-35.	-8.	2.	15.	-.0000	.0000	-.0001	-.0001	.0002	.0001	11.	
.0030	-98.	-2.	-84.	-28.	4.	55.	.0000	.0000	-.0002	-.0004	.0006	.0005	41.	
.0040	-161.	-47.	-149.	-64.	3.	128.	.0001	-.0000	-.0005	-.0010	.0014	.0013	96.	
.0050	-260.	-102.	-249.	-121.	-5.	231.	.0003	-.0000	-.0009	-.0019	.0025	.0026	176.	
.0060	-426.	-160.	-414.	-208.	-28.	373.	.0005	.0000	-.0017	-.0033	.0038	.0047	288.	
.0070	-659.	-251.	-645.	-343.	-53.	579.	.0010	.0000	-.0028	-.0053	.0058	.0079	455.	

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DIS/ADLPIPE ADLPIPE STRESS ANALYSIS

83/12/02. 18.25.58.

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

TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
0.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.
.0010	-7.	3.	-6.	-1.	0.	2.	-.0000	.0000	-.0000	-.0000	.0000	.0000	1.
.0020	-43.	11.	-35.	-8.	2.	15.	-.0000	.0000	-.0001	-.0001	.0002	.0001	11.
.0030	-98.	-2.	-84.	-28.	4.	55.	.0000	.0000	-.0002	-.0004	.0006	.0005	41.
.0040	-161.	-47.	-149.	-64.	3.	128.	.0001	-.0000	-.0005	-.0010	.0014	.0013	96.
.0050	-260.	-102.	-249.	-121.	-5.	231.	.0003	-.0000	-.0009	-.0019	.0025	.0026	176.
.0060	-426.	-160.	-414.	-208.	-28.	373.	.0005	.0000	-.0017	-.0033	.0038	.0047	288.
.0070	-659.	-251.	-645.	-343.	-53.	579.	.0010	.0000	-.0028	-.0053	.0058	.0079	455.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.25.58.

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	5	MEMBER	2	SEQUENCE	23	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)		
.0080	-939.	-409.	-913.	-535.	-44.	871.	.0018	.0001	-.0044	-.0080	.0093	.0127	690.		
.0090	-1244.	-645.	-1213.	-751.	17.	1261.	.0031	.0002	-.0068	-.0112	.0159	.0197	990.		
.0100	-1580.	-918.	-1572.	-955.	85.	1744.	.0050	.0004	-.0101	-.0149	.0258	.0289	1342.		
.0110	-1932.	-1190.	-1955.	-1172.	140.	2264.	.0076	.0008	-.0143	-.0187	.0375	.0400	1721.		
.0120	-2248.	-1432.	-2291.	-1437.	191.	2738.	.0108	.0013	-.0193	-.0224	.0493	.0523	2088.		
.0130	-2518.	-1596.	-2592.	-1707.	193.	3123.	.0147	.0019	-.0252	-.0255	.0509	.0653	2402.		
.0140	-2767.	-1674.	-2936.	-1928.	63.	3450.	.0192	.0027	-.0320	-.0278	.0725	.0786	2664.		
.0150	-3018.	-1750.	-3360.	-2144.	-217.	3759.	.0242	.0037	-.0397	-.0294	.0833	.0914	2920.		
.0160	-3317.	-1899.	-3893.	-2426.	-583.	4083.	.0296	.0047	-.0481	-.0310	.0932	.1037	3225.		
.0170	-3647.	-2136.	-4490.	-2776.	-1061.	4468.	.0353	.0057	-.0571	-.0333	.1017	.1154	3617.		
.0180	-3860.	-2464.	-4921.	-3223.	-1645.	4882.	.0411	.0067	-.0661	-.0364	.1060	.1257	4096.		
.0190	-3854.	-2824.	-4913.	-3821.	-2053.	5151.	.0468	.0077	-.0744	-.0401	.1054	.1341	4539.		
.0200	-3608.	-2975.	-4264.	-4398.	-1932.	5094.	.0519	.0087	-.0814	-.0421	.1037	.1395	4719.		
.0210	-3207.	-2718.	-3286.	-4376.	-1247.	4778.	.0567	.0101	-.0874	-.0397	.1134	.1419	4448.		
.0220	-2572.	-2115.	-2643.	-3264.	-846.	4362.	.0615	.0118	-.0928	-.0327	.1350	.1396	3716.		
.0230	-1669.	-1269.	-2058.	-1762.	-715.	3501.	.0650	.0135	-.0959	-.0230	.1502	.1285	2685.		
.0240	-1001.	-237.	-1517.	-640.	-185.	2027.	.0663	.0149	-.0962	-.0122	.1555	.1078	1438.		
.0250	-331.	663.	-1030.	317.	-93.	582.	.0660	.0155	-.0949	-.0017	.1518	.0786	451.		
.0260	1116.	1018.	-96.	1042.	-1344.	-632.	.0643	.0148	-.0910	.0057	.1231	.0396	1223.		
.0270	2756.	990.	995.	907.	-2630.	-2387.	.0597	.0129	-.0827	.0098	.0691	-.0084	2471.		
.0280	3250.	1355.	1370.	574.	-2654.	-4493.	.0524	.0102	-.0721	.0162	.0254	-.0599	3539.		
.0290	3199.	1981.	869.	1704.	-3155.	-5479.	.0449	.0066	-.0627	.0267	.0111	-.1103	4414.		
.0300	4053.	1628.	174.	3498.	-4556.	-5612.	.0380	.0018	-.0524	.0355	.0041	-.1575	5413.		
.0310	4501.	1396.	-372.	4039.	-4976.	-6394.	.0289	-.0045	-.0390	.0379	-.0213	-.2003	6102.		
.0320	4361.	1934.	20.	3378.	-4743.	-7619.	.0178	-.0125	-.0236	.0368	-.0718	-.2380	6464.		
.0330	4691.	1856.	998.	2858.	-4904.	-7972.	.0083	-.0223	-.0091	.0384	-.1152	-.2646	6596.		
.0340	5091.	1202.	1199.	2979.	-5436.	-7529.	.0006	-.0333	.0036	.0422	-.1388	-.2784	6574.		
.0350	4357.	1524.	390.	3113.	-5951.	-7140.	-.0088	-.0448	.0165	.0435	-.1584	-.2847	6607.		
.0360	3349.	2062.	299.	2419.	-5913.	-6731.	-.0200	-.0573	.0314	.0433	-.2150	-.2857	6255.		
.0370	3419.	1157.	1783.	1157.	-4904.	-5738.	-.0302	-.0711	.0479	.0479	-.2516	-.2772	5147.		
.0380	3379.	167.	3016.	687.	-3751.	-4111.	-.0398	-.0851	.0635	.0578	-.2508	-.2593	3780.		
.0390	1857.	537.	3008.	893.	-2894.	-2254.	-.0520	-.0978	.0792	.0653	-.2648	-.2402	2544.		
.0400	397.	237.	3859.	-66.	-418.	-568.	-.0671	-.1091	.0996	.0663	-.2750	-.2241	478.		
.0410	222.	-1581.	5369.	-1178.	3166.	1214.	-.0813	-.1188	.1219	.0652	-.2500	-.2057	2419.		
.0420	-241.	-1994.	5615.	-247.	5366.	3281.	-.0941	-.1257	.1406	.0648	-.2098	-.1850	4243.		
.0430	-1549.	-970.	5486.	797.	7320.	4842.	-.1077	-.1292	.1581	.0596	-.1588	-.1693	5940.		
.0440	-2028.	-1590.	6389.	-377.	10995.	5365.	-.1211	-.1296	.1778	.0456	-.1203	-.1598	8250.		
.0450	-1635.	-2796.	6318.	-1172.	13308.	5608.	-.1305	-.1262	.1931	.0271	-.0732	-.1509	9766.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.25.58.

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

.0350	4357.	1524.	590.	3113.	-5951.	-7140.	-.0688	-.0448	.0165	.0435	-.1684	-.2847	6607.
.0360	3349.	2062.	299.	2419.	-5913.	-6731.	-.0200	-.0573	.0314	.0433	-.2150	-.2857	6255.
.0370	3419.	1157.	1783.	1157.	-4904.	-5738.	-.0302	-.0711	.0479	.0479	-.2516	-.2772	5147.
.0380	3379.	167.	3016.	687.	-3751.	-4111.	-.0398	-.0851	.0635	.0578	-.2608	-.2593	3780.
.0390	1857.	537.	3008.	893.	-2894.	-2254.	-.0520	-.0978	.0792	.0653	-.2648	-.2402	2544.
.0400	397.	237.	3859.	-66.	-418.	-568.	-.0671	-.1091	.0996	.0663	-.2750	-.2241	478.
.0410	222.	-1581.	5369.	-1178.	3166.	1214.	-.0813	-.1188	.1219	.0652	-.2500	-.2057	2419.
.0420	-241.	-1994.	5615.	-247.	5366.	3281.	-.0941	-.1257	.1406	.0648	-.2098	-.1850	4243.
.0430	-1549.	-970.	5486.	797.	7320.	4842.	-.1077	-.1292	.1581	.0596	-.1588	-.1693	5940.
.0440	-2028.	-1590.	6389.	-377.	10995.	5365.	-.1211	-.1296	.1778	.0456	-.1203	-.1598	8250.
.0450	-1635.	-2796.	6310.	-1172.	13308.	5608.	-.1305	-.1262	.1931	.0271	-.0732	-.1509	9766.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.25.58.

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	5	MEMBER	2	SEQUENCE	23	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)	
.0460	-1870.	-1853.	3997.	93.	11990.	5669.	-.1353	-.1189	.1983	.0099	-.0204	-.1416	8998.	
.0470	-2174.	-753.	2511.	-183.	10806.	5184.	-.1373	-.1089	.1990	-.0042	.0069	-.1351	8080.	
.0480	-1090.	-1837.	3351.	-3143.	11628.	3465.	-.1352	-.0968	.1975	-.0126	.0120	-.1277	8448.	
.0490	363.	-2420.	3259.	-4322.	10484.	1961.	-.1262	-.0819	.1862	-.0103	.0297	-.1126	7757.	
.0500	656.	-661.	1155.	-2675.	6764.	884.	-.1119	-.0638	.1637	.0045	.0605	-.0904	4939.	
.0510	848.	392.	509.	-2354.	5211.	-691.	-.0954	-.0442	.1388	.0289	.0782	-.0655	3882.	
.0520	2182.	-301.	2337.	-3397.	6116.	-2552.	-.0759	-.0240	.1133	.0615	.0878	-.0359	5020.	
.0530	3541.	447.	3589.	-1774.	5250.	-3764.	-.0525	-.0026	.0817	.1000	.1113	.0010	4516.	
.0540	3873.	2791.	3484.	1687.	3190.	-4599.	-.0206	.0200	.0467	.1363	.1368	.0397	3941.	
.0550	3949.	3520.	4050.	3176.	3355.	-5603.	-.0071	.0423	-.0162	.1625	.1399	.0729	4895.	
.0560	4241.	3024.	5017.	3881.	4081.	-6185.	.0128	.0637	-.0112	.1782	.1302	.1017	5638.	
.0570	4116.	3987.	4719.	6581.	2612.	-6031.	.0325	.0840	-.0402	.1857	.1283	.1296	6269.	
.0580	3547.	5304.	3974.	9232.	1261.	-5872.	.0499	.1024	-.0669	.1839	.1271	.1541	7424.	
.0590	3003.	4726.	3793.	9631.	1881.	-5725.	.0642	.1178	-.0880	.1731	.1172	.1720	7658.	
.0600	2135.	3732.	2636.	10055.	1651.	-4800.	.0772	.1301	-.1083	.1582	.1137	.1863	7593.	
.0610	715.	4062.	81.	11743.	-439.	-3482.	.0904	.1390	-.1309	.1450	.1255	.2021	8261.	
.0620	-404.	4111.	-1660.	12067.	-1566.	-2788.	.1028	.1433	-.1513	.1352	.1370	.2188	8414.	
.0630	-811.	2789.	-2026.	10227.	-1544.	-2392.	.1145	.1424	-.1685	.1299	.1391	.2343	7156.	
.0640	-1321.	1799.	-3147.	8626.	-3158.	-1526.	.1261	.1372	-.1866	.1295	.1423	.2493	6277.	
.0650	-2223.	1806.	-5405.	7587.	-6129.	-696.	.1370	.1280	-.2050	.1320	.1485	.2643	6591.	
.0660	-2690.	1298.	-6797.	5188.	-8060.	-495.	.1456	.1144	-.2185	.1342	.1443	.2767	6470.	
.0670	-2506.	29.	-6850.	1689.	-9259.	-312.	.1514	.0967	-.2261	.1348	.1279	.2836	6348.	
.0680	-2471.	-749.	-7030.	-1140.	-10980.	385.	.1536	.0761	-.2294	.1320	.1133	.2840	7445.	
.0690	-2898.	-1090.	-7743.	-3295.	-12185.	1265.	.1511	.0534	-.2266	.1214	.1071	.2767	8551.	
.0700	-3346.	-1972.	-8228.	-5475.	-11910.	2304.	.1430	.0294	-.2152	.0993	.1040	.2591	8971.	
.0710	-3785.	-3199.	-8532.	-7179.	-11182.	3938.	.1299	.0046	-.1963	.0657	.1004	.2302	9342.	
.0720	-4574.	-4060.	-9052.	-8175.	-10545.	5917.	.1119	-.0203	-.1715	.0217	.0922	.1908	9838.	
.0730	-5503.	-4783.	-9259.	-9284.	-9212.	7588.	.0895	-.0446	-.1402	-.0324	.0704	.1417	10192.	
.0740	-6039.	-5784.	-8751.	-10563.	-7242.	8975.	.0640	-.0676	-.1036	-.0936	.0342	.0842	10541.	
.0750	-6283.	-6649.	-8304.	-10997.	-5633.	10379.	.0378	-.0883	-.0654	-.1555	-.0031	.0222	10877.	
.0760	-6650.	-6830.	-8383.	-10410.	-4467.	11516.	.0120	-.1062	-.0283	-.2110	-.0354	-.0405	10888.	
.0770	-6840.	-6559.	-8000.	-9728.	-3098.	11921.	-.0125	-.1211	.0073	-.2555	-.0726	-.1021	10579.	
.0780	-6168.	-6318.	-6198.	-9370.	-1385.	11539.	-.0345	-.1331	.0411	-.2850	-.1187	-.1603	10063.	
.0790	-4777.	-5925.	-3667.	-8689.	266.	10551.	-.0526	-.1417	.0705	-.2957	-.1589	-.2116	9215.	
.0800	-3476.	-4936.	-1715.	-7142.	1435.	9168.	-.0666	-.1465	.0935	-.2860	-.1809	-.2545	7893.	
.0810	-2390.	-3655.	-262.	-5268.	2132.	7524.	-.0773	-.1474	.1108	-.2588	-.1932	-.2907	6355.	
.0820	-893.	-2749.	1680.	-3936.	2755.	5475.	-.0851	-.1449	.1245	-.2190	-.2081	-.3213	4910.	
.0830	1109.	-2021.	4074.	-3026.	3336.	2851.	-.0902	-.1391	.1351	-.1703	-.2228	-.3447	3593.	

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ADLPIPE STRESS ANALYSIS

83/12/02. 18.25.58.

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

.0720	-4574.	-4360.	-4052.	-4175.	-10545.	5917.	9052.	1119.	-0.0703	-0.1715	.0217	.0722	.1908	9538.
.0730	-5503.	-4783.	-9259.	-9284.	-9212.	7588.	.0895	-0.0446	-0.1402	-0.0324	.0704	.1417	10192.	
.0740	-6039.	-5784.	-8751.	-10563.	-7242.	8975.	.0640	-0.0676	-0.1036	-0.0936	.0342	.0842	10541.	
.0750	-6283.	-6649.	-8304.	-10997.	-5633.	10379.	.0378	-0.0883	-0.0654	-0.1555	-0.0031	.0222	10877.	
.0760	-6650.	-6830.	-8313.	-10410.	-4467.	11516.	.0120	-0.1062	-0.0283	-0.2110	-0.0354	-0.0405	10888.	
.0770	-6840.	-6559.	-8000.	-9728.	-3098.	11921.	-0.0125	-0.1211	.0073	-0.2555	-0.0726	-0.1021	10579.	
.0780	-6168.	-6318.	-6190.	-9370.	-1385.	11539.	-0.0345	-0.1331	.0411	-0.2850	-0.1187	-0.1603	10063.	
.0790	-4777.	-5925.	-3667.	-8689.	266.	10551.	-0.0526	-0.1417	.0705	-0.2957	-0.1589	-0.2116	9215.	
.0800	-3476.	-4936.	-1715.	-7142.	1435.	9168.	-0.0666	-0.1465	.0935	-0.2860	-0.1809	-0.2545	7893.	
.0810	-2390.	-3655.	-262.	-5268.	2132.	7524.	-0.0773	-0.1474	.1108	-0.2588	-0.1932	-0.2907	6355.	
.0820	-893.	-2749.	1680.	-3936.	2755.	5475.	-0.0851	-0.1449	.1245	-0.2190	-0.2081	-0.3213	4910.	
.0830	1109.	-2021.	4074.	-3026.	3336.	2851.	-0.0902	-0.1391	.1351	-0.1703	-0.2228	-0.3447	3593.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.25.58.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	5	MEMBER	2	SEQUENCE	23	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)	
.0840	2969.	-838.	5969.	-1835.	3401.	-62.		-0.0932	-0.1300	.1420	-0.1160	-0.2288	-0.3609	2605.	
.0850	4416.	491.	7098.	-421.	3058.	-2813.		-0.0952	-0.1175	.1462	-0.0608	-0.2257	-0.3720	2815.	
.0860	5752.	1341.	7819.	306.	2969.	-5371.		-0.0966	-0.1023	.1496	-0.0088	-0.2149	-0.3781	4172.	
.0870	7003.	2165.	8145.	2225.	3091.	-7854.		-0.0971	-0.0850	.1518	.0390	-0.1933	-0.3767	5883.	
.0880	7906.	3490.	8133.	4133.	3080.	-10068.		-0.0967	-0.0664	.1520	.0837	-0.1516	-0.3662	7624.	
.0890	8485.	4573.	8312.	5778.	3482.	-11748.		-0.0955	-0.0477	.1507	.1259	-0.1258	-0.3474	9132.	
.0900	8789.	4848.	8628.	6812.	4655.	-12814.		-0.0933	-0.0295	.1479	.1655	-0.0865	-0.3198	10273.	
.0910	8556.	5089.	8267.	8106.	5646.	-13205.		-0.0891	-0.0122	.1414	.2031	-0.0399	-0.2817	11115.	
.0920	7799.	5632.	7328.	9751.	5938.	-12913.		-0.0826	.0033	.1306	.2390	.0078	-0.2333	11618.	
.0930	6981.	5588.	6968.	10454.	6452.	-12177.		-0.0744	.0164	.1174	.2726	.0440	-0.1772	11659.	
.0940	6226.	4853.	7388.	9960.	7481.	-11214.		-0.0645	.0266	.1025	.3031	.0672	-0.1153	11297.	
.0950	5222.	4472.	7555.	9565.	8019.	-9971.		-0.0529	.0344	.0849	.3285	.0878	-0.0487	10768.	
.0960	3989.	4520.	7084.	9656.	7889.	-8396.		-0.0400	.0402	.0649	.3466	.1115	.0194	10133.	
.0970	2824.	4133.	6546.	9334.	7968.	-6629.		-0.0270	.0439	.0452	.3547	.1341	.0842	9402.	
.0980	1692.	3441.	6101.	8433.	8236.	-4802.		-0.0147	.0454	.0269	.3515	.1516	.1419	8579.	
.0990	482.	3094.	5438.	7506.	7985.	-2973.		-0.0037	.0450	.0096	.3356	.1637	.1902	7654.	
.1000	-603.	2681.	4574.	6361.	7363.	-1209.		.0058	.0430	-0.0054	.3058	.1695	.2265	6609.	
.1010	-1539.	1635.	3463.	4622.	6717.	520.		.0131	.0396	-0.0171	.2620	.1676	.2482	5507.	
.1020	-2635.	468.	1749.	2747.	5624.	2278.		.0181	.0352	-0.0265	.2068	.1598	.2548	4490.	
.1030	-3756.	-364.	-285.	1075.	4014.	3884.		.0214	.0302	-0.0340	.1441	.1481	.2480	3834.	
.1040	-4331.	-1267.	-1771.	-754.	2625.	5036.		.0236	.0246	-0.0390	.0773	.1323	.2301	3861.	
.1050	-4334.	-2299.	-2630.	-2684.	1630.	5732.		.0252	.0187	-0.0418	.0102	.1142	.2031	4405.	
.1060	-4286.	-2835.	-3582.	-4033.	451.	6167.		.0265	.0133	-0.0444	-0.0540	.0983	.1692	4976.	
.1070	-4220.	-2870.	-4702.	-4722.	-878.	6330.		.0281	.0085	-0.0475	-0.1125	.0867	.1313	5356.	
.1080	-3671.	-2931.	-5088.	-5368.	-1655.	6054.		.0305	.0041	-0.0505	-0.1632	.0763	.0919	5567.	
.1090	-2609.	-3024.	-4381.	-6059.	-1645.	5402.		.0341	.0001	-0.0540	-0.2040	.0691	.0534	5583.	
.1100	-1865.	-2749.	-4726.	-5784.	-2787.	4955.		.0394	-0.0030	-0.0609	-0.2362	.0687	.0181	5467.	
.1110	-1626.	-2333.	-5601.	-5574.	-4643.	4568.		.0449	-0.0052	-0.0697	-0.2635	.0557	-0.0162	5778.	
.1120	-1228.	-2568.	-5617.	-6644.	-5874.	3815.		.0501	-0.0071	-0.0773	-0.2877	.0202	-0.0490	6507.	
.1130	-529.	-3089.	-5313.	-7849.	-7058.	2961.		.0562	-0.0083	-0.0854	-0.3064	-0.0184	-0.0754	7390.	
.1140	-193.	-2978.	-5804.	-7860.	-9155.	2525.		.0633	-0.0086	-0.0960	-0.3175	-0.0450	-0.0934	8309.	
.1150	-405.	-2703.	-6605.	-7618.	-11026.	2349.		.0697	-0.0078	-0.1065	-0.3229	-0.0677	-0.1055	9171.	
.1160	-632.	-3035.	-6935.	-7971.	-11568.	2049.		.0747	-0.0062	-0.1141	-0.3244	-0.0914	-0.1114	9569.	
.1170	-791.	-3064.	-7204.	-7671.	-12005.	1829.		.0794	-0.0039	-0.1207	-0.3199	-0.1074	-0.1086	9682.	
.1180	-1123.	-2479.	-8006.	-6270.	-13179.	1939.		.0837	-0.0013	-0.1275	-0.3082	-0.1133	-0.0967	9923.	
.1190	-1670.	-1910.	-8050.	-5505.	-13725.	2100.		.0856	.0012	-0.1309	-0.2913	-0.1305	-0.0812	10067.	
.1200	-1969.	-2191.	-6931.	-6003.	-12680.	2058.		.0847	.0033	-0.1292	-0.2702	-0.1567	-0.0629	9557.	
.1210	-2028.	-2657.	-6247.	-5745.	-11515.	2214.		.0830	.0054	-0.1256	-0.2428	-0.1628	-0.0378	8801.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.25.58.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

.1100	-1865.	-2749.	-4726.	-5784.	-2787.	4955.	.0394	-.0030	-.0609	-.2362	.0687	.0181	5467.
.1110	-1626.	-2333.	-5601.	-5574.	-4643.	4568.	.0449	-.0052	-.0697	-.2635	.0557	-.0162	5778.
.1120	-1228.	-2568.	-5617.	-6644.	-5874.	3815.	.0501	-.0071	-.0773	-.2877	.0202	-.0490	6507.
.1130	-529.	-3089.	-5313.	-7849.	-7058.	2961.	.0562	-.0083	-.0854	-.3064	-.0184	-.0754	7390.
.1140	-193.	-2978.	-5804.	-7860.	-9155.	2525.	.0633	-.0086	-.0960	-.3175	-.0450	-.0934	8309.
.1150	-405.	-2703.	-6805.	-7613.	-11026.	2349.	.0697	-.0078	-.1065	-.3229	-.0677	-.1055	9171.
.1160	-632.	-3035.	-6935.	-7971.	-11568.	2049.	.0747	-.0062	-.1141	-.3244	-.0914	-.1114	9569.
.1170	-791.	-3064.	-7204.	-7671.	-12005.	1829.	.0794	-.0039	-.1207	-.3199	-.1074	-.1086	9682.
.1180	-1123.	-2479.	-8006.	-6270.	-13179.	1939.	.0837	-.0013	-.1275	-.3082	-.1133	-.0967	9923.
.1190	-1670.	-1910.	-8050.	-5505.	-13725.	2100.	.0856	.0012	-.1309	-.2913	-.1305	-.0812	10067.
.1200	-1969.	-2191.	-6931.	-6003.	-12680.	2058.	.0847	.0033	-.1292	-.2702	-.1567	-.0629	9557.
.1210	-2028.	-2657.	-6247.	-5745.	-11515.	2214.	.0830	.0054	-.1256	-.2428	-.1628	-.0378	8801.

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ADLPIPE STRESS ANALYSIS

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	5	MEMBER	2	SEQUENCE	23	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)
.1220	-2672.	-1884.	-6665.	-3718.	-11706.	2995.				.0800	.0076	-.1222	-.2089	-.1507	-.0092	8521.
.1230	-3464.	-1536.	-6530.	-2579.	-10851.	3667.				.0737	.0094	-.1142	-.1722	-.1414	.0179	7914.
.1240	-3725.	-2164.	-4916.	-3114.	-8151.	3764.				.0643	.0105	-.0997	-.1352	-.1408	.0420	6405.
.1250	-3609.	-2163.	-3457.	-2773.	-6090.	3776.				.0536	.0116	-.0832	-.0980	-.1287	.0653	5179.
.1260	-3508.	-1366.	-3059.	-1108.	-5116.	3886.				.0420	.0131	-.0659	-.0619	-.0982	.0868	4395.
.1270	-3489.	-789.	-2165.	-369.	-3126.	3656.				.0273	.0146	-.0442	-.0301	-.0716	.1000	3252.
.1280	-3064.	-1052.	-606.	-757.	188.	2941.				.0106	.0161	-.0182	-.0026	-.0447	.1064	2051.
.1290	-2454.	-487.	256.	92.	2183.	2267.				-.0057	.0178	.0068	.0219	-.0051	.1093	2122.
.1300	-1868.	840.	651.	1648.	3089.	1568.				-.0219	.0196	.0308	.0426	.0364	.1072	2586.
.1310	-1035.	963.	1629.	1527.	5160.	429.				-.0389	.0212	.0571	.0576	.0635	.0975	3639.
.1320	-172.	712.	2820.	716.	7206.	-752.				-.0559	.0226	.0830	.0683	.0763	.0814	4908.
.1330	689.	1208.	3251.	1129.	7655.	-1680.				-.0704	.0241	.1048	.0778	.0915	.0644	5337.
.1340	1645.	2041.	3857.	1866.	7833.	-2714.				-.0830	.0256	.1238	.0867	.1026	.0471	5728.
.1350	2750.	2175.	5527.	1522.	9368.	-4034.				-.0944	.0268	.1423	.0944	.1013	.0279	6951.
.1360	3778.	2105.	7013.	1450.	10927.	-5117.				-.1035	.0283	.1576	.1017	.1011	.0096	8192.
.1370	4396.	3190.	7585.	3039.	10964.	-5692.				-.1098	.0303	.1674	.1078	.1049	-.0066	8575.
.1380	5087.	4125.	8324.	4519.	11272.	-6367.				-.1139	.0324	.1746	.1101	.1027	-.0211	9242.
.1390	5862.	4262.	9816.	4818.	12446.	-7173.				-.1167	.0342	.1808	.1072	.0836	-.0357	10213.
.1400	6225.	4507.	10799.	5263.	12686.	-7509.				-.1176	.0361	.1830	.0997	.0560	-.0497	10551.
.1410	6172.	4904.	10618.	6265.	11763.	-7402.				-.1161	.0381	.1806	.0872	.0300	-.0610	10276.
.1420	5912.	5050.	10328.	6744.	10923.	-7240.				-.1133	.0400	.1759	.0690	-.0025	-.0711	9934.
.1430	5670.	4491.	10181.	6393.	10558.	-7010.				-.1088	.0417	.1692	.0469	-.0371	-.0791	9568.
.1440	5139.	4133.	9414.	6355.	9384.	-6357.				-.1021	.0433	.1583	.0241	-.0643	-.0831	8759.
.1450	4331.	4118.	8059.	6560.	7539.	-5515.				-.0932	.0448	.1433	.0012	-.0843	-.0823	7694.
.1460	3697.	3567.	6856.	5936.	6252.	-4936.				-.0825	.0460	.1268	-.0222	-.1023	-.0767	6696.
.1470	3106.	2997.	5839.	4900.	4954.	-4378.				-.0703	.0469	.1080	-.0448	-.1195	-.0668	5546.
.1480	2415.	2628.	4212.	4196.	2926.	-3573.				-.0558	.0476	.0855	-.0643	-.1252	-.0508	4206.
.1490	1612.	2357.	2296.	3409.	574.	-2688.				-.0400	.0479	.0607	-.0811	-.1253	-.0297	2952.
.1500	929.	1780.	890.	1796.	-1341.	-1961.				-.0238	.0477	.0358	-.0966	-.1302	-.0054	2008.
.1510	426.	817.	-344.	-191.	-3030.	-1242.				-.0073	.0470	.0110	-.1107	-.1336	.0226	2211.
.1520	-353.	270.	-1943.	-1624.	-5174.	-209.				.0090	.0463	-.0146	-.1225	-.1295	.0534	3658.
.1530	-1346.	-310.	-3700.	-2893.	-6995.	999.				.0245	.0456	-.0391	-.1324	-.1172	.0859	5146.
.1540	-2303.	-1112.	-4869.	-4414.	-7866.	2196.				.0383	.0448	-.0607	-.1419	-.1034	.1178	6257.
.1550	-3124.	-1841.	-5628.	-5628.	-8177.	3421.				.0503	.0442	-.0793	-.1508	-.0841	.1490	7077.
.1560	-3928.	-2403.	-6685.	-6059.	-8390.	4736.				.0610	.0441	-.0959	-.1589	-.0531	.1797	7672.
.1570	-4954.	-2563.	-7689.	-6124.	-8496.	6076.				.0693	.0446	-.1095	-.1673	-.0237	.2061	8161.
.1580	-5791.	-3022.	-8182.	-6556.	-7909.	7148.				.0751	.0454	-.1190	-.1765	-.0016	.2271	8436.
.1590	-6247.	-3583.	-8473.	-6873.	-7220.	7933.				.0793	.0466	-.1253	-.1855	.0173	.2440	8587.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.25.58.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

.1490	1612.	2357.	296.	3409.	574.	-2688.	-.0400	.0479	.0607	-.0811	-.1253	-.0297	2952.
.1500	929.	1780.	890.	1796.	-1341.	-1961.	-.0238	.0477	.0358	-.0966	-.1302	-.0054	2008.
.1510	426.	817.	-344.	-191.	-3030.	-1242.	-.0073	.0470	.0110	-.1107	-.1336	.0226	2211.
.1520	-353.	270.	-1943.	-1624.	-5174.	-209.	.0090	.0463	-.0146	-.1225	-.1295	.0534	3658.
.1530	-1346.	-310.	-3700.	-2893.	-6995.	999.	.0245	.0456	-.0391	-.1324	-.1172	.0859	5146.
.1540	-2303.	-1112.	-4869.	-4414.	-7066.	2196.	.0383	.0448	-.0607	-.1419	-.1034	.1178	6257.
.1550	-3124.	-1841.	-5628.	-5628.	-8177.	3421.	.0503	.0442	-.0793	-.1508	-.0841	.1490	7077.
.1560	-3928.	-2403.	-6685.	-6059.	-8390.	4736.	.0610	.0441	-.0959	-.1589	-.0531	.1797	7672.
.1570	-4954.	-2563.	-7689.	-6124.	-8496.	6076.	.0693	.0446	-.1095	-.1673	-.0237	.2061	8161.
.1580	-5791.	-3022.	-8182.	-6556.	-7909.	7148.	.0751	.0454	-.1190	-.1765	-.0016	.2271	8436.
.1590	-6247.	-3583.	-8473.	-6873.	-7220.	7933.	.0793	.0466	-.1253	-.1855	.0173	.2440	8587.

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ADLPIPE STRESS ANALYSIS

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18.25.58.

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	5	MEMBER	2	SEQUENCE	23	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)		
.1600	-6628.	-3441.	-8833.	-6512.	-7254.	8572.		.0820	.0483	-.1299	-.1929	.0311	.2557	8750.		
.1610	-6829.	-3241.	-8765.	-6312.	-7033.	8861.		.0829	.0504	-.1316	-.1975	.0377	.2613	8732.		
.1620	-6572.	-3669.	-8242.	-6535.	-5957.	8714.		.0827	.0527	-.1304	-.1977	.0447	.2624	8368.		
.1630	-6260.	-3437.	-7889.	-5905.	-5507.	8487.		.0817	.0555	-.1285	-.1923	.0553	.2594	7896.		
.1640	-5852.	-2682.	-7649.	-4679.	-5506.	8044.		.0801	.0586	-.1260	-.1816	.0677	.2526	7288.		
.1650	-5038.	-2419.	-6861.	-4097.	-4801.	7080.		.0775	.0615	-.1208	-.1671	.0745	.2417	6393.		
.1660	-4049.	-2126.	-5668.	-3772.	-4090.	5844.		.0738	.0643	-.1138	-.1495	.0725	.2263	5439.		
.1670	-3039.	-1472.	-4832.	-2941.	-4086.	4550.		.0696	.0669	-.1065	-.1291	.0701	.2086	4574.		
.1680	-2053.	-626.	-4124.	-1971.	-4270.	3110.		.0644	.0691	-.0980	-.1074	.0651	.1886	3800.		
.1690	-959.	-240.	-3216.	-1475.	-3901.	1480.		.0581	.0708	-.0870	-.0855	.0559	.1665	2983.		
.1700	28.	182.	-2339.	-882.	-3588.	-26.		.0506	.0717	-.0747	-.0630	.0449	.1432	2491.		
.1710	740.	1145.	-1471.	188.	-3506.	-1303.		.0421	.0718	-.0617	-.0394	.0345	.1195	2525.		
.1720	1547.	1611.	-453.	1093.	-2564.	-2562.		.0329	.0707	-.0469	-.0149	.0316	.0976	2552.		
.1730	2187.	1957.	616.	2044.	-1273.	-3541.		.0229	.0685	-.0310	.0099	.0319	.0766	2886.		
.1740	2476.	2469.	1378.	3309.	-223.	-4091.		.0124	.0651	-.0151	.0347	.0343	.0566	3550.		
.1750	2629.	2808.	2071.	4418.	1027.	-4480.		.0016	.0602	.0011	.0590	.0376	.0384	4297.		
.1760	2778.	3024.	3111.	5119.	2535.	-4809.		-.0093	.0538	.0176	.0821	.0368	.0218	5033.		
.1770	2980.	2999.	4102.	5610.	3914.	-4962.		-.0197	.0460	.0335	.1039	.0355	.0071	5696.		
.1780	2963.	3132.	4751.	6107.	4771.	-4874.		-.0296	.0372	.0481	.1233	.0320	-.0065	6171.		
.1790	2853.	3076.	5116.	6264.	5574.	-4760.		-.0389	.0274	.0618	.1396	.0274	-.0191	6499.		
.1800	2800.	2836.	5386.	6104.	6276.	-4639.		-.0473	.0167	.0744	.1527	.0216	-.0304	6678.		
.1810	2701.	2868.	5697.	5903.	6487.	-4392.		-.0549	.0053	.0854	.1627	.0124	-.0416	6612.		
.1820	2658.	2613.	5886.	5386.	6756.	-4152.		-.0614	-.0065	.0951	.1695	.0049	-.0519	6461.		
.1830	2481.	2267.	5819.	4696.	6962.	-3846.		-.0670	-.0185	.1032	.1726	-.0014	-.0622	6226.		
.1840	2160.	1955.	5377.	4103.	6764.	-3346.		-.0717	-.0303	.1094	.1719	-.0068	-.0728	5790.		
.1850	1834.	1534.	4783.	3446.	6349.	-2754.		-.0752	-.0418	.1138	.1675	-.0129	-.0836	5211.		
.1860	1493.	1077.	4348.	2521.	5950.	-2216.		-.0777	-.0529	.1169	.1596	-.0239	-.0950	4605.		
.1870	1195.	464.	3888.	1451.	5513.	-1725.		-.0791	-.0632	.1184	.1488	-.0372	-.1063	4015.		
.1880	836.	71.	3337.	604.	4677.	-1156.		-.0794	-.0725	.1180	.1353	-.0536	-.1180	3273.		
.1890	551.	-322.	2818.	-150.	3877.	-651.		-.0786	-.0804	.1162	.1195	-.0710	-.1295	2652.		
.1900	390.	-753.	2425.	-812.	3364.	-295.		-.0767	-.0869	.1132	.1026	-.0362	-.1402	2341.		
.1910	224.	-797.	2221.	-1085.	2801.	48.		-.0738	-.0918	.1087	.0857	-.0996	-.1505	2025.		
.1920	196.	-812.	2228.	-1149.	2441.	340.		-.0698	-.0950	.1030	.0693	-.1085	-.1597	1833.		
.1930	289.	-893.	2404.	-1147.	2420.	520.		-.0651	-.0965	.0965	.0530	-.1133	-.1682	1839.		
.1940	355.	-841.	2476.	-902.	2394.	669.		-.0596	-.0961	.0888	.0369	-.1136	-.1759	1782.		
.1950	398.	-725.	2361.	-459.	2211.	835.		-.0533	-.0939	.0796	.0213	-.1089	-.1826	1623.		
.1960	519.	-760.	2231.	-151.	2023.	932.		-.0462	-.0901	.0693	.0065	-.1017	-.1880	1505.		
.1970	705.	-856.	2123.	-73.	1765.	881.		-.0384	-.0849	.0579	-.0076	-.0949	-.1915	1330.		

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ADLPIPE STRESS ANALYSIS

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18.25.58.

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

.1870	1195.	464.	3888.	1451.	5513.	-1725.	-.0777	-.0529	.1184	.1488	-.0372	-.1063	4015.
.1880	836.	71.	3337.	604.	4677.	-1156.	-.0794	-.0725	.1180	.1353	-.0536	-.1180	3273.
.1890	551.	-322.	2818.	-150.	3877.	-651.	-.0786	-.0804	.1162	.1195	-.0710	-.1295	2652.
.1900	390.	-753.	2425.	-812.	3364.	-295.	-.0767	-.0869	.1132	.1026	-.0362	-.1402	2341.
.1910	224.	-797.	2221.	-1085.	2801.	48.	-.0738	-.0918	.1087	.0857	-.0796	-.1505	2025.
.1920	196.	-812.	2228.	-1149.	2441.	340.	-.0698	-.0950	.1030	.0693	-.1.85	-.1597	1833.
.1930	289.	-893.	2404.	-1147.	2420.	520.	-.0651	-.0965	.0965	.0530	-.1177	-.1682	1839.
.1940	355.	-841.	2476.	-902.	2394.	669.	-.0596	-.0961	.0888	.0369	-.1136	-.1759	1782.
.1950	398.	-725.	2361.	-459.	2211.	835.	-.0533	-.0939	.0796	.0213	-.1089	-.1826	1623.
.1960	519.	-760.	2231.	-151.	2023.	932.	-.0462	-.0901	.0693	.0065	-.1017	-.1880	1505.
.1970	705.	-856.	2123.	-73.	1765.	881.	-.0384	-.0849	.0579	-.0076	-.0949	-.1915	1330.

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

CONDITION 24
LOADS
SHOCK
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ENGLISH UNITS

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

SECTION	5	MEMBER	2	SEQUENCE	23	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)		
.1980	890.	-859.	1863.	-59.	1243.	698.	-.0297	-.0784	.0451	-.0203	-.0374	-.1924	962.		
.1990	1068.	-842.	1361.	-42.	504.	438.	-.0200	-.0705	.0307	-.0305	-.0759	-.1894	451.		
.2000	1224.	-842.	697.	-59.	-316.	132.	-.0093	-.0618	.0148	-.0370	-.0596	-.1816	234.		
.2010	1335.	-754.	-7.	-105.	-1200.	-221.	.0024	-.0523	-.0025	-.0390	-.0403	-.1685	825.		
.2020	1434.	-604.	-670.	-204.	-2111.	-617.	.0148	-.0426	-.0209	-.0365	-.0196	-.1497	1489.		
.2030	1504.	-511.	-1309.	-379.	-3010.	-979.	.0279	-.0329	-.0400	-.0294	.0017	-.1251	2149.		
.2040	1413.	-467.	-1998.	-539.	-3927.	-1184.	.0410	-.0235	-.0596	-.0184	.0225	-.0957	2793.		
.2050	1107.	-459.	-2737.	-818.	-4815.	-1186.	.0538	-.0146	-.0789	-.0042	.0419	-.0621	3388.		
.2060	678.	-558.	-3434.	-1080.	-5565.	-1004.	.0659	-.0065	-.0972	.0118	.0589	-.0255	3881.		
.2070	181.	-756.	-4030.	-1328.	-6156.	-634.	.0768	.0006	-.1139	.0284	.0730	.0129	4266.		
.2080	-441.	-958.	-4524.	-1504.	-6562.	-67.	.0861	.0067	-.1282	.0445	.0840	.0514	4538.		
.2090	-1194.	-1157.	-4929.	-1587.	-6667.	652.	.0933	.0118	-.1397	.0590	.0930	.0885	4640.		
.2100	-1992.	-1362.	-5281.	-1503.	-6469.	1472.	.0984	.0158	-.1479	.0713	.1018	.1229	4585.		
.2110	-2774.	-1492.	-5575.	-1195.	-6096.	2352.	.1013	.0188	-.1528	.0808	.1102	.1534	4477.		
.2120	-3504.	-1553.	-5723.	-805.	-5527.	3209.	.1018	.0206	-.1542	.0875	.1165	.1782	4342.		
.2130	-4129.	-1639.	-5681.	-489.	-4716.	3959.	.1001	.0212	-.1521	.0916	.1203	.1964	4164.		
.2140	-4613.	-1730.	-5559.	-188.	-3874.	4593.	.0964	.0205	-.1470	.0936	.1223	.2074	4052.		
.2150	-4944.	-1760.	-5430.	130.	-3203.	5080.	.0910	.0187	-.1393	.0940	.1219	.2106	4049.		
.2160	-5075.	-1785.	-5191.	282.	-2611.	5314.	.0840	.0158	-.1291	.0932	.1173	.2057	3995.		
.2170	-4946.	-1842.	-4753.	200.	-2031.	5237.	.0756	.0118	-.1166	.0919	.1086	.1928	3789.		
.2180	-4544.	-1816.	-4160.	66.	-1594.	4883.	.0661	.0070	-.1022	.0906	.0978	.1727	3462.		
.2190	-3894.	-1643.	-3448.	-21.	-1292.	4259.	.0556	.0014	-.0862	.0893	.0860	.1460	3000.		
.2200	-3034.	-1391.	-2605.	-131.	-947.	3352.	.0442	-.0046	-.0684	.0876	.0732	.1133	2349.		
.2210	-2015.	-1066.	-1666.	-224.	-553.	2232.	.0319	-.0109	-.0490	.0848	.0594	.0755	1558.		
.2220	-898.	-628.	-676.	-194.	-195.	1015.	.0188	-.0174	-.0283	.0805	.0451	.0337	709.		
.2230	264.	-153.	367.	-91.	221.	-242.	.0049	-.0238	-.0065	.0741	.0300	-.0109	229.		
.2240	1392.	255.	1404.	8.	771.	-1469.	-.0096	-.0300	.0161	.0651	.0138	-.0571	1118.		
.2250	2376.	605.	2288.	173.	1313.	-2535.	-.0244	-.0359	.0390	.0533	-.0038	-.1033	1928.		
.2260	3163.	903.	2973.	426.	1778.	-3374.	-.0391	-.0413	.0614	.0390	-.0225	-.1478	2587.		
.2270	3773.	1094.	3572.	656.	2302.	-4017.	-.0533	-.0462	.0827	.0233	-.0424	-.1887	3152.		
.2280	4222.	1191.	4142.	856.	2915.	-4470.	-.0664	-.0504	.1023	.0076	-.0623	-.2240	3643.		
.2290	4488.	1273.	4600.	1140.	3478.	-4689.	-.0777	-.0538	.1192	-.0067	-.0804	-.2520	4009.		
.2300	4569.	1352.	4901.	1505.	3946.	-4696.	-.0868	-.0562	.1326	-.0183	-.0959	-.2714	4257.		
.2310	4502.	1402.	5110.	1839.	4368.	-4568.	-.0933	-.0577	.1421	-.0262	-.1092	-.2813	4437.		
.2320	4332.	1444.	5305.	2093.	4695.	-4343.	-.0970	-.0582	.1476	-.0296	-.1206	-.2813	4536.		
.2330	4087.	1482.	5485.	2266.	4857.	-4026.	-.0978	-.0578	.1487	-.0279	-.1297	-.2718	4518.		
.2340	3764.	1468.	5596.	2322.	4878.	-3629.	-.0958	-.0564	.1457	-.0215	-.1356	-.2533	4387.		
.2350	3343.	1393.	5575.	2259.	4780.	-3165.	-.0915	-.0540	.1391	-.0112	-.1378	-.2275	4154.		

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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

.2250	2376.	605.	2203.	173.	1313.	-2533.	-.2244	-.0359	.0390	.0533	-.0038	-.1033	1928.
.2260	3163.	903.	2973.	426.	1778.	-3374.	-.3391	-.0413	.0614	.0390	-.0225	-.1478	2587.
.2270	3773.	1094.	3572.	656.	2302.	-4017.	-.4033	-.0462	.0827	.0233	-.0424	-.1887	3152.
.2280	4222.	1191.	4142.	856.	2915.	-4470.	-.4484	-.0504	.1023	.0076	-.0523	-.2240	3643.
.2290	4488.	1273.	4600.	1140.	3478.	-4689.	-.4707	-.0538	.1192	-.0067	-.0904	-.2520	4009.
.2300	4569.	1352.	4901.	1505.	3946.	-4696.	-.4714	-.0562	.1326	-.0183	-.0959	-.2714	4257.
.2310	4502.	1402.	5110.	1839.	4368.	-4568.	-.4583	-.0577	.1421	-.0262	-.1092	-.2813	4437.
.2320	4332.	1444.	5305.	2093.	4695.	-4343.	-.4358	-.0582	.1476	-.0296	-.1206	-.2813	4536.
.2330	4087.	1482.	5485.	2266.	4857.	-4026.	-.4041	-.0578	.1487	-.0279	-.1297	-.2718	4518.
.2340	3764.	1468.	5596.	2322.	4878.	-3629.	-.3644	-.0564	.1457	-.0215	-.1356	-.2533	4387.
.2350	3343.	1393.	5575.	2259.	4780.	-3165.	-.3180	-.0540	.1391	-.0112	-.1378	-.2275	4154.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	5	MEMBER	2	SEQUENCE	23	LOCATION	END	TYPE	KU						
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)		
.2360	2839.	1279.	5403.	2130.	4559.	-2633.	-.0851	-.0506	.1294	.0020	-.1353	-.1958	3828.		
.2370	2292.	1119.	5115.	1955.	4275.	-2056.	-.0772	-.0461	.1173	.0170	-.1272	-.1598	3458.		
.2380	1723.	912.	4739.	1726.	4011.	-1475.	-.0682	-.0407	.1035	.0324	-.1136	-.1213	3107.		
.2390	1130.	702.	4254.	1476.	3764.	-918.	-.0586	-.0343	.0888	.0467	-.0951	-.0822	2795.		
.2400	536.	510.	3628.	1257.	3512.	-398.	-.0489	-.0271	.0738	.0587	-.0723	-.0441	2529.		
.2410	-21.	331.	2877.	1083.	3257.	60.	-.0392	-.0191	.0587	.0675	-.0458	-.0082	2314.		
.2420	-526.	187.	2053.	938.	2987.	431.	-.0296	-.0106	.0439	.0729	-.0174	.0247	2130.		
.2430	-963.	89.	1225.	774.	2671.	698.	-.0204	-.0019	.0296	.0745	.0106	.0537	1933.		
.2440	-1295.	-0.	442.	556.	2301.	852.	-.0114	-.0070	.0157	.0726	.0362	.0785	1696.		
.2450	-1515.	-81.	-290.	307.	1861.	902.	-.0026	.0156	.0023	.0673	.0587	.0989	1409.		
.2460	-1647.	-118.	-972.	76.	1330.	882.	.0060	.0239	-.0108	.0594	.0780	.1151	1077.		
.2470	-1697.	-123.	-1561.	-139.	736.	812.	.0145	.0317	-.0235	.0491	.0935	.1271	745.		
.2480	-1645.	-133.	-2015.	-371.	108.	697.	.0227	.0388	-.0357	.0367	.1041	.1353	537.		
.2490	-1499.	-127.	-2328.	-608.	-565.	544.	.0306	.0450	-.0472	.0222	.1091	.1399	669.		
.2500	-1299.	-81.	-2516.	-826.	-1270.	373.	.0379	.0504	-.0578	.0054	.1083	.1410	1052.		
.2510	-1076.	-29.	-2609.	-1015.	-1944.	223.	.0445	.0548	-.0673	-.0134	.1028	.1390	1486.		
.2520	-864.	6.	-2676.	-1144.	-2585.	134.	.0503	.0583	-.0755	-.0342	.0939	.1343	1908.		
.2530	-699.	48.	-2752.	-1205.	-3221.	126.	.0549	.0608	-.0821	-.0566	.0814	.1272	2320.		
.2540	-584.	72.	-2796.	-1268.	-3785.	181.	.0583	.0624	-.0869	-.0805	.0652	.1180	2694.		
.2550	-511.	27.	-2777.	-1374.	-4188.	298.	.0603	.0629	-.0896	-.1047	.0469	.1073	2978.		
.2560	-511.	-63.	-2769.	-1443.	-4459.	515.	.0610	.0624	-.0907	-.1282	.0293	.0959	3178.		
.2570	-616.	-150.	-2845.	-1426.	-4651.	841.	.0605	.0611	-.0902	-.1498	.0141	.0844	3328.		
.2580	-783.	-273.	-2952.	-1422.	-4712.	1217.	.0590	.0589	-.0882	-.1687	.0012	.0733	3417.		
.2590	-946.	-459.	-3011.	-1509.	-4619.	1582.	.0566	.0558	-.0849	-.1841	-.0095	.0632	3444.		
.2600	-1097.	-641.	-3036.	-1647.	-4476.	1923.	.0535	.0521	-.0806	-.1951	-.0174	.0546	3466.		
.2610	-1247.	-786.	-3072.	-1828.	-4349.	2222.	.0501	.0478	-.0759	-.2014	-.0222	.0478	3515.		
.2620	-1380.	-940.	-3126.	-2121.	-4227.	2440.	.0463	.0430	-.0706	-.2034	-.0250	.0428	3587.		
.2630	-1473.	-1100.	-3196.	-2530.	-4158.	2560.	.0423	.0380	-.0648	-.2016	-.0270	.0393	3707.		
.2640	-1522.	-1216.	-3264.	-3005.	-4186.	2589.	.0380	.0327	-.0587	-.1966	-.0287	.0373	3887.		
.2650	-1526.	-1304.	-3278.	-3540.	-4233.	2530.	.0335	.0275	-.0521	-.1888	-.0303	.0364	4092.		
.2660	-1502.	-1396.	-3234.	-4104.	-4216.	2410.	.0285	.0224	-.0448	-.1792	-.0317	.0362	4286.		
.2670	-1485.	-1458.	-3186.	-4577.	-4151.	2280.	.0230	.0177	-.0367	-.1685	-.0328	.0362	4440.		
.2680	-1489.	-1468.	-3138.	-4880.	-4011.	2165.	.0169	.0134	-.0278	-.1575	-.0337	.0360	4501.		
.2690	-1492.	-1458.	-2995.	-5020.	-3680.	2065.	.0101	.0098	-.0179	-.1463	-.0344	.0353	4420.		
.2700	-1482.	-1432.	-2699.	-4984.	-3122.	1988.	.0028	.0068	-.0070	-.1351	-.0353	.0340	4184.		
.2710	-1467.	-1352.	-2280.	-4719.	-2399.	1940.	-.0051	.0045	.0047	-.1240	-.0367	.0318	3801.		
.2720	-1444.	-1215.	-1774.	-4232.	-1550.	1896.	-.0133	.0031	.0169	-.1130	-.0391	.0286	3296.		
.2730	-1385.	-1035.	-1155.	-3578.	-574.	1814.	-.0217	.0024	.0296	-.1022	-.0427	.0245	2731.		

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S/RV PIPING KEWAUNEE GKW02F 2 RUP DISK
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CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.2630	-1473.	-1100.	-3196.	-2570.	-4158.	2560.	.0423	.0380	-.0648	-.2016	-.0270	.0393	3707.
.2640	-1522.	-1216.	-3264.	-3005.	-4186.	2589.	.0380	.0327	-.0587	-.1966	-.0287	.0373	3887.
.2650	-1526.	-1304.	-3278.	-3540.	-4233.	2530.	.0335	.0275	-.0521	-.1888	-.0303	.0364	4092.
.2660	-1502.	-1396.	-3234.	-4104.	-4216.	2410.	.0285	.0224	-.0448	-.1792	-.0317	.0362	4286.
.2670	-1485.	-1458.	-3186.	-4577.	-4151.	2220.	.0230	.0177	-.0367	-.1685	-.0328	.0362	4440.
.2680	-1489.	-1468.	-3138.	-4880.	-4011.	2165.	.0169	.0134	-.0278	-.1575	-.0337	.0360	4501.
.2690	-1492.	-1450.	-2995.	-5020.	-3680.	2065.	.0101	.0098	-.0179	-.1463	-.0344	.0353	4420.
.2700	-1482.	-1432.	-2699.	-4984.	-3122.	1988.	.0028	.0068	-.0070	-.1351	-.0353	.0340	4184.
.2710	-1467.	-1352.	-2280.	-4719.	-2399.	1940.	-.0051	.0045	.0047	-.1240	-.0367	.0318	3801.
.2720	-1444.	-1215.	-1774.	-4272.	-1550.	1896.	-.0133	.0031	.0169	-.1130	-.0391	.0286	3296.
.2730	-1385.	-1035.	-1155.	-3578.	-574.	1814.	-.0217	.0024	.0296	-.1022	-.0427	.0245	2731.

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

CONDITION 24
LOADS

SHOCK
PRESSURE

ENGLISH UNITS

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

SECTION	5	MEMBER	2	SEQUENCE	23	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)	
.2740	-1256.	-792.	-384.	-2787.	495.	1667.		-.0300	.0025	.0422	-.0910	-.0473	.0194	2214.	
.2750	-1032.	-472.	528.	-1877.	1605.	1429.		-.0379	.0034	.0544	-.0792	-.0517	.0135	1923.	
.2760	-712.	-89.	1507.	-892.	2708.	1074.		-.0453	.0051	.0660	-.0671	-.0553	.0070	2053.	
.2770	-312.	345.	2474.	113.	3733.	593.		-.0518	.0074	.0765	-.0550	-.0578	-.0004	2549.	
.2780	160.	814.	3385.	1075.	4612.	-6.		-.0576	.0104	.0858	-.0432	-.0591	-.0085	3192.	
.2790	714.	1285.	4228.	1922.	5317.	-722.		-.0623	.0139	.0937	-.0322	-.0590	-.0172	3842.	
.2800	1334.	1730.	4963.	2602.	5814.	-1540.		-.0659	.0178	.0999	-.0226	-.0575	-.0261	4417.	
.2810	1971.	2138.	5520.	3095.	6060.	-2419.		-.0685	.0221	.1045	-.0150	-.0552	-.0351	4868.	
.2820	2582.	2490.	5853.	3395.	6056.	-3308.		-.0700	.0265	.1074	-.0097	-.0521	-.0437	5184.	
.2830	3145.	2772.	5982.	3518.	5857.	-4161.		-.0705	.0311	.1086	-.0066	-.0478	-.0511	5392.	
.2840	3643.	2992.	5953.	3508.	5526.	-4928.		-.0698	.0356	.1079	-.0056	-.0419	-.0564	5522.	
.2850	4039.	3155.	5792.	3408.	5122.	-5557.		-.0680	.0400	.1055	-.0062	-.0343	-.0588	5588.	
.2860	4293.	3248.	5504.	3251.	4704.	-5991.		-.0650	.0441	.1012	-.0079	-.0250	-.0577	5583.	
.2870	4376.	3262.	5101.	3071.	4298.	-6186.		-.0610	.0478	.0951	-.0103	-.0143	-.0525	5483.	
.2880	4283.	3203.	4620.	2887.	3912.	-6114.		-.0557	.0511	.0872	-.0129	-.0029	-.0429	5266.	
.2890	4017.	3059.	4100.	2683.	3559.	-5779.		-.0494	.0537	.0774	-.0155	.0082	-.0288	4919.	
.2900	3579.	2816.	3547.	2434.	3227.	-5190.		-.0420	.0556	.0660	-.0179	.0181	-.0105	4434.	
.2910	2973.	2487.	2944.	2141.	2871.	-4363.		-.0336	.0569	.0529	-.0202	.0260	.0114	3805.	
.2920	2229.	2090.	2286.	1810.	2465.	-3340.		-.0244	.0575	.0386	-.0225	.0318	.0361	3053.	
.2930	1391.	1639.	1590.	1436.	2016.	-2186.		-.0146	.0575	.0233	-.0251	.0356	.0628	2226.	
.2940	494.	1156.	859.	1023.	1514.	-957.		-.0044	.0569	.0073	-.0280	.0378	.0903	1390.	
.2950	-429.	672.	86.	576.	934.	292.		.0059	.0558	-.0090	-.0315	.0385	.1172	765.	
.2960	-1333.	193.	-717.	86.	283.	1497.		.0161	.0543	-.0250	-.0359	.0379	.1425	1029.	
.2970	-2172.	-272.	-1537.	-447.	-429.	2601.		.0259	.0525	-.0404	-.0413	.0362	.1648	1802.	
.2980	-2918.	-703.	-2372.	-1002.	-1215.	3568.		.0351	.0504	-.0547	-.0479	.0337	.1832	2629.	
.2990	-3549.	-1095.	-3202.	-1576.	-2067.	4374.		.0433	.0481	-.0676	-.0554	.0305	.1969	3429.	
.3000	-4037.	-1455.	-3989.	-2176.	-2945.	4986.		.0503	.0456	-.0788	-.0638	.0263	.2052	4170.	
.3010	-4363.	-1770.	-4699.	-2774.	-3812.	5386.		.0561	.0430	-.0878	-.0727	.0212	.2080	4825.	
.3020	-4523.	-2008.	-5305.	-3310.	-4640.	5578.		.0605	.0404	-.0947	-.0816	.0158	.2053	5375.	
.3030	-4521.	-2165.	-5770.	-3746.	-5369.	5576.		.0634	.0378	-.0993	-.0899	.0107	.1976	5796.	
.3040	-4364.	-2242.	-6063.	-4059.	-5936.	5393.		.0649	.0352	-.1015	-.0971	.0061	.1853	6059.	
.3050	-4070.	-2224.	-6174.	-4212.	-6319.	5048.		.0649	.0327	-.1014	-.1028	.0023	.1693	6147.	
.3060	-3665.	-2105.	-6099.	-4183.	-6510.	4572.		.0636	.0303	-.0992	-.1064	-.0008	.1504	6058.	
.3070	-3174.	-1912.	-5832.	-3992.	-6485.	4000.		.0611	.0279	-.0949	-.1077	-.0033	.1293	5798.	
.3080	-2626.	-1670.	-5392.	-3658.	-6250.	3368.		.0574	.0255	-.0889	-.1065	-.0054	.1070	5384.	
.3090	-2058.	-1386.	-4828.	-3188.	-5848.	2712.		.0528	.0232	-.0813	-.1026	-.0071	.0843	4847.	
.3100	-1494.	-1077.	-4174.	-2608.	-5309.	2059.		.0473	.0209	-.0725	-.0960	-.0087	.0620	4221.	
.3110	-952.	-770.	-3445.	-1963.	-4646.	1428.		.0412	.0185	-.0628	-.0867	-.0101	.0409	3533.	

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

CONDITION 24
LOADS

SHOCK
PRESSURE

ENGLISH UNITS

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

.3010	-4363.	-1770.	-609.	-2774.	-3812.	5386.	.0561	.0430	-.0878	-.0727	.0212	.2080	4825.
.3020	-4523.	-2008.	-5305.	-3310.	-4640.	5578.	.0605	.0404	-.0947	-.0816	.0158	.2053	5375.
.3030	-4521.	-2165.	-5770.	-3746.	-5369.	5576.	.0634	.0378	-.0993	-.0899	.0107	.1976	5796.
.3040	-4364.	-2242.	-6063.	-4059.	-5936.	5393.	.0649	.0352	-.1015	-.0971	.0061	.1853	6059.
.3050	-4070.	-2224.	-6174.	-4212.	-6319.	5048.	.0649	.0327	-.1014	-.1028	.0023	.1693	6147.
.3060	-3665.	-2105.	-6099.	-4183.	-6510.	4572.	.0636	.0303	-.0992	-.1064	-.0008	.1504	6058.
.3070	-3174.	-1912.	-5832.	-3992.	-6485.	4000.	.0611	.0279	-.0949	-.1077	-.0033	.1293	5798.
.3080	-2626.	-1670.	-5392.	-3658.	-6250.	3368.	.0574	.0255	-.0889	-.1065	-.0054	.1070	5384.
.3090	-2058.	-1386.	-4828.	-3188.	-5848.	2712.	.0528	.0232	-.0813	-.1026	-.0071	.0843	4847.
.3100	-1494.	-1077.	-4174.	-2608.	-5309.	2059.	.0473	.0209	-.0725	-.0960	-.0087	.0620	4221.
.3110	-952.	-770.	-3445.	-1963.	-4646.	1428.	.0412	.0185	-.0628	-.0867	-.0101	.0409	3533.

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S/RV PIPING KEWAUNEE 6KM08F 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	5	MEMBER	2	SEQUENCE	23	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)		
.3120	-444.	-476.	-2658.	-1286.	-3880.	835.	.0347	.0160	-.0524	-.0744	-.0112	.0215	2812.		
.3130	18.	-188.	-1850.	-586.	-3051.	288.	.0279	.0134	-.0416	-.0593	-.0116	.0044	2103.		
.3140	431.	92.	-1054.	119.	-2189.	-210.	.0210	.0107	-.0308	-.0416	-.0111	-.0101	1484.		
.3150	792.	355.	-287.	797.	-1313.	-662.	.0141	.0078	-.0201	-.0214	-.0095	-.0216	1127.		
.3160	1099.	598.	439.	1421.	-452.	-1065.	.0075	.0047	-.0097	.0008	-.0070	-.0303	1235.		
.3170	1755.	820.	1109.	1973.	369.	-1424.	.0010	.0014	.0003	.0246	-.0037	-.0363	1659.		
.3180	1563.	1013.	1709.	2433.	1132.	-1739.	-.0051	-.0021	.0098	.0493	.0002	-.0398	2156.		
.3190	1718.	1163.	2221.	2793.	1821.	-2004.	-.0109	-.0058	.0187	.0742	.0045	-.0414	2622.		
.3200	1813.	1267.	2629.	3057.	2431.	-2206.	-.0164	-.0098	.0270	.0988	.0091	-.0416	3024.		
.3210	1847.	1325.	2934.	3238.	2968.	-2344.	-.0215	-.0140	.0347	.1223	.0140	-.0407	3356.		
.3220	1829.	1340.	3154.	3347.	3446.	-2421.	-.0263	-.0183	.0417	.1444	.0191	-.0394	3626.		
.3230	1768.	1316.	3310.	3400.	3881.	-2439.	-.0306	-.0228	.0481	.1645	.0241	-.0380	3847.		
.3240	1670.	1262.	3408.	3422.	4281.	-2403.	-.0345	-.0273	.0537	.1823	.0290	-.0370	4033.		
.3250	1537.	1191.	3447.	3441.	4642.	-2318.	-.0380	-.0320	.0586	.1977	.0338	-.0367	4196.		
.3260	1385.	1114.	3453.	3467.	4963.	-2196.	-.0408	-.0366	.0626	.2106	.0381	-.0374	4341.		
.3270	1238.	1031.	3460.	3490.	5244.	-2057.	-.0430	-.0412	.0658	.2208	.0415	-.0395	4467.		
.3280	1113.	943.	3476.	3502.	5469.	-1917.	-.0446	-.0458	.0679	.2283	.0434	-.0430	4564.		
.3290	1013.	857.	3491.	3508.	5609.	-1784.	-.0453	-.0503	.0689	.2331	.0437	-.0482	4619.		
.3300	944.	775.	3498.	3501.	5648.	-1666.	-.0453	-.0547	.0689	.2351	.0422	-.0553	4618.		
.3310	920.	691.	3504.	3464.	5583.	-1575.	-.0446	-.0589	.0678	.2343	.0390	-.0642	4554.		
.3320	950.	603.	3508.	3390.	5411.	-1518.	-.0431	-.0630	.0657	.2307	.0342	-.0749	4424.		
.3330	1028.	520.	3493.	3276.	5124.	-1498.	-.0410	-.0668	.0626	.2240	.0280	-.0874	4222.		
.3340	1145.	438.	3441.	3122.	4728.	-1510.	-.0382	-.0703	.0586	.2144	.0209	-.1013	3952.		
.3350	1286.	352.	3331.	2924.	4235.	-1545.	-.0349	-.0735	.0539	.2020	.0133	-.1164	3622.		
.3360	1438.	261.	3147.	2686.	3643.	-1592.	-.0311	-.0764	.0484	.1867	.0055	-.1322	3234.		
.3370	1586.	166.	2887.	2401.	2962.	-1641.	-.0270	-.0788	.0424	.1690	-.0023	-.1481	2798.		
.3380	1716.	51.	2552.	2055.	2215.	-1679.	-.0225	-.0809	.0357	.1493	-.0101	-.1635	2330.		
.3390	1806.	-89.	2137.	1658.	1419.	-1686.	-.0177	-.0825	.0285	.1283	-.0176	-.1776	1859.		
.3400	1836.	-248.	1638.	1231.	583.	-1639.	-.0125	-.0838	.0208	.1067	-.0241	-.1897	1436.		
.3410	1797.	-428.	1076.	783.	-257.	-1525.	-.0071	-.0846	.0125	.0854	-.0296	-.1990	1169.		
.3420	1689.	-635.	484.	318.	-1062.	-1340.	-.0014	-.0851	.0037	.0654	-.0336	-.2048	1172.		
.3430	1508.	-861.	-118.	-142.	-1808.	-1074.	.0047	-.0851	-.0056	.0475	-.0359	-.2066	1421.		
.3440	1255.	-1093.	-714.	-572.	-2481.	-724.	.0110	-.0848	-.0153	.0325	-.0360	-.2040	1784.		
.3450	935.	-1332.	-1286.	-966.	-3058.	-297.	.0175	-.0841	-.0255	.0208	-.0339	-.1969	2171.		
.3460	561.	-1575.	-1821.	-1324.	-3533.	192.	.0242	-.0831	-.0359	.0127	-.0297	-.1855	2546.		
.3470	146.	-1812.	-2313.	-1643.	-3921.	728.	.0310	-.0817	-.0463	.0082	-.0238	-.1701	2907.		
.3480	-296.	-2037.	-2754.	-1928.	-4226.	1287.	.0376	-.0800	-.0565	.0068	-.0166	-.1515	3249.		
.3490	-744.	-2253.	-3138.	-2190.	-4448.	1846.	.0439	-.0779	-.0662	.0082	-.0083	-.1305	3566.		

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ADLPIPE STRESS ANALYSIS

83/12/02.

18.25.58.

S/RV PIPING KEWAUNEE 6KM08F 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

.3390	1806.	-89.	2137.	1658.	1419.	-1686.	-.0177	-.0825	.0285	.1283	-.0176	-.1776	1859.
.3400	1836.	-248.	1838.	1231.	583.	-1639.	-.0125	-.0838	.0208	.1067	-.0241	-.1897	1436.
.3410	1797.	-428.	1076.	783.	-257.	-1525.	-.0071	-.0846	.0125	.0854	-.0296	-.1990	1169.
.3420	1689.	-635.	404.	318.	-1062.	-1340.	-.0014	-.0851	.0037	.0654	-.0336	-.2048	1172.
.3430	1508.	-861.	-118.	-142.	-1808.	-1074.	.0047	-.0851	-.0056	.0475	-.0359	-.2066	1421.
.3440	1255.	-1093.	-714.	-572.	-2481.	-724.	.0110	-.0848	-.0153	.0325	-.0360	-.2040	1784.
.3450	935.	-1332.	-1286.	-966.	-3053.	-297.	.0175	-.0841	-.0255	.0208	-.0339	-.1969	2171.
.3460	561.	-1575.	-1821.	-1324.	-3533.	192.	.0242	-.0831	-.0359	.0127	-.0297	-.1855	2546.
.3470	146.	-1812.	-2313.	-1643.	-3921.	728.	.0310	-.0817	-.0463	.0082	-.0238	-.1701	2907.
.3480	-296.	-2037.	-2754.	-1928.	-4226.	1237.	.0376	-.0800	-.0565	.0068	-.0166	-.1515	3249.
.3490	-744.	-2253.	-3138.	-2190.	-4448.	1846.	.0439	-.0779	-.0662	.0082	-.0083	-.1305	3566.

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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	5	MEMBER	2	SEQUENCE	23	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)	
.3500	-1185.	-2450.	-3478.	-2418.	-4600.	2382.		.0496	-.0755	-.0752	.0117	.0006	-.1081	3853.	
.3510	-1608.	-2616.	-3781.	-2602.	-4698.	2875.		.0547	-.0729	-.0831	.0168	.0100	-.0852	4106.	
.3520	-1993.	-2749.	-4038.	-2748.	-4735.	3301.		.0589	-.0699	-.0896	.0228	.0194	-.0630	4309.	
.3530	-2319.	-2846.	-4228.	-2856.	-4695.	3636.		.0619	-.0666	-.0944	.0292	.0286	-.0422	4442.	
.3540	-2572.	-2896.	-4348.	-2907.	-4585.	3868.		.0638	-.0632	-.0975	.0356	.0374	-.0237	4493.	
.3550	-2746.	-2888.	-4401.	-2886.	-4412.	3988.		.0644	-.0596	-.0985	.0416	.0456	-.0081	4456.	
.3560	-2834.	-2825.	-4376.	-2797.	-4169.	3988.		.0637	-.0558	-.0975	.0471	.0528	.0039	4322.	
.3570	-2824.	-2709.	-4255.	-2644.	-3855.	3861.		.0617	-.0519	-.0944	.0519	.0584	.0123	4087.	
.3580	-2711.	-2535.	-4025.	-2423.	-3479.	3609.		.0583	-.0481	-.0894	.0560	.0624	.0167	3753.	
.3590	-2497.	-2304.	-3685.	-2134.	-3044.	3238.		.0538	-.0443	-.0824	.0594	.0545	.0174	3323.	
.3600	-2193.	-2024.	-3247.	-1781.	-2554.	2764.		.0482	-.0405	-.0738	.0620	.0548	.0144	2806.	
.3610	-1812.	-1702.	-2724.	-1370.	-2024.	2203.		.0417	-.0369	-.0637	.0640	.0633	.0082	2218.	
.3620	-1364.	-1345.	-2127.	-912.	-1468.	1574.		.0344	-.0335	-.0523	.0652	.0599	-.0008	1576.	
.3630	-862.	-966.	-1466.	-426.	-895.	897.		.0265	-.0303	-.0401	.0657	.0548	-.0121	901.	
.3640	-327.	-580.	-764.	65.	-319.	195.		.0183	-.0272	-.0272	.0654	.0480	-.0251	256.	
.3650	217.	-200.	-53.	545.	236.	-503.		.0098	-.0245	-.0141	.0642	.0398	-.0392	524.	
.3660	747.	165.	639.	996.	752.	-1173.		.0013	-.0220	-.0008	.0621	.0303	-.0536	1155.	
.3670	1250.	501.	1302.	1398.	1224.	-1798.		-.0071	-.0198	.0121	.0591	.0196	-.0678	1743.	
.3680	1710.	801.	1929.	1736.	1655.	-2359.		-.0152	-.0178	.0246	.0552	.0083	-.0809	2267.	
.3690	2114.	1062.	2509.	2004.	2045.	-2836.		-.0228	-.0161	.0364	.0507	-.0031	-.0926	2717.	
.3700	2446.	1279.	3020.	2208.	2398.	-3213.		-.0299	-.0146	.0472	.0455	-.0142	-.1021	3085.	
.3710	2694.	1454.	3450.	2349.	2717.	-3480.		-.0363	-.0133	.0570	.0398	-.0243	-.1090	3371.	
.3720	2856.	1582.	3799.	2425.	3008.	-3631.		-.0420	-.0120	.0656	.0336	-.0331	-.1132	3574.	
.3730	2931.	1661.	4066.	2430.	3273.	-3664.		-.0469	-.0108	.0729	.0270	-.0404	-.1143	3694.	
.3740	2918.	1689.	4240.	2365.	3505.	-3582.		-.0509	-.0096	.0789	.0200	-.0460	-.1123	3735.	
.3750	2814.	1668.	4305.	2235.	3686.	-3390.		-.0540	-.0082	.0833	.0125	-.0500	-.1073	3696.	
.3760	2626.	1600.	4254.	2037.	3804.	-3101.		-.0561	-.0066	.0863	.0045	-.0524	-.0793	3582.	
.3770	2362.	1486.	4092.	1774.	3853.	-2730.		-.0573	-.0048	.0877	-.0039	-.0534	-.0887	3400.	
.3780	2039.	1336.	3829.	1453.	3824.	-2297.		-.0575	-.0025	.0875	-.0128	-.0531	-.0755	3163.	
.3790	1670.	1160.	3473.	1088.	3710.	-1822.		-.0566	.0001	.0857	-.0220	-.0517	-.0602	2881.	
.3800	1266.	967.	3030.	692.	3507.	-1323.		-.0547	.0033	.0824	-.0313	-.0493	-.0430	2569.	
.3810	841.	768.	2514.	281.	3212.	-820.		-.0518	.0071	.0774	-.0406	-.0463	-.0242	2243.	
.3820	413.	574.	1955.	-131.	2833.	-330.		-.0479	.0113	.0710	-.0497	-.0428	-.0042	1924.	
.3830	3.	390.	1388.	-536.	2383.	129.		-.0430	.0162	.0633	-.0585	-.0392	.0165	1648.	
.3840	-376.	224.	836.	-918.	1878.	544.		-.0374	.0216	.0544	-.0668	-.0359	.0377	1456.	
.3850	-719.	84.	311.	-1258.	1333.	910.		-.0310	.0274	.0446	-.0747	-.0327	.0589	1379.	
.3860	-1019.	-24.	-172.	-1538.	768.	1223.		-.0242	.0338	.0341	-.0821	-.0299	.0796	1422.	
.3870	-1266.	-97.	-589.	-1750.	216.	1476.		-.0170	.0405	.0233	-.0891	-.0273	.0994	1550.	

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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

.3770	2367.	1486.	4852.	1774.	3853.	-2730.	-.573	-.0048	.0877	-.0039	-.0534	-.0887	3400.
.3780	2039.	1336.	3029.	1453.	3024.	-2297.	-.575	-.0029	.0875	-.0128	-.0531	-.0755	3163.
.3790	1670.	1160.	3473.	1088.	3710.	-1822.	-.0566	.0001	.0857	-.0220	-.0517	-.0602	2881.
.3800	1266.	967.	3030.	692.	3507.	-1323.	-.0547	.0033	.0824	-.0313	-.0493	-.0430	2569.
.3810	841.	768.	2514.	281.	3217.	-820.	-.0518	.0071	.0774	-.0400	-.0463	-.0242	2243.
.3820	413.	574.	1955.	-131.	2833.	-330.	-.0479	.0113	.0710	-.0497	-.0428	-.0042	1924.
.3830	3.	390.	1388.	-576.	2383.	129.	-.0430	.0162	.0633	-.0585	-.0392	.0165	1648.
.3840	-376.	224.	836.	-918.	1878.	544.	-.0374	.0216	.0544	-.0668	-.0359	.0377	1456.
.3850	-719.	84.	311.	-1258.	1333.	910.	-.0310	.0274	.0446	-.0747	-.0327	.0589	1379.
.3860	-1019.	-24.	-172.	-1538.	768.	1223.	-.0242	.0338	.0341	-.0821	-.0299	.0796	1422.
.3870	-1266.	-97.	-589.	-1750.	216.	1476.	-.0170	.0405	.0233	-.0891	-.0273	.0994	1550.

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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	5	MEMBER	2	SEQUENCE	23	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)	
.3880	-1452.	-132.	-923.	-1807.	-294.	1666.		-.0098	.0476	.0124	-.0959	-.0249	.1178	1700.	
.3890	-1578.	-125.	-1181.	-1937.	-747.	1794.		-.0027	.0549	.0019	-.1028	-.0222	.1346	1850.	
.3900	-1652.	-80.	-1380.	-1899.	-1134.	1867.		.0041	.0623	-.0081	-.1099	-.0192	.1493	1951.	
.3910	-1680.	-2.	-1532.	-1786.	-1449.	1885.		.0103	.0698	-.0173	-.1173	-.0158	.1618	2004.	
.3920	-1665.	103.	-1645.	-1618.	-1697.	1850.		.0159	.0773	-.0255	-.1253	-.0119	.1719	2013.	
.3930	-1606.	224.	-1725.	-1421.	-1888.	1766.		.0208	.0845	-.0327	-.1337	-.0078	.1797	1988.	
.3940	-1511.	351.	-1792.	-1216.	-2038.	1636.		.0250	.0914	-.0387	-.1423	-.0033	.1853	1943.	
.3950	-1397.	478.	-1873.	-1019.	-2170.	1473.		.0284	.0979	-.0436	-.1509	.0013	.1891	1896.	
.3960	-1274.	601.	-1973.	-848.	-2297.	1283.		.0312	.1038	-.0476	-.1590	.0061	.1914	1863.	
.3970	-1142.	712.	-2077.	-721.	-2421.	1075.		.0333	.1090	-.0507	-.1661	.0109	.1928	1850.	
.3980	-1003.	806.	-2169.	-648.	-2536.	856.		.0350	.1134	-.0531	-.1716	.0156	.1938	1856.	
.3990	-870.	885.	-2251.	-622.	-2642.	643.		.0363	.1170	-.0549	-.1751	.0203	.1948	1880.	
.4000	-762.	948.	-2333.	-630.	-2741.	455.		.0372	.1195	-.0562	-.1761	.0249	.1962	1921.	

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)
.0930	6981.	5588.	6968.	10454.	6452.	-12177.	-.0744	.0164	.1174	.2726	.0440	-.1772	11659.

SECTION	5	MEMBER	3	SEQUENCE	24	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	-7.	3.	-6.	2.	0.	-3.		-.0000	.0000	-.0000	-.0000	.0000	.0000	2.	
.0020	-43.	11.	-35.	12.	2.	-10.		-.0000	.0000	-.0001	-.0001	.0002	.0001	7.	
.0030	-98.	-2.	-84.	21.	4.	-1.		-.0001	.0000	-.0003	-.0004	.0006	.0006	10.	
.0040	-161.	-47.	-149.	21.	3.	35.		-.0001	-.0000	-.0006	-.0010	.0014	.0015	19.	
.0050	-260.	-102.	-249.	22.	-5.	82.		-.0001	-.0000	-.0012	-.0020	.0025	.0030	40.	
.0060	-423.	-160.	-414.	30.	-28.	129.		-.0001	.0000	-.0021	-.0035	.0037	.0053	63.	
.0070	-659.	-251.	-645.	26.	-53.	201.		-.0000	.0000	-.0035	-.0057	.0056	.0087	98.	
.0080	-919.	-409.	-913.	-11.	-44.	333.		.0001	.0001	-.0055	-.0086	.0092	.0140	157.	
.0090	-1244.	-645.	-1213.	-55.	17.	548.		.0005	.0002	-.0083	-.0121	.0160	.0217	258.	
.0100	-1580.	-918.	-1572.	-54.	85.	838.		.0012	.0004	-.0120	-.0160	.0261	.0318	396.	
.0110	-1932.	-1190.	-1955.	-52.	140.	1157.		.0024	.0008	-.0167	-.0201	.0379	.0438	547.	

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83/12/02.

18.25.58.

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

.0010	-7.	3.	-6.	2.	0.	-3.	-.0000	.0000	-.0000	-.0000	.0000	.0000	0.
.0020	-43.	11.	-35.	12.	2.	-10.	-.0000	.0000	-.0001	-.0001	.0002	.0001	7.
.0030	-98.	-2.	-84.	21.	4.	-1.	-.0001	.0000	-.0003	-.0004	.0006	.0006	10.
.0040	-161.	-47.	-149.	31.	3.	35.	-.0001	-.0000	-.0006	-.0010	.0014	.0015	19.
.0050	-260.	-102.	-249.	22.	-5.	82.	-.0001	-.0000	-.0012	-.0020	.0025	.0030	40.
.0060	-426.	-160.	-414.	70.	-28.	129.	-.0001	.0000	-.0021	-.0035	.0037	.0053	63.
.0070	-659.	-251.	-645.	26.	-53.	201.	-.0000	.0000	-.0035	-.0057	.0056	.0087	98.
.0080	-939.	-409.	-913.	-11.	-44.	333.	.0001	.0001	-.0055	-.0086	.0092	.0140	157.
.0090	-1244.	-645.	-1213.	-55.	17.	548.	.0005	.0002	-.0083	-.0121	.0160	.0217	258.
.0100	-1580.	-918.	-1572.	-54.	85.	838.	.0012	.0004	-.0120	-.0160	.0261	.0318	396.
.0110	-1932.	-1190.	-1955.	-52.	140.	1157.	.0024	.0008	-.0167	-.0201	.0379	.0438	547.

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S/RV PIPING KEWAUNEE GKX05F 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	5	MEMBER	3	SEQUENCE	24	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)	
.0120	-2248.	-1432.	-2291.	-123.	191.	1449.		.0041	.0012	-.0223	-.0242	.0498	.0570	687.	
.0130	-2518.	-1596.	-2592.	-221.	193.	1680.		.0063	.0019	-.0286	-.0277	.0515	.0707	799.	
.0140	-2767.	-1674.	-2936.	-245.	63.	1863.		.0092	.0027	-.0357	-.0302	.0727	.0844	881.	
.0150	-3018.	-1750.	-3360.	-217.	-217.	2028.		.0126	.0036	-.0436	-.0320	.0827	.0978	961.	
.0160	-3317.	-1899.	-3893.	-194.	-583.	2181.		.0165	.0046	-.0523	-.0339	.0916	.1107	1062.	
.0170	-3647.	-2136.	-4490.	-203.	-1061.	2377.		.0208	.0057	-.0616	-.0366	.0986	.1229	1224.	
.0180	-3860.	-2464.	-4921.	-402.	-1645.	2669.		.0253	.0066	-.0711	-.0405	.1013	.1341	1481.	
.0190	-3854.	-2824.	-4913.	-1004.	-2053.	2941.		.0298	.0076	-.0799	-.0454	.0995	.1431	1746.	
.0200	-3608.	-2975.	-4264.	-1954.	-1932.	3025.		.0343	.0087	-.0872	-.0492	.0981	.1485	1915.	
.0210	-3207.	-2718.	-3286.	-2492.	-1247.	2940.		.0389	.0100	-.0928	-.0474	.1098	.1504	1898.	
.0220	-2572.	-2115.	-2643.	-1749.	-846.	2888.		.0441	.0117	-.0973	-.0383	.1325	.1477	1631.	
.0230	-1669.	-1269.	-2058.	-582.	-715.	2544.		.0491	.0135	-.0989	-.0256	.1481	.1352	1268.	
.0240	-1001.	-237.	-1517.	230.	-185.	1453.		.0530	.0149	-.0978	-.0127	.1550	.1117	695.	
.0250	-331.	663.	-1030.	907.	-93.	392.		.0564	.0155	-.0951	-.0003	.1515	.0797	465.	
.0260	1116.	1018.	-96.	1097.	-1344.	8.		.0596	.0148	-.0902	.0080	.1192	.0389	813.	
.0270	2756.	990.	995.	336.	-2630.	-807.		.0612	.0129	-.0814	.0112	.0616	-.0119	1299.	
.0280	3250.	1355.	1370.	-211.	-2654.	-2630.		.0603	.0102	-.0701	.0166	.0177	-.0678	1754.	
.0290	3199.	1981.	869.	1206.	-3155.	-3644.		.0590	.0066	-.0593	.0299	.0020	-.1204	2329.	
.0300	4053.	1628.	174.	3398.	-4556.	-3289.		.0578	.0018	-.0476	.0432	-.0090	-.1673	3077.	
.0310	4501.	1396.	-372.	4252.	-4976.	-3814.		.0540	-.0045	-.0339	.0470	-.0356	-.2116	3550.	
.0320	4361.	1934.	20.	3367.	-4743.	-5119.		.0476	-.0125	-.0187	.0442	-.0854	-.2521	3631.	
.0330	4691.	1856.	998.	2286.	-4904.	-5282.		.0413	-.0223	-.0041	.0441	-.1293	-.2793	3544.	
.0340	5091.	1202.	1199.	2292.	-54.6.	-4610.		.0352	-.0333	.0091	.0480	-.1545	-.2919	3509.	
.0350	4357.	1524.	390.	2889.	-5951.	-4642.		.0265	-.0448	.0221	.0502	-.1855	-.2978	3787.	
.0360	3349.	2062.	299.	2247.	-5913.	-4811.		.0154	-.0573	.0370	.0485	-.2321	-.2984	3724.	
.0370	3419.	1157.	1763.	135.	-4904.	-3778.		.0040	-.0711	.0539	.0493	-.2658	-.2877	2902.	
.0380	3379.	167.	3016.	-1042.	-3751.	-2174.		-.0080	-.0851	.0706	.0574	-.2716	-.2663	2090.	
.0390	1857.	537.	3008.	-832.	-2894.	-1189.		-.0228	-.0978	.0873	.0654	-.2731	-.2441	1517.	
.0400	397.	237.	3859.	-2279.	-418.	-340.		-.0401	-.1091	.1077	.0637	-.2762	-.2251	1097.	
.0410	222.	-1581.	5369.	-4256.	3166.	1341.		-.0568	-.1189	.1298	.0592	-.2509	-.2029	2564.	
.0420	-241.	-1994.	5615.	-3466.	5366.	3143.		-.0723	-.1257	.1486	.0607	-.1944	-.1778	3336.	
.0430	-1549.	-970.	5486.	-2348.	7320.	3954.		-.0881	-.1292	.1656	.0579	-.1377	-.1596	4051.	
.0440	-2028.	-1590.	6389.	-4040.	10995.	4203.		-.1027	-.1296	.1835	.0407	-.0886	-.1492	5832.	
.0450	-1635.	-2796.	6318.	-4794.	13308.	4671.		-.1131	-.1263	.1964	.0204	-.0349	-.1395	6981.	
.0460	-1870.	-1853.	3997.	-2198.	11990.	4797.		-.1191	-.1189	.1997	.0076	.0141	-.1298	6139.	
.0470	-2174.	-753.	2511.	-1623.	10806.	3938.		-.1219	-.1089	.1986	-.0062	.0380	-.1250	5443.	
.0480	-1090.	-1837.	3351.	-5065.	11628.	2840.		-.1203	-.0960	.1957	-.0217	.0455	-.1208	6091.	
.0490	363.	-2420.	3259.	-6190.	10484.	2170.		-.1129	-.0819	.1845	-.0219	.0599	-.1080	5795.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.25.59.

S/RV PIPING KEWAUNEE GKX05F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

.0390	1857.	537.	3008.	-832.	-2894.	-1189.	-0228	-0978	.0873	.0654	-.2731	-.2441	1517.
.0400	397.	237.	3859.	-2279.	-418.	-340.	-.0401	-.1091	.1077	.0637	-.2762	-.2251	1097.
.0410	222.	-1581.	5369.	-4256.	3166.	1341.	-.0568	-.1189	.1298	.0592	-.2509	-.2029	2564.
.0420	-241.	-1954.	5615.	-7466.	5366.	3143.	-.0723	-.1257	.1486	.0607	-.1944	-.1778	3336.
.0430	-1549.	-970.	5486.	-2348.	7320.	3954.	-.0881	-.1292	.1656	.0579	-.1377	-.1596	4051.
.0440	-2028.	-1590.	6389.	-4040.	10995.	4203.	-.1027	-.1296	.1835	.0407	-.0386	-.1492	5832.
.0450	-1635.	-2796.	6318.	-4794.	13308.	4671.	-.1131	-.1263	.1964	.0204	-.0349	-.1395	6981.
.0460	-1870.	-1853.	3997.	-2198.	11990.	4797.	-.1191	-.1189	.1997	.0076	.0141	-.1298	6139.
.0470	-2174.	-753.	2511.	-1623.	10806.	3928.	-.1219	-.1089	.1986	-.0062	.0380	-.1250	5443.
.0480	-1090.	-1837.	3351.	-5065.	11628.	2840.	-.1203	-.0969	.1957	-.0217	.0455	-.1208	6091.
.0490	367.	-2420.	3259.	-6190.	10484.	2170.	-.1129	-.0819	.1845	-.0219	.0599	-.1080	5795.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.25.59.

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	5	MEMBER	3	SEQUENCE	24	LOCATION	END	TYPE	RU						
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)				DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
.0500	656.	-661.	1155.	-3337.	6764.	1260.	-.1012	-.0638	.1639	-.0022	.0800	-.0880	-.0880	3584.	
.0510	848.	392.	509.	-2645.	5211.	-205.	-.0874	-.0442	.1420	.0233	.0733	-.0665	-.0665	2740.	
.0520	2182.	-301.	2337.	-4737.	6116.	-1302.	-.0712	-.0240	.1204	.0525	.1055	-.0401	-.0401	3676.	
.0530	3541.	447.	3589.	-3832.	5250.	-1734.	-.0520	-.0026	.0936	.0938	.1265	-.0051	-.0051	3152.	
.0540	3873.	2791.	3484.	-310.	3190.	-2379.	-.0326	.0200	.0634	.1378	.1460	.0319	.0319	1871.	
.0550	3949.	3520.	4050.	855.	3355.	-3339.	-.0150	.0424	.0363	.1670	.1495	.0630	.0630	2254.	
.0560	4241.	3024.	5017.	1005.	4081.	-3753.	.0016	.0637	.0108	.1837	.1419	.0907	.0907	2641.	
.0570	4116.	3987.	4719.	3875.	2612.	-3672.	.0178	.0841	-.0168	.1973	.1358	.1188	.1188	2785.	
.0580	3547.	5304.	3974.	6953.	1261.	-3839.	.0323	.1024	-.0434	.2019	.1308	.1434	.1434	3769.	
.0590	3003.	4726.	3793.	7456.	1881.	-4004.	.0444	.1178	-.0658	.1920	.1226	.1612	.1612	4063.	
.0600	2135.	3732.	2636.	8544.	1651.	-3576.	.0556	.1302	-.0879	.1789	.1184	.1771	.1771	4409.	
.0610	715.	4062.	81.	11696.	-439.	-3072.	.0666	.1391	-.1119	.1710	.1243	.1948	.1948	5671.	
.0620	-404.	4111.	-1660.	13019.	-1566.	-3019.	.0769	.1433	-.1335	.1630	.1325	.2124	.2124	6306.	
.0630	-811.	2789.	-2026.	11389.	-1544.	-2857.	.0866	.1424	-.1516	.1538	.1346	.2285	.2285	5550.	
.0640	-1321.	1799.	-3147.	10430.	-3158.	-2284.	.0963	.1372	-.1700	.1507	.1372	.2451	.2451	5218.	
.0650	-2223.	1806.	-5405.	10686.	-6129.	-1971.	.1053	.1280	-.1883	.1523	.1300	.2613	.2613	5846.	
.0660	-2690.	1298.	-6797.	9085.	-8060.	-2037.	.1124	.1144	-.2019	.1501	.1210	.2739	.2739	5771.	
.0670	-2506.	29.	-6850.	5616.	-9259.	-1748.	.1173	.0967	-.2099	.1429	.1012	.2813	.2813	5141.	
.0680	-2471.	-749.	-7030.	2890.	-10980.	-1032.	.1194	.0761	-.2140	.1339	.0817	.2833	.2833	5343.	
.0690	-2898.	-1090.	-7743.	1144.	-12185.	-397.	.1176	.0534	-.2127	.1190	.0720	.2777	.2777	5738.	
.0700	-3346.	-1972.	-8228.	-758.	-11910.	385.	.1115	.0294	-.2042	.0924	.0697	.2621	.2621	5596.	
.0710	-3785.	-3199.	-8532.	-2288.	-11182.	1768.	.1016	.0045	-.1896	.0552	.0681	.2365	.2365	5413.	
.0720	-4574.	-4060.	-9052.	-2985.	-10545.	3295.	.0881	-.0204	-.1703	.0093	.0618	.2011	.2011	5363.	
.0730	-5503.	-4783.	-9259.	-3976.	-9212.	4433.	.0713	-.0447	-.1457	-.0471	.0438	.1550	.1550	5140.	
.0740	-6039.	-5784.	-8751.	-5546.	-7242.	5513.	.0525	-.0677	-.1165	-.1115	.0134	.1003	.1003	4995.	
.0750	-6283.	-6649.	-8304.	-6237.	-5633.	6777.	.0335	-.0884	-.0858	-.1746	-.0193	.0412	.0412	5059.	
.0760	-6650.	-6930.	-8383.	-5603.	-4467.	7704.	.0151	-.1063	-.0554	-.2288	-.0483	-.0192	-.0192	4931.	
.0770	-6840.	-6559.	-8000.	-5141.	-3098.	8000.	-.0021	-.1212	-.0249	-.2720	-.0816	-.0800	-.0800	4687.	
.0780	-6168.	-6318.	-6198.	-5817.	-1385.	8002.	-.0170	-.1331	.0054	-.3019	-.1227	-.1386	-.1386	4682.	
.0790	-4777.	-5925.	-3667.	-6587.	266.	7812.	-.0287	-.1418	.0337	-.3126	-.1501	-.1912	-.1912	4790.	
.0800	-3476.	-4936.	-1715.	-6158.	1435.	7175.	-.0374	-.1466	.0582	-.3007	-.1768	-.2363	-.2363	4482.	
.0810	-2390.	-3655.	-262.	-5118.	2132.	6153.	-.0435	-.1474	.0790	-.2703	-.1871	-.2756	-.2756	3881.	
.0820	-897.	-2749.	1680.	-4899.	2755.	4963.	-.0473	-.1449	.0977	-.2288	-.2001	-.3097	-.3097	3514.	
.0830	1109.	-2021.	4074.	-5361.	3336.	3487.	-.0492	-.1391	.1144	-.1796	-.2131	-.3377	-.3377	3380.	
.0840	2969.	-838.	5969.	-5257.	3401.	1640.	-.0498	-.1300	.1280	-.1239	-.2190	-.3591	-.3591	3033.	
.0850	4416.	491.	7098.	-4490.	3058.	-281.	-.0500	-.1175	.1391	-.0663	-.2169	-.3754	-.3754	2549.	
.0860	5752.	1341.	7819.	-3676.	2969.	-2073.	-.0503	-.1023	.1489	-.0119	-.2064	-.3864	-.3864	2418.	
.0870	7003.	2165.	8145.	-2444.	3091.	-3839.	-.0506	-.0850	.1571	.0388	-.1844	-.3896	-.3896	2578.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.25.59.

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

.0770	-6840.	-6559.	-8000.	-5141.	-3098.	8000.	-1021.	-1212.	-0249.	-2720.	-0816.	-0800.	4687.
.0780	-6168.	-6318.	-6198.	-5817.	-1385.	8002.	-1170.	-1331.	.0054.	-3019.	-1227.	-1386.	4682.
.0790	-4777.	-5925.	-3667.	-6587.	266.	7812.	-0287.	-1418.	.0337.	-3126.	-1581.	-1912.	4790.
.0800	-3476.	-4936.	-1715.	-6158.	1435.	7175.	-0374.	-1466.	.0582.	-3007.	-1768.	-2363.	4482.
.0810	-2390.	-3655.	-262.	-5118.	2132.	6153.	-0435.	-1474.	.0790.	-2703.	-1871.	-2756.	3881.
.0820	-893.	-2749.	1680.	-4859.	2755.	4963.	-0473.	-1449.	.0977.	-2288.	-2001.	-3097.	3514.
.0830	1109.	-2091.	4074.	-5361.	3336.	3487.	-0492.	-1391.	.1144.	-1796.	-2131.	-3377.	3380.
.0840	2969.	-378.	5969.	-5257.	3401.	1640.	-0498.	-1300.	.1280.	-1239.	-2190.	-3591.	3033.
.0850	4416.	491.	7098.	-4490.	3058.	-281.	-0500.	-1175.	.1391.	-0663.	-2169.	-3754.	2549.
.0860	5752.	1341.	7819.	-3676.	2969.	-2073.	-0503.	-1023.	.1489.	-0119.	-2064.	-3864.	2418.
.0870	7303.	2165.	8140.	-2444.	3091.	-3839.	-0506.	-0850.	.1571.	.0388.	-1844.	-3896.	2578.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.25.59.

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	5	MEMBER	3	SEQUENCE	24	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ			DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.0880	7906.	3493.	8133.	-529.	3080.	-5536.		-0512	-0664	.1629	.0877	-1527	-3835	2979.	
.0890	8485.	4573.	8312.	1013.	3482.	-6883.		-0520	-0476	.1669	.1334	-1158	-3681	3646.	
.0900	8789.	4848.	8628.	1866.	4655.	-7776.		-0528	-0294	.1690	.1752	-0731	-3427	4336.	
.0910	8556.	5089.	8267.	3367.	5646.	-8300.		-0532	-0122	.1672	.2158	-0236	-3055	4962.	
.0920	7799.	5632.	7328.	5550.	5938.	-8442.		-0526	.0034	.1609	.2559	.0250	-2570	5492.	
.0930	6981.	5588.	6968.	6459.	6452.	-8175.		-0512	.0164	.1517	.2914	.0626	-1998	5743.	
.0940	6226.	4853.	7388.	5724.	7481.	-7645.		-0489	.0266	.1405	.3204	.0888	-1362	5685.	
.0950	5222.	4472.	7555.	5234.	8019.	-6977.		-0455	.0345	.1259	.3449	.1109	-0675	5552.	
.0960	3989.	4520.	7084.	5595.	7889.	-6109.		-0411	.0403	.1081	.3635	.1342	.0033	5361.	
.0970	2824.	4133.	6546.	5581.	7968.	-5010.		-0361	.0440	.0893	.3713	.1570	.0712	5128.	
.0980	1692.	3441.	6101.	4935.	8236.	-3831.		-0311	.0455	.0704	.3663	.1753	.1323	4845.	
.0990	482.	3094.	5438.	4388.	7985.	-2697.		-0261	.0451	.0511	.3488	.1867	.1839	4453.	
.1000	-603.	2681.	4574.	3739.	7363.	-1555.		-0212	.0430	.0324	.3170	.1907	.2235	3938.	
.1010	-1539.	1635.	3463.	2637.	6717.	-363.		-0168	.0396	.0151	.2701	.1869	.2484	3386.	
.1020	-2635.	468.	1749.	1744.	5624.	768.		-0128	.0352	-0013	.2118	.1760	.2582	2783.	
.1030	-3756.	-364.	-285.	1238.	4014.	1730.		-0090	.0302	-0166	.1466	.1597	.2542	2129.	
.1040	-4331.	-1267.	-1771.	262.	2625.	2553.		-0048	.0245	-0299	.0768	.1399	.2385	1720.	
.1050	-4334.	-2299.	-2630.	-1176.	1630.	3247.		-0001	.0187	-0411	.0059	.1189	.2131	1790.	
.1060	-4286.	-2835.	-3582.	-1980.	451.	3710.		.0052	.0133	-0516	-0607	.0996	.1801	1982.	
.1070	-4220.	-2870.	-4702.	-2026.	-875.	3911.		.0113	.0085	-0618	-1199	.0842	.1426	2105.	
.1080	-3671.	-2931.	-5088.	-2451.	-1655.	3950.		.0185	.0041	-0710	-1719	.0715	.1030	2312.	
.1090	-2609.	-3024.	-4381.	-3547.	-1615.	3900.		.0268	.0001	-0794	-2147	.0644	.0637	2590.	
.1100	-1865.	-2749.	-4726.	-3075.	-2787.	3886.		.0365	-0030	-0902	-2460	.0606	.0279	2664.	
.1110	-1626.	-2333.	-5601.	-2362.	-4643.	3636.		.0452	-0053	-1022	-2723	.0423	-0071	2977.	
.1120	-1228.	-2568.	-5617.	-3423.	-5874.	3111.		.0554	-0071	-1129	-2989	.0033	-0413	3504.	
.1130	-529.	-3089.	-5317.	-4803.	-7058.	2658.		.0648	-0084	-1234	-3205	-0388	-0691	4190.	
.1140	-193.	-2978.	-5804.	-4533.	-9155.	2415.		.0742	-0086	-1354	-3313	-0714	-0879	4919.	
.1150	-405.	-2703.	-6605.	-3832.	-11026.	2117.		.0820	-0078	-1465	-3356	-0994	-1006	5560.	
.1160	-632.	-3035.	-6935.	-3995.	-11568.	1636.		.0878	-0062	-1544	-3376	-1247	-1073	5789.	
.1170	-791.	-3064.	-7204.	-3541.	-12005.	1376.		.0921	-0040	-1604	-3323	-1420	-1050	5901.	
.1180	-1123.	-2479.	-8006.	-1680.	-13179.	1296.		.0951	-0013	-1656	-3170	-1513	-0931	6255.	
.1190	-1670.	-1910.	-8050.	-890.	-13725.	1143.		.0950	.0012	-1669	-2984	-1701	-0776	6467.	
.1200	-1969.	-2191.	-6931.	-2029.	-12680.	929.		.0919	.0033	-1627	-2791	-1923	-0596	6033.	
.1210	-2028.	-2657.	-6247.	-2164.	-11515.	1051.		.0872	.0053	-1557	-2515	-1960	-0342	5513.	
.1220	-2672.	-1884.	-6665.	103.	-11706.	1463.		.0806	.0076	-1480	-2129	-1844	-0042	5529.	
.1230	-3464.	-1536.	-6530.	1164.	-10851.	1681.		.0710	.0094	-1334	-1737	-1726	.0238	5175.	
.1240	-3725.	-2164.	-4916.	-295.	-8151.	1629.		.0586	.0105	-1166	-1390	-1543	.0479	3898.	
.1250	-3669.	-2163.	-3457.	-791.	-6090.	1707.		.0452	.0116	-0955	-1020	-1463	.0714	2987.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.25.59.

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

.1150	-405.	-2703.	-605.	-3832.	-11026.	2117.	.8820	-.0078	-.1465	-.3356	-.0794	-.1006	5560.
.1160	-632.	-3035.	-6935.	-3995.	-11568.	1686.	.8878	-.0062	-.1544	-.3376	-.1247	-.1073	5789.
.1170	-791.	-3064.	-7204.	-3541.	-12005.	1376.	.0921	-.0040	-.1604	-.3323	-.1420	-.1050	5901.
.1180	-1123.	-2479.	-8006.	-1680.	-12179.	1296.	.0951	-.0013	-.1656	-.3170	-.1513	-.0931	6255.
.1190	-1670.	-1910.	-8050.	-890.	-13725.	1143.	.0950	.0012	-.1669	-.2984	-.1701	-.0776	6467.
.1200	-1969.	-2191.	-6931.	-2029.	-12680.	929.	.0919	.0033	-.1627	-.2791	-.1933	-.0596	6033.
.1210	-2028.	-2657.	-6247.	-2164.	-11515.	1051.	.0872	.0053	-.1557	-.2515	-.1960	-.0342	5513.
.1220	-2672.	-1884.	-6665.	103.	-11706.	1463.	.0806	.0076	-.1480	-.2129	-.1844	-.0042	5529.
.1230	-3464.	-1536.	-6530.	1164.	-10851.	1681.	.0710	.0094	-.1354	-.1737	-.1726	.0238	5175.
.1240	-3725.	-2164.	-4916.	-295.	-8151.	1629.	.0586	.0105	-.1166	-.1390	-.1543	.0479	3898.
.1250	-3609.	-2163.	-3457.	-791.	-6090.	1707.	.0452	.0116	-.0955	-.1020	-.1463	.0714	2987.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.25.59.

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	5	MEMBER	3	SEQUENCE	24	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)		
.1260	-3508.	-1366.	-2059.	646.	-5116.	1875.	.0309	.0131	-.0736	-.0624	-.1130	.0932	2572.		
.1270	-3489.	-789.	-2165.	872.	-3126.	1656.	.0147	.0146	-.0479	-.0295	-.0806	.1059	1707.		
.1280	-3064.	-1052.	-606.	-410.	188.	1185.	-.0027	.0161	-.0187	-.0039	-.0441	.1109	594.		
.1290	-2454.	-487.	256.	-55.	2183.	860.	-.0192	.0178	.0094	.0220	.0012	.1128	1100.		
.1300	-1868.	840.	651.	1275.	3089.	497.	-.0350	.0197	.0362	.0458	.0453	.1095	1583.		
.1310	-1035.	963.	1629.	592.	5160.	-164.	-.0507	.0212	.0643	.0599	.0783	.0978	2435.		
.1320	-172.	712.	2820.	-900.	7206.	-851.	-.0655	.0226	.0914	.0681	.0971	.0796	3427.		
.1330	689.	1208.	3251.	-735.	7655.	-1285.	-.0779	.0241	.1144	.0783	.1135	.0611	3654.		
.1340	1645.	2041.	3857.	-345.	7833.	-1771.	-.0882	.0256	.1346	.0884	.1252	.0421	3767.		
.1350	2750.	2175.	5527.	-1647.	9368.	-2458.	-.0971	.0268	.1540	.0943	.1283	.0207	4604.		
.1360	3778.	2105.	7013.	-2570.	10927.	-3951.	-.1039	.0283	.1703	.1004	.1326	.0007	5439.		
.1370	4396.	3190.	7585.	-1310.	10964.	-3171.	-.1081	.0303	.1810	.1097	.1366	-.0165	5384.		
.1380	5087.	4125.	8324.	-254.	11272.	-3450.	-.1103	.0325	.1887	.1148	.1352	-.0320	5526.		
.1390	5862.	4262.	9816.	-809.	12446.	-3812.	-.1113	.0343	.1947	.1117	.1195	-.0479	6112.		
.1400	6225.	4507.	10799.	-928.	12686.	-3940.	-.1104	.0361	.1961	.1045	.0926	-.0624	6240.		
.1410	6172.	4904.	10618.	178.	11763.	-3864.	-.1076	.0382	.1923	.0944	.0639	-.0735	5803.		
.1420	5912.	5050.	10328.	824.	10923.	-3851.	-.1036	.0401	.1854	.0774	.0290	-.0534	5441.		
.1430	5670.	4491.	10181.	557.	10558.	-3759.	-.0982	.0418	.1761	.0546	-.0566	-.0910	5259.		
.1440	5139.	4133.	9414.	958.	9384.	-3411.	-.0911	.0433	.1624	.0322	-.0373	-.0939	4701.		
.1450	4331.	4118.	8059.	1939.	7539.	-3032.	-.0824	.0449	.1447	.0106	-.0526	-.0918	3915.		
.1460	3697.	3567.	6856.	2005.	6252.	-2817.	-.0725	.0461	.1251	-.0134	-.0843	-.0853	3348.		
.1470	3106.	2997.	5839.	1552.	4954.	-2597.	-.0616	.0470	.1035	-.0377	-.1052	-.0745	2720.		
.1480	2415.	2628.	4212.	1782.	2926.	-2189.	-.0492	.0476	.0785	-.0577	-.1168	-.0572	1905.		
.1490	1612.	2357.	2296.	2093.	574.	-1763.	-.0360	.0480	.0515	-.0750	-.1236	-.0346	1310.		
.1500	929.	1780.	890.	1286.	-1341.	-1429.	-.0229	.0477	.0245	-.0932	-.1341	-.0092	1098.		
.1510	426.	817.	-344.	6.	-3030.	-998.	-.0099	.0471	-.0024	-.1109	-.1423	.0201	1495.		
.1520	-353.	270.	-1943.	-510.	-5174.	-411.	.0027	.0463	-.0296	-.1249	-.1444	.0527	2444.		
.1530	-1346.	-310.	-3700.	-772.	-6995.	227.	.0141	.0456	-.0556	-.1365	-.1374	.0873	3299.		
.1540	-2303.	-1112.	-4869.	-1622.	-7866.	876.	.0237	.0448	-.0785	-.1486	-.1261	.1212	3786.		
.1550	-3124.	-1841.	-5628.	-2401.	-8177.	1629.	.0319	.0442	-.0984	-.1597	-.1077	.1546	4066.		
.1560	-3928.	-2403.	-6685.	-2226.	-8390.	2484.	.0387	.0441	-.1160	-.1681	-.0773	.1877	4231.		
.1570	-4954.	-2563.	-7689.	-1716.	-8496.	3236.	.0436	.0445	-.1307	-.1759	-.0482	.2164	4336.		
.1580	-5791.	-3022.	-8182.	-1866.	-7909.	3928.	.0467	.0453	-.1413	-.1859	-.0244	.2393	4210.		
.1590	-6247.	-3583.	-8473.	-2016.	-7220.	4357.	.0488	.0465	-.1488	-.1954	-.0035	.2576	4062.		
.1600	-6628.	-3441.	-8833.	-1448.	-7254.	4772.	.0500	.0483	-.1542	-.2017	.0102	.2705	4125.		
.1610	-6829.	-3241.	-8765.	-1287.	-7033.	4946.	.0501	.0504	-.1565	-.2059	.0174	.2767	4074.		
.1620	-6572.	-3669.	-8242.	-1810.	-5957.	4946.	.0498	.0527	-.1553	-.2070	.0275	.2776	3726.		
.1630	-6260.	-3437.	-7889.	-1382.	-5507.	4898.	.0492	.0555	-.1527	-.2004	.0395	.2742	3514.		

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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

.1530	-1346.	-310.	-3700.	-772.	-6995.	227.	.0141	.0456	-.0556	-.1365	-.1374	.0873	2444.
.1540	-2303.	-1112.	-4869.	-1622.	-7866.	876.	.0237	.0448	-.0785	-.1486	-.1261	.1212	3786.
.1550	-3124.	-1841.	-5628.	-2401.	-8177.	1629.	.0319	.0442	-.0984	-.1597	-.1077	.1546	4066.
.1560	-3928.	-2403.	-6685.	-2226.	-8390.	2484.	.0387	.0441	-.1160	-.1681	-.0773	.1877	4231.
.1570	-4954.	-2563.	-7689.	-1710.	-8496.	3236.	.0436	.0445	-.1307	-.1759	-.0482	.2164	4336.
.1580	-5791.	-3022.	-8182.	-1866.	-7909.	3828.	.0467	.0453	-.1413	-.1859	-.0244	.2393	4210.
.1590	-6247.	-3583.	-8473.	-2016.	-7220.	4352.	.0488	.0465	-.1488	-.1954	-.0035	.2576	4062.
.1600	-6628.	-3441.	-8833.	-1448.	-7254.	4772.	.0500	.0483	-.1542	-.2017	.0102	.2705	4125.
.1610	-6829.	-3241.	-8765.	-1287.	-7033.	4946.	.0501	.0504	-.1565	-.2059	.0174	.2767	4074.
.1620	-6572.	-3669.	-8242.	-1810.	-5957.	4946.	.0498	.0527	-.1553	-.2070	.0275	.2776	3726.
.1630	-6260.	-3437.	-7809.	-1392.	-5507.	4898.	.0492	.0555	-.1527	-.2004	.0395	.2742	3514.

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ADLPIPE STRESS ANALYSIS

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CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	5	MEMBER	3	SEQUENCE	24	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)	
.1640	-5852.	-2682.	-7649.	-294.	-5506.	4689.		.0485	.0586	-.1487	-.1871	.0518	.2667	3392.	
.1650	-5038.	-2419.	-6861.	-163.	-4801.	4192.		.0474	.0615	-.1417	-.1719	.0506	.2542	2988.	
.1660	-4049.	-2126.	-5668.	-522.	-4090.	3523.		.0457	.0642	-.1325	-.1543	.0607	.2367	2541.	
.1670	-3039.	-1472.	-4832.	-171.	-4086.	2808.		.0438	.0668	-.1226	-.1326	.0583	.2167	2325.	
.1680	-2053.	-626.	-4124.	393.	-4270.	1933.		.0413	.0691	-.1113	-.1092	.0528	.1941	2204.	
.1690	-959.	-240.	-3216.	368.	-3901.	930.		.0378	.0708	-.0976	-.0867	.0447	.1692	1887.	
.1700	28.	182.	-2339.	459.	-3588.	-10.		.0334	.0717	-.0825	-.0634	.0345	.1431	1695.	
.1710	740.	1145.	-1471.	1032.	-3506.	-878.		.0279	.0718	-.0665	-.0381	.0244	.1170	1762.	
.1720	1547.	1611.	-453.	1353.	-2564.	-1675.		.0216	.0708	-.0485	-.0122	.0242	.0929	1569.	
.1730	2187.	1257.	616.	1690.	-1273.	-2288.		.0143	.0685	-.0295	.0141	.0282	.0701	1460.	
.1740	2476.	2469.	1378.	2520.	-223.	-2672.		.0062	.0651	-.0104	.0412	.0337	.0491	1724.	
.1750	2629.	2808.	2071.	3231.	1027.	-2973.		-.0023	.0602	.0088	.0674	.0406	.0302	2113.	
.1760	2778.	3024.	3111.	3336.	2535.	-3216.		-.0112	.0539	.0283	.0915	.0442	.0129	2475.	
.1770	2980.	2999.	4102.	3259.	3914.	-3253.		-.0198	.0461	.0469	.1137	.0468	-.0020	2832.	
.1780	2963.	3132.	4751.	3383.	4771.	-3175.		-.0280	.0372	.0639	.1338	.0457	-.0155	3119.	
.1790	2853.	3076.	5116.	3331.	5574.	-3125.		-.0359	.0274	.0796	.1503	.0435	-.0278	3377.	
.1800	2800.	2836.	5386.	3016.	6276.	-3034.		-.0429	.0167	.0937	.1628	.0397	-.0389	3559.	
.1810	2701.	2868.	5697.	2637.	6487.	-2843.		-.0492	.0053	.1059	.1721	.0311	-.0497	3542.	
.1820	2658.	2613.	5886.	2011.	6756.	-2629.		-.0545	-.0065	.1163	.1777	.0244	-.0594	3525.	
.1830	2481.	2267.	5819.	1360.	6962.	-2424.		-.0590	-.0185	.1248	.1793	.0187	-.0691	3513.	
.1840	2160.	1955.	5377.	1021.	6764.	-2108.		-.0624	-.0303	.1308	.1776	.0127	-.0789	3354.	
.1850	1834.	1534.	4783.	704.	6349.	-1703.		-.0647	-.0418	.1346	.1721	.0054	-.0886	3098.	
.1860	1493.	1077.	4348.	28.	5950.	-1360.		-.0660	-.0528	.1366	.1625	-.0068	-.0990	2860.	
.1870	1195.	464.	3888.	-778.	5513.	-1040.		-.0661	-.0632	.1366	.1496	-.0213	-.1093	2654.	
.1880	836.	71.	3337.	-1309.	4677.	-677.		-.0651	-.0725	.1344	.1345	-.0402	-.1200	2298.	
.1890	551.	-322.	2818.	-1766.	3877.	-335.		-.0630	-.0805	.1306	.1174	-.0598	-.1306	2002.	
.1900	390.	-753.	2425.	-2703.	3364.	-71.		-.0598	-.0870	.1255	.0992	-.0765	-.1406	1885.	
.1910	224.	-797.	2221.	-2558.	2801.	177.		-.0557	-.0918	.1189	.0819	-.0915	-.1502	1718.	
.1920	196.	-812.	2228.	-2426.	2441.	452.		-.0507	-.0950	.1113	.0653	-.1015	-.1588	1627.	
.1930	289.	-893.	2404.	-2526.	2420.	686.		-.0449	-.0965	.1028	.0490	-.1064	-.1668	1671.	
.1940	355.	-841.	2476.	-2322.	2394.	872.		-.0386	-.0961	.0932	.0333	-.1067	-.1742	1615.	
.1950	398.	-725.	2361.	-1812.	2211.	1063.		-.0315	-.0939	.0822	.0188	-.1025	-.1805	1430.	
.1960	519.	-760.	2231.	-1430.	2023.	1230.		-.0237	-.0901	.0701	.0047	-.0959	-.1856	1296.	
.1970	705.	-856.	2123.	-1290.	1765.	1285.		-.0155	-.0850	.0570	-.0091	-.0398	-.1891	1188.	
.1980	890.	-859.	1863.	-1128.	1243.	1208.		-.0067	-.0784	.0427	-.0216	-.0838	-.1903	969.	
.1990	1068.	-842.	1361.	-823.	504.	1050.		.0027	-.0706	.0271	-.0315	-.0745	-.1877	668.	
.2000	1224.	-842.	697.	-458.	-316.	834.		.0125	-.0618	.0103	-.0376	-.0605	-.1805	470.	
.2010	1335.	-754.	-7.	-101.	-1200.	545.		.0227	-.0523	-.0072	-.0393	-.0438	-.1681	619.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.25.59.

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

.1910	224.	-797.	2221.	-2358.	2801.	177.	-0.0557	-0.0918	.1189	.0219	-0.0915	-0.1502	1718.
.1920	196.	-612.	2228.	-2426.	2441.	452.	-0.0507	-0.0950	.1113	.0653	-0.1015	-0.1588	1627.
.1930	289.	-893.	2404.	-2526.	2420.	686.	-0.0449	-0.0765	.1028	.0490	-0.1064	-0.1668	1671.
.1940	355.	-841.	2476.	-2322.	2394.	672.	-0.0386	-0.0961	.0932	.0333	-0.1067	-0.1742	1615.
.1950	393.	-725.	2361.	-1812.	2211.	1063.	-0.0315	-0.0939	.0822	.0188	-0.1025	-0.1805	1430.
.1960	519.	-760.	2231.	-1470.	2023.	1236.	-0.0237	-0.0901	.0701	.0047	-0.0959	-0.1856	1296.
.1970	705.	-856.	2123.	-1290.	1765.	1285.	-0.0155	-0.0850	.0570	-0.0091	-0.0898	-0.1891	1188.
.1980	890.	-859.	1863.	-1128.	1243.	1208.	-0.0067	-0.0784	.0427	-0.0216	-0.0838	-0.1903	969.
.1990	1068.	-842.	1361.	-823.	504.	1050.	.0027	-0.0706	.0271	-0.0315	-0.0745	-0.1877	668.
.2000	1224.	-842.	697.	-458.	-316.	834.	.0125	-0.0618	.0103	-0.0376	-0.0605	-0.1005	470.
.2010	1335.	-754.	-7.	-101.	-1200.	545.	.0227	-0.0523	-0.0072	-0.0393	-0.0438	-0.1681	619.

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S/RV PIPING KEWAUNEE GKW02F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSVCONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITSINTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	MEMBER	SEQUENCE	LOCATION	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)	
.2020	1434.	-604.	-670.	160.	-2111.	205.	.0329	-0.0426	-0.0254	-0.0365	-0.0257	-0.1501	998.	
.2030	1504.	-511.	-1309.	172.	-3010.	-117.	.0431	-0.0329	-0.0437	-0.0295	-0.0070	-0.1264	1422.	
.2040	1413.	-467.	-1998.	556.	-3927.	-374.	.0527	-0.0235	-0.0619	-0.0184	.0112	-0.0974	1867.	
.2050	1107.	-459.	-2737.	751.	-4815.	-551.	.0615	-0.0146	-0.0796	-0.0043	.0280	-0.0641	2298.	
.2060	678.	-558.	-3434.	889.	-5565.	-615.	.0691	-0.0066	-0.0961	.0116	.0429	-0.0273	2657.	
.2070	181.	-756.	-4030.	982.	-6156.	-530.	.0753	.0006	-0.1108	.0281	.0553	.0116	2932.	
.2080	-441.	-958.	-4524.	1090.	-6552.	-320.	.0799	.0067	-0.1233	.0440	.0651	.0510	3121.	
.2090	-1194.	-1157.	-4929.	1239.	-6667.	-33.	.0825	.0118	-0.1330	.0586	.0738	.0892	3178.	
.2100	-1992.	-1362.	-5281.	1524.	-6469.	329.	.0834	.0158	-0.1398	.0713	.0832	.1249	3118.	
.2110	-2774.	-1492.	-5575.	2001.	-6096.	762.	.0824	.0188	-0.1435	.0817	.0926	.1568	3028.	
.2120	-3504.	-1553.	-5723.	2476.	-5527.	1200.	.0799	.0206	-0.1440	.0893	.1005	.1831	2893.	
.2130	-4129.	-1639.	-5681.	2768.	-4716.	1592.	.0758	.0211	-0.1414	.0941	.1067	.2026	2669.	
.2140	-4613.	-1730.	-5559.	2999.	-3874.	1948.	.0707	.0205	-0.1359	.0967	.1112	.2146	2471.	
.2150	-4944.	-1760.	-5430.	3243.	-3203.	2246.	.0649	.0187	-0.1282	.0978	.1127	.2187	2381.	
.2160	-5075.	-1785.	-5191.	3258.	-2611.	2405.	.0584	.0158	-0.1180	.0971	.1098	.2142	2258.	
.2170	-4946.	-1842.	-4753.	2925.	-2031.	2402.	.0515	.0118	-0.1057	.0953	.1028	.2013	2013.	
.2180	-4544.	-1816.	-4160.	2451.	-1594.	2278.	.0445	.0069	-0.0914	.0934	.0932	.1807	1737.	
.2190	-3894.	-1643.	-3448.	1956.	-1292.	2027.	.0374	.0014	-0.0756	.0915	.0823	.1530	1452.	
.2200	-3034.	-1391.	-2605.	1363.	-947.	1613.	.0301	-0.0046	-0.0580	.0889	.0705	.1188	1085.	
.2210	-2015.	-1066.	-1666.	731.	-553.	1077.	.0225	-0.0109	-0.0389	.0853	.0578	.0792	663.	
.2220	-898.	-628.	-676.	194.	-195.	500.	.0146	-0.0174	-0.0187	.0805	.0445	.0354	267.	
.2230	264.	-153.	367.	-302.	221.	-91.	.0063	-0.0238	.0024	.0737	.0306	-0.0113	180.	
.2240	1392.	255.	1404.	-797.	771.	-671.	-0.0025	-0.0300	.0240	.0642	.0160	-0.0594	607.	
.2250	2376.	605.	2288.	-1139.	1313.	-1173.	-0.0115	-0.0359	.0455	.0522	.0000	-0.1074	983.	
.2260	3163.	903.	2977.	-1279.	1778.	-1561.	-0.0208	-0.0413	.0662	.0381	-0.0174	-0.1533	1260.	
.2270	3773.	1094.	3572.	-1092.	2302.	-1854.	-0.0300	-0.0462	.0858	.0225	-0.0357	-0.1952	1531.	
.2280	4222.	1191.	4167.	-1518.	2915.	-2050.	-0.0387	-0.0504	.1035	.0069	-0.0539	-0.2312	1815.	
.2290	4488.	1273.	4600.	-1497.	3478.	-2117.	-0.0467	-0.0537	.1387	-0.0071	-0.0704	-0.2596	2033.	
.2300	4569.	1352.	4901.	-1304.	3946.	-2077.	-0.0534	-0.0562	.1307	-0.0181	-0.0845	-0.2789	2177.	
.2310	4502.	1402.	5110.	-1091.	4368.	-1987.	-0.0588	-0.0577	.1394	-0.0254	-0.0966	-0.2885	2306.	
.2320	4332.	1444.	5305.	-948.	4695.	-1860.	-0.0625	-0.0582	.1445	-0.0283	-0.1071	-0.2882	2408.	
.2330	4067.	1482.	5495.	-878.	4857.	-1683.	-0.0645	-0.0578	.1458	-0.0264	-0.1157	-0.2781	2444.	
.2340	3764.	1468.	5596.	-806.	4878.	-1472.	-0.0648	-0.0564	.1437	-0.0199	-0.1216	-0.2590	2424.	
.2350	3343.	1393.	5575.	-930.	4780.	-1249.	-0.0636	-0.0540	.1383	-0.0097	-0.1240	-0.2324	2357.	
.2360	2839.	1279.	5403.	-968.	4559.	-1005.	-0.0611	-0.0505	.1301	.0033	-0.1221	-0.1998	2234.	
.2370	2292.	1119.	5115.	-977.	4275.	-742.	-0.0576	-0.0461	.1198	.0180	-0.1149	-0.1629	2084.	
.2380	1723.	912.	4729.	-991.	4011.	-488.	-0.0533	-0.0407	.1078	.0332	-0.1020	-0.1235	1949.	
.2390	1130.	702.	4254.	-963.	3764.	-270.	-0.0486	-0.0343	.0948	.0473	-0.0842	-0.0835	1825.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.25.59.

S/RV PIPING KEWAUNEE GKW02F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSVCONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

INTERNAL FORCES IN THE PIPING

.2290	4486.	1273.	4600.	-1497.	3478.	-2117.	-1467.	-0537.	.1187.	-0071.	-0704.	-02596.	2033.
.2300	4569.	1352.	4901.	-1304.	3946.	-2077.	-1534.	-0562.	.1307.	-0181.	-0845.	-02789.	2177.
.2310	4502.	1402.	5110.	-1091.	4368.	-1987.	-10588.	-0577.	.1394.	-0254.	-0966.	-02885.	2306.
.2320	4332.	1444.	5705.	-948.	4695.	-1860.	-0625.	-0582.	.1445.	-0283.	-1071.	-02882.	2408.
.2330	4067.	1482.	5485.	-878.	4857.	-1683.	-0645.	-0578.	.1458.	-0264.	-1157.	-02781.	2444.
.2340	3764.	1468.	5590.	-886.	4878.	-1472.	-0648.	-0564.	.1437.	-0199.	-1216.	-02590.	2424.
.2350	3343.	1393.	5575.	-938.	4780.	-1249.	-0636.	-0540.	.1383.	-0097.	-1240.	-02324.	2357.
.2360	2839.	1279.	5403.	-968.	4559.	-1005.	-0611.	-0505.	.1301.	.0033.	-1221.	-01998.	2234.
.2370	2292.	1119.	5115.	-977.	4275.	-742.	-0576.	-0461.	.1198.	.0180.	-1149.	-01629.	2084.
.2380	1723.	912.	4729.	-991.	4011.	-488.	-0333.	-0407.	.1078.	.0332.	-1020.	-01235.	1949.
.2390	1130.	702.	4254.	-963.	3764.	-270.	-0486.	-0343.	.0948.	.0473.	-0842.	-00835.	1825.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.25.59.

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	5	MEMBER	3	SEQUENCE	24	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)	
.2400	536.	510.	3628.	-823.	3512.	-90.	-0435.	-0271.	.0811.	.0591.	-0522.	-0447.	1691.	
.2410	-21.	331.	2877.	-566.	3257.	48.	-0382.	-0191.	.0671.	.0681.	-0365.	-0080.	1550.	
.2420	-526.	187.	2053.	-239.	2987.	129.	-0327.	-0106.	.0529.	.0736.	-0088.	.0254.	1405.	
.2430	-963.	89.	1225.	72.	2671.	146.	-0269.	-0019.	.0387.	.0755.	.0183.	.0547.	1254.	
.2440	-1295.	-0.	442.	303.	2301.	109.	-0209.	.0070.	.0245.	.0735.	.0428.	.0796.	1089.	
.2450	-1515.	-81.	-290.	473.	1861.	33.	-0146.	.0156.	.0104.	.0682.	.0641.	.0999.	900.	
.2460	-1647.	-118.	-972.	634.	1330.	-63.	-0080.	.0239.	-0037.	.0602.	.0818.	.1160.	691.	
.2470	-1697.	-123.	-1561.	756.	736.	-161.	-0010.	.0317.	-0177.	.0498.	.0956.	.1279.	500.	
.2480	-1645.	-133.	-2015.	784.	108.	-246.	.0063.	.0388.	-0314.	.0372.	.1045.	.1358.	388.	
.2490	-1499.	-127.	-2328.	727.	-565.	-316.	.0136.	.0450.	-0447.	.0223.	.1075.	.1401.	456.	
.2500	-1299.	-81.	-2516.	616.	-1270.	-371.	.0209.	.0504.	-0574.	.0051.	.1046.	.1410.	684.	
.2510	-1076.	-29.	-2609.	481.	-1944.	-394.	.0278.	.0548.	-0692.	-0140.	.0972.	.1389.	956.	
.2520	-864.	6.	-2676.	390.	-2585.	-361.	.0341.	.0523.	-0798.	-0350.	.0865.	.1341.	1237.	
.2530	-699.	48.	-2752.	373.	-3221.	-274.	.0396.	.0608.	-0892.	-0575.	.0721.	.1270.	1525.	
.2540	-584.	72.	-2796.	335.	-3785.	-154.	.0441.	.0624.	-0968.	-0815.	.0543.	.1180.	1782.	
.2550	-511.	27.	-2777.	218.	-4188.	5.	.0473.	.0629.	-1025.	-1060.	.0348.	.1076.	1965.	
.2560	-511.	-63.	-2769.	145.	-4459.	222.	.0494.	.0624.	-1063.	-1297.	.0165.	.0967.	2093.	
.2570	-616.	-150.	-2845.	205.	-4651.	488.	.0503.	.0611.	-1084.	-1512.	.0007.	.0858.	2194.	
.2580	-763.	-273.	-2952.	271.	-4712.	768.	.0500.	.0589.	-1087.	-1700.	-0124.	.0755.	2241.	
.2590	-946.	-459.	-3011.	217.	-4619.	1040.	.0487.	.0558.	-1073.	-1855.	-0228.	.0661.	2221.	
.2600	-1097.	-641.	-3036.	93.	-4476.	1294.	.0467.	.0521.	-1044.	-1968.	-0303.	.0582.	2184.	
.2610	-1247.	-786.	-3072.	-67.	-4349.	1507.	.0440.	.0478.	-1004.	-2035.	-0347.	.0519.	2157.	
.2620	-1380.	-940.	-3126.	-329.	-4227.	1649.	.0408.	.0430.	-0954.	-2061.	-0372.	.0473.	2132.	
.2630	-1473.	-1100.	-3196.	-698.	-4158.	1716.	.0372.	.0380.	-0895.	-2052.	-0390.	.0441.	2133.	
.2640	-1522.	-1216.	-3264.	-1133.	-4186.	1716.	.0332.	.0327.	-0828.	-2012.	-0408.	.0421.	2186.	
.2650	-1526.	-1304.	-3278.	-1660.	-4233.	1655.	.0287.	.0275.	-0753.	-1946.	-0425.	.0411.	2267.	
.2660	-1502.	-1396.	-3234.	-2250.	-4216.	1549.	.0238.	.0224.	-0669.	-1862.	-0438.	.0406.	2354.	
.2670	-1485.	-1458.	-3186.	-2751.	-4151.	1428.	.0183.	.0176.	-0577.	-1767.	-0448.	.0403.	2428.	
.2680	-1489.	-1468.	-3138.	-3081.	-4011.	1312.	.0122.	.0134.	-0475.	-1663.	-0452.	.0398.	2449.	
.2690	-1492.	-1458.	-3095.	-3303.	-3680.	1210.	.0056.	.0098.	-0362.	-1555.	-0450.	.0389.	2386.	
.2700	-1462.	-1432.	-2699.	-3437.	-3122.	1139.	-0016.	.0068.	-0240.	-1444.	-0443.	.0374.	2240.	
.2710	-1467.	-1352.	-2280.	-3412.	-2399.	1100.	-0092.	.0045.	-0109.	-1330.	-0436.	.0352.	2022.	
.2720	-1444.	-1215.	-1774.	-3215.	-1550.	1069.	-0170.	.0030.	.0027.	-1213.	-0435.	.0319.	1746.	
.2730	-1385.	-1035.	-1155.	-2915.	-574.	1020.	-0249.	.0024.	.0168.	-1094.	-0444.	.0276.	1472.	
.2740	-1256.	-792.	-584.	-2567.	495.	947.	-0326.	.0025.	.0309.	-0969.	-0458.	.0223.	1303.	
.2750	-1032.	-472.	328.	-2180.	1605.	837.	-0398.	.0034.	.0447.	-0837.	-0471.	.0160.	1328.	
.2760	-712.	-89.	1507.	-1756.	2708.	666.	-0463.	.0051.	.0579.	-0701.	-0475.	.0089.	1544.	
.2770	-312.	345.	2474.	-1306.	3733.	415.	-0519.	.0074.	.0700.	-0563.	-0471.	.0007.	1863.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.25.59.

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

.2670	-1485.	-1458.	-1186.	-2751.	-4151.	1428.	.0183	.0176	-.0577	-.1767	-.0448	.0403	2428.
.2680	-1489.	-1468.	-3138.	-7081.	-4011.	1312.	.0122	.0134	-.0475	-.1663	-.0452	.0398	2449.
.2690	-1492.	-1458.	-2995.	-3303.	-3680.	1210.	.0056	.0098	-.0362	-.1555	-.0450	.0389	2386.
.2700	-1482.	-1432.	-2699.	-3437.	-3122.	1139.	-.0016	.0068	-.0240	-.1444	-.0443	.0374	2240.
.2710	-1467.	-1352.	-2280.	-3411.	-2399.	1100.	-.0092	.0045	-.0109	-.1330	-.0436	.0352	2022.
.2720	-1444.	-1215.	-1774.	-3211.	-1550.	1069.	-.0170	.0030	.0027	-.1213	-.0435	.0319	1746.
.2730	-1385.	-1035.	-1155.	-2915.	-574.	1020.	-.0249	.0024	.0168	-.1094	-.0444	.0276	1472.
.2740	-1256.	-792.	-384.	-2567.	495.	947.	-.0326	.0025	.0309	-.0969	-.0458	.0223	1303.
.2750	-1032.	-472.	522.	-2189.	1605.	837.	-.0398	.0034	.0447	-.0837	-.0471	.0160	1328.
.2760	-712.	-84.	1507.	-1756.	2708.	666.	-.0463	.0051	.0579	-.0701	-.0475	.0089	1544.
.2770	-312.	345.	2474.	-1306.	3733.	415.	-.0519	.0074	.0700	-.0563	-.0471	.0007	1863.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.25.59.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	5	MEMBER	3	SEQUENCE	24	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.2780	150.	814.	3385.	-866.	4612.	86.	-.0565	.0104	.0809	-.0430	-.0458	-.0084	2200.		
.2790	714.	1285.	4228.	-502.	5317.	-313.	-.0601	.0139	.0902	-.0307	-.0436	-.0183	2507.		
.2800	1334.	1730.	4963.	-243.	5814.	-775.	-.0625	.0178	.0977	-.0200	-.0408	-.0287	2751.		
.2810	1971.	2138.	5520.	-69.	6060.	-1289.	-.0639	.0221	.1033	-.0116	-.0378	-.0393	2904.		
.2820	2582.	2490.	5853.	40.	6056.	-1828.	-.0642	.0266	.1069	-.0058	-.0347	-.0494	2965.		
.2830	3145.	2772.	5982.	89.	5857.	-2357.	-.0637	.0311	.1084	-.0026	-.0309	-.0583	2959.		
.2840	3643.	2992.	5953.	95.	5526.	-2839.	-.0622	.0357	.1079	-.0016	-.0260	-.0650	2912.		
.2850	4039.	3155.	5792.	88.	5122.	-3241.	-.0600	.0401	.1054	-.0023	-.0195	-.0686	2841.		
.2860	4293.	3248.	5504.	96.	4704.	-3530.	-.0572	.0442	.1009	-.0042	-.0115	-.0683	2757.		
.2870	4376.	3262.	5101.	146.	4298.	-3677.	-.0537	.0479	.0945	-.0067	-.0019	-.0635	2652.		
.2880	4283.	3203.	4620.	239.	3912.	-3659.	-.0496	.0511	.0862	-.0094	.0084	-.0538	2513.		
.2890	4017.	3059.	4100.	333.	3559.	-3476.	-.0450	.0537	.0761	-.0121	.0185	-.0391	2337.		
.2900	3579.	2916.	3547.	400.	3227.	-3138.	-.0399	.0557	.0643	-.0148	.0274	-.0198	2118.		
.2910	2973.	2487.	2944.	453.	2871.	-2658.	-.0343	.0569	.0509	-.0173	.0343	.0036	1846.		
.2920	2229.	2090.	2286.	499.	2465.	-2063.	-.0282	.0575	.0362	-.0200	.0389	.0301	1524.		
.2930	1391.	1639.	1590.	524.	2016.	-1389.	-.0218	.0575	.0205	-.0229	.0414	.0588	1173.		
.2940	494.	1156.	859.	531.	1514.	-674.	-.0151	.0569	.0041	-.0262	.0421	.0885	815.		
.2950	-429.	672.	86.	527.	934.	46.	-.0082	.0558	-.0127	-.0302	.0412	.1176	503.		
.2960	-1333.	193.	-717.	497.	283.	733.	-.0012	.0543	-.0293	-.0352	.0387	.1449	436.		
.2970	-2172.	-272.	-1537.	435.	-429.	1355.	.0057	.0525	-.0455	-.0413	.0349	.1692	697.		
.2980	-2918.	-703.	-2372.	358.	-1215.	1895.	.0125	.0504	-.0607	-.0486	.0302	.1893	1068.		
.2990	-3549.	-1095.	-3202.	260.	-2067.	2339.	.0189	.0481	-.0746	-.0569	.0245	.2043	1468.		
.3000	-4037.	-1455.	-3989.	111.	-2945.	2672.	.0249	.0456	-.0869	-.0661	.0178	.2137	1864.		
.3010	-4363.	-1770.	-4699.	-80.	-3812.	2885.	.0302	.0430	-.0971	-.0759	.0102	.2171	2241.		
.3020	-4523.	-2008.	-5305.	-269.	-4640.	2985.	.0349	.0404	-.1051	-.0856	.0024	.2148	2588.		
.3030	-4521.	-2165.	-5770.	-438.	-5369.	2984.	.0388	.0378	-.1108	-.0946	-.0048	.2071	2886.		
.3040	-4361.	-2242.	-6063.	-583.	-5936.	2691.	.0417	.0352	-.1139	-.1023	-.0110	.1945	3106.		
.3050	-4070.	-2224.	-6174.	-672.	-6319.	2715.	.0438	.0327	-.1146	-.1082	-.0159	.1779	3238.		
.3060	-3665.	-2105.	-6099.	-687.	-6510.	2471.	.0448	.0302	-.1127	-.1118	-.0196	.1582	3279.		
.3070	-3174.	-1912.	-5832.	-649.	-6485.	2180.	.0449	.0279	-.1086	-.1128	-.0220	.1362	3221.		
.3080	-2626.	-1670.	-5392.	-567.	-6250.	1862.	.0440	.0255	-.1023	-.1111	-.0234	.1128	3068.		
.3090	-2058.	-1386.	-4828.	-421.	-5848.	1532.	.0422	.0232	-.0942	-.1066	-.0240	.0890	2840.		
.3100	-1494.	-1077.	-4174.	-215.	-5309.	1202.	.0395	.0209	-.0845	-.0992	-.0240	.0656	2553.		
.3110	-952.	-770.	-3445.	12.	-4646.	882.	.0361	.0185	-.0735	-.0888	-.0235	.0434	2216.		
.3120	-444.	-476.	-2658.	238.	-3880.	580.	.0320	.0160	-.0616	-.0756	-.0224	.0230	1842.		
.3130	18.	-188.	-1850.	474.	-3051.	299.	.0273	.0134	-.0489	-.0595	-.0204	.0050	1454.		
.3140	431.	92.	-1054.	723.	-2129.	36.	.0222	.0107	-.0358	-.0407	-.0174	-.0102	1080.		
.3150	792.	355.	-287.	961.	-1313.	-208.	.0169	.0078	-.0226	-.0195	-.0133	-.0226	769.		

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

.3050	-4070.	-1224.	-6174.	-672.	-6319.	2715.	.0438	.0327	-.1146	-.1082	-.0159	.1779	3238.
.3060	-3665.	-2155.	-6099.	-687.	-6510.	2471.	.0448	.0302	-.1127	-.1118	-.0196	.1582	3279.
.3070	-3174.	-1912.	-5832.	-649.	-6485.	2180.	.0449	.0279	-.1086	-.1128	-.0220	.1362	3221.
.3080	-2626.	-1670.	-5392.	-567.	-6255.	1852.	.0440	.0255	-.1023	-.1111	-.0234	.1128	3068.
.3090	-2058.	-1386.	-4728.	-421.	-5048.	1532.	.0422	.0232	-.0942	-.1066	-.0240	.0890	2840.
.3100	-1494.	-1077.	-4174.	-215.	-5309.	1202.	.0395	.0209	-.0845	-.0992	-.0240	.0656	2553.
.3110	-952.	-770.	-3440.	12.	-4646.	882.	.0361	.0185	-.0735	-.0887	-.0235	.0434	2216.
.3120	-444.	-470.	-2650.	238.	-3880.	580.	.0320	.0160	-.0616	-.0756	-.0224	.0230	1842.
.3130	18.	-188.	-1850.	474.	-3051.	299.	.0273	.0134	-.0489	-.0595	-.0204	.0050	1454.
.3140	431.	92.	-1054.	723.	-2189.	36.	.0222	.0107	-.0358	-.0407	-.0174	-.0102	1080.
.3150	792.	355.	-207.	961.	-1313.	-208.	.0169	.0078	-.0226	-.0195	-.0133	-.0226	769.

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S/RV PIPING KEAUNEE GKMOOF 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	5	MEMBER	3	SEQUENCE	24	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)		
.3160	1099.	598.	439.	1170.	-452.	-435.	.0113	.0047	-.0094	.0037	-.0083	-.0320	622.		
.3170	1355.	820.	1109.	1337.	369.	-647.	.0056	.0014	.0035	.0282	-.0026	-.0386	717.		
.3180	1563.	1013.	1709.	1453.	1132.	-844.	-.0000	-.0021	.0161	.0536	.0035	-.0427	949.		
.3190	1718.	1163.	2221.	1520.	1821.	-1019.	-.0056	-.0058	.0280	.0790	.0097	-.0448	1210.		
.3200	1813.	1267.	2629.	1550.	2431.	-1167.	-.0110	-.0098	.0393	.1039	.0161	-.0453	1458.		
.3210	1847.	1325.	2934.	1556.	2968.	-1286.	-.0162	-.0140	.0499	.1276	.0226	-.0447	1682.		
.3220	1829.	1340.	3154.	1539.	3446.	-1372.	-.0211	-.0183	.0596	.1498	.0290	-.0436	1882.		
.3230	1768.	1316.	3310.	1503.	3881.	-1425.	-.0257	-.0228	.0684	.1699	.0353	-.0423	2061.		
.3240	1670.	1262.	3408.	1468.	4281.	-1446.	-.0297	-.0273	.0762	.1877	.0413	-.0413	2226.		
.3250	1537.	1191.	3447.	1465.	4642.	-1437.	-.0332	-.0319	.0829	.2032	.0472	-.0409	2378.		
.3260	1385.	1114.	3453.	1488.	4963.	-1402.	-.0360	-.0366	.0885	.2161	.0524	-.0414	2515.		
.3270	1238.	1031.	3460.	1506.	5244.	-1347.	-.0380	-.0412	.0929	.2263	.0566	-.0432	2634.		
.3280	1113.	943.	3476.	1509.	5469.	-1279.	-.0391	-.0458	.0959	.2339	.0591	-.0465	2725.		
.3290	1013.	857.	3491.	1506.	5609.	-1203.	-.0393	-.0503	.0975	.2387	.0598	-.0515	2780.		
.3300	944.	775.	3498.	1495.	5648.	-1125.	-.0384	-.0547	.0977	.2407	.0585	-.0584	2788.		
.3310	920.	691.	3504.	1456.	5583.	-1047.	-.0366	-.0589	.0965	.2398	.0551	-.0671	2748.		
.3320	950.	603.	3508.	1379.	5411.	-973.	-.0339	-.0630	.0940	.2359	.0498	-.0777	2656.		
.3330	1028.	520.	3493.	1274.	5124.	-908.	-.0302	-.0668	.0901	.2291	.0428	-.0900	2511.		
.3340	1145.	438.	3441.	1149.	4728.	-854.	-.0258	-.0703	.0849	.2192	.0345	-.1039	2315.		
.3350	1286.	352.	3331.	1015.	4235.	-808.	-.0207	-.0735	.0787	.2063	.0255	-.1190	2075.		
.3360	1438.	261.	3147.	882.	3643.	-758.	-.0150	-.0764	.0713	.1907	.0160	-.1348	1793.		
.3370	1586.	166.	2887.	746.	2962.	-731.	-.0089	-.0788	.0631	.1725	.0062	-.1507	1472.		
.3380	1716.	51.	2552.	592.	2215.	-695.	-.0026	-.0809	.0540	.1523	-.0037	-.1661	1123.		
.3390	1806.	-89.	2137.	433.	1419.	-650.	.0040	-.0825	.0442	.1306	-.0135	-.1802	759.		
.3400	1836.	-248.	1638.	292.	583.	-586.	.0105	-.0838	.0338	.1083	-.0224	-.1922	411.		
.3410	1797.	-428.	1076.	166.	-257.	-495.	.0171	-.0846	.0229	.0864	-.0303	-.2013	273.		
.3420	1689.	-635.	484.	40.	-1062.	-372.	.0235	-.0851	.0116	.0658	-.0367	-.2067	528.		
.3430	1508.	-861.	-118.	-74.	-1808.	-210.	.0297	-.0851	.0001	.0472	-.0411	-.2080	854.		
.3440	1255.	-1093.	-714.	-163.	-2481.	-5.	.0356	-.0848	-.0116	.0317	-.0432	-.2048	1165.		
.3450	935.	-1332.	-1286.	-229.	-3058.	239.	.0412	-.0841	-.0232	.0195	-.0427	-.1970	1441.		
.3460	561.	-1575.	-1821.	-281.	-3533.	514.	.0465	-.0831	-.0346	.0110	-.0399	-.1847	1678.		
.3470	146.	-1812.	-2313.	-317.	-3921.	811.	.0513	-.0817	-.0456	.0060	-.0351	-.1684	1882.		
.3480	-296.	-2037.	-2754.	-349.	-4226.	1118.	.0556	-.0800	-.0560	.0043	-.0288	-.1489	2055.		
.3490	-744.	-2253.	-3138.	-390.	-4448.	1419.	.0593	-.0779	-.0656	.0053	-.0212	-.1269	2196.		
.3500	-1185.	-2450.	-3478.	-424.	-4600.	1702.	.0623	-.0756	-.0742	.0086	-.0126	-.1036	2307.		
.3510	-1608.	-2616.	-3781.	-435.	-4698.	1953.	.0645	-.0729	-.0815	.0134	-.0035	-.0799	2393.		
.3520	-1993.	-2749.	-4038.	-434.	-4735.	2158.	.0659	-.0699	-.0873	.0193	.0058	-.0569	2447.		
.3530	-2319.	-2846.	-4228.	-433.	-4695.	2306.	.0664	-.0667	-.0915	.0255	.0151	-.0356	2460.		

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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

.3430	1512.	-741.	-112.	-74.	-1208.	-210.	.0297	-.0851	.0001	.0472	-.0411	-.2080	854.
.3440	1255.	-1093.	-714.	-163.	-2481.	-5.	.0356	-.0848	-.0116	.0317	-.0432	-.2048	1165.
.3450	935.	-1332.	-1286.	-229.	-3052.	239.	.0412	-.0841	-.0232	.0195	-.0427	-.1970	1441.
.3460	561.	-1575.	-1721.	-251.	-3523.	514.	.0465	-.0831	-.0346	.0110	-.0399	-.1847	1678.
.3470	146.	-1812.	-2313.	-317.	-3921.	811.	.0513	-.0817	-.0456	.0060	-.0351	-.1684	1882.
.3480	-296.	-2037.	-2754.	-349.	-4226.	1118.	.0556	-.0800	-.0560	.0043	-.0288	-.1489	2055.
.3490	-744.	-2253.	-3138.	-390.	-4448.	1419.	.0593	-.0779	-.0656	.0053	-.0212	-.1269	2196.
.3500	-1185.	-2450.	-3478.	-424.	-4600.	1702.	.0623	-.0756	-.0742	.0086	-.0126	-.1036	2307.
.3510	-1608.	-2616.	-3781.	-435.	-4698.	1953.	.0645	-.0729	-.0815	.0134	-.0035	-.0799	2393.
.3520	-1993.	-2744.	-4038.	-434.	-4735.	2158.	.0659	-.0699	-.0873	.0193	.0058	-.0569	2447.
.3530	-2319.	-2846.	-4228.	-433.	-4695.	2306.	.0664	-.0667	-.0915	.0255	.0151	-.0356	2460.

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CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	5	MEMBER	3	SEQUENCE	24	LOCATION	END	TYPE	RU						
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)		
.3540	-2572.	-2896.	-4348.	-415.	-4585.	2393.	.0661	-.0632	-.0937	.0319	.0242	-.0167	2432.		
.3550	-2746.	-2888.	-4401.	-363.	-4412.	2414.	.0648	-.0596	-.0941	.0380	.0329	-.0011	2363.		
.3560	-2834.	-2825.	-4376.	-288.	-4169.	2364.	.0626	-.0558	-.0924	.0437	.0407	.0110	2250.		
.3570	-2824.	-2709.	-4255.	-205.	-3855.	2242.	.0596	-.0520	-.0887	.0488	.0473	.0190	2092.		
.3580	-2711.	-2535.	-4025.	-116.	-3479.	2055.	.0557	-.0481	-.0831	.0532	.0523	.0230	1894.		
.3590	-2497.	-2304.	-3685.	-21.	-3044.	1807.	.0512	-.0443	-.0757	.0570	.0557	.0230	1659.		
.3600	-2193.	-2024.	-3247.	80.	-2554.	1506.	.0460	-.0406	-.0667	.0602	.0575	.0192	1390.		
.3610	-1812.	-1702.	-2724.	191.	-2024.	1164.	.0403	-.0370	-.0562	.0627	.0574	.0120	1098.		
.3620	-1364.	-1345.	-2127.	308.	-1468.	792.	.0342	-.0335	-.0447	.0646	.0557	.0018	795.		
.3630	-862.	-966.	-1466.	414.	-895.	403.	.0278	-.0303	-.0323	.0657	.0522	-.0107	499.		
.3640	-327.	-580.	-764.	502.	-319.	8.	.0212	-.0273	-.0194	.0660	.0471	-.0249	279.		
.3650	217.	-200.	-53.	575.	236.	-378.	.0146	-.0245	-.0063	.0654	.0405	-.0402	341.		
.3660	747.	165.	639.	630.	752.	-745.	.0079	-.0220	.0068	.0639	.0324	-.0557	577.		
.3670	1250.	501.	1302.	652.	1224.	-1082.	.0013	-.0198	.0194	.0613	.0232	-.0710	824.		
.3680	1710.	801.	1929.	630.	1655.	-1378.	-.0051	-.0178	.0315	.0579	.0131	-.0851	1051.		
.3690	2114.	1062.	2509.	566.	2045.	-1624.	-.0113	-.0161	.0428	.0535	.0028	-.0975	1252.		
.3700	2446.	1279.	3020.	477.	2398.	-1811.	-.0171	-.0146	.0531	.0485	-.0073	-.1076	1426.		
.3710	2694.	1454.	3450.	371.	2717.	-1936.	-.0227	-.0133	.0622	.0428	-.0164	-.1151	1573.		
.3720	2856.	1582.	3799.	247.	3008.	-1993.	-.0278	-.0120	.0701	.0366	-.0244	-.1194	1695.		
.3730	2931.	1661.	4066.	99.	3273.	-1984.	-.0326	-.0108	.0767	.0298	-.0310	-.1206	1794.		
.3740	2918.	1689.	4240.	-65.	3505.	-1909.	-.0368	-.0096	.0817	.0226	-.0359	-.1184	1871.		
.3750	2814.	1668.	4305.	-233.	3686.	-1777.	-.0406	-.0082	.0853	.0147	-.0394	-.1130	1921.		
.3760	2626.	1600.	4254.	-401.	3804.	-1596.	-.0437	-.0066	.0873	.0063	-.0415	-.1045	1942.		
.3770	2362.	1486.	4092.	-572.	3853.	-1376.	-.0462	-.0048	.0876	-.0026	-.0423	-.0932	1936.		
.3780	2039.	1336.	3829.	-742.	3824.	-1128.	-.0480	-.0025	.0863	-.0120	-.0421	-.0793	1901.		
.3790	1670.	1160.	3473.	-904.	3710.	-864.	-.0491	.0002	.0834	-.0216	-.0410	-.0632	1835.		
.3800	1266.	967.	3030.	-1046.	3507.	-597.	-.0494	.0033	.0788	-.0317	-.0392	-.0451	1738.		
.3810	841.	768.	2514.	-1160.	3212.	-338.	-.0488	.0071	.0727	-.0416	-.0370	-.0255	1608.		
.3820	413.	574.	1955.	-1252.	2833.	-93.	-.0473	.0111	.0651	-.0513	-.0346	-.0047	1452.		
.3830	3.	390.	1388.	-1331.	2383.	131.	-.0450	.0162	.0563	-.0606	-.0324	.0168	1281.		
.3840	-376.	224.	836.	-1398.	1878.	328.	-.0420	.0216	.0463	-.0694	-.0305	.0387	1108.		
.3850	-719.	84.	311.	-1436.	1333.	498.	-.0382	.0274	.0355	-.0777	-.0289	.0605	947.		
.3860	-1019.	-24.	-172.	-1439.	768.	639.	-.0339	.0338	.0240	-.0854	-.0277	.0817	821.		
.3870	-1266.	-97.	-589.	-1412.	216.	751.	-.0292	.0405	.0123	-.0926	-.0267	.1018	756.		
.3880	-1452.	-132.	-923.	-1357.	-294.	834.	-.0242	.0476	.0006	-.0995	-.0257	.1206	759.		
.3890	-1578.	-125.	-1181.	-1260.	-747.	890.	-.0192	.0549	-.0108	-.1063	-.0244	.1376	803.		
.3900	-1652.	-80.	-1380.	-1108.	-1134.	920.	-.0142	.0623	-.0216	-.1132	-.0225	.1524	859.		
.3910	-1680.	-2.	-1532.	-907.	-1449.	922.	-.0094	.0698	-.0317	-.1203	-.0200	.1649	910.		

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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

.3310	841.	768.	2314.	-1160.	3212.	-338.	-0.488	.0071	.0727	-.0416	-.0370	-.0255	1608.
.3820	413.	574.	1955.	-1252.	2833.	-93.	-0.473	.0114	.0651	-.0513	-.0346	-.0047	1452.
.3830	3.	390.	1388.	-1331.	2383.	131.	-0.450	.0162	.0563	-.0606	-.0324	.0168	1281.
.3840	-376.	224.	876.	-1398.	1678.	328.	-0.420	.0216	.0463	-.0694	-.0305	.0387	1108.
.3850	-719.	84.	311.	-1476.	1333.	498.	-0.382	.0274	.0355	-.0777	-.0289	.0605	947.
.3860	-1019.	-24.	-172.	-1439.	768.	639.	-0.339	.0338	.0240	-.0854	-.0277	.0817	821.
.3870	-1266.	-97.	-589.	-1412.	216.	751.	-0.292	.0405	.0123	-.0926	-.0267	.1018	756.
.3880	-1452.	-132.	-923.	-1357.	-294.	834.	-0.242	.0476	.0006	-.0995	-.0257	.1206	759.
.3890	-1578.	-125.	-1181.	-1260.	-747.	890.	-0.192	.0549	-.0108	-.1063	-.0244	.1376	803.
.3900	-1652.	-80.	-1380.	-1108.	-1174.	920.	-0.142	.0623	-.0216	-.1132	-.0225	.1524	859.
.3910	-1680.	-2.	-1532.	-907.	-1449.	922.	-0.094	.0698	-.0317	-.1203	-.0200	.1649	910.

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CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	5	MEMBER	3	SEQUENCE	24	LOCATION	END	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)
.3920	-1665.	103.	-1645.	-675.	-1697.	896.		-0.0050	.0773	-.0409	-.1278	-.0168	.1749	953.
.3930	-1606.	224.	-1725.	-432.	-1888.	845.		-0.0010	.0845	-.0490	-.1357	-.0132	.1826	990.
.3940	-1511.	351.	-1792.	-188.	-2038.	770.		.0025	.0914	-.0560	-.1439	-.0092	.1880	1025.
.3950	-1397.	478.	-1873.	54.	-2170.	671.		.0055	.0979	-.0619	-.1520	-.0049	.1914	1065.
.3960	-1274.	601.	-1973.	283.	-2297.	552.		.0080	.1038	-.0669	-.1597	-.0005	.1934	1115.
.3970	-1142.	712.	-2077.	470.	-2421.	420.		.0100	.1090	-.0709	-.1664	.0039	.1945	1172.
.3980	-1003.	806.	-2169.	596.	-2536.	281.		.0116	.1135	-.0739	-.1717	.0083	.1950	1228.
.3990	-870.	885.	-2251.	669.	-2642.	144.		.0128	.1170	-.0761	-.1750	.0127	.1957	1279.
.4000	-762.	948.	-2333.	707.	-2741.	18.		.0135	.1196	-.0775	-.1761	.0170	.1968	1327.

MAXIMUM VALUE OF STRESS OCCURS AT

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)
.0450	-1635.	-2796.	6318.	-4794.	13308.	4671.		-.1131	-.1263	.1964	.0204	-.0349	-.1395	6981.

SECTION	6	MEMBER	1	SEQUENCE	24	LOCATION	BEG	TYPE	VA					
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)
0.0000	0.	0.	0.	0.	0.	0.		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.
.0010	1.	-1.	2.	-2.	-0.	3.		-0.0000	.0000	-.0000	-.0000	.0000	.0000	2.
.0020	7.	-2.	19.	-12.	-2.	10.		-0.0000	.0000	-.0001	-.0001	.0002	.0001	7.
.0030	31.	16.	56.	-21.	-4.	1.		-0.0001	.0000	-.0003	-.0004	.0006	.0006	10.
.0040	81.	58.	117.	-21.	-3.	-35.		-0.0001	-.0000	-.0006	-.0010	.0014	.0015	19.
.0050	156.	113.	204.	-22.	5.	-82.		-0.0001	-.0000	-.0012	-.0020	.0025	.0030	40.
.0060	262.	179.	335.	-30.	28.	-129.		-0.0001	.0000	-.0021	-.0035	.0037	.0053	63.
.0070	409.	279.	537.	-26.	53.	-201.		-0.0000	.0000	-.0035	-.0057	.0056	.0087	98.
.0080	604.	431.	831.	11.	44.	-333.		.0001	.0001	-.0055	-.0086	.0092	.0140	157.
.0090	876.	641.	1213.	55.	-17.	-548.		.0005	.0002	-.0083	-.0121	.0160	.0217	258.
.0100	1238.	884.	1633.	54.	-85.	-838.		.0012	.0004	-.0120	-.0160	.0261	.0318	396.
.0110	1630.	1132.	2058.	52.	-140.	-1157.		.0024	.0008	-.0167	-.0201	.0379	.0438	547.
.0120	1967.	1354.	2480.	123.	-191.	-1449.		.0041	.0012	-.0223	-.0242	.0498	.0570	687.
.0130	2251.	1510.	2841.	221.	-193.	-1680.		.0063	.0019	-.0286	-.0277	.0615	.0707	799.
.0140	2546.	1611.	3094.	245.	-63.	-1863.		.0092	.0027	-.0357	-.0302	.0727	.0844	881.
.0150	2876.	1728.	3304.	217.	217.	-2028.		.0126	.0036	-.0436	-.0320	.0827	.0978	961.

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ADLPIPE STRESS ANALYSIS

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18.25.59.

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

.0050	156.	112.	204.	-22.	5.	-82.	-.0001	-.0000	-.0012	-.0020	.0025	.0030	40.
.0060	262.	179.	335.	-30.	28.	-129.	-.0001	.0000	-.0021	-.0035	.0037	.0053	63.
.0070	409.	279.	537.	-26.	53.	-201.	-.0000	.0000	-.0035	-.0057	.0056	.0087	98.
.0080	604.	471.	831.	11.	44.	-333.	.0001	.0001	-.0055	-.0086	.0092	.0140	157.
.0090	876.	641.	1213.	55.	-17.	-548.	.0005	.0002	-.0083	-.0121	.0160	.0217	258.
.0100	1238.	884.	1633.	54.	-85.	-838.	.0012	.0004	-.0120	-.0160	.0261	.0318	396.
.0110	1630.	1132.	2058.	52.	-140.	-1157.	.0024	.0008	-.0167	-.0201	.0379	.0438	547.
.0120	1967.	1354.	2480.	123.	-191.	-1449.	.0041	.0012	-.0223	-.0242	.0498	.0570	687.
.0130	2251.	1510.	2841.	221.	-193.	-1680.	.0063	.0019	-.0286	-.0277	.0615	.0707	799.
.0140	2546.	1611.	3094.	245.	-63.	-1863.	.0092	.0027	-.0357	-.0302	.0727	.0844	881.
.0150	2876.	1728.	3304.	217.	217.	-2028.	.0126	.0036	-.0436	-.0320	.0827	.0978	961.

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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	6	MEMBER	1	SEQUENCE	24	LOCATION	BEG	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.0160	3237.	1923.	3608.	194.	583.	-2181.	.0165	.0046	-.0523	-.0339	.0916	.1107	1062.		
.0170	3638.	2193.	3927.	203.	1061.	-2377.	.0208	.0057	-.0616	-.0366	.0986	.1229	1224.		
.0180	3982.	2504.	4096.	402.	1645.	-2669.	.0253	.0066	-.0711	-.0405	.1013	.1341	1481.		
.0190	4035.	2765.	4172.	1004.	2053.	-2941.	.0298	.0076	-.0799	-.0454	.0995	.1431	1746.		
.0200	3598.	2767.	4128.	1954.	1932.	-3025.	.0343	.0087	-.0872	-.0492	.0981	.1485	1915.		
.0210	2955.	2418.	3846.	2492.	1247.	-2940.	.0389	.0100	-.0928	-.0474	.1098	.1504	1898.		
.0220	2703.	1907.	3005.	1749.	846.	-2888.	.0441	.0117	-.0973	-.0383	.1325	.1477	1631.		
.0230	2300.	1277.	1983.	582.	715.	-2544.	.0491	.0135	-.0989	-.0256	.1481	.1352	1268.		
.0240	1344.	504.	1721.	-230.	185.	-1453.	.0530	.0149	-.0978	-.0127	.1550	-1117	695.		
.0250	437.	-214.	1229.	-907.	93.	-392.	.0564	.0155	-.0951	-.0003	.1515	.0797	465.		
.0260	-340.	-592.	-485.	-1097.	1344.	-8.	.0596	.0148	-.0902	.0080	.1192	.0589	813.		
.0270	-1639.	-687.	-1499.	-336.	2630.	807.	.0612	.0129	-.0814	.0112	.0516	-.0119	1299.		
.0280	-3186.	-1004.	-822.	211.	2654.	2630.	.0603	.0102	-.0701	.0166	.0177	-.0678	1754.		
.0290	-3499.	-1390.	-1041.	-1206.	3155.	3644.	.0590	.0066	-.0593	.0299	.0020	-.1204	2329.		
.0300	-2836.	-935.	-1801.	-3398.	4556.	3289.	.0578	.0018	-.0476	.0432	-.0090	-.1673	3077.		
.0310	-3173.	-565.	-965.	-4252.	4976.	3814.	.0540	-.0045	-.0339	.0470	-.0356	-.2116	3550.		
.0320	-4501.	-1027.	-234.	-3367.	4743.	5119.	.0476	-.0125	-.0187	.0442	-.0854	-.2521	3631.		
.0330	-4807.	-1276.	-783.	-2286.	4904.	5282.	.0413	-.0223	-.0041	.0441	-.1293	-.2793	3544.		
.0340	-3817.	-969.	-1364.	-2292.	5436.	4610.	.0352	-.0333	.0091	.0480	-.1545	-.2919	3509.		
.0350	-3131.	-1067.	-1366.	-2889.	5951.	4642.	.0265	-.0448	.0221	.0502	-.1855	-.2978	3787.		
.0360	-3319.	-1373.	-1377.	-2247.	5913.	4811.	.0154	-.0573	.0370	.0485	-.2321	-.2984	3724.		
.0370	-3222.	-1003.	-1823.	-135.	4904.	3778.	.0040	-.0711	.0539	.0493	-.2658	-.2877	2902.		
.0380	-1979.	-665.	-3191.	1042.	3751.	2174.	-.0080	-.0851	.0706	.0574	-.2716	-.2663	2090.		
.0390	-639.	-1035.	-4910.	832.	2894.	1189.	-.0228	-.0978	.0873	.0654	-.2731	-.2441	1517.		
.0400	-780.	-850.	-4749.	2279.	418.	340.	-.0401	-.1091	.1077	.0637	-.2762	-.2251	1097.		
.0410	-881.	346.	-3504.	4256.	-3166.	-1341.	-.0568	-.1189	.1298	.0592	-.2509	-.2029	2564.		
.0420	425.	530.	-4555.	3466.	-5266.	-3143.	-.0723	-.1257	.1486	.0607	-.1944	-.1778	3336.		
.0430	1156.	-330.	-6087.	2348.	-7320.	-3954.	-.0881	-.1292	.1656	.0579	-.1377	-.1596	4051.		
.0440	97.	-10.	-4064.	4040.	-10995.	-4203.	-.1027	-.1296	.1835	.0407	-.0886	-.1492	5832.		
.0450	-400.	970.	-1485.	4794.	-13308.	-4671.	-.1131	-.1263	.1964	.0204	-.0349	-.1395	6981.		
.0460	606.	641.	-1993.	2198.	-11990.	-4797.	-.1191	-.1189	.1997	.0076	.0141	-.1298	6139.		
.0470	362.	-32.	-2067.	1623.	-10806.	-3938.	-.1219	-.1089	.1986	-.0062	.0380	-.1250	5443.		
.0480	-1638.	524.	596.	5065.	-11628.	-2840.	-.1203	-.0969	.1957	-.0217	.0455	-.1208	6091.		
.0490	-2304.	906.	1499.	6190.	-10484.	-2170.	-.1129	-.0819	.1845	-.0219	.0599	-.1080	5795.		
.0500	-1442.	-33.	-596.	3337.	-6764.	-1260.	-.1012	-.0638	.1639	-.0022	.0800	-.0880	3584.		
.0510	-1987.	-611.	-902.	2645.	-5211.	205.	-.0874	-.0442	.1420	.0233	.0933	-.0665	2740.		
.0520	-3649.	-321.	346.	4737.	-6116.	1302.	-.0712	-.0240	.1204	.0525	.1055	-.0401	3676.		
.0530	-3751.	-1073.	-1643.	3832.	-5250.	1734.	-.0520	-.0026	.0936	.0938	.1265	-.0051	3152.		

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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

.0430	1156.	-330.	8087.	2348.	-7320.	-3954.	-.0881	-.1292	.1656	.0579	-.1377	-.1596	4051.
.0440	97.	-10.	-4064.	4040.	-10995.	-4203.	-.1027	-.1296	.1835	.0407	-.0886	-.1492	5832.
.0450	-400.	970.	-1485.	4794.	-13308.	-4671.	-.1131	-.1263	.1964	.0204	-.0349	-.1395	6981.
.0460	606.	641.	-1993.	2198.	-11990.	-4797.	-.1191	-.1189	.1997	.0076	.0141	-.1298	6139.
.0470	362.	-32.	-2067.	1623.	-10806.	-3938.	-.1219	-.1089	.1986	-.0062	.0380	-.1250	5443.
.0480	-1638.	524.	596.	5065.	-11628.	-2040.	-.1203	-.0969	.1957	-.0217	.0455	-.1208	6091.
.0490	-2304.	906.	1499.	6190.	-10484.	-2170.	-.1129	-.0819	.1845	-.0219	.0599	-.1080	5795.
.0500	-1442.	-33.	-596.	3337.	-6764.	-1260.	-.1012	-.0638	.1639	-.0022	.0800	-.0880	3584.
.0510	-1987.	-611.	-902.	2645.	-5211.	205.	-.0874	-.0442	.1420	.0233	.0933	-.0665	2740.
.0520	-3649.	-321.	346.	4737.	-6116.	1302.	-.0712	-.0240	.1204	.0525	.1055	-.0401	3676.
.0530	-3751.	-1073.	-1643.	3832.	-5250.	1734.	-.0520	-.0026	.0936	.0938	.1265	-.0051	3152.

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DIS/ADLPIPE

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	6	MEMBER	1	SEQUENCE	24	LOCATION	BEG	TYPE	VA					
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
.0540	-3001.	-2728.	-5027.	310.	-3190.	2379.	-.0326	.0200	.0634	.1378	.1460	.0319	1871.	
.0550	-3571.	-3141.	-4872.	-855.	-3355.	3339.	-.0150	.0424	.0363	.1670	.1495	.0630	2254.	
.0560	-4255.	-2686.	-3566.	-1005.	-4081.	3753.	.0016	.0637	.0108	.1837	.1419	.0907	2641.	
.0570	-3368.	-3240.	-5029.	-3875.	-2612.	3672.	.0178	.0841	-.0168	.1973	.1358	.1188	2785.	
.0580	-2457.	-4055.	-6115.	-6953.	-1261.	3839.	.0323	.1024	-.0434	.2019	.1308	.1434	3769.	
.0590	-2649.	-3473.	-3823.	-7456.	-1881.	4004.	.0444	.1178	-.0658	.1920	.1226	.1612	4063.	
.0600	-2130.	-2360.	-1510.	-8544.	-1651.	3576.	.0556	.1302	-.0879	.1789	.1184	.1771	4409.	
.0610	-386.	-2083.	-1210.	-11696.	439.	3072.	.0666	.1391	-.1119	.1710	.1243	.1948	5671.	
.0620	659.	-1866.	-97.	-13019.	1566.	3019.	.0769	.1433	-.1335	.1630	.1325	.2124	6306.	
.0630	769.	-931.	2280.	-11389.	1544.	2857.	.0866	.1424	-.1516	.1538	.1346	.2285	5550.	
.0640	1627.	-129.	3197.	-10430.	3158.	2284.	.0963	.1372	-.1700	.1507	.1332	.2451	5218.	
.0650	3059.	120.	3119.	-10686.	6129.	1971.	.1053	.1280	-.1883	.1523	.1308	.2613	5846.	
.0660	3614.	576.	4227.	-9085.	8060.	2037.	.1124	.1144	-.2019	.1501	.1210	.2739	5771.	
.0670	3624.	1300.	5322.	-5616.	9259.	1748.	.1173	.0967	-.2099	.1429	.1012	.2813	5141.	
.0680	4146.	1625.	4852.	-2890.	10980.	1032.	.1194	.0761	-.2140	.1339	.0817	.2833	5343.	
.0690	4771.	1760.	4553.	-1144.	12185.	397.	.1176	.0534	-.2127	.1190	.0720	.2777	5738.	
.0700	4951.	2373.	5677.	758.	11910.	-385.	.1115	.0294	-.2042	.0924	.0697	.2621	5596.	
.0710	5307.	3262.	6678.	2288.	11182.	-1768.	.1016	.0045	-.1896	.0552	.0681	.2365	5413.	
.0720	6068.	3876.	6805.	2985.	10545.	-3295.	.0881	-.0204	-.1703	.0093	.0518	.2011	5363.	
.0730	6418.	4308.	7190.	3976.	9212.	-4433.	.0713	-.0447	-.1457	-.0471	.0438	.1550	5140.	
.0740	6164.	4882.	8023.	5546.	7242.	-5513.	.0525	-.0677	-.1165	-.1115	.0134	.1003	4995.	
.0750	6075.	5440.	8404.	6237.	5633.	-6777.	.0335	-.0884	-.0858	-.1746	-.0193	.0412	5059.	
.0760	6257.	5617.	8226.	5603.	4467.	-7704.	.0151	-.1063	-.0554	-.2288	-.0483	-.0192	4931.	
.0770	5943.	5391.	7789.	5141.	3098.	-8000.	-.0021	-.1212	-.0249	-.2720	-.0816	-.0800	4687.	
.0780	4825.	4947.	6869.	5817.	1385.	-8002.	-.0170	-.1331	.0054	-.3019	-.1227	-.1386	4682.	
.0790	3471.	4269.	5281.	6587.	-266.	-7812.	-.0287	-.1418	.0337	-.3126	-.1581	-.1912	4790.	
.0800	2423.	3277.	3233.	6158.	-1435.	-7175.	-.0374	-.1466	.0582	-.3007	-.1768	-.2363	4482.	
.0810	1445.	2215.	1057.	5118.	-2132.	-6153.	-.0435	-.1474	.0790	-.2703	-.1871	-.2756	3881.	
.0820	37.	1378.	-918.	4899.	-2755.	-4963.	-.0473	-.1449	.0977	-.2288	-.2001	-.3097	3514.	
.0830	-1667.	544.	-2764.	5361.	-3336.	-3487.	-.0492	-.1391	.1144	-.1796	-.2131	-.3377	3380.	
.0840	-3143.	-611.	-4835.	5257.	-3401.	-1640.	-.0498	-.1300	.1280	-.1239	-.2190	-.3591	3033.	
.0850	-4388.	-1714.	-6623.	4490.	-3058.	281.	-.0500	-.1175	.1391	-.0663	-.2169	-.3754	2549.	
.0860	-5715.	-2302.	-7194.	3676.	-2969.	2073.	-.0503	-.1023	.1489	-.0119	-.2064	-.3864	2418.	
.0870	-6942.	-2778.	-7059.	2444.	-3091.	3839.	-.0506	-.0850	.1571	.0388	-.1844	-.3896	2578.	
.0880	-7773.	-3626.	-7358.	529.	-3080.	5536.	-.0512	-.0664	.1629	.0877	-.1527	-.3835	2979.	
.0890	-8435.	-4368.	-7616.	-1013.	-3482.	6883.	-.0520	-.0476	.1669	.1334	-.1158	-.3681	3646.	
.0900	-9006.	-4505.	-6955.	-1866.	-4655.	7776.	-.0528	-.0294	.1690	.1752	-.0731	-.3427	4336.	
.0910	-8948.	-4460.	-6208.	-3367.	-5646.	8300.	-.0532	-.0122	.1672	.2158	-.0236	-.3055	4962.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.25.59.

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

.0800	2423.	3277.	3233.	6158.	-1435.	-7175.	-.0374	-.1466	.0582	-.3007	-.1768	-.2363	4482.
.0810	1445.	2215.	1057.	5118.	-2132.	-6153.	-.0435	-.1474	.0790	-.2703	-.1871	-.2756	3881.
.0820	37.	1378.	-918.	4899.	-2755.	-4963.	-.0473	-.1449	.0977	-.2288	-.2001	-.3097	3514.
.0830	-1667.	544.	-2764.	5361.	-3336.	-3487.	-.0492	-.1391	.1144	-.1796	-.2131	-.3377	3380.
.0840	-3143.	-611.	-4835.	5257.	-3401.	-1640.	-.0498	-.1300	.1280	-.1239	-.2190	-.3591	3033.
.0850	-4388.	-1714.	-6623.	4490.	-3058.	281.	-.0500	-.1175	.1391	-.0663	-.2169	-.3754	2549.
.0860	-5715.	-2302.	-7194.	3676.	-2969.	2073.	-.0503	-.1023	.1489	-.0119	-.2064	-.3864	2418.
.0870	-6942.	-2778.	-7059.	2444.	-3091.	3839.	-.0506	-.0850	.1571	.0388	-.1844	-.3896	2578.
.0880	-7773.	-3626.	-7358.	529.	-3080.	5536.	-.0512	-.0664	.1629	.0877	-.1527	-.3835	2979.
.0890	-8435.	-4368.	-7616.	-1013.	-3482.	6883.	-.0520	-.0476	.1669	.1334	-.1158	-.3681	3646.
.0900	-9006.	-4505.	-6955.	-1866.	-4655.	7776.	-.0528	-.0294	.1690	.1752	-.0731	-.3427	4336.
.0910	-8948.	-4460.	-6208.	-3367.	-5646.	8300.	-.0532	-.0122	.1672	.2158	-.0236	-.3055	4962.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.25.59.

S/RV PIPING KEWAUNLE GKW08F 2 RUP DISK

2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	6	MEMBER	1	SEQUENCE	24	LOCATION	BEG	TYPE	VA					
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.0920	-8154.	-4550.	-6226.	-5550.	-5938.	8442.	-.0526	.0034	.1609	.2559	.0250	-.2570	5492.	
.0930	-7324.	-4362.	-6242.	-6459.	-6452.	8175.	-.0512	.0164	.1517	.2914	.0626	-.1998	5743.	
.0940	-6687.	-3867.	-5908.	-5724.	-7481.	7645.	-.0489	.0266	.1405	.3204	.0888	-.1362	5685.	
.0950	-5682.	-3634.	-6112.	-5234.	-8019.	6977.	-.0455	.0345	.1259	.3449	.1109	-.0675	5552.	
.0960	-4221.	-3594.	-6699.	-5595.	-7889.	6109.	-.0411	.0403	.1081	.3635	.1342	.0033	5361.	
.0970	-2852.	-3197.	-6522.	-5581.	-7968.	5010.	-.0361	.0440	.0893	.3713	.1570	.0712	5128.	
.0980	-1686.	-2628.	-5832.	-4935.	-8236.	3831.	-.0311	.0455	.0704	.3663	.1753	.1323	4845.	
.0990	-444.	-2366.	-5572.	-4388.	-7985.	2697.	-.0261	.0451	.0511	.3488	.1867	.1839	4453.	
.1000	759.	-2067.	-5174.	-3739.	-7363.	1555.	-.0212	.0430	.0324	.3170	.1907	.2235	3938.	
.1010	1734.	-1232.	-3772.	-2637.	-6717.	363.	-.0168	.0396	.0151	.2701	.1869	.2484	3386.	
.1020	2682.	-180.	-1995.	-1744.	-5624.	-768.	-.0128	.0352	-.0013	.2118	.1760	.2582	2783.	
.1030	3601.	650.	-570.	-1238.	-4014.	-1730.	-.0090	.0302	-.0166	.1466	.1597	.2542	2129.	
.1040	4085.	1396.	866.	-262.	-2625.	-2553.	-.0048	.0245	-.0299	.0768	.1399	.2385	1720.	
.1050	4066.	2128.	2436.	1176.	-1630.	-3247.	-.0001	.0187	-.0411	.0059	.1189	.2131	1790.	
.1060	3918.	2555.	3585.	1980.	-451.	-3710.	.0052	.0133	-.0516	-.0607	.0996	.1801	1982.	
.1070	3729.	2691.	4378.	2026.	878.	-3911.	.0113	.0085	-.0618	-.1199	.0842	.1426	2105.	
.1080	3093.	2736.	5197.	2451.	1655.	-3950.	.0185	.0041	-.0710	-.1719	.0715	.1030	2312.	
.1090	1942.	2597.	5800.	3547.	1645.	-3906.	.0268	.0001	-.0794	-.2147	.0644	.0637	2590.	
.1100	1816.	2355.	5509.	3075.	2787.	-3886.	.0365	-.0030	-.0902	-.2460	.0606	.0279	2664.	
.1110	1874.	2154.	5091.	2362.	4643.	-3636.	.0462	-.0053	-.1022	-.2723	.0423	-.0071	2977.	
.1120	1081.	2329.	5713.	3423.	5874.	-3111.	.0554	-.0071	-.1129	-.2989	.0033	-.0413	3504.	
.1130	405.	2607.	6341.	4803.	7058.	-2658.	.0648	-.0084	-.1234	-.3205	-.0388	-.0691	4190.	
.1140	782.	2493.	5685.	4533.	9155.	-2415.	.0742	-.0086	-.1354	-.3313	-.0714	-.0879	4919.	
.1150	1290.	2370.	5205.	3832.	11026.	-2117.	.0820	-.0078	-.1465	-.3356	-.0994	-.1006	5560.	
.1160	1198.	2728.	6280.	3995.	11568.	-1686.	.0878	-.0062	-.1544	-.3376	-.1247	-.1073	5789.	
.1170	1364.	2864.	6912.	3541.	12005.	-1376.	.0921	-.0040	-.1604	-.3323	-.1420	-.1050	5901.	
.1180	2479.	2566.	6167.	1680.	13179.	-1296.	.0951	-.0013	-.1656	-.3170	-.1513	-.0931	6255.	
.1190	3052.	2142.	5320.	890.	13725.	-1143.	.0950	.0012	-.1669	-.2984	-.1701	-.0776	6467.	
.1200	2593.	2204.	5796.	2029.	12680.	-929.	.0919	.0033	-.1627	-.2791	-.1933	-.0596	6033.	
.1210	2760.	2505.	6247.	2164.	11515.	-1051.	.0872	.0053	-.1557	-.2515	-.1960	-.0342	5513.	
.1220	4073.	2083.	4470.	-107.	11706.	-1463.	.0806	.0076	-.1480	-.2129	-.1844	-.0042	5529.	
.1230	4776.	1902.	3422.	-1164.	10851.	-1681.	.0710	.0094	-.1354	-.1737	-.1726	.0238	5175.	
.1240	4164.	2188.	3903.	295.	8151.	-1629.	.0586	.0105	-.1166	-.1390	-.1643	.0479	3898.	
.1250	3933.	1982.	3105.	791.	6090.	-1707.	.0452	.0116	-.0955	-.1020	-.1463	.0714	2987.	
.1260	4520.	1348.	1178.	-646.	5116.	-1875.	.0309	.0131	-.0736	-.0624	-.1130	.0932	2572.	
.1270	4058.	860.	377.	-872.	3126.	-1656.	.0147	.0146	-.0479	-.0295	-.0806	.1059	1707.	
.1280	2696.	906.	1225.	410.	-188.	-1185.	-.0027	.0161	-.0187	-.0039	-.0441	.1109	594.	
.1290	2144.	389.	422.	55.	-2183.	-860.	-.0192	.0178	.0094	.0220	.0012	.1128	1100.	

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	6	MEMBER	1	SEQUENCE	24	LOCATION	BEG	TYPE	VA					
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
.1300	1960.	-654.	-1633.	-1275.	-3089.	-497.	-.0350	.0197	.0362	.0458	.0453	.1095	1583.	
.1310	762.	-862.	-1508.	-592.	-5160.	164.	-.0507	.0212	.0643	.0599	.0783	.0978	2435.	
.1320	-870.	-793.	-950.	900.	-7206.	851.	-.0655	.0226	.0914	.0681	.0971	.0796	3427.	
.1330	-1560.	-1192.	-2090.	735.	-7655.	1285.	-.0779	.0241	.1144	.0783	.1135	.0611	3654.	
.1340	-2154.	-1906.	-3837.	345.	-7833.	1771.	-.0882	.0256	.1346	.0884	.1252	.0421	3767.	
.1350	-3658.	-2258.	-4260.	1647.	-9368.	2458.	-.0971	.0268	.1540	.0943	.1283	.0207	4604.	
.1360	-4895.	-2394.	-4468.	2570.	-10927.	2951.	-.1039	.0283	.1703	.1004	.1326	.0007	5439.	
.1370	-5178.	-3220.	-6473.	1310.	-10964.	3171.	-.1081	.0303	.1810	.1097	.1366	-.0165	5384.	
.1380	-5587.	-3965.	-7853.	254.	-11272.	3450.	-.1103	.0325	.1887	.1148	.1352	-.0320	5526.	
.1390	-6626.	-4262.	-7894.	809.	-12446.	3812.	-.1113	.0343	.1947	.1117	.1195	-.0479	6112.	
.1400	-7105.	-4593.	-8513.	928.	-12686.	3940.	-.1104	.0361	.1961	.1045	.0926	-.0624	6240.	
.1410	-6648.	-4864.	-9436.	-178.	-11763.	3864.	-.1076	.0382	.1923	.0944	.0639	-.0735	5803.	
.1420	-6414.	-4909.	-9474.	-824.	-10923.	3851.	-.1036	.0401	.1854	.0774	.0290	-.0834	5441.	
.1430	-6446.	-4461.	-8258.	-557.	-10558.	3759.	-.0982	.0418	.1761	.0546	-.0066	-.0910	5259.	
.1440	-5855.	-4114.	-7622.	-958.	-9384.	3411.	-.0911	.0433	.1624	.0322	-.0377	-.0939	4701.	
.1450	-4819.	-3965.	-7429.	-1939.	-7539.	3032.	-.0824	.0449	.1447	.0106	-.0626	-.0918	3915.	
.1460	-4153.	-3436.	-5967.	-2005.	-6252.	2817.	-.0725	.0461	.1251	-.0134	-.0843	-.0853	3348.	
.1470	-3755.	-2914.	-4335.	-1552.	-4954.	2597.	-.0616	.0470	.1035	-.0377	-.1052	-.0745	2720.	
.1480	-2784.	-2477.	-3228.	-1782.	-2926.	2189.	-.0492	.0476	.0785	-.0577	-.1168	-.0572	1905.	
.1490	-1604.	-2099.	-2341.	-2093.	-574.	1763.	-.0360	.0480	.0515	-.0750	-.1236	-.0346	1310.	
.1500	-921.	-1575.	-991.	-1286.	1341.	1429.	-.0229	.0477	.0245	-.0932	-.1341	-.0092	1098.	
.1510	-276.	-791.	686.	-6.	3030.	998.	-.0099	.0471	-.0024	-.1109	-.1423	.0201	1495.	
.1520	826.	-257.	1484.	510.	5174.	411.	.0026	.0463	-.0296	-.1249	-.1444	.0527	2444.	
.1530	2100.	341.	2343.	772.	6995.	-227.	.0141	.0456	-.0556	-.1365	-.1374	.0873	3299.	
.1540	2938.	1040.	3605.	1622.	7866.	-876.	.0237	.0448	-.0785	-.1486	-.1261	.1212	3786.	
.1550	3640.	1638.	4690.	2401.	8177.	-1629.	.0319	.0442	-.0984	-.1597	-.1077	.1546	4066.	
.1560	4758.	2169.	5489.	2226.	8390.	-2484.	.0387	.0441	-.1160	-.1681	-.0773	.1877	4231.	
.1570	5763.	2427.	5842.	1716.	8496.	-3236.	.0436	.0445	-.1307	-.1759	-.0482	.2164	4336.	
.1580	6245.	2861.	6762.	1866.	7909.	-3828.	.0467	.0453	-.1413	-.1859	-.0244	.2393	4210.	
.1590	6621.	3338.	7708.	2016.	7220.	-4352.	.0488	.0465	-.1488	-.1954	-.0035	.2576	4062.	
.1600	7094.	3296.	7435.	1448.	7254.	-4772.	.0500	.0483	-.1542	-.2017	.0102	.2705	4125.	
.1610	7085.	3157.	7137.	1287.	7033.	-4946.	.0501	.0504	-.1565	-.2059	.0174	.2767	4074.	
.1620	6611.	3438.	7824.	1810.	5957.	-4946.	.0498	.0527	-.1553	-.2070	.0275	.2776	3726.	
.1630	6322.	3275.	7389.	1382.	5507.	-4898.	.0492	.0555	-.1527	-.2004	.0395	.2742	3514.	
.1640	6098.	2748.	6196.	294.	5506.	-4689.	.0485	.0586	-.1487	-.1871	.0518	.2667	3392.	
.1650	5285.	2501.	5882.	163.	4801.	-4192.	.0474	.0615	-.1417	-.1719	.0606	.2542	2988.	
.1660	4110.	2160.	5408.	522.	4090.	-3523.	.0457	.0642	-.1325	-.1543	.0607	.2367	2541.	
.1670	3289.	1589.	4237.	171.	4086.	-2808.	.0438	.0668	-.1226	-.1326	.0583	.2167	2325.	

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

.1560	4758.	2169.	5489.	2226.	8390.	-2484.	.0487	.0441	-.1160	-.1681	-.0773	.1877	4231.
.1570	5763.	2427.	5842.	1716.	8496.	-3236.	.0436	.0445	-.1307	-.1759	-.0482	.2164	4336.
.1580	6245.	2861.	6762.	1866.	7909.	-3828.	.0467	.0453	-.1413	-.1859	-.0244	.2393	4210.
.1590	6621.	3338.	7708.	2016.	7220.	-4352.	.0488	.0465	-.1488	-.1954	-.0035	.2576	4062.
.1600	7094.	3296.	7435.	1448.	7254.	-4772.	.0500	.0483	-.1542	-.2017	.0102	.2705	4125.
.1610	7085.	3157.	7127.	1267.	7033.	-4946.	.0501	.0504	-.1565	-.2059	.0174	.2767	4074.
.1620	6611.	3438.	7824.	1810.	5957.	-4946.	.0498	.0527	-.1553	-.2070	.0275	.2776	3726.
.1630	6322.	3275.	7389.	1382.	5507.	-4898.	.0492	.0555	-.1527	-.2004	.0395	.2742	3514.
.1640	6098.	2748.	6196.	294.	5506.	-4689.	.0485	.0586	-.1487	-.1871	.0518	.2667	3392.
.1650	5285.	2501.	5882.	163.	4801.	-4192.	.0474	.0615	-.1417	-.1719	.0606	.2542	2988.
.1660	4110.	2160.	5408.	522.	4090.	-3523.	.0457	.0642	-.1325	-.1543	.0507	.2367	2541.
.1670	3289.	1589.	4237.	171.	4086.	-2808.	.0438	.0668	-.1226	-.1326	.0583	.2167	2325.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.00.

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	6	MEMBER	1	SEQUENCE	24	LOCATION	BEG	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.1680	2485.	898.	2960.	-393.	4270.	-1933.	.0413	.0691	-.1113	-.1092	.0528	.1941	2204.		
.1690	1406.	536.	2556.	-368.	3901.	-930.	.0378	.0708	-.0976	-.0867	.0447	.1692	1887.		
.1700	433.	157.	1972.	-459.	3588.	10.	.0334	.0717	-.0825	-.0634	.0345	.1431	1695.		
.1710	-358.	-640.	500.	-1032.	3506.	878.	.0279	.0718	-.0665	-.0381	.0244	.1170	1762.		
.1720	-1128.	-1104.	-129.	-1353.	2564.	1675.	.0216	.0708	-.0485	-.0122	.0242	.0929	1569.		
.1730	-1836.	-1461.	-641.	-1690.	1273.	2288.	.0143	.0685	-.0295	.0141	.0282	.0701	1460.		
.1740	-2208.	-1863.	-1571.	-2520.	223.	2672.	.0062	.0651	-.0104	.0412	.0337	.0491	1724.		
.1750	-2464.	-2134.	-2260.	-3231.	-1027.	2973.	-.0023	.0602	.0088	.0674	.0406	.0302	2113.		
.1760	-2875.	-2405.	-2871.	-3336.	-2535.	3216.	-.0112	.0539	.0283	.0915	.0442	.0129	2475.		
.1770	-3096.	-2520.	-3436.	-3259.	-3914.	3253.	-.0193	.0461	.0469	.1137	.0468	-.0020	2832.		
.1780	-3112.	-2695.	-4290.	-3383.	-4771.	3175.	-.0280	.0372	.0639	.1338	.0457	-.0155	3119.		
.1790	-3123.	-2677.	-4588.	-3331.	-5574.	3125.	-.0359	.0274	.0796	.1503	.0435	-.0278	3377.		
.1800	-3124.	-2527.	-4547.	-3016.	-6276.	3034.	-.0729	.0167	.0937	.1628	.0397	-.0389	3559.		
.1810	-3089.	-2627.	-5080.	-2637.	-6487.	2843.	-.0492	.0053	.1059	.1721	.0311	-.0497	3542.		
.1820	-3005.	-2526.	-5122.	-2011.	-6756.	2629.	-.0545	-.0065	.1163	.1777	.0244	-.0594	3525.		
.1830	-2904.	-2312.	-4799.	-1360.	-6962.	2424.	-.0590	-.0185	.1248	.1793	.0187	-.0691	3513.		
.1840	-2615.	-2046.	-4492.	-1021.	-6764.	2108.	-.0624	-.0303	.1308	.1776	.0127	-.0789	3354.		
.1850	-2228.	-1679.	-4079.	-704.	-6349.	1703.	-.0647	-.0418	.1346	.1721	.0054	-.0886	3098.		
.1860	-1983.	-1338.	-3592.	-28.	-5950.	1360.	-.0660	-.0528	.1366	.1625	-.0068	-.0990	2860.		
.1870	-1686.	-900.	-2936.	778.	-5513.	1040.	-.0661	-.0632	.1366	.1496	-.0213	-.1093	2654.		
.1880	-1296.	-600.	-2713.	1309.	-4677.	677.	-.0651	-.0725	.1344	.1345	-.0402	-.1200	2298.		
.1890	-984.	-275.	-2372.	1766.	-3877.	335.	-.0630	-.0805	.1306	.1174	-.0598	-.1306	2002.		
.1900	-789.	75.	-1778.	2203.	-3364.	71.	-.0598	-.0870	.1255	.0992	-.0765	-.1406	1885.		
.1910	-630.	105.	-1793.	2358.	-2801.	-177.	-.0557	-.0918	.1189	.0819	-.0915	-.1502	1718.		
.1920	-513.	80.	-1954.	2426.	-2441.	-452.	-.0507	-.0950	.1113	.0653	-.1015	-.1588	1627.		
.1930	-570.	103.	-1906.	2526.	-2420.	-686.	-.0449	-.0965	.1028	.0490	-.1064	-.1668	1671.		
.1940	-666.	80.	-1881.	2322.	-2394.	-872.	-.0386	-.0961	.0932	.0333	-.1067	-.1742	1615.		
.1950	-687.	56.	-1937.	1812.	-2211.	-1063.	-.0315	-.0939	.0822	.0188	-.1025	-.1805	1430.		
.1960	-749.	137.	-1828.	1430.	-2023.	-1230.	-.0237	-.0901	.0701	.0047	-.0959	-.1856	1296.		
.1970	-939.	248.	-1574.	1290.	-1765.	-1285.	-.0155	-.0850	.0570	-.0091	-.0898	-.1891	1188.		
.1980	-1155.	314.	-1303.	1128.	-1243.	-1208.	-.0067	-.0784	.0427	-.0216	-.0638	-.1903	969.		
.1990	-1293.	410.	-898.	827.	-504.	-1050.	.0027	-.0706	.0271	-.0315	-.0745	-.1877	668.		
.2000	-1362.	541.	-322.	458.	316.	-834.	.0125	-.0618	.0103	-.0376	-.0605	-.1805	470.		
.2010	-1401.	601.	246.	101.	1200.	-545.	.0227	-.0523	-.0072	-.0393	-.0438	-.1681	619.		
.2020	-1408.	593.	768.	-180.	2111.	-205.	.0329	-.0426	-.0254	-.0365	-.0257	-.1501	998.		
.2030	-1318.	614.	1308.	-372.	3010.	117.	.0431	-.0329	-.0437	-.0295	-.0070	-.1264	1422.		
.2040	-1064.	677.	1804.	-556.	3927.	374.	.0527	-.0235	-.0619	-.0184	.0112	-.0974	1867.		
.2050	-649.	776.	2250.	-751.	4815.	551.	.0615	-.0146	-.0796	-.0043	.0280	-.0641	2298.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.00.

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

.1950	-687.	56.	-1937.	1812.	-2211.	-1063.	-2315	-0939	.0822	.0188	-0.1025	-0.1205	1430.
.1960	-749.	137.	-1828.	1430.	-2023.	-1230.	-0.237	-0.0901	.0701	.0047	-0.0959	-0.1856	1296.
.1970	-939.	248.	-1574.	1290.	-1765.	-1285.	-0.155	-0.0850	.0570	-0.0091	-0.0898	-0.1891	1188.
.1980	-1155.	314.	-1303.	1128.	-1243.	-1208.	-0.067	-0.0784	.0427	-0.0216	-0.0838	-0.1903	969.
.1990	-1293.	410.	-898.	823.	-504.	-1050.	.0027	-0.0706	.0271	-0.0315	-0.0745	-0.1877	668.
.2000	-1362.	541.	-322.	458.	316.	-834.	.0125	-0.0618	.0103	-0.0376	-0.0505	-0.1805	470.
.2010	-1401.	601.	246.	101.	1200.	-545.	.0227	-0.0523	-0.0072	-0.0393	-0.0438	-0.1881	619.
.2020	-1408.	593.	768.	-180.	2111.	-205.	.0329	-0.0426	-0.0254	-0.0365	-0.0257	-0.1501	998.
.2030	-1318.	614.	1308.	-372.	3010.	117.	.0431	-0.0329	-0.0437	-0.0295	-0.0370	-0.1264	1422.
.2040	-1064.	677.	1804.	-556.	3927.	374.	.0527	-0.0235	-0.0519	-0.0184	.0112	-0.0974	1867.
.2050	-649.	776.	2250.	-751.	4815.	551.	.0615	-0.0146	-0.0796	-0.0043	.0280	-0.0641	2298.

ADLPIPE PAGE 314 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.26.00.

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	0	MEMBER	1	SEQUENCE	24	LOCATION	BEG	TYPE	VA					
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
.2060	-110.	947.	2708.	-889.	5565.	615.	.0691	-0.0066	-0.0961	.0116	.0429	-0.0273	2657.	
.2070	534.	1174.	3108.	-982.	6156.	530.	.0753	.0006	-0.1108	.0281	.0553	.0116	2932.	
.2080	1246.	1389.	3387.	-1090.	6562.	320.	.0799	.0067	-0.1233	.0440	.0551	.0510	3121.	
.2090	1973.	1596.	3676.	-1239.	6667.	33.	.0825	.0118	-0.1330	.0586	.0738	.0892	3178.	
.2100	2727.	1813.	4015.	-1524.	6469.	-329.	.0834	.0158	-0.1398	.0713	.0832	.1249	3118.	
.2110	3492.	1978.	4234.	-2001.	6096.	-762.	.0824	.0188	-0.1435	.0817	.0926	.1568	3028.	
.2120	4141.	2072.	4354.	-2476.	5527.	-1200.	.0799	.0206	-0.1440	.0893	.1005	.1831	2893.	
.2130	4599.	2153.	4510.	-2768.	4716.	-1592.	.0758	.0211	-0.1414	.0941	.1067	.2026	2669.	
.2140	4950.	2221.	4582.	-2999.	3874.	-1948.	.0707	.0205	-0.1359	.0967	.1112	.2146	2471.	
.2150	5217.	2245.	4435.	-3243.	3203.	-2246.	.0649	.0187	-0.1282	.0978	.1127	.2187	2381.	
.2160	5257.	2249.	4213.	-3258.	2611.	-2405.	.0584	.0158	-0.1180	.0971	.1098	.2142	2258.	
.2170	5015.	2234.	3958.	-2925.	2031.	-2402.	.0515	.0118	-0.1057	.0953	.1028	.2013	2013.	
.2180	4590.	2117.	3447.	-2451.	1594.	-2278.	.0445	.0069	-0.0914	.0934	.0932	.1807	1737.	
.2190	3999.	1864.	2681.	-1956.	1292.	-2027.	.0374	.0014	-0.0756	.0915	.0823	.1530	1452.	
.2200	3169.	1532.	1916.	-1363.	947.	-1613.	.0301	-0.0046	-0.0580	.0889	.0705	.1188	1085.	
.2210	2154.	1135.	1156.	-731.	553.	-1077.	.0225	-0.0109	-0.0389	.0853	.0578	.0792	663.	
.2220	1074.	640.	247.	-194.	195.	-500.	.0146	-0.0174	-0.0187	.0805	.0445	.0354	267.	
.2230	-56.	101.	-676.	302.	-221.	91.	.0063	-0.0238	.0024	.0737	.0306	-0.0113	180.	
.2240	-1217.	-387.	-1406.	797.	-771.	671.	-0.0025	-0.0300	.0240	.0642	.0160	-0.0594	607.	
.2250	-2279.	-797.	-2002.	1139.	-1313.	1173.	-0.0115	-0.0359	.0455	.0522	.0000	-0.1074	983.	
.2260	-3163.	-1126.	-2528.	1279.	-1778.	1561.	-0.0208	-0.0413	.0662	.0381	-0.0174	-0.1533	1260.	
.2270	-3920.	-1361.	-2881.	1392.	-2302.	1854.	-0.0300	-0.0462	.0858	.0225	-0.0357	-0.1952	1531.	
.2280	-4550.	-1526.	-3089.	1518.	-2915.	2050.	-0.0387	-0.0504	.1035	.0069	-0.0539	-0.2312	1815.	
.2290	-4964.	-1659.	-3301.	1497.	-3478.	2117.	-0.0467	-0.0537	.1187	-0.0071	-0.0704	-0.2596	2033.	
.2300	-5150.	-1753.	-3493.	1304.	-3946.	2077.	-0.0534	-0.0562	.1307	-0.0181	-0.0845	-0.2789	2177.	
.2310	-5182.	-1801.	-3594.	1001.	-4368.	1987.	-0.0588	-0.0577	.1394	-0.0254	-0.0966	-0.2885	2306.	
.2320	-5078.	-1846.	-3720.	948.	-4695.	1860.	-0.0625	-0.0582	.1445	-0.0283	-0.1071	-0.2882	2408.	
.2330	-4810.	-1897.	-3963.	878.	-4857.	1683.	-0.0645	-0.0578	.1458	-0.0264	-0.1157	-0.2781	2444.	
.2340	-4403.	-1905.	-4208.	886.	-4878.	1472.	-0.0648	-0.0564	.1437	-0.0199	-0.1216	-0.2590	2424.	
.2350	-3898.	-1839.	-4354.	938.	-4780.	1249.	-0.0636	-0.0540	.1383	-0.0097	-0.1240	-0.2324	2357.	
.2360	-3300.	-1713.	-4422.	968.	-4559.	1005.	-0.0611	-0.0505	.1301	.0033	-0.1221	-0.1998	2234.	
.2370	-2629.	-1538.	-4406.	977.	-4275.	742.	-0.0576	-0.0461	.1198	.0180	-0.1149	-0.1629	2084.	
.2380	-1940.	-1323.	-4249.	991.	-4011.	488.	-0.0533	-0.0407	.1078	.0332	-0.1020	-0.1235	1949.	
.2390	-1276.	-1088.	-3932.	963.	-3764.	270.	-0.0486	-0.0343	.0948	.0473	-0.0842	-0.0835	1825.	
.2400	-654.	-838.	-3443.	823.	-3512.	90.	-0.0435	-0.0271	.0811	.0591	-0.0622	-0.0447	1691.	
.2410	-80.	-574.	-2779.	566.	-3257.	-48.	-0.0382	-0.0191	.0671	.0681	-0.0365	-0.0080	1550.	
.2420	429.	-331.	-2014.	239.	-2987.	-129.	-0.0327	-0.0106	.0529	.0736	-0.0388	.0254	1405.	
.2430	844.	-131.	-1232.	-72.	-2671.	-146.	-0.0269	-0.0019	.0387	.0755	.0183	.0547	1254.	

ADLPIPE PAGE 315 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.26.00.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

.2330	-4810.	-1897.	-3963.	878.	-4857.	1683.	-.0645	-.0570	.1458	-.0264	-.1157	-.2781	2444.
.2340	-4403.	-1905.	-4208.	886.	-4878.	1472.	-.0648	-.0564	.1437	-.0199	-.1216	-.2590	2424.
.2350	-3898.	-1839.	-4354.	978.	-4780.	1249.	-.0636	-.0540	.1383	-.0097	-.1240	-.2374	2357.
.2360	-3700.	-1713.	-4422.	968.	-4559.	1005.	-.0611	-.0505	.1301	.0033	-.1221	-.1998	2234.
.2370	-2629.	-1538.	-4406.	977.	-4275.	742.	-.0576	-.0461	.1198	.0180	-.1149	-.1629	2084.
.2380	-1940.	-1323.	-4249.	991.	-4011.	488.	-.0533	-.0407	.1078	.0332	-.1020	-.1235	1949.
.2390	-1276.	-1088.	-3932.	963.	-3764.	270.	-.0486	-.0342	.0948	.0473	-.0842	-.0835	1825.
.2400	-654.	-838.	-3443.	823.	-3512.	90.	-.0435	-.0271	.0811	.0591	-.0622	-.0447	1691.
.2410	-80.	-574.	-2779.	566.	-3257.	-48.	-.0382	-.0191	.0671	.0681	-.0365	-.0080	1550.
.2420	429.	-331.	-2014.	239.	-2987.	-129.	-.0327	-.0106	.0529	.0736	-.0088	.0254	1405.
.2430	844.	-131.	-1232.	-72.	-2671.	-146.	-.0269	-.0019	.0387	.0755	.0183	.0547	1254.

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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	BEG	TYPE	VA								
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
.2440	1147.	47.	-447.	-303.	-2301.	-109.	-.0209	.0070	.0245	.0735	.0428	.0796	1089.	
.2450	1352.	209.	311.	-473.	-1861.	-33.	-.0146	.0156	.0104	.0682	.0541	.0999	900.	
.2460	1489.	329.	963.	-634.	-1330.	63.	-.0080	.0239	-.0037	.0602	.0818	.1160	691.	
.2470	1565.	409.	1476.	-756.	-736.	161.	-.0010	.0317	-.0177	.0498	.0956	.1279	500.	
.2480	1576.	467.	1861.	-784.	-108.	246.	.0063	.0388	-.0314	.0372	.1045	.1358	388.	
.2490	1525.	492.	2088.	-727.	565.	316.	.0136	.0450	-.0447	.0223	.1075	.1401	456.	
.2500	1420.	468.	2162.	-616.	1270.	371.	.0209	.0504	-.0574	.0051	.1046	.1410	684.	
.2510	1290.	427.	2168.	-481.	1944.	394.	.0278	.0548	-.0692	-.0140	.0972	.1389	956.	
.2520	1191.	399.	2145.	-390.	2585.	361.	.0341	.0583	-.0798	-.0350	.0865	.1341	1237.	
.2530	1136.	373.	2069.	-373.	3221.	274.	.0396	.0608	-.0892	-.0575	.0721	.1270	1525.	
.2540	1079.	358.	1999.	-335.	3785.	154.	.0441	.0624	-.0968	-.0815	.0543	.1180	1782.	
.2550	1012.	384.	2008.	-218.	4188.	-5.	.0473	.0629	-.1025	-.1060	.0348	.1076	1965.	
.2560	1009.	443.	2047.	-145.	4459.	-222.	.0494	.0624	-.1063	-.1297	.0165	.0967	2093.	
.2570	1099.	516.	2079.	-205.	4651.	-488.	.0503	.0611	-.1084	-.1512	.0007	.0858	2194.	
.2580	1205.	627.	2194.	-271.	4712.	-768.	.0500	.0589	-.1087	-.1700	-.0124	.0755	2241.	
.2590	1277.	777.	2401.	-217.	4619.	-1040.	.0487	.0558	-.1073	-.1855	-.0228	.0661	2221.	
.2600	1359.	904.	2552.	-93.	4476.	-1294.	.0467	.0521	-.1044	-.1968	-.0303	.0582	2184.	
.2610	1471.	992.	2622.	67.	4349.	-1507.	.0440	.0478	-.1004	-.2035	-.0347	.0519	2157.	
.2620	1567.	1085.	2728.	329.	4227.	-1649.	.0408	.0430	-.0954	-.2061	-.0372	.0473	2132.	
.2630	1634.	1184.	2859.	698.	4158.	-1716.	.0372	.0380	-.0895	-.2052	-.0390	.0441	2133.	
.2640	1692.	1242.	2901.	1133.	4186.	-1716.	.0332	.0327	-.0828	-.2012	-.0408	.0421	2186.	
.2650	1728.	1257.	2869.	1660.	4233.	-1655.	.0287	.0275	-.0753	-.1946	-.0425	.0411	2267.	
.2660	1734.	1260.	2835.	2250.	4216.	-1549.	.0238	.0224	-.0669	-.1862	-.0438	.0406	2354.	
.2670	1739.	1255.	2775.	2751.	4151.	-1428.	.0183	.0176	-.0577	-.1767	-.0448	.0403	2428.	
.2680	1748.	1231.	2666.	3081.	4011.	-1312.	.0122	.0134	-.0475	-.1663	-.0452	.0398	2449.	
.2690	1726.	1192.	2530.	3303.	3680.	-1210.	.0056	.0098	-.0362	-.1555	-.0450	.0389	2386.	
.2700	1665.	1126.	2328.	3437.	3122.	-1139.	-.0016	.0068	-.0240	-.1444	-.0443	.0374	2240.	
.2710	1587.	1017.	1996.	3412.	2399.	-1100.	-.0092	.0045	-.0109	-.1330	-.0436	.0352	2022.	
.2720	1481.	874.	1570.	3215.	1550.	-1069.	-.0170	.0030	.0027	-.1213	-.0435	.0319	1746.	
.2730	1311.	703.	1084.	2915.	574.	-1020.	-.0249	.0024	.0168	-.1094	-.0444	.0276	1472.	
.2740	1064.	467.	472.	2567.	-495.	-947.	-.0326	.0025	.0309	-.0969	-.0458	.0223	1303.	
.2750	747.	151.	-289.	2180.	-1605.	-837.	-.0398	.0034	.0447	-.0837	-.0471	.0160	1328.	
.2760	361.	-222.	-1117.	1756.	-2708.	-666.	-.0463	.0051	.0579	-.0701	-.0475	.0089	1544.	
.2770	-99.	-623.	-1940.	1306.	-3733.	-415.	-.0519	.0074	.0700	-.0563	-.0471	.0007	1863.	
.2780	-420.	-1045.	-2744.	866.	-4612.	-86.	-.0565	.0104	.0809	-.0430	-.0458	-.0084	2200.	
.2790	-1189.	-1471.	-3499.	502.	-5317.	313.	-.0601	.0139	.0902	-.0307	-.0436	-.0183	2507.	
.2800	-1789.	-1880.	-4154.	243.	-5814.	775.	-.0625	.0178	.0977	-.0200	-.0408	-.0287	2751.	
.2810	-2396.	-2247.	-4663.	69.	-6060.	1289.	-.0639	.0221	.1033	-.0116	-.0378	-.0393	2904.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.00.

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

.2700	1667.	1122.	1996.	3412.	2399.	-1100.	-.0092	.0045	-.0109	-.1330	-.0436	.0352	2022.
.2710	1587.	1017.	1996.	3412.	2399.	-1100.	-.0092	.0045	-.0109	-.1330	-.0436	.0352	2022.
.2720	1481.	874.	1570.	3215.	1550.	-1069.	-.0170	.0030	.0027	-.1213	-.0435	.0319	1746.
.2730	1311.	703.	1084.	2915.	974.	-1020.	-.0249	.0024	.0168	-.1094	-.0444	.0276	1472.
.2740	1064.	467.	472.	2567.	-495.	-947.	-.0326	.0025	.0309	-.0969	-.0458	.0223	1303.
.2750	747.	151.	-289.	2180.	-1605.	-837.	-.0398	.0034	.0447	-.0837	-.0471	.0160	1328.
.2760	361.	-222.	-1117.	1756.	-2708.	-686.	-.0463	.0051	.0579	-.0701	-.0475	.0089	1544.
.2770	-99.	-623.	-1940.	1306.	-3733.	-415.	-.0519	.0074	.0700	-.0563	-.0471	.0007	1863.
.2780	-620.	-1045.	-2744.	866.	-4612.	-86.	-.0565	.0104	.0809	-.0430	-.0458	-.0084	2200.
.2790	-1189.	-1471.	-3499.	502.	-5317.	313.	-.0601	.0139	.0902	-.0307	-.0436	-.0183	2507.
.2800	-1789.	-1880.	-4154.	243.	-5814.	775.	-.0625	.0178	.0977	-.0200	-.0408	-.0287	2751.
.2810	-2396.	-2247.	-4663.	69.	-6060.	1289.	-.0639	.0221	.1033	-.0116	-.0378	-.0393	2904.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.00.

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	6	MEMBER	1	SEQUENCE	24	LOCATION	BEG	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.2820	-2981.	-2545.	-4987.	-40.	-6056.	1828.	-.0642	.0266	.1069	-.0058	-.0347	-.0494	2965.		
.2830	-3517.	-2770.	-5118.	-89.	-5857.	2357.	-.0637	.0311	.1084	-.0026	-.0309	-.0583	2959.		
.2840	-3976.	-2937.	-5098.	-95.	-5526.	2839.	-.0622	.0357	.1079	-.0016	-.0260	-.0650	2912.		
.2850	-4332.	-3051.	-4951.	-88.	-5122.	3241.	-.0600	.0401	.1054	-.0023	-.0195	-.0686	2841.		
.2860	-4561.	-3094.	-4670.	-96.	-4704.	3530.	-.0572	.0442	.1009	-.0042	-.0115	-.0683	2757.		
.2870	-4632.	-3057.	-4279.	-146.	-4298.	3677.	-.0537	.0479	.0945	-.0067	-.0019	-.0635	2652.		
.2880	-4525.	-2953.	-3837.	-239.	-3912.	3659.	-.0496	.0511	.0862	-.0094	.0084	-.0538	2513.		
.2890	-4243.	-2779.	-3364.	-333.	-3559.	3476.	-.0450	.0537	.0761	-.0121	.0185	-.0391	2337.		
.2900	-3790.	-2529.	-2859.	-400.	-3227.	3138.	-.0399	.0557	.0643	-.0148	.0274	-.0198	2118.		
.2910	-3169.	-2205.	-2340.	-453.	-2871.	2658.	-.0343	.0569	.0509	-.0173	.0343	.0036	1846.		
.2920	-2405.	-1822.	-1812.	-499.	-2465.	2063.	-.0282	.0575	.0362	-.0200	.0389	.0301	1524.		
.2930	-1536.	-1394.	-1254.	-524.	-2016.	1389.	-.0218	.0575	.0205	-.0229	.0414	.0588	1173.		
.2940	-595.	-944.	-674.	-531.	-1514.	674.	-.0151	.0569	.0041	-.0262	.0421	.0885	815.		
.2950	381.	-491.	-87.	-527.	-934.	-46.	-.0082	.0558	-.0127	-.0302	.0412	.1176	503.		
.2960	1338.	-43.	530.	-497.	-283.	-733.	-.0012	.0543	-.0293	-.0352	.0387	.1449	436.		
.2970	2231.	392.	1192.	-435.	429.	-1355.	.0057	.0525	-.0455	-.0413	.0349	.1692	697.		
.2980	3040.	797.	1863.	-358.	1215.	-1895.	.0125	.0504	-.0607	-.0486	.0302	.1893	1068.		
.2990	3736.	1166.	2517.	-260.	2067.	-2339.	.0189	.0481	-.0746	-.0569	.0245	.2043	1468.		
.3000	4280.	1503.	3166.	-111.	2945.	-2672.	.0249	.0456	-.0869	-.0661	.0178	.2137	1864.		
.3010	4649.	1793.	3781.	80.	3812.	-2885.	.0302	.0430	-.0971	-.0759	.0102	.2171	2241.		
.3020	4851.	2012.	4303.	269.	4640.	-2985.	.0349	.0404	-.1051	-.0856	.0024	.2148	2588.		
.3030	4888.	2153.	4705.	438.	5369.	-2984.	.0388	.0378	-.1108	-.0946	-.0048	.2071	2886.		
.3040	4757.	2218.	4989.	583.	5936.	-2891.	.0417	.0352	-.1139	-.1023	-.0110	.1945	3106.		
.3050	4478.	2195.	5129.	672.	6319.	-2715.	.0438	.0327	-.1146	-.1082	-.0159	.1779	3238.		
.3060	4080.	2082.	5096.	687.	6510.	-2471.	.0448	.0302	-.1127	-.1118	-.0196	.1582	3279.		
.3070	3586.	1896.	4906.	649.	6485.	-2180.	.0449	.0279	-.1086	-.1128	-.0220	.1362	3221.		
.3080	3023.	1660.	4583.	567.	6250.	-1862.	.0440	.0255	-.1023	-.1111	-.0234	.1128	3068.		
.3090	2429.	1388.	4137.	421.	5848.	-1532.	.0422	.0232	-.0942	-.1066	-.0240	.0890	2840.		
.3100	1831.	1098.	3594.	215.	5309.	-1202.	.0395	.0209	-.0845	-.0992	-.0240	.0656	2553.		
.3110	1245.	808.	2987.	-12.	4646.	-882.	.0361	.0185	-.0735	-.0888	-.0235	.0434	2216.		
.3120	684.	525.	2333.	-238.	3880.	-580.	.0320	.0160	-.0616	-.0756	-.0224	.0230	1842.		
.3130	171.	246.	1643.	-474.	3051.	-299.	.0273	.0134	-.0489	-.0595	-.0204	.0050	1454.		
.3140	-290.	-21.	948.	-723.	2189.	-36.	.0222	.0107	-.0358	-.0407	-.0174	-.0102	1080.		
.3150	-700.	-271.	279.	-961.	1313.	208.	.0169	.0078	-.0226	-.0195	-.0133	-.0226	769.		
.3160	-1053.	-504.	-360.	-1170.	452.	435.	.0113	.0047	-.0094	.0037	-.0083	-.0320	622.		
.3170	-1346.	-721.	-961.	-1337.	-369.	647.	.0056	.0014	.0035	.0282	-.0026	-.0386	717.		
.3180	-1585.	-914.	-1502.	-1453.	-1132.	844.	-.0000	-.0021	.0161	.0536	.0035	-.0427	949.		
.3190	-1770.	-1068.	-1960.	-1520.	-1821.	1019.	-.0056	-.0058	.0280	.0790	.0097	-.0448	1210.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.26.00.

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

.3090	2429.	1388.	-137.	421.	5848.	-1532.	.0422	.0232	-.0942	-.1066	-.0240	.0890	2840.
.3100	1831.	1098.	3594.	215.	5309.	-1202.	.0395	.0209	-.0845	-.0992	-.0240	.0656	2553.
.3110	1245.	808.	2987.	-12.	4646.	-882.	.0361	.0185	-.0735	-.0888	-.0235	.0434	2216.
.3120	686.	525.	2337.	-278.	3880.	-580.	.0320	.0160	-.0616	-.0756	-.0224	.0230	1842.
.3130	171.	246.	1647.	-474.	3051.	-299.	.0273	.0134	-.0489	-.0595	-.0204	.0050	1454.
.3140	-290.	-21.	948.	-723.	2189.	-36.	.0222	.0107	-.0358	-.0407	-.0174	-.0102	1080.
.3150	-700.	-271.	279.	-961.	1313.	208.	.0169	.0078	-.0226	-.0195	-.0133	-.0226	769.
.3160	-1053.	-504.	-360.	-1170.	452.	435.	.0113	.0047	-.0094	.0037	-.0083	-.0320	622.
.3170	-1346.	-721.	-961.	-1337.	-369.	647.	.0056	.0014	.0035	.0282	-.0026	-.0386	717.
.3180	-1585.	-914.	-1502.	-1453.	-1132.	844.	-.0000	-.0021	.0161	.0536	.0035	-.0427	949.
.3190	-1770.	-1068.	-1960.	-1520.	-1821.	1019.	-.0056	-.0058	.0280	.0790	.0097	-.0448	1210.

ADLPIPE PAGE 317 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.26.00.

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	6	MEMBER	1	SEQUENCE	24	LOCATION	BEG	TYPE	VA							
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS			
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)			
.3200	-1897.	-1179.	-2324.	-1550.	-2431.	1167.	-.0110	-.0098	.0393	.1039	.0161	-.0453	1458.			
.3210	-1964.	-1246.	-2600.	-1556.	-2968.	1286.	-.0162	-.0140	.0499	.1276	.0226	-.0447	1682.			
.3220	-1980.	-1275.	-2794.	-1539.	-3446.	1372.	-.0211	-.0183	.0596	.1498	.0290	-.0436	1882.			
.3230	-1959.	-1270.	-2914.	-1503.	-3881.	1425.	-.0257	-.0228	.0684	.1699	.0353	-.0423	2061.			
.3240	-1908.	-1234.	-2964.	-1468.	-4281.	1446.	-.0297	-.0273	.0762	.1877	.0413	-.0413	2226.			
.3250	-1823.	-1177.	-2965.	-1465.	-4642.	1437.	-.0332	-.0319	.0829	.2032	.0472	-.0409	2378.			
.3260	-1716.	-1110.	-2944.	-1488.	-4963.	1402.	-.0360	-.0366	.0885	.2161	.0524	-.0414	2515.			
.3270	-1610.	-1040.	-2918.	-1506.	-5244.	1347.	-.0380	-.0412	.0929	.2263	.0566	-.0432	2634.			
.3280	-1515.	-970.	-2896.	-1509.	-5469.	1279.	-.0391	-.0458	.0959	.2339	.0591	-.0465	2725.			
.3290	-1434.	-900.	-2889.	-1506.	-5609.	1203.	-.0393	-.0503	.0975	.2387	.0598	-.0515	2780.			
.3300	-1371.	-832.	-2901.	-1495.	-5648.	1125.	-.0384	-.0547	.0977	.2407	.0585	-.0584	2788.			
.3310	-1337.	-764.	-2922.	-1456.	-5583.	1047.	-.0366	-.0589	.0965	.2398	.0551	-.0671	2748.			
.3320	-1339.	-697.	-2945.	-1379.	-5411.	973.	-.0339	-.0630	.0940	.2359	.0498	-.0777	2656.			
.3330	-1378.	-635.	-2963.	-1274.	-5124.	908.	-.0302	-.0668	.0901	.2291	.0428	-.0900	2511.			
.3340	-1447.	-572.	-2950.	-1149.	-4728.	854.	-.0258	-.0703	.0849	.2192	.0345	-.1039	2315.			
.3350	-1537.	-501.	-2878.	-1015.	-4235.	808.	-.0207	-.0735	.0787	.2063	.0255	-.1190	2075.			
.3360	-1630.	-421.	-2742.	-882.	-3643.	768.	-.0150	-.0764	.0713	.1907	.0160	-.1348	1793.			
.3370	-1721.	-331.	-2535.	-746.	-2962.	731.	-.0089	-.0788	.0631	.1725	.0062	-.1507	1472.			
.3380	-1801.	-221.	-2239.	-592.	-2215.	695.	-.0026	-.0809	.0540	.1523	-.0037	-.1661	1123.			
.3390	-1847.	-84.	-1855.	-433.	-1419.	650.	.0040	-.0825	.0442	.1306	-.0135	-.1802	759.			
.3400	-1835.	77.	-1407.	-292.	-583.	586.	.0105	-.0838	.0338	.1083	-.0224	-.1922	411.			
.3410	-1759.	262.	-907.	-166.	257.	495.	.0171	-.0846	.0229	.0864	-.0303	-.2013	273.			
.3420	-1622.	474.	-363.	-40.	1062.	372.	.0235	-.0851	.0116	.0658	-.0367	-.2067	528.			
.3430	-1416.	702.	189.	74.	1808.	210.	.0297	-.0851	.0001	.0472	-.0411	-.2080	854.			
.3440	-1136.	938.	716.	163.	2481.	5.	.0356	-.0848	-.0116	.0317	-.0432	-.2048	1165.			
.3450	-788.	1180.	1213.	229.	3058.	-239.	.0412	-.0841	-.0232	.0195	-.0427	-.1970	1441.			
.3460	-385.	1426.	1676.	281.	3533.	-514.	.0465	-.0831	-.0346	.0110	-.0399	-.1847	1678.			
.3470	63.	1667.	2079.	317.	3921.	-811.	.0513	-.0817	-.0456	.0060	-.0351	-.1684	1882.			
.3480	538.	1896.	2419.	349.	4226.	-1118.	.0556	-.0800	-.0560	.0043	-.0288	-.1489	2055.			
.3490	1019.	2113.	2711.	390.	4448.	-1419.	.0593	-.0779	-.0656	.0053	-.0212	-.1269	2196.			
.3500	1495.	2314.	2959.	424.	4600.	-1702.	.0623	-.0756	-.0742	.0086	-.0126	-.1036	2307.			
.3510	1951.	2489.	3157.	435.	4698.	-1953.	.0645	-.0729	-.0815	.0134	-.0035	-.0799	2393.			
.3520	2360.	2636.	3317.	434.	4735.	-2158.	.0659	-.0699	-.0873	.0193	.0058	-.0569	2447.			
.3530	2697.	2747.	3444.	433.	4695.	-2306.	.0664	-.0667	-.0915	.0255	.0151	-.0356	2460.			
.3540	2956.	2812.	3521.	415.	4585.	-2393.	.0661	-.0632	-.0937	.0319	.0242	-.0167	2432.			
.3550	3130.	2826.	3540.	363.	4412.	-2414.	.0648	-.0596	-.0941	.0380	.0329	-.0011	2363.			
.3560	3203.	2788.	3507.	288.	4169.	-2364.	.0626	-.0558	-.0924	.0437	.0407	.0110	2250.			
.3570	3165.	2698.	3412.	205.	3855.	-2242.	.0596	-.0520	-.0887	.0488	.0473	.0190	2092.			

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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

.3470	63.	1667.	2079.	317.	3921.	-811.	.0513	-.0817	-.0346	.0110	-.0359	-.1684	1882.
.3480	538.	1896.	2419.	349.	4326.	-1118.	.0556	-.0800	-.0560	.0043	-.0288	-.1489	2055.
.3490	1019.	2113.	2711.	390.	4448.	-1419.	.0593	-.0779	-.0656	.0053	-.0212	-.1269	2196.
.3500	1495.	2314.	2959.	424.	4600.	-1702.	.0623	-.0756	-.0742	.0086	-.0126	-.1036	2307.
.3510	1951.	2489.	3157.	435.	4698.	-1953.	.0645	-.0729	-.0815	.0134	-.0035	-.0799	2393.
.3520	2360.	2636.	3317.	434.	4735.	-2158.	.0659	-.0699	-.0873	.0193	.0058	-.0569	2447.
.3530	2697.	2747.	3444.	433.	4695.	-2306.	.0664	-.0667	-.0915	.0255	.0151	-.0356	2460.
.3540	2956.	2812.	3521.	415.	4585.	-2393.	.0661	-.0632	-.0937	.0319	.0242	-.0167	2432.
.3550	3130.	2826.	3540.	363.	4412.	-2414.	.0648	-.0596	-.0941	.0380	.0329	-.0011	2363.
.3560	3203.	2788.	3507.	288.	4169.	-2364.	.0626	-.0558	-.0924	.0437	.0407	.0110	2250.
.3570	3165.	2698.	3412.	205.	3855.	-2242.	.0596	-.0520	-.0887	.0488	.0473	.0190	2092.

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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	6	MEMBER	1	SEQUENCE	24	LOCATION	BEG	TYPE	VA					
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)	
.3580	3019.	2546.	3233.	116.	3479.	-2055.	.0557	-.0481	-.0831	.0532	.0523	.0230	1894.	
.3590	2769.	2334.	2965.	21.	3044.	-1807.	.0512	-.0443	-.0757	.0570	.0557	.0230	1659.	
.3600	2423.	2072.	2622.	-80.	2554.	-1506.	.0460	-.0406	-.0667	.0602	.0575	.0192	1390.	
.3610	1994.	1769.	2209.	-191.	2024.	-1164.	.0403	-.0370	-.0562	.0627	.0574	.0120	1098.	
.3620	1499.	1429.	1730.	-308.	1468.	-792.	.0342	-.0335	-.0447	.0646	.0557	.0018	795.	
.3630	951.	1063.	1198.	-414.	895.	-403.	.0278	-.0303	-.0323	.0657	.0522	-.0107	499.	
.3640	373.	686.	633.	-502.	319.	-8.	.0212	-.0273	-.0194	.0660	.0471	-.0249	279.	
.3650	-210.	311.	51.	-575.	-236.	378.	.0146	-.0245	-.0063	.0654	.0405	-.0402	341.	
.3660	-772.	-49.	-526.	-630.	-752.	745.	.0079	-.0220	.0068	.0639	.0324	-.0557	577.	
.3670	-1313.	-385.	-1086.	-652.	-1224.	1082.	.0013	-.0198	.0194	.0613	.0232	-.0710	824.	
.3680	-1803.	-694.	-1619.	-630.	-1655.	1378.	-.0051	-.0178	.0315	.0579	.0131	-.0851	1051.	
.3690	-2231.	-970.	-2117.	-566.	-2045.	1624.	-.0113	-.0161	.0428	.0535	.0028	-.0975	1252.	
.3700	-2582.	-1208.	-2561.	-477.	-2398.	1811.	-.0171	-.0146	.0531	.0485	-.0073	-.1076	1426.	
.3710	-2850.	-1405.	-2939.	-371.	-2717.	1936.	-.0227	-.0133	.0622	.0428	-.0164	-.1151	1573.	
.3720	-3032.	-1559.	-3244.	-247.	-3008.	1993.	-.0278	-.0120	.0701	.0366	-.0244	-.1194	1695.	
.3730	-3127.	-1670.	-3469.	-99.	-3273.	1984.	-.0326	-.0108	.0767	.0298	-.0310	-.1206	1794.	
.3740	-3134.	-1735.	-3606.	65.	-3505.	1909.	-.0368	-.0096	.0817	.0226	-.0359	-.1184	1871.	
.3750	-3054.	-1752.	-3643.	233.	-3686.	1777.	-.0406	-.0082	.0853	.0147	-.0394	-.1130	1921.	
.3760	-2892.	-1719.	-3573.	401.	-3804.	1596.	-.0437	-.0066	.0873	.0063	-.0415	-.1045	1942.	
.3770	-2658.	-1639.	-3397.	572.	-3653.	1376.	-.0462	-.0048	.0876	-.0026	-.0423	-.0932	1936.	
.3780	-2362.	-1521.	-3130.	742.	-3824.	1128.	-.0480	-.0025	.0863	-.0120	-.0421	-.0793	1901.	
.3790	-2014.	-1373.	-2780.	904.	-3710.	864.	-.0491	.0002	.0834	-.0218	-.0410	-.0632	1835.	
.3800	-1626.	-1199.	-2356.	1046.	-3507.	597.	-.0494	.0033	.0788	-.0317	-.0392	-.0451	1738.	
.3810	-1208.	-1008.	-1881.	1160.	-3212.	338.	-.0488	.0071	.0727	-.0416	-.0370	-.0255	1608.	
.3820	-775.	-813.	-1386.	1252.	-2833.	93.	-.0473	.0114	.0651	-.0513	-.0346	-.0047	1452.	
.3830	-343.	-623.	-899.	1331.	-2383.	-131.	-.0450	.0162	.0563	-.0606	-.0324	.0168	1281.	
.3840	73.	-446.	-439.	1398.	-1878.	-328.	-.0420	.0216	.0463	-.0694	-.0305	.0387	1108.	
.3850	466.	-288.	-26.	1436.	-1333.	-498.	-.0382	.0274	.0355	-.0777	-.0289	.0605	947.	
.3860	828.	-154.	326.	1439.	-768.	-639.	-.0339	.0338	.0240	-.0854	-.0277	.0817	821.	
.3870	1144.	-51.	609.	1412.	-216.	-751.	-.0292	.0405	.0123	-.0926	-.0267	.1018	756.	
.3880	1401.	16.	823.	1357.	294.	-834.	-.0242	.0476	.0006	-.0995	-.0257	.1206	759.	
.3890	1598.	46.	972.	1260.	747.	-890.	-.0192	.0549	-.0108	-.1063	-.0244	.1376	803.	
.3900	1737.	44.	1076.	1108.	1134.	-920.	-.0142	.0623	-.0216	-.1132	-.0225	.1524	859.	
.3910	1816.	16.	1155.	907.	1449.	-922.	-.0094	.0698	-.0317	-.1203	-.0200	.1649	910.	
.3920	1837.	-35.	1218.	675.	1697.	-896.	-.0050	.0773	-.0409	-.1278	-.0168	.1749	953.	
.3930	1802.	-104.	1277.	432.	1888.	-845.	-.0010	.0845	-.0490	-.1357	-.0132	.1826	990.	
.3940	1720.	-179.	1350.	188.	2038.	-770.	.0025	.0914	-.0560	-.1439	-.0092	.1880	1025.	
.3950	1606.	-252.	1448.	-54.	2170.	-671.	.0055	.0979	-.0619	-.1520	-.0049	.1914	1065.	

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.3850	466.	-288.	-26.	1436.	-1333.	-498.	-.0382	.0274	.0355	-.0777	-.0289	.0605	947.
.3860	828.	-154.	326.	1439.	-768.	-639.	-.0339	.0338	.0240	-.0854	-.0277	.0817	821.
.3870	1144.	-51.	609.	1412.	-216.	-751.	-.0292	.0405	.0123	-.0926	-.0267	.1018	756.
.3880	1401.	16.	823.	1357.	294.	-834.	-.0242	.0476	.0006	-.0995	-.0257	.1206	759.
.3890	1598.	46.	972.	1260.	747.	-890.	-.0192	.0549	-.0108	-.1063	-.0244	.1376	803.
.3900	1737.	44.	1076.	1108.	1134.	-920.	-.0142	.0623	-.0216	-.1132	-.0225	.1524	859.
.3910	1816.	16.	1155.	907.	1449.	-922.	-.0094	.0698	-.0317	-.1203	-.0200	.1649	910.
.3920	1837.	-35.	1218.	675.	1697.	-896.	-.0050	.0773	-.0409	-.1278	-.0168	.1749	953.
.3930	1802.	-104.	1277.	432.	1888.	-845.	-.0010	.0845	-.0490	-.1357	-.0132	.1826	990.
.3940	1720.	-179.	1350.	188.	2038.	-770.	.0025	.0914	-.0560	-.1439	-.0092	.1880	1025.
.3950	1606.	-252.	1448.	-54.	2170.	-671.	.0055	.0979	-.0619	-.1520	-.0049	.1914	1065.

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SECTION	6	MEMBER	1	SEQUENCE	24	LOCATION	BEG	TYPE	VA					
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)	
.3960	1473.	-319.	1566.	-283.	2297.	-552.	.0080	.1038	-.0669	-.1597	-.0005	.1934	1115.	
.3970	1329.	-381.	1691.	-470.	2421.	-420.	.0100	.1090	-.0709	-.1664	.0039	.1945	1172.	
.3980	1180.	-436.	1813.	-596.	2536.	-281.	.0116	.1135	-.0739	-.1717	.0083	.1950	1228.	
.3990	1044.	-485.	1923.	-669.	2642.	-144.	.0128	.1170	-.0761	-.1750	.0127	.1957	1279.	
.4000	939.	-524.	2010.	-707.	2741.	-18.	.0135	.1196	-.0775	-.1761	.0170	.1968	1327.	

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)	
.0450	400.	-970.	1485.	-4794.	13308.	4671.	-.1131	-.1263	.1964	.0204	-.0349	-.1395	6981.	

SECTION	6	MEMBER	1	SEQUENCE	25	LOCATION	DIS	TYPE	VA					
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
0.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.	
.0010	0.	0.	0.	0.	0.	0.	-.0000	.0000	-.0000	-.0000	.0000	.0000	0.	
.0020	0.	0.	0.	0.	0.	0.	-.0001	.0000	-.0001	-.0000	.0002	.0001	0.	
.0030	0.	0.	0.	0.	0.	0.	-.0002	.0000	-.0004	-.0003	.0006	.0005	0.	
.0040	0.	0.	0.	0.	0.	0.	-.0004	-.0000	-.0008	-.0008	.0014	.0015	0.	
.0050	0.	0.	0.	0.	0.	0.	-.0007	-.0000	-.0016	-.0016	.0024	.0030	0.	
.0060	0.	0.	0.	0.	0.	0.	-.0012	.0000	-.0028	-.0028	.0036	.0053	0.	
.0070	0.	0.	0.	0.	0.	0.	-.0018	.0000	-.0046	-.0047	.0054	.0088	0.	
.0080	0.	0.	0.	0.	0.	0.	-.0028	.0001	-.0071	-.0072	.0090	.0142	0.	
.0090	0.	0.	0.	0.	0.	0.	-.0040	.0002	-.0106	-.0103	.0160	.0222	0.	
.0100	0.	0.	0.	0.	0.	0.	-.0053	.0004	-.0152	-.0134	.0265	.0327	0.	
.0110	0.	0.	0.	0.	0.	0.	-.0066	.0007	-.0207	-.0168	.0385	.0452	0.	
.0120	0.	0.	0.	0.	0.	0.	-.0076	.0012	-.0270	-.0204	.0507	.0589	0.	
.0130	0.	0.	0.	0.	0.	0.	-.0081	.0019	-.0341	-.0236	.0624	.0729	0.	
.0140	0.	0.	0.	0.	0.	0.	-.0080	.0027	-.0417	-.0258	.0730	.0869	0.	
.0150	0.	0.	0.	0.	0.	0.	-.0073	.0036	-.0500	-.0272	.0817	.1003	0.	
.0160	0.	0.	0.	0.	0.	0.	-.0059	.0046	-.0590	-.0285	.0888	.1131	0.	
.0170	0.	0.	0.	0.	0.	0.	-.0042	.0056	-.0688	-.0306	.0936	.1254	0.	
.0180	0.	0.	0.	0.	0.	0.	-.0020	.0066	-.0791	-.0350	.0935	.1370	0.	
.0190	0.	0.	0.	0.	0.	0.	.0007	.0076	-.0892	-.0420	.0898	.1469	0.	

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.0080	0.	0.	0.	0.	0.	0.	0.	-.0028	.0001	-.0071	-.0072	.0390	.0142	0.
.0090	0.	0.	0.	0.	0.	0.	0.	-.0040	.0002	-.0106	-.0103	.0160	.0222	0.
.0100	0.	0.	0.	0.	0.	0.	0.	-.0053	.0004	-.0152	-.0134	.0265	.0327	0.
.0110	0.	0.	0.	0.	0.	0.	0.	-.0066	.0007	-.0207	-.0168	.0385	.0452	0.
.0120	0.	0.	0.	0.	0.	0.	0.	-.0076	.0012	-.0270	-.0204	.0507	.0589	0.
.0130	0.	0.	0.	0.	0.	0.	0.	-.0081	.0019	-.0341	-.0236	.0624	.0729	0.
.0140	0.	0.	0.	0.	0.	0.	0.	-.0080	.0027	-.0417	-.0258	.0730	.0869	0.
.0150	0.	0.	0.	0.	0.	0.	0.	-.0073	.0036	-.0500	-.0272	.0817	.1003	0.
.0160	0.	0.	0.	0.	0.	0.	0.	-.0059	.0046	-.0590	-.0285	.0888	.1131	0.
.0170	0.	0.	0.	0.	0.	0.	0.	-.0042	.0056	-.0688	-.0306	.0936	.1254	0.
.0180	0.	0.	0.	0.	0.	0.	0.	-.0020	.0066	-.0791	-.0350	.0935	.1370	0.
.0190	0.	0.	0.	0.	0.	0.	0.	.0007	.0076	-.0892	-.0420	.0898	.1469	0.

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SECTION	6	MEMBER	1	SEQUENCE	25	LOCATION	DIS	TYPE	VA					
TIME (SEC)	FX (LP)	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)	
.0200	0.	0.	0.	0.	0.	0.	.0041	.0086	-.0975	-.0492	.0890	.1533	0.	
.0210	0.	0.	0.	0.	0.	0.	.0084	.0100	-.1030	-.0499	.1039	.1561	0.	
.0220	0.	0.	0.	0.	0.	0.	.0141	.0117	-.1054	-.0395	.1286	.1535	0.	
.0230	0.	0.	0.	0.	0.	0.	.0216	.0135	-.1042	-.0244	.1448	.1405	0.	
.0240	0.	0.	0.	0.	0.	0.	.0306	.0149	-.1002	-.0089	.1541	.1147	0.	
.0250	0.	0.	0.	0.	0.	0.	.0407	.0155	-.0948	.0051	.1511	.0804	0.	
.0260	0.	0.	0.	0.	0.	0.	.0520	.0148	-.0882	.0112	.1129	.0395	0.	
.0270	0.	0.	0.	0.	0.	0.	.0638	.0129	-.0791	.0099	.0492	-.0121	0.	
.0280	0.	0.	0.	0.	0.	0.	.0745	.0102	-.0669	.0144	.0052	-.0719	0.	
.0290	0.	0.	0.	0.	0.	0.	.0838	.0067	-.0530	.0325	-.0128	-.1277	0.	
.0300	0.	0.	0.	0.	0.	0.	.0918	.0018	-.0380	.0524	-.0305	-.1744	0.	
.0310	0.	0.	0.	0.	0.	0.	.0968	-.0045	-.0232	.0608	-.0591	-.2201	0.	
.0320	0.	0.	0.	0.	0.	0.	.0988	-.0125	-.0088	.0560	-.1078	-.2630	0.	
.0330	0.	0.	0.	0.	0.	0.	.0980	-.0223	.0053	.0510	-.1524	-.2903	0.	
.0340	0.	0.	0.	0.	0.	0.	.0941	-.0333	.0193	.0540	-.1801	-.3021	0.	
.0350	0.	0.	0.	0.	0.	0.	.0866	-.0448	.0330	.0583	-.2136	-.3093	0.	
.0360	0.	0.	0.	0.	0.	0.	.0756	-.0573	.0473	.0543	-.2599	-.3103	0.	
.0370	0.	0.	0.	0.	0.	0.	.0618	-.0711	.0636	.0467	-.2889	-.2960	0.	
.0380	0.	0.	0.	0.	0.	0.	.0450	-.0850	.0815	.0482	-.2893	-.2708	0.	
.0390	0.	0.	0.	0.	0.	0.	.0255	-.0977	.0998	.0540	-.2868	-.2473	0.	
.0400	0.	0.	0.	0.	0.	0.	.0042	-.1091	.1193	.0474	-.2781	-.2251	0.	
.0410	0.	0.	0.	0.	0.	0.	-.0175	-.1189	.1399	.0378	-.2359	-.1965	0.	
.0420	0.	0.	0.	0.	0.	0.	-.0385	-.1257	.1592	.0403	-.1891	-.1672	0.	
.0430	0.	0.	0.	0.	0.	0.	-.0581	-.1292	.1761	.0390	-.1032	-.1472	0.	
.0440	0.	0.	0.	0.	0.	0.	-.0749	-.1296	.1900	.0191	-.0368	-.1341	0.	
.0450	0.	0.	0.	0.	0.	0.	-.0874	-.1263	.1987	.0005	.0279	-.1219	0.	
.0460	0.	0.	0.	0.	0.	0.	-.0953	-.1190	.2003	-.0038	.0706	-.1135	0.	
.0470	0.	0.	0.	0.	0.	0.	-.0987	-.1089	.1968	-.0156	.0890	-.1114	0.	
.0480	0.	0.	0.	0.	0.	0.	-.0977	-.0969	.1896	-.0391	.1003	-.1077	0.	
.0490	0.	0.	0.	0.	0.	0.	-.0925	-.0819	.1780	-.0418	.1093	-.0962	0.	
.0500	0.	0.	0.	0.	0.	0.	-.0843	-.0638	.1623	-.0153	.1119	-.0810	0.	
.0510	0.	0.	0.	0.	0.	0.	-.0743	-.0442	.1456	.0122	.1178	-.0638	0.	
.0520	0.	0.	0.	0.	0.	0.	-.0629	-.0240	.1290	.0359	.1343	-.0386	0.	
.0530	0.	0.	0.	0.	0.	0.	-.0505	-.0025	.1107	.0771	.1512	-.0050	0.	
.0540	0.	0.	0.	0.	0.	0.	-.0380	.0201	.0903	.1281	.1511	.0284	0.	
.0550	0.	0.	0.	0.	0.	0.	-.0262	.0424	.0693	.1618	.1653	.0570	0.	
.0560	0.	0.	0.	0.	0.	0.	-.0149	.0638	.0472	.1812	.1612	.0843	0.	
.0570	0.	0.	0.	0.	0.	0.	-.0042	.0841	.0232	.2028	.1481	.1112	0.	

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.0470	0.	0.	0.	0.	0.	0.	0.	-.0987	-.1089	.1968	-.0156	.0890	-.1114	0.
.0480	0.	0.	0.	0.	0.	0.	0.	-.0977	-.0969	.1896	-.0391	.1003	-.1077	0.
.0490	0.	0.	0.	0.	0.	0.	0.	-.0925	-.0819	.1780	-.0418	.1093	-.0962	0.
.0500	0.	0.	0.	0.	0.	0.	0.	-.0843	-.0638	.1623	-.0153	.1119	-.0810	0.
.0510	0.	0.	0.	0.	0.	0.	0.	-.0743	-.0442	.1456	.0122	.1178	-.0638	0.
.0520	0.	0.	0.	0.	0.	0.	0.	-.0629	-.0240	.1290	.0359	.1343	-.0386	0.
.0530	0.	0.	0.	0.	0.	0.	0.	-.0505	-.0025	.1107	.0771	.1512	-.0050	0.
.0540	0.	0.	0.	0.	0.	0.	0.	-.0380	.0201	.0903	.1281	.1811	.0284	0.
.0550	0.	0.	0.	0.	0.	0.	0.	-.0262	.0424	.0693	.1618	.1653	.0570	0.
.0560	0.	0.	0.	0.	0.	0.	0.	-.0149	.0638	.0472	.1812	.1612	.0843	0.
.0570	0.	0.	0.	0.	0.	0.	0.	-.0042	.0841	.0232	.2028	.1481	.1112	0.

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SECTION	6	MEMBER	1	SEQUENCE	25	LOCATION	DIS	TYPE	VA					
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.0580	0.	0.	0.	0.	0.	0.	.0055	.1025	-.0014	.2167	.1367	.1336	0.	
.0590	0.	0.	0.	0.	0.	0.	.0141	.1179	-.0255	.2125	.1315	.1512	0.	
.0600	0.	0.	0.	0.	0.	0.	.0221	.1302	-.0498	.2073	.1262	.1677	0.	
.0610	0.	0.	0.	0.	0.	0.	.0294	.1391	-.0742	.2113	.1222	.1843	0.	
.0620	0.	0.	0.	0.	0.	0.	.0363	.1434	-.0968	.2100	.1251	.2003	0.	
.0630	0.	0.	0.	0.	0.	0.	.0428	.1424	-.1173	.1990	.1273	.2169	0.	
.0640	0.	0.	0.	0.	0.	0.	.0491	.1372	-.1367	.1939	.1183	.2340	0.	
.0650	0.	0.	0.	0.	0.	0.	.0547	.1280	-.1546	.1963	.1019	.2490	0.	
.0660	0.	0.	0.	0.	0.	0.	.0594	.1144	-.1692	.1902	.0830	.2604	0.	
.0670	0.	0.	0.	0.	0.	0.	.0627	.0967	-.1798	.1723	.0575	.2688	0.	
.0680	0.	0.	0.	0.	0.	0.	.0642	.0760	-.1866	.1527	.0299	.2725	0.	
.0690	0.	0.	0.	0.	0.	0.	.0633	.0534	-.1889	.1309	.0145	.2681	0.	
.0700	0.	0.	0.	0.	0.	0.	.0599	.0293	-.1863	.0993	.0135	.2551	0.	
.0710	0.	0.	0.	0.	0.	0.	.0545	.0045	-.1795	.0583	.0154	.2339	0.	
.0720	0.	0.	0.	0.	0.	0.	.0475	-.0204	-.1695	.0100	.0121	.2027	0.	
.0730	0.	0.	0.	0.	0.	0.	.0393	-.0447	-.1563	-.0493	.0004	.1602	0.	
.0740	0.	0.	0.	0.	0.	0.	.0309	-.0678	-.1403	-.1180	-.0208	.1098	0.	
.0750	0.	0.	0.	0.	0.	0.	.0230	-.0885	-.1222	-.1829	-.0459	.0555	0.	
.0760	0.	0.	0.	0.	0.	0.	.0162	-.1064	-.1022	-.2351	-.0693	-.0019	0.	
.0770	0.	0.	0.	0.	0.	0.	.0108	-.1213	-.0801	-.2774	-.0962	-.0611	0.	
.0780	0.	0.	0.	0.	0.	0.	.0074	-.1332	-.0559	-.3113	-.1292	-.1178	0.	
.0790	0.	0.	0.	0.	0.	0.	.0061	-.1419	-.0300	-.3275	-.1568	-.1688	0.	
.0800	0.	0.	0.	0.	0.	0.	.0065	-.1466	-.0030	-.3175	-.1700	-.2144	0.	
.0810	0.	0.	0.	0.	0.	0.	.0085	-.1475	.0241	-.2871	-.1770	-.2557	0.	
.0820	0.	0.	0.	0.	0.	0.	.0118	-.1449	.0510	-.2481	-.1872	-.2918	0.	
.0830	0.	0.	0.	0.	0.	0.	.0159	-.1392	.0771	-.2037	-.1974	-.3222	0.	
.0840	0.	0.	0.	0.	0.	0.	.0201	-.1300	.1018	-.1512	-.2029	-.3478	0.	
.0850	0.	0.	0.	0.	0.	0.	.0238	-.1175	.1244	-.0938	-.2025	-.3690	0.	
.0860	0.	0.	0.	0.	0.	0.	.0263	-.1023	.1452	-.0375	-.1924	-.3842	0.	
.0870	0.	0.	0.	0.	0.	0.	.0272	-.0849	.1638	.0179	-.1698	-.3917	0.	
.0880	0.	0.	0.	0.	0.	0.	.0260	-.0663	.1799	.0733	-.1382	-.3904	0.	
.0890	0.	0.	0.	0.	0.	0.	.0227	-.0475	.1933	.1241	-.0994	-.3787	0.	
.0900	0.	0.	0.	0.	0.	0.	.0171	-.0293	.2039	.1701	-.0511	-.3556	0.	
.0910	0.	0.	0.	0.	0.	0.	.0096	-.0121	.2107	.2175	.0030	-.3204	0.	
.0920	0.	0.	0.	0.	0.	0.	.0007	.0035	.2130	.2655	.0529	-.2737	0.	
.0930	0.	0.	0.	0.	0.	0.	-.0092	.0165	.2112	.3042	.0931	-.2170	0.	
.0940	0.	0.	0.	0.	0.	0.	-.0195	.0267	.2054	.3312	.1240	-.1526	0.	
.0950	0.	0.	0.	0.	0.	0.	-.0298	.0345	.1954	.3535	.1487	-.0831	0.	

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.0840	0.	0.	0.	0.	0.	0.	0.	0.	.0201	-.1300	.1018	-.1512	-.2029	-.3471	0.
.0850	0.	0.	0.	0.	0.	0.	0.	0.	.0238	-.1175	.1244	-.0938	-.2025	-.3691	0.
.0860	0.	0.	0.	0.	0.	0.	0.	0.	.0263	-.1023	.1452	-.0375	-.1924	-.3841	0.
.0870	0.	0.	0.	0.	0.	0.	0.	0.	.0272	-.0849	.1638	.0179	-.1698	-.3917	0.
.0880	0.	0.	0.	0.	0.	0.	0.	0.	.0260	-.0663	.1799	.0733	-.1382	-.3904	0.
.0890	0.	0.	0.	0.	0.	0.	0.	0.	.0227	-.0475	.1933	.1241	-.0994	-.3787	0.
.0900	0.	0.	0.	0.	0.	0.	0.	0.	.0171	-.0293	.2039	.1701	-.0511	-.3556	0.
.0910	0.	0.	0.	0.	0.	0.	0.	0.	.0096	-.0121	.2107	.2175	.0030	-.3204	0.
.0920	0.	0.	0.	0.	0.	0.	0.	0.	.0007	.0035	.2130	.2655	.0529	-.2737	0.
.0930	0.	0.	0.	0.	0.	0.	0.	0.	-.0092	.0165	.2112	.3042	.0931	-.2170	0.
.0940	0.	0.	0.	0.	0.	0.	0.	0.	-.0195	.0267	.2054	.3312	.1240	-.1526	0.
.0950	0.	0.	0.	0.	0.	0.	0.	0.	-.0298	.0345	.1954	.3535	.1487	-.0831	0.

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

SECTION	6	MEMBER	1	SEQUENCE	25	LOCATION	DIS	TYPE	VA						
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)		
.0960	0.	0.	0.	0.	0.	0.	-.0396	.0404	.1813	.3724	.1714	-.0117	0.		
.0970	0.	0.	0.	0.	0.	0.	-.0483	.0440	.1641	.3804	.1946	.0579	0.		
.0980	0.	0.	0.	0.	0.	0.	-.0557	.0455	.1440	.3743	.2141	.1213	0.		
.0990	0.	0.	0.	0.	0.	0.	-.0612	.0451	.1211	.3552	.2244	.1749	0.		
.1000	0.	0.	0.	0.	0.	0.	-.0646	.0431	.0959	.3217	.2254	.2165	0.		
.1010	0.	0.	0.	0.	0.	0.	-.0654	.0396	.0690	.2732	.2186	.2442	0.		
.1020	0.	0.	0.	0.	0.	0.	-.0638	.0352	.0409	.2148	.2025	.2564	0.		
.1030	0.	0.	0.	0.	0.	0.	-.0595	.0302	.0126	.1501	.1786	.2543	0.		
.1040	0.	0.	0.	0.	0.	0.	-.0525	.0245	-.0147	.0792	.1522	.2408	0.		
.1050	0.	0.	0.	0.	0.	0.	-.0431	.0187	-.0403	.0058	.1265	.2179	0.		
.1060	0.	0.	0.	0.	0.	0.	-.0315	.0132	-.0641	-.0618	.1017	.1869	0.		
.1070	0.	0.	0.	0.	0.	0.	-.0180	.0084	-.0860	-.1198	.0801	.1504	0.		
.1080	0.	0.	0.	0.	0.	0.	-.0031	.0040	-.1056	-.1719	.0637	.1121	0.		
.1090	0.	0.	0.	0.	0.	0.	.0129	.0000	-.1228	-.2177	.0566	.0746	0.		
.1100	0.	0.	0.	0.	0.	0.	.0296	-.0031	-.1396	-.2478	.0475	.0389	0.		
.1110	0.	0.	0.	0.	0.	0.	.0463	-.0053	-.1565	-.2722	.0205	.0029	0.		
.1120	0.	0.	0.	0.	0.	0.	.0625	-.0072	-.1728	-.3016	-.0244	-.0319	0.		
.1130	0.	0.	0.	0.	0.	0.	.0775	-.0084	-.1880	-.3271	-.0721	-.0602	0.		
.1140	0.	0.	0.	0.	0.	0.	.0906	-.0087	-.2020	-.3380	-.1145	-.0805	0.		
.1150	0.	0.	0.	0.	0.	0.	.1010	-.0078	-.2137	-.3407	-.1514	-.0951	0.		
.1160	0.	0.	0.	0.	0.	0.	.1083	-.0063	-.2220	-.3414	-.1792	-.1032	0.		
.1170	0.	0.	0.	0.	0.	0.	.1123	-.0040	-.2269	-.3334	-.1986	-.1024	0.		
.1180	0.	0.	0.	0.	0.	0.	.1129	-.0013	-.2283	-.3126	-.2134	-.0926	0.		
.1190	0.	0.	0.	0.	0.	0.	.1099	.0012	-.2257	-.2926	-.2347	-.0787	0.		
.1200	0.	0.	0.	0.	0.	0.	.1033	.0033	-.2181	-.2767	-.2530	-.0606	0.		
.1210	0.	0.	0.	0.	0.	0.	.0935	.0053	-.2058	-.2488	-.2502	-.0351	0.		
.1220	0.	0.	0.	0.	0.	0.	.0809	.0076	-.1897	-.2049	-.2396	-.0059	0.		
.1230	0.	0.	0.	0.	0.	0.	.0658	.0094	-.1691	-.1637	-.2238	.0218	0.		
.1240	0.	0.	0.	0.	0.	0.	.0487	.0105	-.1439	-.1334	-.2027	.0468	0.		
.1250	0.	0.	0.	0.	0.	0.	.0306	.0115	-.1158	-.0996	-.1750	.0709	0.		
.1260	0.	0.	0.	0.	0.	0.	.0120	.0130	-.0856	-.0581	-.1371	.0923	0.		
.1270	0.	0.	0.	0.	0.	0.	-.0067	.0146	-.0534	-.0257	-.0954	.1050	0.		
.1280	0.	0.	0.	0.	0.	0.	-.0248	.0160	-.0196	-.0033	-.0432	.1106	0.		
.1290	0.	0.	0.	0.	0.	0.	-.0416	.0178	.0137	.0225	.0115	.1123	0.		
.1300	0.	0.	0.	0.	0.	0.	-.0567	.0197	.0456	.0477	.0599	.1080	0.		
.1310	0.	0.	0.	0.	0.	0.	-.0699	.0212	.0762	.0595	.1027	.0959	0.		
.1320	0.	0.	0.	0.	0.	0.	-.0809	.0226	.1045	.0632	.1311	.0780	0.		
.1330	0.	0.	0.	0.	0.	0.	-.0895	.0241	.1295	.0720	.1496	.0591	0.		

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.1220	0.	0.	0.	0.	0.	0.	0.	.0658	.0094	-.1691	-.1637	-.2238	-.0059	0.
.1230	0.	0.	0.	0.	0.	0.	0.	.0487	.0105	-.1439	-.1334	-.2027	.0468	0.
.1240	0.	0.	0.	0.	0.	0.	0.	.0306	.0115	-.1158	-.0996	-.1750	.0709	0.
.1250	0.	0.	0.	0.	0.	0.	0.	.0120	.0130	-.0856	-.0581	-.1371	.0923	0.
.1260	0.	0.	0.	0.	0.	0.	0.	-.0067	.0146	-.0534	-.0257	-.0954	.1050	0.
.1270	0.	0.	0.	0.	0.	0.	0.	-.0248	.0160	-.0196	-.0033	-.0432	.1106	0.
.1280	0.	0.	0.	0.	0.	0.	0.	-.0416	.0178	.0137	.0225	.0115	.1123	0.
.1290	0.	0.	0.	0.	0.	0.	0.	-.0567	.0197	.0456	.0477	.0599	.1080	0.
.1300	0.	0.	0.	0.	0.	0.	0.	-.0699	.0212	.0762	.0595	.1027	.0959	0.
.1310	0.	0.	0.	0.	0.	0.	0.	-.0809	.0226	.1045	.0632	.1311	.0780	0.
.1320	0.	0.	0.	0.	0.	0.	0.	-.0895	.0241	.1295	.0720	.1496	.0591	0.
.1330	0.	0.	0.	0.	0.	0.	0.							0.

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

SECTION	6	MEMBER	1	SEQUENCE	25	LOCATION	DIS	TYPE	VA					
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)	
.1340	0.	0.	0.	0.	0.	0.	-.0959	.0256	.1518	.0806	.1621	.0394	0.	
.1350	0.	0.	0.	0.	0.	0.	-.1004	.0269	.1719	.0810	.1725	.0180	0.	
.1360	0.	0.	0.	0.	0.	0.	-.1030	.0283	.1890	.0835	.1841	-.0017	0.	
.1370	0.	0.	0.	0.	0.	0.	-.1038	.0304	.2020	.0939	.1882	-.0192	0.	
.1380	0.	0.	0.	0.	0.	0.	-.1029	.0325	.2111	.1006	.1883	-.0350	0.	
.1390	0.	0.	0.	0.	0.	0.	-.1006	.0344	.2162	.0953	.1781	-.0505	0.	
.1400	0.	0.	0.	0.	0.	0.	-.0968	.0362	.2162	.0866	.1524	-.0646	0.	
.1410	0.	0.	0.	0.	0.	0.	-.0919	.0383	.2108	.0790	.1194	-.0762	0.	
.1420	0.	0.	0.	0.	0.	0.	-.0859	.0402	.2008	.0643	.0805	-.0864	0.	
.1430	0.	0.	0.	0.	0.	0.	-.0791	.0418	.1869	.0426	.0431	-.0937	0.	
.1440	0.	0.	0.	0.	0.	0.	-.0715	.0434	.1689	.0227	.0069	-.0964	0.	
.1450	0.	0.	0.	0.	0.	0.	-.0634	.0449	.1473	.0051	-.0271	-.0946	0.	
.1460	0.	0.	0.	0.	0.	0.	-.0548	.0461	.1232	-.0163	-.0549	-.0884	0.	
.1470	0.	0.	0.	0.	0.	0.	-.0461	.0470	.0966	-.0394	-.0819	-.0776	0.	
.1480	0.	0.	0.	0.	0.	0.	-.0372	.0477	.0678	-.0567	-.1030	-.0604	0.	
.1490	0.	0.	0.	0.	0.	0.	-.0286	.0480	.0375	-.0713	-.1209	-.0383	0.	
.1500	0.	0.	0.	0.	0.	0.	-.0206	.0478	.0066	-.0902	-.1404	-.0128	0.	
.1510	0.	0.	0.	0.	0.	0.	-.0135	.0471	-.0241	-.1097	-.1566	.0169	0.	
.1520	0.	0.	0.	0.	0.	0.	-.0075	.0463	-.0543	-.1242	-.1588	.0498	0.	
.1530	0.	0.	0.	0.	0.	0.	-.0031	.0455	-.0826	-.1353	-.1703	.0845	0.	
.1540	0.	0.	0.	0.	0.	0.	-.0003	.0448	-.1082	-.1483	-.1631	.1194	0.	
.1550	0.	0.	0.	0.	0.	0.	.0010	.0442	-.1306	-.1604	-.1462	.1543	0.	
.1560	0.	0.	0.	0.	0.	0.	.0010	.0441	-.1498	-.1668	-.1169	.1886	0.	
.1570	0.	0.	0.	0.	0.	0.	-.0000	.0445	-.1658	-.1722	-.0883	.2183	0.	
.1580	0.	0.	0.	0.	0.	0.	-.0016	.0453	-.1784	-.1811	-.0617	.2426	0.	
.1590	0.	0.	0.	0.	0.	0.	-.0033	.0465	-.1878	-.1896	-.0376	.2621	0.	
.1600	0.	0.	0.	0.	0.	0.	-.0048	.0482	-.1943	-.1943	-.0240	.2757	0.	
.1610	0.	0.	0.	0.	0.	0.	-.0059	.0503	-.1973	-.1984	-.0157	.2825	0.	
.1620	0.	0.	0.	0.	0.	0.	-.0064	.0526	-.1964	-.2002	-.0006	.2843	0.	
.1630	0.	0.	0.	0.	0.	0.	-.0063	.0554	-.1924	-.1928	.0135	.2813	0.	
.1640	0.	0.	0.	0.	0.	0.	-.0054	.0585	-.1855	-.1777	.0259	.2734	0.	
.1650	0.	0.	0.	0.	0.	0.	-.0040	.0614	-.1754	-.1625	.0380	.2604	0.	
.1660	0.	0.	0.	0.	0.	0.	-.0020	.0642	-.1629	-.1470	.0414	.2425	0.	
.1670	0.	0.	0.	0.	0.	0.	.0003	.0668	-.1486	-.1260	.0391	.2213	0.	
.1680	0.	0.	0.	0.	0.	0.	.0025	.0691	-.1325	-.1027	.0327	.1969	0.	
.1690	0.	0.	0.	0.	0.	0.	.0043	.0708	-.1145	-.0810	.0263	.1702	0.	
.1700	0.	0.	0.	0.	0.	0.	.0053	.0717	-.0948	-.0584	.0176	.1424	0.	
.1710	0.	0.	0.	0.	0.	0.	.0052	.0718	-.0736	-.0335	.0079	.1145	0.	

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.1600	0.	0.	0.	0.	0.	0.	0.	-.048	.0482	-.1943	-.1943	-.0240	.2757	0.
.1610	0.	0.	0.	0.	0.	0.	0.	-.059	.0503	-.1973	-.1984	-.0157	.2825	0.
.1620	0.	0.	0.	0.	0.	0.	0.	-.064	.0520	-.1964	-.2002	-.0006	.2843	0.
.1630	0.	0.	0.	0.	0.	0.	0.	-.0663	.0554	-.1924	-.1928	.0135	.2813	0.
.1640	0.	0.	0.	0.	0.	0.	0.	-.0054	.0585	-.1855	-.1777	.0259	.2734	0.
.1650	0.	0.	0.	0.	0.	0.	0.	-.0040	.0614	-.1754	-.1625	.0380	.2604	0.
.1660	0.	0.	0.	0.	0.	0.	0.	-.0020	.0642	-.1629	-.1470	.0414	.2425	0.
.1670	0.	0.	0.	0.	0.	0.	0.	.0003	.0668	-.1486	-.1260	.0391	.2213	0.
.1680	0.	0.	0.	0.	0.	0.	0.	.0025	.0691	-.1325	-.1027	.0327	.1969	0.
.1690	0.	0.	0.	0.	0.	0.	0.	.0043	.0708	-.1145	-.0810	.0263	.1702	0.
.1700	0.	0.	0.	0.	0.	0.	0.	.0053	.0717	-.0948	-.0584	.0176	.1424	0.
.1710	0.	0.	0.	0.	0.	0.	0.	.0052	.0718	-.0736	-.0335	.0079	.1145	0.

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S/RV PIPING KEWAUNEE GKW02F 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	6	MEMBER	1	SEQUENCE	25	LOCATION	DIS	TYPE	VA					
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)		DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
.1720	0.	0.	0.	0.	0.	0.	0.	.0039	.0708	-.0505	-.0075	.0121	.0888	0.
.1730	0.	0.	0.	0.	0.	0.	0.	.0013	.0685	-.0261	.0191	.0222	.0650	0.
.1740	0.	0.	0.	0.	0.	0.	0.	-.0025	.0651	-.0015	.0476	.0327	.0431	0.
.1750	0.	0.	0.	0.	0.	0.	0.	-.0072	.0603	.0232	.0753	.0454	.0236	0.
.1760	0.	0.	0.	0.	0.	0.	0.	-.0126	.0539	.0474	.0987	.0561	.0061	0.
.1770	0.	0.	0.	0.	0.	0.	0.	-.0182	.0461	.0703	.1197	.0552	-.0085	0.
.1780	0.	0.	0.	0.	0.	0.	0.	-.0239	.0373	.0913	.1388	.0582	-.0217	0.
.1790	0.	0.	0.	0.	0.	0.	0.	-.0293	.0274	.1102	.1545	.0697	-.0338	0.
.1800	0.	0.	0.	0.	0.	0.	0.	-.0343	.0167	.1267	.1660	.0693	-.0446	0.
.1810	0.	0.	0.	0.	0.	0.	0.	-.0385	.0054	.1406	.1731	.0616	-.0547	0.
.1820	0.	0.	0.	0.	0.	0.	0.	-.0420	-.0065	.1519	.1762	.0562	-.0638	0.
.1830	0.	0.	0.	0.	0.	0.	0.	-.0446	-.0184	.1604	.1761	.0515	-.0730	0.
.1840	0.	0.	0.	0.	0.	0.	0.	-.0462	-.0302	.1660	.1737	.0446	-.0821	0.
.1850	0.	0.	0.	0.	0.	0.	0.	-.0467	-.0417	.1686	.1677	.0353	-.0910	0.
.1860	0.	0.	0.	0.	0.	0.	0.	-.0461	-.0528	.1684	.1565	.0213	-.1006	0.
.1870	0.	0.	0.	0.	0.	0.	0.	-.0443	-.0632	.1657	.1418	.0047	-.1103	0.
.1880	0.	0.	0.	0.	0.	0.	0.	-.0413	-.0725	.1603	.1251	-.0181	-.1202	0.
.1890	0.	0.	0.	0.	0.	0.	0.	-.0372	-.0804	.1530	.1070	-.0415	-.1301	0.
.1900	0.	0.	0.	0.	0.	0.	0.	-.0322	-.0870	.1442	.0882	-.0607	-.1395	0.
.1910	0.	0.	0.	0.	0.	0.	0.	-.0263	-.0918	.1341	.0703	-.0783	-.1485	0.
.1920	0.	0.	0.	0.	0.	0.	0.	-.0197	-.0950	.1232	.0532	-.0900	-.1563	0.
.1930	0.	0.	0.	0.	0.	0.	0.	-.0124	-.0965	.1115	.0366	-.0950	-.1634	0.
.1940	0.	0.	0.	0.	0.	0.	0.	-.0047	-.0961	.0989	.0217	-.0954	-.1699	0.
.1950	0.	0.	0.	0.	0.	0.	0.	.0036	-.0939	.0852	.0089	-.0921	-.1755	0.
.1960	0.	0.	0.	0.	0.	0.	0.	.0122	-.0902	.0705	-.0036	-.0863	-.1798	0.
.1970	0.	0.	0.	0.	0.	0.	0.	.0212	-.0850	.0548	-.0164	-.0815	-.1829	0.
.1980	0.	0.	0.	0.	0.	0.	0.	.0302	-.0784	.0380	-.0279	-.0779	-.1840	0.
.1990	0.	0.	0.	0.	0.	0.	0.	.0392	-.0706	.0206	-.0360	-.0721	-.1817	0.
.2000	0.	0.	0.	0.	0.	0.	0.	.0477	-.0618	.0028	-.0398	-.0620	-.1752	0.
.2010	0.	0.	0.	0.	0.	0.	0.	.0555	-.0524	-.0150	-.0392	-.0494	-.1638	0.
.2020	0.	0.	0.	0.	0.	0.	0.	.0623	-.0426	-.0324	-.0345	-.0356	-.1470	0.
.2030	0.	0.	0.	0.	0.	0.	0.	.0679	-.0329	-.0493	-.0259	-.0212	-.1245	0.
.2040	0.	0.	0.	0.	0.	0.	0.	.0719	-.0235	-.0653	-.0134	-.0073	-.0969	0.
.2050	0.	0.	0.	0.	0.	0.	0.	.0742	-.0147	-.0802	.0022	.0053	-.0650	0.
.2060	0.	0.	0.	0.	0.	0.	0.	.0747	-.0066	-.0935	.0194	.0166	-.0294	0.
.2070	0.	0.	0.	0.	0.	0.	0.	.0733	.0006	-.1049	.0369	.0263	.0088	0.
.2080	0.	0.	0.	0.	0.	0.	0.	.0700	.0067	-.1142	.0537	.0341	.0477	0.
.2090	0.	0.	0.	0.	0.	0.	0.	.0651	.0118	-.1210	.0694	.0423	.0857	0.

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2 SAFETY COLD FKW24F--2 PSV

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FORCES AND MOMENTS ACT ON THE PIPING

.1990	0.	0.	0.	0.	0.	0.	0.	.392	-.0706	.0206	-.0360	-.0721	-.1817	0.
.2000	0.	0.	0.	0.	0.	0.	0.	.0477	-.0618	.0028	-.0398	-.0520	-.1752	0.
.2010	0.	0.	0.	0.	0.	0.	0.	.555	-.0524	-.0150	-.0392	-.0494	-.1638	0.
.2020	0.	0.	0.	0.	0.	0.	0.	.0623	-.0426	-.0324	-.0345	-.0356	-.1470	0.
.2030	0.	0.	0.	0.	0.	0.	0.	.0679	-.0329	-.0492	-.0259	-.0212	-.1245	0.
.2040	0.	0.	0.	0.	0.	0.	0.	.0719	-.0235	-.0653	-.0134	-.0073	-.0969	0.
.2050	0.	0.	0.	0.	0.	0.	0.	.0742	-.0147	-.0802	.0022	.0053	-.0650	0.
.2060	0.	0.	0.	0.	0.	0.	0.	.0747	-.0066	-.0935	.0194	.0166	-.0294	0.
.2070	0.	0.	0.	0.	0.	0.	0.	.0733	.0006	-.1049	.0369	.0263	.0088	0.
.2080	0.	0.	0.	0.	0.	0.	0.	.0700	.0067	-.1142	.0537	.0341	.0477	0.
.2090	0.	0.	0.	0.	0.	0.	0.	.0651	.0118	-.1210	.0694	.0423	.0857	0.

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

SECTION	6	MEMBER	1	SEQUENCE	25	LOCATION	DIS	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.2100	0.	0.	0.	0.	0.	0.	.0587	.0158	-.1252	.0837	.0527	.1215	0.		
.2110	0.	0.	0.	0.	0.	0.	.0514	.0187	-.1267	.0962	.0639	.1536	0.		
.2120	0.	0.	0.	0.	0.	0.	.0435	.0205	-.1255	.1057	.0745	.1804	0.		
.2130	0.	0.	0.	0.	0.	0.	.0356	.0211	-.1218	.1118	.0945	.2005	0.		
.2140	0.	0.	0.	0.	0.	0.	.0280	.0205	-.1158	.1154	.0929	.2133	0.		
.2150	0.	0.	0.	0.	0.	0.	.0212	.0187	-.1078	.1171	.0976	.2180	0.		
.2160	0.	0.	0.	0.	0.	0.	.0155	.0157	-.0978	.1161	.0975	.2140	0.		
.2170	0.	0.	0.	0.	0.	0.	.0112	.0118	-.0859	.1127	.0932	.2015	0.		
.2180	0.	0.	0.	0.	0.	0.	.0083	.0069	-.0722	.1081	.0857	.1811	0.		
.2190	0.	0.	0.	0.	0.	0.	.0067	.0014	-.0569	.1031	.0762	.1535	0.		
.2200	0.	0.	0.	0.	0.	0.	.0062	-.0047	-.0400	.0971	.0660	.1193	0.		
.2210	0.	0.	0.	0.	0.	0.	.0066	-.0110	-.0219	.0899	.0552	.0794	0.		
.2220	0.	0.	0.	0.	0.	0.	.0075	-.0174	-.0028	.0816	.0436	.0353	0.		
.2230	0.	0.	0.	0.	0.	0.	.0085	-.0238	.0167	.0715	.0317	-.0115	0.		
.2240	0.	0.	0.	0.	0.	0.	.0094	-.0300	.0363	.0590	.0196	-.0598	0.		
.2250	0.	0.	0.	0.	0.	0.	.0099	-.0359	.0553	.0447	.0062	-.1078	0.		
.2260	0.	0.	0.	0.	0.	0.	.0098	-.0413	.0732	.0291	-.0090	-.1536	0.		
.2270	0.	0.	0.	0.	0.	0.	.0090	-.0462	.0896	.0126	-.0249	-.1953	0.		
.2280	0.	0.	0.	0.	0.	0.	.0073	-.0503	.1043	-.0039	-.0401	-.2309	0.		
.2290	0.	0.	0.	0.	0.	0.	.0050	-.0537	.1167	-.0181	-.0540	-.2588	0.		
.2300	0.	0.	0.	0.	0.	0.	.0020	-.0562	.1267	-.0288	-.0559	-.2777	0.		
.2310	0.	0.	0.	0.	0.	0.	-.0015	-.0576	.1340	-.0355	-.0760	-.2869	0.		
.2320	0.	0.	0.	0.	0.	0.	-.0053	-.0582	.1385	-.0381	-.0850	-.2863	0.		
.2330	0.	0.	0.	0.	0.	0.	-.0094	-.0578	.1403	-.0363	-.0928	-.2760	0.		
.2340	0.	0.	0.	0.	0.	0.	-.0135	-.0564	.1394	-.0303	-.0986	-.2569	0.		
.2350	0.	0.	0.	0.	0.	0.	-.0176	-.0540	.1360	-.0205	-.1015	-.2303	0.		
.2360	0.	0.	0.	0.	0.	0.	-.0216	-.0505	.1304	-.0078	-.1006	-.1979	0.		
.2370	0.	0.	0.	0.	0.	0.	-.0254	-.0461	.1229	.0070	-.0747	-.1611	0.		
.2380	0.	0.	0.	0.	0.	0.	-.0289	-.0406	.1139	.0224	-.0831	-.1220	0.		
.2390	0.	0.	0.	0.	0.	0.	-.0321	-.0343	.1037	.0371	-.0565	-.0824	0.		
.2400	0.	0.	0.	0.	0.	0.	-.0347	-.0270	.0924	.0503	-.0456	-.0439	0.		
.2410	0.	0.	0.	0.	0.	0.	-.0366	-.0191	.0802	.0613	-.0211	-.0077	0.		
.2420	0.	0.	0.	0.	0.	0.	-.0377	-.0106	.0672	.0693	.0053	.0251	0.		
.2430	0.	0.	0.	0.	0.	0.	-.0377	-.0019	.0535	.0736	.0309	.0538	0.		
.2440	0.	0.	0.	0.	0.	0.	-.0366	.0070	.0391	.0739	.0537	.0780	0.		
.2450	0.	0.	0.	0.	0.	0.	-.0343	.0156	.0240	.0705	.0728	.0978	0.		
.2460	0.	0.	0.	0.	0.	0.	-.0307	.0239	.0084	.0641	.0881	.1132	0.		
.2470	0.	0.	0.	0.	0.	0.	-.0260	.0317	-.0076	.0550	.0990	.1246	0.		

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.2370	0.	0.	0.	0.	0.	0.	0.	0.	-.0254	-.0461	.1229	.0070	-.0947	-.1611	0.
.2380	0.	0.	0.	0.	0.	0.	0.	0.	-.0289	-.0406	.1139	.0224	-.0831	-.1220	0.
.2390	0.	0.	0.	0.	0.	0.	0.	0.	-.0321	-.0343	.1037	.0371	-.0565	-.0824	0.
.2400	0.	0.	0.	0.	0.	0.	0.	0.	-.0347	-.0270	.0924	.0503	-.0456	-.0439	0.
.2410	0.	0.	0.	0.	0.	0.	0.	0.	-.0366	-.0191	.0802	.0613	-.0211	-.0077	0.
.2420	0.	0.	0.	0.	0.	0.	0.	0.	-.0377	-.0106	.0672	.0693	.0053	.0251	0.
.2430	0.	0.	0.	0.	0.	0.	0.	0.	-.0377	-.0019	.0535	.0736	.0309	.0538	0.
.2440	0.	0.	0.	0.	0.	0.	0.	0.	-.0366	.0070	.0391	.0739	.0537	.0780	0.
.2450	0.	0.	0.	0.	0.	0.	0.	0.	-.0343	.0156	.0240	.0705	.0728	.0978	0.
.2460	0.	0.	0.	0.	0.	0.	0.	0.	-.0307	.0239	.0084	.0641	.0881	.1132	0.
.2470	0.	0.	0.	0.	0.	0.	0.	0.	-.0260	.0317	-.0076	.0550	.0990	.1246	0.

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CONDITION 24

LOADS

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ENGLISH UNITS

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

SECTION	6	MEMBER	1	SEQUENCE	25	LOCATION	DIS	TYPE	VA						
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)		
.2480	0.	0.	0.	0.	0.	0.	-.0203	.0388	-.0238	.0432	.1050	.1323	0.		
.249	0.	0.	0.	0.	0.	0.	-.0138	.0450	-.0401	.0285	.1048	.1364	0.		
.2500	0.	0.	0.	0.	0.	0.	-.0067	.0504	-.0561	.0111	.0986	.1373	0.		
.2510	0.	0.	0.	0.	0.	0.	.0007	.0548	-.0717	-.0086	.0881	.1352	0.		
.2520	0.	0.	0.	0.	0.	0.	.0079	.0583	-.0866	-.0299	.0743	.1308	0.		
.2530	0.	0.	0.	0.	0.	0.	.0148	.0608	-.1003	-.0527	.0570	.1241	0.		
.2540	0.	0.	0.	0.	0.	0.	.0210	.0624	-.1127	-.0769	.0365	.1156	0.		
.2550	0.	0.	0.	0.	0.	0.	.0262	.0629	-.1232	-.1018	.0151	.1059	0.		
.2560	0.	0.	0.	0.	0.	0.	.0303	.0624	-.1317	-.1257	-.0045	.0958	0.		
.2570	0.	0.	0.	0.	0.	0.	.0332	.0610	-.1380	-.1469	-.0212	.0857	0.		
.2580	0.	0.	0.	0.	0.	0.	.0349	.0588	-.1420	-.1653	-.0346	.0762	0.		
.2590	0.	0.	0.	0.	0.	0.	.0354	.0558	-.1436	-.1806	-.0446	.0677	0.		
.2600	0.	0.	0.	0.	0.	0.	.0348	.0521	-.1430	-.1921	-.0514	.0605	0.		
.2610	0.	0.	0.	0.	0.	0.	.0333	.0478	-.1404	-.1993	-.0552	.0549	0.		
.2620	0.	0.	0.	0.	0.	0.	.0310	.0430	-.1359	-.2027	-.0571	.0506	0.		
.2630	0.	0.	0.	0.	0.	0.	.0279	.0379	-.1300	-.2029	-.0586	.0475	0.		
.2640	0.	0.	0.	0.	0.	0.	.0243	.0327	-.1227	-.2003	-.0605	.0454	0.		
.2650	0.	0.	0.	0.	0.	0.	.0201	.0274	-.1141	-.1957	-.0624	.0441	0.		
.2660	0.	0.	0.	0.	0.	0.	.0153	.0224	-.1043	-.1896	-.0637	.0433	0.		
.2670	0.	0.	0.	0.	0.	0.	.0099	.0176	-.0933	-.1819	-.0643	.0425	0.		
.2680	0.	0.	0.	0.	0.	0.	.0040	.0134	-.0812	-.1729	-.0641	.0416	0.		
.2690	0.	0.	0.	0.	0.	0.	-.0025	.0097	-.0679	-.1632	-.0624	.0404	0.		
.2700	0.	0.	0.	0.	0.	0.	-.0093	.0067	-.0535	-.1529	-.0590	.0387	0.		
.2710	0.	0.	0.	0.	0.	0.	-.0165	.0045	-.0382	-.1420	-.0549	.0365	0.		
.2720	0.	0.	0.	0.	0.	0.	-.0237	.0030	-.0222	-.1303	-.0508	.0333	0.		
.2730	0.	0.	0.	0.	0.	0.	-.0307	.0024	-.0057	-.1181	-.0471	.0291	0.		
.2740	0.	0.	0.	0.	0.	0.	-.0373	.0025	.0109	-.1054	-.0435	.0239	0.		
.2750	0.	0.	0.	0.	0.	0.	-.0432	.0034	.0275	-.0921	-.0395	.0178	0.		
.2760	0.	0.	0.	0.	0.	0.	-.0482	.0051	.0435	-.0783	-.0347	.0107	0.		
.2770	0.	0.	0.	0.	0.	0.	-.0522	.0074	.0585	-.0643	-.0295	.0024	0.		
.2780	0.	0.	0.	0.	0.	0.	-.0549	.0104	.0721	-.0508	-.0241	-.0071	0.		
.2790	0.	0.	0.	0.	0.	0.	-.0564	.0139	.0840	-.0384	-.0186	-.0175	0.		
.2800	0.	0.	0.	0.	0.	0.	-.0566	.0179	.0937	-.0279	-.0134	-.0285	0.		
.2810	0.	0.	0.	0.	0.	0.	-.0557	.0221	.1010	-.0198	-.0092	-.0399	0.		
.2820	0.	0.	0.	0.	0.	0.	-.0539	.0266	.1057	-.0142	-.0061	-.0510	0.		
.2830	0.	0.	0.	0.	0.	0.	-.0514	.0312	.1079	-.0110	-.0033	-.0609	0.		
.2840	0.	0.	0.	0.	0.	0.	-.0485	.0357	.1076	-.0099	.0000	-.0685	0.		
.2850	0.	0.	0.	0.	0.	0.	-.0455	.0401	.1049	-.0104	.0046	-.0729	0.		

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18.26.00.

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

.2740	0.	0.	0.	0.	0.	0.	0.	-.0373	.0025	.0109	-.1054	-.0435	.0239	0.
.2750	0.	0.	0.	0.	0.	0.	0.	-.0432	.0034	.0275	-.0921	-.0395	.0178	0.
.2760	0.	0.	0.	0.	0.	0.	0.	-.0482	.0051	.0435	-.0783	-.0347	.0107	0.
.2770	0.	0.	0.	0.	0.	0.	0.	-.0522	.0074	.0585	-.0643	-.0295	.0024	0.
.2780	0.	0.	0.	0.	0.	0.	0.	-.0549	.0104	.0721	-.0508	-.0241	-.0071	0.
.2790	0.	0.	0.	0.	0.	0.	0.	-.0564	.0139	.0840	-.0384	-.0186	-.0175	0.
.2800	0.	0.	0.	0.	0.	0.	0.	-.0566	.0179	.0937	-.0279	-.0134	-.0285	0.
.2810	0.	0.	0.	0.	0.	0.	0.	-.0557	.0221	.1010	-.0198	-.0092	-.0399	0.
.2820	0.	0.	0.	0.	0.	0.	0.	-.0539	.0266	.1057	-.0142	-.0061	-.0510	0.
.2830	0.	0.	0.	0.	0.	0.	0.	-.0514	.0312	.1079	-.0110	-.0033	-.0609	0.
.2840	0.	0.	0.	0.	0.	0.	0.	-.0485	.0357	.1076	-.0099	.0000	-.0685	0.
.2850	0.	0.	0.	0.	0.	0.	0.	-.0455	.0401	.1049	-.0104	.0046	-.0729	0.

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S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK

2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

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PRESSURE

ENGLISH UNITS

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

SECTION	MEMBER	1	SEQUENCE	25	LOCATION	DIS	TYPE	VA							
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)		DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
.2860	0.	0.	0.	0.	0.	0.		-.0426	.0442	.1001	-.0118	.0107	-.0733	0.	
.2870	0.	0.	0.	0.	0.	0.		-.0400	.0479	.0932	-.0135	.0183	-.0689	0.	
.2880	0.	0.	0.	0.	0.	0.		-.0378	.0512	.0844	-.0151	.0268	-.0593	0.	
.2890	0.	0.	0.	0.	0.	0.		-.0361	.0538	.0738	-.0167	.0353	-.0445	0.	
.2900	0.	0.	0.	0.	0.	0.		-.0349	.0557	.0615	-.0182	.0426	-.0247	0.	
.2910	0.	0.	0.	0.	0.	0.		-.0341	.0570	.0476	-.0197	.0478	-.0007	0.	
.2920	0.	0.	0.	0.	0.	0.		-.0335	.0576	.0324	-.0212	.0505	.0268	0.	
.2930	0.	0.	0.	0.	0.	0.		-.0329	.0575	.0162	-.0231	.0509	.0564	0.	
.2940	0.	0.	0.	0.	0.	0.		-.0323	.0569	-.0009	-.0255	.0493	.0870	0.	
.2950	0.	0.	0.	0.	0.	0.		-.0313	.0558	-.0184	-.0285	.0456	.1171	0.	
.2960	0.	0.	0.	0.	0.	0.		-.0299	.0543	-.0361	-.0325	.0400	.1453	0.	
.2970	0.	0.	0.	0.	0.	0.		-.0279	.0525	-.0534	-.0377	.0329	.1703	0.	
.2980	0.	0.	0.	0.	0.	0.		-.0253	.0504	-.0701	-.0441	.0245	.1910	0.	
.2990	0.	0.	0.	0.	0.	0.		-.0220	.0480	-.0856	-.0516	.0148	.2065	0.	
.3000	0.	0.	0.	0.	0.	0.		-.0180	.0456	-.0997	-.0603	.0039	.2161	0.	
.3010	0.	0.	0.	0.	0.	0.		-.0134	.0430	-.1120	-.0697	-.0078	.2197	0.	
.3020	0.	0.	0.	0.	0.	0.		-.0083	.0404	-.1220	-.0793	-.0195	.2174	0.	
.3030	0.	0.	0.	0.	0.	0.		-.0029	.0377	-.1295	-.0882	-.0301	.2096	0.	
.3040	0.	0.	0.	0.	0.	0.		.0026	.0352	-.1342	-.0959	-.0390	.1969	0.	
.3050	0.	0.	0.	0.	0.	0.		.0079	.0326	-.1360	-.1019	-.0457	.1802	0.	
.3060	0.	0.	0.	0.	0.	0.		.0129	.0302	-.1349	-.1056	-.0503	.1602	0.	
.3070	0.	0.	0.	0.	0.	0.		.0174	.0278	-.1309	-.1069	-.0526	.1380	0.	
.3080	0.	0.	0.	0.	0.	0.		.0212	.0255	-.1243	-.1054	-.0529	.1144	0.	
.3090	0.	0.	0.	0.	0.	0.		.0242	.0232	-.1152	-.1011	-.0515	.0905	0.	
.3100	0.	0.	0.	0.	0.	0.		.0262	.0208	-.1040	-.0938	-.0490	.0669	0.	
.3110	0.	0.	0.	0.	0.	0.		.0273	.0185	-.0909	-.0837	-.0454	.0445	0.	
.3120	0.	0.	0.	0.	0.	0.		.0273	.0160	-.0763	-.0707	-.0407	.0240	0.	
.3130	0.	0.	0.	0.	0.	0.		.0262	.0134	-.0604	-.0549	-.0348	.0058	0.	
.3140	0.	0.	0.	0.	0.	0.		.0242	.0107	-.0435	-.0364	-.0277	-.0096	0.	
.3150	0.	0.	0.	0.	0.	0.		.0214	.0078	-.0261	-.0155	-.0195	-.0221	0.	
.3160	0.	0.	0.	0.	0.	0.		.0177	.0047	-.0083	.0073	-.0105	-.0318	0.	
.3170	0.	0.	0.	0.	0.	0.		.0134	.0015	.0096	.0315	-.0009	-.0386	0.	
.3180	0.	0.	0.	0.	0.	0.		.0086	-.0021	.0271	.0563	.0088	-.0431	0.	
.3190	0.	0.	0.	0.	0.	0.		.0035	-.0058	.0441	.0812	.0183	-.0455	0.	
.3200	0.	0.	0.	0.	0.	0.		-.0017	-.0098	.0603	.1055	.0276	-.0463	0.	
.3210	0.	0.	0.	0.	0.	0.		-.0070	-.0139	.0755	.1289	.0365	-.0461	0.	
.3220	0.	0.	0.	0.	0.	0.		-.0121	-.0183	.0895	.1506	.0453	-.0452	0.	
.3230	0.	0.	0.	0.	0.	0.		-.0169	-.0227	.1022	.1704	.0536	-.0441	0.	

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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

.3130	0.	0.	0.	0.	0.	0.	0.	.0262	.0134	-.0604	-.0549	-.0348	.0058	0.
.3140	0.	0.	0.	0.	0.	0.	0.	.0242	.0107	-.0435	-.0364	-.0277	-.0096	0.
.3150	0.	0.	0.	0.	0.	0.	0.	.0214	.0078	-.0261	-.0155	-.0195	-.0221	0.
.3160	0.	0.	0.	0.	0.	0.	0.	.0177	.0047	-.0083	.0073	-.0105	-.0318	0.
.3170	0.	0.	0.	0.	0.	0.	0.	.0134	.0015	.0096	.0315	-.0009	-.0306	0.
.3180	0.	0.	0.	0.	0.	0.	0.	.0086	-.0021	.0271	.0563	.0088	-.0431	0.
.3190	0.	0.	0.	0.	0.	0.	0.	.0035	-.0058	.0441	.0812	.0183	-.0455	0.
.3200	0.	0.	0.	0.	0.	0.	0.	-.0017	-.0098	.0603	.1055	.0276	-.0463	0.
.3210	0.	0.	0.	0.	0.	0.	0.	-.0070	-.0139	.0755	.1289	.0365	-.0461	0.
.3220	0.	0.	0.	0.	0.	0.	0.	-.0121	-.0183	.0895	.1506	.0453	-.0452	0.
.3230	0.	0.	0.	0.	0.	0.	0.	-.0169	-.0227	.1022	.1704	.0536	-.0441	0.

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

CONDITION 24
LOADS
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ENGLISH UNITS

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

SECTION	6	MEMBER	1	SEQUENCE	25	LOCATION	DIS	TYPE	VA					
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
.3240	0.	0.	0.	0.	0.	0.	-.0211	-.0273	.1136	.1880	.0515	-.0433	0.	
.3250	0.	0.	0.	0.	0.	0.	-.0247	-.0319	.1233	.2034	.0690	-.0430	0.	
.3260	0.	0.	0.	0.	0.	0.	-.0274	-.0366	.1314	.2165	.0758	-.0436	0.	
.3270	0.	0.	0.	0.	0.	0.	-.0290	-.0412	.1378	.2268	.0813	-.0454	0.	
.3280	0.	0.	0.	0.	0.	0.	-.0295	-.0458	.1423	.2344	.0849	-.0486	0.	
.3290	0.	0.	0.	0.	0.	0.	-.0287	-.0503	.1449	.2392	.0863	-.0535	0.	
.3300	0.	0.	0.	0.	0.	0.	-.0266	-.0547	.1455	.2412	.0851	-.0601	0.	
.3310	0.	0.	0.	0.	0.	0.	-.0231	-.0589	.1441	.2401	.0814	-.0686	0.	
.3320	0.	0.	0.	0.	0.	0.	-.0183	-.0630	.1407	.2359	.0753	-.0789	0.	
.3330	0.	0.	0.	0.	0.	0.	-.0122	-.0668	.1355	.2287	.0670	-.0910	0.	
.3340	0.	0.	0.	0.	0.	0.	-.0051	-.0703	.1283	.2183	.0568	-.1046	0.	
.3350	0.	0.	0.	0.	0.	0.	.0030	-.0735	.1195	.2051	.0454	-.1193	0.	
.3360	0.	0.	0.	0.	0.	0.	.0117	-.0764	.1091	.1892	.0332	-.1348	0.	
.3370	0.	0.	0.	0.	0.	0.	.0209	-.0788	.0972	.1709	.0202	-.1504	0.	
.3380	0.	0.	0.	0.	0.	0.	.0303	-.0809	.0841	.1506	.0067	-.1656	0.	
.3390	0.	0.	0.	0.	0.	0.	.0395	-.0825	.0700	.1290	-.0068	-.1794	0.	
.3400	0.	0.	0.	0.	0.	0.	.0484	-.0838	.0552	.1070	-.0197	-.1912	0.	
.3410	0.	0.	0.	0.	0.	0.	.0567	-.0846	.0399	.0855	-.0315	-.2001	0.	
.3420	0.	0.	0.	0.	0.	0.	.0642	-.0851	.0246	.0653	-.0417	-.2053	0.	
.3430	0.	0.	0.	0.	0.	0.	.0706	-.0851	.0094	.0473	-.0496	-.2064	0.	
.3440	0.	0.	0.	0.	0.	0.	.0758	-.0848	-.0054	.0323	-.0549	-.2029	0.	
.3450	0.	0.	0.	0.	0.	0.	.0798	-.0841	-.0194	.0207	-.0571	-.1948	0.	
.3460	0.	0.	0.	0.	0.	0.	.0826	-.0831	-.0325	.0128	-.0565	-.1822	0.	
.3470	0.	0.	0.	0.	0.	0.	.0841	-.0817	-.0445	.0084	-.0536	-.1656	0.	
.3480	0.	0.	0.	0.	0.	0.	.0844	-.0800	-.0553	.0071	-.0487	-.1457	0.	
.3490	0.	0.	0.	0.	0.	0.	.0837	-.0780	-.0647	.0085	-.0421	-.1235	0.	
.3500	0.	0.	0.	0.	0.	0.	.0820	-.0756	-.0726	.0121	-.0343	-.0999	0.	
.3510	0.	0.	0.	0.	0.	0.	.0795	-.0729	-.0790	.0172	-.0257	-.0761	0.	
.3520	0.	0.	0.	0.	0.	0.	.0763	-.0700	-.0837	.0233	-.0165	-.0531	0.	
.3530	0.	0.	0.	0.	0.	0.	.0726	-.0667	-.0866	.0298	-.0070	-.0318	0.	
.3540	0.	0.	0.	0.	0.	0.	.0686	-.0633	-.0876	.0364	.0026	-.0131	0.	
.3550	0.	0.	0.	0.	0.	0.	.0642	-.0596	-.0867	.0427	.0121	.0024	0.	
.3560	0.	0.	0.	0.	0.	0.	.0597	-.0559	-.0839	.0486	.0211	.0141	0.	
.3570	0.	0.	0.	0.	0.	0.	.0551	-.0520	-.0792	.0538	.0291	.0218	0.	
.3580	0.	0.	0.	0.	0.	0.	.0505	-.0482	-.0727	.0583	.0360	.0253	0.	
.3590	0.	0.	0.	0.	0.	0.	.0461	-.0443	-.0645	.0619	.0414	.0248	0.	
.3600	0.	0.	0.	0.	0.	0.	.0417	-.0406	-.0548	.0649	.0454	.0205	0.	
.3610	0.	0.	0.	0.	0.	0.	.0376	-.0370	-.0438	.0672	.0479	.0128	0.	

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

CONDITION 24
LOADS
SHOCK
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ENGLISH UNITS

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

.3510	0.	0.	0.	0.	0.	0.	0.	0.	.0795	-.0729	-.0790	.0172	-.0257	-.0761	0.
.3520	0.	0.	0.	0.	0.	0.	0.	0.	.0763	-.0700	-.0837	.0233	-.0165	-.0531	0.
.3530	0.	0.	0.	0.	0.	0.	0.	0.	.0726	-.0667	-.0866	.0298	-.0070	-.0318	0.
.3540	0.	0.	0.	0.	0.	0.	0.	0.	.0686	-.0633	-.0876	.0364	.0026	-.0131	0.
.3550	0.	0.	0.	0.	0.	0.	0.	0.	.0642	-.0596	-.0867	.0427	.0121	.0024	0.
.3560	0.	0.	0.	0.	0.	0.	0.	0.	.0597	-.0559	-.0839	.0486	.0211	.0141	0.
.3570	0.	0.	0.	0.	0.	0.	0.	0.	.0551	-.0520	-.0792	.0538	.0291	.0218	0.
.3580	0.	0.	0.	0.	0.	0.	0.	0.	.0505	-.0482	-.0727	.0583	.0360	.0253	0.
.3590	0.	0.	0.	0.	0.	0.	0.	0.	.0461	-.0443	-.0645	.0619	.0414	.0248	0.
.3600	0.	0.	0.	0.	0.	0.	0.	0.	.0417	-.0406	-.0548	.0649	.0454	.0205	0.
.3610	0.	0.	0.	0.	0.	0.	0.	0.	.0376	-.0370	-.0438	.0672	.0479	.0128	0.

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CONDITION 24
LOADS
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ENGLISH UNITS

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

SECTION	6	MEMBER	1	SEQUENCE	25	LOCATION	DIS	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.3620	0.	0.	0.	0.	0.	0.	0.	.0336	-.0335	-.0319	.0686	.0488	.0021	0.	
.3630	0.	0.	0.	0.	0.	0.	0.	.0298	-.0303	-.0193	.0692	.0480	-.0108	0.	
.3640	0.	0.	0.	0.	0.	0.	0.	.0261	-.0273	-.0063	.0689	.0456	-.0255	0.	
.3650	0.	0.	0.	0.	0.	0.	0.	.0226	-.0245	.0068	.0676	.0416	-.0412	0.	
.3660	0.	0.	0.	0.	0.	0.	0.	.0191	-.0220	.0195	.0653	.0360	-.0571	0.	
.3670	0.	0.	0.	0.	0.	0.	0.	.0156	-.0198	.0317	.0619	.0289	-.0726	0.	
.3680	0.	0.	0.	0.	0.	0.	0.	.0121	-.0178	.0431	.0574	.0209	-.0870	0.	
.3690	0.	0.	0.	0.	0.	0.	0.	.0084	-.0161	.0535	.0520	.0124	-.0996	0.	
.3700	0.	0.	0.	0.	0.	0.	0.	.0046	-.0146	.0628	.0459	.0040	-.1098	0.	
.3710	0.	0.	0.	0.	0.	0.	0.	.0006	-.0132	.0708	.0392	-.0036	-.1172	0.	
.3720	0.	0.	0.	0.	0.	0.	0.	-.0037	-.0120	.0774	.0320	-.0103	-.1215	0.	
.3730	0.	0.	0.	0.	0.	0.	0.	-.0082	-.0108	.0825	.0243	-.0155	-.1224	0.	
.3740	0.	0.	0.	0.	0.	0.	0.	-.0129	-.0095	.0861	.0162	-.0194	-.1200	0.	
.3750	0.	0.	0.	0.	0.	0.	0.	-.0178	-.0082	.0881	.0077	-.0220	-.1142	0.	
.3760	0.	0.	0.	0.	0.	0.	0.	-.0227	-.0066	.0883	-.0012	-.0235	-.1054	0.	
.3770	0.	0.	0.	0.	0.	0.	0.	-.0275	-.0047	.0869	-.0105	-.0242	-.0937	0.	
.3780	0.	0.	0.	0.	0.	0.	0.	-.0321	-.0025	.0837	-.0200	-.0241	-.0794	0.	
.3790	0.	0.	0.	0.	0.	0.	0.	-.0364	.0002	.0787	-.0298	-.0235	-.0629	0.	
.3800	0.	0.	0.	0.	0.	0.	0.	-.0403	.0034	.0722	-.0395	-.0227	-.0445	0.	
.3810	0.	0.	0.	0.	0.	0.	0.	-.0436	.0071	.0641	-.0490	-.0219	-.0247	0.	
.3820	0.	0.	0.	0.	0.	0.	0.	-.0464	.0114	.0546	-.0582	-.0213	-.0037	0.	
.3830	0.	0.	0.	0.	0.	0.	0.	-.0484	.0162	.0439	-.0669	-.0211	.0179	0.	
.3840	0.	0.	0.	0.	0.	0.	0.	-.0497	.0216	.0322	-.0752	-.0216	.0398	0.	
.3850	0.	0.	0.	0.	0.	0.	0.	-.0503	.0275	.0197	-.0829	-.0226	.0615	0.	
.3860	0.	0.	0.	0.	0.	0.	0.	-.0502	.0338	.0068	-.0900	-.0241	.0826	0.	
.3870	0.	0.	0.	0.	0.	0.	0.	-.0495	.0405	-.0064	-.0967	-.0257	.1026	0.	
.3880	0.	0.	0.	0.	0.	0.	0.	-.0482	.0476	-.0194	-.1030	-.0271	.1212	0.	
.3890	0.	0.	0.	0.	0.	0.	0.	-.0465	.0549	-.0321	-.1092	-.0279	.1381	0.	
.3900	0.	0.	0.	0.	0.	0.	0.	-.0444	.0623	-.0442	-.1154	-.0279	.1528	0.	
.3910	0.	0.	0.	0.	0.	0.	0.	-.0421	.0698	-.0556	-.1216	-.0268	.1651	0.	
.3920	0.	0.	0.	0.	0.	0.	0.	-.0397	.0773	-.0662	-.1282	-.0248	.1751	0.	
.3930	0.	0.	0.	0.	0.	0.	0.	-.0372	.0845	-.0757	-.1351	-.0221	.1826	0.	
.3940	0.	0.	0.	0.	0.	0.	0.	-.0347	.0914	-.0843	-.1423	-.0188	.1878	0.	
.3950	0.	0.	0.	0.	0.	0.	0.	-.0323	.0979	-.0918	-.1493	-.0152	.1911	0.	
.3960	0.	0.	0.	0.	0.	0.	0.	-.0302	.1038	-.0981	-.1560	-.0113	.1929	0.	
.3970	0.	0.	0.	0.	0.	0.	0.	-.0283	.1090	-.1033	-.1618	-.0075	.1937	0.	
.3980	0.	0.	0.	0.	0.	0.	0.	-.0268	.1135	-.1074	-.1664	-.0037	.1941	0.	
.3990	0.	0.	0.	0.	0.	0.	0.	-.0257	.1170	-.1102	-.1693	.0002	.1944	0.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.26.00.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

.3890	0.	0.	0.	0.	0.	0.	0.	0.	-.0465	.0549	-.0321	-.1092	-.0279	.1381	0.
.3900	0.	0.	0.	0.	0.	0.	0.	0.	-.0444	.0623	-.0442	-.1154	-.0279	.1528	0.
.3910	0.	0.	0.	0.	0.	0.	0.	0.	-.0421	.0698	-.0556	-.1216	-.0268	.1651	0.
.3920	0.	0.	0.	0.	0.	0.	0.	0.	-.0397	.0773	-.0662	-.1282	-.0248	.1751	0.
.3930	0.	0.	0.	0.	0.	0.	0.	0.	-.0372	.0845	-.0757	-.1351	-.0221	.1826	0.
.3940	0.	0.	0.	0.	0.	0.	0.	0.	-.0347	.0914	-.0843	-.1423	-.0188	.1878	0.
.3950	0.	0.	0.	0.	0.	0.	0.	0.	-.0323	.0979	-.0918	-.1493	-.0152	.1911	0.
.3960	0.	0.	0.	0.	0.	0.	0.	0.	-.0302	.1038	-.0981	-.1560	-.0113	.1929	0.
.3970	0.	0.	0.	0.	0.	0.	0.	0.	-.0283	.1090	-.1033	-.1618	-.0075	.1937	0.
.3980	0.	0.	0.	0.	0.	0.	0.	0.	-.0268	.1135	-.1074	-.1664	-.0037	.1941	0.
.3990	0.	0.	0.	0.	0.	0.	0.	0.	-.0257	.1170	-.1102	-.1693	.0002	.1944	0.

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

SECTION	6	MEMBER	1	SEQUENCE	25	LOCATION	DIS	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.4000	0.	0.	0.	0.	0.	0.		-.0251	.1196	-.1118	-.1701	.0040	.1952	0.	

MAXIMUM VALUE OF DISCONTINUITY FORCE OCCURS AT

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

SECTION	6	MEMBER	1	SEQUENCE	25	LOCATION	END	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
0.0000	0.	0.	0.	0.	0.	0.		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.	
.0010	-1.	1.	-2.	5.	0.	-3.		-.0000	.0000	-.0000	-.0000	.0000	.0000	3.	
.0020	-7.	2.	-19.	30.	2.	-16.		-.0001	.0000	-.0001	-.0000	.0002	.0001	16.	
.0030	-31.	-16.	-56.	74.	4.	-30.		-.0002	.0000	-.0004	-.0003	.0006	.0005	37.	
.0040	-81.	-58.	-117.	131.	3.	-40.		-.0004	-.0000	-.0008	-.0008	.0014	.0015	64.	
.0050	-156.	-113.	-204.	213.	-5.	-64.		-.0007	-.0000	-.0016	-.0016	.0024	.0030	104.	
.0060	-262.	-179.	-335.	344.	-28.	-116.		-.0012	.0000	-.0028	-.0028	.0036	.0053	171.	
.0070	-409.	-279.	-537.	530.	-53.	-182.		-.0018	.0000	-.0046	-.0047	.0054	.0088	264.	
.0080	-604.	-431.	-831.	767.	-44.	-234.		-.0028	.0001	-.0071	-.0072	.0090	.0142	377.	
.0090	-876.	-641.	-1213.	1082.	17.	-273.		-.0040	.0002	-.0106	-.0103	.0160	.0222	523.	
.0100	-1238.	-884.	-1633.	1476.	85.	-323.		-.0053	.0004	-.0152	-.0134	.0265	.0327	709.	
.0110	-1630.	-1132.	-2058.	1878.	140.	-371.		-.0066	.0007	-.0207	-.0168	.0385	.0452	899.	
.0120	-1967.	-1354.	-2480.	2202.	191.	-396.		-.0076	.0012	-.0270	-.0204	.0507	.0589	1052.	
.0130	-2251.	-1510.	-2841.	2443.	193.	-430.		-.0081	.0019	-.0341	-.0236	.0624	.0729	1166.	
.0140	-2546.	-1611.	-3094.	2655.	63.	-523.		-.0080	.0027	-.0417	-.0258	.0730	.0869	1268.	
.0150	-2876.	-1728.	-3304.	2880.	-217.	-667.		-.0073	.0036	-.0500	-.0272	.0817	.1003	1389.	
.0160	-3237.	-1923.	-3608.	3188.	-583.	-854.		-.0059	.0046	-.0590	-.0285	.0888	.1131	1571.	
.0170	-3638.	-2193.	-3927.	3479.	-1061.	-1034.		-.0042	.0056	-.0688	-.0306	.0936	.1254	1772.	
.0180	-3982.	-2504.	-4096.	3438.	-1645.	-1064.		-.0020	.0066	-.0791	-.0350	.0935	.1370	1854.	
.0190	-4035.	-2765.	-4172.	2907.	-2053.	-842.		.0007	.0076	-.0892	-.0420	.0898	.1469	1714.	
.0200	-3598.	-2767.	-4128.	1917.	-1932.	-348.		.0041	.0086	-.0975	-.0492	.0890	.1533	1286.	
.0210	-2955.	-2418.	-3846.	1113.	-1247.	170.		.0084	.0100	-.1030	-.0499	.1039	.1561	787.	
.0220	-2703.	-1907.	-3005.	1069.	-846.	354.		.0141	.0117	-.1054	-.0395	.1286	.1535	660.	
.0230	-2300.	-1277.	-1983.	1277.	-715.	388.		.0216	.0135	-.1042	-.0244	.1448	.1405	709.	

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

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

.0130	-2251.	-1510.	-2841.	2443.	193.	-430.	-0081	.0019	-.0341	-.0236	.0624	.0729	1166.
.0140	-2546.	-1611.	-3091.	2655.	63.	-523.	-.0080	.0027	-.0417	-.0258	.0730	.0869	1268.
.0150	-2876.	-1723.	-3304.	2880.	-217.	-667.	-.0073	.0036	-.0500	-.0272	.0817	.1003	1389.
.0160	-3237.	-1923.	-3606.	3188.	-583.	-854.	-.0059	.0046	-.0590	-.0285	.0888	.1131	1571.
.0170	-3638.	-2193.	-3927.	3479.	-1061.	-1034.	-.0042	.0056	-.0688	-.0306	.0936	.1254	1772.
.0180	-3982.	-2504.	-4096.	3438.	-1645.	-1064.	-.0020	.0066	-.0791	-.0350	.0935	.1370	1854.
.0190	-4035.	-2765.	-4172.	2907.	-2053.	-842.	.0007	.0076	-.0892	-.0420	.0898	.1469	1714.
.0200	-3598.	-2767.	-4128.	1917.	-1932.	-348.	.0041	.0086	-.0975	-.0492	.0890	.1533	1286.
.0210	-2955.	-2418.	-3846.	1113.	-1247.	170.	.0084	.0100	-.1030	-.0499	.1039	.1561	787.
.0220	-2703.	-1907.	-3005.	1069.	-846.	354.	.0141	.0117	-.1054	-.0395	.1286	.1535	660.
.0230	-2300.	-1277.	-1983.	1277.	-715.	388.	.0216	.0135	-.1042	-.0244	.1448	.1405	709.

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CONDITION 24

LOADS

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ENGLISH UNITS

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

SECTION	6	MEMBER	1	SEQUENCE	25	LOCATION	END	TYPE	VA						
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)		
.0240	-1344.	-504.	-1721.	1843.	-185.	193.	.0306	.0149	-.1002	-.0089	.1541	.1147	873.		
.0250	-437.	214.	-1229.	2060.	-93.	-18.	.0407	.0155	-.0948	.0051	.1511	.0804	966.		
.0260	340.	592.	485.	642.	-1344.	327.	.0520	.0140	-.0882	.0112	.1129	.0395	714.		
.0270	1639.	687.	1499.	-1069.	-2630.	730.	.0638	.0129	-.0791	.0099	.0492	-.0121	1374.		
.0280	3186.	1004.	822.	-982.	-2654.	357.	.0745	.0102	-.0669	.0144	.0052	-.0719	1337.		
.0290	3499.	1390.	1041.	231.	-3155.	-364.	.0838	.0067	-.0530	.0325	-.0128	-.1277	1492.		
.0300	2836.	935.	1801.	1709.	-4556.	-630.	.0918	.0018	-.0380	.0524	-.0305	-.1744	2300.		
.0310	3173.	565.	965.	3347.	-4976.	-839.	.0968	-.0045	-.0232	.0608	-.0591	-.2201	2838.		
.0320	4501.	1027.	234.	3147.	-4743.	-900.	.0988	-.0125	-.0088	.0560	-.1078	-.2630	2701.		
.0330	4807.	1276.	783.	1552.	-4904.	-778.	.0980	-.0223	.0053	.0510	-.1524	-.2903	2438.		
.0340	3817.	969.	1364.	1013.	-5436.	-1032.	.0941	-.0333	.0193	.0540	-.1801	-.3021	2636.		
.0350	3131.	1067.	1366.	1609.	-5951.	-1706.	.0866	-.0448	.0330	.0583	-.2136	-.3093	2997.		
.0360	3319.	1373.	1377.	956.	-5913.	-1699.	.0756	-.0573	.0473	.0543	-.2599	-.3103	2918.		
.0370	3222.	1003.	1823.	-1574.	-4904.	-757.	.0618	-.0711	.0636	.0467	-.2889	-.2960	2440.		
.0380	1979.	665.	3191.	-4034.	-3751.	-319.	.0450	-.0850	.0815	.0482	-.2893	-.2708	2586.		
.0390	639.	1035.	4910.	-5435.	-2894.	-590.	.0255	-.0977	.0998	.0540	-.2868	-.2473	2899.		
.0400	780.	850.	4749.	-6731.	-418.	391.	.0042	-.1091	.1193	.0474	-.2781	-.2251	3166.		
.0410	881.	-346.	3504.	-7541.	3166.	2167.	-.0175	-.1189	.1399	.0378	-.2359	-.1965	3965.		
.0420	-425.	-530.	4555.	-7737.	5366.	2745.	-.0385	-.1257	.1592	.0403	-.1691	-.1672	4596.		
.0430	-1156.	330.	6087.	-8054.	7320.	2870.	-.0581	-.1292	.1761	.0390	-.1032	-.1472	5275.		
.0440	-97.	10.	4064.	-7850.	10995.	4112.	-.0749	-.1296	.1900	.0191	-.0368	-.1341	6618.		
.0450	400.	-970.	1485.	-6186.	13308.	5046.	-.0874	-.1263	.1987	.0005	.0279	-.1219	7273.		
.0460	-606.	-641.	1993.	-4067.	11990.	4229.	-.0953	-.1190	.2003	-.0038	.0706	-.1135	6255.		
.0470	-362.	32.	2067.	-3561.	10806.	3598.	-.0987	-.1089	.1968	-.0156	.0890	-.1114	5592.		
.0480	1638.	-524.	-596.	-4506.	11628.	4376.	-.0977	-.0969	.1896	-.0391	.1003	-.1077	6193.		
.0490	2304.	-906.	-1499.	-4785.	10484.	4330.	-.0925	-.0819	.1780	-.0418	.1093	-.0962	5769.		
.0500	1442.	33.	596.	-3896.	6764.	2612.	-.0843	-.0638	.1623	-.0153	.1119	-.0810	3858.		
.0510	1987.	611.	902.	-3491.	5211.	1658.	-.0743	-.0442	.1456	.0122	.1178	-.0638	3040.		
.0520	3649.	321.	-346.	-4413.	6116.	2120.	-.0629	-.0240	.1290	.0359	.1343	-.0386	3671.		
.0530	3751.	1073.	1643.	-5372.	5250.	1783.	-.0505	-.0025	.1107	.0771	.1512	-.0050	3618.		
.0540	3001.	2728.	5027.	-5023.	3190.	434.	-.0380	.0201	.0903	.1281	.1511	.0284	2796.		
.0550	3571.	3141.	4872.	-3713.	3355.	8.	-.0262	.0424	.0693	.1618	.1653	.0570	2345.		
.0560	4255.	2686.	66.	-2338.	4081.	236.	-.0149	.0638	.0472	.1812	.1612	.0843	2207.		
.0570	3368.	3240.	529.	-839.	2612.	-314.	-.0042	.0841	.0232	.2028	.1481	.1112	1308.		
.0580	2457.	4055.	6115.	1221.	1261.	-1535.	.0055	.1025	-.0014	.2167	.1367	.1336	1093.		
.0590	2649.	3473.	3823.	3872.	1881.	-1521.	.0141	.1179	-.0255	.2125	.1315	.1512	2140.		
.0600	2130.	2360.	1510.	7129.	1651.	-1579.	.0221	.1302	-.0498	.2073	.1262	.1677	3508.		
.0610	386.	2083.	1210.	10562.	-439.	-2710.	.0294	.1391	-.0742	.2113	.1222	.1843	5114.		

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

.0500	1442.	33.	592.	-3896.	6784.	2612.	-0.043	-0.0638	.1623	-0.0153	.1119	-0.0810	3858.
.0510	1987.	611.	902.	-3491.	5211.	1658.	-0.0743	-0.0442	.1456	.0122	.1178	-0.0638	3040.
.0520	3649.	321.	-346.	-4413.	6116.	2120.	-0.0629	-0.0240	.1290	.0359	.1343	-0.0386	3671.
.0530	3751.	1073.	1643.	-5372.	5250.	1783.	-0.0505	-0.0025	.1107	.0771	.1512	-0.0050	3618.
.0540	3001.	2728.	5027.	-5023.	3190.	434.	-0.0380	.0701	.0903	.1281	.1511	.0284	2796.
.0550	3571.	3141.	4872.	-3713.	3355.	8.	-0.0267	.0424	.0693	.1618	.1653	-0.0570	2345.
.0560	4255.	2686.	3566.	-2338.	4081.	236.	-0.0149	.0638	.0472	.1812	.1512	.0843	2207.
.0570	3368.	3240.	5029.	-839.	2612.	-514.	-0.0042	.0841	.0232	.2028	.1481	.1112	1308.
.0580	2457.	4055.	6115.	1221.	1261.	-1535.	.0055	.1025	-0.0014	.2167	.1367	.1336	1093.
.0590	2649.	3473.	3823.	3872.	1881.	-1521.	.0141	.1179	-0.0255	.2125	.1315	.1512	2140.
.0600	2130.	2360.	1510.	7129.	1651.	-1579.	.0221	.1302	-0.0498	.2073	.1262	.1677	3508.
.0610	386.	2083.	1210.	10562.	-439.	-2710.	.0294	.1391	-0.0742	.2113	.1222	.1843	5114.

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

SECTION	6	MEMBER	1	SEQUENCE	25	LOCATION	END	TYPE	VA						
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)		
.0620	-659.	1866.	97.	12928.	-1566.	-3638.	.0363	.1434	-.0968	.2100	.1251	.2003	6336.		
.0630	-769.	931.	-2280.	13526.	-1544.	-3578.	-.0428	.1424	-.1173	.1990	.1273	.2169	6597.		
.0640	-1627.	129.	-3197.	13428.	-3158.	-3809.	.0491	.1372	-.1367	.1939	.1183	.2340	6706.		
.0650	-3059.	-120.	-3119.	13610.	-6129.	-4839.	.0547	.1280	-.1546	.1963	.1019	.2490	7353.		
.0660	-3614.	-576.	-4227.	13047.	-8060.	-5425.	.0594	.1144	-.1692	.1902	.0830	.2604	7623.		
.0670	-3624.	-1300.	-5322.	10605.	-9259.	-5146.	.0627	.0967	-.1798	.1723	.0575	.2688	7025.		
.0680	-4146.	-1625.	-4852.	7439.	-10980.	-4918.	.0642	.0760	-.1866	.1527	.0299	.2725	6629.		
.0690	-4771.	-1760.	-4553.	5413.	-12185.	-4869.	.0633	.0534	-.1889	.1309	.0145	.2681	6652.		
.0700	-4951.	-2373.	-5677.	4564.	-11910.	-4256.	.0599	.0293	-.1863	.0993	.0135	.2551	6301.		
.0710	-5307.	-3262.	-6678.	3972.	-11182.	-3208.	.0545	.0045	-.1795	.0583	.0154	.2339	5761.		
.0720	-6068.	-3876.	-6805.	3394.	-10545.	-2393.	.0475	-.0204	-.1695	.0100	.0121	.2027	5111.		
.0730	-6418.	-4308.	-7190.	2765.	-9212.	-1584.	.0393	-.0447	-.1563	-.0493	.0004	.1602	4568.		
.0740	-6164.	-4882.	-8023.	1976.	-7242.	-266.	.0309	-.0678	-.1403	-.1180	-.0208	.1098	3520.		
.0750	-6075.	-5440.	-8404.	1642.	-5633.	1082.	.0230	-.0885	-.1222	-.1829	-.0459	.0555	2796.		
.0760	-6257.	-5617.	-8226.	2108.	-4467.	1838.	.0162	-.1064	-.1022	-.2351	-.0693	-.0019	2470.		
.0770	-5943.	-5391.	-7789.	2160.	-3098.	2428.	.0108	-.1213	-.0801	-.2774	-.0962	-.0611	2104.		
.0780	-4825.	-4947.	-6869.	623.	-1385.	3479.	.0074	-.1332	-.0559	-.3113	-.1292	-.1178	1779.		
.0790	-3471.	-4269.	-5281.	-1637.	266.	4558.	.0061	-.1419	-.0300	-.3275	-.1568	-.1688	2273.		
.0800	-2423.	-3277.	-3233.	-3128.	1435.	4903.	.0065	-.1466	-.0030	-.3175	-.1700	-.2144	2807.		
.0810	-1445.	-2215.	-1057.	-4128.	2132.	4799.	.0085	-.1475	.0241	-.2871	-.1770	-.2557	3130.		
.0820	-37.	-1378.	918.	-5759.	2755.	4928.	.0118	-.1449	.0510	-.2481	-.1872	-.2918	3780.		
.0830	1667.	-544.	2764.	-7952.	3336.	5050.	.0159	-.1392	.0771	-.2037	-.1974	-.3222	4683.		
.0840	3143.	611.	4835.	-9790.	3401.	4587.	.0201	-.1300	.1018	-.1512	-.2029	-.3478	5311.		
.0850	4388.	1714.	6623.	-10700.	3058.	3833.	.0238	-.1175	.1244	-.0938	-.2025	-.3690	5516.		
.0860	5715.	2302.	7194.	-10421.	2969.	3285.	.0263	-.1023	.1452	-.0375	-.1924	-.3842	5306.		
.0870	6942.	2778.	7059.	-9062.	3091.	2669.	.0272	-.0849	.1638	.0179	-.1698	-.3917	4658.		
.0880	7773.	3626.	7358.	-7428.	3080.	1751.	.0260	-.0663	.1799	.0733	-.1382	-.3904	3856.		
.0890	8435.	4368.	7616.	-6127.	3482.	1024.	.0227	-.0475	.1933	.1241	-.0994	-.3787	3337.		
.0900	9006.	4505.	6955.	-4654.	4655.	668.	.0171	-.0293	.2039	.1701	-.0511	-.3556	3101.		
.0910	8948.	4460.	6208.	-2454.	5646.	89.	.0096	-.0121	.2107	.2175	.0030	-.3204	2885.		
.0920	8154.	4550.	6226.	-287.	5936.	-798.	.0007	.0035	.2130	.2655	.0529	-.2737	2811.		
.0930	7324.	4362.	6242.	607.	6452.	-1309.	-.0092	.0165	.2112	.3042	.0931	-.2170	3098.		
.0940	6687.	3867.	5908.	186.	7481.	-1376.	-.0195	.0267	.2054	.3312	.1240	-.1526	3566.		
.0950	5682.	3634.	6112.	-496.	8019.	-1650.	-.0298	.0345	.1954	.3535	.1487	-.0831	3844.		
.0960	4221.	3594.	6699.	-685.	7889.	-2152.	-.0396	.0404	.1813	.3724	.1714	-.0117	3845.		
.0970	2852.	3197.	6522.	-533.	7968.	-2337.	-.0483	.0440	.1641	.3804	.1946	.0579	3899.		
.0980	1686.	2628.	5832.	-533.	8236.	-2251.	-.0557	.0455	.1440	.3743	.2141	.1213	4009.		
.0990	444.	2366.	5572.	-836.	7985.	-2281.	-.0612	.0451	.1211	.3552	.2244	.1749	3911.		

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18.26.01.

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

.0890	8435.	4368.	7816.	-6127.	3402.	1024.	.227	-.0475	.1933	.1241	-.0994	-.3787	3337.
.0900	9006.	4505.	6955.	-4654.	4655.	668.	.171	-.0293	.2039	.1701	-.0511	-.3556	3101.
.0910	8948.	4440.	6208.	-2454.	5646.	89.	.0096	-.0121	.2107	.2175	.0030	-.3204	2885.
.0920	8154.	4550.	6226.	-287.	5938.	-798.	.0007	.0035	.2130	.2655	.0529	-.2737	2811.
.0930	7324.	4362.	6242.	607.	6452.	-1309.	-.0092	.0165	.2112	.3042	.0931	-.2170	3098.
.0940	6687.	3867.	5908.	186.	7481.	-1376.	-.0195	.0267	.2054	.3312	.1240	-.1526	3566.
.0950	5682.	3634.	6112.	-496.	8019.	-1650.	-.0298	.0345	.1954	.3535	.1487	-.0831	3844.
.0960	4221.	3594.	6699.	-685.	7889.	-2152.	-.0396	.0404	.1813	.3724	.1714	-.0117	3845.
.0970	2852.	3197.	6522.	-523.	7968.	-2337.	-.0483	.0440	.1641	.3804	.1946	.0579	3899.
.0980	1686.	2628.	5832.	-573.	8236.	-2251.	-.0557	.0455	.1440	.3743	.2141	.1213	4009.
.0990	444.	2366.	5572.	-876.	7981.	-2281.	-.0612	.0451	.1211	.3552	.2244	.1749	3911.

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

CONDITION 24

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ENGLISH UNITS

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

SECTION	6	MEMBER	1	SEQUENCE	25	LOCATION	END	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(pSI)		
.1000	-759.	2067.	5174.	-1111.	7363.	-2266.	-.0646	.0431	.0959	.3217	.2254	.2165	3648.		
.1010	-1734.	1232.	3772.	-899.	6717.	-1988.	-.0654	.0396	.0690	.2732	.2186	.2442	3310.		
.1020	-2682.	180.	1995.	-126.	5624.	-1747.	-.0638	.0352	.0409	.2148	.2025	.2564	2760.		
.1030	-3601.	-650.	570.	703.	4014.	-1646.	-.0595	.0302	.0126	.1501	.1786	.2543	2060.		
.1040	-4085.	-1396.	-866.	1074.	2625.	-1277.	-.0525	.0245	-.0147	.0792	.1522	.2408	1458.		
.1050	-4066.	-2128.	-2436.	1108.	1630.	-565.	-.0431	.0187	-.0403	.0058	.1265	.2179	961.		
.1060	-3918.	-2555.	-3585.	1381.	451.	37.	-.0315	.0132	-.0641	-.0618	.1017	.1869	681.		
.1070	-3729.	-2691.	-4378.	2077.	-878.	415.	-.0180	.0084	-.0860	-.1198	.0301	.1504	1075.		
.1080	-3093.	-2736.	-5197.	2420.	-1655.	1051.	-.0031	.0040	-.1056	-.1719	.0637	.1121	1460.		
.1090	-1942.	-2597.	-5800.	1891.	-1645.	2085.	.0129	.0000	-.1228	-.2177	.0566	.0746	1528.		
.1100	-1816.	-2355.	-5509.	2090.	-2787.	2183.	.0296	-.0031	-.1396	-.2478	.0475	.0389	1927.		
.1110	-1874.	-2154.	-5091.	2410.	-4643.	1879.	.0463	-.0053	-.1565	-.2722	.0205	.0029	2605.		
.1120	-1081.	-2329.	-5713.	1933.	-5874.	2098.	.0625	-.0072	-.1728	-.3016	-.0244	-.0319	3060.		
.1130	-405.	-2607.	-6341.	1141.	-7058.	2279.	.0775	-.0084	-.1880	-.3271	-.0721	-.0602	3516.		
.1140	-782.	-2493.	-5685.	797.	-9155.	1681.	.0906	-.0087	-.2020	-.3380	-.1145	-.0805	4378.		
.1150	-1290.	-2370.	-5205.	1047.	-11026.	908.	.1010	-.0078	-.2137	-.3407	-.1514	-.0951	5208.		
.1160	-1198.	-2728.	-6280.	1892.	-11568.	563.	.1083	-.0063	-.2220	-.3414	-.1792	-.1032	5499.		
.1170	-1364.	-2864.	-6912.	2939.	-12005.	98.	.1123	-.0040	-.2269	-.3334	-.1986	-.1024	5792.		
.1180	-2479.	-2566.	-6167.	4101.	-13179.	-1028.	.1129	-.0013	-.2283	-.3126	-.2134	-.0926	6486.		
.1190	-3052.	-2142.	-5320.	4097.	-13725.	-1718.	.1099	.0012	-.2257	-.2926	-.2347	-.0787	6760.		
.1200	-2593.	-2204.	-5796.	3405.	-12680.	-1502.	.1033	.0033	-.2181	-.2767	-.2530	-.0606	6193.		
.1210	-2760.	-2505.	-6247.	3692.	-11515.	-1536.	.0935	.0053	-.2058	-.2488	-.2502	-.0351	5712.		
.1220	-4073.	-2083.	-4470.	4293.	-11706.	-2356.	.0809	.0076	-.1897	-.2049	-.2396	-.0059	5946.		
.1230	-4776.	-1902.	-3422.	4373.	-10851.	-2796.	.0658	.0094	-.1691	-.1637	-.2238	.0218	5637.		
.1240	-4164.	-2188.	-3903.	3364.	-8151.	-2275.	.0487	.0105	-.1439	-.1334	-.2027	.0468	4268.		
.1250	-3933.	-1982.	-3105.	2120.	-6090.	-1980.	.0306	.0115	-.1158	-.0996	-.1750	.0709	3161.		
.1260	-4520.	-1348.	-1178.	1751.	-5116.	-2363.	.0120	.0130	-.0856	-.0581	-.1371	.0923	2765.		
.1270	-4058.	-860.	-377.	1226.	-3126.	-2148.	-.0067	.0146	-.0534	-.0257	-.0954	.1050	1868.		
.1280	-2696.	-906.	-1225.	739.	188.	-1343.	-.0248	.0160	-.0196	-.0033	-.0432	.1106	724.		
.1290	-2144.	-389.	-422.	341.	2183.	-1150.	-.0416	.0178	.0137	.0225	.0115	.1123	1168.		
.1300	-1750.	654.	1633.	-256.	3089.	-1340.	-.0567	.0197	.0456	.0477	.0599	.1080	1582.		
.1310	-762.	862.	1508.	-821.	5160.	-878.	-.0699	.0212	.0762	.0595	.1027	.0959	2483.		
.1320	870.	793.	950.	-1791.	7206.	-35.	-.0809	.0226	.1045	.0632	.1311	.0780	3480.		
.1330	1560.	1192.	2098.	-2702.	7655.	177.	-.0895	.0241	.1295	.0720	.1496	.0591	3805.		
.1340	2154.	1906.	3837.	-3943.	7833.	248.	-.0959	.0256	.1518	.0806	.1621	.0394	4111.		
.1350	3658.	2258.	4260.	-5641.	9368.	971.	-.1004	.0269	.1719	.0810	.1725	.0180	5145.		
.1360	4895.	2394.	4468.	-6759.	10927.	1638.	-.1030	.0283	.1890	.0835	.1841	-.0017	6070.		
.1370	5178.	3220.	6473.	-7378.	10964.	1683.	-.1038	.0304	.2020	.0939	.1882	-.0192	6243.		

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

CONDITION 24

LOADS

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ENGLISH UNITS

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