

50-305

RESPONSE TO NUREG-0737 ITEM II.D.1

Docket # *50-305*

Control # *8403280048*

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

.2370	837.	-775.	-406.	458.	2711.	-858.	.0000	.0000	.0000	-.0000	-.0000	.0000	1934.
.2380	870.	-1139.	-397.	853.	2708.	-805.	.0000	-.0000	-.0000	-.0000	-.0000	0.0000	1989.
.2390	939.	-1326.	-347.	1258.	2626.	-967.	.0000	.0000	.0000	-.0000	-.0000	0.0000	2068.
.2400	1035.	-1397.	-370.	1644.	2458.	-1314.	.0000	.0000	.0000	-.0000	-.0000	.0000	2181.
.2410	1140.	-1395.	-186.	1972.	2195.	-1791.	.0000	0.0000	.0000	-.0000	-.0000	0.0000	2326.
.2420	1227.	-1415.	-115.	2203.	1855.	-2306.	0.0000	0.0000	.0000	-.0000	-.0000	0.0000	2487.
.2430	1271.	-1556.	-77.	2315.	1456.	-2772.	.0000	.0000	.0000	-.0000	-.0000	.0000	2625.
.2440	1270.	-1814.	-72.	2329.	1006.	-3141.	0.0000	.0000	.0000	-.0000	-.0000	.0000	2721.
.2450	1222.	-2111.	-77.	2304.	528.	-3385.	-.0000	0.0000	.0000	-.0000	-.0000	.0000	2783.
.2460	1121.	-2389.	-59.	2323.	68.	-3475.	-.0000	.0000	.0000	-.0000	-.0000	-.0000	2818.
.2470	975.	-2583.	8.	2457.	-350.	-3405.	-.0000	-.0000	-.0000	.0000	.0000	-.0000	2840.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.25.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK

2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	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)	
.2480	800.	-2589.	145.	2754.	-726.	-3194.	.0000	.0000	.0000	-.0000	-.0000	.0000	2885.	
.2490	595.	-2354.	359.	3223.	-1045.	-2835.	-.0000	.0000	.0000	-.0000	-.0000	0.0000	2978.	
.2500	339.	-1937.	632.	3818.	-1280.	-2286.	-.0000	-.0000	-.0000	-.0000	.0000	-.0000	3121.	
.2510	29.	-1462.	920.	4440.	-1447.	-1518.	0.0000	0.0000	.0000	-.0000	.0000	-.0000	3310.	
.2520	-330.	-1048.	1171.	4983.	-1576.	-531.	0.0000	0.0000	.0000	-.0000	.0000	-.0000	3541.	
.2530	-742.	-794.	1355.	5374.	-1666.	668.	-.0000	.0000	.0000	-.0000	.0000	.0000	3819.	
.2540	-1201.	-727.	1466.	5591.	-1709.	2030.	-.0000	-.0000	.0000	-.0000	.0000	0.0000	4172.	
.2550	-1666.	-760.	1518.	5659.	-1717.	3431.	-.0000	-.0000	.0000	.0000	.0000	-.0000	4608.	
.2560	-2087.	-789.	1532.	5628.	-1706.	4724.	-.0000	-.0000	.0000	.0000	.0000	-.0000	5085.	
.2570	-2432.	-764.	1535.	5560.	-1665.	5795.	-.0000	-.0000	.0000	-.0000	.0000	-.0000	5528.	
.2580	-2676.	-640.	1549.	5502.	-1586.	6550.	0.0000	-.0000	-.0000	.0000	.0000	-.0000	5864.	
.2590	-2789.	-369.	1581.	5468.	-1478.	6904.	0.0000	-.0000	.0000	-.0000	.0000	-.0000	6019.	
.2600	-2755.	25.	1612.	5427.	-1352.	6821.	-.0000	-.0000	-.0000	.0000	.0000	-.0000	5945.	
.2610	-2579.	450.	1613.	5319.	-1212.	6323.	-.0000	-.0000	-.0000	.0000	.0000	-.0000	5629.	
.2620	-2283.	811.	1552.	5076.	-1058.	5467.	0.0000	-.0000	-.0000	.0000	-.0000	0.0000	5079.	
.2630	-1886.	1004.	1400.	4641.	-895.	4325.	-.0000	-.0000	.0000	-.0000	-.0000	0.0000	4318.	
.2640	-1404.	936.	1138.	3993.	-730.	2968.	0.0000	-.0000	.0000	-.0000	.0000	0.0000	3390.	
.2650	-847.	630.	782.	3179.	-567.	1443.	-.0000	-.0000	.0000	-.0000	.0000	-.0000	2384.	
.2660	-232.	232.	381.	2303.	-393.	-221.	-.0000	0.0000	.0000	-.0000	.0000	0.0000	1582.	
.2670	424.	-133.	-10.	1485.	-193.	-1978.	.0000	.0000	.0000	-.0000	-.0000	.0000	1672.	
.2680	1098.	-428.	-355.	817.	29.	-3762.	-.0000	.0000	-.0000	-.0000	-.0000	-.0000	2595.	
.2690	1761.	-644.	-631.	365.	266.	-5485.	.0000	.0000	.0000	-.0000	-.0000	.0000	3710.	
.2700	2369.	-783.	-821.	160.	523.	-7038.	-.0000	.0000	.0000	-.0000	-.0000	0.0000	4758.	
.2710	2873.	-901.	-926.	192.	795.	-8301.	-.0000	0.0000	.0000	-.0000	-.0000	.0000	5622.	
.2720	3237.	-1070.	-964.	425.	1065.	-9173.	-.0000	.0000	.0000	-.0000	-.0000	.0000	6231.	
.2730	3432.	-1322.	-946.	816.	1321.	-9587.	0.0000	.0000	.0000	-.0000	-.0000	-.0000	6546.	
.2740	3443.	-1683.	-881.	1333.	1566.	-9503.	-.0000	.0000	.0000	-.0000	-.0000	0.0000	6554.	
.2750	3274.	-2167.	-776.	1950.	1790.	-8943.	.0000	.0000	-.0000	-.0000	-.0000	.0000	6286.	
.2760	2958.	-2687.	-624.	2662.	1980.	-7993.	-.0000	.0000	.0000	-.0000	-.0000	.0000	5833.	
.2770	2531.	-3096.	-410.	3474.	2138.	-6776.	.0000	.0000	.0000	-.0000	-.0000	.0000	5331.	
.2780	2033.	-3338.	-133.	4364.	2270.	-5413.	.0000	.0000	.0000	-.0000	-.0000	0.0000	4930.	
.2790	1507.	-3459.	181.	5272.	2360.	-4013.	.0000	.0000	.0000	-.0000	-.0000	.0000	4741.	
.2800	994.	-3490.	499.	6122.	2396.	-2681.	-.0000	-.0000	.0000	-.0000	-.0000	-.0000	4786.	
.2810	528.	-3423.	798.	6838.	2382.	-1511.	-.0000	.0000	-.0000	-.0000	-.0000	-.0000	4986.	
.2820	135.	-3279.	1047.	7347.	2316.	-567.	0.0000	.0000	.0000	-.0000	-.0000	.0000	5206.	
.2830	-166.	-3120.	1215.	7581.	2191.	111.	0.0000	.0000	.0000	-.0000	-.0000	.0000	5320.	
.2840	-361.	-2982.	1282.	7506.	2012.	508.	-.0000	-.0000	.0000	-.0000	-.0000	-.0000	5249.	
.2850	-445.	-2857.	1249.	7126.	1790.	621.	.0000	.0000	-.0000	.0000	-.0000	.0000	4970.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.25.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK

2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

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ENGLISH UNITS

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

.2750	3274.	-2167.	-776.	1950.	1790.	-8943.	.0000	.0000	-.0000	-.0000	-.0000	.0000	6286.
.2760	2958.	-2687.	-624.	2662.	1980.	-7993.	-.0000	.0000	.0000	-.0000	-.0000	.0000	5833.
.2770	2531.	-3096.	-410.	3474.	2138.	-6776.	.0000	.0000	.0000	-.0000	-.0000	.0000	5331.
.2780	2033.	-3378.	-133.	4364.	2270.	-5413.	.0000	.0000	.0000	-.0000	-.0000	0.0000	4930.
.2790	1507.	-3459.	181.	5272.	2360.	-4013.	.0000	.0000	.0000	-.0000	-.0000	.0000	4741.
.2800	994.	-3490.	499.	6122.	2396.	-2681.	-.0000	-.0000	.0000	-.0000	-.0000	-.0000	4786.
.2810	528.	-3423.	798.	6838.	2382.	-1511.	-.0000	.0000	-.0000	-.0000	-.0000	-.0000	4986.
.2820	135.	-3279.	1047.	7347.	2316.	-567.	0.0000	.0000	.0000	-.0000	-.0000	.0000	5206.
.2830	-166.	-3120.	1215.	7581.	2191.	111.	0.0000	.0000	.0000	-.0000	-.0000	.0000	5320.
.2840	-361.	-2982.	1282.	7506.	2012.	508.	-.0000	-.0000	.0000	-.0000	-.0000	-.0000	5249.
.2850	-445.	-2857.	1249.	7126.	1790.	621.	.0000	.0000	-.0000	.0000	-.0000	.0000	4970.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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18.27.25.

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

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

SECTION	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)
26	4	47					.2860	-422.	-2699.	1131.	6483.	1533.	465.	-.0000	-.0000	-.0000	-.0000	.0000	.0000	4501.
							.2870	-307.	-2474.	951.	5639.	1256.	78.	-.0000	.0000	.0000	-.0000	-.0000	0.0000	3894.
							.2880	-125.	-2205.	732.	4662.	974.	-469.	-.0000	.0000	.0000	-.0000	-.0000	.0000	3226.
							.2890	94.	-1923.	493.	3625.	698.	-1094.	.0000	.0000	.0000	-.0000	-.0000	.0000	2595.
							.2900	322.	-1592.	263.	2599.	437.	-1727.	-.0000	-.0000	.0000	-.0000	-.0000	-.0000	2124.
							.2910	528.	-1183.	66.	1648.	204.	-2292.	-.0000	-.0000	.0000	-.0000	-.0000	-.0000	1908.
							.2920	682.	-769.	-93.	802.	10.	-2702.	-.0000	.0000	.0000	-.0000	-.0000	.0000	1900.
							.2930	765.	-441.	-222.	72.	-148.	-2892.	-.0000	.0000	.0000	-.0000	-.0000	.0000	1952.
							.2940	773.	-167.	-316.	-526.	-271.	-2848.	-.0000	.0000	.0000	-.0000	-.0000	.0000	1961.
							.2950	708.	127.	-363.	-980.	-356.	-2588.	0.0000	.0000	-.0000	-.0000	.0000	.0000	1881.
							.2960	578.	404.	-374.	-1305.	-405.	-2131.	-.0000	.0000	.0000	-.0000	.0000	-.0000	1706.
							.2970	396.	578.	-366.	-1529.	-435.	-1509.	.0000	.0000	.0000	-.0000	.0000	.0000	1477.
							.2980	184.	670.	-343.	-1669.	-454.	-792.	.0000	.0000	-.0000	.0000	.0000	.0000	1282.
							.2990	-34.	763.	-298.	-1731.	-467.	-68.	.0000	0.0000	.0000	-.0000	.0000	0.0000	1209.
							.3000	-238.	877.	-234.	-1732.	-482.	596.	.0000	0.0000	-.0000	.0000	.0000	.0000	1277.
							.3010	-413.	987.	-161.	-1701.	-508.	1151.	.0000	-.0000	-.0000	.0000	.0000	.0000	1426.
							.3020	-545.	1102.	-87.	-1666.	-549.	1561.	-.0000	-.0000	-.0000	.0000	.0000	-.0000	1583.
							.3030	-630.	1249.	-19.	-1654.	-606.	1810.	.0000	-.0000	.0000	.0000	.0000	-.0000	1702.
							.3040	-671.	1423.	35.	-1695.	-677.	1906.	.0000	-.0000	-.0000	.0000	.0000	.0000	1779.
							.3050	-676.	1591.	61.	-1820.	-761.	1879.	.0000	-.0000	-.0000	.0000	.0000	-.0000	1836.
							.3060	-655.	1733.	52.	-2047.	-854.	1762.	0.0000	-.0000	-.0000	.0000	.0000	-.0000	1910.
							.3070	-619.	1843.	6.	-2380.	-952.	1592.	0.0000	-.0000	-.0000	.0000	.0000	-.0000	2034.
							.3080	-579.	1912.	-73.	-2805.	-1047.	1400.	-.0000	-.0000	-.0000	.0000	.0000	-.0000	2228.
							.3090	-541.	1932.	-179.	-3297.	-1131.	1210.	.0000	-.0000	-.0000	.0000	.0000	0.0000	2487.
							.3100	-506.	1910.	-299.	-3816.	-1199.	1033.	0.0000	-.0000	-.0000	.0000	.0000	-.0000	2785.
							.3110	-473.	1888.	-416.	-4315.	-1247.	866.	0.0000	0.0000	-.0000	.0000	.0000	-.0000	3083.
							.3120	-439.	1911.	-513.	-4749.	-1265.	707.	.0000	0.0000	-.0000	.0000	.0000	0.0000	3347.
							.3130	-401.	1980.	-584.	-5095.	-1251.	560.	.0000	0.0000	-.0000	.0000	.0000	-.0000	3556.
							.3140	-361.	2058.	-633.	-5344.	-1207.	443.	-.0000	-.0000	-.0000	.0000	.0000	-.0000	3705.
							.3150	-324.	2130.	-662.	-5498.	-1134.	374.	.0000	.0000	-.0000	.0000	.0000	.0000	3792.
							.3160	-296.	2202.	-674.	-5562.	-1029.	367.	.0000	.0000	-.0000	.0000	.0000	0.0000	3820.
							.3170	-283.	2247.	-675.	-5548.	-897.	442.	.0000	-.0000	-.0000	.0000	.0000	-.0000	3800.
							.3180	-291.	2219.	-673.	-5469.	-744.	615.	.0000	.0000	-.0000	.0000	.0000	-.0000	3743.
							.3190	-324.	2106.	-667.	-5326.	-569.	892.	.0000	-.0000	-.0000	.0000	.0000	-.0000	3660.
							.3200	-380.	1949.	-649.	-5110.	-371.	1253.	.0000	-.0000	-.0000	.0000	.0000	-.0000	3555.
							.3210	-451.	1785.	-611.	-4811.	-156.	1666.	.0000	-.0000	-.0000	.0000	.0000	.0000	3434.
							.3220	-526.	1630.	-551.	-4433.	70.	2097.	.0000	-.0000	-.0000	.0000	.0000	-.0000	3306.
							.3230	-597.	1499.	-469.	-3989.	305.	2511.	.0000	-.0000	.0000	-.0000	-.0000	-.0000	3184.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK
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INTERNAL FORCES IN THE PIPING
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.3130	-401.	1980.	-584.	-5095.	-1251.	560.	.0000	0.0000	-.0000	.0000	.0000	-.0000	3556.
.3140	-361.	2058.	-633.	-5344.	-1207.	443.	-.0000	-.0000	-.0000	.0000	.0000	-.0000	3705.
.3150	-324.	2130.	-662.	-5498.	-1134.	374.	.0000	.0000	-.0000	.0000	.0000	.0000	3792.
.3160	-296.	2202.	-674.	-5562.	-1029.	367.	.0000	.0000	-.0000	.0000	.0000	0.0000	3820.
.3170	-287.	2247.	-675.	-5548.	-997.	442.	.0000	-.0000	-.0000	.0000	.0000	-.0000	3800.
.3180	-291.	2219.	-673.	-5469.	-744.	615.	.0000	.0000	-.0000	.0000	.0000	-.0000	3743.
.3190	-324.	2106.	-667.	-5326.	-569.	892.	.0000	-.0000	-.0000	.0000	.0000	-.0000	3660.
.3200	-380.	1949.	-649.	-5110.	-371.	1253.	.0000	-.0000	-.0000	.0000	.0000	-.0000	3555.
.3210	-451.	1785.	-611.	-4811.	-156.	1666.	.0000	-.0000	-.0000	.0000	.0000	.0000	3434.
.3220	-526.	1630.	-551.	-4473.	70.	2097.	.0000	-.0000	-.0000	.0000	.0000	-.0000	3306.
.3230	-597.	1499.	-469.	-3989.	305.	2511.	.0000	-.0000	.0000	-.0000	-.0000	-.0000	3184.

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ADLPIPE STRESS ANALYSIS

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

SECTION	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)
.3240								-652.	1406.	-373.	-3507.	539.	2868.	.0000	.0000	-.0000	.0000	.0000	.0000	3075.
.3250								-681.	1348.	-275.	-3033.	758.	3132.	.0000	-.0000	-.0000	.0000	.0000	-.0000	2983.
.3260								-676.	1303.	-195.	-2621.	949.	3274.	-.0000	-.0000	-.0000	.0000	0.0000	-.0000	2898.
.3270								-633.	1231.	-150.	-2323.	1100.	3279.	-.0000	-.0000	.0000	.0000	.0000	-.0000	2808.
.3280								-550.	1104.	-155.	-2175.	1199.	3135.	.0000	.0000	.0000	.0000	.0000	.0000	2696.
.3290								-427.	934.	-210.	-2190.	1239.	2832.	.0000	-.0000	-.0000	.0000	-.0000	.0000	2554.
.3300								-263.	758.	-305.	-2354.	1219.	2368.	.0000	.0000	-.0000	.0000	-.0000	0.0000	2396.
.3310								-65.	598.	-429.	-2638.	1139.	1761.	.0000	.0000	.0000	-.0000	.0000	.0000	2272.
.3320								156.	466.	-567.	-3001.	1006.	1049.	.0000	.0000	0.0000	.0000	-.0000	.0000	2248.
.3330								382.	384.	-699.	-3395.	831.	286.	.0000	.0000	-.0000	.0000	.0000	.0000	2364.
.3340								595.	387.	-810.	-3774.	627.	-463.	.0000	.0000	-.0000	.0000	-.0000	.0000	2597.
.3350								773.	478.	-890.	-4103.	405.	-1124.	.0000	.0000	-.0000	.0000	-.0000	.0000	2881.
.3360								890.	617.	-937.	-4366.	176.	-1611.	0.0000	0.0000	.0000	-.0000	0.0000	0.0000	3139.
.3370								923.	751.	-953.	-4551.	-47.	-1847.	.0000	.0000	-.0000	.0000	-.0000	.0000	3310.
.3380								860.	861.	-940.	-4648.	-257.	-1790.	.0000	.0000	.0000	.0000	-.0000	-.0000	3362.
.3390								700.	964.	-892.	-4644.	-450.	-1432.	.0000	0.0000	.0000	-.0000	.0000	0.0000	3290.
.3400								449.	1081.	-805.	-4527.	-620.	-795.	.0000	-.0000	-.0000	.0000	.0000	0.0000	3126.
.3410								124.	1218.	-677.	-4292.	-762.	77.	.0000	0.0000	-.0000	.0000	.0000	.0000	2939.
.3420								-252.	1385.	-511.	-3949.	-882.	1118.	.0000	-.0000	.0000	.0000	.0000	-.0000	2830.
.3430								-652.	1610.	-313.	-3517.	-983.	2242.	.0000	-.0000	-.0000	.0000	.0000	.0000	2888.
.3440								-1048.	1902.	-93.	-3031.	-1068.	3370.	-.0000	-.0000	-.0000	.0000	.0000	-.0000	3139.
.3450								-1419.	2231.	126.	-2543.	-1146.	4432.	-.0000	-.0000	-.0000	.0000	.0000	-.0000	3530.
.3460								-1745.	2547.	321.	-2114.	-1225.	5371.	-.0000	-.0000	-.0000	.0000	.0000	-.0000	3977.
.3470								-2010.	2817.	470.	-1794.	-1313.	6141.	.0000	-.0000	.0000	.0000	.0000	-.0000	4402.
.3480								-2206.	3011.	558.	-1619.	-1410.	6709.	.0000	-.0000	-.0000	.0000	.0000	.0000	4748.
.3490								-2326.	3103.	579.	-1599.	-1518.	7054.	-.0000	-.0000	-.0000	.0000	.0000	-.0000	4981.
.3500								-2366.	3088.	535.	-1717.	-1634.	7164.	.0000	-.0000	-.0000	.0000	.0000	.0000	5086.
.3510								-2325.	2998.	444.	-1930.	-1749.	7037.	.0000	-.0000	-.0000	.0000	.0000	0.0000	5058.
.3520								-2208.	2869.	328.	-2178.	-1854.	6683.	.0000	-.0000	-.0000	.0000	.0000	.0000	4900.
.3530								-2024.	2718.	205.	-2403.	-1938.	6134.	-.0000	-.0000	-.0000	.0000	.0000	-.0000	4629.
.3540								-1789.	2546.	92.	-2555.	-1994.	5436.	.0000	-.0000	-.0000	.0000	.0000	-.0000	4266.
.3550								-1520.	2354.	2.	-2594.	-2015.	4644.	.0000	-.0000	-.0000	.0000	.0000	-.0000	3834.
.3560								-1239.	2142.	-57.	-2497.	-1997.	3820.	-.0000	-.0000	.0000	.0000	.0000	-.0000	3358.
.3570								-968.	1898.	-81.	-2258.	-1937.	3025.	-.0000	-.0000	-.0000	.0000	.0000	-.0000	2860.
.3580								-725.	1598.	-75.	-1885.	-1838.	2315.	.0000	-.0000	-.0000	.0000	.0000	.0000	2363.
.3590								-524.	1236.	-42.	-1394.	-1705.	1727.	-.0000	-.0000	.0000	.0000	.0000	-.0000	1886.
.3600								-372.	838.	20.	-803.	-1542.	1279.	.0000	-.0000	-.0000	.0000	.0000	.0000	1455.
.3610								-272.	436.	109.	-131.	-1353.	974.	.0000	.0000	-.0000	.0000	.0000	.0000	1128.

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.3500	-2388.	2998.	444.	-1930.	-1749.	7037.	.0000	-.0000	-.0000	.0000	.0000	0.0000	5058.
.3510	-2325.	2869.	328.	-2178.	-1854.	6683.	.0000	-.0000	-.0000	.0000	.0000	.0000	4900.
.3520	-2024.	2718.	205.	-2403.	-1938.	6134.	-.0000	-.0000	-.0000	.0000	.0000	-.0000	4629.
.3530	-1789.	2546.	92.	-2555.	-1994.	5436.	.0000	-.0000	-.0000	.0000	.0000	-.0000	4266.
.3540	-1520.	2354.	2.	-2594.	-2015.	4644.	.0000	-.0000	-.0000	.0000	.0000	-.0000	3834.
.3550	-1239.	2142.	-57.	-2497.	-1997.	3820.	-.0000	-.0000	.0000	.0000	.0000	-.0000	3358.
.3560	-968.	1898.	-81.	-2258.	-1937.	3025.	-.0000	-.0000	-.0000	.0000	.0000	-.0000	2860.
.3570	-725.	1598.	-75.	-1885.	-1838.	2315.	.0000	-.0000	-.0000	.0000	.0000	.0000	2363.
.3580	-524.	1236.	-42.	-1394.	-1705.	1727.	-.0000	-.0000	-.0000	.0000	.0000	-.0000	1886.
.3590	-372.	838.	20.	-803.	-1542.	1279.	.0000	-.0000	-.0000	.0000	.0000	.0000	1455.
.3600	-272.	436.	109.	-131.	-1353.	974.	.0000	.0000	-.0000	.0000	.0000	.0000	1128.

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INTERNAL FORCES IN THE PIPING
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SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU								
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
.3620	-221.	47.	220.	589.	-1145.	802.	.0000	-.0000	-.0000	.0000	.0000	.0000	1023.	
.3630	-212.	-319.	345.	1323.	-926.	744.	.0000	-.0000	.0000	-.0000	.0000	-.0000	1199.	
.3640	-236.	-646.	473.	2033.	-701.	775.	-.0000	-.0000	.0000	-.0000	.0000	-.0000	1541.	
.3650	-283.	-922.	596.	2680.	-474.	865.	-.0000	-.0000	.0000	-.0000	.0000	-.0000	1925.	
.3660	-341.	-1158.	690.	3224.	-250.	986.	-.0000	-.0000	-.0000	.0000	.0000	-.0000	2279.	
.3670	-398.	-1376.	766.	3633.	-34.	1110.	-.0000	-.0000	.0000	.0000	-.0000	0.0000	2560.	
.3680	-441.	-1577.	793.	3889.	174.	1205.	-.0000	-.0000	-.0000	.0000	0.0000	.0000	2747.	
.3690	-457.	-1745.	779.	3993.	372.	1236.	-.0000	-.0000	.0000	-.0000	.0000	-.0000	2828.	
.3700	-434.	-1863.	727.	3955.	561.	1170.	-.0000	-.0000	-.0000	.0000	.0000	0.0000	2805.	
.3710	-363.	-1926.	643.	3795.	739.	985.	-.0000	-.0000	.0000	-.0000	-.0000	0.0000	2689.	
.3720	-242.	-1932.	533.	3535.	908.	669.	-.0000	0.0000	-.0000	.0000	-.0000	0.0000	2501.	
.3730	-69.	-1880.	406.	3201.	1065.	220.	-.0000	.0000	.0000	-.0000	.0000	.0000	2279.	
.3740	150.	-1772.	267.	2814.	1208.	-354.	-.0000	.0000	.0000	-.0000	-.0000	.0000	2078.	
.3750	404.	-1623.	121.	2392.	1335.	-1028.	-.0000	.0000	-.0000	-.0000	-.0000	.0000	1972.	
.3760	679.	-1460.	-27.	1948.	1443.	-1767.	-.0000	.0000	-.0000	.0000	.0000	.0000	2022.	
.3770	961.	-1302.	-177.	1497.	1531.	-2532.	.0000	.0000	.0000	-.0000	-.0000	.0000	2235.	
.3780	1236.	-1162.	-324.	1052.	1596.	-3283.	.0000	.0000	-.0000	.0000	-.0000	.0000	2561.	
.3790	1489.	-1044.	-462.	632.	1638.	-3983.	0.0000	.0000	.0000	-.0000	-.0000	.0000	2934.	
.3800	1707.	-947.	-583.	257.	1657.	-4598.	-.0000	.0000	.0000	-.0000	-.0000	.0000	3299.	
.3810	1882.	-862.	-681.	-57.	1655.	-5100.	0.0000	0.0000	-.0000	-.0000	-.0000	-.0000	3614.	
.3820	2004.	-787.	-751.	-295.	1632.	-5466.	0.0000	.0000	.0000	-.0000	-.0000	.0000	3850.	
.3830	2069.	-735.	-791.	-448.	1590.	-5678.	0.0000	.0000	.0000	-.0000	-.0000	-.0000	3986.	
.3840	2073.	-716.	-802.	-513.	1530.	-5726.	0.0000	.0000	.0000	-.0000	-.0000	0.0000	4010.	
.3850	2017.	-719.	-781.	-487.	1452.	-5613.	-.0000	.0000	.0000	-.0000	-.0000	.0000	3922.	
.3860	1906.	-726.	-727.	-369.	1359.	-5353.	0.0000	.0000	.0000	-.0000	-.0000	.0000	3731.	
.3870	1745.	-733.	-642.	-168.	1250.	-4963.	.0000	.0000	.0000	-.0000	-.0000	.0000	3451.	
.3880	1544.	-744.	-531.	102.	1125.	-4465.	-.0000	.0000	.0000	-.0000	-.0000	.0000	3104.	
.3890	1311.	-751.	-398.	425.	985.	-3887.	-.0000	.0000	.0000	-.0000	-.0000	0.0000	2718.	
.3900	1056.	-735.	-248.	791.	829.	-3263.	-.0000	.0000	.0000	-.0000	-.0000	-.0000	2329.	
.3910	790.	-688.	-87.	1148.	658.	-2622.	-.0000	.0000	.0000	-.0000	-.0000	-.0000	1979.	
.3920	521.	-618.	75.	1499.	473.	-1989.	-.0000	.0000	.0000	-.0000	-.0000	.0000	1709.	
.3930	256.	-548.	229.	1808.	275.	-1384.	-.0000	.0000	-.0000	-.0000	-.0000	.0000	1546.	
.3940	3.	-487.	365.	2056.	70.	-825.	0.0000	.0000	.0000	-.0000	-.0000	0.0000	1494.	
.3950	-230.	-425.	482.	2235.	-138.	-331.	-.0000	-.0000	.0000	-.0000	.0000	-.0000	1526.	
.3960	-436.	-348.	577.	2342.	-341.	78.	-.0000	-.0000	.0000	-.0000	0.0000	-.0000	1596.	
.3970	-608.	-268.	648.	2376.	-531.	398.	-.0000	-.0000	-.0000	-.0000	.0000	-.0000	1663.	
.3980	-741.	-207.	690.	2342.	-701.	627.	-.0000	-.0000	-.0000	.0000	.0000	-.0000	1701.	
.3990	-832.	-166.	705.	2251.	-841.	765.	-.0000	-.0000	.0000	-.0000	.0000	-.0000	1700.	

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.3890	1311.	-751.	-298.	425.	985.	-2887.	-1.0000	.0000	.0000	-1.0000	-1.0000	0.0000	2718.
.3900	1056.	-735.	-248.	781.	829.	-2263.	-1.0000	.0000	.0000	-1.0000	-1.0000	-1.0000	2329.
.3910	790.	-688.	-87.	1148.	658.	-2622.	-1.0000	.0000	.0000	-1.0000	-1.0000	-1.0000	1979.
.3920	521.	-618.	75.	1499.	473.	-1989.	-1.0000	.0000	.0000	-1.0000	-1.0000	.0000	1709.
.3930	256.	-548.	229.	1808.	275.	-1384.	-1.0000	.0000	-1.0000	-1.0000	-1.0000	.0000	1546.
.3940	3.	-487.	365.	2056.	70.	-825.	0.0000	.0000	.0000	-1.0000	-1.0000	0.0000	1494.
.3950	-230.	-425.	482.	2235.	-138.	-331.	-1.0000	-1.0000	.0000	-1.0000	.0000	-1.0000	1526.
.3960	-436.	-348.	577.	2342.	-341.	78.	-1.0000	-1.0000	.0000	-1.0000	0.0000	-1.0000	1596.
.3970	-609.	-268.	648.	2376.	-531.	398.	-1.0000	-1.0000	-1.0000	-1.0000	.0000	-1.0000	1663.
.3980	-741.	-207.	690.	2342.	-701.	627.	-1.0000	-1.0000	-1.0000	.0000	.0000	-1.0000	1701.
.3990	-832.	-166.	705.	2251.	-841.	765.	-1.0000	-1.0000	.0000	-1.0000	.0000	-1.0000	1700.

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SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU	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	-877.	-120.	697.	2122.	-945.	806.	-1.0000	.0000	.0000	-1.0000	.0000	.0000	1657.

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	6203.	6415.	-4746.	-17087.	3013.	-14819.	.0000	.0000	-1.0000	.0000	-1.0000	0.0000	15380.

SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	RU	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	-5.	0.	-6.	0.	-11.	1.	-1.0000	-1.0000	-1.0000	.0000	.0000	-1.0000	4.
.0020	-37.	5.	-46.	2.	-82.	0.	-1.0000	-1.0000	-1.0002	.0001	.0002	-1.0000	33.
.0030	-99.	22.	-136.	1.	-239.	-17.	-1.0000	-1.0000	-1.0006	.0002	.0004	-1.0001	96.
.0040	-168.	58.	-263.	-9.	-458.	-70.	-1.0000	.0001	-1.0013	.0003	.0008	-1.0000	186.
.0050	-233.	113.	-403.	-33.	-702.	-162.	-1.0001	.0004	-1.0023	.0002	.0013	.0001	290.
.0060	-319.	174.	-559.	-70.	-979.	-270.	-1.0002	.0008	-1.0036	-1.0000	.0019	.0002	408.
.0070	-359.	235.	-744.	-114.	-1301.	-365.	-1.0004	.0014	-1.0055	-1.0004	.0026	.0003	544.
.0080	-213.	298.	-975.	-168.	-1680.	-444.	-1.0003	.0021	-1.0084	-1.0009	.0037	.0005	700.
.0090	108.	376.	-1237.	-259.	-2104.	-553.	.0003	.0032	-1.0126	-1.0020	.0053	.0008	879.
.0100	413.	474.	-1457.	-419.	-2513.	-739.	.0017	.0052	-1.0180	-1.0044	.0073	.0015	1064.
.0110	517.	569.	-1549.	-650.	-2818.	-968.	.0041	.0079	-1.0244	-1.0084	.0099	.0026	1224.
.0120	322.	623.	-1493.	-915.	-2993.	-1121.	.0075	.0111	-1.0314	-1.0141	.0129	.0040	1334.
.0130	-48.	605.	-1295.	-1166.	-2973.	-1085.	.0117	.0147	-1.0384	-1.0214	.0156	.0054	1354.
.0140	-207.	506.	-860.	-1391.	-2482.	-839.	.0166	.0184	-1.0447	-1.0306	.0173	.0069	1190.
.0150	135.	307.	-84.	-1604.	-1280.	-410.	.0221	.0225	-1.0494	-1.0421	.0174	.0086	840.
.0160	1031.	-38.	1017.	-1803.	622.	236.	.0282	.0267	-1.0519	-1.0555	.0157	.0101	771.
.0170	2391.	-567.	2358.	-1952.	3036.	1176.	.0354	.0306	-1.0522	-1.0692	.0133	.0111	1523.
.0180	3662.	-1235.	3690.	-2003.	5396.	2371.	.0440	.0337	-1.0509	-1.0810	.0121	.0114	2498.
.0190	3970.	-1875.	4496.	-1932.	6672.	3556.	.0544	.0360	-1.0494	-1.0891	.0143	.0110	3131.
.0200	3084.	-2212.	4285.	-1748.	5986.	4290.	.0672	.0377	-1.0504	-1.0921	.0224	.0103	3038.
.0210	1300.	-1964.	2966.	-1569.	3314.	3997.	.0830	.0403	-1.0553	-1.0907	.0365	.0104	2177.
.0220	-3729.	-1028.	507.	-1520.	-1629.	2279.	.0986	.0447	-1.0604	-1.0883	.0531	.0117	1279.
.0230	-10109.	337.	-2044.	-1482.	-6794.	-368.	.1112	.0498	-1.0631	-1.0856	.0680	.0125	2794.

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.0130	-48.	605.	95.	-1166.	-2973.	-1085.	.1117	.0167	-.0384	-.0214	.0156	.0054	1354.
.0140	-207.	506.	860.	-1391.	-2482.	-839.	.0166	.0184	-.0447	-.0306	.0173	.0069	1190.
.0150	135.	307.	-84.	-1604.	-1280.	-410.	.0221	.0225	-.0494	-.0421	.0174	.0086	840.
.0160	1031.	-38.	1017.	-1803.	622.	236.	.0282	.0267	-.0519	-.0555	.0157	.0101	771.
.0170	2391.	-567.	2358.	-1952.	3036.	1176.	.0354	.0306	-.0522	-.0692	.0133	.0111	1523.
.0180	3662.	-1235.	3690.	-2003.	5396.	2371.	.0440	.0337	-.0509	-.0810	.0121	.0114	2498.
.0190	3970.	-1875.	4496.	-1932.	6672.	3556.	.0544	.0360	-.0494	-.0891	.0143	.0110	3131.
.0200	3084.	-2212.	4285.	-1748.	5986.	4290.	.0672	.0377	-.0504	-.0921	.0224	.0103	3038.
.0210	1300.	-1964.	2966.	-1569.	3314.	3997.	.0830	.0403	-.0553	-.0907	.0365	.0104	2177.
.0220	-3729.	-1028.	507.	-1520.	-1629.	2279.	.0986	.0447	-.0604	-.0883	.0531	.0117	1279.
.0230	-10109.	337.	-2044.	-1482.	-6794.	-368.	.1112	.0498	-.0631	-.0856	.0580	.0125	2794.

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

SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	RU	TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS
27	1	807					(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
.0240	-12646.	1593.	-3681.	-1123.	-9435.	-2685.	.1195	.0530	-.0621	-.0796	.0759	.0109	3962.							
.0250	-9425.	2240.	-3887.	-289.	-8490.	-3592.	.1240	.0520	-.0578	-.0668	.0778	.0051	3701.							
.0260	-7186.	2139.	-3627.	750.	-7208.	-3194.	.1247	.0481	-.0514	-.0488	.0806	-.0052	3178.							
.0270	-12928.	1670.	-5063.	1616.	-10169.	-2747.	.1184	.0453	-.0409	-.0334	.0834	-.0175	4276.							
.0280	-14329.	1377.	-6356.	2260.	-11722.	-3124.	.1078	.0455	-.0277	-.0244	.0787	-.0278	4952.							
.0290	-2289.	1215.	-5025.	2835.	-6478.	-3689.	.0979	.0460	-.0155	-.0174	.0677	-.0366	3201.							
.0300	2366.	550.	-5680.	3396.	-6227.	-3172.	.0847	.0424	-.0050	-.0056	.0582	-.0484	3118.							
.0310	-3975.	-376.	-8329.	3859.	-11775.	-1959.	.0675	.0347	.0045	.0115	.0523	-.0629	5034.							
.0320	-6906.	-636.	-8622.	4179.	-13337.	-1648.	.0494	.0272	.0132	.0298	.0455	-.0743	5648.							
.0330	-3842.	8.	-6802.	4325.	-10272.	-2906.	.0291	.0230	.0234	.0429	.0305	-.0781	4622.							
.0340	-2228.	891.	-5354.	4248.	-7735.	-4663.	.0047	.0198	.0366	.0492	.0068	-.0777	4005.							
.0350	-892.	1290.	-3254.	4004.	-4286.	-5312.	-.0213	.0122	.0499	.0532	-.0175	-.0807	3176.							
.0360	3033.	894.	388.	3744.	1782.	-4209.	-.0455	-.0009	.0607	.0590	-.0367	-.0883	2371.							
.0370	4428.	-90.	2871.	3486.	5622.	-2141.	-.0689	-.0146	.0695	.0648	-.0528	-.0935	2790.							
.0380	2447.	-878.	2938.	3017.	5576.	-761.	-.0928	-.0239	.0779	.0647	-.0672	-.0905	2562.							
.0390	5742.	-823.	3390.	2138.	7587.	-1011.	-.1144	-.0291	.0847	.0548	-.0767	-.0820	3189.							
.0400	15161.	-484.	5514.	957.	13075.	-1627.	-.1294	-.0354	.0857	.0415	-.0798	-.0746	5301.							
.0410	13300.	-857.	4696.	-115.	11368.	-677.	-.1412	-.0458	.0815	.0365	-.0771	-.0684	4570.							
.0420	4826.	-1541.	2740.	-917.	6395.	1341.	-.1494	-.0575	.0741	.0418	-.0716	-.0577	2648.							
.0430	2153.	-1417.	1942.	-1614.	4372.	2114.	-.1496	-.0653	.0637	.0440	-.0593	-.0410	2054.							
.0440	4084.	-363.	1804.	-2492.	4413.	818.	-.1446	-.0675	.0534	.0324	-.0487	-.0214	2060.							
.0450	941.	486.	355.	-3342.	1611.	-378.	-.1390	-.0685	.0464	.0157	-.0420	-.0023	1496.							
.0460	-4944.	204.	-1295.	-3745.	-2030.	788.	-.1326	-.0736	.0427	.0077	-.0370	.0140	1738.							
.0470	-3598.	-1045.	-733.	-3735.	-1046.	3943.	-.1229	-.0830	.0408	.0083	-.0380	.0259	2219.							
.0480	2363.	-2539.	812.	-3723.	2199.	7145.	-.1107	-.0924	.0409	.0093	-.0478	.0348	3351.							
.0490	3450.	-3553.	663.	-3962.	1899.	8867.	-.0971	-.0980	.0426	.0087	-.0577	.0440	3971.							
.0500	1971.	-3520.	-295.	-4375.	-196.	8431.	-.0806	-.0999	.0437	.0090	-.0526	.0537	3812.							
.0510	2262.	-2517.	-1277.	-4567.	-2189.	6349.	-.0598	-.1012	.0420	.0138	-.0650	.0601	3259.							
.0520	2218.	-1211.	-2702.	-4091.	-5143.	4107.	-.0361	-.1051	.0381	.0298	-.0666	.0614	3110.							
.0530	-8.	32.	-3858.	-2954.	-8199.	2383.	-.0114	-.1114	.0339	.0594	-.0560	.0591	3626.							
.0540	-2167.	1449.	-3407.	-1689.	-8732.	201.	.0134	-.1171	.0313	.0924	-.0646	.0534	3570.							
.0550	-1954.	3065.	-1164.	-621.	-5906.	-3026.	.0374	-.1201	.0311	.1184	-.0654	.0428	2675.							
.0560	79.	4209.	1987.	619.	-1063.	-5784.	.0598	-.1223	.0326	.1420	-.0559	.0281	2373.							
.0570	1370.	4234.	4564.	2473.	3106.	-6272.	.0799	-.1268	.0342	.1721	-.0609	.0105	2979.							
.0580	1190.	3322.	5494.	4716.	4782.	-4831.	.0978	-.1335	.0341	.2050	-.0494	-.0109	3320.							
.0590	1655.	2195.	5200.	6731.	4923.	-3222.	.1144	-.1395	.0314	.2302	-.0324	-.0348	3587.							
.0600	2586.	1326.	4381.	8191.	4500.	-2443.	.1295	-.1417	.0264	.2453	-.0100	-.0560	3876.							
.0610	2261.	752.	3390.	9093.	3575.	-2344.	.1427	-.1402	.0200	.2545	.0155	-.0701	4032.							

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.0510	2262.	-2517.	-1277.	-4567.	-2189.	6349.	-10598	-1012	.0420	.0138	-.0650	.0601	3259.
.0520	2218.	-1211.	-2702.	-4091.	-5143.	4107.	-1361	-.1051	.0381	.0298	-.0666	.0614	3110.
.0530	-8.	32.	-3858.	-2954.	-8199.	2382.	-.0114	-.1114	.0339	.0594	-.0660	.0591	3626.
.0540	-2167.	1449.	-3407.	-1689.	-8732.	201.	.0134	-.1171	.0313	.0924	-.0646	.0534	3570.
.0550	-1954.	3965.	-1164.	-621.	-5906.	-3026.	.0374	-.1201	.0311	.1184	-.0654	.0428	2675.
.0560	79.	4209.	1987.	619.	-1063.	-5784.	.0598	-.1223	.0326	.1420	-.0659	.0281	2373.
.0570	1370.	4234.	4564.	2473.	3106.	-6272.	.0799	-.1268	.0342	.1721	-.0609	.0105	2979.
.0580	1190.	3322.	5494.	4716.	4782.	-4831.	.0978	-.1335	.0341	.2050	-.0494	-.0109	3320.
.0590	1655.	2195.	5200.	6731.	4923.	-3222.	.1144	-.1395	.0314	.2302	-.0324	-.0348	3587.
.0600	2586.	1326.	4381.	8191.	4500.	-2443.	.1295	-.1417	.0264	.2453	-.0100	-.0560	3876.
.0610	2261.	752.	3290.	9093.	3575.	-2344.	.1427	-.1402	.0200	.2545	.0155	-.0701	4032.

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

SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	RU								STRESS
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	(PSI)	
.0620	388.	380.	2359.	9503.	2125.	-2447.	.1537	-.1376	.0121	.2608	.0408	-.0785	4029.	
.0630	-1009.	187.	1939.	9525.	1527.	-2366.	.1625	-.1368	.0031	.2645	.0650	-.0833	3986.	
.0640	-1582.	251.	2315.	9227.	2343.	-2095.	.1674	-.1374	-.0051	.2633	.0871	-.0835	3911.	
.0650	-2000.	694.	3091.	8486.	4012.	-2155.	.1668	-.1372	-.0106	.2521	.1032	-.0771	3865.	
.0660	-1367.	1416.	4166.	7189.	6479.	-2755.	.1616	-.1348	-.0137	.2290	.1125	-.0648	4038.	
.0670	777.	1924.	5662.	5495.	9787.	-3044.	.1536	-.1315	-.0165	.1995	.1195	-.0489	4667.	
.0680	1071.	1720.	6412.	3659.	11372.	-2061.	.1433	-.1291	-.0201	.1697	.1277	-.0317	4865.	
.0690	-1405.	947.	5502.	1708.	9721.	-222.	.1308	-.1272	-.0246	.1388	.1351	-.0151	3962.	
.0700	-1548.	289.	4197.	-405.	7879.	1135.	.1175	-.1236	-.0300	.1042	.1395	.0006	3199.	
.0710	1365.	141.	3399.	-2461.	7397.	1450.	.1036	-.1174	-.0354	.0694	.1414	.0163	3182.	
.0720	814.	314.	2008.	-4100.	5269.	1248.	.0876	-.1095	-.0393	.0406	.1415	.0324	2726.	
.0730	-3775.	565.	39.	-5165.	1371.	1047.	.0690	-.1015	-.0406	.0199	.1376	.0466	2185.	
.0740	-5128.	844.	-642.	-5718.	46.	967.	.0494	-.0943	-.0394	.0052	.1273	.0568	2327.	
.0750	-1990.	969.	74.	-5852.	1809.	1208.	.0293	-.0879	-.0354	-.0058	.1100	.0627	2506.	
.0760	280.	643.	508.	-5669.	2992.	2010.	.0080	-.0813	-.0285	-.0141	.0878	.0654	2696.	
.0770	809.	-121.	357.	-5315.	2788.	3187.	-.0127	-.0737	-.0204	-.0202	.0644	.0656	2727.	
.0780	2216.	-1009.	202.	-4890.	2545.	4290.	-.0310	-.0649	-.0126	-.0242	.0425	.0638	2803.	
.0790	2990.	-1758.	-699.	-4379.	973.	5049.	-.0468	-.0553	-.0053	-.0258	.0225	.0606	2710.	
.0800	1308.	-2154.	-2857.	-3783.	-2917.	5224.	-.0609	-.0452	.0024	-.0256	.0035	.0562	2841.	
.0810	449.	-1946.	-4688.	-3191.	-6097.	4436.	-.0723	-.0348	.0108	-.0244	-.0153	.0506	3286.	
.0820	1703.	-1108.	-4977.	-2664.	-6562.	2630.	-.0803	-.0240	.0203	-.0219	-.0338	.0439	3032.	
.0830	1289.	24.	-4408.	-2146.	-6106.	316.	-.0862	-.0130	.0316	-.0169	-.0518	.0365	2600.	
.0840	-854.	1116.	-3312.	-1566.	-5145.	-1949.	-.0904	-.0021	.0446	-.0103	-.0691	.0282	2295.	
.0850	-129.	2053.	-1216.	-935.	-1977.	-3936.	-.0917	.0082	.0572	-.0055	-.0347	.0174	1807.	
.0860	2977.	2681.	867.	-259.	1778.	-5392.	-.0904	.0172	.0679	-.0042	-.0964	.0024	2281.	
.0870	3574.	2749.	1160.	531.	2414.	-5934.	-.0872	.0251	.0755	-.0046	-.1011	-.0161	2580.	
.0880	1472.	2242.	-285.	1451.	-96.	-5580.	-.0820	.0324	.0792	-.0041	-.0974	-.0362	2314.	
.0890	88.	1434.	-2231.	2365.	-3247.	-4879.	-.0743	.0400	.0788	-.0035	-.0877	-.0568	2536.	
.0900	-339.	556.	-4155.	3128.	-6213.	-4253.	-.0648	.0475	.0755	-.0038	-.0765	-.0781	3272.	
.0910	-1273.	-338.	-5713.	3764.	-8769.	-3639.	-.0550	.0539	.0708	-.0036	-.0666	-.0996	4098.	
.0920	-2093.	-1160.	-6144.	4416.	-9667.	-2918.	-.0456	.0580	.0656	-.0004	-.0596	-.1203	4423.	
.0930	-1837.	-1731.	-5218.	5155.	-8377.	-2275.	-.0368	.0602	.0602	.0055	-.0571	-.1384	4051.	
.0940	-1012.	-1939.	-3472.	5887.	-5795.	-1956.	-.0292	.0612	.0547	.0116	-.0596	-.1518	3406.	
.0950	-13.	-1831.	-1344.	6393.	-2668.	-1997.	-.0226	.0616	.0485	.0152	-.0662	-.1595	2893.	
.0960	1142.	-1558.	834.	6452.	436.	-2234.	-.0166	.0610	.0404	.0144	-.0754	-.1620	2745.	
.0970	2086.	-1298.	2625.	5969.	2717.	-2390.	-.0111	.0590	.0297	.0093	-.0865	-.1602	2801.	
.0980	2680.	-1151.	3875.	5023.	3946.	-2220.	-.0062	.0557	.0167	.0024	-.0786	-.1532	2714.	
.0990	3046.	-1041.	4688.	3755.	4436.	-1800.	-.0024	.0518	.0022	-.0051	-.1103	-.1402	2441.	

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2 SAFETY COLD FKW24F--2 PSV

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INTERNAL FORCES IN THE PIPING
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.0890	88.	1434.	-2231.	2365.	-3247.	-4879.	-0743.	.0400	.0788	-.0035	-.0877	-.0568	2514.
.0900	-339.	556.	-4155.	3128.	-6213.	-4253.	-.0648	.0475	.0755	-.0038	-.0765	-.0781	3272.
.0910	-1273.	-338.	-5713.	2764.	-8769.	-3639.	-.0550	.0539	.0708	-.0036	-.0566	-.0996	4098.
.0920	-2093.	-1160.	-6144.	4416.	-7667.	-2918.	-.0456	.0580	.0656	-.0004	-.0596	-.1203	4423.
.0930	-1837.	-1731.	-5218.	5155.	-8377.	-2275.	-.0368	.0602	.0602	.0055	-.0571	-.1384	4051.
.0940	-1012.	-1939.	-2472.	5687.	-5795.	-1956.	-.0292	.0612	.0547	.0116	-.0596	-.1518	3406.
.0950	-13.	-1831.	-1344.	6393.	-2668.	-1997.	-.0226	.0616	.0485	.0152	-.0562	-.1595	2893.
.0960	1142.	-1558.	834.	6452.	436.	-2234.	-.0166	.0610	.0404	.0144	-.0754	-.1620	2745.
.0970	2086.	-1298.	2625.	5969.	2717.	-2390.	-.0111	.0590	.0297	.0093	-.0365	-.1602	2801.
.0980	2680.	-1151.	3875.	5023.	3946.	-2220.	-.0062	.0557	.0167	.0024	-.0986	-.1532	2714.
.0990	3046.	-1041.	4688.	3755.	4436.	-1800.	-.0024	.0518	.0022	-.0051	-.1103	-.1402	2441.

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

SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	RU	DX	DY	DZ	RX	RY	RZ	STRESS
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
.1000	2937.	-776.	5002.	2256.	4210.	-1521.	.0001	.0486	-.0125	-.0150	-.1210	-.1222	2012.
.1010	2352.	-280.	4811.	623.	3393.	-1567.	.0014	.0463	-.0264	-.0292	-.1296	-.1011	1521.
.1020	2036.	252.	4462.	-957.	2706.	-1552.	.0019	.0447	-.0390	-.0460	-.1343	-.0781	1309.
.1030	2274.	479.	4192.	-2294.	2523.	-880.	.0026	.0436	-.0501	-.0624	-.1336	-.0539	1413.
.1040	2278.	184.	3787.	-3356.	2289.	657.	.0040	.0429	-.0600	-.0781	-.1260	-.0293	1651.
.1050	1945.	-557.	3190.	-4292.	1842.	2739.	.0070	.0434	-.0693	-.0948	-.1101	-.0050	2173.
.1060	1671.	-1497.	2452.	-5237.	1341.	4915.	.0119	.0454	-.0781	-.1132	-.0852	.0192	2932.
.1070	723.	-2434.	1243.	-6145.	152.	6952.	.0181	.0483	-.0863	-.1321	-.0530	.0430	3724.
.1080	-463.	-3266.	-406.	-6821.	-1736.	8861.	.0260	.0510	-.0951	-.1477	-.0148	.0654	4541.
.1090	-1738.	-3790.	-2440.	-7203.	-4488.	10437.	.0375	.0528	-.1075	-.1557	.0298	.0857	5398.
.1100	-7925.	-3449.	-5197.	-7630.	-9115.	10402.	.0462	.0566	-.1157	-.1607	.0725	.1057	6338.
.1110	-10464.	-2226.	-5709.	-8017.	-9509.	8493.	.0534	.0632	-.1182	-.1662	.1073	.1237	6043.
.1120	-6729.	-822.	-3513.	-7972.	-4691.	5971.	.0599	.0698	-.1162	-.1692	.1316	.1357	4418.
.1130	-3735.	207.	-1051.	-7402.	212.	4105.	.0643	.0741	-.1101	-.1622	.1471	.1405	3398.
.1140	-3379.	1019.	709.	-6573.	3371.	2691.	.0670	.0766	-.1015	-.1451	.1574	.1393	3155.
.1150	-1742.	2014.	2276.	-5740.	6289.	626.	.0698	.0806	-.0926	-.1274	.1538	.1332	3426.
.1160	38.	3207.	2792.	-4938.	7463.	-2353.	.0720	.0876	-.0844	-.1150	.1560	.1227	3713.
.1170	93.	4287.	2053.	-4089.	6302.	-5319.	.0729	.0959	-.0766	-.1034	.1655	.1088	3694.
.1180	-4772.	4817.	-410.	-3081.	1599.	-7114.	.0689	.1028	-.0668	-.0879	.1508	.0915	3176.
.1190	-3862.	4490.	-912.	-1754.	940.	-7086.	.0633	.1064	-.0560	-.0697	.1501	.0689	2954.
.1200	1413.	3115.	354.	-145.	3718.	-5221.	.0567	.1071	-.0441	-.0530	.1333	.0408	2573.
.1210	-35.	1078.	-42.	1397.	2602.	-2422.	.0467	.1075	-.0318	-.0392	.1141	.0112	1533.
.1220	-509.	-515.	464.	2470.	3150.	-476.	.0365	.1104	-.0206	-.0305	.0967	-.0150	1618.
.1230	418.	-1343.	1143.	3157.	4358.	104.	.0254	.1158	-.0110	-.0287	.0805	-.0371	2160.
.1240	2398.	-1852.	1526.	3736.	5346.	314.	.0139	.1210	-.0037	-.0303	.0648	-.0559	2620.
.1250	2277.	-2403.	987.	4152.	4516.	1043.	.0016	.1236	.0015	-.0302	.0509	-.0706	2497.
.1260	-1833.	-2807.	-972.	4035.	731.	1868.	-.0129	.1239	.0050	-.0302	.0378	-.0806	1808.
.1270	595.	-2688.	-1050.	3185.	891.	1851.	-.0245	.1241	.0047	-.0362	.0244	-.0857	1521.
.1280	2053.	-2313.	-1597.	1822.	-144.	1131.	-.0350	.1260	.0012	-.0498	.0097	-.0847	862.
.1290	-296.	-1835.	-2895.	197.	-3251.	150.	-.0449	.1297	-.0036	-.0679	-.0048	-.0763	1308.
.1300	-2191.	-1218.	-3590.	-1478.	-5390.	-808.	-.0535	.1335	-.0087	-.0886	-.0195	-.0630	2266.
.1310	-3917.	-749.	-4359.	-2837.	-7525.	-1119.	-.0631	.1349	-.0121	-.1118	-.0387	-.0499	3258.
.1320	-1137.	-747.	-3682.	-3613.	-6504.	-171.	-.0718	.1333	-.0138	-.1337	-.0522	-.0381	2987.
.1330	-290.	-1282.	-3312.	-3991.	-6296.	1805.	-.0811	.1307	-.0134	-.1517	-.0878	-.0256	3078.
.1340	18.	-1903.	-2676.	-4453.	-5813.	3543.	-.0893	.1299	-.0119	-.1681	-.1123	-.0118	3265.
.1350	1586.	-2427.	-1532.	-5061.	-4369.	4525.	-.0945	.1311	-.0106	-.1845	-.1336	.0016	3240.
.1360	-512.	-3119.	-1994.	-5392.	-6049.	5497.	-.0991	.1323	-.0096	-.1970	-.1502	.0132	3929.
.1370	-1393.	-3811.	-2703.	-5222.	-7665.	6713.	-.1021	.1314	-.0090	-.2013	-.1606	.0227	4594.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.26.

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

.1260	-1831.	-2307.	-2771.	4035.	731.	1868.	-.129	.1239	.0050	-.0302	.0378	-.0806	1808.
.1270	595.	-2688.	-1050.	3185.	891.	1851.	-.245	.1241	.0047	-.0362	.0244	-.0857	1521.
.1280	2053.	-2313.	-1597.	1022.	-144.	1131.	-.0350	.1260	.0012	-.0498	.0097	-.0847	862.
.1290	-296.	-1835.	-2895.	197.	-3251.	150.	-.0449	.1297	-.0036	-.0679	-.0048	-.0763	1308.
.1300	-2191.	-1218.	-3590.	-1478.	-5390.	-808.	-.0535	.1335	-.0087	-.0886	-.0195	-.0630	2266.
.1310	-3917.	-749.	-4359.	-2837.	-7525.	-1119.	-.0631	.1349	-.0121	-.1118	-.0387	-.0499	3258.
.1320	-1137.	-747.	-3682.	-3613.	-6504.	-171.	-.0718	.1333	-.0138	-.1337	-.0522	-.0381	2987.
.1330	-290.	-1282.	-3312.	-3991.	-6296.	1805.	-.0811	.1307	-.0134	-.1517	-.0878	-.0256	3078.
.1340	18.	-1903.	-2676.	-4453.	-5813.	3543.	-.0893	.1299	-.0119	-.1681	-.1123	-.0118	3265.
.1350	1586.	-2427.	-1532.	-5061.	-4369.	4525.	-.0945	.1311	-.0106	-.1845	-.1336	.0016	3240.
.1360	-512.	-3119.	-1994.	-5392.	-6049.	5497.	-.0991	.1323	-.0096	-.1970	-.1502	.0132	3929.
.1370	-1393.	-3811.	-2703.	-5222.	-7665.	6713.	-.1021	.1314	-.0090	-.2013	-.1606	.0227	4594.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	RU								STRESS
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	(PSI)	
(SEC)	(LG)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)		
.1380	-2636.	-4143.	-4259.	-4669.	-10321.	7580.	-.1054	.1284	-.0077	-.1983	-.1569	.0299	5469.	
.1390	-1926.	-3898.	-5123.	-3889.	-11268.	7507.	-.1082	.1244	-.0048	-.1904	-.1597	.0354	5653.	
.1400	-692.	-3284.	-4740.	-2965.	-10044.	6640.	-.1103	.1204	.0007	-.1778	-.1689	.0405	4976.	
.1410	-3484.	-2519.	-4609.	-2063.	-9874.	5280.	-.1137	.1159	.0089	-.1604	-.1558	.0448	4569.	
.1420	-2079.	-1460.	-2778.	-1338.	-6179.	3395.	-.1150	.1098	.0180	-.1391	-.1503	.0466	2880.	
.1430	1248.	-311.	-740.	-620.	-1693.	1454.	-.1151	.1015	.0264	-.1136	-.1514	.0449	929.	
.1440	3419.	679.	454.	253.	1331.	-132.	-.1134	.0921	.0335	-.0842	-.1361	.0415	546.	
.1450	2638.	1561.	271.	1084.	1699.	-1677.	-.1096	.0835	.0391	-.0551	-.1138	.0379	1052.	
.1460	-1129.	2434.	-1446.	1630.	-836.	-3520.	-.1046	.0768	.0433	-.0310	-.0870	.0338	1592.	
.1470	-1477.	3073.	-2002.	1986.	-787.	-5047.	-.0960	.0705	.0457	-.0116	-.0580	.0285	2199.	
.1480	-813.	2845.	-2694.	2416.	-1243.	-4993.	-.0869	.0626	.0475	.0068	-.0302	.0219	2281.	
.1490	-1489.	1742.	-2908.	2851.	-1217.	-3266.	-.0769	.0526	.0492	.0246	-.0055	.0146	1807.	
.1500	510.	352.	-1567.	3039.	1515.	-945.	-.0652	.0419	.0500	.0390	.0163	.0083	1414.	
.1510	1001.	-887.	-277.	2962.	3781.	1142.	-.0539	.0320	.0500	.0480	.0356	.0048	1981.	
.1520	1834.	-1751.	1150.	2745.	6271.	2761.	-.0418	.0231	.0479	.0534	.0542	.0056	2962.	
.1530	682.	-2229.	1322.	2395.	6386.	3935.	-.0301	.0143	.0428	.0571	.0719	.0103	3160.	
.1540	1353.	-2269.	1393.	1782.	6528.	4549.	-.0172	.0054	.0337	.0605	.0897	.0177	3272.	
.1550	2584.	-2034.	1455.	877.	6551.	4683.	-.0030	-.0033	.0214	.0638	.1081	.0276	3251.	
.1560	-1073.	-1718.	102.	-237.	3322.	4446.	.0094	-.0110	.0082	.0663	.1252	.0397	2229.	
.1570	-1442.	-1117.	49.	-1517.	2639.	3571.	.0224	-.0171	-.0056	.0665	.1396	.0538	1883.	
.1580	-239.	-272.	588.	-2803.	3205.	2236.	.0341	-.0222	-.0184	.0641	.1493	.0684	1930.	
.1590	-1300.	506.	576.	-3778.	2605.	1172.	.0424	-.0276	-.0289	.0611	.1541	.0817	1901.	
.1600	-992.	1046.	1236.	-4267.	3386.	822.	.0488	-.0339	-.0372	.0589	.1551	.0926	2211.	
.1610	976.	1297.	2480.	-4443.	5377.	1000.	.0542	-.0401	-.0438	.0553	.1519	.1010	2827.	
.1620	-661.	1246.	2344.	-4559.	4484.	1396.	.0575	-.0450	-.0488	.0489	.1446	.1068	2627.	
.1630	-649.	1053.	2660.	-4695.	4523.	1805.	.0609	-.0481	-.0530	.0408	.1355	.1105	2715.	
.1640	-550.	665.	2758.	-4740.	4186.	2348.	.0633	-.0501	-.0557	.0323	.1244	.1116	2707.	
.1650	-2488.	74.	1651.	-4591.	1588.	3081.	.0634	-.0515	-.0565	.0244	.1098	.1093	2308.	
.1660	-1630.	-477.	1043.	-4215.	344.	3832.	.0627	-.0529	-.0554	.0191	.0929	.1045	2290.	
.1670	-1615.	-872.	63.	-3617.	-1482.	4410.	.0595	-.0541	-.0513	.0171	.0738	.0978	2365.	
.1680	-979.	-988.	-407.	-2928.	-2288.	4421.	.0551	-.0541	-.0444	.0163	.0532	.0902	2318.	
.1690	-1405.	-854.	-866.	-2262.	-3240.	3796.	.0491	-.0530	-.0352	.0161	.0312	.0818	2199.	
.1700	-1085.	-489.	-770.	-1630.	-3198.	2807.	.0424	-.0516	-.0251	.0195	.0098	.0731	1829.	
.1710	2695.	48.	781.	-1007.	-271.	1700.	.0371	-.0505	-.0155	.0278	-.0083	.0644	800.	
.1720	1727.	541.	857.	-384.	-509.	600.	.0305	-.0494	-.0060	.0383	-.0232	.0552	351.	
.1730	1142.	1127.	1041.	169.	-476.	-712.	.0250	-.0476	-.0023	.0489	-.0328	.0458	350.	
.1740	1258.	1831.	1279.	657.	-117.	-2173.	.0200	-.0453	.0096	.0594	-.0373	.0361	912.	
.1750	-526.	2442.	638.	1157.	-1328.	-3441.	.0138	-.0428	.0168	.0698	-.0383	.0256	1551.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.26.

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

.1640	-550.	665.	758.	-4740.	4186.	2348.	.0633	-.0501	-.0557	.0323	.1244	.1116	2707.
.1650	-2488.	74.	1651.	-4591.	1588.	3081.	.0634	-.0515	-.0565	.0244	.1098	.1093	2308.
.1660	-1630.	-477.	1043.	-4215.	344.	3832.	.0627	-.0529	-.0554	.0191	.0929	.1045	2290.
.1670	-1615.	-872.	63.	-3617.	-1482.	4410.	.0595	-.0541	-.0513	.0171	.0738	.0978	2365.
.1680	-979.	-988.	-407.	-2928.	-2288.	4421.	.0551	-.0541	-.0444	.0163	.0532	.0902	2318.
.1690	-1405.	-854.	-866.	-2262.	-3240.	3796.	.0491	-.0530	-.0352	.0161	.0312	.0818	2199.
.1700	-1085.	-489.	-770.	-1630.	-3198.	2807.	.0424	-.0516	-.0251	.0195	.0098	.0731	1829.
.1710	2695.	48.	781.	-1007.	-271.	1700.	.0371	-.0505	-.0155	.0278	-.0083	.0644	800.
.1720	1727.	541.	857.	-384.	-509.	600.	.0305	-.0494	-.0060	.0383	-.0232	.0552	351.
.1730	1142.	1127.	1041.	169.	-476.	-712.	.0250	-.0476	.0023	.0489	-.0328	.0458	350.
.1740	1258.	1331.	1279.	657.	-117.	-2173.	.0200	-.0453	.0096	.0594	-.0373	.0361	912.
.1750	-526.	2442.	638.	1157.	-1328.	-3441.	.0138	-.0428	.0168	.0698	-.0383	.0256	1551.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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18.27.26.

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	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	RU							STRESS
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	(PSI)
.1760	-597.	2747.	448.	1715.	-1419.	-4189.	.0079	-.0403	.0240	.0797	-.0369	.0137	1904.
.1770	-1600.	2540.	-79.	2300.	-2126.	-4149.	.0007	-.0384	.0321	.0886	-.0347	-.0001	2086.
.1780	-522.	1928.	167.	2774.	-1192.	-3489.	-.0063	-.0369	.0408	.0954	-.0320	-.0155	1852.
.1790	-332.	1024.	50.	3097.	-942.	-2463.	-.0142	-.0355	.0503	.0986	-.0300	-.0321	1633.
.1800	-923.	17.	-619.	3331.	-1665.	-1301.	-.0231	-.0344	.0595	.0987	-.0287	-.0486	1583.
.1810	1866.	-854.	-441.	3482.	-465.	-216.	-.0307	-.0336	.0674	.0971	-.0270	-.0634	1412.
.1820	1462.	-1601.	-1468.	3487.	-1790.	731.	-.0391	-.0334	.0742	.0941	-.0261	-.0760	1600.
.1830	140.	-2133.	-2659.	3279.	-3666.	1355.	-.0469	-.0338	.0796	.0894	-.0258	-.0859	2047.
.1840	-563.	-2397.	-3386.	2907.	-4833.	1613.	-.0541	-.0350	.0835	.0836	-.0268	-.0933	2354.
.1850	-754.	-2399.	-3661.	2451.	-5290.	1545.	-.0611	-.0371	.0863	.0781	-.0304	-.0976	2420.
.1860	805.	-2160.	-2954.	1947.	-3981.	1151.	-.0670	-.0396	.0882	.0737	-.0362	-.0982	1837.
.1870	274.	-1806.	-2551.	1472.	-3582.	561.	-.0732	-.0423	.0896	.0706	-.0436	-.0956	1570.
.1880	1171.	-1310.	-1452.	1090.	-1840.	-182.	-.0782	-.0455	.0899	.0686	-.0506	-.0906	862.
.1890	2303.	-742.	-457.	830.	-168.	-956.	-.0819	-.0491	.0888	.0674	-.0568	-.0841	512.
.1900	2301.	-210.	-282.	668.	56.	-1633.	-.0846	-.0529	.0859	.0672	-.0617	-.0759	708.
.1910	3977.	255.	117.	554.	889.	-2160.	-.0842	-.0565	.0803	.0682	-.0634	-.0658	963.
.1920	4206.	562.	-67.	439.	456.	-2468.	-.0813	-.0599	.0724	.0695	-.0518	-.0545	1022.
.1930	3335.	725.	-542.	260.	-720.	-2603.	-.0757	-.0630	.0627	.0694	-.0573	-.0426	1089.
.1940	2877.	789.	-806.	25.	-1532.	-2555.	-.0673	-.0660	.0519	.0676	-.0507	-.0304	1195.
.1950	2737.	755.	-888.	-177.	-1973.	-2208.	-.0565	-.0695	.0409	.0645	-.0430	-.0183	1190.
.1960	2288.	637.	-901.	-288.	-2304.	-1546.	-.0440	-.0735	.0304	.0607	-.0347	-.0069	1119.
.1970	1858.	509.	-639.	-367.	-2161.	-778.	-.0301	-.0778	.0208	.0561	-.0258	.0036	933.
.1980	1659.	446.	-58.	-536.	-1455.	-178.	-.0149	-.0818	.0121	.0503	-.0165	.0133	626.
.1990	1361.	469.	571.	-844.	-654.	144.	.0012	-.0851	.0045	.0437	-.0072	.0219	432.
.2000	1204.	557.	1145.	-1238.	125.	249.	.0178	-.0881	-.0025	.0378	.0023	.0289	509.
.2010	1419.	690.	1656.	-1629.	893.	227.	.0347	-.0912	-.0092	.0344	.0125	.0336	751.
.2020	1164.	889.	1841.	-1947.	1083.	68.	.0512	-.0943	-.0156	.0344	.0236	.0362	894.
.2030	42.	1209.	1624.	-2133.	551.	-323.	.0666	-.0970	-.0212	.0374	.0350	.0366	893.
.2040	-867.	1646.	1443.	-2128.	211.	-961.	.0804	-.0991	-.0257	.0427	.0457	.0347	941.
.2050	-1026.	2055.	1599.	-1888.	614.	-1617.	.0924	-.1007	-.0287	.0502	.0549	.0301	1028.
.2060	-1128.	2224.	1973.	-1390.	1402.	-1914.	.1022	-.1024	-.0301	.0608	.0620	.0223	1103.
.2070	-1350.	2052.	2492.	-647.	2388.	-1667.	.1096	-.1044	-.0300	.0744	.0572	.0113	1197.
.2080	-979.	1621.	3217.	269.	3792.	-1068.	.1150	-.1062	-.0289	.0896	.0708	-.0022	1584.
.2090	-135.	1103.	3892.	1233.	5203.	-475.	.1185	-.1070	-.0271	.1042	.0729	-.0170	2154.
.2100	221.	620.	4086.	2136.	5768.	-88.	.1201	-.1065	-.0250	.1172	.0741	-.0319	2468.
.2110	25.	217.	3791.	2927.	5417.	115.	.1201	-.1051	-.0229	.1284	.0745	-.0462	2471.
.2120	-274.	-102.	3248.	3580.	4561.	208.	.1186	-.1033	-.0211	.1377	.0740	-.0593	2328.
.2130	-503.	-311.	2658.	4034.	3541.	175.	.1157	-.1011	-.0193	.1443	.0716	-.0703	2155.

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ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.26.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

.2020	1164.	359.	1541.	-1947.	1053.	68.	.0512	-.0943	-.0156	.0344	.0236	.0362	894.
.2030	42.	1209.	1624.	-2133.	551.	-323.	.666	-.0970	-.0212	.0374	.0350	.0366	893.
.2040	-867.	1646.	1443.	-2128.	211.	-961.	.0804	-.0991	-.0257	.0427	.0457	.0347	941.
.2050	-1026.	2055.	1599.	-1888.	614.	-1617.	.0924	-.1007	-.0287	.0502	.0549	.0301	1028.
.2060	-1128.	2224.	1973.	-1390.	1402.	-1914.	.1022	-.1024	-.0301	.0608	.0620	.0223	1103.
.2070	-1350.	2052.	2492.	-647.	2388.	-1667.	.1096	-.1044	-.0300	.0744	.0672	.0113	1197.
.2080	-979.	1621.	3217.	269.	3792.	-1068.	.1150	-.1062	-.0289	.0896	.0708	-.0022	1584.
.2090	-135.	1103.	3892.	1233.	5203.	-475.	.1185	-.1070	-.0271	.1042	.0729	-.0170	2154.
.2100	221.	620.	4086.	2136.	5768.	-88.	.1201	-.1065	-.0250	.1172	.0741	-.0319	2468.
.2110	25.	217.	3791.	2927.	5417.	115.	.1201	-.1051	-.0229	.1284	.0745	-.0462	2471.
.2120	-274.	-102.	3248.	3580.	4561.	208.	.1186	-.1033	-.0211	.1377	.0740	-.0593	2328.
.2130	-503.	-311.	2658.	4034.	3541.	175.	.1157	-.1011	-.0193	.1443	.0716	-.0703	2155.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.26.

S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK

2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	RU							STRESS
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	(PSI)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	
.2140	-470.	-359.	2262.	4216.	2787.	-74.	.1114	-.0983	-.0170	.1469	.0566	-.0782	2028.
.2150	-19.	-238.	2239.	4097.	2623.	-570.	.1055	-.0946	-.0141	.1448	.0592	-.0825	1965.
.2160	570.	-4.	2480.	3720.	2848.	-1191.	.0984	-.0901	-.0108	.1379	.0499	-.0830	1940.
.2170	906.	259.	2684.	3176.	2979.	-1722.	.0898	-.0854	-.0073	.1272	.0399	-.0802	1879.
.2180	1171.	490.	2692.	2537.	2859.	-2014.	.0801	-.0805	-.0038	.1139	.0300	-.0744	1734.
.2190	1563.	657.	2448.	1826.	2471.	-2081.	.0695	-.0753	-.0006	.0985	.0210	-.0658	1489.
.2200	1726.	739.	1903.	1051.	1662.	-2004.	.0581	-.0693	.0022	.0811	.0132	-.0551	1127.
.2210	1438.	715.	1153.	250.	526.	-1800.	.0462	-.0626	.0046	.0627	.0069	-.0431	759.
.2220	976.	574.	404.	-492.	-577.	-1413.	.0338	-.0556	.0069	.0452	.0019	-.0305	644.
.2230	572.	336.	-244.	-1077.	-1440.	-822.	.0211	-.0486	.0092	.0297	-.0026	-.0180	793.
.2240	284.	75.	-744.	-1447.	-1967.	-117.	.0078	-.0420	.0117	.0168	-.0074	-.0065	981.
.2250	123.	-110.	-1015.	-1608.	-2041.	531.	-.0059	-.0358	.0147	.0063	-.0127	.0036	1064.
.2260	-52.	-170.	-1072.	-1610.	-1749.	987.	-.0198	-.0298	.0181	-.0019	-.0189	.0119	1033.
.2270	-311.	-134.	-1007.	-1503.	-1298.	1240.	-.0338	-.0242	.0217	-.0078	-.0262	.0184	940.
.2280	-375.	-63.	-852.	-1320.	-725.	1376.	-.0472	-.0189	.0253	-.0112	-.0347	.0224	818.
.2290	-115.	-4.	-654.	-1098.	-109.	1453.	-.0596	-.0141	.0287	-.0126	-.0440	.0237	732.
.2300	139.	36.	-570.	-884.	234.	1445.	-.0709	-.0097	.0316	-.0126	-.0536	.0222	686.
.2310	254.	81.	-657.	-687.	198.	1297.	-.0808	-.0052	.0342	-.0124	-.0633	.0182	594.
.2320	503.	142.	-782.	-479.	61.	1025.	-.0889	-.0004	.0366	-.0122	-.0727	.0122	455.
.2330	880.	186.	-847.	-235.	-18.	736.	-.0951	.0045	.0387	-.0122	-.0814	.0047	310.
.2340	1130.	152.	-835.	32.	-53.	562.	-.0993	.0094	.0407	-.0127	-.0890	-.0041	227.
.2350	1426.	-3.	-647.	290.	142.	594.	-.1013	.0142	.0422	-.0142	-.0949	-.0137	271.
.2360	2013.	-286.	-235.	513.	699.	845.	-.1008	.0189	.0430	-.0168	-.0986	-.0236	486.
.2370	2577.	-667.	212.	675.	1291.	1257.	-.0978	.0238	.0428	-.0206	-.0991	-.0328	772.
.2380	2737.	-1092.	453.	762.	1498.	1732.	-.0925	.0290	.0411	-.0255	-.0958	-.0407	969.
.2390	2578.	-1496.	412.	779.	1244.	2190.	-.0850	.0343	.0379	-.0310	-.0883	-.0469	1058.
.2400	2239.	-1829.	90.	747.	574.	2564.	-.0755	.0397	.0330	-.0368	-.0770	-.0514	1096.
.2410	1723.	-2049.	-450.	680.	-408.	2784.	-.0646	.0451	.0268	-.0424	-.0528	-.0541	1162.
.2420	1232.	-2116.	-984.	577.	-1329.	2775.	-.0527	.0506	.0195	-.0473	-.0471	-.0547	1256.
.2430	909.	-2010.	-1282.	437.	-1838.	2499.	-.0400	.0560	.0117	-.0510	-.0310	-.0532	1257.
.2440	481.	-1752.	-1358.	278.	-2027.	1988.	-.0271	.0614	.0035	-.0538	-.0154	-.0498	1145.
.2450	-76.	-1384.	-1281.	130.	-2010.	1330.	-.0143	.0665	-.0048	-.0559	-.0011	-.0449	969.
.2460	-372.	-951.	-1048.	12.	-1699.	639.	-.0020	.0712	-.0133	-.0576	.0113	-.0387	728.
.2470	-247.	-521.	-634.	-83.	-1046.	29.	.0097	.0755	-.0217	-.0592	.0210	-.0315	421.
.2480	-277.	-177.	-173.	-174.	-399.	-398.	.0204	.0793	-.0300	-.0610	.0279	-.0236	237.
.2490	-867.	38.	196.	-274.	-62.	-596.	.0298	.0827	-.0380	-.0635	.0323	-.0153	264.
.2500	-1534.	126.	507.	-378.	132.	-575.	.0378	.0860	-.0456	-.0671	.0343	-.0068	281.
.2510	-1809.	112.	746.	-480.	320.	-376.	.0443	.0891	-.0526	-.0718	.0340	.0017	276.

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.2400	2239.	-1829.	90.	747.	574.	2564.	-.0755	.0397	.0330	-.0362	-.0770	-.0514	1096.
.2410	1723.	-2049.	-450.	600.	-403.	2784.	-.0646	.0451	.0268	-.0424	-.0528	-.0541	1162.
.2420	1232.	-2116.	-984.	577.	-1329.	2775.	-.0527	.0506	.0195	-.0473	-.0471	-.0547	1256.
.2430	909.	-2010.	-1282.	437.	-1838.	2499.	-.1400	.0560	.0117	-.0510	-.0310	-.0532	1257.
.2440	481.	-1752.	-1350.	270.	-2027.	1988.	-.0271	.0614	.0035	-.0538	-.0154	-.0498	1145.
.2450	-76.	-1384.	-1281.	130.	-2010.	1330.	-.0143	.0665	-.0048	-.0559	-.0011	-.0449	969.
.2460	-372.	-951.	-1048.	12.	-1699.	639.	-.0020	.0712	-.0133	-.0576	.0113	-.0387	728.
.2470	-247.	-521.	-634.	-83.	-1046.	29.	.0097	.0755	-.0217	-.0592	.0210	-.0315	421.
.2480	-277.	-177.	-173.	-174.	-399.	-398.	.0204	.0793	-.0300	-.0610	.0279	-.0236	237.
.2490	-867.	38.	196.	-274.	-62.	-576.	.0298	.0827	-.0380	-.0635	.0323	-.0153	264.
.2500	-1534.	126.	503.	-378.	132.	-575.	.0378	.0860	-.0456	-.0671	.0343	-.0068	231.
.2510	-1809.	112.	746.	-480.	320.	-376.	.0443	.0891	-.0526	-.0718	.0340	.0017	276.

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

SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	RU	TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS
27	1	807					(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
.2520	-1763.	20.	887.	-585.	451.	-42.	.0491	.0922	-.0586	-.0777	.0317	.0101	297.							
.2530	-1653.	-115.	952.	-711.	517.	373.	.0522	.0951	-.0637	-.0843	.0282	.0183	383.							
.2540	-1605.	-246.	996.	-877.	570.	781.	.0537	.0981	-.0678	-.0915	.0244	.0262	524.							
.2550	-1569.	-324.	1014.	-1096.	632.	1090.	.0537	.1012	-.0709	-.0993	.0208	.0342	670.							
.2560	-1391.	-317.	991.	-1370.	730.	1255.	.0524	.1045	-.0734	-.1076	.0180	.0423	801.							
.2570	-1067.	-237.	919.	-1687.	858.	1310.	.0500	.1079	-.0754	-.1164	.0165	.0504	924.							
.2580	-937.	-124.	735.	-2028.	833.	1327.	.0467	.1113	-.0770	-.1254	.0171	.0579	1028.							
.2590	-1225.	-28.	408.	-2365.	548.	1370.	.0426	.1145	-.0783	-.1342	.0197	.0646	1118.							
.2600	-1641.	27.	50.	-2649.	226.	1460.	.0377	.1178	-.0791	-.1425	.0239	.0703	1217.							
.2610	-1853.	52.	-221.	-2859.	116.	1547.	.0322	.1212	-.0794	-.1502	.0288	.0748	1305.							
.2620	-1912.	67.	-390.	-3001.	218.	1566.	.0259	.1249	-.0788	-.1573	.0337	.0776	1361.							
.2630	-1961.	66.	-469.	-3063.	463.	1537.	.0189	.1286	-.0772	-.1633	.0381	.0785	1388.							
.2640	-1929.	25.	-436.	-3012.	874.	1524.	.0112	.1322	-.0747	-.1676	.0413	.0771	1399.							
.2650	-1742.	-50.	-326.	-2846.	1402.	1519.	.0029	.1357	-.0714	-.1702	.0428	.0739	1412.							
.2660	-1485.	-135.	-230.	-2605.	1879.	1454.	-.0058	.1392	-.0672	-.1716	.0422	.0690	1415.							
.2670	-1259.	-213.	-204.	-2337.	2186.	1297.	-.0148	.1428	-.0625	-.1726	.0399	.0626	1386.							
.2680	-1179.	-305.	-294.	-2062.	2217.	1107.	-.0238	.1462	-.0573	-.1733	.0360	.0550	1294.							
.2690	-1231.	-452.	-501.	-1769.	1970.	987.	-.0326	.1492	-.0518	-.1737	.0304	.0466	1134.							
.2700	-1224.	-658.	-729.	-1461.	1633.	971.	-.0412	.1518	-.0458	-.1735	.0232	.0380	962.							
.2710	-1095.	-867.	-882.	-1177.	1378.	976.	-.0495	.1539	-.0394	-.1729	.0144	.0295	826.							
.2720	-1019.	-1007.	-961.	-966.	1184.	892.	-.0575	.1556	-.0325	-.1720	.0045	.0218	710.							
.2730	-1040.	-1067.	-993.	-815.	1010.	708.	-.0650	.1569	-.0253	-.1706	-.0064	.0151	593.							
.2740	-912.	-1098.	-966.	-663.	921.	518.	-.0720	.1577	-.0181	-.1684	-.0176	.0095	501.							
.2750	-671.	-1124.	-972.	-493.	773.	360.	-.0781	.1581	-.0112	-.1652	-.0287	.0052	395.							
.2760	-547.	-1112.	-1125.	-363.	339.	158.	-.0832	.1580	-.0049	-.1612	-.0390	.0025	209.							
.2770	-556.	-1039.	-1436.	-313.	-402.	-137.	-.0873	.1577	.0004	-.1568	-.0482	.0013	212.							
.2780	-590.	-953.	-1846.	-313.	-1345.	-439.	-.0902	.1569	.0047	-.1518	-.0562	.0014	581.							
.2790	-630.	-907.	-2312.	-316.	-2413.	-639.	-.0919	.1553	.0078	-.1463	-.0632	.0028	1010.							
.2800	-629.	-882.	-2760.	-333.	-3466.	-744.	-.0926	.1529	.0101	-.1401	-.0693	.0053	1429.							
.2810	-495.	-826.	-3079.	-391.	-4301.	-823.	-.0921	.1497	.0115	-.1335	-.0745	.0087	1764.							
.2820	-294.	-743.	-3219.	-472.	-4844.	-884.	-.0906	.1456	.0122	-.1268	-.0789	.0126	1985.							
.2830	-121.	-671.	-3199.	-540.	-5127.	-895.	-.0880	.1406	.0122	-.1201	-.0821	.0167	2100.							
.2840	93.	-605.	-3034.	-594.	-5149.	-880.	-.0843	.1350	.0116	-.1135	-.0840	.0208	2110.							
.2850	348.	-508.	-2780.	-665.	-4978.	-898.	-.0794	.1287	.0102	-.1070	-.0840	.0249	2047.							
.2860	432.	-377.	-2542.	-764.	-4803.	-954.	-.0734	.1218	.0082	-.1006	-.0818	.0288	1989.							
.2870	247.	-249.	-2375.	-868.	-4715.	-997.	-.0665	.1143	.0055	-.0943	-.0772	.0322	1965.							
.2880	-32.	-138.	-2240.	-965.	-4599.	-996.	-.0589	.1061	.0024	-.0883	-.0704	.0352	1927.							
.2890	-281.	-40.	-2090.	-1055.	-4346.	-947.	-.0509	.0974	-.0009	-.0822	-.0518	.0378	1834.							

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.2790	-630.	-907.	-2312.	-316.	-2413.	-639.	-1919.	.1553	.0078	-.1463	-.0632	.0028	1010.
.2800	-629.	-882.	-2760.	-333.	-3466.	-744.	-.0926	.1529	.0101	-.1401	-.0593	.0053	1429.
.2810	-495.	-826.	-2079.	-391.	-4301.	-823.	-.0921	.1497	.0115	-.1335	-.0745	.0087	1764.
.2820	-294.	-743.	-3219.	-472.	-4844.	-884.	-.0906	.1456	.0122	-.1268	-.0789	.0126	1985.
.2830	-121.	-671.	-3199.	-540.	-5127.	-895.	-.0880	.1406	.0122	-.1201	-.0821	.0167	2100.
.2840	97.	-605.	-3034.	-594.	-5149.	-880.	-.0843	.1350	.0116	-.1135	-.0840	.0208	2110.
.2850	348.	-508.	-2780.	-665.	-4978.	-898.	-.0794	.1287	.0102	-.1070	-.0840	.0249	2047.
.2860	432.	-377.	-2542.	-764.	-4803.	-954.	-.0734	.1218	.0082	-.1006	-.0818	.0288	1989.
.2870	247.	-249.	-2375.	-868.	-4715.	-997.	-.0665	.1143	.0055	-.0943	-.0772	.0322	1965.
.2880	-32.	-138.	-2240.	-965.	-4599.	-996.	-.0589	.1061	.0024	-.0883	-.0704	.0352	1927.
.2890	-281.	-40.	-2090.	-1055.	-4346.	-947.	-.0509	.0974	-.0009	-.0822	-.0518	.0378	1834.

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SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	RU									
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.2900	-568.	32.	-1913.	-1129.	-3949.	-820.	-.0427	.0881	-.0040	-.0761	-.0517	.0399	1681.		
.2910	-895.	51.	-1685.	-1166.	-3382.	-570.	-.0347	.0782	-.0067	-.0696	-.0403	.0416	1454.		
.2920	-1139.	8.	-1387.	-1153.	-2606.	-197.	-.0269	.0678	-.0090	-.0627	-.0282	.0426	1146.		
.2930	-1251.	-76.	-1048.	-1092.	-1678.	249.	-.0194	.0570	-.0108	-.0552	-.0155	.0432	810.		
.2940	-1295.	-178.	-719.	-991.	-716.	704.	-.0122	.0459	-.0122	-.0468	-.0027	.0434	566.		
.2950	-1354.	-271.	-430.	-863.	181.	1105.	-.0053	.0349	-.0132	-.0375	.0103	.0433	567.		
.2960	-1479.	-326.	-201.	-736.	941.	1391.	.0013	.0239	-.0138	-.0270	.0230	.0430	736.		
.2970	-1636.	-326.	-27.	-623.	1561.	1541.	.0075	.0129	-.0141	-.0155	.0351	.0426	915.		
.2980	-1710.	-285.	147.	-512.	2128.	1583.	.0133	.0020	-.0140	-.0031	.0461	.0421	1084.		
.2990	-1644.	-221.	374.	-394.	2723.	1549.	.0187	-.0089	-.0135	.0101	.0557	.0415	1267.		
.3000	-1487.	-133.	663.	-285.	3347.	1435.	.0236	-.0197	-.0126	.0237	.0637	.0410	1466.		
.3010	-1269.	-13.	995.	-200.	3964.	1235.	.0279	-.0301	-.0112	.0372	.0702	.0407	1668.		
.3020	-955.	120.	1341.	-127.	4540.	991.	.0319	-.0403	-.0096	.0504	.0754	.0406	1865.		
.3030	-551.	243.	1648.	-49.	5000.	749.	.0354	-.0501	-.0078	.0633	.0794	.0409	2029.		
.3040	-142.	362.	1855.	14.	5243.	497.	.0385	-.0594	-.0062	.0755	.0825	.0414	2113.		
.3050	177.	504.	1928.	29.	5211.	186.	.0413	-.0681	-.0046	.0868	.0850	.0426	2092.		
.3060	356.	673.	1865.	-1.	4904.	-180.	.0437	-.0759	-.0032	.0971	.0869	.0443	1969.		
.3070	416.	837.	1696.	-48.	4392.	-541.	.0456	-.0830	-.0018	.1061	.0881	.0464	1776.		
.3080	435.	972.	1484.	-93.	3799.	-841.	.0470	-.0895	-.0002	.1138	.0882	.0487	1562.		
.3090	452.	1074.	1291.	-139.	3240.	-1062.	.0477	-.0954	.0016	.1198	.0871	.0510	1369.		
.3100	450.	1144.	1156.	-184.	2775.	-1203.	.0477	-.1007	.0039	.1242	.0844	.0531	1216.		
.3110	440.	1179.	1100.	-220.	2438.	-1259.	.0469	-.1055	.0066	.1269	.0799	.0547	1104.		
.3120	472.	1181.	1126.	-244.	2239.	-1240.	.0453	-.1099	.0097	.1283	.0735	.0554	1032.		
.3130	528.	1165.	1202.	-259.	2119.	-1181.	.0429	-.1139	.0132	.1286	.0552	.0551	979.		
.3140	540.	1147.	1270.	-265.	1972.	-1126.	.0397	-.1176	.0171	.1282	.0553	.0533	917.		
.3150	529.	1139.	1301.	-250.	1755.	-1109.	.0358	-.1210	.0211	.1275	.0438	.0498	839.		
.3160	538.	1144.	1282.	-203.	1465.	-1151.	.0313	-.1241	.0252	.1268	.0312	.0444	752.		
.3170	566.	1151.	1210.	-105.	1103.	-1241.	.0261	-.1268	.0295	.1265	.0178	.0370	667.		
.3180	624.	1131.	1106.	64.	711.	-1335.	.0206	-.1292	.0339	.1268	.0039	.0277	607.		
.3190	761.	1056.	1010.	314.	366.	-1388.	.0147	-.1313	.0384	.1277	-.0098	.0164	590.		
.3200	1029.	917.	957.	638.	140.	-1375.	.0087	-.1332	.0429	.1292	-.0231	.0037	611.		
.3210	1383.	719.	942.	1018.	26.	-1289.	.0028	-.1348	.0473	.1313	-.0353	-.0101	659.		
.3220	1741.	471.	948.	1445.	-17.	-1127.	-.0029	-.1362	.0514	.1339	-.0459	-.0244	735.		
.3230	2052.	189.	961.	1904.	-26.	-907.	-.0079	-.1374	.0551	.1366	-.0546	-.0386	846.		
.3240	2263.	-87.	951.	2358.	-52.	-688.	-.0122	-.1382	.0582	.1392	-.0511	-.0520	986.		
.3250	2350.	-305.	895.	2766.	-133.	-541.	-.0157	-.1387	.0608	.1415	-.0554	-.0640	1132.		
.3260	2377.	-439.	805.	3111.	-239.	-497.	-.0182	-.1387	.0627	.1432	-.0676	-.0742	1268.		
.3270	2366.	-493.	699.	3392.	-347.	-548.	-.0196	-.1384	.0641	.1442	-.0679	-.0824	1386.		

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ADLPIPE STRESS ANALYSIS

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

.3170	566.	1151.	1210.	-105.	1103.	-1241.	.0261	-.1268	.0295	.1265	.0178	.0370	667.
.3180	624.	1131.	1106.	64.	711.	-1335.	.0206	-.1292	.0339	.1268	.0039	.0277	607.
.3190	761.	1056.	1010.	314.	366.	-1388.	.0147	-.1313	.0384	.1277	-.0098	.0164	590.
.3200	1029.	917.	957.	638.	140.	-1375.	.0087	-.1332	.0429	.1292	-.0231	.0037	611.
.3210	1383.	719.	742.	1018.	26.	-1289.	.0028	-.1348	.0473	.1313	-.0353	-.0101	659.
.3220	1741.	471.	949.	1445.	-17.	-1127.	-.0029	-.1362	.0514	.1339	-.0459	-.0244	735.
.3230	2052.	189.	961.	1904.	-26.	-907.	-.0079	-.1374	.0551	.1366	-.0546	-.0386	846.
.3240	2263.	-87.	951.	2358.	-52.	-688.	-.0122	-.1382	.0582	.1392	-.0511	-.0520	986.
.3250	2350.	-305.	895.	2766.	-133.	-541.	-.0157	-.1387	.0608	.1415	-.0554	-.0640	1132.
.3260	2377.	-439.	805.	3111.	-239.	-497.	-.0182	-.1387	.0627	.1432	-.0676	-.0742	1268.
.3270	2366.	-493.	699.	3392.	-347.	-548.	-.0196	-.1384	.0641	.1442	-.0679	-.0824	1386.

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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

SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	RU	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
.3280	2276.	-473.	585.	3599.	-458.	-687.	-.0200	-.1379	.0651	.1442	-.0567	-.0884	1482.							
.3290	2161.	-372.	488.	3715.	-526.	-923.	-.0195	-.1370	.0656	.1430	-.0644	-.0921	1551.							
.3300	2121.	-199.	433.	3740.	-493.	-1238.	-.0179	-.1358	.0658	.1405	-.0614	-.0936	1593.							
.3310	2123.	10.	412.	3700.	-389.	-1568.	-.0155	-.1345	.0656	.1369	-.0579	-.0930	1620.							
.3320	2074.	214.	403.	3620.	-275.	-1849.	-.0123	-.1331	.0648	.1324	-.0542	-.0908	1635.							
.3330	1953.	394.	409.	3512.	-162.	-2059.	-.0084	-.1318	.0635	.1272	-.0502	-.0873	1635.							
.3340	1785.	555.	438.	3385.	-39.	-2215.	-.0038	-.1304	.0616	.1216	-.0461	-.0826	1623.							
.3350	1573.	692.	489.	3256.	92.	-2325.	.0014	-.1290	.0589	.1159	-.0417	-.0772	1606.							
.3360	1345.	798.	574.	3147.	255.	-2385.	.0070	-.1275	.0554	.1105	-.0372	-.0714	1588.							
.3370	1141.	875.	709.	3069.	480.	-2400.	.0128	-.1260	.0513	.1058	-.0324	-.0656	1575.							
.3380	963.	934.	888.	3019.	762.	-2393.	.0188	-.1246	.0465	.1019	-.0274	-.0598	1576.							
.3390	830.	993.	1093.	2989.	1085.	-2400.	.0247	-.1231	.0411	.0987	-.0220	-.0543	1599.							
.3400	799.	1064.	1315.	2961.	1454.	-2448.	.0306	-.1214	.0352	.0961	-.0164	-.0490	1649.							
.3410	866.	1154.	1530.	2916.	1829.	-2544.	.0363	-.1196	.0289	.0937	-.0104	-.0441	1718.							
.3420	935.	1256.	1692.	2838.	2117.	-2671.	.0419	-.1177	.0222	.0913	-.0041	-.0396	1780.							
.3430	953.	1361.	1781.	2716.	2272.	-2802.	.0472	-.1156	.0151	.0887	.0025	-.0355	1812.							
.3440	954.	1463.	1808.	2543.	2316.	-2925.	.0524	-.1133	.0080	.0853	.0092	-.0318	1812.							
.3450	961.	1559.	1792.	2314.	2286.	-3034.	.0574	-.1106	.0008	.0809	.0158	-.0285	1785.							
.3460	939.	1637.	1751.	2036.	2202.	-3109.	.0623	-.1077	-.0060	.0752	.0220	-.0258	1734.							
.3470	860.	1676.	1707.	1735.	2094.	-3111.	.0668	-.1043	-.0125	.0684	.0277	-.0237	1658.							
.3480	747.	1655.	1682.	1436.	2006.	-3005.	.0711	-.1006	-.0183	.0605	.0325	-.0224	1560.							
.3490	644.	1569.	1684.	1159.	1964.	-2788.	.0749	-.0965	-.0233	.0518	.0363	-.0220	1445.							
.3500	571.	1424.	1703.	916.	1967.	-2483.	.0782	-.0919	-.0276	.0425	.0391	-.0224	1323.							
.3510	496.	1234.	1719.	722.	1981.	-2116.	.0809	-.0870	-.0310	.0330	.0409	-.0236	1199.							
.3520	368.	1006.	1706.	595.	1956.	-1705.	.0829	-.0816	-.0337	.0238	.0418	-.0256	1068.							
.3530	189.	756.	1657.	544.	1882.	-1280.	.0843	-.0759	-.0357	.0154	.0420	-.0284	939.							
.3540	11.	514.	1589.	575.	1797.	-887.	.0848	-.0698	-.0370	.0080	.0414	-.0316	836.							
.3550	-148.	312.	1525.	685.	1737.	-579.	.0844	-.0635	-.0377	.0019	.0402	-.0351	784.							
.3560	-309.	175.	1481.	867.	1722.	-395.	.0832	-.0569	-.0377	-.0027	.0384	-.0388	790.							
.3570	-475.	111.	1475.	1114.	1771.	-346.	.0809	-.0500	-.0371	-.0060	.0359	-.0424	851.							
.3580	-621.	120.	1510.	1410.	1891.	-426.	.0777	-.0430	-.0358	-.0079	.0327	-.0456	962.							
.3590	-733.	195.	1565.	1732.	2045.	-620.	.0735	-.0358	-.0338	-.0088	.0288	-.0484	1104.							
.3600	-809.	319.	1604.	2047.	2174.	-901.	.0684	-.0285	-.0312	-.0091	.0243	-.0505	1252.							
.3610	-857.	464.	1590.	2327.	2207.	-1222.	.0623	-.0210	-.0281	-.0092	.0191	-.0518	1377.							
.3620	-903.	598.	1487.	2548.	2075.	-1526.	.0555	-.0135	-.0245	-.0097	.0134	-.0523	1454.							
.3630	-945.	690.	1280.	2697.	1748.	-1760.	.0479	-.0059	-.0207	-.0108	.0071	-.0519	1470.							
.3640	-940.	725.	979.	2761.	1249.	-1896.	.0397	.0016	-.0165	-.0129	.0002	-.0506	1435.							
.3650	-865.	705.	611.	2731.	623.	-1925.	.0310	.0091	-.0122	-.0161	-.0072	-.0484	1364.							

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2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

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

.3540	11.	514.	1588.	575.	1787.	-887.	.0848	-.0698	-.0370	.0080	.0414	-.0316	836.
.3550	-148.	312.	1525.	685.	1737.	-579.	.0844	-.0635	-.0377	.0019	.0402	-.0351	784.
.3560	-309.	175.	1481.	867.	1722.	-395.	.0832	-.0569	-.0377	-.0027	.0384	-.0388	790.
.3570	-475.	111.	1475.	1114.	1771.	-346.	.0809	-.0500	-.0371	-.0060	.0359	-.0424	851.
.3580	-621.	120.	1510.	1410.	1891.	-426.	.0777	-.0430	-.0358	-.0079	.0327	-.0456	962.
.3590	-733.	195.	1565.	1732.	2045.	-620.	.0735	-.0358	-.0338	-.0088	.0288	-.0484	1104.
.3600	-809.	319.	1604.	2047.	2174.	-901.	.0684	-.0285	-.0312	-.0091	.0243	-.0505	1252.
.3610	-857.	464.	1590.	2327.	2207.	-1222.	.0623	-.0210	-.0281	-.0092	.0191	-.0518	1377.
.3620	-903.	598.	1487.	2548.	2075.	-1526.	.0555	-.0135	-.0245	-.0097	.0134	-.0523	1454.
.3630	-945.	690.	1280.	2697.	1748.	-1760.	.0479	-.0059	-.0207	-.0108	.0071	-.0519	1470.
.3640	-940.	725.	979.	2761.	1249.	-1896.	.0397	.0016	-.0165	-.0129	.0002	-.0506	1435.
.3650	-865.	705.	611.	2731.	623.	-1925.	.0310	.0091	-.0122	-.0161	-.0072	-.0484	1364.

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

SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	RU								STRESS						
27	1	807					TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	(PSI)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)
.3660	-750.	636.	196.	2605.	-101.	-1854.	.0218	.0164	-.0078	-.0203	-.0151	-.0454	1284.							
.3670	-611.	529.	-239.	2390.	-879.	-1692.	.0123	.0234	-.0034	-.0255	-.0232	-.0416	1227.							
.3680	-427.	395.	-660.	2101.	-1645.	-1457.	.0026	.0301	.0008	-.0313	-.0312	-.0372	1220.							
.3690	-204.	245.	-1049.	1751.	-2360.	-1179.	-.0070	.0365	.0046	-.0375	-.0389	-.0323	1271.							
.3700	14.	96.	-1408.	1352.	-3019.	-891.	-.0165	.0426	.0080	-.0438	-.0458	-.0272	1375.							
.3710	199.	-41.	-1734.	924.	-3609.	-615.	-.0256	.0482	.0108	-.0499	-.0515	-.0219	1515.							
.3720	351.	-168.	-2018.	495.	-4102.	-350.	-.0342	.0534	.0130	-.0556	-.0558	-.0167	1664.							
.3730	459.	-292.	-2249.	96.	-4469.	-88.	-.0422	.0580	.0145	-.0606	-.0585	-.0118	1794.							
.3740	517.	-410.	-2410.	-249.	-4676.	167.	-.0495	.0622	.0154	-.0648	-.0594	-.0072	1880.							
.3750	539.	-510.	-2485.	-532.	-4689.	395.	-.0561	.0658	.0157	-.0682	-.0588	-.0030	1900.							
.3760	528.	-583.	-2470.	-747.	-4500.	587.	-.0617	.0690	.0156	-.0707	-.0566	.0008	1845.							
.3770	472.	-640.	-2377.	-883.	-4137.	766.	-.0664	.0716	.0151	-.0725	-.0532	.0042	1725.							
.3780	379.	-696.	-2225.	-936.	-3641.	955.	-.0702	.0738	.0143	-.0735	-.0485	.0073	1556.							
.3790	264.	-752.	-2038.	-917.	-3058.	1148.	-.0729	.0756	.0132	-.0741	-.0430	.0102	1361.							
.3800	121.	-800.	-1850.	-848.	-2455.	1324.	-.0745	.0771	.0119	-.0745	-.0368	.0131	1170.							
.3810	-62.	-838.	-1690.	-747.	-1896.	1477.	-.0750	.0784	.0105	-.0748	-.0302	.0162	1010.							
.3820	-270.	-867.	-1564.	-631.	-1404.	1617.	-.0745	.0794	.0090	-.0753	-.0233	.0195	896.							
.3830	-468.	-889.	-1458.	-514.	-970.	1749.	-.0730	.0802	.0073	-.0757	-.0165	.0233	829.							
.3840	-635.	-897.	-1350.	-409.	-570.	1865.	-.0705	.0807	.0056	-.0761	-.0099	.0275	800.							
.3850	-757.	-878.	-1218.	-332.	-178.	1936.	-.0671	.0810	.0039	-.0766	-.0038	.0324	792.							
.3860	-825.	-815.	-1050.	-295.	215.	1938.	-.0630	.0811	.0021	-.0770	.0019	.0379	791.							
.3870	-853.	-711.	-854.	-293.	588.	1873.	-.0581	.0810	.0000	-.0772	.0072	.0440	797.							
.3880	-865.	-582.	-654.	-309.	897.	1764.	-.0526	.0808	-.0023	-.0770	.0121	.0506	804.							
.3890	-874.	-430.	-476.	-345.	1103.	1609.	-.0466	.0804	-.0049	-.0763	.0168	.0574	795.							
.3900	-884.	-244.	-346.	-416.	1175.	1384.	-.0402	.0800	-.0079	-.0750	.0214	.0645	748.							
.3910	-905.	-25.	-278.	-533.	1100.	1096.	-.0336	.0795	-.0113	-.0731	.0260	.0717	659.							
.3920	-940.	192.	-267.	-683.	895.	807.	-.0270	.0788	-.0149	-.0704	.0305	.0787	556.							
.3930	-973.	361.	-288.	-844.	614.	586.	-.0204	.0781	-.0188	-.0671	.0349	.0852	480.							
.3940	-980.	467.	-316.	-1011.	314.	458.	-.0142	.0772	-.0226	-.0634	.0389	.0912	463.							
.3950	-955.	519.	-335.	-1192.	42.	410.	-.0084	.0763	-.0263	-.0596	.0426	.0966	506.							
.3960	-921.	524.	-338.	-1379.	-189.	440.	-.0031	.0753	-.0297	-.0559	.0459	.1012	586.							
.3970	-918.	473.	-328.	-1562.	-383.	568.	.0014	.0744	-.0327	-.0524	.0486	.1049	684.							
.3980	-964.	371.	-304.	-1736.	-540.	788.	.0052	.0734	-.0353	-.0491	.0508	.1078	795.							
.3990	-1041.	242.	-263.	-1917.	-651.	1055.	.0081	.0724	-.0373	-.0463	.0524	.1098	916.							
.4000	-1125.	117.	-206.	-2119.	-707.	1311.	.0102	.0715	-.0387	-.0440	.0534	.1109	1040.							

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2 SAFETY COLD FKW24F--2 PSV

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

.3930	-973.	361.	-288.	-844.	614.	586.	-.0204	.0781	-.0188	-.0671	.0349	.0852	480.
.3940	-980.	467.	-316.	-1011.	314.	458.	-.0142	.0772	-.0226	-.0634	.0389	.0912	463.
.3950	-955.	519.	-335.	-1192.	42.	410.	-.0084	.0763	-.0263	-.0596	.0426	.0966	506.
.3960	-921.	524.	-338.	-1379.	-189.	440.	-.0031	.0753	-.0297	-.0559	.0459	.1012	586.
.3970	-918.	473.	-328.	-1562.	-383.	568.	.0014	.0744	-.0327	-.0524	.0486	.1049	684.
.3980	-964.	371.	-304.	-1736.	-540.	788.	.0052	.0734	-.0353	-.0491	.0508	.1078	795.
.3990	-1041.	242.	-263.	-1917.	-651.	1055.	.0081	.0724	-.0373	-.0463	.0524	.1098	916.
.4000	-1125.	117.	-206.	-2119.	-707.	1311.	.0102	.0715	-.0387	-.0440	.0534	.1109	1040.

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

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

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)
.1100	7925.	3449.	5197.	7630.	9115.	-10402.	.0462	.0566	-.1157	-.1607	.0725	.1057	6338.

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)
27	1	50					0.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.
							.0010	5.	-0.	6.	-1.	6.	-1.	.0000	-.0000	-.0000	.0000	.0000	-.0000	2.
							.0020	37.	-5.	46.	-4.	41.	-3.	.0000	-.0000	-.0002	.0001	.0002	-.0000	17.
							.0030	99.	-22.	136.	-9.	121.	3.	.0000	-.0000	-.0005	.0002	.0007	-.0000	49.
							.0040	168.	-58.	263.	-11.	238.	34.	.0001	.0001	-.0011	.0003	.0013	.0000	97.
							.0050	233.	-113.	403.	-5.	373.	92.	.0000	.0003	-.0020	.0002	.0020	.0002	154.
							.0060	319.	-174.	559.	11.	523.	162.	-.0000	.0008	-.0032	.0000	.0029	.0005	220.
							.0070	359.	-235.	744.	35.	717.	219.	-.0001	.0013	-.0050	-.0003	.0040	.0007	301.
							.0080	213.	-298.	975.	68.	1001.	258.	.0001	.0020	-.0077	-.0008	.0055	.0009	416.
							.0090	-103.	-376.	1237.	132.	1371.	319.	.0008	.0032	-.0116	-.0018	.0076	.0014	567.
							.0100	-413.	-474.	1457.	259.	1745.	444.	.0023	.0051	-.0167	-.0039	.0102	.0023	730.
							.0110	-517.	-569.	1549.	458.	2028.	614.	.0049	.0080	-.0227	-.0076	.0132	.0037	870.
							.0120	-322.	-623.	1493.	704.	2172.	734.	.0086	.0114	-.0293	-.0129	.0164	.0052	963.
							.0130	48.	-605.	1295.	962.	2151.	708.	.0130	.0153	-.0360	-.0198	.0191	.0065	987.
							.0140	207.	-506.	860.	1220.	1877.	524.	.0180	.0195	-.0422	-.0285	.0203	.0077	923.
							.0150	-135.	-307.	84.	1500.	1273.	219.	.0234	.0242	-.0471	-.0395	.0191	.0088	794.
							.0160	-1031.	38.	-1017.	1816.	359.	-212.	.0292	.0293	-.0501	-.0524	.0155	.0095	748.
							.0170	-2391.	567.	-2358.	2144.	-760.	-823.	.0360	.0342	-.0511	-.0656	.0107	.0093	971.
							.0180	-3662.	1235.	-3690.	2421.	-1861.	-1602.	.0443	.0382	-.0503	-.0770	.0072	.0082	1384.
							.0190	-3970.	1875.	-4496.	2565.	-2532.	-2389.	.0547	.0413	-.0487	-.0849	.0081	.0063	1735.
							.0200	-3084.	2212.	-4285.	2496.	-2277.	-2914.	.0682	.0435	-.0485	-.0880	.0168	.0047	1790.
							.0210	-1300.	1964.	-2966.	2232.	-1028.	-2775.	.0853	.0458	-.0511	-.0870	.0336	.0051	1487.
							.0220	3729.	1028.	-507.	1868.	684.	-1639.	.1026	.0497	-.0532	-.0852	.0546	.0086	1034.
							.0230	10109.	-337.	2044.	1368.	2104.	158.	.1169	.0541	-.0531	-.0833	.0740	.0127	1009.
							.0240	12646.	-1593.	3681.	584.	2870.	1694.	.1260	.0567	-.0506	-.0786	.0842	.0139	1358.
							.0250	9425.	-2240.	3887.	-468.	2885.	2198.	.1305	.0555	-.0463	-.0675	.0854	.0093	1467.
							.0260	7186.	-2139.	5627.	-1473.	2522.	1863.	.1313	.0518	-.0397	-.0511	.0372	-.0014	1390.
							.0270	12928.	-1670.	5063.	-2180.	2647.	1708.	.1256	.0496	-.0282	-.0369	.0921	-.0140	1537.
							.0280	14329.	-1377.	6356.	-2725.	2922.	2266.	.1148	.0505	-.0152	-.0290	.0886	-.0235	1843.
							.0290	2289.	-1215.	5025.	-3246.	2576.	2933.	.1033	.0517	-.0056	-.0230	.0738	-.0313	2037.
							.0300	-2366.	-550.	5680.	-3582.	3491.	2829.	.0892	.0489	.0036	-.0120	.0648	-.0435	2306.
							.0310	3975.	376.	8329.	-3732.	5246.	2194.	.0723	.0422	.0132	.0048	.0638	-.0593	2729.
							.0320	6906.	636.	8622.	-3964.	5636.	2043.	.0539	.0349	.0213	.0227	.0583	-.0709	2884.

.0330	3842.	-8.	6802.	-4328.	4740.	2902.	.0322	.0301	.0291	.0352	.0407	-.0731	2827.
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.0170	-2391.	567.	258.	2144.	-760.	-223.	.7360	.0342	-.0511	-.0656	.0107	.0093	971.
.0180	-3662.	1235.	-3690.	2421.	-1861.	-1602.	.443	.0382	-.0503	-.0770	.0072	.0082	1384.
.0190	-3970.	1875.	-4496.	2565.	-2532.	-2389.	.0547	.0413	-.0487	-.0849	.0081	.0063	1735.
.0200	-3084.	2212.	-4285.	2496.	-2277.	-2914.	.0682	.0435	-.0485	-.0880	.0168	.0047	1790.
.0210	-1300.	1964.	-2966.	2232.	-1028.	-2775.	.0853	.0458	-.0511	-.0870	.0336	.0051	1487.
.0220	3729.	1028.	-507.	1862.	684.	-1639.	.1026	.0497	-.0532	-.0852	.0546	.0086	1034.
.0230	10100.	-337.	2044.	1368.	2104.	158.	.1169	.0541	-.0531	-.0833	.0740	.0127	1009.
.0240	12646.	-1593.	3681.	584.	2870.	1694.	.1260	.0567	-.0506	-.0786	.0842	.0139	1358.
.0250	9425.	-2240.	3887.	-468.	2885.	2198.	.1305	.0555	-.0463	-.0675	.0854	.0093	1467.
.0260	7186.	-2139.	3627.	-1473.	2522.	1863.	.1313	.0518	-.0397	-.0511	.0372	-.0014	1390.
.0270	12928.	-1670.	5063.	-2180.	2647.	1708.	.1256	.0496	-.0282	-.0369	.0921	-.0140	1537.
.0280	14329.	-1377.	6356.	-2725.	2922.	2266.	.1148	.0505	-.0152	-.0290	.0886	-.0235	1843.
.0290	2289.	-1215.	5025.	-3246.	2576.	2933.	.1033	.0517	-.0056	-.0230	.0738	-.0313	2037.
.0300	-2366.	-550.	5680.	-3582.	3491.	2829.	.0892	.0489	.0036	-.0120	.0648	-.0435	2306.
.0310	3975.	376.	8329.	-3732.	5246.	2194.	.0723	.0422	.0132	.0048	.0638	-.0593	2729.
.0320	6906.	636.	8622.	-3964.	5636.	2043.	.0539	.0349	.0213	.0227	.0583	-.0709	2884.

.0330 3842. -8. 6802. -4328. 4740. 2902. .0322 .0301 .0291 .0352 .0407 -.0731 2827.

ADLPIPE PAGE 1212 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.27.26.
 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

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	27	MEMBER	1	SEQUENCE	50	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)		
.0340	2228.	-891.	5354.	-4549.	3649.	4109.	.0058	.0261	.0387	.0411	.0145	-.0707	2863.		
.0350	892.	-1290.	3254.	-4440.	1959.	4509.	-.0222	.0185	.0484	.0453	-.0133	-.0729	2658.		
.0360	-3033.	-894.	-388.	-4047.	-515.	3653.	-.0484	.0062	.0556	.0518	-.0383	-.0819	2197.		
.0370	-4428.	90.	-2871.	-3455.	-2338.	2197.	-.0733	-.0070	.0617	.0587	-.0582	-.0897	1892.		
.0380	-2447.	878.	-2938.	-2720.	-2920.	1307.	-.0980	-.0165	.0683	.0597	-.0730	-.0885	1685.		
.0390	-5742.	823.	-3390.	-1860.	-3536.	1523.	-.1205	-.0222	.0735	.0512	-.0842	-.0798	1716.		
.0400	-15161.	484.	-5514.	-793.	-4518.	1929.	-.1366	-.0286	.0730	.0398	-.0917	-.0718	1997.		
.0410	-13300.	857.	-4696.	405.	-3940.	1211.	-.1480	-.0394	.0695	.0368	-.0874	-.0670	1665.		
.0420	-4826.	1541.	-2740.	1438.	-3058.	-382.	-.1551	-.0527	.0638	.0439	-.0780	-.0591	1364.		
.0430	-2153.	1417.	-1942.	2093.	-2435.	-1232.	-.1542	-.0628	.0554	.0474	-.0639	-.0437	1380.		
.0440	-4084.	363.	-1804.	2614.	-1909.	-592.	-.1485	-.0670	.0463	.0368	-.0529	-.0229	1321.		
.0450	-941.	-486.	-355.	3177.	-1071.	75.	-.1421	-.0696	.0407	.0211	-.0438	-.0025	1346.		
.0460	4944.	-204.	1295.	3676.	-447.	-915.	-.1348	-.0761	.0383	.0141	-.0359	.0122	1531.		
.0470	3598.	1045.	733.	4088.	-626.	-3292.	-.1253	-.0866	.0362	.0154	-.0377	.0200	2121.		
.0480	-2363.	2539.	-812.	4581.	-896.	-5564.	-.1143	-.0968	.0343	.0172	-.0499	.0249	2915.		
.0490	-3450.	3553.	-663.	5163.	-321.	-6655.	-.1015	-.1034	.0348	.0176	-.0592	.0320	3382.		
.0500	-1971.	3520.	295.	5565.	678.	-6240.	-.0851	-.1066	.0355	.0186	-.0620	.0423	3366.		
.0510	-2262.	2517.	1277.	5418.	2158.	-4782.	-.0644	-.1094	.0337	.0231	-.0621	.0512	3026.		
.0520	-2218.	1211.	2702.	4500.	4211.	-3353.	-.0406	-.1149	.0300	.0376	-.0603	.0553	2815.		
.0530	4 3.	-32.	3858.	2943.	5795.	-2403.	-.0155	-.1232	.0264	.0648	-.0566	.0552	2781.		
.0540	2167.	-1449.	3407.	1199.	5879.	-1103.	.0094	-.1308	.0241	.0949	-.0547	.0522	2448.		
.0550	1954.	-3065.	1164.	-415.	4521.	1118.	.0332	-.1347	.0233	.1182	-.0583	.0457	1876.		
.0560	-79.	-4209.	-1987.	-2041.	2327.	3164.	.0551	-.1370	.0239	.1390	-.0636	.0348	1776.		
.0570	-1370.	-4234.	-4564.	-3904.	198.	3637.	.0752	-.1412	.0255	.1660	-.0629	.0182	2143.		
.0580	-1190.	-3322.	-5494.	-5839.	-960.	2763.	.0938	-.1472	.0267	.1956	-.0533	-.0045	2621.		
.0590	-1655.	-2195.	-5200.	-7473.	-1127.	1855.	.1116	-.1515	.0262	.2180	-.0365	-.0300	3123.		
.0600	-2586.	-1326.	-4381.	-8639.	-898.	1618.	.1283	-.1518	.0242	.2309	-.0136	-.0516	3545.		
.0610	-2261.	-752.	-3390.	-9347.	-700.	1876.	.1434	-.1489	.0213	.2388	.0127	-.0655	3836.		
.0620	-388.	-380.	-2359.	-9631.	-526.	2210.	.1564	-.1457	.0170	.2445	.0390	-.0736	3971.		
.0630	1009.	-187.	-1939.	-9588.	-661.	2249.	.1670	-.1444	.0113	.2482	.0635	-.0784	3961.		
.0640	1582.	-251.	-2315.	-9311.	-1436.	1939.	.1734	-.1449	.0059	.2475	.0846	-.0790	3860.		
.0650	2000.	-694.	-3091.	-8721.	-2764.	1723.	.1739	-.1448	.0023	.2374	.0986	-.0728	3736.		
.0660	1367.	-1416.	-4166.	-7668.	-4348.	1873.	.1691	-.1426	.0001	.2162	.1051	-.0602	3616.		
.0670	-777.	-1924.	-5660.	-6145.	-6000.	1846.	.1613	-.1395	-.0023	.1894	.1089	-.0444	3525.		
.0680	-1071.	-1720.	-6412.	-4240.	-7018.	991.	.1515	-.1372	-.0051	.1629	.1153	-.0289	3314.		
.0690	1405.	-947.	-5502.	-2027.	-6771.	-367.	.1398	-.1351	-.0083	.1357	.1240	-.0149	2840.		
.0700	1548.	-289.	-4197.	307.	-5790.	-1315.	.1269	-.1310	-.0128	.1050	.1302	-.0013	2386.		
.0710	-1365.	-141.	-3399.	2413.	-4820.	-1538.	.1131	-.1245	-.0180	.0737	.1332	.0138	2249.		

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

.0610	-2261.	-752.	-3390.	-9347.	-700.	1876.	.1434	-1489	.0213	.2388	.0127	-.0655	3836.
.0620	-388.	-380.	-2359.	-9631.	-526.	2210.	.1564	-1457	.0170	.2445	.0390	-.0736	3971.
.0630	1009.	-187.	-1939.	-9588.	-661.	2249.	.1670	-1444	.0113	.2482	.0635	-.0784	3961.
.0640	1582.	-251.	-2315.	-9311.	-1436.	1939.	.1734	-1449	.0059	.2475	.0846	-.0790	3860.
.0650	2000.	-694.	-3091.	-8721.	-2764.	1723.	.1739	-1448	.0023	.2374	.0986	-.0728	3736.
.0660	1367.	-1416.	-4166.	-7668.	-4348.	1873.	.1691	-1426	.0001	.2162	.1051	-.0602	3616.
.0670	-777.	-1924.	-5662.	-6145.	-6000.	1846.	.1613	-1395	-.0023	.1894	.1089	-.0444	3525.
.0680	-1071.	-1720.	-6412.	-4240.	-7018.	991.	.1515	-1372	-.0051	.1629	.1153	-.0289	3314.
.0690	1405.	-947.	-5502.	-2027.	-6771.	-367.	.1398	-1351	-.0083	.1357	.1240	-.0149	2840.
.0700	1548.	-289.	-4197.	307.	-5790.	-1315.	.1269	-1310	-.0128	.1050	.1302	-.0013	2386.
.0710	-1365.	-141.	-3399.	2413.	-4820.	-1538.	.1131	-1245	-.0180	.0737	.1332	.0138	2249.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.26.

S/R 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	27	MEMBER	1	SEQUENCE	50	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.0720	-814.	-314.	-2008.	3994.	-3744.	-1443.	.0972	-.1167	-.0215	.0476	.1354	.0297	2272.		
.0730	3775.	-565.	-39.	4974.	-2623.	-1398.	.0788	-.1092	-.0226	.0286	.1349	.0439	2325.		
.0740	5128.	-844.	642.	5433.	-2179.	-1493.	.0587	-.1024	-.0225	.0147	.1258	.0541	2424.		
.0750	1990.	-969.	-74.	5525.	-2436.	-1811.	.0371	-.0959	-.0211	.0039	.1071	.0596	2530.		
.0760	-280.	-643.	-508.	5451.	-2581.	-2410.	.0141	-.0889	-.0174	-.0045	.0840	.0612	2606.		
.0770	-809.	121.	-357.	5356.	-2292.	-3112.	-.0084	-.0807	-.0123	-.0108	.0610	.0601	2650.		
.0780	-2216.	1009.	-202.	5231.	-1670.	-3662.	-.0282	-.0712	-.0074	-.0151	.0397	.0572	2648.		
.0790	-2990.	1758.	699.	4973.	-398.	-3955.	-.0454	-.0609	-.0025	-.0172	.0216	.0533	2555.		
.0800	-1308.	2154.	2057.	4511.	1581.	-3883.	-.0604	-.0502	.0034	-.0179	.0066	.0489	2471.		
.0810	-449.	1946.	4688.	3849.	3330.	-3225.	-.0729	-.0392	.0098	-.0179	-.0089	.0445	2418.		
.0820	-1703.	1108.	4977.	3039.	4039.	-1940.	-.0823	-.0280	.0169	-.0167	-.0266	.0401	2173.		
.0830	-1289.	-24.	4408.	2138.	3798.	-331.	-.0895	-.0167	.0258	-.0132	-.0452	.0357	1754.		
.0840	854.	-1116.	3312.	1189.	2795.	1255.	-.0948	-.0054	.0363	-.0083	-.0638	.0303	1319.		
.0850	129.	-2053.	1216.	242.	1176.	2658.	-.0976	.0057	.0465	-.0051	-.0826	.0221	1170.		
.0860	-2977.	-2681.	-867.	-647.	-233.	3724.	-.0974	.0164	.0550	-.0053	-.0978	.0091	1520.		
.0870	-3574.	-2749.	-1160.	-1461.	-484.	4223.	-.0947	.0267	.0619	-.0071	-.1031	-.0086	1804.		
.0880	-1472.	-2242.	285.	-2208.	416.	4184.	-.0890	.0368	.0665	-.0080	-.0970	-.0288	1906.		
.0890	-88.	-1434.	2231.	-2850.	1889.	3986.	-.0803	.0472	.0679	-.0086	-.0843	-.0500	2107.		
.0900	339.	-556.	4155.	-3316.	3512.	3907.	-.0697	.0577	.0665	-.0099	-.0699	-.0716	2493.		
.0910	1273.	338.	5713.	-3650.	4782.	3849.	-.0590	.0670	.0635	-.0104	-.0574	-.0936	2866.		
.0920	2093.	1160.	6144.	-4024.	5135.	3640.	-.0490	.0738	.0593	-.0080	-.0496	-.1148	2998.		
.0930	1837.	1731.	5218.	-4570.	4508.	3352.	-.0402	.0781	.0541	-.0031	-.0484	-.1335	2906.		
.0940	1012.	1939.	3472.	-5231.	3292.	3163.	-.0330	.0805	.0478	.0019	-.0535	-.1472	2786.		
.0950	13.	1831.	1344.	-5774.	1826.	3137.	-.0271	.0816	.0402	.0046	-.0631	-.1547	2737.		
.0960	-1142.	1558.	-834.	-5925.	469.	3204.	-.0221	.0814	.0304	.0036	-.0754	-.1570	2710.		
.0970	-2086.	1298.	-2625.	-5530.	-378.	3198.	-.0176	.0795	.0179	-.0007	-.0886	-.1552	2568.		
.0980	-2680.	1151.	-3875.	-4634.	-628.	2936.	-.0137	.0756	.0030	-.0061	-.1016	-.1487	2216.		
.0990	-3046.	1041.	-4688.	-3403.	-488.	2448.	-.0107	.0706	-.0131	-.0114	-.1137	-.1365	1694.		
.1000	-2937.	776.	-5002.	-1994.	-104.	2004.	-.0090	.0656	-.0292	-.0186	-.1240	-.1193	1135.		
.1010	-2352.	280.	-4811.	-528.	397.	1741.	-.0082	.0615	-.0441	-.0305	-.1316	-.0986	747.		
.1020	-2036.	-252.	-4462.	872.	760.	1395.	-.0080	.0580	-.0572	-.0447	-.1356	-.0761	727.		
.1030	-2274.	-479.	-4192.	2132.	855.	581.	-.0073	.0548	-.0682	-.0588	-.1347	-.0532	951.		
.1040	-2278.	-184.	-3787.	3293.	839.	-772.	-.0053	.0521	-.0771	-.0725	-.1270	-.0309	1399.		
.1050	-1945.	557.	-3190.	4480.	801.	-2393.	-.0011	.0508	-.0842	-.0870	-.1108	-.0095	2063.		
.1060	-1671.	1497.	-2452.	5743.	750.	-3983.	.0056	.0512	-.0896	-.1033	-.0856	.0118	2821.		
.1070	-723.	2434.	-1243.	6968.	866.	-5436.	.0142	.0526	-.0934	-.1201	-.0525	.0329	3564.		
.1080	463.	3266.	406.	7925.	1327.	-6828.	.0251	.0537	-.0968	-.1341	-.0128	.0528	4231.		
.1090	1738.	3790.	2440.	8484.	2381.	-8078.	.0400	.0536	-.1030	-.1411	.0344	.0710	4797.		

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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

.0990	-3046.	1041.	-4688.	-3403.	-488.	2448.	-.0107	.0706	-.0131	-.0114	-.1137	-.1365	1694.
.1000	-2937.	776.	-5002.	-1994.	-104.	2004.	-.0090	.0656	-.0292	-.0188	-.1240	-.1193	1135.
.1010	-2352.	280.	-4811.	-528.	397.	1741.	-.0082	.0615	-.0441	-.0305	-.1316	-.0986	747.
.1020	-2036.	-252.	-4462.	872.	760.	1395.	-.0080	.0580	-.0572	-.0447	-.1356	-.0761	727.
.1020	-2274.	-479.	-4192.	2172.	855.	581.	-.0073	.0548	-.0682	-.0588	-.1347	-.0532	951.
.1040	-2278.	-184.	-3787.	3293.	839.	-772.	-.0053	.0521	-.0771	-.0725	-.1270	-.0309	1399.
.1050	-1945.	557.	-3190.	4480.	801.	-2393.	-.0011	.0508	-.0842	-.0870	-.1108	-.0095	2063.
.1060	-1671.	1497.	-2452.	5743.	750.	-7983.	.0056	.0512	-.0896	-.1033	-.0856	.0118	2821.
.1070	-723.	2434.	-1243.	6968.	866.	-5436.	.0142	.0526	-.0934	-.1201	-.0525	.0329	3564.
.1080	463.	3266.	406.	7925.	1227.	-6828.	.0251	.0537	-.0968	-.1341	-.0128	.0528	4231.
.1090	1738.	3790.	2440.	8484.	2381.	-8078.	.0400	.0536	-.1030	-.1411	.0344	.0710	4797.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.26.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
.1100	7925.	3449.	5197.	8795.	3201.	-8255.	.0524	.0552	-.1046	-.1454	.0808	.0908	5008.							
.1110	10464.	2226.	5709.	8769.	2418.	-7107.	.0622	.0594	-.1025	-.1509	.1154	.1110	4632.							
.1120	6729.	822.	3513.	8249.	229.	-5459.	.0699	.0644	-.0981	-.1547	.1349	.1261	3971.							
.1130	3735.	-207.	1051.	7332.	-2128.	-4234.	.0749	.0672	-.0907	-.1492	.1455	.1333	3503.							
.1140	3379.	-1019.	-709.	6228.	-4072.	-3325.	.0781	.0685	-.0812	-.1339	.1524	.1339	3271.							
.1150	1742.	-2014.	-2276.	5059.	-5461.	-1880.	.0811	.0718	-.0720	-.1182	.1558	.1305	3081.							
.1160	-38.	-3207.	-2792.	3854.	-5712.	356.	.0833	.0789	-.0637	-.1079	.1570	.1239	2769.							
.1170	-93.	-4287.	-2053.	2640.	-4992.	2650.	.0843	.0879	-.0558	-.0984	.1579	.1140	2503.							
.1180	4772.	-4817.	410.	1453.	-3467.	4115.	.0805	.0958	-.0458	-.0851	.1574	.0992	2237.							
.1190	3862.	-4490.	912.	236.	-2813.	4291.	.0741	.1011	-.0363	-.0690	.1476	.0769	2061.							
.1200	-1413.	-3115.	-354.	-908.	-3020.	3282.	.0659	.1047	-.0271	-.0543	.1288	.0470	1826.							
.1210	35.	-1078.	42.	-1762.	-2640.	1751.	.0547	.1086	-.0172	-.0422	.1106	.0145	1455.							
.1220	509.	515.	-464.	-2296.	-3033.	797.	.0432	.1147	-.0083	-.0346	.0926	-.0137	1560.							
.1230	-418.	1343.	-1143.	-2703.	-3505.	732.	.0308	.1230	-.0010	-.0337	.0751	-.0362	1800.							
.1240	-2398.	1852.	-1526.	-3111.	-3585.	839.	.0181	.1308	.0040	-.0361	.0587	-.0550	1934.							
.1250	-2277.	2403.	-987.	-3340.	-3132.	453.	.0048	.1355	.0076	-.0364	.0457	-.0704	1846.							
.1260	1833.	2807.	972.	-3086.	-1955.	-121.	-.0102	.1372	.0100	-.0359	.0360	-.0814	1467.							
.1270	-595.	2688.	1050.	-2276.	-1344.	-177.	-.0228	.1385	.0079	-.0405	.0229	-.0867	1063.							
.1280	-2053.	2313.	1597.	-1040.	-157.	308.	-.0343	.1410	.0026	-.0521	.0097	-.0851	440.							
.1290	296.	1835.	2895.	424.	1348.	992.	-.0449	.1447	-.0037	-.0677	-.0017	-.0757	693.							
.1300	2191.	1218.	3590.	1890.	2414.	1566.	-.0544	.1479	-.0103	-.0860	-.0143	-.0616	1382.							
.1310	3917.	749.	4359.	3091.	3488.	1585.	-.0651	.1492	-.0160	-.1070	-.0313	-.0485	1975.							
.1320	1137.	747.	3682.	3865.	3828.	636.	-.0757	.1477	-.0209	-.1275	-.0552	-.0381	2198.							
.1330	290.	1282.	3312.	4424.	4136.	-1007.	-.0869	.1449	-.0240	-.1445	-.0807	-.0284	2464.							
.1340	-18.	1903.	2676.	5097.	4154.	-2359.	-.0969	.1436	-.0258	-.1597	-.1056	-.0169	2803.							
.1350	-1586.	2427.	1532.	5882.	3951.	-3014.	-.1038	.1444	-.0276	-.1748	-.1280	-.0047	3090.							
.1360	512.	3119.	1994.	6446.	4635.	-3556.	-.1094	.1451	-.0284	-.1864	-.1429	.0056	3491.							
.1370	1393.	3811.	2703.	6510.	5511.	-4340.	-.1129	.1435	-.0290	-.1906	-.1517	.0138	3841.							
.1380	2636.	4143.	4259.	6069.	6778.	-5001.	-.1164	.1394	-.0280	-.1883	-.1553	.0199	4166.							
.1390	1926.	3898.	5123.	5206.	7428.	-5081.	-.1194	.1342	-.0254	-.1817	-.1571	.0255	4172.							
.1400	692.	3284.	4740.	4075.	6860.	-4595.	-.1216	.1286	-.0200	-.1709	-.1575	.0318	3695.							
.1410	3484.	2519.	4609.	2914.	5827.	-3712.	-.1246	.1221	-.0113	-.1555	-.1552	.0379	3009.							
.1420	2079.	1460.	2778.	1832.	3747.	-2486.	-.1259	.1140	-.0021	-.1360	-.1536	.0421	1948.							
.1430	-1248.	311.	740.	725.	1654.	-1260.	-.1258	.1038	.0069	-.1123	-.1491	.0429	884.							
.1440	-3419.	-679.	-454.	-482.	107.	-291.	-.1233	.0925	.0155	-.0848	-.1370	.0415	230.							
.1450	-2638.	-1561.	-271.	-1611.	-639.	705.	-.1179	.0822	.0240	-.0575	-.1153	.0398	751.							
.1460	1129.	-2434.	1446.	-2452.	-446.	2005.	-.1106	.0741	.0322	-.0349	-.0867	.0381	1284.							
.1470	477.	-3073.	2002.	-3025.	-620.	3135.	-.1000	.0669	.0384	-.0164	-.0579	.0348	1766.							

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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18.27.26.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.1370	1393.	3811.	2703.	6510.	5511.	-4340.	-1129	.1435	-.0290	-.1906	-.1517	.0058	3491.
.1380	2636.	4143.	4259.	6069.	6778.	-5001.	-.1164	.1394	-.0280	-.1883	-.1553	.0199	4166.
.1390	1926.	3898.	5123.	5206.	7428.	-5081.	-.1194	.1342	-.0254	-.1817	-.1571	.0255	4172.
.1400	692.	3294.	4740.	4075.	6860.	-4595.	-.1216	.1286	-.0200	-.1709	-.1575	.0318	3695.
.1410	3484.	2519.	4609.	2914.	5827.	-3712.	-.1246	.1221	-.0113	-.1555	-.1552	.0379	3009.
.1420	2079.	1460.	2778.	1872.	3747.	-2486.	-.1259	.1140	-.0021	-.1360	-.1536	.0421	1948.
.1430	-1248.	311.	740.	725.	1654.	-1260.	-.1258	.1038	.0069	-.1123	-.1491	.0429	884.
.1440	-3419.	-679.	-454.	-482.	107.	-291.	-.1233	.0925	.0155	-.0848	-.1370	.0415	230.
.1450	-2638.	-1561.	-271.	-1611.	-639.	705.	-.1179	.0822	.0240	-.0575	-.1153	.0398	751.
.1460	1129.	-2434.	1446.	-2452.	-446.	2005.	-.1106	.0741	.0322	-.0349	-.0867	.0381	1284.
.1470	477.	-3073.	2002.	-3025.	-620.	3135.	-.1000	.0669	.0384	-.0164	-.0579	.0348	1766.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU	DX	DY	DZ	RX	RY	RZ	STRESS
TIME	FX	FY	FZ	MX	MY	MZ	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)							
.1480	813.	-2845.	2694.	-3378.	-708.	3222.	-.0888	.0587	.0440	.0012	-.0299	.0283	1894.
.1490	1489.	-1742.	2908.	-3440.	-1097.	2181.	-.0771	.0486	.0489	.0189	-.0054	.0191	1693.
.1500	-510.	-352.	1567.	-3158.	-2318.	726.	-.0641	.0381	.0521	.0337	.0137	.0100	1599.
.1510	-1001.	887.	277.	-2662.	-3616.	-590.	-.0516	.0283	.0543	.0435	.0306	.0040	1817.
.1520	-1834.	1751.	-1150.	-2153.	-4935.	-1671.	-.0384	.0191	.0542	.0497	.0466	.0029	2262.
.1530	-682.	2229.	-1322.	-1642.	-5332.	-2548.	-.0254	.0097	.0515	.0543	.0540	.0059	2461.
.1540	-1353.	2269.	-1393.	-1015.	-5204.	-3137.	-.0113	-.0004	.0447	.0588	.0817	-.0124	2472.
.1550	-2584.	2034.	-1455.	-190.	-4772.	-3417.	.0041	-.0108	.0347	.0636	.1004	.0218	2356.
.1560	1073.	1718.	-102.	817.	-3621.	-3376.	.0182	-.0203	.0242	.0679	.1205	.0340	2014.
.1570	1442.	1117.	-49.	1895.	-3096.	-2876.	.0323	-.0285	.0124	.0699	.1357	.0489	1858.
.1580	239.	272.	-586.	2895.	-2920.	-2067.	.0445	-.0356	.0007	.0693	.1452	.0648	1847.
.1590	1300.	-506.	-576.	3607.	-2686.	-1487.	.0532	-.0427	-.0090	.0675	.1506	.0791	1901.
.1600	992.	-1046.	-1236.	3913.	-2951.	-1473.	.0596	-.0504	-.0174	.0659	.1508	.0903	2054.
.1610	-976.	-1297.	-2480.	4004.	-3503.	-1808.	.0646	-.0574	-.0247	.0626	.1459	.0983	2255.
.1620	661.	-1246.	-2344.	4138.	-3248.	-2172.	.0675	-.0626	-.0306	.0564	.1394	.1035	2284.
.1630	649.	-1053.	-2660.	4339.	-3086.	-2461.	.0702	-.0656	-.0359	.0487	.1304	.1067	2354.
.1640	550.	-665.	-2758.	4515.	-2655.	-2752.	.0718	-.0670	-.0401	.0405	.1197	.1071	2376.
.1650	2488.	-74.	-1651.	4566.	-1401.	-3127.	.0711	-.0675	-.0424	.0325	.1078	.1040	2291.
.1660	1630.	477.	-1043.	4377.	-246.	-3535.	.0693	-.0677	-.0433	.0269	.0925	.0984	2260.
.1670	1615.	872.	-63.	3912.	975.	-3867.	.0649	-.0677	-.0415	.0241	.0754	.0912	2242.
.1680	979.	988.	407.	3262.	1704.	-3806.	.0590	-.0666	-.0372	.0222	.0559	.0837	2125.
.1690	1405.	854.	866.	2551.	2226.	-3264.	.0515	-.0644	-.0307	.0207	.0349	.0763	1887.
.1700	1085.	489.	770.	1795.	2352.	-2502.	.0433	-.0623	-.0235	.0228	.0136	.0690	1555.
.1710	-2695.	-48.	-781.	990.	1669.	-1730.	.0363	-.0607	-.0167	.0297	-.0070	.0617	1043.
.1720	-1727.	-541.	-857.	201.	1626.	-937.	.0288	-.0593	-.0092	.0389	-.0217	.0540	757.
.1730	-1142.	-1127.	-1041.	-550.	1509.	10.	.0226	-.0572	-.0021	.0482	-.0315	.0464	645.
.1740	-1258.	-1831.	-1279.	-1276.	1338.	1034.	.0172	-.0546	.0046	.0575	-.0363	.0386	850.
.1750	526.	-2442.	-638.	-1982.	1547.	1921.	.0112	-.0516	.0118	.0667	-.0364	.0298	1270.
.1760	597.	-2747.	-448.	-2644.	1496.	2479.	.0054	-.0484	.0193	.0755	-.0349	.0189	1573.
.1770	1600.	-2540.	79.	-3158.	1536.	2568.	-.0015	-.0452	.0278	.0835	-.0322	.0052	1746.
.1780	522.	-1928.	-167.	-3426.	1120.	2289.	-.0084	-.0420	.0367	.0897	-.0305	-.0108	1713.
.1790	332.	-1024.	-50.	-3443.	861.	1826.	-.0163	-.0385	.0464	.0928	-.0288	-.0284	1602.
.1800	923.	-17.	619.	-3337.	968.	1290.	-.0250	-.0350	.0560	.0929	-.0269	-.0461	1487.
.1810	-1866.	854.	441.	-3194.	821.	747.	-.0327	-.0320	.0639	.0915	-.0262	-.0621	1357.
.1820	-1462.	1601.	1468.	-2946.	1370.	266.	-.0409	-.0297	.0711	.0888	-.0239	-.0758	1308.
.1830	-140.	2133.	2659.	-2558.	2058.	-27.	-.0485	-.0284	.0768	.0847	-.0219	-.0864	1317.
.1840	563.	2397.	3386.	-2097.	2535.	-121.	-.0556	-.0282	.0808	.0796	-.0218	-.0941	1321.
.1850	754.	2399.	3661.	-1640.	2756.	-51.	-.0628	-.0294	.0832	.0749	-.0250	-.0984	1287.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.26.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.1750	527.	-2442.	-638.	-1982.	1547.	1921.	.0112	-.0516	.0118	.0667	-.0364	.0298	1270.
.1760	597.	-2747.	-448.	-2644.	1496.	2479.	.0054	-.0484	.0193	.0755	-.0349	.0189	1573.
.1770	1600.	-2540.	79.	-3158.	1536.	2568.	-.0015	-.0452	.0278	.0835	-.0322	.0052	1746.
.1780	522.	-1928.	-167.	-2426.	1120.	2259.	-.0084	-.0420	.0367	.0897	-.0305	-.0108	1713.
.1790	332.	-1024.	-50.	-3443.	861.	1026.	-.0163	-.0385	.0464	.0928	-.0288	-.0284	1602.
.1800	923.	-17.	619.	-3337.	968.	1290.	-.0250	-.0350	.0560	.0929	-.0269	-.0461	1487.
.1810	-1866.	854.	441.	-3194.	821.	747.	-.0327	-.0320	.0639	.0915	-.0262	-.0621	1357.
.1820	-1462.	1601.	1468.	-2946.	1370.	266.	-.0409	-.0297	.0711	.0888	-.0239	-.0758	1308.
.1830	-140.	2133.	2659.	-2558.	2058.	-27.	-.0485	-.0284	.0768	.0847	-.0219	-.0864	1317.
.1840	563.	2397.	3386.	-2097.	2535.	-121.	-.0556	-.0282	.0808	.0796	-.0218	-.0941	1321.
.1850	754.	2399.	3661.	-1640.	2756.	-51.	-.0628	-.0294	.0832	.0749	-.0250	-.0984	1287.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.26.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
27	1	50					.1860	-805.	2160.	2954.	-1216.	2414.	193.	-.0693	-.0316	.0841	.0712	-.0319	-.0986	1087.
							.1870	-274.	1806.	2551.	-862.	2086.	563.	-.0761	-.0345	.0845	.0686	-.0397	-.0954	933.
							.1880	-1171.	1310.	1452.	-648.	1332.	997.	-.0817	-.0383	.0836	.0670	-.0485	-.0896	717.
							.1890	-2303.	742.	457.	-579.	662.	1418.	-.0860	-.0428	.0814	.0661	-.0563	-.0823	669.
							.1900	-2301.	210.	282.	-597.	546.	1763.	-.0891	-.0478	.0778	.0659	-.0614	-.0734	779.
							.1910	-3977.	-255.	-117.	-641.	529.	2001.	-.0889	-.0530	.0718	.0668	-.0637	-.0627	869.
							.1920	-4206.	-562.	67.	-629.	923.	2118.	-.0859	-.0580	.0641	.0682	-.0615	-.0511	961.
							.1930	-3335.	-725.	542.	-505.	1510.	2151.	-.0799	-.0627	.0552	.0684	-.0558	-.0391	1074.
							.1940	-2877.	-789.	806.	-292.	2003.	2063.	-.0709	-.0672	.0454	.0669	-.0483	-.0271	1160.
							.1950	-2737.	-755.	888.	-78.	2346.	1738.	-.0595	-.0719	.0354	.0642	-.0401	-.0155	1172.
							.1960	-2288.	-637.	901.	73.	2516.	1150.	-.0465	-.0771	.0261	.0608	-.0315	-.0050	1110.
							.1970	-1858.	-509.	639.	195.	2391.	462.	-.0319	-.0824	.0176	.0565	-.0227	.0044	980.
							.1980	-1659.	-446.	58.	385.	1979.	-100.	-.0161	-.0871	.0101	.0510	-.0142	.0133	810.
							.1990	-1361.	-469.	-571.	686.	1469.	-436.	.0006	-.0911	.0035	.0450	-.0057	.0214	674.
							.2000	-1204.	-557.	-1145.	1050.	994.	-596.	.0178	-.0947	-.0023	.0398	.0029	.0280	628.
							.2010	-1419.	-690.	-1656.	1396.	618.	-656.	.0354	-.0982	-.0078	.0370	.0123	.0328	667.
							.2020	-1164.	-889.	-1841.	1646.	456.	-621.	.0527	-.1017	-.0128	.0374	.0232	.0354	729.
							.2030	-42.	-1209.	-1624.	1724.	474.	-429.	.0690	-.1047	-.0169	.0406	.0350	.0362	738.
							.2040	867.	-1646.	-1443.	1572.	394.	-63.	.0836	-.1070	-.0199	.0457	.0458	.0351	651.
							.2050	1026.	-2055.	-1599.	1194.	34.	338.	.0963	-.1086	-.0218	.0526	.0545	.0313	498.
							.2060	1128.	-2224.	-1973.	639.	-555.	530.	.1065	-.1101	-.0223	.0623	.0607	.0239	401.
							.2070	1350.	-2052.	-2492.	-47.	-1293.	390.	.1142	-.1115	-.0217	.0747	.0648	.0127	542.
							.2080	979.	-1621.	-3217.	-817.	-2120.	59.	.1198	-.1125	-.0203	.0886	.0668	-.0013	912.
							.2090	135.	-1103.	-3892.	-1605.	-2826.	-211.	.1233	-.1123	-.0184	.1018	.0675	-.0165	1307.
							.2100	-221.	-620.	-4086.	-2345.	-3150.	-298.	.1249	-.1107	-.0162	.1135	.0580	-.0316	1580.
							.2110	-25.	-217.	-3791.	-3001.	-3048.	-250.	.1249	-.1081	-.0141	.1235	.0688	-.0459	1719.
							.2120	274.	102.	-3248.	-3545.	-2632.	-145.	.1235	-.1052	-.0122	.1318	.0692	-.0589	1773.
							.2130	503.	311.	-2658.	-3929.	-2056.	19.	.1206	-.1019	-.0105	.1377	.0678	-.0697	1779.
							.2140	470.	359.	-2262.	-4095.	-1538.	298.	.1159	-.0983	-.0088	.1400	.0637	-.0773	1759.
							.2150	19.	238.	-2239.	-4016.	-1236.	718.	.1095	-.0939	-.0069	.1380	.0566	-.0808	1711.
							.2160	-570.	4.	-2480.	-3719.	-1112.	1194.	.1016	-.0890	-.0048	.1315	.0472	-.0807	1629.
							.2170	-906.	-259.	-2684.	-3263.	-1002.	1561.	.0924	-.0840	-.0026	.1215	.0372	-.0773	1506.
							.2180	-1171.	-490.	-2692.	-2702.	-788.	1710.	.0819	-.0790	-.0004	.1092	.0275	-.0712	1322.
							.2190	-1563.	-657.	-2448.	-2048.	-419.	1672.	.0707	-.0738	.0016	.0949	.0190	-.0627	1074.
							.2200	-1726.	-739.	-1903.	-1300.	106.	1544.	.0588	-.0681	.0035	.0788	.0121	-.0523	811.
							.2210	-1438.	-715.	-1153.	-491.	679.	1355.	.0466	-.0617	.0053	.0618	.0070	-.0408	639.
							.2220	-976.	-574.	-404.	298.	1158.	1056.	.0339	-.0550	.0071	.0456	.0031	-.0288	640.
							.2230	-572.	-336.	244.	964.	1481.	613.	.0209	-.0485	.0090	.0313	-.0006	-.0171	751.

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83/12/02.

18.27.26.

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

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

.2120	274.	102.	248.	-3545.	-2632.	-143.	1235	-1052	-.0122	.1318	.0692	-.0589	1773.
.2130	503.	311.	-2658.	-3929.	-2056.	19.	1206	-.1019	-.0105	.1377	.0678	-.0697	1779.
.2140	470.	359.	-2262.	-4095.	-1538.	298.	.1159	-.0983	-.0088	.1400	.0637	-.0773	1759.
.2150	19.	238.	-2239.	-4016.	-1236.	718.	.1095	-.0939	-.0069	.1380	.0566	-.0808	1711.
.2160	-570.	4.	-2480.	-3719.	-1112.	1194.	.1016	-.0890	-.0048	.1315	.0472	-.0807	1629.
.2170	-906.	-259.	-2684.	-3263.	-1002.	1561.	.0924	-.0840	-.0026	.1215	.0372	-.0773	1506.
.2180	-1171.	-490.	-2692.	-2702.	-788.	1710.	.0819	-.0790	-.0004	.1092	.0275	-.0712	1322.
.2190	-1563.	-657.	-2448.	-2048.	-419.	1672.	.0707	-.0738	.0016	.0949	.0190	-.0627	1074.
.2200	-1726.	-739.	-1903.	-1300.	106.	1544.	.0588	-.0681	.0035	.0788	.0121	-.0523	811.
.2210	-1438.	-715.	-1153.	-491.	679.	1355.	.0466	-.0617	.0053	.0618	.0070	-.0408	639.
.2220	-976.	-574.	-404.	298.	1158.	1056.	.0339	-.0550	.0071	.0456	.0031	-.0288	640.
.2230	-572.	-336.	244.	964.	1481.	613.	.0209	-.0485	.0090	.0313	-.0006	-.0171	751.

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
27	1	50					.2240	-284.	-75.	744.	1422.	1599.	70.	.0074	-.0424	.0110	.0192	-.0050	-.0066	859.
							.2250	-123.	110.	1015.	1645.	1451.	-463.	-.0067	-.0367	.0133	.0091	-.0104	.0026	900.
							.2260	52.	170.	1072.	1668.	1064.	-881.	-.0211	-.0312	.0159	.0010	-.0170	.0103	869.
							.2270	311.	134.	1007.	1549.	566.	-1157.	-.0355	-.0259	.0185	-.0050	-.0249	.0164	808.
							.2280	375.	63.	852.	1341.	68.	-1336.	-.0495	-.0209	.0210	-.0088	-.0341	.0202	760.
							.2290	115.	4.	654.	1100.	-337.	-1451.	-.0627	-.0162	.0230	-.0105	-.0441	.0214	743.
							.2300	-139.	-36.	570.	872.	-542.	-1468.	-.0747	-.0116	.0247	-.0109	-.0541	.0199	719.
							.2310	-254.	-81.	657.	660.	-521.	-1347.	-.0853	-.0066	.0260	-.0110	-.0638	.0161	637.
							.2320	-505.	-142.	782.	431.	-377.	-1114.	-.0941	-.0011	.0271	-.0112	-.0730	.0105	503.
							.2330	-880.	-186.	847.	172.	-212.	-852.	-.1009	.0048	.0282	-.0117	-.0815	.0035	359.
							.2340	-1130.	-152.	835.	-83.	-85.	-657.	-.1056	.0109	.0291	-.0127	-.0890	-.0049	268.
							.2350	-1426.	3.	647.	-289.	-62.	-592.	-.1080	.0171	.0298	-.0146	-.0951	-.0145	265.
							.2360	-2013.	286.	235.	-416.	-165.	-667.	-.1079	.0233	.0301	-.0175	-.0992	-.0246	323.
							.2370	-2577.	667.	-212.	-449.	-288.	-841.	-.1050	.0298	.0296	-.0214	-.1002	-.0342	400.
							.2380	-2737.	1092.	-453.	-393.	-291.	-1053.	-.0995	.0364	.0284	-.0262	-.0970	-.0426	466.
							.2390	-2578.	1496.	-412.	-273.	-116.	-1258.	-.0914	.0430	.0261	-.0316	-.0892	-.0493	519.
							.2400	-2239.	-90.	-129.	239.	-1425.	-.0811	.0495	.0228	-.0372	-.0772	-.0542	582.	
							.2410	-1723.	2049.	450.	13.	710.	-1508.	-.0691	.0557	.0186	-.0426	-.0521	-.0571	669.
							.2420	-1232.	2116.	984.	138.	1133.	-1458.	-.0560	.0616	.0136	-.0473	-.0454	-.0577	743.
							.2430	-909.	2010.	1282.	243.	1347.	-1248.	-.0421	.0670	.0079	-.0509	-.0289	-.0559	743.
							.2440	-481.	1752.	1358.	314.	1345.	-897.	-.0281	.0721	.0018	-.0536	-.0131	-.0519	661.
							.2450	76.	1384.	1281.	337.	1187.	-469.	-.0143	.0766	-.0047	-.0556	.0011	-.0462	530.
							.2460	372.	951.	1048.	309.	921.	-47.	-.0010	.0805	-.0115	-.0573	.0131	-.0392	390.
							.2470	247.	521.	634.	259.	568.	295.	.0113	.0838	-.0188	-.0589	.0221	-.0313	277.
							.2480	277.	177.	173.	234.	198.	508.	.0224	.0866	-.0263	-.0608	.0283	-.0229	238.
							.2490	867.	-38.	-196.	261.	-109.	572.	.0321	.0891	-.0338	-.0632	.0322	-.0145	256.
							.2500	1534.	-126.	-503.	335.	-338.	497.	.0403	.0915	-.0411	-.0666	.0340	-.0061	276.
							.2510	1809.	-112.	-746.	442.	-467.	307.	.0467	.0939	-.0482	-.0711	.0335	.0021	286.
							.2520	1763.	-20.	-887.	578.	-495.	29.	.0514	.0963	-.0546	-.0767	.0310	.0100	306.
							.2530	1653.	115.	-952.	750.	-483.	-301.	.0542	.0987	-.0601	-.0830	.0275	.0176	378.
							.2540	1605.	246.	-996.	960.	-493.	-628.	.0554	.1012	-.0647	-.0898	.0237	.0251	501.
							.2550	1569.	324.	-1014.	1205.	-531.	-888.	.0552	.1038	-.0683	-.0972	.0200	.0326	637.
							.2560	1391.	317.	-991.	1477.	-583.	-1057.	.0537	.1067	-.0712	-.1051	.0171	.0404	766.
							.2570	1067.	237.	-919.	1767.	-646.	-1163.	.0512	.1097	-.0734	-.1133	.0155	.0483	887.
							.2580	937.	124.	-735.	2070.	-693.	-1249.	.0479	.1126	-.0749	-.1218	.0160	.0557	1009.
							.2590	1225.	28.	-408.	2374.	-708.	-1353.	.0440	.1156	-.0757	-.1300	.0188	.0622	1133.
							.2600	1641.	-27.	-50.	2640.	-749.	-1477.	.0394	.1187	-.0760	-.1378	.0232	.0677	1251.
							.2610	1853.	-52.	221.	2842.	-879.	-1579.	.0343	.1221	-.0755	-.1452	.0281	.0721	1351.

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18.27.26.

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

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

.2510	1809.	-112.	-746.	442.	-467.	307.	.0467	.0939	-.0482	-.0711	.0335	-.0021	276.
.2520	1763.	-20.	-887.	578.	-495.	29.	.0514	.0963	-.0546	-.0767	.0310	-.0100	306.
.2530	1653.	115.	-952.	750.	-483.	-301.	.0542	.0987	-.0601	-.0830	.0275	-.0176	378.
.2540	1605.	246.	-996.	960.	-493.	-628.	.0554	.1012	-.0647	-.0898	.0237	-.0251	501.
.2550	1569.	324.	-1014.	1205.	-531.	-888.	.0552	.1038	-.0683	-.0972	.0200	-.0326	637.
.2560	1391.	317.	-991.	1477.	-582.	-1057.	.0537	.1067	-.0712	-.1051	.0171	-.0404	766.
.2570	1067.	237.	-919.	1767.	-646.	-1163.	.0512	.1097	-.0734	-.1133	.0155	-.0483	887.
.2580	937.	124.	-735.	2070.	-693.	-1249.	.0479	.1126	-.0749	-.1218	.0160	-.0557	1009.
.2590	1225.	28.	-408.	2374.	-708.	-1353.	.0440	.1156	-.0757	-.1300	.0188	-.0622	1133.
.2600	1641.	-27.	-50.	2640.	-749.	-1477.	.0394	.1187	-.0760	-.1378	.0232	-.0677	1251.
.2610	1853.	-52.	221.	2842.	-879.	-1579.	.0343	.1221	-.0755	-.1452	.0281	-.0721	1351.

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

CONDITION 24

LOADS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU	DX	DY	DZ	RX	RY	RZ	STRESS
TIME	FX	FY	FZ	MX	MY	MZ	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)							
.2620	1912.	-67.	390.	2979.	-1107.	-1608.	.0284	.1259	-.0743	-.1521	.0328	.0748	1429.
.2630	1961.	-66.	469.	3041.	-1418.	-1578.	.0217	.1299	-.0722	-.1580	.0368	.0757	1488.
.2640	1929.	-25.	436.	3003.	-1798.	-1540.	.0142	.1340	-.0693	-.1624	.0395	.0744	1534.
.2650	1742.	50.	326.	2863.	-2194.	-1488.	.0059	.1381	-.0658	-.1652	.0403	.0712	1566.
.2660	1485.	135.	230.	2651.	-2524.	-1370.	-.0029	.1424	-.0618	-.1670	.0393	.0665	1569.
.2670	1259.	213.	204.	2409.	-2739.	-1165.	-.0120	.1469	-.0574	-.1685	.0366	.0604	1537.
.2680	1179.	305.	294.	2165.	-2799.	-918.	-.0213	.1513	-.0528	-.1697	.0326	.0532	1467.
.2690	1231.	452.	501.	1922.	-2698.	-706.	-.0305	.1555	-.0479	-.1705	.0273	.0451	1359.
.2700	1224.	658.	729.	1684.	-2500.	-561.	-.0396	.1592	-.0428	-.1707	.0204	.0366	1230.
.2710	1095.	867.	882.	1471.	-2297.	-436.	-.0485	.1624	-.0375	-.1706	.0120	.0283	1108.
.2720	1019.	1007.	961.	1306.	-2127.	-265.	-.0571	.1651	-.0319	-.1700	.0022	.0208	1007.
.2730	1040.	1067.	993.	1176.	-1980.	-44.	-.0655	.1672	-.0261	-.1689	-.0084	.0144	924.
.2740	912.	1098.	966.	1034.	-1831.	165.	-.0732	.1686	-.0203	-.1670	-.0195	.0091	847.
.2750	671.	1124.	972.	873.	-1605.	340.	-.0801	.1692	-.0149	-.1641	-.0303	.0051	746.
.2760	547.	1112.	1125.	739.	-1225.	534.	-.0860	.1693	-.0099	-.1603	-.0400	.0026	613.
.2770	556.	1039.	1436.	665.	-680.	783.	-.0906	.1687	-.0057	-.1560	-.0484	.0018	494.
.2780	590.	953.	1846.	635.	-4.	1032.	-.0940	.1675	-.0024	-.1512	-.0553	.0024	486.
.2790	630.	907.	2312.	622.	760.	1204.	-.0962	.1653	.0001	-.1457	-.0611	.0041	624.
.2800	629.	882.	2760.	631.	1535.	1293.	-.0972	.1622	.0016	-.1395	-.0659	.0067	844.
.2810	495.	826.	3079.	670.	2217.	1337.	-.0971	.1580	.0024	-.1328	-.0701	.0101	1073.
.2820	294.	743.	3219.	724.	2740.	1346.	-.0959	.1529	.0026	-.1260	-.0738	.0141	1259.
.2830	121.	671.	3199.	767.	3094.	1312.	-.0935	.1469	.0023	-.1192	-.0766	.0182	1383.
.2840	-93.	605.	3034.	798.	3291.	1256.	-.0899	.1402	.0014	-.1125	-.0783	.0222	1450.
.2850	-348.	508.	2780.	837.	3365.	1214.	-.0850	.1330	-.0000	-.1059	-.0784	.0263	1474.
.2860	-432.	377.	2542.	891.	3367.	1189.	-.0789	.1251	-.0018	-.0994	-.0763	.0302	1477.
.2870	-247.	249.	2375.	952.	3320.	1152.	-.0716	.1166	-.0040	-.0930	-.0718	.0336	1461.
.2880	32.	138.	2240.	1011.	3194.	1082.	-.0636	.1077	-.0062	-.0868	-.0652	.0365	1413.
.2890	281.	40.	2090.	1069.	2950.	972.	-.0549	.0982	-.0083	-.0806	-.0569	.0390	1318.
.2900	568.	-32.	1913.	1119.	2566.	799.	-.0461	.0882	-.0101	-.0743	-.0473	.0409	1168.
.2910	895.	-51.	1685.	1149.	2031.	538.	-.0373	.0776	-.0115	-.0678	-.0367	.0422	961.
.2920	1139.	-8.	1387.	1150.	1358.	192.	-.0287	.0666	-.0123	-.0608	-.0255	.0427	718.
.2930	1251.	76.	1048.	1118.	603.	-202.	-.0203	.0552	-.0125	-.0533	-.0140	.0427	516.
.2940	1295.	178.	719.	1051.	-169.	-594.	-.0123	.0436	-.0123	-.0450	-.0023	.0423	489.
.2950	1354.	271.	430.	955.	-906.	-936.	-.0045	.0320	-.0117	-.0358	.0096	.0417	648.
.2960	1479.	326.	201.	846.	-1566.	-1188.	.0030	.0203	-.0108	-.0255	.0213	.0410	859.
.2970	1636.	326.	27.	733.	-2130.	-1338.	.0100	.0086	-.0096	-.0142	.0326	.0404	1051.
.2980	1710.	285.	-147.	608.	-2614.	-1406.	.0166	-.0032	-.0082	-.0019	.0429	.0398	1216.
.2990	1644.	221.	-374.	469.	-3046.	-1412.	.0226	-.0149	-.0065	.0111	.0518	.0393	1360.

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ADLPIPE STRESS ANALYSIS

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

CONDITION 24

LOADS

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

.2880	32.	138.	2240.	1011.	3194.	1082.	-.0636	.1077	-.0062	-.0868	-.0652	.0365	1413.
.2890	281.	40.	2090.	1069.	2950.	972.	-.0549	.0982	-.0083	-.0806	-.0569	.0390	1318.
.2900	568.	-32.	1913.	1119.	2566.	799.	-.0461	.0882	-.0101	-.0743	-.0473	.0409	1168.
.2910	895.	-51.	1685.	1149.	2031.	538.	-.0373	.0776	-.0115	-.0678	-.0367	.0422	961.
.2920	1139.	-8.	1387.	1150.	1358.	192.	-.0287	.0666	-.0123	-.0608	-.0255	.0427	718.
.2930	1251.	76.	1048.	1118.	603.	-202.	-.0203	.0552	-.0125	-.0533	-.0140	.0427	516.
.2940	1295.	178.	719.	1051.	-169.	-594.	-.0123	.0436	-.0123	-.0450	-.0023	.0423	489.
.2950	1354.	271.	430.	955.	-906.	-936.	-.0045	.0320	-.0117	-.0358	.0096	.0417	648.
.2960	1479.	326.	201.	846.	-1566.	-1188.	.0030	.0203	-.0108	-.0255	.0213	.0410	859.
.2970	1636.	326.	27.	733.	-2130.	-1338.	.0100	.0086	-.0096	-.0142	.0326	.0404	1051.
.2980	1710.	285.	-147.	608.	-2614.	-1406.	.0166	-.0037	-.0082	-.0019	.0429	.0398	1216.
.2990	1644.	221.	-374.	469.	-3046.	-1412.	.0226	-.0149	-.0065	.0111	.0518	.0393	1360.

ADLPIPE PAGE 1211 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.27.26.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	HX (FT-LB)	HY (FT-LB)	HZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
27	1	50					.3000	1487.	133.	-663.	330.	-3437.	-1352.	.0280	-.0266	-.0045	.0244	.0591	.0389	1488.
							.3010	1269.	13.	-995.	205.	-3773.	-1227.	.0327	-.0380	-.0024	.0377	.0550	.0389	1594.
							.3020	955.	-120.	-1341.	86.	-4028.	-1066.	.0370	-.0491	-.0002	.0508	.0696	.0321	1672.
							.3030	551.	-243.	-1648.	-73.	-4160.	-901.	.0407	-.0599	.0019	.0634	.0732	.0397	1708.
							.3040	142.	-362.	-1855.	-136.	-4136.	-722.	.0440	-.0702	.0040	.0755	.0762	.0406	1686.
							.3050	-177.	-504.	-1928.	-200.	-3951.	-500.	.0470	-.0798	.0058	.0867	.0788	.0421	1600.
							.3060	-356.	-673.	-1865.	-226.	-3623.	-239.	.0495	-.0887	.0075	.0969	.0812	.0442	1460.
							.3070	-416.	-837.	-1696.	-235.	-3195.	20.	.0516	-.0968	.0092	.1059	.0830	.0468	1286.
							.3080	-435.	-972.	-1484.	-236.	-2728.	236.	.0530	-.1041	.0108	.1136	.0838	.0495	1103.
							.3090	-452.	-1074.	-1291.	-224.	-2283.	394.	.0537	-.1107	.0126	.1196	.0834	.0521	934.
							.3100	-450.	-1144.	-1156.	-203.	-1904.	491.	.0535	-.1166	.0145	.1240	.0812	.0543	793.
							.3110	-440.	-1179.	-1100.	-178.	-1604.	525.	.0524	-.1218	.0167	.1268	.0772	.0559	681.
							.3120	-472.	-1181.	-1126.	-155.	-1379.	505.	.0503	-.1264	.0190	.1282	.0711	.0567	592.
							.3130	-528.	-1165.	-1202.	-135.	-1192.	456.	.0473	-.1304	.0214	.1286	.0630	.0563	515.
							.3140	-540.	-1147.	-1270.	-123.	-998.	412.	.0434	-.1339	.0239	.1282	.0533	.0544	436.
							.3150	-529.	-1139.	-1301.	-135.	-766.	400.	.0388	-.1368	.0265	.1274	.0421	.0508	351.
							.3160	-538.	-1144.	-1282.	-184.	-485.	439.	.0333	-.1391	.0290	.1267	.0299	.0455	273.
							.3170	-566.	-1151.	-1210.	-284.	-158.	524.	.0273	-.1408	.0316	.1262	.0169	.0383	248.
							.3180	-624.	-1131.	-1106.	-446.	189.	631.	.0207	-.1420	.0342	.1262	.0036	.0291	319.
							.3190	-761.	-1056.	-1010.	-671.	520.	731.	.0139	-.1427	.0370	.1267	-.0097	.0181	450.
							.3200	-1029.	-917.	-957.	-948.	803.	805.	.0069	-.1430	.0397	.1277	-.0226	.0054	594.
							.3210	-1383.	-719.	-942.	-1261.	1028.	842.	.0002	-.1429	.0425	.1293	-.0346	-.0084	735.
							.3220	-1741.	-471.	-948.	-1604.	1196.	834.	-.0062	-.1426	.0452	.1312	-.0451	-.0227	870.
							.3230	-2052.	-189.	-961.	-1968.	1317.	789.	-.0119	-.1420	.0478	.1332	-.0537	-.0370	1002.
							.3240	-2263.	87.	-951.	-2328.	1408.	742.	-.0167	-.1412	.0501	.1352	-.0602	-.0505	1132.
							.3250	-2350.	305.	-895.	-2663.	1484.	731.	-.0205	-.1402	.0521	.1369	-.0643	-.0626	1258.
							.3260	-2377.	439.	-805.	-2963.	1544.	771.	-.0231	-.1390	.0538	.1381	-.0664	-.0728	1376.
							.3270	-2366.	493.	-699.	-3225.	1582.	855.	-.0246	-.1377	.0552	.1386	-.0666	-.0809	1482.
							.3280	-2276.	473.	-585.	-3440.	1592.	981.	-.0249	-.1364	.0563	.1382	-.0653	-.0866	1571.
							.3290	-2161.	372.	-488.	-3589.	1560.	1155.	-.0241	-.1349	.0571	.1367	-.0630	-.0900	1637.
							.3300	-2121.	199.	-433.	-3673.	1479.	1362.	-.0224	-.1335	.0577	.1341	-.0600	-.0911	1680.
							.3310	-2123.	-10.	-412.	-3703.	1363.	1562.	-.0197	-.1320	.0579	.1305	-.0567	-.0901	1703.
							.3320	-2074.	-214.	-403.	-3692.	1227.	1716.	-.0162	-.1307	.0577	.1260	-.0532	-.0876	1706.
							.3330	-1953.	-394.	-409.	-3645.	1076.	1814.	-.0120	-.1295	.0569	.1209	-.0494	-.0839	1690.
							.3340	-1785.	-555.	-438.	-3572.	915.	1870.	-.0071	-.1283	.0554	.1154	-.0454	-.0791	1659.
							.3350	-1573.	-692.	-489.	-3490.	744.	1894.	-.0017	-.1272	.0533	.1099	-.0413	-.0736	1621.
							.3360	-1345.	-798.	-574.	-3417.	557.	1888.	.0042	-.1262	.0504	.1047	-.0370	-.0678	1583.
							.3370	-1141.	-875.	-709.	-3365.	347.	1855.	.0104	-.1251	.0469	.1001	-.0325	-.0619	1548.

ADLPIPE PAGE 1220 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.27.26.

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

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

.3270	-2366.	493.	-699.	-3225.	1582.	855.	-.0246	-.1377	.0552	.1386	-.0566	-.0809	1482.
.3280	-2276.	473.	-585.	-3440.	1592.	981.	-.0249	-.1364	.0563	.1382	-.0553	-.0866	1571.
.3290	-2161.	372.	-488.	-3589.	1560.	1155.	-.0241	-.1349	.0571	.1367	-.0630	-.0900	1637.
.3300	-2121.	199.	-433.	-3673.	1479.	1362.	-.0224	-.1335	.0577	.1341	-.0500	-.0911	1680.
.3310	-2123.	-10.	-412.	-3703.	1363.	1562.	-.0197	-.1320	.0579	.1305	-.0567	-.0901	1703.
.3320	-2074.	-214.	-403.	-3692.	1227.	1716.	-.0162	-.1307	.0577	.1260	-.0532	-.0876	1706.
.3330	-1953.	-394.	-409.	-3645.	1076.	1814.	-.0120	-.1295	.0569	.1209	-.0494	-.0839	1690.
.3340	-1785.	-555.	-438.	-3572.	915.	1870.	-.0071	-.1283	.0554	.1154	-.0454	-.0791	1659.
.3350	-1573.	-692.	-489.	-3490.	744.	1894.	-.0017	-.1272	.0533	.1099	-.0413	-.0736	1621.
.3360	-1345.	-798.	-574.	-3417.	557.	1888.	.0042	-.1262	.0504	.1047	-.0370	-.0678	1583.
.3370	-1141.	-875.	-709.	-3365.	347.	1855.	.0104	-.1251	.0469	.1001	-.0325	-.0619	1548.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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

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

SECTION	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)
.3380	27	1	50				.3380	-963.	-934.	-888.	-3335.	116.	1812.	.0167	-.1242	.0427	.0962	-.0278	-.0562	1524.
.3390							.3390	-830.	-993.	-1093.	-3324.	-125.	1782.	.0231	-.1232	.0380	.0931	-.0229	-.0507	1514.
.3400							.3400	-799.	-1064.	-1315.	-3321.	-365.	1785.	.0293	-.1220	.0328	.0905	-.0176	-.0454	1520.
.3410							.3410	-866.	-1154.	-1530.	-3306.	-583.	1826.	.0354	-.1207	.0272	.0882	-.0120	-.0404	1534.
.3420							.3420	-935.	-1256.	-1692.	-3262.	-747.	1889.	.0414	-.1192	.0213	.0859	-.0060	-.0358	1542.
.3430							.3430	-953.	-1361.	-1781.	-3176.	-841.	1955.	.0472	-.1175	.0151	.0833	.0004	-.0316	1534.
.3440							.3440	-954.	-1463.	-1808.	-3078.	-868.	2014.	.0528	-.1155	.0088	.0802	.0071	-.0278	1504.
.3450							.3450	-961.	-1559.	-1792.	-2840.	-846.	2064.	.0583	-.1130	.0025	.0762	.0137	-.0244	1449.
.3460							.3460	-939.	-1637.	-1751.	-2590.	-795.	2090.	.0636	-.1100	-.0036	.0709	.0200	-.0217	1373.
.3470							.3470	-860.	-1676.	-1707.	-2301.	-741.	2088.	.0686	-.1064	-.0092	.0646	.0258	-.0196	1277.
.3480							.3480	-747.	-1655.	-1682.	-1996.	-706.	1974.	.0732	-.1023	-.0144	.0572	.0307	-.0185	1162.
.3490							.3490	-644.	-1569.	-1684.	-1689.	-698.	1812.	.0773	-.0976	-.0190	.0490	.0345	-.0184	1033.
.3500							.3500	-571.	-1424.	-1703.	-1397.	-714.	1597.	.0808	-.0924	-.0228	.0402	.0373	-.0192	898.
.3510							.3510	-496.	-1234.	-1719.	-1139.	-743.	1348.	.0836	-.0865	-.0260	.0312	.0390	-.0209	768.
.3520							.3520	-368.	-1006.	-1706.	-934.	-770.	1079.	.0857	-.0802	-.0286	.0223	.0400	-.0235	651.
.3530							.3530	-189.	-756.	-1657.	-800.	-787.	809.	.0871	-.0734	-.0306	.0141	.0402	-.0267	555.
.3540							.3540	-11.	-514.	-1589.	-749.	-804.	567.	.0876	-.0664	-.0319	.0068	.0397	-.0304	496.
.3550							.3550	148.	-312.	-1525.	-790.	-838.	385.	.0872	-.0591	-.0328	.0006	.0385	-.0343	487.
.3560							.3560	309.	-175.	-1481.	-926.	-904.	286.	.0858	-.0516	-.0330	-.0043	.0366	-.0382	532.
.3570							.3570	475.	-111.	-1475.	-1152.	-1014.	277.	.0834	-.0441	-.0327	-.0079	.0340	-.0417	626.
.3580							.3580	621.	-120.	-1510.	-1451.	-1161.	351.	.0799	-.0365	-.0318	-.0103	.0306	-.0448	759.
.3590							.3590	733.	-195.	-1565.	-1798.	-1319.	499.	.0754	-.0289	-.0303	-.0118	.0266	-.0473	917.
.3600							.3600	869.	-319.	-1604.	-2155.	-1449.	702.	.0700	-.0213	-.0283	-.0127	.0219	-.0490	1079.
.3610							.3610	857.	-464.	-1590.	-2484.	-1507.	933.	.0636	-.0136	-.0259	-.0134	.0166	-.0498	1224.
.3620							.3620	903.	-598.	-1487.	-2750.	-1455.	1154.	.0563	-.0060	-.0231	-.0143	.0110	-.0499	1332.
.3630							.3630	945.	-690.	-1280.	-2930.	-1271.	1331.	.0483	.0015	-.0200	-.0158	.0051	-.0492	1388.
.3640							.3640	940.	-725.	-979.	-3006.	-958.	1444.	.0397	.0090	-.0167	-.0180	-.0013	-.0477	1392.
.3650							.3650	865.	-705.	-611.	-2970.	-535.	1486.	.0305	.0164	-.0132	-.0211	-.0080	-.0454	1350.
.3660							.3660	750.	-636.	-196.	-2820.	-30.	1458.	.0208	.0236	-.0098	-.0251	-.0150	-.0425	1274.
.3670							.3670	611.	-529.	239.	-2569.	524.	1362.	.0107	.0305	-.0063	-.0299	-.0222	-.0390	1186.
.3680							.3680	427.	-395.	660.	-2234.	1090.	1211.	.0005	.0371	-.0031	-.0351	-.0294	-.0349	1110.
.3690							.3690	204.	-245.	1047.	-1834.	1638.	1026.	-.0096	.0434	-.0001	-.0406	-.0362	-.0304	1069.
.3700							.3700	-14.	-96.	1408.	-1385.	2147.	831.	-.0195	.0492	.0024	-.0462	-.0423	-.0257	1078.
.3710							.3710	-199.	41.	1734.	-910.	2597.	640.	-.0290	.0546	.0046	-.0515	-.0473	-.0208	1134.
.3720							.3720	-351.	168.	2018.	-438.	2964.	455.	-.0379	.0595	.0063	-.0564	-.0510	-.0160	1216.
.3730							.3730	-459.	292.	2249.	2.	3224.	270.	-.0461	.0639	.0075	-.0607	-.0533	-.0115	1298.
.3740							.3740	-517.	410.	2410.	388.	3351.	88.	-.0535	.0677	.0083	-.0642	-.0540	-.0073	1354.
.3750							.3750	-539.	510.	2485.	705.	3324.	-77.	-.0599	.0711	.0087	-.0671	-.0534	-.0035	1364.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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

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

.3650	865.	-705.	-811.	-2970.	-535.	1486.	.305	.0164	-.0132	-.0211	-.0080	-.0454	1350.
.3660	750.	-636.	-196.	-2820.	-30.	1458.	.208	.0226	-.0098	-.0251	-.0150	-.0425	1274.
.3670	611.	-529.	239.	-2569.	524.	1362.	.0107	.0305	-.0063	-.0299	-.0222	-.0390	1186.
.3680	427.	-395.	660.	-2234.	1090.	1211.	.0005	.0371	-.0031	-.0351	-.0294	-.0349	1110.
.3690	204.	-245.	1049.	-1874.	1678.	1026.	-.0096	.0434	-.0001	-.0406	-.0362	-.0304	1069.
.3700	-14.	-96.	1408.	-1385.	2147.	831.	-.0195	.0492	.0024	-.0462	-.0423	-.0257	1078.
.3710	-199.	41.	1734.	-910.	2597.	640.	-.0290	.0546	.0046	-.0515	-.0473	-.0208	1134.
.3720	-351.	168.	2018.	-438.	2964.	455.	-.0379	.0595	.0063	-.0564	-.0510	-.0160	1216.
.3730	-459.	292.	2249.	2.	3224.	270.	-.0461	.0639	.0075	-.0607	-.0533	-.0115	1298.
.3740	-517.	410.	2410.	388.	3351.	88.	-.0535	.0677	.0083	-.0642	-.0540	-.0073	1354.
.3750	-539.	510.	2485.	705.	3324.	-77.	-.0599	.0711	.0087	-.0671	-.0534	-.0035	1364.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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

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

SECTION	27	MEMBER	1	SEQUENCE	50	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.3760	-528.	583.	2470.	944.	3141.	-224.		-.0654	.0739	.0088	-.0692	-.0515	.0001	1319.	
.3770	-472.	640.	2377.	1100.	2817.	-368.		-.0699	.0763	.0087	-.0707	-.0485	.0032	1223.	
.3780	-379.	696.	2225.	1171.	2384.	-522.		-.0734	.0782	.0085	-.0716	-.0445	.0061	1086.	
.3790	-264.	752.	2038.	1171.	1878.	-680.		-.0757	.0796	.0080	-.0722	-.0397	.0087	929.	
.3800	-121.	800.	1850.	1118.	1345.	-826.		-.0769	.0808	.0075	-.0726	-.0343	.0114	776.	
.3810	62.	838.	1690.	1030.	823.	-956.		-.0770	.0817	.0069	-.0732	-.0283	.0143	654.	
.3820	270.	867.	1564.	924.	340.	-1077.		-.0760	.0824	.0062	-.0737	-.0221	.0174	586.	
.3830	468.	889.	1458.	814.	-96.	-1196.		-.0740	.0827	.0054	-.0743	-.0159	.0210	582.	
.3840	635.	897.	1350.	712.	-485.	-1307.		-.0711	.0827	.0045	-.0749	-.0099	.0252	628.	
.3850	757.	878.	1218.	629.	-836.	-1390.		-.0673	.0824	.0036	-.0755	-.0042	.0299	698.	
.3860	825.	815.	1050.	571.	-1147.	-1430.		-.0628	.0818	.0024	-.0760	.0010	.0354	771.	
.3870	853.	711.	854.	533.	-1408.	-1431.		-.0576	.0810	.0010	-.0762	.0058	.0416	833.	
.3880	865.	582.	654.	506.	-1597.	-1402.		-.0517	.0799	-.0007	-.0760	.0104	.0482	877.	
.3890	874.	430.	476.	490.	-1695.	-1341.		-.0454	.0785	-.0027	-.0753	.0149	.0552	889.	
.3900	884.	244.	346.	499.	-1689.	-1232.		-.0387	.0770	-.0051	-.0740	.0195	.0625	863.	
.3910	905.	25.	278.	542.	-1579.	-1081.		-.0318	.0754	-.0079	-.0720	.0242	.0700	798.	
.3920	940.	-192.	267.	618.	-1379.	-926.		-.0248	.0736	-.0110	-.0692	.0290	.0773	711.	
.3930	973.	-361.	288.	722.	-1122.	-811.		-.0179	.0717	-.0142	-.0657	.0337	.0841	626.	
.3940	980.	-467.	316.	854.	-842.	-749.		-.0114	.0697	-.0175	-.0618	.0382	.0902	567.	
.3950	955.	-519.	335.	1016.	-573.	-733.		-.0053	.0678	-.0207	-.0577	.0422	.0955	553.	
.3960	921.	-524.	338.	1202.	-333.	-766.		.0002	.0660	-.0236	-.0536	.0458	.1001	588.	
.3970	918.	-473.	328.	1402.	-132.	-862.		.0049	.0643	-.0263	-.0498	.0488	.1036	663.	
.3980	964.	-371.	304.	1611.	25.	-1019.		.0089	.0627	-.0285	-.0462	.0512	.1062	765.	
.3990	1041.	-242.	263.	1836.	135.	-1206.		.0120	.0613	-.0304	-.0430	.0530	.1078	883.	
.4000	1125.	-117.	206.	2080.	198.	-1384.		.0141	.0601	-.0317	-.0403	.0540	.1086	1006.	

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)
.1100	7925.	3449.	5197.	8795.	3201.	-8255.	.0524	.0552	-.1046	-.1454	.0808	.0908	5008.

SECTION	27	MEMBER	2	SEQUENCE	52	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	

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

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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)
.1100	7925.	3449.	5197.	8795.	3201.	-8255.	.0524	.0552	-.1046	-.1454	.0808	.0908	5008.

SECTION	27	MEMBER	2	SEQUENCE	52	LOCATION	END	TYPE	RU	DX	DY	DZ	RX	RY	RZ	STRESS (PSI)
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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
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INTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	27	MEMBER	2	SEQUENCE	52	LOCATION	END	TYPE	RU	DX	DY	DZ	RX	RY	RZ	STRESS (PSI)
0.0000	0.	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.
.0010	5.	-0.	6.	-1.	6.	-1.	.0000	-.0000	-.0000	.0000	.0000	.0000	.0000	.0000	-.0000	2.
.0020	37.	-5.	46.	-4.	41.	-3.	.0000	-.0000	-.0002	.0001	.0002	.0002	.0001	.0002	-.0000	17.
.0030	99.	-22.	136.	-9.	121.	3.	.0000	-.0000	-.0005	.0002	.0007	.0007	.0002	.0007	-.0000	49.
.0040	168.	-58.	263.	-11.	238.	34.	.0001	.0001	-.0011	.0003	.0013	.0013	.0003	.0013	.0000	96.
.0050	233.	-113.	403.	-5.	373.	92.	.0000	.0003	-.0020	.0002	.0020	.0020	.0002	.0020	.0002	154.
.0060	319.	-174.	559.	11.	523.	162.	-.0000	.0008	-.0032	.0000	.0029	.0029	.0005	.0029	.0005	220.
.0070	359.	-235.	744.	35.	716.	219.	-.0001	.0013	-.0050	-.0003	.0040	.0040	.0007	.0040	.0007	301.
.0080	213.	-298.	975.	67.	1000.	258.	.0001	.0020	-.0077	-.0008	.0055	.0055	.0009	.0055	.0009	415.
.0090	-108.	-376.	1237.	132.	1370.	318.	.0008	.0032	-.0116	-.0018	.0076	.0076	.0014	.0076	.0014	567.
.0100	-413.	-474.	1457.	259.	1744.	444.	.0023	.0051	-.0167	-.0039	.0102	.0102	.0023	.0102	.0023	730.
.0110	-517.	-569.	1549.	457.	2027.	613.	.0049	.0080	-.0227	-.0076	.0132	.0132	.0037	.0132	.0037	870.
.0120	-322.	-623.	1493.	704.	2171.	733.	.0086	.0114	-.0293	-.0129	.0164	.0164	.0052	.0164	.0052	962.
.0130	48.	-605.	1295.	961.	2150.	707.	.0130	.0153	-.0360	-.0198	.0191	.0191	.0065	.0191	.0065	987.
.0140	207.	-506.	860.	1220.	1877.	524.	.0180	.0195	-.0422	-.0285	.0203	.0203	.0077	.0203	.0077	922.
.0150	-135.	-307.	84.	1500.	1273.	219.	.0234	.0242	-.0470	-.0395	.0191	.0191	.0088	.0191	.0088	794.
.0160	-1031.	38.	-1017.	1816.	360.	-212.	.0292	.0293	-.0501	-.0524	.0155	.0155	.0095	.0155	.0095	748.
.0170	-2391.	567.	-2358.	2144.	-758.	-823.	.0360	.0342	-.0511	-.0656	.0107	.0107	.0093	.0107	.0093	970.
.0180	-3662.	1235.	-3690.	2421.	-1857.	-1601.	.0443	.0382	-.0503	-.0770	.0072	.0072	.0081	.0072	.0081	1383.
.0190	-3970.	1875.	-4496.	2566.	-2527.	-2387.	.0547	.0413	-.0487	-.0849	.0081	.0081	.0063	.0081	.0063	1734.
.0200	-3084.	2212.	-4285.	2497.	-2272.	-2912.	.0682	.0435	-.0485	-.0879	.0168	.0168	.0047	.0168	.0047	1789.
.0210	-1300.	1964.	-2966.	2233.	-1026.	-2773.	.0853	.0458	-.0511	-.0869	.0336	.0336	.0051	.0336	.0051	1487.
.0220	3729.	1028.	-507.	1868.	683.	-1638.	.1026	.0497	-.0532	-.0852	.0546	.0546	.0085	.0546	.0085	1034.
.0230	10109.	-337.	2044.	1368.	2099.	158.	.1169	.0541	-.0531	-.0833	.0740	.0740	.0127	.0740	.0127	1007.
.0240	12646.	-1593.	3681.	584.	2862.	1692.	.1260	.0567	-.0505	-.0786	.0842	.0842	.0139	.0842	.0139	1355.
.0250	9425.	-2240.	3887.	-469.	2879.	2196.	.1305	.0555	-.0462	-.0675	.0854	.0854	.0093	.0854	.0093	1465.
.0260	7186.	-2139.	3627.	-1474.	2516.	1861.	.1313	.0518	-.0397	-.0511	.0872	.0872	-.0014	.0872	-.0014	1388.
.0270	12928.	-1670.	5063.	-2181.	2639.	1706.	.1256	.0496	-.0281	-.0369	.0921	.0921	-.0139	.0921	-.0139	1535.
.0280	14329.	-1377.	6356.	-2726.	2912.	2265.	.1148	.0505	-.0152	-.0290	.0886	.0886	-.0235	.0886	-.0235	1841.
.0290	2289.	-1215.	5025.	-3246.	2571.	2932.	.1033	.0517	-.0055	-.0230	.0738	.0738	-.0313	.0738	-.0313	2036.
.0300	-2366.	-550.	5680.	-3582.	3488.	2829.	.0892	.0489	.0036	-.0120	.0648	.0648	-.0435	.0648	-.0435	2305.
.0310	3975.	376.	8329.	-3732.	5239.	2194.	.0723	.0422	.0133	.0048	.0638	.0638	-.0593	.0638	-.0593	2727.
.0320	6906.	636.	8622.	-3964.	5627.	2044.	.0539	.0349	.0213	.0227	.0583	.0583	-.0709	.0583	-.0709	2881.
.0330	3842.	-8.	6802.	-4328.	4733.	2902.	.0322	.0301	.0291	.0352	.0407	.0407	-.0731	.0407	-.0731	2825.
.0340	2228.	-891.	5354.	-4549.	3644.	4108.	.0058	.0261	.0387	.0411	.0145	.0145	-.0706	.0145	-.0706	2862.
.0350	892.	-1290.	3254.	-4440.	1957.	4508.	-.0222	.0185	.0484	.0453	-.0133	-.0133	-.0729	-.0133	-.0729	2658.
.0360	-3033.	-894.	-368.	-4047.	-514.	3652.	-.0484	.0062	.0556	.0518	-.0383	-.0383	-.0819	-.0383	-.0819	2197.
.0370	-4428.	90.	-2871.	-3455.	-2334.	2197.	-.0713	-.0070	.0617	.0587	-.0582	-.0582	-.0897	-.0582	-.0897	1891.

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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
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.0270	12928.	-1670.	5063.	-2181.	2639.	1706.	.1256	.0496	-.0281	-.0369	.0921	-.0139	1535.
.0280	14329.	-1377.	6356.	-2726.	2912.	2265.	.1148	.0505	-.0152	-.0290	.0886	-.0235	1841.
.0290	2289.	-1215.	5025.	-3246.	2571.	2932.	.1033	.0517	-.0055	-.0230	.0738	-.0313	2036.
.0300	-2366.	-550.	5680.	-7502.	3488.	2629.	.0892	.0489	.0036	-.0120	.0648	-.0435	2305.
.0310	3975.	376.	8329.	-3732.	5239.	2194.	.0723	.0422	.0133	.0048	.0638	-.0593	2727.
.0320	6966.	636.	8622.	-3964.	5627.	2044.	.0529	.0249	.0213	.0227	.0583	-.0709	2881.
.0330	3842.	-8.	6802.	-4328.	4733.	2902.	.0322	.0301	.0291	.0352	.0407	-.0731	2825.
.0340	2228.	-891.	5354.	-4549.	3644.	4108.	.0058	.0261	.0387	.0411	.0145	-.0706	2862.
.0350	852.	-1290.	3254.	-4440.	1957.	4508.	-.0222	.0185	.0484	.0453	-.0133	-.0729	2658.
.0360	-3033.	-394.	-388.	-4047.	-514.	3652.	-.0484	.0062	.0556	.0518	-.0383	-.0819	2197.
.0370	-4428.	90.	-2871.	-3455.	-2334.	2127.	-.0733	-.0070	.0617	.0587	-.0582	-.0897	1891.

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

SECTION	TIME (SEC)	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU	STRESS (PSI)					
27		2	52										
	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)	
.0380	-2447.	878.	-2938.	-2720.	-2917.	1308.	-.0980	-.0165	.0683	.0597	-.0730	-.0885	1684.
.0390	-5742.	823.	-3390.	-1860.	-3531.	1524.	-.1205	-.0222	.0735	.0512	-.0842	-.0798	1714.
.0400	-15161.	484.	-5514.	-793.	-4508.	1929.	-.1366	-.0286	.0730	.0398	-.0917	-.0718	1993.
.0410	-13300.	857.	-4696.	705.	-3940.	1211.	-.1480	-.0394	.0695	.0368	-.0874	-.0670	1662.
.0420	-4826.	1541.	-2740.	1438.	-3054.	-381.	-.1551	-.0527	.0638	.0439	-.0780	-.0591	1363.
.0430	-2153.	1417.	-1942.	2094.	-2433.	-1231.	-.1542	-.0628	.0554	.0474	-.0639	-.0437	1380.
.0440	-4084.	363.	-1804.	261.	-1906.	-592.	-.1485	-.0670	.0463	.0368	-.0529	-.0229	1320.
.0450	-941.	-486.	-355.	317.	-1071.	75.	-.1421	-.0696	.0407	.0211	-.0438	-.0025	1346.
.0460	4944.	-204.	1295.	3676.	-450.	-915.	-.1348	-.0761	.0383	.0141	-.0359	.0122	1531.
.0470	3598.	1045.	733.	4088.	-628.	-3292.	-.1253	-.0867	.0362	.0154	-.0377	.0200	2121.
.0480	-2363.	2539.	-812.	4582.	-894.	-5562.	-.1143	-.0968	.0343	.0173	-.0499	.0249	2914.
.0490	-3450.	3553.	-663.	5164.	-319.	-6653.	-.1015	-.1034	.0348	.0177	-.0592	.0320	3382.
.0500	-1971.	3520.	295.	5566.	679.	-6237.	-.0851	-.1066	.0355	.0186	-.0620	.0423	3366.
.0510	-2262.	2517.	1277.	5419.	2158.	-4780.	-.0644	-.1094	.0337	.0231	-.0621	.0512	3026.
.0520	-2218.	1211.	2702.	4501.	4210.	-3352.	-.0406	-.1149	.0300	.0376	-.0603	.0553	2815.
.0530	8.	-32.	3858.	2943.	5792.	-2403.	-.0155	-.1233	.0264	.0648	-.0566	.0552	2780.
.0540	2167.	-1449.	3407.	1199.	5876.	-1104.	.0094	-.1308	.0241	.0949	-.0547	.0522	2447.
.0550	1954.	-3065.	1164.	-416.	4519.	1115.	.0332	-.1348	.0233	.1182	-.0583	.0457	1875.
.0560	-79.	-4209.	-1987.	-2043.	2329.	3161.	.0551	-.1370	.0239	.1390	-.0636	.0348	1776.
.0570	-1370.	-4234.	-4564.	-3906.	202.	3633.	.0752	-.1412	.0255	.1660	-.0529	.0182	2142.
.0580	-1190.	-3322.	-5494.	-5840.	-956.	2761.	.0938	-.1472	.0267	.1956	-.0533	-.0045	2621.
.0590	-1655.	-2195.	-5200.	-7474.	-1122.	1853.	.1116	-.1515	.0261	.2180	-.0365	-.0300	3123.
.0600	-2586.	-1326.	-4381.	-8640.	-894.	1617.	.1283	-.1518	.0242	.2309	-.0136	-.0516	3545.
.0610	-2261.	-752.	-3390.	-9347.	-697.	1875.	.1434	-.1489	.0213	.2388	.0127	-.0655	3836.
.0620	-368.	-380.	-2359.	-9631.	-524.	2210.	.1564	-.1457	.0170	.2444	.0390	-.0735	3971.
.0630	1009.	-187.	-1939.	-9588.	-660.	2249.	.1670	-.1444	.0113	.2481	.0635	-.0784	3961.
.0640	1582.	-251.	-2315.	-9312.	-1435.	1939.	.1734	-.1449	.0059	.2475	.0846	-.0790	3860.
.0650	2000.	-694.	-3091.	-8721.	-2762.	1722.	.1739	-.1448	.0023	.2374	.0986	-.0728	3735.
.0660	1367.	-1416.	-4166.	-7668.	-4345.	1872.	.1691	-.1426	.0001	.2162	.1051	-.0602	3616.
.0670	-777.	-1924.	-5662.	-6146.	-5995.	1845.	.1613	-.1395	-.0023	.1894	.1089	-.0444	3524.
.0680	-1071.	-1720.	-6412.	-4241.	-7013.	989.	.1515	-.1372	-.0051	.1629	.1153	-.0289	3313.
.0690	1405.	-947.	-5502.	-2028.	-6768.	-368.	.1398	-.1351	-.0083	.1357	.1240	-.0149	2839.
.0700	1548.	-289.	-4197.	307.	-5788.	-1315.	.1269	-.1310	-.0128	.1050	.1302	-.0013	2385.
.0710	-1365.	-141.	-3399.	2413.	-4817.	-1538.	.1131	-.1245	-.0180	.0737	.1332	.0138	2248.
.0720	-814.	-314.	-2008.	3994.	-3742.	-1443.	.0972	-.1167	-.0215	.0476	.1354	.0297	2271.
.0730	3775.	-565.	-39.	4974.	-2625.	-1399.	.0788	-.1092	-.0226	.0286	.1349	.0439	2325.
.0740	5128.	-844.	642.	5432.	-2182.	-1493.	.0587	-.1024	-.0225	.0147	.1258	.0541	2424.
.0750	1990.	-969.	-74.	5525.	-2437.	-1812.	.0371	-.0959	-.0211	.0039	.1071	.0596	2530.

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S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK

2 SAFETY COLD FKW24F--2 PSV

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

.0640	1527.	-251.	-11.	-4317.	-1425.	1929.	.1724	-.1449	.0059	.2475	.0846	-.0790	3860.
.0650	2000.	-694.	-5091.	-8721.	-2762.	1722.	.1739	-.1448	.0023	.2374	.0986	-.0728	3735.
.0660	1367.	-1416.	-4166.	-7668.	-4345.	1872.	.1691	-.1426	.0001	.2162	.1051	-.0602	3616.
.0670	-777.	-1924.	-5662.	-6146.	-5995.	1845.	.1613	-.1395	-.0023	.1894	.1089	-.0444	3524.
.0680	-1071.	-1720.	-6412.	-4241.	-7013.	589.	.1515	-.1372	-.0051	.1629	.1153	-.0289	3313.
.0690	1405.	-947.	-5502.	-2028.	-6761.	-368.	.1398	-.1351	-.0083	.1357	.1240	-.0149	2839.
.0700	1548.	-289.	-4197.	307.	-5188.	-1315.	.1269	-.1310	-.0128	.1050	.1302	-.0013	2385.
.0710	-1365.	-141.	-3399.	2413.	-4817.	-1538.	.1131	-.1245	-.0180	.0737	.1332	.0138	2248.
.0720	-814.	-314.	-2008.	3994.	-3742.	-1443.	.0972	-.1167	-.0215	.0476	.1354	.0297	2271.
.0730	3775.	-565.	-39.	4974.	-2625.	-1399.	.0788	-.1092	-.0226	.0286	.1349	.0439	2325.
.0740	5128.	-844.	642.	5422.	-2182.	-1493.	.0587	-.1024	-.0225	.0147	.1258	.0541	2424.
.0750	1990.	-969.	-74.	5525.	-2437.	-1812.	.0371	-.0959	-.0211	.0039	.1071	.0596	2530.

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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	27	MEMBER	2	SEQUENCE	52	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.0760	-280.	-643.	-508.	5451.	-2580.	-2411.	.0141	-.0890	-.0174	-.0045	.0540	.0612	2606.		
.0770	-809.	121.	-357.	5356.	-2291.	-3112.	-.0084	-.0807	-.0123	-.0108	.0510	.0601	2650.		
.0780	-2216.	1009.	-202.	5231.	-1669.	-3661.	-.0282	-.0712	-.0074	-.0150	.0397	.0572	2648.		
.0790	-2990.	1758.	699.	4974.	-397.	-3954.	-.0454	-.0609	-.0025	-.0172	.0216	.0533	2555.		
.0800	-1308.	2154.	2857.	4512.	1580.	-3681.	-.0604	-.0502	.0034	-.0179	.0066	.0489	2471.		
.0810	-449.	1946.	4688.	3850.	3327.	-3223.	-.0729	-.0392	.0098	-.0179	-.0089	.0445	2472.		
.0820	-1703.	1108.	4977.	3039.	4036.	-1939.	-.0823	-.0280	.0169	-.0167	-.0266	.0401	2117.		
.0830	-1289.	-24.	4408.	2138.	3795.	-331.	-.0895	-.0167	.0257	-.0132	-.0451	.0357	1753.		
.0840	854.	-1116.	3312.	1188.	2792.	1254.	-.0948	-.0054	.0363	-.0083	-.0637	.0303	1318.		
.0850	129.	-2053.	1216.	241.	1175.	2657.	-.0976	.0057	.0465	-.0051	-.0826	.0221	1170.		
.0860	-2977.	-2681.	-867.	-649.	-231.	3722.	-.0974	.0164	.0550	-.0053	-.0978	.0091	1519.		
.0870	-3574.	-2749.	-1160.	-1462.	-482.	4221.	-.0947	.0267	.0619	-.0071	-.1031	-.0086	1803.		
.0880	-1472.	-2242.	285.	-2209.	416.	4183.	-.0890	.0368	.0665	-.0080	-.0970	-.0288	1906.		
.0890	-88.	-1434.	2231.	-2850.	1887.	3985.	-.0803	.0472	.0679	-.0086	-.0843	-.0500	2107.		
.0900	339.	-556.	4155.	-3316.	3509.	3907.	-.0697	.0577	.0665	-.0099	-.0599	-.0716	2492.		
.0910	1273.	338.	5713.	-3650.	4778.	3849.	-.0590	.0670	.0635	-.0104	-.0574	-.0935	2865.		
.0920	2093.	1160.	6144.	-4024.	5129.	3641.	-.0490	.0739	.0593	-.0080	-.0496	-.1148	2997.		
.0930	1837.	1731.	5218.	-4569.	4504.	3354.	-.0402	.0781	.0541	-.0031	-.0483	-.1335	2905.		
.0940	1012.	1939.	3472.	-5230.	3289.	3164.	-.0330	.0805	.0478	.0019	-.0535	-.1472	2786.		
.0950	13.	1831.	1344.	-5773.	1825.	3138.	-.0271	.0817	.0402	.0046	-.0531	-.1547	2737.		
.0960	-1142.	1558.	-834.	-5924.	470.	3205.	-.0221	.0815	.0304	.0036	-.0754	-.1570	2710.		
.0970	-2086.	1298.	-2625.	-5530.	-376.	3199.	-.0176	.0795	.0179	-.0008	-.0886	-.1552	2568.		
.0980	-2680.	1151.	-3875.	-4634.	-624.	2937.	-.0137	.0757	.0030	-.0061	-.1016	-.1487	2216.		
.0990	-3046.	1041.	-4688.	-3403.	-483.	2449.	-.0108	.0706	-.0131	-.0114	-.1137	-.1365	1693.		
.1000	-2937.	776.	-5002.	-1993.	-99.	2005.	-.0090	.0656	-.0292	-.0188	-.1240	-.1193	1135.		
.1010	-2352.	280.	-4811.	-528.	401.	1742.	-.0083	.0615	-.0441	-.0305	-.1316	-.0986	748.		
.1020	-2036.	-252.	-4462.	872.	764.	1395.	-.0080	.0580	-.0572	-.0447	-.1356	-.0761	728.		
.1030	-2274.	-479.	-4192.	2132.	859.	581.	-.0073	.0548	-.0682	-.0588	-.1347	-.0532	951.		
.1040	-2278.	-184.	-3787.	3293.	842.	-772.	-.0053	.0521	-.0771	-.0724	-.1270	-.0309	1399.		
.1050	-1945.	557.	-3190.	4480.	804.	-2392.	-.0011	.0509	-.0842	-.0870	-.1108	-.0095	2063.		
.1060	-1671.	1497.	-2452.	5743.	752.	-3982.	.0056	.0512	-.0896	-.1033	-.0856	.0118	2821.		
.1070	-723.	2434.	-1243.	6969.	867.	-5435.	.0142	.0526	-.0934	-.1201	-.0525	.0329	3563.		
.1080	463.	3266.	406.	7926.	1327.	-6826.	.0251	.0537	-.0968	-.1341	-.0128	.0528	4231.		
.1090	1738.	3790.	2440.	8485.	2379.	-8075.	.0400	.0536	-.1030	-.1411	.0344	.0710	4797.		
.1100	7925.	3449.	5197.	8797.	3194.	-8252.	.0524	.0552	-.1046	-.1454	.0808	.0908	5007.		
.1110	10464.	2226.	5709.	8770.	2409.	-7106.	.0622	.0594	-.1024	-.1509	.1154	.1110	4631.		
.1120	6729.	822.	3513.	8250.	224.	-5459.	.0699	.0644	-.0980	-.1547	.1349	.1261	3971.		
.1130	3735.	-207.	1051.	7332.	-2131.	-4234.	.0749	.0672	-.0907	-.1492	.1455	.1333	3504.		

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

.1030	-2274.	-479.	4192.	2132.	859.	581.	-.0073	.0548	-.0682	-.0588	-.1347	-.0532	951.
.1040	-2278.	-184.	-3787.	3293.	842.	-772.	-.0053	.0521	-.0771	-.0724	-.1270	-.0309	1399.
.1050	-1945.	557.	-3190.	4480.	804.	-2392.	-.0011	.0509	-.0842	-.0870	-.1108	-.0095	2063.
.1060	-1671.	1497.	-2452.	5747.	752.	-3982.	.0056	.0512	-.0896	-.1033	-.0856	.0118	2821.
.1070	-723.	2434.	-1242.	6969.	867.	-5435.	.0142	.0526	-.0934	-.1201	-.0525	.0329	3563.
.1080	463.	3266.	406.	7926.	1727.	-6226.	.0251	.0537	-.0968	-.1341	-.0128	.0528	4231.
.1090	1738.	3790.	2440.	8485.	2379.	-8075.	.0400	.0536	-.1030	-.1411	.0344	.0710	4797.
.1100	7925.	3449.	5197.	8797.	3194.	-8252.	.0524	.0552	-.1046	-.1454	.0808	.0908	5007.
.1110	10464.	2226.	5709.	8770.	2409.	-7106.	.0622	.0594	-.1024	-.1509	.1154	.1110	4631.
.1120	6729.	822.	3512.	8250.	224.	-5459.	.0699	.0644	-.0980	-.1547	.1349	.1261	3971.
.1130	3735.	-207.	1051.	7332.	-2131.	-4234.	.0749	.0672	-.0907	-.1492	.1455	.1333	3504.

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU								STRESS
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	(PSI)	
.1140	3379.	-1019.	-709.	6228.	-4073.	-3326.	.0781	.0685	-.0812	-.1339	.1524	.1339	3271.	
.1150	1742.	-2014.	-2276.	5058.	-5460.	-1881.	.0811	.0718	-.0720	-.1182	.1558	.1305	3081.	
.1160	-38.	-3207.	-2792.	3852.	-5710.	354.	.0833	.0789	-.0637	-.1079	.1570	.1239	2768.	
.1170	-93.	-4287.	-2053.	2638.	-4991.	2647.	.0843	.0879	-.0558	-.0984	.1579	.1140	2502.	
.1180	4772.	-4817.	410.	1451.	-3469.	4112.	.0805	.0958	-.0458	-.0851	.1573	.0992	2236.	
.1190	3862.	-4490.	912.	234.	-2815.	4286.	.0741	.1011	-.0362	-.0691	.1476	.0769	2060.	
.1200	-1413.	-3115.	-354.	-909.	-3019.	3280.	.0659	.1047	-.0271	-.0543	.1288	.0470	1826.	
.1210	35.	-1078.	42.	-1762.	-2640.	1751.	.0547	.1086	-.0172	-.0422	.1106	.0145	1455.	
.1220	509.	515.	-464.	-2296.	-3033.	797.	.0432	.1147	-.0083	-.0346	.0925	-.0137	1560.	
.1230	-418.	1343.	-1143.	-2702.	-3504.	733.	.0308	.1230	-.0010	-.0337	.0751	-.0362	1800.	
.1240	-2398.	1852.	-1526.	-3110.	-3583.	840.	.0181	.1308	.0040	-.0361	.0587	-.0550	1934.	
.1250	-2277.	2403.	-987.	-3339.	-3130.	455.	.0048	.1355	.0076	-.0364	.0457	-.0704	1846.	
.1260	1833.	2807.	972.	-3085.	-1957.	-119.	-.0102	.1373	.0100	-.0359	.0360	-.0814	1467.	
.1270	-595.	2688.	1050.	-2275.	-1344.	-175.	-.0228	.1385	.0079	-.0405	.0229	-.0867	1063.	
.1280	-2053.	2313.	1597.	-1039.	-157.	310.	-.0343	.1410	.0026	-.0521	.0097	-.0851	440.	
.1290	296.	1835.	2895.	424.	1346.	993.	-.0449	.1447	-.0037	-.0677	-.0017	-.0757	693.	
.1300	2191.	1218.	3590.	1890.	2411.	1567.	-.0544	.1480	-.0103	-.0860	-.0143	-.0616	1381.	
.1310	3917.	749.	4359.	3091.	3483.	1586.	-.0651	.1492	-.0160	-.1070	-.0313	-.0485	1974.	
.1320	1137.	747.	3682.	3866.	3825.	636.	-.0757	.1477	-.0209	-.1275	-.0552	-.0381	2197.	
.1330	290.	1282.	3312.	4425.	4133.	-1006.	-.0869	.1450	-.0240	-.1444	-.0807	-.0284	2463.	
.1340	-18.	1903.	2676.	5097.	4152.	-2357.	-.0969	.1436	-.0258	-.1596	-.1056	-.0169	2803.	
.1350	-1586.	2427.	1532.	5883.	3951.	-3012.	-.1038	.1444	-.0276	-.1748	-.1279	-.0048	3090.	
.1360	512.	3119.	1994.	6447.	4633.	-3553.	-.1094	.1451	-.0285	-.1864	-.1429	.0056	3490.	
.1370	1393.	3811.	2703.	6512.	5509.	-4337.	-.1130	.1435	-.0290	-.1906	-.1517	.0138	3840.	
.1380	2636.	4143.	4259.	6070.	6774.	-4998.	-.1164	.1394	-.0281	-.1882	-.1553	.0199	4165.	
.1390	1926.	3898.	5123.	5208.	7423.	-5078.	-.1194	.1342	-.0254	-.1817	-.1570	.0255	4170.	
.1400	692.	3284.	4740.	4076.	6856.	-4593.	-.1216	.1286	-.0200	-.1709	-.1575	.0318	3694.	
.1410	3484.	2519.	4609.	2915.	5822.	-3710.	-.1246	.1221	-.0113	-.1555	-.1552	.0379	3007.	
.1420	2079.	1460.	2778.	1832.	3744.	-2485.	-.1259	.1140	-.0021	-.1359	-.1536	.0421	1947.	
.1430	-1248.	311.	740.	725.	1654.	-1260.	-.1258	.1038	.0068	-.1123	-.1491	.0429	884.	
.1440	-3419.	-679.	-454.	-482.	109.	-291.	-.1233	.0925	.0155	-.0848	-.1370	.0415	230.	
.1450	-2638.	-1561.	-271.	-1612.	-637.	704.	-.1179	.0822	.0239	-.0575	-.1153	.0398	751.	
.1460	1129.	-2434.	1446.	-2453.	-447.	2003.	-.1106	.0741	.0322	-.0349	-.0867	.0381	1284.	
.1470	477.	-3073.	2002.	-3026.	-622.	3132.	-.1000	.0669	.0384	-.0164	-.0579	.0348	1765.	
.1480	813.	-2845.	2694.	-3379.	-710.	3219.	-.0888	.0587	.0440	.0012	-.0299	.0283	1894.	
.1490	1489.	-1742.	2908.	-3440.	-1099.	2180.	-.0771	.0486	.0489	.0189	-.0054	.0191	1693.	
.1500	-510.	-352.	1567.	-3158.	-2319.	726.	-.0641	.0381	.0521	.0337	.0137	.0100	1599.	
.1510	-1001.	887.	277.	-2662.	-3615.	-589.	-.0516	.0283	.0543	.0435	.0306	.0040	1817.	

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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

.1400	892.	7284.	4740.	4076.	6856.	-4592.	-1216.	.1286	-.0200	-.1709	-.1575	.0318	3694.
.1410	3484.	2519.	4609.	2915.	5822.	-3710.	-.246	.1221	-.0113	-.1555	-.1552	.0379	3007.
.1420	2079.	1460.	2778.	1832.	2744.	-2485.	-.1259	.1140	-.0021	-.1359	-.1536	.0421	1947.
.1430	-1248.	311.	740.	725.	1654.	-1260.	-.1258	.1038	.0068	-.1123	-.1491	.0429	884.
.1440	-3419.	-679.	-454.	-403.	109.	-291.	-.1233	.0925	.0155	-.0848	-.1370	.0415	230.
.1450	-2638.	-1561.	-271.	-1612.	-637.	704.	-.1179	.0822	.0239	-.0575	-.1153	.0398	751.
.1460	1129.	-2434.	1446.	-2453.	-447.	2003.	-.1106	.0741	.0322	-.0349	-.0367	.0381	1284.
.1470	477.	-3073.	2002.	-3026.	-622.	3132.	-.1000	.0669	.0384	-.0164	-.0579	.0348	1765.
.1480	813.	-2845.	2694.	-3379.	-710.	3219.	-.0888	.0587	.0440	.0012	-.0299	.0283	1894.
.1490	1489.	-1742.	2908.	-3440.	-1059.	2180.	-.0771	.0486	.0489	.0189	-.0054	.0191	1693.
.1500	-510.	-352.	1567.	-3158.	-2319.	726.	-.0641	.0381	.0521	.0337	.0137	.0100	1599.
.1510	-1001.	887.	277.	-2662.	-3615.	-589.	-.0516	.0283	.0543	.0435	.0306	.0040	1817.

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS
TIME (SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(DEG)	(PSI)
.1520	-1834.	1751.	-1150.	-2152.	-4933.	-1670.	-.0384	.0191	.0542	.0497	.0466	.0028	2261.						
.1530	-682.	2229.	-1322.	-1641.	-5331.	-2546.	-.0254	.0097	.0515	.0543	.0639	.0059	2461.						
.1540	-1353.	2269.	-1393.	-1014.	-5202.	-3135.	-.0113	-.0005	.0447	.0588	.0817	.0124	2471.						
.1550	-2584.	2034.	-1455.	-189.	-4770.	-3415.	.0041	-.0108	.0347	.0636	.1004	.0218	2355.						
.1560	1073.	1718.	-102.	818.	-3621.	-3375.	.0182	-.0204	.0242	.0679	.1205	.0340	2013.						
.1570	1442.	1117.	-49.	1895.	-3096.	-2875.	.0323	-.0285	.0124	.0699	.1357	.0489	1858.						
.1580	239.	272.	-588.	2895.	-2919.	-2067.	.0445	-.0356	.0007	.0693	.1452	.0648	1847.						
.1590	1300.	-506.	-576.	3607.	-2686.	-1488.	.0532	-.0428	-.0090	.0675	.1506	.0791	1901.						
.1600	992.	-1046.	-1236.	3913.	-2951.	-1474.	.0596	-.0504	-.0174	.0659	.1508	.0903	2054.						
.1610	-976.	-1297.	-2480.	4004.	-3501.	-1809.	.0646	-.0575	-.0247	.0626	.1459	.0983	2254.						
.1620	661.	-1246.	-2344.	4138.	-3247.	-2172.	.0675	-.0626	-.0305	.0564	.1394	.1035	2284.						
.1630	649.	-1053.	-2660.	4339.	-3085.	-2461.	.0702	-.0656	-.0359	.0487	.1304	.1067	2354.						
.1640	550.	-665.	-2758.	4515.	-2653.	-2762.	.0718	-.0670	-.0401	.0405	.1197	.1071	2376.						
.1650	2488.	-74.	-1651.	4566.	-1401.	-3127.	.0711	-.0675	-.0424	.0326	.1078	.1040	2291.						
.1660	1630.	477.	-1043.	4377.	-245.	-3535.	.0693	-.0677	-.0433	.0269	.0925	.0984	2260.						
.1670	1615.	872.	-63.	3912.	975.	-3867.	.0649	-.0678	-.0415	.0241	.0754	.0912	2242.						
.1680	979.	988.	407.	3262.	1703.	-3805.	.0590	-.0667	-.0372	.0222	.0559	.0837	2124.						
.1690	1405.	854.	866.	2551.	2224.	-3204.	.0515	-.0444	-.0307	.0207	.0349	.0763	1887.						
.1700	1085.	489.	770.	1795.	2351.	-2502.	.0433	-.0623	-.0235	.0228	.0136	.0690	1555.						
.1710	-2695.	-48.	-781.	990.	1670.	-1730.	.0363	-.0607	-.0167	.0297	-.0070	.0617	1044.						
.1720	-1727.	-541.	-857.	201.	1628.	-937.	.0288	-.0593	-.0092	.0389	-.0217	.0540	758.						
.1730	-1142.	-1127.	-1041.	-551.	1511.	9.	.0226	-.0573	-.0021	.0482	-.0315	.0464	645.						
.1740	-1258.	-1831.	-1279.	-1277.	1340.	1032.	.0172	-.0546	.0046	.0575	-.0363	.0386	850.						
.1750	526.	-2442.	-638.	-1983.	1548.	1919.	.0112	-.0516	.0118	.0667	-.0364	.0298	1270.						
.1760	597.	-2747.	-448.	-2645.	1496.	2477.	.0054	-.0484	.0193	.0755	-.0349	.0189	1573.						
.1770	1600.	-2540.	79.	-3159.	1535.	2566.	-.0015	-.0452	.0278	.0835	-.0322	.0052	1746.						
.1780	522.	-1928.	-167.	-3427.	1120.	2287.	-.0085	-.0420	.0367	.0997	-.0305	-.0108	1713.						
.1790	332.	-1024.	-50.	-3444.	861.	1825.	-.0163	-.0385	.0464	.0928	-.0288	-.0284	1602.						
.1800	923.	-17.	619.	-3337.	967.	1290.	-.0250	-.0350	.0560	.0929	-.0269	-.0461	1487.						
.1810	-1866.	854.	441.	-3193.	822.	748.	-.0327	-.0320	.0639	.0915	-.0262	-.0621	1357.						
.1820	-1462.	1601.	1468.	-2945.	1370.	267.	-.0409	-.0297	.0711	.0888	-.0239	-.0758	1308.						
.1830	-140.	2133.	2659.	-2557.	2056.	-25.	-.0485	-.0284	.0768	.0846	-.0219	-.0864	1317.						
.1840	563.	2397.	3386.	-2096.	2532.	-119.	-.0556	-.0282	.0808	.0796	-.0218	-.0941	1320.						
.1850	754.	2399.	3661.	-1639.	2753.	-50.	-.0628	-.0294	.0832	.0749	-.0249	-.0984	1286.						
.1860	-805.	2160.	2954.	-1216.	2412.	195.	-.0693	-.0315	.0841	.0712	-.0319	-.0986	1087.						
.1870	-274.	1806.	2551.	-861.	2084.	564.	-.0761	-.0345	.0845	.0686	-.0397	-.0954	933.						
.1880	-1171.	1310.	1452.	-647.	1332.	990.	-.0817	-.0383	.0836	.0670	-.0485	-.0896	717.						
.1890	-2303.	742.	457.	-579.	662.	1418.	-.0860	-.0428	.0814	.0660	-.0563	-.0823	670.						

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

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.1780	522.	-1928.	-167.	-3427.	1120.	2287.	-.085	-.0420	.0367	.0897	-.0305	-.0108	1713.
.1790	332.	-1024.	-50.	-3444.	861.	1825.	-.0163	-.0385	.0464	.0928	-.0288	-.0284	1602.
.1800	923.	-17.	619.	-3337.	967.	1290.	-.0250	-.0350	.0560	.0929	-.0269	-.0461	1487.
.1810	-1866.	854.	441.	-3193.	822.	748.	-.0327	-.0320	.0639	.0915	-.0262	-.0621	1257.
.1820	-1462.	1601.	1468.	-2945.	1370.	267.	-.0409	-.0297	.0711	.0888	-.0239	-.0758	1308.
.1830	-140.	2133.	2659.	-2557.	2056.	-25.	-.0485	-.0284	.0768	.0846	-.0219	-.0864	1317.
.1840	563.	2397.	3386.	-2096.	2532.	-119.	-.0556	-.0282	.0808	.0796	-.0218	-.0941	1320.
.1850	754.	2399.	3661.	-1639.	2753.	-50.	-.0628	-.0294	.0832	.0749	-.0249	-.0984	1286.
.1860	-805.	2160.	2954.	-1216.	2412.	195.	-.0693	-.0315	.0841	.0712	-.0319	-.0986	1087.
.1870	-274.	1806.	2551.	-861.	2084.	564.	-.0761	-.0345	.0845	.0686	-.0397	-.0954	933.
.1880	-1171.	1310.	1452.	-647.	1332.	998.	-.0817	-.0383	.0836	.0670	-.0485	-.0896	717.
.1890	-2303.	742.	457.	-579.	662.	1418.	-.0860	-.0428	.0814	.0660	-.0563	-.0823	670.

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

SECTION	27	MEMBER	2	SEQUENCE	52	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)		
.1900	-2301.	210.	282.	-597.	547.	1763.	-.0891	-.0478	.0778	.0659	-.0514	-.0734	779.		
.1910	-3977.	-255.	-117.	-641.	530.	2001.	-.0889	-.0530	.0718	.0668	-.0637	-.0627	870.		
.1920	-4206.	-562.	67.	-629.	925.	2117.	-.0859	-.0580	.0641	.0682	-.0615	-.0511	961.		
.1930	-3335.	-725.	542.	-505.	1511.	2151.	-.0799	-.0627	.0552	.0684	-.0558	-.0391	1074.		
.1940	-2877.	-789.	806.	-293.	2003.	2063.	-.0709	-.0672	.0454	.0669	-.0483	-.0271	1160.		
.1950	-2737.	-755.	888.	-78.	2346.	1738.	-.0595	-.0719	.0354	.0642	-.0401	-.0155	1172.		
.1960	-2788.	-637.	901.	73.	2516.	1149.	-.0465	-.0771	.0261	.0608	-.0314	-.0050	1110.		
.1970	-1658.	-509.	639.	195.	2391.	461.	-.0319	-.0824	.0176	.0565	-.0227	.0044	980.		
.1980	-1659.	-446.	58.	385.	1980.	-100.	-.0161	-.0872	.0101	.0510	-.0141	.0133	810.		
.1990	-1361.	-469.	-571.	685.	1470.	-436.	.0006	-.0911	.0035	.0450	-.0057	.0214	674.		
.2000	-1204.	-557.	-1145.	1050.	996.	-596.	.0178	-.0947	-.0023	.0398	.0029	.0280	628.		
.2010	-1419.	-690.	-1656.	1395.	620.	-657.	.0354	-.0982	-.0078	.0370	.0123	.0327	667.		
.2020	-1164.	-889.	-1841.	1646.	458.	-622.	.0527	-.1017	-.0128	.0374	.0232	.0354	730.		
.2030	-42.	-1209.	-1624.	1724.	476.	-430.	.0690	-.1047	-.0168	.0406	.0350	.0362	738.		
.2040	867.	-1646.	-1443.	1571.	395.	-65.	.0836	-.1070	-.0199	.0457	.0458	.0351	651.		
.2050	1026.	-2055.	-1599.	1193.	35.	336.	.0963	-.1086	-.0217	.0526	.0545	.0313	497.		
.2060	1128.	-2224.	-1973.	638.	-554.	528.	.1065	-.1101	-.0223	.0623	.0507	.0239	400.		
.2070	1350.	-2052.	-2492.	-47.	-1292.	388.	.1142	-.1116	-.0217	.0747	.0648	.0127	542.		
.2080	979.	-1621.	-3217.	-818.	-2118.	57.	.1198	-.1125	-.0203	.0886	.0668	-.0013	911.		
.2090	135.	-1103.	-3892.	-1606.	-2823.	-212.	.1233	-.1123	-.0184	.1018	.0675	-.0165	1306.		
.2100	-221.	-620.	-4086.	-2345.	-3146.	-298.	.1249	-.1107	-.0162	.1135	.0680	-.0316	1579.		
.2110	-25.	-217.	-3791.	-3001.	-3045.	-250.	.1249	-.1081	-.0141	.1235	.0688	-.0459	1719.		
.2120	274.	102.	-3248.	-3545.	-2629.	-145.	.1236	-.1052	-.0122	.1318	.0692	-.0589	1772.		
.2130	503.	311.	-2658.	-3929.	-2054.	19.	.1206	-.1019	-.0105	.1377	.0678	-.0697	1779.		
.2140	470.	359.	-2262.	-4095.	-1536.	298.	.1159	-.0983	-.0087	.1400	.0637	-.0773	1759.		
.2150	19.	238.	-2239.	-4016.	-1234.	718.	.1095	-.0939	-.0069	.1380	.0566	-.0808	1710.		
.2160	-570.	4.	-2480.	-3719.	-1110.	1194.	.1016	-.0890	-.0048	.1315	.0472	-.0807	1629.		
.2170	-906.	-259.	-2634.	-3264.	-999.	1561.	.0924	-.0840	-.0026	.1215	.0372	-.0773	1506.		
.2180	-1171.	-490.	-2692.	-2702.	-786.	1709.	.0819	-.0790	-.0004	.1092	.0275	-.0712	1321.		
.2190	-1563.	-657.	-2448.	-2048.	-416.	1672.	.0707	-.0738	.0016	.0949	.0190	-.0627	1074.		
.2200	-1726.	-739.	-1903.	-1301.	108.	1544.	.0588	-.0681	.0035	.0788	.0121	-.0523	811.		
.2210	-1438.	-715.	-1153.	-492.	680.	1355.	.0466	-.0617	.0053	.0618	.0070	-.0408	639.		
.2220	-976.	-574.	-404.	298.	1159.	1055.	.0339	-.0550	.0071	.0456	.0031	-.0288	640.		
.2230	-572.	-336.	244.	964.	1481.	613.	.0209	-.0485	.0090	.0313	-.0006	-.0171	750.		
.2240	-284.	-75.	744.	1422.	1599.	70.	.0074	-.0424	.0110	.0192	-.0050	-.0066	859.		
.2250	-123.	110.	1015.	1645.	1450.	-463.	-.0067	-.0367	.0133	.0091	-.0104	.0026	899.		
.2260	52.	170.	1072.	1668.	1063.	-881.	-.0211	-.0312	.0159	.0010	-.0170	.0103	869.		
.2270	311.	134.	1007.	1549.	565.	-1157.	-.0355	-.0259	.0185	-.0050	-.0249	.0164	808.		

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

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.2170	-906.	-259.	-2684.	-3264.	-999.	1561.	.0924	-.0240	-.0026	.1215	.0372	-.0773	1506.
.2180	-1171.	-490.	-2692.	-2702.	-786.	1709.	.0819	-.0790	-.0004	.1092	.0275	-.0712	1321.
.2190	-1563.	-657.	-2448.	-2048.	-416.	1672.	.0707	-.0728	.0016	.0949	.0190	-.0627	1074.
.2200	-1726.	-739.	-1903.	-1301.	108.	1544.	.0588	-.0681	.0035	.0788	.0121	-.0523	811.
.2210	-1438.	-715.	-1153.	-492.	680.	1355.	.0466	-.0617	.0053	.0618	.0070	-.0408	639.
.2220	-976.	-574.	-404.	299.	1159.	1055.	.0379	-.0550	.0071	.0456	.0031	-.0288	640.
.2230	-572.	-336.	244.	964.	1481.	613.	.0209	-.0485	.0090	.0313	-.0006	-.0171	750.
.2240	-284.	-75.	744.	1422.	1599.	70.	.0074	-.0424	.0110	.0192	-.0050	-.0066	859.
.2250	-123.	110.	1015.	1645.	1450.	-463.	-.0067	-.0367	.0133	.0091	-.0104	.0026	899.
.2260	52.	170.	1072.	1668.	1063.	-881.	-.0211	-.0312	.0159	.0010	-.0170	.0103	869.
.2270	311.	134.	1007.	1549.	565.	-1157.	-.0355	-.0259	.0185	-.0050	-.0249	.0164	808.

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INTERNAL FORCES IN THE PIPING
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SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU							STRESS
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	(PSI)
.2280	375.	63.	752.	1341.	67.	-1336.	-.0495	-.0209	.0210	-.0088	-.0341	.0202	760.
.2290	115.	4.	654.	1100.	-338.	-1451.	-.0627	-.0162	.0230	-.0105	-.0441	.0214	743.
.2300	-139.	-36.	570.	872.	-542.	-1468.	-.0747	-.0116	.0246	-.0109	-.0541	.0199	719.
.2310	-254.	-81.	657.	660.	-522.	-1347.	-.0853	-.0066	.0260	-.0110	-.0538	.0161	637.
.2320	-505.	-142.	782.	431.	-377.	-1114.	-.0941	-.0011	.0271	-.0112	-.0730	.0105	503.
.2330	-880.	-186.	847.	172.	-213.	-852.	-.1009	.0048	.0282	-.0117	-.0815	.0035	359.
.2340	-1130.	-152.	835.	-83.	-85.	-657.	-.1056	.0109	.0291	-.0127	-.0890	-.0049	268.
.2350	-1426.	3.	647.	-289.	-62.	-592.	-.1080	.0171	.0298	-.0146	-.0951	-.0145	265.
.2360	-2013.	286.	235.	-416.	-164.	-667.	-.1079	.0233	.0301	-.0175	-.0992	-.0246	322.
.2370	-2577.	667.	-212.	-449.	-286.	-841.	-.1050	.0298	.0296	-.0214	-.1002	-.0342	399.
.2380	-2737.	1092.	-453.	-392.	-290.	-1052.	-.0995	.0364	.0284	-.0262	-.0970	-.0426	465.
.2390	-2578.	1496.	-412.	-272.	-115.	-1257.	-.0914	.0430	.0261	-.0316	-.0892	-.0493	518.
.2400	-2239.	1829.	-90.	-128.	240.	-1424.	-.0811	.0495	.0228	-.0372	-.0772	-.0542	582.
.2410	-1723.	2049.	450.	13.	710.	-1507.	-.0691	.0557	.0186	-.0426	-.0621	-.0572	669.
.2420	-1232.	2116.	984.	139.	1133.	-1457.	-.0560	.0616	.0136	-.0473	-.0454	-.0577	743.
.2430	-909.	2010.	1282.	243.	1347.	-1246.	-.0421	.0670	.0079	-.0509	-.0289	-.0559	743.
.2440	-481.	1752.	1358.	315.	1344.	-896.	-.0291	.0721	.0018	-.0536	-.0131	-.0519	660.
.2450	76.	1384.	1281.	338.	1186.	-468.	-.0143	.0766	-.0047	-.0556	.0011	-.0462	529.
.2460	372.	951.	1048.	310.	920.	-46.	-.0010	.0805	-.0115	-.0573	.0131	-.0392	390.
.2470	247.	521.	634.	259.	567.	296.	.0113	.0838	-.0188	-.0589	.0221	-.0313	277.
.2480	277.	177.	173.	234.	198.	508.	.0224	.0866	-.0263	-.0608	.0283	-.0229	238.
.2490	867.	-38.	-196.	261.	-109.	572.	.0321	.0892	-.0338	-.0632	.0322	-.0145	256.
.2500	1534.	-126.	-503.	335.	-338.	497.	.0403	.0915	-.0411	-.0666	.0340	-.0061	276.
.2510	1809.	-112.	-746.	442.	-467.	307.	.0467	.0939	-.0482	-.0711	.0335	.0021	286.
.2520	1763.	-20.	-887.	578.	-495.	29.	.0514	.0963	-.0545	-.0767	.0310	.0100	306.
.2530	1653.	115.	-952.	750.	-483.	-301.	.0542	.0987	-.0601	-.0830	.0275	.0176	378.
.2540	1605.	246.	-996.	960.	-493.	-628.	.0555	.1012	-.0647	-.0898	.0237	.0251	501.
.2550	1569.	324.	-1014.	1205.	-531.	-888.	.0552	.1038	-.0683	-.0972	.0200	.0326	637.
.2560	1391.	317.	-991.	1477.	-583.	-1057.	.0537	.1067	-.0712	-.1051	.0171	.0404	766.
.2570	1067.	237.	-919.	1767.	-646.	-1163.	.0512	.1097	-.0734	-.1133	.0155	.0483	887.
.2580	937.	124.	-735.	2070.	-692.	-1249.	.0479	.1126	-.0749	-.1218	.0160	.0557	1009.
.2590	1225.	28.	-408.	2374.	-708.	-1353.	.0440	.1156	-.0757	-.1300	.0188	.0622	1133.
.2600	1641.	-27.	-50.	2640.	-750.	-1477.	.0395	.1187	-.0760	-.1378	.0232	.0677	1251.
.2610	1853.	-52.	221.	2842.	-880.	-1579.	.0343	.1221	-.0755	-.1452	.0281	.0721	1351.
.2620	1912.	-67.	390.	2979.	-1108.	-1608.	.0284	.1259	-.0743	-.1521	.0328	.0748	1429.
.2630	1961.	-66.	469.	3041.	-1419.	-1578.	.0217	.1299	-.0722	-.1580	.0368	.0757	1488.
.2640	1929.	-25.	436.	3003.	-1799.	-1540.	.0142	.1340	-.0693	-.1624	.0395	.0744	1535.
.2650	1742.	50.	326.	2863.	-2195.	-1488.	.0059	.1381	-.0658	-.1652	.0403	.0712	1566.

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2 SAFETY COLD FKW24F--2 PSV

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INTERNAL FORCES IN THE PIPING
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.2540	1405.	246.	-996.	960.	-485.	-822.	.0555	.1012	-.0647	-.0898	.0237	.0251	501.
.2550	1569.	324.	-1014.	1205.	-531.	-888.	.0552	.1038	-.0683	-.0972	.0200	.0326	637.
.2560	1391.	317.	-991.	1477.	-583.	-1057.	.0537	.1067	-.0712	-.1051	.0171	.0404	766.
.2570	1067.	237.	-919.	1767.	-646.	-1163.	.0512	.1097	-.0734	-.1133	.0155	.0483	887.
.2580	937.	124.	-735.	2070.	-692.	-1249.	.0479	.1126	-.0749	-.1218	.0160	.0557	1009.
.2590	1225.	28.	-408.	2374.	-708.	-1353.	.0440	.1156	-.0757	-.1300	.0188	.0622	1133.
.2600	1641.	-27.	-50.	2640.	-750.	-1477.	.0395	.1187	-.0760	-.1378	.0232	.0677	1251.
.2610	1853.	-52.	221.	2842.	-880.	-1579.	.0343	.1221	-.0755	-.1452	.0281	.0721	1351.
.2620	1912.	-67.	390.	2979.	-1108.	-1608.	.0284	.1259	-.0743	-.1521	.0328	.0748	1429.
.2630	1961.	-66.	467.	3041.	-1419.	-1578.	.0217	.1299	-.0722	-.1580	.0368	.0757	1488.
.2640	1929.	-25.	436.	3003.	-1799.	-1540.	.0142	.1340	-.0693	-.1624	.0395	.0744	1535.
.2650	1742.	50.	326.	2863.	-2195.	-1488.	.0059	.1381	-.0658	-.1652	.0403	.0712	1566.

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CONDITION 24

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

SECTION	27	MEMBER	2	SEQUENCE	52	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ				DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.2660	1485.	135.	230.	2651.	-2525.	-1370.	-.0029	.1424	-.0618	-.1670	.0393	.0665	.0665	1569.	
.2670	1259.	213.	204.	2409.	-2740.	-1164.	-.0120	.1469	-.0574	-.1685	.0366	.0604	.0604	1537.	
.2680	1179.	305.	294.	2165.	-2800.	-917.	-.0213	.1513	-.0528	-.1697	.0326	.0532	.0532	1467.	
.2690	1231.	452.	501.	1922.	-2699.	-706.	-.0305	.1555	-.0479	-.1705	.0273	.0451	.0451	1359.	
.2700	1224.	658.	729.	1684.	-2501.	-560.	-.0396	.1592	-.0428	-.1707	.0204	.0366	.0366	1231.	
.2710	1095.	867.	882.	1471.	-2298.	-435.	-.0485	.1624	-.0375	-.1706	.0120	.0283	.0283	1109.	
.2720	1019.	1007.	961.	1307.	-2128.	-264.	-.0571	.1651	-.0319	-.1700	.0022	.0208	.0208	1008.	
.2730	1040.	1067.	993.	1177.	-1981.	-43.	-.0655	.1672	-.0261	-.1689	-.0084	.0144	.0144	925.	
.2740	912.	1098.	966.	1035.	-1832.	166.	-.0732	.1686	-.0203	-.1670	-.0195	.0091	.0091	847.	
.2750	671.	1124.	972.	874.	-1606.	341.	-.0801	.1692	-.0149	-.1641	-.0303	.0051	.0051	746.	
.2760	547.	1112.	1125.	739.	-1226.	535.	-.0860	.1693	-.0099	-.1603	-.0400	.0026	.0026	613.	
.2770	556.	1039.	1436.	665.	-681.	784.	-.0906	.1687	-.0057	-.1560	-.0484	.0018	.0018	495.	
.2780	590.	953.	1846.	635.	-5.	1033.	-.0940	.1675	-.0024	-.1512	-.0553	.0024	.0024	487.	
.2790	630.	907.	2312.	623.	759.	1204.	-.0962	.1654	.0001	-.1457	-.0611	.0041	.0041	623.	
.2800	629.	882.	2760.	631.	1533.	1293.	-.0972	.1622	.0016	-.1395	-.0659	.0067	.0067	844.	
.2810	495.	826.	3079.	670.	2214.	1337.	-.0971	.1580	.0024	-.1328	-.0701	.0102	.0102	1072.	
.2820	294.	743.	3219.	724.	2738.	1347.	-.0959	.1529	.0026	-.1260	-.0738	.0141	.0141	1258.	
.2830	121.	671.	3199.	767.	3092.	1313.	-.0935	.1469	.0023	-.1192	-.0766	.0182	.0182	1383.	
.2840	-93.	605.	3634.	799.	3289.	1257.	-.0899	.1403	.0014	-.1125	-.0783	.0222	.0222	1449.	
.2850	-348.	508.	2780.	837.	3363.	1214.	-.0850	.1330	-.0000	-.1059	-.0784	.0263	.0263	1474.	
.2860	-432.	377.	2542.	891.	3365.	1189.	-.0789	.1251	-.0019	-.0994	-.0763	.0302	.0302	1476.	
.2870	-247.	249.	2375.	952.	3318.	1152.	-.0716	.1167	-.0040	-.0930	-.0718	.0336	.0336	1460.	
.2880	32.	138.	2240.	1011.	3192.	1082.	-.0636	.1077	-.0062	-.0868	-.0651	.0365	.0365	1412.	
.2890	281.	40.	2090.	1069.	2948.	972.	-.0550	.0982	-.0063	-.0806	-.0669	.0390	.0390	1318.	
.2900	568.	-32.	1913.	1119.	2564.	799.	-.0461	.0882	-.0102	-.0743	-.0472	.0409	.0409	1168.	
.2910	895.	-51.	1685.	1149.	2029.	538.	-.0373	.0776	-.0115	-.0678	-.0367	.0422	.0422	960.	
.2920	1139.	-8.	1387.	1150.	1357.	192.	-.0287	.0666	-.0123	-.0608	-.0255	.0427	.0427	718.	
.2930	1251.	76.	1048.	1118.	602.	-201.	-.0203	.0552	-.0125	-.0533	-.0140	.0427	.0427	516.	
.2940	1295.	178.	719.	1051.	-170.	-594.	-.0123	.0436	-.0123	-.0450	-.0023	.0423	.0423	489.	
.2950	1314.	271.	430.	955.	-907.	-936.	-.0045	.0320	-.0117	-.0358	.0096	.0417	.0417	648.	
.2960	1479.	326.	201.	846.	-1567.	-1188.	.0030	.0203	-.0108	-.0255	.0213	.0410	.0410	859.	
.2970	1636.	326.	27.	733.	-2131.	-1337.	.0100	.0086	-.0096	-.0142	.0326	.0404	.0404	1051.	
.2980	1710.	285.	-147.	609.	-2615.	-1406.	.0166	-.0032	-.0082	-.0019	.0429	.0398	.0398	1216.	
.2990	1644.	221.	-374.	469.	-3047.	-1412.	.0226	-.0149	-.0065	.0111	.0518	.0393	.0393	1361.	
.3000	1487.	133.	-663.	330.	-3437.	-1352.	.0280	-.0266	-.0045	.0244	.0591	.0389	.0389	1488.	
.3010	1249.	13.	-995.	205.	-3773.	-1227.	.0328	-.0380	-.0024	.0377	.0550	.0388	.0388	1594.	
.3020	955.	-120.	-1341.	86.	-4027.	-1066.	.0370	-.0491	-.0002	.0508	.0596	.0391	.0391	1672.	
.3030	551.	-243.	-1648.	-33.	-4159.	-901.	.0407	-.0599	.0019	.0634	.0732	.0397	.0397	1708.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.27.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.2930	1251.	76.	1048.	1118.	602.	-201.	-.0203	.0552	-.0123	-.0533	-.0140	.0427	516.
.2940	1295.	178.	719.	1051.	-170.	-594.	-.0123	.0436	-.0123	-.0450	-.0023	.0423	489.
.2950	1354.	271.	430.	955.	-907.	-936.	-.0045	.0320	-.0117	-.0356	.0096	.0417	648.
.2960	1479.	326.	201.	146.	-1567.	-1188.	.0030	.0203	-.0108	-.0255	.0213	.0410	859.
.2970	1636.	326.	27.	733.	-2131.	-1337.	.0100	.0016	-.0096	-.0142	.0326	.0404	1051.
.2980	1710.	285.	-147.	609.	-2615.	-1406.	.0166	-.0022	-.0082	-.0019	.0429	.0398	1216.
.2990	1644.	221.	-374.	469.	-3047.	-1412.	.0226	-.0149	-.0065	.0111	.0518	.0393	1361.
.3000	1487.	133.	-663.	330.	-3437.	-1352.	.0280	-.0266	-.0045	.0244	.0591	.0389	1488.
.3010	1269.	13.	-995.	205.	-3773.	-1227.	.0328	-.0380	-.0024	.0377	.0550	.0388	1594.
.3020	955.	-126.	-1341.	86.	-4027.	-1066.	.0370	-.0491	-.0002	.0508	.0596	.0391	1672.
.3030	551.	-243.	-1647.	-53.	-4159.	-901.	.0407	-.0599	.0019	.0634	.0732	.0397	1708.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.27.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU								
TIME (SEC)	Fx (LB)	Fy (LB)	Fz (LB)	Mx (FT-LB)	My (FT-LB)	Mz (FT-LB)	Dx (IN)	Dy (IN)	Dz (IN)	Rx (DEG)	Ry (DEG)	Rz (DEG)	STRESS (PSI)	
.3040	142.	-362.	-1855.	-176.	-4135.	-722.	.0440	-.0707	.0040	.0755	.0762	.0406	1685.	
.3050	-177.	-504.	-1928.	-200.	-3949.	-501.	.0470	-.0798	.0058	.0867	.0788	.0421	1599.	
.3060	-356.	-673.	-1865.	-227.	-3621.	-239.	.0495	-.0887	.0075	.0969	.0812	.0442	1459.	
.3070	-416.	-837.	-1696.	-235.	-3194.	20.	.0516	-.0961	.0092	.1059	.0830	.0468	1285.	
.3080	-435.	-972.	-1484.	-236.	-2727.	235.	.0530	-.1041	.0108	.1136	.0838	.0495	1102.	
.3090	-452.	-1074.	-1291.	-225.	-2282.	355.	.0537	-.1107	.0126	.1196	.0834	.0521	934.	
.3100	-450.	-1144.	-1156.	-203.	-1902.	490.	.0535	-.1166	.0145	.1240	.0812	.0543	793.	
.3110	-440.	-1179.	-1100.	-179.	-1603.	524.	.0524	-.1219	.0167	.1268	.0772	.0560	681.	
.3120	-472.	-1181.	-1126.	-156.	-1378.	504.	.0503	-.1265	.0190	.1282	.0711	.0567	592.	
.3130	-528.	-1165.	-1202.	-135.	-1191.	455.	.0473	-.1305	.0214	.1286	.0630	.0563	515.	
.3140	-540.	-1147.	-1270.	-123.	-997.	411.	.0435	-.1339	.0240	.1282	.0533	.0544	436.	
.3150	-529.	-1139.	-1301.	-135.	-765.	399.	.0388	-.1368	.0265	.1274	.0421	.0508	351.	
.3160	-538.	-1144.	-1282.	-185.	-483.	438.	.0333	-.1391	.0290	.1267	.0299	.0455	272.	
.3170	-566.	-1151.	-1210.	-285.	-157.	523.	.0273	-.1408	.0316	.1262	.0169	.0383	247.	
.3180	-624.	-1131.	-1106.	-446.	190.	630.	.0207	-.1420	.0342	.1262	.0036	.0291	319.	
.3190	-761.	-1056.	-1010.	-672.	521.	730.	.0139	-.1427	.0370	.1267	-.0097	.0181	455.	
.3200	-1029.	-917.	-957.	-948.	804.	804.	.0069	-.1430	.0397	.1277	-.0226	.0054	594.	
.3210	-1383.	-719.	-942.	-1262.	1029.	841.	.0002	-.1430	.0425	.1293	-.0346	-.0084	735.	
.3220	-1741.	-471.	-948.	-1605.	1198.	834.	-.0062	-.1426	.0452	.1312	-.0451	-.0227	870.	
.3230	-2052.	-189.	-961.	-1968.	1319.	789.	-.0119	-.1420	.0478	.1332	-.0537	-.0370	1002.	
.3240	-2263.	87.	-951.	-2328.	1410.	742.	-.0167	-.1412	.0501	.1352	-.0602	-.0505	1132.	
.3250	-2350.	305.	-895.	-2663.	1485.	731.	-.0205	-.1402	.0521	.1369	-.0643	-.0626	1258.	
.3260	-2377.	439.	-805.	-2963.	1545.	771.	-.0231	-.1390	.0538	.1381	-.0664	-.0728	1376.	
.3270	-2366.	493.	-699.	-3225.	1583.	855.	-.0246	-.1377	.0551	.1386	-.0666	-.0808	1482.	
.3280	-2276.	473.	-585.	-3439.	1593.	982.	-.0249	-.1364	.0563	.1382	-.0653	-.0866	1571.	
.3290	-2161.	372.	-488.	-3589.	1561.	1155.	-.0241	-.1349	.0571	.1367	-.0630	-.0900	1638.	
.3300	-2121.	199.	-433.	-3673.	1481.	1362.	-.0224	-.1334	.0577	.1341	-.0600	-.0911	1680.	
.3310	-2123.	-10.	-412.	-3702.	1364.	1562.	-.0197	-.1320	.0579	.1305	-.0567	-.0901	1703.	
.3320	-2074.	-214.	-403.	-3697.	1228.	1716.	-.0163	-.1307	.0577	.1260	-.0532	-.0876	1706.	
.3330	-1953.	-394.	-409.	-3646.	1078.	1813.	-.0120	-.1295	.0569	.1209	-.0494	-.0838	1690.	
.3340	-1785.	-559.	-439.	-3573.	916.	1869.	-.0071	-.1282	.0554	.1154	-.0454	-.0791	1659.	
.3350	-1573.	-692.	-489.	-3491.	745.	1894.	-.0017	-.1272	.0533	.1099	-.0413	-.0736	1621.	
.3360	-1345.	-798.	-574.	-3418.	558.	1887.	.0042	-.1262	.0504	.1047	-.0370	-.0678	1583.	
.3370	-1141.	-875.	-709.	-3365.	348.	1854.	.0104	-.1251	.0469	.1001	-.0325	-.0619	1548.	
.3380	-963.	-934.	-888.	-3335.	117.	1811.	.0167	-.1242	.0427	.0962	-.0278	-.0562	1524.	
.3390	-830.	-993.	-1093.	-3325.	-123.	1781.	.0231	-.1232	.0380	.0931	-.0229	-.0507	1514.	
.3400	-799.	-1064.	-1315.	-3322.	-364.	1755.	.0293	-.1220	.0328	.0925	-.0176	-.0454	1520.	
.3410	-866.	-1154.	-1530.	-3307.	-562.	1625.	.0354	-.1207	.0272	.0881	-.0120	-.0404	1533.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.27.

S/RV PIPING KEWAUNEE CRK OFF 2 RUP DISK
2 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	-2123.	-10.	-412.	-3703.	1364.	1562.	-.1197	-.1320	.0577	.1305	-.0567	-.0901	1703.
.3320	-2074.	-214.	-403.	-3692.	1228.	1716.	-.1163	-.1307	.0577	.1260	-.0532	-.0876	1706.
.3330	-1993.	-394.	-409.	-3646.	1078.	1813.	-.0120	-.1295	.0569	.1209	-.0494	-.0838	1690.
.3340	-1785.	-555.	-432.	-3573.	916.	1869.	-.0071	-.1283	.0554	.1154	-.0454	-.0791	1659.
.3350	-1573.	-692.	-429.	-3491.	745.	1894.	-.0017	-.1272	.0533	.1099	-.0413	-.0736	1621.
.3360	-1345.	-758.	-574.	-3418.	558.	1837.	.0042	-.1262	.0504	.1047	-.0370	-.0678	1583.
.3370	-1141.	-875.	-709.	-3365.	348.	1854.	.0104	-.1251	.0469	.1001	-.0325	-.0619	1548.
.3380	-963.	-934.	-888.	-3335.	117.	1811.	.0167	-.1242	.0427	.0962	-.0278	-.0562	1524.
.3390	-830.	-993.	-1093.	-3325.	-123.	1781.	.0231	-.1232	.0380	.0931	-.0229	-.0507	1514.
.3400	-799.	-1064.	-1315.	-3321.	-364.	1755.	.0293	-.1220	.0328	.0905	-.0176	-.0454	1520.
.3410	-866.	-1154.	-1530.	-3307.	-502.	1625.	.0354	-.1207	.0272	.0881	-.0120	-.0404	1533.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.27.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	27	MEMBER	2	SEQUENCE	52	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)	
.3420	-935.	-1256.	-1692.	-3263.	-746.	1888.		.0414	-.1192	.0213	.0859	-.0060	-.0358	1542.	
.3430	-953.	-1361.	-1731.	-3177.	-839.	1954.		.0472	-.1175	.0151	.0833	.0004	-.0315	1534.	
.3440	-954.	-1463.	-1808.	-3038.	-867.	2013.		.0528	-.1155	.0088	.0802	.0071	-.0278	1503.	
.3450	-961.	-1559.	-1792.	-2841.	-844.	2063.		.0583	-.1130	.0025	.0761	.0137	-.0244	1449.	
.3460	-939.	-1637.	-1751.	-2590.	-793.	2089.		.0636	-.1100	-.0036	.0709	.0200	-.0217	1373.	
.3470	-860.	-1676.	-1707.	-2302.	-740.	2067.		.0686	-.1064	-.0092	.0646	.0258	-.0196	1276.	
.3480	-747.	-1655.	-1682.	-1996.	-705.	1973.		.0732	-.1027	-.0144	.0572	.0307	-.0185	1161.	
.3490	-644.	-1569.	-1684.	-1690.	-697.	1810.		.0773	-.0976	-.0189	.0490	.0345	-.0184	1032.	
.3500	-571.	-1424.	-1703.	-1398.	-712.	1596.		.0808	-.0924	-.0228	.0402	.0373	-.0192	898.	
.3510	-496.	-1234.	-1719.	-1140.	-742.	1347.		.0836	-.0865	-.0260	.0312	.0390	-.0209	768.	
.3520	-368.	-1006.	-1706.	-935.	-768.	1078.		.0857	-.0802	-.0286	.0223	.0400	-.0235	650.	
.3530	-189.	-756.	-1657.	-800.	-785.	809.		.0871	-.0734	-.0305	.0141	.0402	-.0267	555.	
.3540	-11.	-514.	-1580.	-749.	-803.	567.		.0876	-.0664	-.0319	.0068	.0397	-.0304	496.	
.3550	148.	-312.	-1525.	-790.	-837.	385.		.0872	-.0591	-.0328	.0006	.0385	-.0343	487.	
.3560	309.	-175.	-1481.	-927.	-903.	286.		.0858	-.0516	-.0330	-.0043	.0366	-.0382	532.	
.3570	475.	-111.	-1475.	-1152.	-1013.	276.		.0834	-.0441	-.0327	-.0079	.0340	-.0417	625.	
.3580	621.	-120.	-1510.	-1451.	-1160.	351.		.0799	-.0365	-.0318	-.0103	.0306	-.0448	759.	
.3590	733.	-195.	-1565.	-1798.	-1318.	499.		.0754	-.0289	-.0303	-.0118	.0266	-.0473	917.	
.3600	809.	-319.	-1604.	-2155.	-1448.	702.		.0700	-.0213	-.0283	-.0127	.0218	-.0490	1079.	
.3610	857.	-464.	-1590.	-2484.	-1506.	933.		.0636	-.0136	-.0259	-.0134	.0166	-.0498	1224.	
.3620	903.	-598.	-1487.	-2750.	-1454.	1153.		.0563	-.0060	-.0231	-.0143	.0110	-.0499	1332.	
.3630	945.	-690.	-1280.	-2930.	-1270.	1331.		.0483	.0015	-.0200	-.0158	.0051	-.0492	1388.	
.3640	940.	-725.	-979.	-3007.	-957.	1444.		.0397	.0090	-.0167	-.0180	-.0013	-.0477	1392.	
.3650	865.	-705.	-611.	-2970.	-535.	1486.		.0305	.0164	-.0132	-.0211	-.0080	-.0454	1350.	
.3660	750.	-636.	-196.	-2870.	-31.	1457.		.0208	.0236	-.0098	-.0251	-.0150	-.0425	1274.	
.3670	611.	-529.	239.	-2569.	523.	1362.		.0107	.0305	-.0063	-.0299	-.0222	-.0390	1186.	
.3680	427.	-395.	660.	-2234.	1089.	1211.		.0005	.0371	-.0031	-.0351	-.0294	-.0349	1110.	
.3690	204.	-245.	1049.	-1874.	1637.	1026.		-.0096	.0434	-.0001	-.0406	-.0362	-.0304	1069.	
.3700	-14.	-96.	1408.	-1385.	2146.	831.		-.0195	.0492	.0024	-.0462	-.0423	-.0257	1078.	
.3710	-199.	41.	1734.	-910.	2596.	640.		-.0290	.0546	.0046	-.0515	-.0473	-.0208	1133.	
.3720	-351.	168.	2018.	-438.	2963.	455.		-.0379	.0595	.0043	-.0564	-.0510	-.0160	1216.	
.3730	-459.	392.	2249.	3.	3222.	270.		-.0461	.0639	.0075	-.0607	-.0532	-.0115	1298.	
.3740	-517.	410.	2410.	388.	3349.	89.		-.0535	.0677	.0082	-.0642	-.0540	-.0073	1353.	
.3750	-539.	510.	2485.	705.	3322.	-77.		-.0599	.0711	.0087	-.0671	-.0534	-.0035	1363.	
.3760	-528.	583.	2470.	945.	3139.	-224.		-.0654	.0739	.0088	-.0692	-.0515	.0001	1319.	
.3770	-472.	640.	2377.	1100.	2816.	-367.		-.0699	.0763	.0087	-.0707	-.0484	.0032	1222.	
.3780	-379.	696.	2225.	1172.	2382.	-521.		-.0734	.0787	.0085	-.0716	-.0445	.0061	1084.	
.3790	-264.	752.	2038.	1171.	1877.	-680.		-.0757	.0797	.0080	-.0722	-.0397	.0087	929.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.27.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

.3690	204.	-245.	1045.	-1834.	1637.	1026.	-.0096	.0474	-.0001	-.0406	-.0362	-.0304	1069.
.3700	-14.	-96.	1408.	-1385.	2146.	831.	-.0195	.0492	.0024	-.0462	-.0423	-.0257	1078.
.3710	-199.	41.	1734.	-910.	2596.	640.	-.0290	.0546	.0046	-.0515	-.0473	-.0208	1133.
.3720	-351.	168.	2010.	-475.	2960.	455.	-.0279	.0595	.0063	-.0564	-.0510	-.0160	1216.
.3730	-459.	292.	2249.	3.	3222.	270.	-.0461	.0679	.0075	-.0607	-.0532	-.0115	1298.
.3740	-517.	410.	2410.	388.	3349.	89.	-.0535	.0677	.0082	-.0642	-.0540	-.0073	1353.
.3750	-539.	510.	2485.	705.	3322.	-77.	-.0599	.0711	.0087	-.0671	-.0534	-.0035	1363.
.3760	-528.	583.	2470.	945.	3139.	-224.	-.0654	.0739	.0088	-.0692	-.0515	.0001	1319.
.3770	-472.	640.	2377.	1100.	2816.	-367.	-.0699	.0767	.0087	-.0707	-.0484	.0032	1222.
.3780	-379.	696.	2225.	1172.	2382.	-521.	-.0734	.0787	.0085	-.0716	-.0445	.0061	1086.
.3790	-264.	752.	2038.	1171.	1877.	-680.	-.0757	.0797	.0080	-.0722	-.0397	.0087	929.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.27.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	27	MEMBER	2	SEQUENCE	52	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ				DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.3800	-121.	800.	1850.	1119.	1343.	-825.	-.0769	.0808	.0075	-.0726	-.0342	.0114	.0114	776.	
.3810	62.	878.	1690.	1031.	822.	-955.	-.0770	.0818	.0069	-.0732	-.0283	.0143	.0143	653.	
.3820	270.	867.	1564.	924.	338.	-1077.	-.0760	.0824	.0062	-.0737	-.0221	.0174	.0174	585.	
.3830	468.	889.	1458.	815.	-97.	-1195.	-.0740	.0827	.0054	-.0743	-.0159	.0210	.0210	582.	
.3840	635.	897.	1350.	713.	-486.	-1306.	-.0711	.0827	.0045	-.0749	-.0099	.0251	.0251	628.	
.3850	757.	878.	1218.	629.	-837.	-1389.	-.0673	.0824	.0036	-.0755	-.0042	.0299	.0299	698.	
.3860	825.	815.	1050.	571.	-1148.	-1430.	-.0628	.0818	.0024	-.0760	.0010	.0354	.0354	771.	
.3870	853.	711.	854.	533.	-1409.	-1430.	-.0576	.0810	.0010	-.0762	.0058	.0416	.0416	833.	
.3880	865.	582.	654.	506.	-1598.	-1401.	-.0517	.0799	-.0007	-.0760	.0104	.0482	.0482	877.	
.3890	874.	430.	476.	490.	-1695.	-1341.	-.0454	.0785	-.0027	-.0753	.0149	.0552	.0552	889.	
.3900	884.	244.	346.	499.	-1690.	-1232.	-.0387	.0770	-.0051	-.0740	.0195	.0625	.0625	863.	
.3910	905.	25.	278.	542.	-1579.	-1081.	-.0318	.0754	-.0079	-.0720	.0242	.0700	.0700	798.	
.3920	940.	-192.	267.	618.	-1380.	-926.	-.0248	.0736	-.0110	-.0692	.0290	.0773	.0773	711.	
.3930	973.	-361.	288.	722.	-1122.	-811.	-.0179	.0717	-.0142	-.0657	.0337	.0841	.0841	627.	
.3940	980.	-467.	316.	854.	-843.	-749.	-.0114	.0697	-.0175	-.0618	.0382	.0902	.0902	568.	
.3950	955.	-519.	335.	1016.	-573.	-733.	-.0053	.0678	-.0206	-.0577	.0422	.0955	.0955	553.	
.3960	921.	-524.	338.	1202.	-333.	-767.	.0002	.0660	-.0236	-.0536	.0458	.1001	.1001	588.	
.3970	918.	-473.	328.	1401.	-133.	-863.	.0049	.0643	-.0263	-.0498	.0488	.1036	.1036	663.	
.3980	864.	-371.	304.	1611.	24.	-1020.	.0089	.0627	-.0285	-.0462	.0512	.1062	.1062	765.	
.3990	1041.	-242.	263.	1836.	134.	-1206.	.0120	.0613	-.0303	-.0430	.0530	.1078	.1078	883.	
.4000	1125.	-117.	206.	2080.	197.	-1384.	.0141	.0601	-.0317	-.0403	.0540	.1086	.1086	1006.	

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)
.1100	7925.	3449.	5197.	8797.	3194.	-8252.	.0524	.0552	-.1046	-.1454	.0808	.0908	5007.

SECTION	28	MEMBER	1	SEQUENCE	52	LOCATION	BEG	TYPE	EL						
TIME	FX	FY	FZ	MX	MY	MZ				DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(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	0.0000	0.	
.0010	-5.	-1.	-7.	1.	-5.	1.	.0000	-.0000	-.0000	.0000	.0000	-.0000	-.0000	2.	
.0020	-35.	-4.	-51.	4.	-41.	3.	.0000	-.0000	-.0002	.0001	.0002	-.0000	-.0000	17.	
.0030	-54.	0.	-149.	9.	-121.	-3.	.0000	-.0000	-.0005	.0002	.0007	-.0000	-.0000	49.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.27.

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

CONDITION 27
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

.1100 7925. 7449. 5197. 8797. 3194. -8252. .524 .0552 -.1046 -.1454 .0908 .0908 5007.

SECTION	2E	MEMBER	1	SEQUENCE	52	LOCATION	BEG	TYPE	EL	DZ	RX	RY	RZ	STRESS
TIME	FX	FY	FZ	MX	MY	MZ					(DEG)	(DEG)	(DEG)	(PSI)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)					
0.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.
.0010	-5.	-1.	-7.	1.	-6.	1.	.0000	-.0000	-.0000	.0000	.0000	.0000	-.0000	2.
.0020	-35.	-4.	-51.	4.	-41.	3.	.0000	-.0000	-.0002	.0001	.0002	.0002	-.0000	17.
.0030	-94.	0.	-149.	9.	-121.	-3.	.0000	-.0000	-.0005	.0002	.0007	.0007	-.0000	49.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.27.

S/RV PIPING KEWAUNEE GKW06F 2 RUP DISK

2 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	2E	MEMBER	1	SEQUENCE	52	LOCATION	BEG	TYPE	EL	DZ	RX	RY	RZ	STRESS
TIME	FX	FY	FZ	MX	MY	MZ					(DEG)	(DEG)	(DEG)	(PSI)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)					
.0040	-159.	26.	-287.	11.	-238.	-34.	.0001	.0001	-.0011	.0003	.0013	.0000	.0000	96.
.0050	-320.	76.	-440.	5.	-373.	-92.	.0000	.0003	-.0020	.0002	.0020	.0002	.0002	154.
.0060	-307.	134.	-608.	-11.	-523.	-162.	-.0000	.0008	-.0032	.0000	.0029	.0005	.0005	220.
.0070	-346.	176.	-816.	-35.	-716.	-219.	-.0001	.0013	-.0050	-.0003	.0040	.0007	.0007	301.
.0080	-187.	198.	-1099.	-67.	-1000.	-258.	.0001	.0020	-.0077	-.0008	.0055	.0009	.0009	415.
.0090	154.	232.	-1436.	-132.	-1370.	-318.	.0008	.0032	-.0116	-.0018	.0076	.0014	.0014	567.
.0100	486.	316.	-1736.	-259.	-1744.	-444.	.0023	.0051	-.0167	-.0039	.0102	.0023	.0023	730.
.0110	630.	435.	-1906.	-457.	-2027.	-613.	.0049	.0080	-.0227	-.0076	.0132	.0037	.0037	870.
.0120	483.	521.	-1917.	-704.	-2171.	-733.	.0086	.0114	-.0293	-.0129	.0164	.0052	.0052	962.
.0130	143.	514.	-1754.	-961.	-2150.	-707.	.0130	.0153	-.0360	-.0198	.0191	.0065	.0065	987.
.0140	-27.	425.	-1305.	-1220.	-1877.	-524.	.0180	.0195	-.0422	-.0285	.0203	.0077	.0077	922.
.0150	254.	278.	-459.	-1500.	-1273.	-219.	.0234	.0242	-.0470	-.0395	.0191	.0088	.0088	794.
.0160	1037.	37.	773.	-1816.	-360.	212.	.0292	.0293	-.0501	-.0524	.0155	.0095	.0095	748.
.0170	2288.	-391.	2261.	-2144.	758.	823.	.0360	.0342	-.0511	-.0656	.0107	.0093	.0093	970.
.0180	3541.	-1030.	3681.	-2421.	1857.	1611.	.0443	.0382	-.0503	-.0770	.0072	.0081	.0081	1383.
.0190	3973.	-1735.	4474.	-2566.	2527.	2387.	.0547	.0413	-.0487	-.0849	.0081	.0063	.0063	1734.
.0200	3419.	-2249.	4049.	-2457.	2272.	2912.	.0682	.0435	-.0485	-.0879	.0168	.0047	.0047	1789.
.0210	2074.	-2177.	2391.	-2233.	1026.	2773.	.0853	.0458	-.0511	-.0869	.0336	.0051	.0051	1487.
.0220	-2729.	-1171.	-104.	-1868.	-683.	1678.	.1026	.0497	-.0532	-.0852	.0546	.0085	.0085	1034.
.0230	-9105.	494.	-2456.	-1368.	-2099.	-158.	.1169	.0541	-.0531	-.0833	.0740	.0127	.0127	1007.
.0240	-11845.	1999.	-3841.	-584.	-2862.	-1692.	.1260	.0567	-.0505	-.0786	.0842	.0139	.0139	1355.
.0250	-8837.	2508.	-3958.	469.	-2079.	-2198.	.1305	.0555	-.0462	-.0675	.0854	.0093	.0093	1465.
.0260	-6584.	1947.	-3703.	1474.	-2516.	-1861.	.1313	.0518	-.0397	-.0511	.0872	-.0014	-.0014	1388.
.0270	-12547.	1277.	-4625.	2181.	-2639.	-1706.	.1256	.0496	-.0281	-.0369	.0921	-.0139	-.0139	1535.
.0280	-14402.	1346.	-5342.	2726.	-2912.	-2265.	.1148	.0505	-.0152	-.0290	.0886	-.0235	-.0235	1841.
.0290	-2452.	1677.	-4201.	3246.	-2571.	-2932.	.1033	.0517	-.0055	-.0230	.0738	-.0313	-.0313	2036.
.0300	2057.	1069.	-4911.	3582.	-3488.	-2829.	.0892	.0489	.0036	-.0120	.0948	-.0435	-.0435	2305.
.0310	-4504.	-254.	-7306.	3732.	-5239.	-2194.	.0723	.0422	.0133	.0048	.0938	-.0593	-.0593	2727.
.0320	-7133.	-888.	-7262.	3964.	-5527.	-2044.	.0539	.0349	.0213	.0227	.0583	-.0709	-.0709	2881.
.0330	-3744.	-79.	-6482.	4328.	-4733.	-2902.	.0322	.0301	.0291	.0352	.0407	-.0731	-.0731	2825.
.0340	-2400.	1323.	-4940.	4549.	-3644.	-4108.	.0058	.0261	.0387	.0411	.0145	-.0706	-.0706	2862.
.0350	-1336.	1872.	-2715.	4440.	-1957.	-4508.	-.0222	.0185	.0484	.0453	-.0133	-.0729	-.0729	2658.
.0360	2798.	1018.	600.	4047.	514.	-3652.	-.0484	.0062	.0556	.0518	-.0383	-.0819	-.0819	2197.
.0370	4243.	-491.	2960.	3455.	2334.	-2197.	-.0733	-.0070	.0617	.0587	-.0582	-.0897	-.0897	1891.
.0380	1818.	-1287.	3450.	2720.	2917.	-1308.	-.0980	-.0165	.0683	.0597	-.0730	-.0685	-.0685	1684.
.0390	4930.	-741.	4017.	1360.	3531.	-1524.	-.1205	-.0222	.0735	.0512	-.0842	-.0798	-.0798	1714.
.0400	14815.	8.	5449.	793.	4508.	-1929.	-.1366	-.0288	.0730	.0398	-.0917	-.0718	-.0718	1993.
.0410	13017.	-554.	4467.	-405.	3940.	-1211.	-.1480	-.0394	.0695	.0368	-.0874	-.0670	-.0670	1662.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.27.

S/RV PIPING KEWAUNEE GKW06F 2 RUP DISK

2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING

.0310	-4504.	-254.	-7206.	3772.	-5239.	-2194.	.0723	.0422	.0133	.0048	.0538	-.0593	2727.
.0320	-7133.	-898.	-7862.	3964.	-5627.	-2044.	.0539	.0349	.0213	.0227	.0583	-.0709	2881.
.0330	-3744.	-79.	-6482.	4328.	-4733.	-2902.	.0322	.0301	.0291	.0352	.0407	-.0731	2825.
.0340	-2400.	1323.	-4940.	4549.	-3644.	-4108.	.0058	.0261	.0387	.0411	.0145	-.0706	2862.
.0350	-1336.	1872.	-2715.	4440.	-1957.	-4508.	-.0222	.0185	.0484	.0453	-.0133	-.0729	2658.
.0360	2758.	1016.	600.	4047.	514.	-3652.	-.0484	.0062	.0556	.0518	-.0383	-.0819	2197.
.0370	4247.	-491.	2960.	3455.	2334.	-2197.	-.0733	-.0070	.0617	.0587	-.0582	-.0897	1891.
.0380	1818.	-1287.	3450.	2720.	2917.	-1308.	-.0980	-.0165	.0683	.0597	-.0730	-.0885	1684.
.0390	4930.	-741.	4017.	1860.	3531.	-1524.	-.1205	-.0222	.0735	.0512	-.0842	-.0798	1714.
.0400	14215.	8.	5449.	793.	4508.	-1929.	-.1366	-.0286	.0730	.0798	-.0917	-.0718	1993.
.0410	13017.	-554.	4467.	-405.	3940.	-1211.	-.1480	-.0394	.0695	.0368	-.0874	-.0670	1662.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.27.

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	28	MEMBER	1	SEQUENCE	52	LOCATION	BEG	TYPE	EL					STRESS
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	PX	RY	PZ		(PSI)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)		
.0420	4319.	-1900.	2779.	-1438.	3054.	381.	-.1551	-.0527	.0638	.0439	-.0780	-.0591	1363.	
.0430	1980.	-2141.	1162.	-2094.	2433.	1231.	-.1542	-.0628	.0554	.0474	-.0639	-.0437	1380.	
.0440	4373.	-615.	967.	-2615.	1906.	592.	-.1485	-.0670	.0463	.0368	-.0529	-.0229	1320.	
.0450	1165.	917.	-370.	-3177.	1071.	-75.	-.1421	-.0696	.0407	.0211	-.0438	-.0025	1346.	
.0460	-4968.	639.	-1562.	-3676.	450.	915.	-.1348	-.0761	.0383	.0141	-.0359	.0122	1531.	
.0470	-3557.	-1101.	-1029.	-4088.	628.	3292.	-.1253	-.0861	.0362	.0154	-.0377	.0200	2121.	
.0480	2458.	-2967.	307.	-4582.	894.	5562.	-.1143	-.0968	.0343	.0173	-.0499	.0249	2914.	
.0490	3704.	-3953.	423.	-5164.	319.	6653.	-.1015	-.1034	.0348	.0177	-.0592	.0320	3382.	
.0500	1673.	-3603.	-175.	-5566.	-679.	6237.	-.0851	-.1066	.0355	.0186	-.0620	.0423	3366.	
.0510	2081.	-2224.	-1182.	-5419.	-2158.	4780.	-.0644	-.1094	.0337	.0231	-.0621	.0512	3026.	
.0520	2193.	-871.	-2816.	-4501.	-4210.	3352.	-.0406	-.1149	.0300	.0376	-.0603	.0553	2815.	
.0530	77.	-49.	-4077.	-2943.	-5792.	2403.	-.0155	-.1233	.0264	.0648	-.0566	.0552	2780.	
.0540	-1980.	1013.	-3626.	-1199.	-5876.	1104.	.0094	-.1308	.0241	.0949	-.0547	.0522	2447.	
.0550	-1716.	2855.	-1360.	416.	-4519.	-1115.	.0332	-.1348	.0233	.1182	-.0583	.0457	1875.	
.0560	327.	4441.	1831.	2043.	-2329.	-3161.	.0551	-.1370	.0239	.1390	-.0536	.0348	1776.	
.0570	1585.	4461.	4540.	3906.	-702.	-3633.	.0752	-.1412	.0255	.1660	-.0629	.0182	2142.	
.0580	1297.	3145.	5653.	5840.	956.	-2761.	.0938	-.1472	.0267	.1956	-.0533	-.0045	2621.	
.0590	1701.	1748.	5398.	7474.	1122.	-1853.	.1116	-.1515	.0261	.2180	-.0365	-.0300	3123.	
.0600	2690.	974.	4520.	8640.	894.	-1617.	.1283	-.1518	.0242	.2309	-.0136	-.0516	3545.	
.0610	2435.	709.	3547.	9347.	697.	-1875.	.1434	-.1489	.0213	.2388	.0127	-.0655	3836.	
.0620	565.	611.	2588.	9631.	524.	-2210.	.1564	-.1457	.0170	.2444	.0390	-.0735	3971.	
.0630	-743.	417.	2076.	9588.	660.	-2249.	.1670	-.1444	.0113	.2481	.0635	-.0784	3961.	
.0640	-1175.	205.	2291.	9312.	1435.	-1939.	.1734	-.1449	.0059	.2475	.0846	-.0790	3860.	
.0650	-1654.	460.	3099.	8721.	2762.	-1722.	.1739	-.1448	.0023	.2374	.0986	-.0728	3735.	
.0660	-1225.	1328.	4301.	7868.	4345.	-1872.	.1691	-.1426	.0001	.2162	.1051	-.0602	3616.	
.0670	889.	2041.	5752.	6146.	5995.	-1845.	.1613	-.1395	-.0023	.1894	.1089	-.0444	3524.	
.0680	1271.	1751.	6436.	4241.	7013.	-989.	.1515	-.1372	-.0051	.1629	.1153	-.0289	3313.	
.0690	-1234.	729.	5599.	2020.	6768.	368.	.1398	-.1351	-.0083	.1357	.1240	-.0149	2839.	
.0700	-1365.	-1.	4204.	-307.	5788.	1315.	.1269	-.1310	-.0128	.1050	.1302	-.0013	2385.	
.0710	1728.	-8.	3087.	-2413.	4817.	1538.	.1131	-.1245	-.0180	.0737	.1332	.0138	2248.	
.0720	1240.	324.	1616.	-3994.	3742.	1443.	.0972	-.1167	-.0215	.0476	.1354	.0297	2271.	
.0730	-3493.	641.	-139.	-4974.	2625.	1399.	.0788	-.1092	-.0226	.0286	.1349	.0439	2325.	
.0740	-4925.	888.	-773.	-5472.	2182.	1493.	.0587	-.1024	-.0225	.0147	.1258	.0541	2424.	
.0750	-1839.	921.	-150.	-5525.	2437.	1812.	.0371	-.0959	-.0211	.0039	.1071	.0596	2530.	
.0760	167.	514.	424.	-5451.	2580.	2411.	.0141	-.0890	-.0174	-.0045	.0840	.0612	2606.	
.0770	423.	-255.	492.	-5356.	2291.	3112.	-.0084	-.0807	-.0123	-.0108	.0510	.0601	2650.	
.0780	1851.	-1089.	289.	-5231.	1669.	3661.	-.0222	-.0712	-.0074	-.0150	.0397	.0572	2648.	
.0790	2739.	-1795.	-737.	-4974.	357.	2954.	-.0454	-.0609	-.0025	-.0172	.0216	.0533	2555.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.27.

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

.0690	-1234.	729.	5599.	2028.	6768.	368.	.398	-.1351	-.0083	.1357	.1240	-.0149	2839.
.0700	-1365.	-1.	4204.	-307.	5788.	1315.	.1269	-.1310	-.0128	.1050	.1302	-.0013	2385.
.0710	1728.	-8.	3087.	-2417.	4817.	1538.	.1131	-.1245	-.0180	.0737	.1332	.0138	2248.
.0720	1240.	324.	1616.	-2994.	3742.	1443.	.0972	-.1167	-.0215	.0476	.1354	.0297	2271.
.0730	-3493.	641.	-139.	-4974.	7625.	1399.	.0788	-.1092	-.0226	.0286	.1349	.0439	2325.
.0740	-4925.	898.	-77.	-5471.	2182.	1493.	.0517	-.1024	-.0225	.0147	.1258	.0541	2424.
.0750	-1839.	921.	-150.	-5525.	2437.	1812.	.0371	-.0959	-.0211	.0039	.1071	.0596	2530.
.0760	167.	514.	424.	-5451.	2580.	2411.	.0141	-.0890	-.0174	-.0045	.0840	.0612	2606.
.0770	427.	-255.	492.	-5356.	2291.	3112.	-.0024	-.0807	-.0123	-.0108	.0510	.0601	2650.
.0780	1851.	-1089.	289.	-5231.	1669.	3661.	-.0282	-.0712	-.0074	-.0150	.0397	.0572	2648.
.0790	2739.	-1795.	-737.	-4974.	397.	2954.	-.0454	-.0609	-.0025	-.0172	.0216	.0533	2555.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.27.

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	28	MEMBER	1	SEQUENCE	52	LOCATION	BEG	TYPE	EL							
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	PX	RY	RZ	STRESS			
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)			
.0800	993.	-2182.	-2032.	-4512.	-1580.	3881.	-.0604	-.0502	.0034	-.0179	.0066	.0489	2471.			
.0810	94.	-1973.	-4661.	-3850.	-3327.	3223.	-.0729	-.0392	.0098	-.0179	-.0089	.0445	2417.			
.0820	1484.	-1119.	-5132.	-3039.	-4036.	1939.	-.0823	-.0280	.0169	-.0167	-.0266	.0401	2172.			
.0830	1134.	27.	-4575.	-2158.	-3795.	331.	-.0895	-.0167	.0257	-.0132	-.0451	.0357	1753.			
.0840	-1107.	1128.	-3235.	-1188.	-2792.	-1254.	-.0948	-.0054	.0363	-.0083	-.0637	.0303	1318.			
.0850	-415.	2083.	-1010.	-241.	-1175.	-2657.	-.0976	.0057	.0465	-.0051	-.0826	.0221	1170.			
.0860	2738.	2730.	1040.	649.	231.	-3722.	-.0974	.0164	.0550	-.0053	-.0978	.0091	1519.			
.0870	3301.	2770.	1407.	1462.	482.	-4221.	-.0947	.0267	.0619	-.0071	-.1031	-.0086	1803.			
.0880	1183.	2196.	81.	2209.	-416.	-4183.	-.0890	.0368	.0665	-.0080	-.0970	-.0288	1906.			
.0890	-54.	1401.	-1926.	2850.	-1887.	-3985.	-.0803	.0472	.0679	-.0086	-.0843	-.0500	2107.			
.0900	-312.	669.	-3986.	3316.	-3509.	-3907.	-.0697	.0577	.0665	-.0099	-.0699	-.0716	2492.			
.0910	-1206.	-69.	-5561.	3650.	-4778.	-3849.	-.0590	.0670	.0635	-.0104	-.0574	-.0935	2865.			
.0920	-2039.	-372.	-5949.	4024.	-5129.	-3641.	-.0490	.0739	.0593	-.0080	-.0496	-.1148	2997.			
.0930	-1782.	-1529.	-5017.	4569.	-4504.	-3354.	-.0402	.0781	.0541	-.0031	-.0483	-.1335	2905.			
.0940	-985.	-1803.	-3258.	5230.	-3289.	-3164.	-.0330	.0805	.0478	.0019	-.0535	-.1472	2786.			
.0950	-40.	-1689.	-1094.	5773.	-1825.	-3138.	-.0271	.0817	.0402	.0046	-.0631	-.1547	2737.			
.0960	1075.	-1370.	1093.	5924.	-470.	-3205.	-.0221	.0815	.0304	.0036	-.0754	-.1570	2710.			
.0970	1996.	-1089.	2829.	5530.	376.	-3199.	-.0176	.0795	.0179	-.0008	-.0886	-.1552	2568.			
.0980	2610.	-1011.	3940.	4634.	624.	-2937.	-.0137	.0757	.0030	-.0061	-.1016	-.1487	2216.			
.0990	3047.	-1045.	4552.	3403.	483.	-2449.	-.0108	.0706	-.0131	-.0114	-.1137	-.1365	1693.			
.1000	2979.	-876.	4703.	1993.	99.	-2005.	-.0090	.0656	-.0292	-.0188	-.1240	-.1193	1135.			
.1010	2346.	-359.	4450.	528.	-401.	-1742.	-.0083	.0615	-.0441	-.0305	-.1316	-.0986	748.			
.1020	1945.	225.	4096.	-872.	-764.	-1395.	-.0080	.0580	-.0572	-.0447	-.1356	-.0761	728.			
.1030	2114.	421.	3838.	-2132.	-859.	-581.	-.0073	.0548	-.0682	-.0588	-.1347	-.0532	951.			
.1040	2052.	35.	3486.	-7293.	-642.	772.	-.0053	.0521	-.0771	-.0724	-.1270	-.0309	1399.			
.1050	1702.	-746.	2940.	-4480.	-804.	2392.	-.0011	.0509	-.0842	-.0870	-.1108	-.0095	2063.			
.1060	1511.	-1621.	2194.	-5743.	-757.	3982.	.0056	.0512	-.0896	-.1033	-.0856	.0118	2821.			
.1070	649.	-2428.	988.	-6969.	-867.	5435.	.0142	.0526	-.0934	-.1201	-.0525	.0329	3563.			
.1080	-389.	-3229.	-772.	-7926.	-1327.	6826.	.0251	.0537	-.0968	-.1341	-.0128	.0528	4231.			
.1090	-1296.	-4011.	-3239.	-8485.	-2379.	8075.	.0400	.0536	-.1030	-.1411	.0344	.0710	4797.			
.1100	-7539.	-3797.	-5768.	-2797.	-3194.	8252.	.0524	.0552	-.1046	-.1454	.0308	.0908	5007.			
.1110	-10120.	-2345.	-6089.	-8770.	-2409.	7106.	.0622	.0594	-.1024	-.1509	.1154	.1110	4631.			
.1120	-6235.	-605.	-4036.	-8250.	-204.	5459.	.0699	.0614	-.0980	-.1547	.1349	.1261	3971.			
.1130	-3271.	388.	-1525.	-7332.	2131.	4234.	.0749	.0672	-.0907	-.1492	.1455	.1333	3504.			
.1140	-3116.	788.	552.	-6228.	4073.	3326.	.0781	.0685	-.0812	-.1339	.1524	.1339	3271.			
.1150	-1527.	1548.	2249.	-5058.	5460.	1881.	.0811	.0718	-.0720	-.1187	.1558	.1305	3081.			
.1160	286.	2974.	2747.	-3853.	5710.	-354.	.0833	.0789	-.0637	-.1079	.1570	.1239	2768.			
.1170	374.	4423.	2011.	-2638.	4991.	-2647.	.0843	.0879	-.0558	-.0984	.1579	.1140	2502.			

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.28.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

.1070	649.	-2428.	568.	-6969.	-867.	5435.	142.	.0526	-.0934	-.1201	-.0525	.0329	3563.
.1080	-389.	-3229.	-772.	-7926.	-1327.	6826.	.0251	.0537	-.0968	-.1341	-.0128	.0528	4231.
.1090	-1296.	-4011.	-3209.	-8485.	-2379.	8075.	.0400	.0536	-.1030	-.1411	.0344	.0710	4797.
.1100	-7539.	-3797.	-5768.	-8797.	-3194.	8252.	.0524	.0552	-.1046	-.1454	.0808	.0908	5007.
.1110	-10120.	-2345.	-6089.	-8770.	-2489.	7106.	.0622	.0594	-.1024	-.1509	.1154	.1110	4631.
.1120	-6235.	-605.	-4031.	-8250.	-224.	5459.	.0699	.0644	-.0980	-.1547	.1349	.1261	3971.
.1130	-3271.	388.	-1525.	-7332.	2131.	4234.	.0749	.0672	-.0907	-.1492	.1455	.1333	3504.
.1140	-3116.	788.	552.	-6228.	4073.	3326.	.0781	.0685	-.0812	-.1339	.1524	.1339	3271.
.1150	-1527.	1548.	2249.	-5058.	5460.	1851.	.0811	.0718	-.0720	-.1182	.1558	.1305	3081.
.1160	266.	2974.	2743.	-3852.	5710.	-354.	.0833	.0799	-.0637	-.1079	.1570	.1239	2768.
.1170	374.	4423.	2011.	-2638.	4991.	-2647.	.0843	.0879	-.0558	-.0984	.1579	.1140	2502.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.28.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	EL	DX	DY	DZ	RX	RY	RZ	STRESS
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	HX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
.1180	-4749.	5145.	-68.	-1451.	3469.	-4112.	.0805	.0958	-.0458	-.0851	.1573	.0992	2236.
.1190	-3764.	4720.	-673.	-234.	2815.	-4288.	.0741	.1011	-.0362	-.0691	.1476	.0769	2060.
.1200	1744.	3087.	197.	909.	3019.	-3280.	.0659	.1047	-.0271	-.0543	.1288	.0470	1826.
.1210	44.	815.	14.	1762.	2640.	-1751.	.0547	.1086	-.0172	-.0422	.1106	.0145	1455.
.1220	-565.	-785.	742.	2296.	3033.	-797.	.0432	.1147	-.0083	-.0346	.0925	-.0137	1560.
.1230	345.	-1250.	1522.	2702.	3504.	-733.	.0308	.1230	-.0010	-.0337	.0751	-.0362	1800.
.1240	2394.	-1465.	1830.	3110.	3583.	-840.	.0181	.1308	.0040	-.0361	.0587	-.0550	1934.
.1250	2253.	-2042.	1303.	3339.	3130.	-455.	.0048	.1355	.0076	-.0364	.0457	-.0704	1846.
.1260	-2131.	-2738.	-359.	3085.	1957.	119.	-.0102	.1373	.0100	-.0359	.0360	-.0814	1467.
.1270	443.	-2857.	-712.	2275.	1744.	175.	-.0228	.1385	.0079	-.0405	.0229	-.0867	1063.
.1280	2014.	-2462.	-1529.	1039.	157.	-310.	-.0343	.1410	.0026	-.0521	.0097	-.0851	440.
.1290	-357.	-1801.	-2819.	-424.	-1346.	-993.	-.0449	.1447	-.0037	-.0677	-.0017	-.0757	693.
.1300	-2193.	-986.	-3524.	-1890.	-2411.	-1567.	-.0544	.1480	-.0103	-.0860	-.0143	-.0616	1381.
.1310	-4006.	-417.	-4234.	-3091.	-3483.	-1586.	-.0651	.1492	-.0160	-.1070	-.0313	-.0485	1974.
.1320	-1174.	-586.	-3760.	-3866.	-3825.	-636.	-.0757	.1477	-.0209	-.1275	-.0552	-.0381	2197.
.1330	-442.	-1435.	-3372.	-4425.	-4133.	1006.	-.0869	.1450	-.0240	-.1444	-.0507	-.0284	2463.
.1340	-229.	-2152.	-2656.	-5097.	-4152.	2357.	-.0969	.1436	-.0258	-.1596	-.1056	-.0169	2803.
.1350	1420.	-2437.	-1587.	-5883.	-3951.	3012.	-.1038	.1444	-.0276	-.1748	-.1279	-.0048	3090.
.1360	-734.	-2847.	-1942.	-6447.	-4633.	3553.	-.1094	.1451	-.0285	-.1764	-.1429	.0056	3490.
.1370	-1526.	-3533.	-2720.	-6512.	-5509.	4337.	-.1130	.1435	-.0290	-.1906	-.1517	.0138	3840.
.1380	-2768.	-4010.	-4315.	-6070.	-6774.	4998.	-.1164	.1394	-.0281	-.1882	-.1553	.0199	4165.
.1390	-2000.	-3846.	-5317.	-5208.	-7423.	5078.	-.1194	.1342	-.0254	-.1817	-.1570	.0255	4170.
.1400	-677.	-3197.	-5023.	-4076.	-6856.	4593.	-.1216	.1286	-.0200	-.1709	-.1575	.0318	3694.
.1410	-3694.	-2330.	-4551.	-2915.	-5822.	3710.	-.1246	.1221	-.0113	-.1555	-.1552	.0379	3007.
.1420	-2357.	-1218.	-2612.	-1832.	-3744.	2485.	-.1259	.1140	-.0021	-.1359	-.1536	.0421	1947.
.1430	952.	-158.	-621.	-725.	-1654.	1260.	-.1258	.1038	.0068	-.1123	-.1491	.0429	884.
.1440	3136.	593.	507.	483.	-109.	291.	-.1233	.0925	.0155	-.0848	-.1370	.0415	230.
.1450	2360.	1313.	359.	1612.	637.	-704.	-.1179	.0872	.0239	-.0515	-.1153	.0398	751.
.1460	-1502.	2318.	-1161.	2453.	447.	-2003.	-.1106	.0741	.0322	-.0349	-.0867	.0381	1284.
.1470	-639.	3204.	-1879.	3026.	622.	-3132.	-.1000	.0669	.0384	-.0164	-.0579	.0348	1765.
.1480	-901.	3057.	-2587.	3379.	710.	-3219.	-.0888	.0587	.0440	.0012	-.0299	.0283	1894.
.1490	-1607.	1809.	-2706.	3440.	1099.	-2150.	-.0771	.0486	.0489	.0189	-.0054	.0191	1693.
.1500	489.	267.	-1427.	3150.	2319.	-726.	-.0641	.0381	.0521	.0337	.0137	.0100	1599.
.1510	942.	-952.	-38.	2662.	3615.	539.	-.0516	.0283	.0543	.0435	.0306	.0040	1817.
.1520	1771.	-1724.	1465.	2152.	4933.	1670.	-.0384	.0191	.0542	.0497	.0466	.0028	2261.
.1530	469.	-3144.	1806.	1641.	5331.	2546.	-.0254	.0097	.0515	.0543	.0639	.0059	2461.
.1540	1217.	-7326.	1763.	1014.	5202.	3135.	-.0113	-.0005	.0447	.0588	.0817	.0124	2471.
.1550	2646.	-2106.	1550.	189.	4770.	2415.	.0041	-.0108	.0347	.0636	.1004	.0218	2355.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.28.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS