

50-305

RESPONSE TO NUREG-0737 ITEM II.D.1

Docket # *50-305*

Control # *8403280048*

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

.2590	-1150.	-40.	325.	-2374.	708.	1353.	.0440	.1156	-.0757	-.1700	.0188	.0622	1123.
.2600	-1564.	-8.	-39.	-2640.	750.	1477.	.0395	.1187	-.0760	-.1378	.0232	.0677	1251.
.2610	-1768.	7.	-322.	-2842.	880.	1579.	.0343	.1221	-.0755	-.1452	.0281	.0721	1351.
.2620	-1827.	40.	-497.	-2970.	1108.	1608.	.0284	.1259	-.0743	-.1521	.0328	.0748	1429.
.2630	-1883.	63.	-569.	-3041.	1419.	1578.	.0217	.1299	-.0722	-.1580	.0368	.0757	1488.
.2640	-1881.	22.	-526.	-3003.	1799.	1540.	.0142	.1340	-.0693	-.1624	.0395	.0744	1535.
.2650	-1690.	-71.	-406.	-2863.	2195.	1488.	.0059	.1381	-.0658	-.1652	.0403	.0712	1566.
.2660	-1459.	-160.	-295.	-2651.	2525.	1370.	-.0029	.1424	-.0618	-.1670	.0393	.0665	1569.
.2670	-1256.	-216.	-257.	-2409.	2740.	1164.	-.0120	.1469	-.0574	-.1685	.0366	.0604	1537.
.2680	-1190.	-276.	-238.	-2165.	2800.	917.	-.0213	.1513	-.0528	-.1697	.0326	.0532	1467.
.2690	-1252.	-403.	-540.	-1922.	2699.	706.	-.0305	.1555	-.0479	-.1705	.0273	.0451	1359.

ADLPIPE PAGE 1240

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.28.

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

CONDITION 24  
LOADS  
SHOCK  
PRESSURE  
ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	EL	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)
.2700	28	1	52				.2700	-1252.	-605.	-773.	-1684.	2501.	560.	-.0396	.1592	-.0428	-.1707	.0204	.0366	1231.
.2710							.2710	-1126.	-816.	-935.	-1471.	2298.	435.	-.0485	.1624	-.0375	-.1706	.0120	.0283	1109.
.2720							.2720	-1062.	-949.	-1004.	-1307.	2128.	264.	-.0571	.1651	-.0319	-.1700	.0022	.0208	1008.
.2730							.2730	-1107.	-995.	-1003.	-1177.	1981.	43.	-.0655	.1672	-.0261	-.1689	-.0084	.0144	925.
.2740							.2740	-1002.	-1021.	-948.	-1035.	1832.	-166.	-.0732	.1686	-.0203	-.1670	-.0195	.0091	847.
.2750							.2750	-778.	-1058.	-933.	-874.	1606.	-341.	-.0801	.1692	-.0149	-.1641	-.0303	.0051	746.
.2760							.2760	-671.	-1053.	-1063.	-739.	1226.	-535.	-.0860	.1693	-.0099	-.1603	-.0400	.0026	613.
.2770							.2770	-689.	-968.	-1353.	-665.	661.	-784.	-.0906	.1687	-.0057	-.1560	-.0484	.0018	495.
.2780							.2780	-718.	-859.	-1759.	-635.	5.	-1033.	-.0940	.1675	-.0024	-.1512	-.0553	.0024	487.
.2790							.2790	-750.	-800.	-2231.	-623.	-759.	-1204.	-.0962	.1654	.0001	-.1457	-.0511	.0041	623.
.2800							.2800	-746.	-773.	-2687.	-631.	-1533.	-1293.	-.0972	.1622	.0016	-.1395	-.0659	.0067	844.
.2810							.2810	-612.	-724.	-3018.	-670.	-2214.	-1337.	-.0971	.1580	.0024	-.1328	-.0701	.0102	1072.
.2820							.2820	-414.	-654.	-3167.	-724.	-2738.	-1347.	-.0959	.1529	.0026	-.1260	-.0738	.0141	1258.
.2830							.2830	-253.	-596.	-3145.	-767.	-3092.	-1313.	-.0935	.1469	.0023	-.1192	-.0766	.0182	1383.
.2840							.2840	-48.	-538.	-2980.	-799.	-3289.	-1257.	-.0899	.1403	.0014	-.1125	-.0783	.0222	1449.
.2850							.2850	212.	-443.	-2737.	-837.	-3363.	-1214.	-.0850	.1330	-.0000	-.1059	-.0784	.0263	1474.
.2860							.2860	312.	-315.	-2513.	-891.	-3365.	-1189.	-.0789	.1251	-.0019	-.0994	-.0763	.0302	1476.
.2870							.2870	151.	-191.	-2361.	-952.	-3318.	-1152.	-.0716	.1167	-.0040	-.0930	-.0718	.0336	1460.
.2880							.2880	-97.	-82.	-2248.	-1011.	-3192.	-1082.	-.0636	.1077	-.0062	-.0868	-.0651	.0365	1412.
.2890							.2890	-311.	18.	-2125.	-1069.	-2948.	-972.	-.0550	.0982	-.0083	-.0806	-.0569	.0390	1318.
.2900							.2900	-572.	92.	-1965.	-1119.	-2564.	-799.	-.0461	.0882	-.0102	-.0743	-.0472	.0409	1168.
.2910							.2910	-882.	105.	-1741.	-1149.	-2029.	-538.	-.0373	.0776	-.0115	-.0678	-.0367	.0422	960.
.2920							.2920	-1115.	48.	-1442.	-1150.	-1357.	-192.	-.0287	.0666	-.0123	-.0608	-.0255	.0427	718.
.2930							.2930	-1224.	-53.	-1098.	-1118.	-602.	201.	-.0203	.0552	-.0125	-.0533	-.0140	.0427	516.
.2940							.2940	-1269.	-166.	-761.	-1051.	170.	594.	-.0123	.0436	-.0123	-.0450	-.0023	.0423	489.
.2950							.2950	-1324.	-264.	-465.	-955.	907.	936.	-.0045	.0320	-.0117	-.0358	.0096	.0417	648.
.2960							.2960	-1441.	-318.	-232.	-846.	1567.	1188.	.0030	.0203	-.0108	-.0255	.0213	.0410	859.
.2970							.2970	-1588.	-318.	-53.	-733.	2131.	1337.	.0100	.0086	-.0096	-.0142	.0326	.0404	1051.
.2980							.2980	-1654.	-282.	121.	-609.	2615.	1406.	.0166	-.0032	-.0082	-.0019	.0429	.0398	1216.
.2990							.2990	-1582.	-229.	346.	-469.	3047.	1412.	.0226	-.0149	-.0065	.0111	.0518	.0393	1361.
.3000							.3000	-1425.	-153.	639.	-330.	3437.	1352.	.0280	-.0266	-.0045	.0244	.0591	.0389	1488.
.3010							.3010	-1212.	-40.	984.	-205.	3773.	1227.	.0328	-.0380	-.0024	.0377	.0650	.0388	1594.
.3020							.3020	-906.	87.	1343.	-86.	4027.	1066.	.0370	-.0491	-.0002	.0508	.0696	.0391	1672.
.3030							.3030	-508.	196.	1660.	33.	4159.	901.	.0407	-.0599	.0019	.0634	.0732	.0397	1708.
.3040							.3040	-104.	296.	1871.	136.	4135.	722.	.0440	-.0702	.0040	.0755	.0762	.0406	1685.
.3050							.3050	217.	426.	1942.	200.	3949.	501.	.0470	-.0798	.0058	.0867	.0788	.0421	1599.
.3060							.3060	406.	593.	1872.	227.	3621.	239.	.0495	-.0887	.0075	.0969	.0812	.0442	1459.
.3070							.3070	480.	761.	1695.	235.	3194.	-20.	.0516	-.0968	.0092	.1059	.0830	.0468	1285.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.28.

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

CONDITION 24  
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ENGLISH UNITS

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

.2980	-1567.	-282.	121.	-609.	2615.	1406.	.0166	-.0032	-.0082	-.0019	.0429	.0398	1216.
.2990	-1562.	-229.	346.	-469.	3047.	1412.	.0226	-.0149	-.0065	.0111	.0518	.0393	1361.
.3000	-1425.	-153.	639.	-370.	3437.	1352.	.0270	-.0266	-.0045	.0244	.0591	.0389	1488.
.3010	-1212.	-40.	984.	-205.	3773.	1227.	.0328	-.0380	-.0024	.0377	.0550	.0386	1594.
.3020	-908.	87.	1343.	-86.	4027.	1066.	.0370	-.0491	-.0002	.0508	.0596	.0391	1672.
.3030	-508.	196.	1660.	33.	4159.	901.	.0407	-.0599	.0019	.0634	.0732	.0397	1708.
.3040	-104.	296.	1871.	136.	4135.	722.	.0440	-.0702	.0040	.0755	.0762	.0406	1685.
.3050	217.	426.	1942.	200.	3949.	501.	.0470	-.0798	.0058	.0867	.0788	.0421	1599.
.3060	466.	593.	1872.	227.	3621.	239.	.0495	-.0887	.0075	.0969	.0812	.0442	1459.
.3070	480.	761.	1695.	235.	3194.	-20.	.0516	-.0968	.0092	.1059	.0830	.0468	1285.

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

SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	EL	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
28	1	52					.3080	512.	897.	1472.	236.	2727.	-235.	.0530	-.1041	.0108	.1136	.0838	.0495	1102.
							.3090	542.	1000.	1269.	225.	2282.	-393.	.0537	-.1107	.0126	.1196	.0834	.0521	934.
							.3100	548.	1073.	1131.	203.	1902.	-490.	.0535	-.1166	.0145	.1240	.0812	.0543	793.
							.3110	540.	1114.	1079.	179.	1603.	-524.	.0524	-.1219	.0167	.1268	.0772	.0560	681.
							.3120	571.	1120.	1112.	156.	1378.	-504.	.0503	-.1265	.0190	.1282	.0711	.0567	592.
							.3130	624.	1106.	1193.	135.	1191.	-455.	.0473	-.1305	.0214	.1286	.0630	.0563	515.
							.3140	629.	1088.	1266.	123.	997.	-411.	.0435	-.1339	.0240	.1282	.0533	.0544	436.
							.3150	609.	1078.	1298.	135.	765.	-399.	.0388	-.1368	.0265	.1274	.0421	.0508	351.
							.3160	608.	1084.	1276.	185.	483.	-438.	.0333	-.1391	.0290	.1267	.0299	.0455	272.
							.3170	622.	1095.	1200.	285.	157.	-523.	.0273	-.1408	.0316	.1262	.0169	.0383	247.
							.3180	662.	1080.	1095.	446.	-190.	-630.	.0207	-.1420	.0342	.1262	.0036	.0291	319.
							.3190	776.	1011.	1002.	672.	-521.	-730.	.0139	-.1427	.0370	.1267	-.0097	.0181	450.
							.3200	1019.	879.	953.	948.	-804.	-804.	.0069	-.1430	.0397	.1277	-.0226	.0054	594.
							.3210	1345.	689.	947.	1262.	-1029.	-841.	.0002	-.1430	.0425	.1293	-.0346	-.0084	735.
							.3220	1675.	444.	964.	1605.	-1198.	-834.	-.0062	-.1426	.0452	.1312	-.0451	-.0227	870.
							.3230	1962.	164.	984.	1968.	-1319.	-789.	-.0119	-.1420	.0478	.1332	-.0537	-.0370	1002.
							.3240	2157.	-109.	978.	2328.	-1410.	-742.	-.0167	-.1412	.0501	.1352	-.0602	-.0505	1132.
							.3250	2232.	-322.	926.	2663.	-1485.	-731.	-.0205	-.1402	.0521	.1369	-.0643	-.0626	1258.
							.3260	2255.	-451.	835.	2963.	-1545.	-771.	-.0231	-.1390	.0538	.1381	-.0664	-.0728	1376.
							.3270	2247.	-503.	725.	3225.	-1583.	-855.	-.0246	-.1377	.0551	.1386	-.0666	-.0808	1482.
							.3280	2164.	-481.	609.	3439.	-1593.	-982.	-.0249	-.1364	.0563	.1382	-.0653	-.0866	1571.
							.3290	2056.	-377.	516.	3589.	-1561.	-1155.	-.0241	-.1349	.0571	.1367	-.0630	-.0900	1638.
							.3300	2025.	-196.	468.	3673.	-1481.	-1362.	-.0224	-.1334	.0577	.1341	-.0600	-.0911	1680.
							.3310	2035.	21.	456.	3703.	-1364.	-1562.	-.0197	-.1320	.0579	.1305	-.0567	-.0901	1703.
							.3320	1992.	226.	459.	3692.	-1228.	-1716.	-.0163	-.1307	.0577	.1260	-.0532	-.0876	1706.
							.3330	1879.	402.	476.	3646.	-1078.	-1813.	-.0120	-.1295	.0569	.1209	-.0494	-.0838	1690.
							.3340	1724.	558.	510.	3573.	-916.	-1869.	-.0071	-.1283	.0554	.1154	-.0454	-.0791	1659.
							.3350	1525.	696.	563.	3491.	-745.	-1894.	-.0017	-.1272	.0533	.1099	-.0413	-.0736	1621.
							.3360	1311.	806.	647.	3418.	-558.	-1887.	.0042	-.1262	.0504	.1047	-.0370	-.0678	1583.
							.3370	1122.	880.	776.	3365.	-348.	-1854.	.0104	-.1251	.0469	.1001	-.0325	-.0619	1548.
							.3380	960.	932.	945.	3335.	-117.	-1811.	.0167	-.1242	.0427	.0962	-.0278	-.0562	1524.
							.3390	837.	981.	1143.	3325.	123.	-1781.	.0231	-.1232	.0380	.0931	-.0229	-.0507	1514.
							.3400	812.	1047.	1360.	3322.	364.	-1785.	.0293	-.1220	.0328	.0905	-.0176	-.0454	1520.
							.3410	880.	1135.	1566.	3307.	582.	-1825.	.0354	-.1207	.0272	.0881	-.0120	-.0404	1533.
							.3420	949.	1234.	1719.	3263.	746.	-1888.	.0414	-.1192	.0213	.0859	-.0060	-.0358	1542.
							.3430	966.	1329.	1796.	3177.	839.	-1954.	.0472	-.1175	.0151	.0833	.0004	-.0315	1534.
							.3440	969.	1418.	1807.	3038.	867.	-2013.	.0528	-.1155	.0088	.0802	.0071	-.0278	1503.
							.3450	981.	1505.	1772.	2841.	844.	-2063.	.0583	-.1130	.0025	.0761	.0137	-.0244	1449.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.28.

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

.3350	1525.	696.	563.	3491.	-745.	-1894.	-.0017	-.1272	.0533	.1099	-.0413	-.0736	1621.
.3360	1311.	806.	647.	3418.	-558.	-1887.	.0042	-.1262	.0504	.1047	-.0370	-.0678	1583.
.3370	1122.	880.	776.	3365.	-348.	-1854.	.0104	-.1251	.0469	.1001	-.0325	-.0619	1548.
.3380	960.	932.	945.	3335.	-117.	-1811.	.0167	-.1242	.0427	.0962	-.0278	-.0562	1524.
.3390	837.	981.	1143.	3325.	127.	-1781.	.0231	-.1232	.0380	.0921	-.0229	-.0507	1514.
.3400	812.	1047.	1360.	3322.	364.	-1755.	.0293	-.1220	.0328	.0905	-.0176	-.0454	1520.
.3410	880.	1135.	1566.	3307.	582.	-1825.	.0354	-.1207	.0272	.0881	-.0120	-.0404	1533.
.3420	949.	1234.	1719.	3263.	746.	-1888.	.0414	-.1192	.0213	.0859	-.0060	-.0358	1542.
.3430	966.	1329.	1796.	3177.	839.	-1954.	.0472	-.1175	.0151	.0833	.0004	-.0315	1534.
.3440	969.	1418.	1807.	3038.	867.	-2013.	.0528	-.1155	.0088	.0802	.0071	-.0278	1503.
.3450	981.	1505.	1772.	2841.	844.	-2063.	.0583	-.1130	.0025	.0761	.0137	-.0244	1449.

ADLPIPE PAGE 1242 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.27.28.

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	28	MEMBER	1	SEQUENCE	52	LOCATION	BEG	TYPE	EL						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.3460	967.	1580.	1713.	2590.	793.	-2089.	.0636	-.1100	-.0036	.0709	.0200	-.0217	1373.		
.3470	898.	1618.	1654.	2302.	740.	-2067.	.0686	-.1064	-.0092	.0646	.0258	-.0196	1276.		
.3480	796.	1594.	1619.	1996.	705.	-1973.	.0732	-.1023	-.0144	.0572	.0307	-.0185	1161.		
.3490	703.	1505.	1614.	1690.	697.	-1810.	.0773	-.0976	-.0189	.0490	.0345	-.0184	1032.		
.3500	638.	1363.	1632.	1398.	712.	-1596.	.0808	-.0924	-.0228	.0402	.0373	-.0192	898.		
.3510	571.	1180.	1650.	1140.	742.	-1347.	.0836	-.0865	-.0260	.0312	.0390	-.0209	768.		
.3520	449.	962.	1641.	935.	768.	-1078.	.0857	-.0802	-.0286	.0223	.0400	-.0235	650.		
.3530	276.	722.	1596.	800.	785.	-809.	.0871	-.0734	-.0305	.0141	.0402	-.0267	555.		
.3540	105.	486.	1529.	749.	803.	-567.	.0876	-.0664	-.0319	.0068	.0397	-.0304	496.		
.3550	-46.	292.	1467.	790.	837.	-385.	.0872	-.0591	-.0328	.0006	.0385	-.0343	487.		
.3560	-202.	163.	1418.	927.	903.	-286.	.0858	-.0516	-.0330	-.0043	.0366	-.0382	532.		
.3570	-365.	105.	1412.	1152.	1013.	-276.	.0834	-.0441	-.0327	-.0079	.0340	-.0417	625.		
.3580	-511.	117.	1449.	1451.	1160.	-351.	.0799	-.0365	-.0318	-.0103	.0306	-.0448	759.		
.3590	-626.	192.	1508.	1798.	1318.	-499.	.0754	-.0289	-.0303	-.0118	.0266	-.0473	917.		
.3600	-709.	317.	1554.	2155.	1448.	-702.	.0700	-.0213	-.0283	-.0127	.0218	-.0490	1079.		
.3610	-766.	464.	1547.	2484.	1506.	-933.	.0636	-.0136	-.0259	-.0134	.0166	-.0498	1224.		
.3620	-821.	599.	1453.	2750.	1454.	-1153.	.0563	-.0060	-.0231	-.0143	.0110	-.0499	1332.		
.3630	-871.	694.	1254.	2930.	1270.	-1331.	.0483	.0015	-.0200	-.0158	.0051	-.0492	1388.		
.3640	-876.	735.	963.	3007.	957.	-1444.	.0397	.0090	-.0167	-.0180	-.0013	-.0477	1392.		
.3650	-811.	722.	603.	2970.	535.	-1486.	.0305	.0164	-.0132	-.0211	-.0080	-.0454	1350.		
.3660	-710.	663.	199.	2820.	30.	-1457.	.0208	.0236	-.0098	-.0251	-.0150	-.0425	1274.		
.3670	-589.	562.	-223.	2569.	-523.	-1362.	.0107	.0305	-.0063	-.0299	-.0222	-.0390	1186.		
.3680	-425.	432.	-633.	2234.	-1089.	-1211.	.0005	.0371	-.0031	-.0351	-.0294	-.0349	1110.		
.3690	-222.	285.	-1013.	1834.	-1637.	-1026.	-.0096	.0434	-.0001	-.0406	-.0362	-.0304	1069.		
.3700	-26.	140.	-1364.	1385.	-2146.	-831.	-.0195	.0492	.0024	-.0462	-.0423	-.0257	1078.		
.3710	141.	9.	-1686.	910.	-2596.	-640.	-.0290	.0546	.0046	-.0515	-.0473	-.0208	1133.		
.3720	278.	-114.	-1970.	438.	-2963.	-455.	-.0379	.0595	.0063	-.0564	-.0510	-.0160	1216.		
.3730	376.	-237.	-2205.	-3.	-3222.	-270.	-.0461	.0639	.0075	-.0607	-.0532	-.0115	1298.		
.3740	426.	-358.	-2374.	-388.	-3349.	-89.	-.0535	.0677	.0082	-.0642	-.0540	-.0073	1353.		
.3750	441.	-458.	-2456.	-705.	-3322.	77.	-.0599	.0711	.0087	-.0671	-.0534	-.0035	1363.		
.3760	424.	-530.	-2446.	-945.	-3139.	224.	-.0654	.0739	.0088	-.0692	-.0515	.0001	1319.		
.3770	362.	-589.	-2358.	-1100.	-2816.	367.	-.0699	.0763	.0087	-.0707	-.0484	.0032	1222.		
.3780	263.	-654.	-2209.	-1172.	-2382.	521.	-.0734	.0782	.0085	-.0716	-.0445	.0061	1086.		
.3790	146.	-721.	-2026.	-1171.	-1877.	680.	-.0757	.0797	.0080	-.0722	-.0397	.0087	929.		
.3800	4.	-773.	-1842.	-1119.	-1343.	825.	-.0769	.0808	.0075	-.0726	-.0342	.0114	776.		
.3810	-176.	-808.	-1682.	-1031.	-822.	955.	-.0770	.0818	.0069	-.0732	-.0283	.0143	653.		
.3820	-378.	-833.	-1555.	-924.	-338.	1077.	-.0760	.0824	.0062	-.0737	-.0221	.0174	585.		
.3830	-568.	-854.	-1449.	-815.	97.	1195.	-.0740	.0827	.0054	-.0743	-.0159	.0210	582.		

ADLPIPE PAGE 1243 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.27.28.

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

CONDITION 24  
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.3720	278.	-114.	-2205.	-3.	-3222.	-270.	.0461	.0639	.0075	-.0607	-.0532	-.0115	1298.
.3730	376.	-237.	-2205.	-3.	-3222.	-270.	.0461	.0639	.0075	-.0607	-.0532	-.0115	1298.
.3740	426.	-358.	-2374.	-388.	-3349.	-89.	.0535	.0677	.0082	-.0642	-.0540	-.0073	1353.
.3750	441.	-458.	-2456.	-705.	-3322.	77.	-.0599	.0711	.0087	-.0671	-.0534	-.0035	1363.
.3760	424.	-530.	-2446.	-945.	-3139.	224.	-.0654	.0739	.0088	-.0692	-.0515	.0001	1319.
.3770	362.	-589.	-2358.	-1100.	-2816.	367.	-.0699	.0763	.0087	-.0707	-.0484	.0032	1222.
.3780	263.	-654.	-2209.	-1172.	-2582.	521.	-.0734	.0782	.0085	-.0716	-.0445	.0061	1086.
.3790	146.	-721.	-2026.	-1171.	-1877.	680.	-.0757	.0797	.0080	-.0722	-.0397	.0087	929.
.3800	4.	-773.	-1842.	-1119.	-1343.	825.	-.0769	.0808	.0075	-.0726	-.0342	.0114	776.
.3810	-176.	-808.	-1682.	-1031.	-822.	955.	-.0770	.0818	.0069	-.0732	-.0283	.0143	653.
.3820	-378.	-833.	-1555.	-924.	-338.	1077.	-.0760	.0824	.0062	-.0737	-.0221	.0174	585.
.3830	-568.	-854.	-1419.	-815.	97.	1195.	-.0740	.0827	.0054	-.0743	-.0159	.0210	582.

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INTERNAL FORCES IN THE PIPING  
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SECTION	28	MEMBER	1	SEQUENCE	52	LOCATION	BEG	TYPE	EL					
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.3840	-727.	-866.	-1339.	-713.	486.	1306.	-.0711	.0827	.0045	-.0749	-.0099	.0251	628.	
.3850	-840.	-848.	-1201.	-629.	837.	1389.	-.0673	.0824	.0036	-.0755	-.0042	.0299	698.	
.3860	-900.	-784.	-1025.	-571.	1148.	1430.	-.0628	.0818	.0024	-.0760	.0010	.0354	771.	
.3870	-920.	-681.	-822.	-533.	1409.	1430.	-.0576	.0810	.0010	-.0762	.0058	.0416	833.	
.3880	-922.	-557.	-615.	-506.	1598.	1401.	-.0517	.0799	-.0007	-.0760	.0104	.0482	877.	
.3890	-918.	-412.	-436.	-490.	1695.	1341.	-.0454	.0785	-.0027	-.0753	.0149	.0552	889.	
.3900	-913.	-228.	-308.	-499.	1690.	1232.	-.0387	.0770	-.0051	-.0740	.0195	.0625	863.	
.3910	-916.	-8.	-246.	-542.	1579.	1081.	-.0318	.0754	-.0079	-.0720	.0242	.0700	798.	
.3920	-932.	206.	-245.	-618.	1380.	926.	-.0248	.0736	-.0110	-.0692	.0290	.0773	711.	
.3930	-946.	367.	-281.	-722.	1122.	811.	-.0179	.0717	-.0142	-.0657	.0337	.0841	627.	
.3940	-934.	462.	-324.	-854.	843.	749.	-.0114	.0697	-.0175	-.0618	.0382	.0902	568.	
.3950	-893.	510.	-356.	-1016.	573.	733.	-.0053	.0678	-.0206	-.0577	.0422	.0955	553.	
.3960	-848.	515.	-369.	-1202.	333.	767.	.0002	.0660	-.0236	-.0536	.0458	.1001	588.	
.3970	-836.	464.	-366.	-1401.	133.	863.	.0049	.0643	-.0263	-.0498	.0488	.1036	663.	
.3980	-874.	356.	-349.	-1611.	-24.	1020.	.0089	.0627	-.0285	-.0462	.0512	.1062	765.	
.3990	-843.	219.	-316.	-1836.	-134.	1206.	.0120	.0613	-.0303	-.0430	.0530	.1078	883.	
.4000	-1020.	91.	-267.	-2080.	-197.	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	7539.	3797.	5768.	8797.	3194.	-8252.	.0524	.0552	-.1046	-.1454	.0808	.0908	5007.	

SECTION	28	MEMBER	1	SEQUENCE	813	LOCATION	END	TYPE	EL					
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
0.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.	
.0010	5.	1.	7.	-0.	-2.	0.	.0000	-.0000	-.0000	.0000	.0001	-.0000	1.	
.0020	35.	4.	51.	-3.	-11.	1.	.0000	-.0000	-.0001	.0001	.0004	-.0001	5.	
.0030	94.	-0.	149.	-9.	-30.	3.	.0001	-.0000	-.0002	.0002	.0013	-.0000	13.	
.0040	159.	-26.	287.	-13.	-51.	9.	.0001	.0000	-.0006	.0003	.0026	.0003	21.	
.0050	220.	-76.	440.	-12.	-68.	20.	.0001	.0002	-.0012	.0003	.0042	.0010	29.	
.0060	307.	-134.	608.	-2.	-87.	35.	.0001	.0005	-.0020	.0002	.0060	.0019	37.	
.0070	346.	-176.	816.	17.	-95.	51.	.0000	.0009	-.0034	.0000	.0085	.0027	44.	

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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)
0.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.
.0010	5.	1.	7.	-0.	-2.	0.	.0000	-.0000	-.0000	.0000	.0001	-.0000	1.
.0020	35.	4.	51.	-3.	-11.	1.	.0000	-.0000	-.0001	.0001	.0004	-.0001	5.
.0030	94.	-0.	149.	-9.	-30.	3.	.0001	-.0000	-.0002	.0002	.0013	-.0000	13.
.0040	159.	-26.	287.	-13.	-51.	9.	.0001	.0000	-.0006	.0003	.0026	.0003	21.
.0050	220.	-76.	440.	-12.	-68.	20.	.0001	.0002	-.0012	.0003	.0042	.0010	29.
.0060	307.	-134.	606.	-2.	-87.	35.	.0001	.0005	-.0020	.0002	.0060	.0019	37.
.0070	346.	-176.	816.	17.	-95.	51.	.0000	.0009	-.0034	.0000	.0085	.0027	44.

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SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	EL	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
28	1	813					.0080	187.	-198.	1099.	48.	-64.	69.	.0002	.0015	-.0054	-.0003	.0126	.0034	43.
							.0090	-154.	-232.	1436.	109.	19.	97.	.0010	.0025	-.0084	-.0010	.0185	.0045	59.
							.0100	-486.	-316.	1736.	227.	141.	143.	.0026	.0041	-.0124	-.0026	.0252	.0068	122.
							.0110	-630.	-435.	1906.	414.	276.	199.	.0052	.0065	-.0174	-.0055	.0315	.0101	215.
							.0120	-483.	-521.	1917.	652.	396.	237.	.0089	.0096	-.0232	-.0099	.0365	.0130	321.
							.0130	-143.	-514.	1754.	910.	495.	218.	.0134	.0132	-.0294	-.0159	.0395	.0143	425.
							.0140	27.	-425.	1305.	1177.	632.	120.	.0184	.0176	-.0356	-.0240	.0395	.0137	538.
							.0150	-254.	-278.	459.	1472.	862.	-46.	.0237	.0227	-.0414	-.0345	.0357	.0118	685.
							.0160	-1037.	-37.	-773.	1812.	1200.	-248.	.0294	.0283	-.0460	-.0469	.0283	.0083	878.
							.0170	-2288.	391.	-2261.	2183.	1622.	-450.	.0360	.0342	-.0491	-.0597	.0193	.0028	1106.
							.0180	-3541.	1030.	-3681.	2524.	2000.	-621.	.0441	.0396	-.0502	-.0710	.0113	-.0049	1316.
							.0190	-3973.	1735.	-4474.	2739.	2127.	-736.	.0545	.0441	-.0491	-.0793	.0084	-.0130	1423.
							.0200	-3419.	2249.	-4049.	2722.	1922.	-772.	.0682	.0473	-.0470	-.0831	.0170	-.0187	1372.
							.0210	-2074.	2177.	-2391.	2451.	1457.	-702.	.0858	.0494	-.0450	-.0828	.0386	-.0170	1178.
							.0220	2739.	1171.	104.	1985.	310.	-524.	.1038	.0513	-.0417	-.0810	.0596	-.0047	833.
							.0230	9105.	-494.	2456.	1318.	-1148.	-312.	.1190	.0529	-.0371	-.0788	.0727	-.0131	713.
							.0240	11845.	-1999.	3841.	384.	-1977.	-209.	.1286	.0536	-.0321	-.0750	.0800	.0251	813.
							.0250	8837.	-2508.	3958.	-719.	-1771.	-190.	.1329	.0528	-.0271	-.0667	.0858	.0229	771.
							.0260	6584.	-1947.	3703.	-1668.	-1665.	9.	.1336	.0514	-.0204	-.0539	.0877	.0101	946.
							.0270	12547.	-1277.	4625.	-2308.	-3017.	492.	.1284	.0516	-.0088	-.0420	.0777	-.0008	1537.
							.0280	14402.	-1346.	5342.	-2860.	-3611.	985.	.1177	.0537	.0034	-.0352	.0700	-.0035	1890.
							.0290	2452.	-1677.	4201.	-3414.	-1671.	1336.	.1051	.0555	.0116	-.0301	.0787	-.0046	1617.
							.0300	-2057.	-1069.	4911.	-3689.	-979.	1812.	.0906	.0550	.0207	-.0202	.0863	-.0144	1696.
							.0310	4504.	254.	7306.	-3706.	-2163.	2435.	.0741	.0517	.0313	-.0044	.0836	-.0302	1980.
							.0320	7133.	888.	7862.	-3875.	-2567.	2889.	.0557	.0465	.0384	.0126	.0756	-.0399	2196.
							.0330	3744.	79.	6482.	-4320.	-1809.	2977.	.0334	.0410	.0421	.0249	.0600	-.0358	2227.
							.0340	2400.	-1323.	4940.	-4681.	-1296.	2849.	.0064	.0351	.0455	.0313	.0306	-.0260	2260.
							.0350	1336.	-1872.	2715.	-4628.	-760.	2727.	-.0223	.0274	.0478	.0362	-.0052	-.0261	2177.
							.0360	-2798.	-1016.	-600.	-4149.	337.	2685.	-.0493	.0175	.0478	.0431	-.0370	-.0411	1988.
							.0370	-4243.	491.	-2960.	-3406.	906.	2664.	-.0748	.0073	.0480	.0503	-.0653	-.0587	1773.
							.0380	-1818.	1287.	-3450.	-2591.	547.	2533.	-.0997	-.0017	.0505	.0528	-.0896	-.0638	1471.
							.0390	-4930.	741.	-4017.	-1786.	784.	2228.	-.1227	-.0093	.0532	.0472	-.1008	-.0548	1188.
							.0400	-14815.	-8.	-5449.	-794.	2158.	1922.	-.1395	-.0177	.0514	.0395	-.0960	-.0449	1203.
							.0410	-13017.	554.	-4467.	461.	1611.	1738.	-.1506	-.0288	.0491	.0396	-.0931	-.0452	969.
							.0420	-4319.	1900.	-2779.	1628.	23.	1428.	-.1570	-.0422	.0449	.0484	-.0972	-.0496	869.
							.0430	-1980.	2141.	-1662.	2308.	-654.	806.	-.1556	-.0545	.0396	.0530	-.0857	-.0440	1015.
							.0440	-4373.	615.	-967.	2676.	-549.	-6.	-.1499	-.0633	.0337	.0446	-.0675	-.0240	1096.
							.0450	-1165.	-917.	370.	3086.	-1307.	-798.	-.1430	-.0703	.0303	.0312	-.0608	-.0040	1382.

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.0350	1336.	-1872.	-715.	-4628.	-760.	2727.	-.0223	.0274	.0478	.0362	-.0052	-.0261	2177.
.0360	-2798.	-1016.	-600.	-4149.	337.	2685.	-.0493	.0175	.0478	.0431	-.0370	-.0411	1988.
.0370	-4243.	491.	-2960.	-3406.	906.	2664.	-.0748	.0073	.0480	.0503	-.0653	-.0587	1773.
.0380	-1818.	1227.	-3450.	-2591.	547.	2533.	-.0997	-.0017	.0505	.0528	-.0396	-.0638	1471.
.0390	-4930.	741.	-4017.	-1786.	704.	2228.	-.1227	-.0093	.0532	.0472	-.1008	-.0548	1188.
.0400	-14815.	-8.	-5445.	-794.	2158.	1922.	-.1395	-.0177	.0514	.0395	-.0960	-.0449	1203.
.0410	-13017.	554.	-4467.	461.	1611.	1738.	-.1506	-.0288	.0491	.0296	-.0931	-.0452	969.
.0420	-4319.	1900.	-2779.	1628.	23.	1428.	-.1570	-.0422	.0449	.0484	-.0972	-.0496	869.
.0430	-1980.	2141.	-1662.	2308.	-654.	806.	-.1556	-.0545	.0396	.0530	-.0857	-.0440	1015.
.0440	-4373.	615.	-967.	2676.	-549.	-6.	-.1499	-.0633	.0337	.0446	-.0675	-.0240	1096.
.0450	-1165.	-917.	370.	3086.	-1307.	-798.	-.1430	-.0703	.0303	.0312	-.0608	-.0040	1382.

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	EL								STRESS
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	(PSI)	
.0460	4968.	-659.	1563.	3610.	-2434.	-1542.	-.1352	-.0783	.0294	.0246	-.0524	-.0013	1853.	
.0470	3557.	1101.	1029.	4198.	-1963.	-2244.	-.1258	-.0877	.0269	.0247	-.0607	-.0150	2066.	
.0480	-2458.	2967.	-307.	4879.	-356.	-2740.	-.1155	-.0962	.0234	.0257	-.0571	-.0293	2250.	
.0490	-3304.	3953.	-423.	5559.	414.	-2891.	-.1029	-.1031	.0230	.0268	-.0554	-.0303	2520.	
.0500	-1673.	3603.	175.	5926.	679.	-2809.	-.0865	-.1090	.0243	.0295	-.0501	-.0160	2646.	
.0510	-2081.	2224.	1182.	5641.	1242.	-2664.	-.0658	-.1153	.0246	.0350	-.0341	.0042	2553.	
.0520	-2193.	871.	2816.	4588.	1749.	-2523.	-.0420	-.1234	.0239	.0481	-.0126	.0183	2215.	
.0530	-77.	49.	4077.	2948.	1920.	-2357.	-.0167	-.1330	.0228	.0713	.0026	.0243	1699.	
.0540	1980.	-1013.	3626.	1097.	2228.	-2068.	.0084	-.1417	.0209	.0973	.0054	.0306	1297.	
.0550	1716.	-2855.	1360.	-702.	3053.	-1601.	.0319	-.1470	.0180	.1178	-.0022	.0414	1412.	
.0560	-327.	-4441.	-1831.	-2487.	4103.	-1065.	.0536	-.1496	.0154	.1356	-.0145	.0470	1972.	
.0570	-1585.	-4461.	-4540.	-4352.	4680.	-611.	.0735	-.1512	.0148	.1572	-.0247	.0348	2576.	
.0580	-1297.	-3145.	-5653.	-6155.	4553.	-231.	.0923	-.1519	.0164	.1797	-.0252	.0064	3074.	
.0590	-1701.	-1748.	-5398.	-7648.	4183.	190.	.1104	-.1502	.0190	.1960	-.0121	-.0243	3499.	
.0600	-2690.	-974.	-4520.	-8737.	3675.	690.	.1277	-.1460	.0218	.2051	.0097	-.0454	3814.	
.0610	-2435.	-709.	-3547.	-9418.	2921.	1200.	.1434	-.1408	.0241	.2110	.0316	-.0546	3986.	
.0620	-565.	-611.	-2588.	-9692.	1995.	1628.	.1570	-.1365	.0248	.2162	.0505	-.0574	4024.	
.0630	743.	-417.	-2076.	-9630.	1241.	1852.	.1682	-.1345	.0234	.2201	.0670	-.0602	3967.	
.0640	1175.	-205.	-2291.	-9332.	627.	1744.	.1752	-.1346	.0211	.2200	.0770	-.0635	3818.	
.0650	1654.	-460.	-3099.	-8767.	21.	1285.	.1760	-.1353	.0184	.2115	.0758	-.0616	3556.	
.0660	1225.	-1328.	-4301.	-7801.	-376.	609.	.1713	-.1353	.0154	.1937	.0676	-.0516	3144.	
.0670	-889.	-2041.	-5752.	-6350.	-433.	-98.	.1635	-.1350	.0120	.1716	.0602	-.0394	2555.	
.0680	-1271.	-1751.	-6436.	-4416.	-762.	-676.	.1538	-.1347	.0092	.1503	.0566	-.0319	1819.	
.0690	1234.	-729.	-5599.	-2101.	-1564.	-1062.	.1424	-.1337	.0075	.1287	.0588	-.0278	1134.	
.0700	1365.	1.	-4204.	307.	-1924.	-1314.	.1297	-.1311	.0053	.1044	.0698	-.0199	943.	
.0710	-1728.	8.	-3087.	2414.	-1706.	-1530.	.1158	-.1272	.0023	.0796	.0849	-.0055	1336.	
.0720	-1240.	-324.	-1616.	3961.	-2080.	-1752.	.1001	-.1226	.0003	.0586	.0921	-.0114	1928.	
.0730	3493.	-641.	139.	4910.	-3106.	-2008.	.0820	-.1177	-.0003	.0427	.0880	.0252	2467.	
.0740	4925.	-888.	773.	5344.	-3410.	-2338.	.0618	-.1125	-.0017	.0301	.0786	.0328	2711.	
.0750	1839.	-921.	150.	5433.	-2763.	-2688.	.0395	-.1065	-.0038	.0193	.0658	.0336	2673.	
.0760	-167.	-514.	-424.	5400.	-2160.	-2899.	.0159	-.0989	-.0045	.0100	.0481	.0293	2608.	
.0770	-423.	255.	-492.	5382.	-1781.	-2869.	-.0070	-.0896	-.0035	.0027	.0303	.0233	2550.	
.0780	-1851.	1089.	-289.	5340.	-1208.	-2625.	-.0274	-.0788	-.0017	-.0025	.0195	.0182	2437.	
.0790	-2739.	1795.	737.	5153.	-825.	-2247.	-.0450	-.0674	.0014	-.0058	.0150	.0146	2280.	
.0800	-993.	2183.	2832.	4730.	-1016.	-1804.	-.0603	-.0559	.0064	-.0078	.0121	.0135	2072.	
.0810	-94.	1973.	4661.	4047.	-1098.	-1346.	-.0730	-.0447	.0118	-.0091	.0086	.0163	1767.	
.0820	-1484.	1119.	5132.	3151.	-698.	-874.	-.0828	-.0340	.0165	-.0091	.0007	.0235	1342.	
.0830	-1134.	-27.	4575.	2135.	-445.	-357.	-.0904	-.0236	.0214	-.0068	-.0181	.0332	887.	

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ADLPIPE STRESS ANALYSIS

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18.27.28.

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

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INTERNAL FORCES IN THE PIPING  
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.0730	3493.	-641.	139.	4910.	-3106.	-2008.	.820	-.1177	-.0003	.0427	.0820	.0252	2467.
.0740	4925.	-888.	773.	5344.	-3410.	-2338.	.618	-.1125	-.0017	.0301	.0786	.0328	2711.
.0750	1839.	-921.	150.	5433.	-2763.	-2688.	.0395	-.1065	-.0038	.0193	.0658	.0336	2673.
.0760	-167.	-514.	-424.	5400.	-2160.	-2899.	.0159	-.0989	-.0045	.0100	.0481	.0293	2608.
.0770	-427.	255.	-492.	5382.	-1781.	-2869.	-.0070	-.0896	-.0035	.0027	.0303	.0233	2550.
.0780	-1851.	1089.	-289.	5340.	-1208.	-2625.	-.0274	-.0728	-.0017	-.0025	.0195	.0182	2437.
.0790	-2739.	1795.	737.	5153.	-825.	-2247.	-.0450	-.0674	.0014	-.0058	.0150	.0146	2280.
.0800	-993.	2183.	2832.	4730.	-1016.	-1804.	-.0603	-.0559	.0064	-.0078	.0121	.0135	2072.
.0810	-94.	1973.	4661.	4047.	-1098.	-1346.	-.0730	-.0447	.0118	-.0091	.0086	.0163	1767.
.0820	-1484.	1119.	5132.	3151.	-698.	-874.	-.0828	-.0340	.0165	-.0091	.0007	.0235	1342.
.0830	-1124.	-27.	4575.	2135.	-445.	-357.	-.0904	-.0236	.0214	-.0068	-.0181	.0332	887.

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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

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	EL	DX	DY	DZ	RX	RY	RZ	STRESS
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
.0840	1107.	-1128.	3235.	1075.	-397.	181.	-.0960	-.0131	.0268	-.0032	-.0462	.0420	466.
.0850	415.	-2083.	1010.	32.	173.	675.	-.0993	-.0019	.0315	-.0014	-.0726	.0462	280.
.0860	-2738.	-2730.	-1040.	-922.	1033.	1124.	-.0997	.0103	.0358	-.0034	-.0891	.0430	716.
.0870	-3301.	-2770.	-1407.	-1739.	1186.	1586.	-.0971	.0236	.0414	-.0072	-.0947	.0313	1058.
.0880	-1183.	-2196.	-81.	-2429.	611.	2093.	-.0911	.0379	.0480	-.0104	-.0881	.0137	1310.
.0890	54.	-1401.	1926.	-2990.	49.	2652.	-.0820	.0528	.0534	-.0101	-.0694	-.0056	1604.
.0900	312.	-659.	3986.	-3383.	-315.	3270.	-.0711	.0676	.0567	-.0159	-.0455	-.0238	1892.
.0910	1206.	69.	5561.	-3643.	-634.	3915.	-.0600	.0813	.0576	-.0175	-.0265	-.0418	2161.
.0920	2039.	872.	5949.	-3936.	-735.	4471.	-.0498	.0925	.0553	-.0164	-.0175	-.0609	2408.
.0930	1782.	1529.	5017.	-4417.	-448.	4808.	-.0410	.1008	.0496	-.0135	-.0187	-.0798	2626.
.0940	985.	1803.	3258.	-5050.	91.	4880.	-.0340	.1062	.0411	-.0108	-.0284	-.0951	2818.
.0950	40.	1689.	1094.	-5604.	781.	4745.	-.0285	.1090	.0301	-.0098	-.0432	-.1044	2963.
.0960	-1075.	1370.	-1093.	-5787.	1617.	4508.	-.0238	.1093	.0166	-.0113	-.0585	-.1082	3015.
.0970	-1996.	1089.	-2829.	-5421.	2516.	4234.	-.0197	.1070	.0007	-.0145	-.0707	-.1079	2939.
.0980	-2610.	1011.	-3940.	-4533.	3386.	3699.	-.0162	.1022	-.0167	-.0172	-.0785	-.1047	2757.
.0990	-3047.	1045.	-4552.	-3298.	4153.	3443.	-.0136	.0952	-.0348	-.0192	-.0833	-.0979	2537.
.1000	-2979.	876.	-4703.	-1906.	4673.	2838.	-.0120	.0872	-.0523	-.0227	-.0868	-.0865	2323.
.1010	-2346.	359.	-4450.	-492.	4869.	2083.	-.0114	.0793	-.0681	-.0300	-.0897	-.0715	2135.
.1020	-1945.	-225.	-4096.	849.	4856.	1181.	-.0112	.0719	-.0816	-.0403	-.0914	-.0565	2034.
.1030	-2114.	-421.	-3838.	2090.	4722.	181.	-.0105	.0653	-.0924	-.0514	-.0906	-.0452	2073.
.1040	-2052.	-35.	-3486.	3290.	4365.	-806.	-.0083	.0600	-.0999	-.0628	-.0857	-.0384	2217.
.1050	-1702.	746.	-2940.	4555.	3772.	-1683.	-.0038	.0566	-.1039	-.0754	-.0746	-.0335	2467.
.1060	-1511.	1621.	-2194.	5905.	2991.	-2440.	.0036	.0547	-.1047	-.0894	-.0558	-.0276	2831.
.1070	-649.	2428.	-988.	7212.	1873.	-3124.	.0130	.0538	-.1021	-.1039	-.0311	-.0203	3242.
.1080	389.	3229.	772.	8249.	554.	-3754.	.0248	.0527	-.0976	-.1164	.0012	-.0138	3644.
.1090	1296.	4011.	3209.	8886.	-804.	-4259.	.0409	.0506	-.0936	-.1230	.0455	-.0076	3968.
.1100	7539.	3797.	5768.	9176.	-3047.	-4640.	.0547	.0485	-.0863	-.1266	.0753	.0086	4304.
.1110	10120.	2345.	6089.	9004.	-4396.	-4875.	.0654	.0476	-.0789	-.1310	.0912	.0351	4472.
.1120	6235.	605.	4036.	8310.	-4240.	-4883.	.0733	.0479	-.0728	-.1347	.0988	.0613	4226.
.1130	3271.	-388.	1525.	7293.	-3909.	-4603.	.0783	.0480	-.0659	-.1309	.0966	.0781	3800.
.1140	3116.	-788.	-552.	6149.	-3859.	-4075.	.0816	.0479	-.0573	-.1181	.0890	.0878	3341.
.1150	1527.	-1548.	-2249.	4904.	-3473.	-3354.	.0845	.0500	-.0489	-.1045	.0861	.0985	2762.
.1160	-286.	-3974.	-2743.	3555.	-3071.	-2476.	.0867	.0558	-.0403	-.0956	.0902	.1128	2131.
.1170	-374.	-4423.	-2011.	2196.	-3040.	-1561.	.0877	.0640	-.0313	-.0875	.0969	.1244	1630.
.1180	4749.	-5145.	68.	936.	-4009.	-783.	.0842	.0729	-.0204	-.0763	.0959	.1244	1682.
.1190	3764.	-4720.	673.	-238.	-3832.	-203.	.0776	.0823	-.0119	-.0639	.0935	.1062	1543.
.1200	-1744.	-3087.	-197.	-1218.	-2657.	342.	.0686	.0929	-.0058	-.0538	.0872	.0718	1181.
.1210	-44.	-815.	-14.	-1843.	-2622.	975.	.0571	.1048	.0008	-.0458	.0706	.0320	1344.

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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  
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.1110	10120.	2745.	6089.	9004.	-4396.	-4875.	.654	.0476	-.0789	-.1310	.0912	.0351	4472.
.1120	6235.	605.	4036.	8310.	-4240.	-4883.	.733	.0479	-.0728	-.1347	.0988	.0613	4226.
.1130	3271.	-388.	1525.	7293.	-3909.	-4603.	.0783	.0480	-.0659	-.1309	.0966	.0781	3800.
.1140	3116.	-788.	-557.	6149.	-3659.	-4075.	.0816	.0479	-.0573	-.1181	.0890	.0878	3341.
.1150	1527.	-1548.	-2249.	4904.	-3473.	-3354.	.0845	.0500	-.0489	-.1045	.0861	.0985	2762.
.1160	-266.	-2974.	-2743.	3555.	-3071.	-2476.	.0867	.0558	-.0403	-.0956	.0902	.1128	2131.
.1170	-374.	-4423.	-2011.	2196.	-3040.	-1561.	.0877	.0640	-.0313	-.0875	.0969	.1244	1630.
.1180	4749.	-5145.	68.	936.	-4009.	-783.	.0842	.0729	-.0204	-.0763	.0959	.1244	1682.
.1190	3764.	-4720.	673.	-238.	-3832.	-203.	.0776	.0823	-.0119	-.0639	.0935	.1062	1543.
.1200	-1744.	-3057.	-197.	-1218.	-2657.	342.	.0686	.0929	-.0058	-.0538	.0872	.0718	1181.
.1210	-44.	-815.	-14.	-1843.	-2622.	975.	.0571	.1048	.0006	-.0458	.0706	.0320	1344.

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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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	EL							STRESS
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	(PSI)
.1220	565.	785.	-742.	-2218.	-2384.	1544.	.0452	.1174	.0057	-.0409	.0507	.0006	1446.
.1230	-345.	1290.	-1522.	-2573.	-2021.	1961.	.0324	.1302	.0091	-.0412	.0333	-.0198	1531.
.1240	-2394.	1465.	-1830.	-2963.	-1603.	2235.	.0192	.1418	.0111	-.0448	.0214	-.0363	1622.
.1250	-2253.	2042.	-1303.	-3135.	-1665.	2398.	.0057	.1500	.0125	-.0462	.0112	-.0535	1719.
.1260	2131.	2738.	359.	-2811.	-2511.	2486.	-.0092	.1545	.0138	-.0455	-.0001	-.0677	1812.
.1270	-443.	2857.	712.	-1989.	-1977.	2543.	-.0223	.1567	.0102	-.0476	-.0019	-.0719	1519.
.1280	-2014.	2462.	1529.	-793.	-1411.	2653.	-.0341	.1582	.0041	-.0547	-.0001	-.0646	1247.
.1290	357.	1801.	2819.	604.	-1372.	2707.	-.0448	.1591	-.0028	-.0649	-.0019	-.0482	1242.
.1300	2193.	986.	3524.	1989.	-1162.	2506.	-.0545	.1590	-.0108	-.0779	-.0065	-.0297	1366.
.1310	4006.	487.	4234.	3133.	-946.	1982.	-.0655	.1578	-.0186	-.0952	-.0154	-.0189	1535.
.1320	1174.	516.	3760.	3924.	140.	1194.	-.0767	.1558	-.0273	-.1143	-.0259	-.0282	1647.
.1330	442.	1435.	3372.	4568.	881.	359.	-.0886	.1535	-.0348	-.1313	-.0426	-.0276	1872.
.1340	229.	2152.	2656.	5313.	1602.	-310.	-.0991	.1517	-.0413	-.1458	-.0617	-.0298	2230.
.1350	-1420.	2437.	1587.	6127.	2583.	-694.	-.1066	.1510	-.0473	-.1592	-.0767	-.0242	2683.
.1360	734.	2847.	1942.	6732.	2712.	-844.	-.1124	.1504	-.0505	-.1696	-.0875	-.0181	2932.
.1370	1526.	3533.	2720.	6865.	2768.	-976.	-.1161	.1482	-.0517	-.1744	-.0899	-.0164	2996.
.1380	2768.	4010.	4315.	6471.	2392.	-1182.	-.1196	.1438	-.0502	-.1742	-.0877	-.0170	2809.
.1390	2000.	3846.	5317.	5592.	2164.	-1419.	-.1226	.1377	-.0471	-.1706	-.0855	-.0148	2473.
.1400	677.	3197.	5023.	4396.	2009.	-1551.	-.1249	.1304	-.0424	-.1629	-.0902	-.0073	2037.
.1410	3694.	2330.	4551.	3148.	1123.	-1493.	-.1276	.1217	-.0351	-.1503	-.1054	.0041	1469.
.1420	2357.	1218.	2612.	1954.	1024.	-1326.	-.1290	.1112	-.0280	-.1329	-.1193	.0169	1033.
.1430	-952.	158.	621.	741.	1159.	-1110.	-.1290	.0992	-.0204	-.1114	-.1268	.0266	709.
.1440	-3136.	-593.	-507.	-542.	905.	-856.	-.1264	.0868	-.0111	-.0868	-.1263	.0325	545.
.1450	-2360.	-1313.	-359.	-1743.	-59.	-545.	-.1205	.0753	.0004	-.0620	-.1184	.0389	733.
.1460	1502.	-2318.	1161.	-2685.	-1702.	-203.	-.1122	.0657	.0137	-.0407	-.1044	.0479	1278.
.1470	639.	-3204.	1879.	-3347.	-2474.	84.	-.1010	.0576	.0253	-.0228	-.0818	.0541	1670.
.1480	901.	-3057.	2587.	-3684.	-3262.	311.	-.0892	.0502	.0361	-.0062	-.0607	.0494	1979.
.1490	1407.	-1809.	2706.	-3621.	-3835.	458.	-.0769	.0428	.0451	.0103	-.0442	.0338	2125.
.1500	-488.	-267.	1427.	-3185.	-3628.	471.	-.0637	.0353	.0509	.0244	-.0310	.0149	1946.
.1510	-942.	952.	38.	-2567.	-3557.	317.	-.0509	.0279	.0550	.0344	-.0231	-.0010	1765.
.1520	-1771.	1724.	-1465.	-1980.	-3362.	-29.	-.0374	.0200	.0566	.0411	-.0150	-.0118	1566.
.1530	-489.	2144.	-1806.	-1426.	-3564.	-507.	-.0240	.0108	.0566	.0463	-.0035	-.0178	1554.
.1540	-1217.	2226.	-1763.	-791.	-3403.	-1017.	-.0095	-.0000	.0536	.0522	.0172	-.0185	1460.
.1550	-2646.	2106.	-1550.	22.	-3030.	-1412.	.0062	-.0121	.0482	.0593	.0434	-.0130	1342.
.1560	1087.	1863.	-289.	1004.	-3454.	-1602.	.0209	-.0244	.0426	.0667	.0656	-.0008	1580.
.1570	1329.	1236.	-104.	2019.	-3131.	-1699.	.0353	-.0365	.0345	.0727	.0571	.0182	1643.
.1580	-14.	258.	-459.	2921.	-2481.	-1822.	.0477	-.0479	.0253	.0761	.1041	.0402	1703.
.1590	1135.	-592.	-516.	3548.	-2308.	-2051.	.0565	-.0586	.0169	.0772	.1114	.0578	1887.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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18.27.28.

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

.1490	1607.	-1509.	2706.	-3621.	-3835.	458.	-.0769	.0428	.0451	.0103	-.0442	.0338	2125.
.1500	-488.	-267.	1427.	-3185.	-3628.	471.	-.0637	.0353	.0509	.0244	-.0310	.0149	1946.
.1510	-942.	52.	38.	-2567.	-3557.	317.	-.0509	.0279	.0550	.0344	-.0231	-.0010	1765.
.1520	-1771.	1724.	-1465.	-1980.	-3362.	-29.	-.0374	.0200	.0566	.0411	-.0150	-.0118	1566.
.1530	-489.	2144.	-1806.	-1426.	-3564.	-507.	-.0240	.0108	.0566	.0463	-.0035	-.0178	1554.
.1540	-1217.	2226.	-1763.	-791.	-3403.	-1017.	-.0095	-.0000	.0536	.0522	.0172	-.0185	1460.
.1550	-2646.	2106.	-1550.	22.	-3030.	-1412.	.0062	-.0121	.0482	.0593	.0434	-.0130	1342.
.1560	1087.	1863.	-289.	1004.	-3454.	-1602.	.0209	-.0244	.0426	.0667	.0656	-.0008	1580.
.1570	1329.	1236.	-104.	2019.	-3131.	-1699.	.0353	-.0365	.0345	.0727	.0871	.0182	1643.
.1580	-14.	258.	-459.	2921.	-2481.	-1822.	.0477	-.0479	.0253	.0761	.1041	.0402	1703.
.1590	1135.	-592.	-516.	3548.	-2308.	-2051.	.0565	-.0586	.0169	.0772	.1114	.0578	1887.

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ADLPIPE STRESS ANALYSIS

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CONDITION 24

LOADS

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ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	EL								STRESS
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	(PSI)	
.1600	836.	-995.	-1165.	3813.	-1926.	-2421.	.0629	-.0685	.0084	.0765	.1128	.0667	1970.	
.1610	-1219.	-1077.	-2270.	3896.	-1219.	-2833.	.0676	-.0765	-.0002	.0731	.1109	.0694	1994.	
.1620	576.	-1011.	-2260.	4036.	-1154.	-3134.	.0704	-.0821	-.0072	.0669	.1051	.0700	2102.	
.1630	548.	-872.	-2554.	4252.	-709.	-3292.	.0729	-.0853	-.0140	.0595	.1007	.0702	2176.	
.1640	370.	-561.	-2594.	4459.	-227.	-3296.	.0743	-.0863	-.0196	.0515	.0972	.0686	2227.	
.1650	2373.	-63.	-1556.	4560.	-157.	-3187.	.0735	-.0856	-.0229	.0434	.0935	.0639	2233.	
.1660	1417.	495.	-795.	4426.	369.	-3064.	.0713	-.0842	-.0252	.0368	.0920	.0560	2165.	
.1670	1416.	985.	193.	4011.	649.	-2930.	.0665	-.0822	-.0252	.0322	.0865	.0469	2010.	
.1680	827.	1120.	613.	3374.	1037.	-2739.	.0602	-.0795	-.0237	.0282	.0760	.0404	1793.	
.1690	1435.	850.	875.	2636.	1249.	-2455.	.0523	-.0763	-.0208	.0251	.0600	.0381	1530.	
.1700	1238.	396.	647.	1835.	1612.	-2125.	.0436	-.0735	-.0175	.0256	.0426	.0377	1299.	
.1710	-2703.	-60.	-728.	984.	2634.	-1787.	.0359	-.0714	-.0150	.0308	.0282	.0375	1337.	
.1720	-1613.	-483.	-945.	153.	2688.	-1397.	.0281	-.0695	-.0105	.0383	.0126	.0373	1217.	
.1730	-1010.	-1068.	-1149.	-658.	2705.	-1007.	.0218	-.0671	-.0056	.0463	.0014	.0384	1188.	
.1740	-1234.	-1792.	-1284.	-1456.	2684.	-672.	.0163	-.0641	-.0001	.0544	-.0047	.0395	1255.	
.1750	556.	-2429.	-675.	-2226.	2135.	-392.	.0103	-.0605	.0071	.0623	-.0090	.0382	1248.	
.1760	543.	-2754.	-404.	-2920.	1826.	-143.	.0046	-.0558	.0147	.0696	-.0102	.0323	1383.	
.1770	1576.	-2548.	73.	-3414.	1308.	141.	-.0022	-.0501	.0235	.0761	-.0120	.0207	1468.	
.1780	444.	-1902.	-145.	-3617.	1213.	478.	-.0091	-.0435	.0324	.0812	-.0131	.0048	1543.	
.1790	320.	-1015.	-141.	-3545.	963.	859.	-.0169	-.0362	.0420	.0838	-.0152	-.0133	1514.	
.1800	1052.	-77.	346.	-3345.	533.	1217.	-.0255	-.0287	.0519	.0838	-.0165	-.0320	1444.	
.1810	-1867.	771.	302.	-3116.	722.	1481.	-.0334	-.0220	.0601	.0823	-.0126	-.0498	1414.	
.1820	-1423.	1501.	1269.	-2795.	305.	1695.	-.0415	-.0165	.0682	.0799	-.0097	-.0649	1318.	
.1830	-49.	2000.	2390.	-2357.	-213.	1877.	-.0489	-.0128	.0749	.0767	-.0076	-.0759	1212.	
.1840	646.	2250.	3131.	-1871.	-512.	2022.	-.0560	-.0110	.0793	.0731	-.0068	-.0826	1124.	
.1850	840.	2280.	3434.	-1411.	-598.	2119.	-.0632	-.0115	.0813	.0699	-.0090	-.0851	1049.	
.1860	-777.	2073.	2841.	-1008.	-214.	2168.	-.0699	-.0139	.0807	.0678	-.0141	-.0828	963.	
.1870	-133.	1706.	2350.	-690.	-139.	2187.	-.0769	-.0180	.0791	.0668	-.0246	-.0763	922.	
.1880	-1003.	1215.	1248.	-526.	244.	2154.	-.0827	-.0235	.0757	.0663	-.0354	-.0674	895.	
.1890	-2083.	682.	238.	-511.	644.	2067.	-.0874	-.0299	.0714	.0660	-.0443	-.0577	893.	
.1900	-1926.	180.	-38.	-579.	776.	1934.	-.0905	-.0370	.0667	.0661	-.0494	-.0473	868.	
.1910	-3618.	-248.	-336.	-666.	1212.	1765.	-.0905	-.0445	.0605	.0672	-.0470	-.0363	900.	
.1920	-3857.	-530.	-88.	-682.	1394.	1613.	-.0875	-.0520	.0538	.0686	-.0402	-.0250	898.	
.1930	-2996.	-711.	416.	-576.	1414.	1474.	-.0813	-.0590	.0467	.0692	-.0306	-.0136	852.	
.1940	-2599.	-826.	764.	-375.	1537.	1276.	-.0721	-.0658	.0390	.0683	-.0188	-.0034	816.	
.1950	-2519.	-817.	936.	-160.	1708.	960.	-.0606	-.0724	.0311	.0659	-.0067	.0038	789.	
.1960	-2081.	-654.	976.	7.	1795.	527.	-.0473	-.0789	.0236	.0623	.0035	.0071	751.	
.1970	-1670.	-453.	722.	150.	1871.	31.	-.0325	-.0851	.0167	.0576	.0114	.0082	753.	

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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

.1870	-133.	1706.	2350.	-690.	-135.	2157.	-.0769	-.0180	.0791	.0668	-.0246	-.0763	922.
.1880	-1003.	1215.	1248.	-526.	244.	2154.	-.0827	-.0235	.0757	.0663	-.0354	-.0674	895.
.1890	-2083.	682.	238.	-511.	644.	2087.	-.0874	-.0299	.0714	.0660	-.0443	-.0577	893.
.1900	-1926.	180.	-38.	-579.	776.	1934.	-.0905	-.0370	.0667	.0661	-.0494	-.0473	868.
.1910	-3618.	-248.	-336.	-666.	1212.	1765.	-.0905	-.0445	.0605	.0672	-.0470	-.0363	900.
.1920	-3857.	-530.	-88.	-682.	1394.	1613.	-.0875	-.0520	.0538	.0686	-.0402	-.0250	898.
.1930	-2996.	-711.	416.	-576.	1414.	1474.	-.0813	-.0590	.0467	.0692	-.0306	-.0136	852.
.1940	-2599.	-826.	764.	-375.	1537.	1276.	-.0721	-.0658	.0390	.0683	-.0188	-.0034	816.
.1950	-2519.	-817.	936.	-160.	1708.	960.	-.0606	-.0724	.0311	.0659	-.0067	-.0038	789.
.1960	-2081.	-654.	976.	7.	1795.	527.	-.0473	-.0789	.0236	.0623	.0035	.0071	751.
.1970	-1670.	-453.	722.	150.	1871.	31.	-.0325	-.0851	.0167	.0576	.0114	.0082	753.

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

CONDITION 24  
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ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	EL								
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
.1980	-1517.	-366.	151.	348.	1988.	-448.	-.0165	-.0907	.0104	.0521	.0175	.0097	830.	
.1990	-1240.	-428.	-515.	643.	2084.	-844.	.0003	-.0958	.0050	.0466	.0225	.0129	938.	
.2000	-1093.	-562.	-1135.	994.	2185.	-1131.	.0177	-.1004	.0003	.0424	.0280	.0167	1065.	
.2010	-1370.	-696.	-1624.	1326.	2302.	-1319.	.0354	-.1047	-.0037	.0406	.0357	.0201	1190.	
.2020	-1204.	-850.	-1756.	1561.	2249.	-1431.	.0530	-.1088	-.0068	.0418	.0448	.0224	1240.	
.2030	-143.	-1125.	-1523.	1611.	1939.	-1501.	.0696	-.1123	-.0087	.0454	.0533	.0242	1177.	
.2040	712.	-1572.	-1328.	1414.	1587.	-1561.	.0845	-.1149	-.0098	.0504	.0601	.0250	1058.	
.2050	819.	-2042.	-1452.	989.	1335.	-1606.	.0974	-.1162	-.0105	.0566	.0640	.0233	927.	
.2060	915.	-2239.	-1837.	414.	1102.	-1602.	.1077	-.1164	-.0106	.0646	.0638	.0167	798.	
.2070	1167.	-2007.	-2409.	-248.	884.	-1521.	.1156	-.1156	-.0102	.0747	.0603	.0042	713.	
.2080	805.	-1488.	-3157.	-966.	805.	-1358.	.1211	-.1176	-.0094	.0858	.0557	-.0119	743.	
.2090	-47.	-948.	-3828.	-1700.	824.	-1114.	.1246	-.1101	-.0082	.0963	.0520	-.0282	880.	
.2100	-382.	-520.	-4054.	-2397.	749.	-793.	.1262	-.1055	-.0063	.1055	.0498	-.0424	1057.	
.2110	-165.	-177.	-3797.	-3019.	584.	-418.	.1263	-.1003	-.0039	.1136	.0498	-.0544	1245.	
.2120	117.	129.	-3245.	-3532.	447.	-22.	.1249	-.0950	-.0015	.1203	.0521	-.0643	1429.	
.2130	322.	363.	-2624.	-3893.	410.	364.	.1219	-.0900	.0006	.1252	.0548	-.0716	1577.	
.2140	286.	439.	-2211.	-4051.	538.	716.	.1172	-.0852	.0022	.1273	.0556	-.0748	1665.	
.2150	-159.	304.	-2184.	-3986.	859.	1008.	.1106	-.0807	.0032	.1260	.0536	-.0731	1685.	
.2160	-734.	22.	-2431.	-3716.	1277.	1214.	.1025	-.0764	.0037	.1210	.0490	-.0677	1651.	
.2170	-1034.	-269.	-2666.	-3290.	1640.	1305.	.0930	-.0724	.0042	.1129	.0428	-.0605	1566.	
.2180	-1259.	-470.	-2701.	-2749.	1910.	1262.	.0823	-.0687	.0048	.1026	.0370	-.0530	1436.	
.2190	-1625.	-589.	-2458.	-2107.	2085.	1111.	.0709	-.0650	.0057	.0903	.0330	-.0451	1270.	
.2200	-1766.	-665.	-1906.	-1367.	2098.	911.	.0589	-.0610	.0069	.0764	.0304	-.0362	1069.	
.2210	-1465.	-683.	-1158.	-560.	1928.	705.	.0465	-.0565	.0083	.0618	.0282	-.0265	854.	
.2220	-1014.	-591.	-402.	239.	1643.	493.	.0339	-.0517	.0098	.0478	.0254	-.0173	695.	
.2230	-627.	-380.	263.	926.	1293.	251.	.0208	-.0468	.0111	.0351	.0211	-.0098	646.	
.2240	-338.	-117.	775.	1410.	896.	-41.	.0072	-.0419	.0123	.0238	.0144	-.0047	671.	
.2250	-161.	87.	1046.	1654.	471.	-380.	-.0069	-.0372	.0132	.0138	.0045	-.0015	707.	
.2260	44.	154.	1086.	1684.	26.	-734.	-.0214	-.0325	.0138	.0053	-.0086	.0006	737.	
.2270	351.	103.	987.	1559.	-410.	-1059.	-.0360	-.0279	.0141	-.0015	-.0240	.0022	774.	
.2280	465.	27.	808.	1344.	-748.	-1310.	-.0502	-.0232	.0140	-.0061	-.0397	.0027	811.	
.2290	239.	-3.	614.	1100.	-946.	-1453.	-.0636	-.0185	.0135	-.0087	-.0540	.0018	824.	
.2300	15.	-2.	543.	871.	-1060.	-1469.	-.0758	-.0134	.0129	-.0099	-.0663	-.0002	807.	
.2310	-68.	-27.	638.	657.	-1122.	-1373.	-.0866	-.0078	.0123	-.0105	-.0762	-.0027	759.	
.2320	-298.	-96.	776.	421.	-1085.	-1205.	-.0956	-.0015	.0118	-.0112	-.0838	-.0057	672.	
.2330	-661.	-161.	850.	156.	-956.	-1006.	-.1026	.0056	.0114	-.0122	-.0897	-.0098	560.	
.2340	-885.	-145.	821.	-97.	-778.	-794.	-.1075	.0132	.0111	-.0138	-.0946	-.0155	448.	
.2350	-1192.	11.	604.	-288.	-522.	-581.	-.1101	.0212	.0108	-.0162	-.0984	-.0233	334.	

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

CONDITION 24  
LOADS  
SHOCK  
PRESSURE  
ENGLISH UNITS

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

.2250	-161.	27.	1046.	1654.	471.	-380.	-.0069	-.0372	.0132	.0138	.0045	-.0015	707.
.2260	44.	154.	1086.	1684.	26.	-734.	-.0214	-.0325	.0138	.0053	-.0086	.0006	737.
.2270	351.	103.	987.	1559.	-410.	-1059.	-.0360	-.0279	.0141	-.0015	-.0240	.0022	774.
.2280	465.	27.	808.	1344.	-748.	-1310.	-.0502	-.0232	.0140	-.0061	-.0397	.0027	811.
.2290	239.	-3.	614.	1100.	-946.	-1453.	-.0636	-.0185	.0135	-.0087	-.0540	.0018	824.
.2300	15.	-2.	543.	871.	-1060.	-1469.	-.0758	-.0134	.0125	-.0099	-.0663	-.0002	807.
.2310	-68.	-27.	638.	657.	-1122.	-1373.	-.0866	-.0078	.0123	-.0105	-.0762	-.0027	759.
.2320	-298.	-96.	776.	421.	-1085.	-1205.	-.0956	-.0015	.0118	-.0112	-.0838	-.0057	672.
.2330	-661.	-161.	850.	156.	-956.	-1006.	-.1026	.0056	.0114	-.0122	-.0897	-.0098	560.
.2340	-885.	-145.	821.	-97.	-778.	-794.	-.1075	.0132	.0111	-.0138	-.0946	-.0155	448.
.2350	-1152.	11.	604.	-258.	-522.	-581.	-.1101	.0212	.0108	-.0162	-.0984	-.0233	334.

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

CONDITION 24  
LOADS  
SHOCK  
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ENGLISH UNITS

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

SECTION	28	MEMBER	1	SEQUENCE	813	LOCATION	END	TYPE	EL						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.2360	-1728.	307.	176.	-385.	-159.	-375.	-.1100	.0296	.0102	-.0196	-.1000	-.0326	225.		
.2370	-2293.	692.	-284.	-380.	213.	-182.	-.1072	.0382	.0096	-.0237	-.0986	-.0421	190.		
.2380	-2460.	1100.	-547.	-282.	477.	-5.	-.1017	.0467	.0091	-.0285	-.0933	-.0506	222.		
.2390	-2331.	1481.	-513.	-124.	606.	152.	-.0934	.0550	.0086	-.0337	-.0933	-.0574	256.		
.2400	-2047.	1800.	-176.	52.	612.	289.	-.0829	.0627	.0081	-.0391	-.0588	-.0624	272.		
.2410	-1584.	2015.	382.	215.	506.	410.	-.0705	.0696	.0074	-.0441	-.0512	-.0648	275.		
.2420	-1143.	2079.	930.	347.	362.	521.	-.0570	.0755	.0061	-.0482	-.0329	-.0641	290.		
.2430	-875.	1968.	1245.	440.	250.	626.	-.0427	.0804	.0040	-.0513	-.0157	-.0599	323.		
.2440	-496.	1699.	1323.	485.	135.	720.	-.0283	.0843	.0009	-.0534	-.0013	-.0526	353.		
.2450	26.	1317.	1233.	470.	10.	786.	-.0142	.0872	-.0030	-.0549	.0103	-.0433	367.		
.2460	290.	884.	1000.	398.	-60.	795.	-.0007	.0893	-.0078	-.0563	.0194	-.0333	358.		
.2470	130.	469.	614.	306.	-30.	742.	.0118	.0907	-.0137	-.0577	.0262	-.0235	322.		
.2480	137.	143.	180.	248.	13.	644.	.0230	.0917	-.0204	-.0594	.0298	-.0143	277.		
.2490	712.	-53.	-177.	256.	-12.	522.	.0328	.0925	-.0276	-.0617	.0306	-.0062	233.		
.2500	1354.	-126.	-461.	323.	-35.	377.	.0411	.0934	-.0349	-.0649	.0298	.0006	200.		
.2510	1605.	-108.	-668.	431.	8.	204.	.0475	.0944	-.0422	-.0693	.0284	.0063	191.		
.2520	1558.	-19.	-779.	576.	90.	11.	.0521	.0957	-.0491	-.0748	.0264	.0110	234.		
.2530	1462.	121.	-831.	762.	162.	-186.	.0549	.0971	-.0553	-.0809	.0236	.0150	321.		
.2540	1429.	268.	-874.	987.	196.	-373.	.0560	.0986	-.0606	-.0875	.0200	.0190	430.		
.2550	1413.	352.	-904.	1240.	188.	-553.	.0557	.1002	-.0651	-.0943	.0160	.0236	550.		
.2560	1263.	333.	-896.	1511.	144.	-740.	.0541	.1019	-.0686	-.1015	.0124	.0292	678.		
.2570	966.	236.	-833.	1790.	50.	-938.	.0515	.1035	-.0711	-.1090	.0100	.0353	811.		
.2580	854.	121.	-650.	2082.	-159.	-1134.	.0483	.1053	-.0727	-.1166	.0087	.0410	954.		
.2590	1150.	40.	-325.	2378.	-514.	-1315.	.0444	.1072	-.0731	-.1240	.0084	.0458	1110.		
.2600	1564.	8.	39.	2641.	-943.	-1469.	.0401	.1095	-.0727	-.1311	.0088	.0496	1270.		
.2610	1768.	-7.	322.	2841.	-1364.	-1586.	.0350	.1123	-.0716	-.1380	.0094	.0526	1416.		
.2620	1827.	-40.	497.	2975.	-1763.	-1646.	.0292	.1157	-.0698	-.1445	.0093	.0549	1537.		
.2630	1883.	-63.	569.	3035.	-2148.	-1638.	.0226	.1196	-.0674	-.1502	.0079	.0561	1630.		
.2640	1861.	-22.	526.	3001.	-2486.	-1561.	.0152	.1240	-.0646	-.1546	.0052	.0556	1685.		
.2650	1690.	71.	406.	2870.	-2750.	-1420.	.0070	.1287	-.0615	-.1578	.0011	.0536	1694.		
.2660	1459.	160.	295.	2667.	-2952.	-1218.	-.0018	.1338	-.0582	-.1601	-.0038	.0509	1670.		
.2670	1256.	216.	257.	2431.	-3109.	-959.	-.0110	.1393	-.0546	-.1621	-.0091	.0479	1630.		
.2680	1190.	276.	338.	2193.	-3240.	-654.	-.0204	.1449	-.0508	-.1638	-.0145	.0445	1592.		
.2690	1252.	403.	540.	1963.	-3338.	-322.	-.0297	.1505	-.0469	-.1651	-.0198	.0400	1559.		
.2700	1252.	605.	773.	1745.	-3362.	16.	-.0389	.1557	-.0430	-.1659	-.0254	.0347	1520.		
.2710	1126.	816.	935.	1552.	-3301.	341.	-.0480	.1603	-.0391	-.1663	-.0316	.0295	1470.		
.2720	1062.	949.	1004.	1402.	-3189.	639.	-.0569	.1642	-.0352	-.1660	-.0392	.0252	1421.		
.2730	1107.	995.	1003.	1276.	-3046.	904.	-.0654	.1673	-.0313	-.1650	-.0476	.0222	1374.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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18.27.28.

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

.2620	1827.	-40.	497.	2975.	-1763.	-1646.	.0292	.1157	-.0698	-.1445	.0093	.0549	1537.
.2630	1083.	-63.	569.	3035.	-2148.	-1638.	.0226	.1196	-.0674	-.1502	.0079	.0561	1630.
.2640	1861.	-22.	526.	3001.	-2486.	-1501.	.0152	.1240	-.0646	-.1546	.0052	.0556	1685.
.2650	1690.	71.	406.	2870.	-2750.	-1420.	.0070	.1287	-.0615	-.1578	.0011	.0536	1694.
.2660	1459.	160.	295.	2667.	-2952.	-1218.	-.0018	.1338	-.0582	-.1601	-.0038	.0509	1670.
.2670	1256.	216.	257.	2431.	-3109.	-959.	-.0110	.1393	-.0546	-.1621	-.0091	.0479	1630.
.2680	1190.	276.	338.	2193.	-3240.	-654.	-.0204	.1449	-.0508	-.1638	-.0145	.0445	1592.
.2690	1252.	403.	540.	1963.	-3338.	-322.	-.0297	.1505	-.0469	-.1651	-.0198	.0400	1559.
.2700	1252.	605.	773.	1745.	-3362.	16.	-.0389	.1557	-.0430	-.1659	-.0254	.0347	1520.
.2710	1126.	816.	935.	1552.	-3301.	341.	-.0480	.1603	-.0391	-.1663	-.0316	.0295	1470.
.2720	1062.	949.	1004.	1402.	-3189.	639.	-.0569	.1642	-.0352	-.1660	-.0392	.0252	1421.
.2730	1107.	995.	1003.	1276.	-3046.	904.	-.0654	.1673	-.0313	-.1650	-.0476	.0222	1374.

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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	EL								STRESS
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	(PSI)	
.2740	1002.	1021.	948.	1137.	-2834.	1138.	-.0734	.1694	-.0275	-.1633	-.0559	.0199	1308.	
.2750	778.	1058.	933.	980.	-2571.	1348.	-.0806	.1706	-.0238	-.1607	-.0627	.0185	1229.	
.2760	671.	1053.	1063.	844.	-2304.	1537.	-.0866	.1708	-.0202	-.1572	-.0674	.0186	1162.	
.2770	689.	968.	1353.	762.	-2038.	1705.	-.0915	.1700	-.0169	-.1528	-.0596	.0207	1109.	
.2780	718.	859.	1759.	721.	-1750.	1851.	-.0950	.1683	-.0140	-.1478	-.0692	.0241	1062.	
.2790	750.	800.	2231.	703.	-1439.	1965.	-.0973	.1655	-.0117	-.1421	-.0667	.0278	1017.	
.2800	746.	773.	2687.	708.	-1098.	2028.	-.0984	.1615	-.0100	-.1358	-.0630	.0315	968.	
.2810	612.	724.	3018.	743.	-718.	2026.	-.0984	.1565	-.0091	-.1290	-.0590	.0354	913.	
.2820	414.	654.	3167.	789.	-317.	1969.	-.0973	.1504	-.0088	-.1219	-.0554	.0390	861.	
.2830	253.	596.	3145.	827.	74.	1880.	-.0950	.1435	-.0092	-.1151	-.0524	.0422	825.	
.2840	48.	538.	2900.	852.	449.	1769.	-.0915	.1360	-.0100	-.1084	-.0496	.0451	808.	
.2850	-212.	443.	2737.	882.	780.	1636.	-.0866	.1278	-.0112	-.1017	-.0463	.0480	809.	
.2860	-312.	315.	2513.	923.	1006.	1489.	-.0805	.1191	-.0126	-.0950	-.0424	.0507	811.	
.2870	-151.	191.	2361.	971.	1087.	1333.	-.0731	.1099	-.0138	-.0885	-.0379	.0528	793.	
.2880	97.	82.	2248.	1020.	1043.	1161.	-.0649	.1004	-.0149	-.0822	-.0328	.0539	748.	
.2890	311.	-18.	2125.	1067.	896.	955.	-.0561	.0904	-.0158	-.0761	-.0277	.0542	678.	
.2900	572.	-92.	1965.	1109.	638.	711.	-.0471	.0801	-.0163	-.0698	-.0232	.0532	588.	
.2910	882.	-105.	1741.	1138.	284.	438.	-.0380	.0696	-.0163	-.0635	-.0197	.0506	503.	
.2920	1115.	-48.	1442.	1145.	-127.	146.	-.0291	.0588	-.0158	-.0569	-.0171	.0465	466.	
.2930	1224.	53.	1098.	1124.	-566.	-151.	-.0205	.0478	-.0149	-.0499	-.0148	.0415	508.	
.2940	1269.	166.	761.	1067.	-1021.	-436.	-.0122	.0367	-.0134	-.0423	-.0125	.0361	618.	
.2950	1324.	264.	465.	981.	-1481.	-685.	-.0042	.0254	-.0115	-.0338	-.0098	.0311	764.	
.2960	1441.	318.	232.	878.	-1931.	-885.	.0036	.0141	-.0092	-.0242	-.0066	.0271	922.	
.2970	1588.	318.	53.	765.	-2340.	-1035.	.0109	.0025	-.0066	-.0134	-.0029	.0241	1072.	
.2980	1654.	282.	-121.	637.	-2665.	-1138.	.0177	-.0093	-.0038	-.0016	.0011	.0222	1191.	
.2990	1582.	229.	-346.	492.	-2876.	-1193.	.0239	-.0211	-.0009	.0110	.0051	.0210	1265.	
.3000	1425.	153.	-639.	346.	-2972.	-1207.	.0294	-.0330	.0020	.0239	.0089	.0208	1294.	
.3010	1212.	40.	-984.	209.	-2958.	-1189.	.0343	-.0448	.0049	.0369	.0125	.0216	1282.	
.3020	906.	-87.	-1343.	77.	-2840.	-1149.	.0386	-.0564	.0077	.0498	.0163	.0232	1230.	
.3030	508.	-196.	-1660.	-53.	-2631.	-1087.	.0424	-.0678	.0106	.0622	.0209	.0252	1142.	
.3040	104.	-296.	-1871.	-166.	-2365.	-1004.	.0457	-.0787	.0133	.0741	.0264	.0279	1033.	
.3050	-217.	-426.	-1942.	-242.	-2080.	-906.	.0487	-.0891	.0161	.0854	.0329	.0316	916.	
.3060	-406.	-593.	-1872.	-286.	-1800.	-803.	.0512	-.0989	.0188	.0958	.0401	.0364	799.	
.3070	-480.	-761.	-1695.	-312.	-1533.	-704.	.0533	-.1081	.0214	.1051	.0473	.0415	689.	
.3080	-512.	-897.	-1472.	-326.	-1275.	-619.	.0547	-.1164	.0238	.1130	.0537	.0463	584.	
.3090	-542.	-1000.	-1269.	-325.	-1021.	-559.	.0554	-.1238	.0261	.1192	.0586	.0505	485.	
.3100	-548.	-1073.	-1131.	-311.	-772.	-532.	.0552	-.1304	.0282	.1238	.0613	.0536	396.	
.3110	-540.	-1114.	-1079.	-290.	-523.	-536.	.0540	-.1361	.0300	.1267	.0614	.0555	322.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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18.27.28.

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

.3010	1212.	40.	-984.	209.	-2958.	-1189.	.0343	-.0448	.0049	.0369	.0125	.0216	1282.
.3020	906.	-87.	-1343.	77.	-2840.	-1149.	.0386	-.0564	.0077	.0498	.0163	.0232	1230.
.3030	508.	-196.	-1660.	-53.	-2631.	-1087.	.0424	-.0678	.0106	.0622	.0209	.0252	1142.
.3040	104.	-296.	-1871.	-166.	-2365.	-1004.	.0457	-.0787	.0133	.0741	.0264	.0279	1033.
.3050	-217.	-426.	-1942.	-242.	-2080.	-906.	.0487	-.0891	.0161	.0854	.0329	.0316	916.
.3060	-406.	-593.	-1872.	-286.	-1000.	-803.	.0512	-.0989	.0188	.0958	.0401	.0364	799.
.3070	-480.	-761.	-1695.	-312.	-1533.	-704.	.0533	-.1081	.0214	.1051	.0473	.0415	689.
.3080	-512.	-897.	-1472.	-326.	-1275.	-619.	.0547	-.1164	.0238	.1130	.0537	.0463	584.
.3090	-542.	-1000.	-1269.	-325.	-1021.	-559.	.0554	-.1238	.0261	.1192	.0586	.0505	485.
.3100	-548.	-1073.	-1131.	-311.	-772.	-532.	.0552	-.1304	.0282	.1238	.0613	.0536	396.
.3110	-540.	-1114.	-1079.	-290.	-523.	-536.	.0540	-.1361	.0300	.1267	.0614	.0555	322.

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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	28	MEMBER	1	SEQUENCE	813	LOCATION	END	TYPE	EL					
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.3120	-571.	-1120.	-1112.	-268.	-263.	-562.	.0518	-.1408	.0314	.1282	.0590	.0559	271.	
.3130	-624.	-1106.	-1193.	-246.	6.	-597.	.0486	-.1447	.0326	.1265	.0545	.0549	259.	
.3140	-629.	-1088.	-1266.	-232.	271.	-624.	.0445	-.1477	.0335	.1281	.0482	.0526	288.	
.3150	-609.	-1078.	-1298.	-243.	531.	-627.	.0396	-.1498	.0342	.1273	.0408	.0489	344.	
.3160	-608.	-1084.	-1276.	-293.	791.	-594.	.0339	-.1511	.0347	.1264	.0327	.0440	414.	
.3170	-622.	-1095.	-1200.	-394.	1047.	-518.	.0275	-.1514	.0351	.1258	.0242	.0379	495.	
.3180	-662.	-1080.	-1095.	-554.	1298.	-398.	.0207	-.1509	.0356	.1254	.0154	.0301	589.	
.3190	-776.	-1011.	-1002.	-773.	1552.	-232.	.0136	-.1495	.0362	.1253	.0067	.0207	702.	
.3200	-1019.	-879.	-953.	-1036.	1813.	-33.	.0063	-.1474	.0369	.1255	-.0018	.0097	838.	
.3210	-1345.	-689.	-947.	-1330.	2064.	186.	-.0007	-.1447	.0377	.1261	-.0098	-.0026	988.	
.3220	-1675.	-444.	-964.	-1649.	2283.	411.	-.0074	-.1415	.0386	.1270	-.0171	-.0157	1142.	
.3230	-1962.	-164.	-984.	-1984.	2452.	633.	-.0133	-.1380	.0396	.1279	-.0232	-.0291	1291.	
.3240	-2157.	109.	-978.	-2317.	2556.	846.	-.0182	-.1344	.0408	.1287	-.0280	-.0418	1426.	
.3250	-2232.	322.	-926.	-2631.	2589.	1038.	-.0221	-.1310	.0421	.1293	-.0313	-.0530	1539.	
.3260	-2255.	451.	-835.	-2918.	2565.	1200.	-.0247	-.1278	.0435	.1296	-.0330	-.0621	1632.	
.3270	-2247.	503.	-725.	-3175.	2497.	1334.	-.0262	-.1250	.0448	.1293	-.0334	-.0688	1707.	
.3280	-2164.	481.	-609.	-3391.	2388.	1440.	-.0265	-.1226	.0462	.1284	-.0330	-.0732	1762.	
.3290	-2056.	377.	-516.	-3552.	2257.	1513.	-.0257	-.1206	.0474	.1267	-.0320	-.0749	1795.	
.3300	-2025.	196.	-468.	-3653.	2128.	1548.	-.0238	-.1191	.0484	.1240	-.0307	-.0744	1807.	
.3310	-2035.	-21.	-456.	-3705.	2001.	1541.	-.0211	-.1180	.0491	.1205	-.0292	-.0721	1800.	
.3320	-1992.	-226.	-459.	-3715.	1864.	1500.	-.0176	-.1173	.0494	.1162	-.0278	-.0688	1773.	
.3330	-1879.	-402.	-476.	-3686.	1718.	1430.	-.0132	-.1168	.0491	.1113	-.0264	-.0648	1730.	
.3340	-1724.	-558.	-510.	-3628.	1573.	1338.	-.0082	-.1165	.0482	.1062	-.0249	-.0602	1675.	
.3350	-1525.	-696.	-563.	-3560.	1433.	1231.	-.0027	-.1164	.0466	.1009	-.0233	-.0553	1617.	
.3360	-1311.	-806.	-647.	-3498.	1305.	1121.	.0033	-.1164	.0443	.0959	-.0216	-.0502	1564.	
.3370	-1122.	-880.	-776.	-3453.	1198.	1017.	.0096	-.1164	.0413	.0914	-.0198	-.0453	1522.	
.3380	-960.	-932.	-945.	-3428.	1113.	925.	.0160	-.1164	.0378	.0876	-.0176	-.0405	1493.	
.3390	-837.	-981.	-1143.	-3423.	1048.	848.	.0225	-.1164	.0337	.0844	-.0151	-.0358	1476.	
.3400	-812.	-1047.	-1360.	-3426.	1011.	788.	.0288	-.1162	.0292	.0818	-.0121	-.0309	1468.	
.3410	-880.	-1135.	-1566.	-3420.	996.	745.	.0350	-.1159	.0245	.0796	-.0082	-.0259	1460.	
.3420	-949.	-1234.	-1719.	-3386.	985.	714.	.0411	-.1154	.0195	.0775	-.0035	-.0210	1444.	
.3430	-966.	-1329.	-1796.	-3310.	967.	690.	.0471	-.1145	.0145	.0753	.0021	-.0164	1411.	
.3440	-969.	-1418.	-1807.	-3180.	950.	664.	.0529	-.1133	.0095	.0727	.0085	-.0122	1358.	
.3450	-981.	-1505.	-1772.	-2992.	940.	631.	.0585	-.1115	.0046	.0693	.0152	-.0085	1284.	
.3460	-967.	-1580.	-1713.	-2748.	933.	586.	.0639	-.1090	-.0002	.0649	.0218	-.0056	1188.	
.3470	-898.	-1618.	-1654.	-2464.	924.	527.	.0690	-.1057	-.0046	.0594	.0278	-.0038	1077.	
.3480	-796.	-1594.	-1619.	-2156.	915.	456.	.0737	-.1017	-.0088	.0529	.0329	-.0036	957.	
.3490	-703.	-1505.	-1614.	-1840.	909.	379.	.0779	-.0967	-.0126	.0455	.0366	-.0048	838.	

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ADLPIPE STRESS ANALYSIS

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18.27.28.

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

.3390	-837.	-981.	-1143.	-3423.	1048.	848.	.0225	-.1164	.0337	.0844	-.0151	-.0358	1476.
.3400	-812.	-1047.	-1360.	-3426.	1011.	788.	.0288	-.1162	.0292	.0818	-.0121	-.0309	1468.
.3410	-880.	-1135.	-1566.	-3420.	996.	745.	.0350	-.1159	.0245	.0796	-.0082	-.0259	1460.
.3420	-949.	-1234.	-1719.	-3386.	985.	714.	.0411	-.1154	.0195	.0775	-.0035	-.0210	1444.
.3430	-966.	-1329.	-1796.	-3310.	967.	690.	.0471	-.1145	.0145	.0753	.0021	-.0164	1411.
.3440	-969.	-1418.	-1807.	-3180.	950.	664.	.0529	-.1133	.0095	.0727	.0085	-.0122	1358.
.3450	-981.	-1505.	-1772.	-2992.	940.	631.	.0585	-.1115	.0046	.0693	.0152	-.0085	1284.
.3460	-967.	-1580.	-1713.	-2748.	933.	586.	.0639	-.1090	-.0002	.0649	.0218	-.0056	1188.
.3470	-898.	-1618.	-1654.	-2464.	924.	527.	.0690	-.1057	-.0046	.0594	.0278	-.0038	1077.
.3480	-796.	-1594.	-1619.	-2156.	915.	456.	.0737	-.1017	-.0088	.0529	.0329	-.0036	957.
.3490	-703.	-1505.	-1614.	-1840.	909.	379.	.0779	-.0967	-.0126	.0455	.0366	-.0048	838.

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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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	EL	DX	DY	DZ	RX	RY	RZ	STRESS
TIME	FX	FY	FZ	MX	MY	MZ	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)							
.3500	-638.	-1363.	-1632.	-1534.	904.	299.	.0815	-.0909	-.0159	.0374	.0392	-.0074	725.
.3510	-571.	-1180.	-1650.	-1258.	885.	224.	.0843	-.0843	-.0188	.0290	.0405	-.0111	624.
.3520	-449.	-962.	-1641.	-1031.	838.	163.	.0865	-.0770	-.0213	.0205	.0408	-.0158	537.
.3530	-276.	-722.	-1596.	-872.	761.	122.	.0878	-.0691	-.0232	.0124	.0401	-.0211	467.
.3540	-105.	-486.	-1529.	-797.	663.	104.	.0883	-.0609	-.0248	.0050	.0386	-.0266	418.
.3550	46.	-292.	-1463.	-819.	551.	107.	.0879	-.0525	-.0259	-.0015	.0361	-.0318	399.
.3560	202.	-163.	-1418.	-943.	426.	131.	.0865	-.0441	-.0267	-.0069	.0326	-.0363	418.
.3570	365.	-105.	-1412.	-1162.	294.	176.	.0841	-.0357	-.0271	-.0113	.0280	-.0398	486.
.3580	511.	-117.	-1449.	-1463.	167.	240.	.0806	-.0274	-.0271	-.0146	.0224	-.0423	599.
.3590	626.	-192.	-1508.	-1817.	54.	316.	.0760	-.0194	-.0267	-.0170	.0162	-.0435	740.
.3600	709.	-317.	-1554.	-2187.	-40.	401.	.0704	-.0116	-.0258	-.0188	.0097	-.0436	892.
.3610	766.	-464.	-1547.	-2530.	-110.	491.	.0639	-.0040	-.0245	-.0203	.0034	-.0426	1035.
.3620	821.	-599.	-1453.	-2810.	-154.	583.	.0566	.0035	-.0228	-.0219	-.0021	-.0407	1153.
.3630	871.	-694.	-1254.	-3000.	-164.	670.	.0485	.0107	-.0207	-.0237	-.0068	-.0383	1235.
.3640	876.	-735.	-963.	-3080.	-129.	745.	.0397	.0179	-.0182	-.0260	-.0105	-.0356	1273.
.3650	811.	-722.	-603.	-3042.	-42.	799.	.0303	.0248	-.0156	-.0289	-.0132	-.0326	1262.
.3660	710.	-663.	-199.	-2886.	88.	827.	.0205	.0315	-.0128	-.0325	-.0153	-.0294	1205.
.3670	589.	-562.	223.	-2626.	252.	827.	.0103	.0378	-.0101	-.0366	-.0169	-.0263	1109.
.3680	425.	-432.	633.	-2278.	445.	800.	-.0001	.0438	-.0075	-.0409	-.0180	-.0231	985.
.3690	222.	-285.	1013.	-1862.	651.	755.	-.0104	.0494	-.0052	-.0453	-.0189	-.0198	848.
.3700	26.	-140.	1364.	-1399.	846.	697.	-.0204	.0545	-.0031	-.0496	-.0194	-.0163	713.
.3710	-141.	-9.	1686.	-911.	1006.	632.	-.0300	.0591	-.0013	-.0537	-.0196	-.0127	601.
.3720	-278.	114.	1970.	-427.	1116.	564.	-.0390	.0633	.0001	-.0573	-.0195	-.0092	530.
.3730	-376.	237.	2205.	26.	1162.	496.	-.0473	.0670	.0012	-.0603	-.0193	-.0059	507.
.3740	-426.	358.	2374.	424.	1133.	429.	-.0546	.0702	.0020	-.0628	-.0192	-.0031	515.
.3750	-441.	458.	2456.	751.	1030.	359.	-.0611	.0730	.0025	-.0649	-.0196	-.0005	531.
.3760	-424.	530.	2446.	997.	854.	280.	-.0665	.0753	.0027	-.0664	-.0204	.0017	539.
.3770	-362.	589.	2358.	1159.	609.	193.	-.0709	.0772	.0028	-.0676	-.0218	.0034	531.
.3780	-263.	654.	2209.	1237.	307.	101.	-.0743	.0787	.0026	-.0684	-.0235	.0045	513.
.3790	-146.	721.	2026.	1244.	-36.	6.	-.0765	.0799	.0024	-.0691	-.0253	.0054	499.
.3800	-4.	773.	1842.	1196.	-408.	-90.	-.0776	.0807	.0022	-.0699	-.0269	.0062	508.
.3810	176.	808.	1682.	1111.	-796.	-186.	-.0775	.0813	.0020	-.0709	-.0281	.0073	554.
.3820	378.	833.	1555.	1008.	-1179.	-284.	-.0764	.0815	.0018	-.0719	-.0287	.0088	633.
.3830	568.	854.	1449.	900.	-1532.	-383.	-.0742	.0813	.0016	-.0730	-.0287	.0107	729.
.3840	727.	866.	1339.	799.	-1833.	-482.	-.0712	.0807	.0013	-.0740	-.0281	.0132	825.
.3850	840.	848.	1201.	714.	-2064.	-583.	-.0673	.0796	.0010	-.0750	-.0270	.0165	907.
.3860	900.	784.	1025.	649.	-2214.	-683.	-.0626	.0781	.0004	-.0758	-.0254	.0209	966.
.3870	920.	681.	822.	601.	-2283.	-782.	-.0573	.0760	-.0003	-.0761	-.0231	.0263	998.

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

.3770	-362.	581.	2358.	1159.	609.	193.	-.0709	.0772	.0028	-.0676	-.0218	.0034	531.
.3780	-263.	654.	2209.	1237.	307.	101.	-.0743	.0787	.0026	-.0684	-.0235	.0045	513.
.3790	-146.	721.	2026.	1244.	-36.	6.	-.0765	.0799	.0024	-.0691	-.0253	.0054	499.
.3800	-4.	773.	1842.	1196.	-408.	-90.	-.0776	.0807	.0022	-.0699	-.0269	.0062	508.
.3810	176.	808.	1682.	1111.	-796.	-186.	-.0775	.0813	.0020	-.0709	-.0281	.0073	554.
.3820	378.	833.	1555.	1008.	-1179.	-284.	-.0764	.0815	.0018	-.0719	-.0287	.0088	633.
.3830	568.	854.	1449.	900.	-1532.	-383.	-.0742	.0813	.0016	-.0730	-.0287	.0107	729.
.3840	727.	866.	1339.	799.	-1833.	-482.	-.0712	.0807	.0013	-.0740	-.0281	.0132	825.
.3850	840.	848.	1201.	714.	-2064.	-583.	-.0673	.0796	.0010	-.0750	-.0270	.0165	907.
.3860	900.	784.	1025.	649.	-2214.	-683.	-.0626	.0781	.0004	-.0758	-.0254	.0209	966.
.3870	920.	681.	822.	601.	-2283.	-782.	-.0573	.0760	-.0003	-.0761	-.0231	.0263	998.

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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

SECTION	28	MEMBER	1	SEQUENCE	813	LOCATION	END	TYPE	EL						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.3880	922.	557.	615.	562.	-2275.	-872.	-.0514	.0736	-.0013	-.0760	-.0199	.0325	1003.		
.3890	918.	412.	436.	531.	-2202.	-949.	-.0450	.0708	-.0026	-.0753	-.0156	.0393	985.		
.3900	913.	228.	308.	522.	-2074.	-1015.	-.0382	.0677	-.0041	-.0739	-.0100	.0469	950.		
.3910	916.	8.	246.	543.	-1905.	-1073.	-.0312	.0643	-.0057	-.0716	-.0032	.0551	904.		
.3920	932.	-206.	245.	597.	-1707.	-1123.	-.0241	.0609	-.0075	-.0684	.0046	.0632	854.		
.3930	946.	-367.	281.	685.	-1484.	-1160.	-.0171	.0574	-.0094	-.0644	.0130	.0707	804.		
.3940	934.	-462.	324.	807.	-1245.	-1189.	-.0105	.0540	-.0114	-.0600	.0214	.0771	763.		
.3950	893.	-510.	356.	965.	-1001.	-1218.	-.0043	.0509	-.0133	-.0554	.0294	.0826	742.		
.3960	848.	-515.	369.	1151.	-769.	-1256.	.0012	.0481	-.0152	-.0508	.0366	.0868	750.		
.3970	836.	-464.	366.	1355.	-565.	-1304.	.0060	.0457	-.0170	-.0464	.0427	.0896	788.		
.3980	874.	-356.	349.	1575.	-396.	-1358.	.0100	.0437	-.0185	-.0423	.0476	.0909	850.		
.3990	943.	-219.	316.	1814.	-261.	-1415.	.0131	.0420	-.0198	-.0386	.0511	.0910	929.		
.4000	1020.	-91.	267.	2071.	-158.	-1471.	.0153	.0408	-.0208	-.0353	.0534	.0904	1021.		

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)		
.1110	10120.	2345.	6089.	9004.	-4396.	-4875.	.0654	.0476	-.0789	-.1310	.0912	.0351	4472.		

SECTION	28	MEMBER	2	SEQUENCE	53	LOCATION	END	TYPE	EL						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
0.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.		
.0010	5.	1.	7.	-1.	-4.	1.	-.0000	-.0000	-.0000	.0000	.0000	-.0000	2.		
.0020	35.	4.	51.	-6.	-28.	3.	-.0000	-.0000	-.0000	.0000	.0001	-.0000	12.		
.0030	94.	-0.	149.	-8.	-84.	3.	-.0000	-.0000	-.0001	.0001	.0003	.0001	34.		
.0040	159.	-26.	287.	2.	-168.	-10.	-.0001	-.0000	-.0003	.0003	.0006	.0004	68.		
.0050	220.	-76.	440.	33.	-263.	-36.	-.0002	.0000	-.0006	.0005	.0012	.0009	107.		
.0060	307.	-134.	608.	78.	-354.	-65.	-.0004	.0002	-.0013	.0007	.0020	.0016	148.		
.0070	346.	-176.	816.	123.	-493.	-80.	-.0007	.0005	-.0022	.0007	.0032	.0022	207.		
.0080	487.	-198.	1099.	167.	-768.	-78.	-.0010	.0010	-.0037	.0006	.0054	.0028	317.		
.0090	-154.	-232.	1436.	248.	-1141.	-75.	-.0010	.0017	-.0057	.0004	.0092	.0037	470.		
.0100	-486.	-316.	1736.	417.	-1443.	-92.	-.0003	.0029	-.0087	-.0002	.0146	.0054	604.		
.0110	-630.	-435.	1906.	676.	-1520.	-124.	.0015	.0045	-.0126	-.0014	.0214	.0075	670.		

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

CONDITION 24  
LOADS  
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ENGLISH UNITS

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



0.0000	0.	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.
.0010	5.	1.	7.	-1.	-4.	1.	-0.0000	-0.0000	-0.0000	.0000	.0000	-0.0000	2.	
.0020	35.	4.	51.	-6.	-28.	3.	-0.0000	-0.0000	-0.0000	.0000	.0001	-0.0000	12.	
.0030	94.	-0.	149.	-8.	-84.	3.	-0.0000	-0.0000	-0.0001	.0001	.0003	.0001	34.	
.0040	159.	-26.	287.	2.	-168.	-10.	-0.0001	-0.0000	-0.0003	.0003	.0006	.0004	68.	
.0050	220.	-76.	440.	23.	-263.	-36.	-0.0002	.0000	-0.0006	.0005	.0012	.0009	107.	
.0060	307.	-134.	608.	78.	-354.	-65.	-0.0004	.0002	-0.0013	.0007	.0020	.0016	148.	
.0070	346.	-176.	816.	123.	-493.	-80.	-0.0007	.0005	-0.0022	.0007	.0032	.0022	207.	
.0080	187.	-198.	1099.	167.	-768.	-78.	-0.0010	.0010	-0.0037	.0006	.0054	.0028	317.	
.0090	-154.	-232.	1436.	248.	-1141.	-75.	-0.0010	.0017	-0.0057	.0004	.0092	.0037	470.	
.0100	-486.	-316.	1736.	417.	-1443.	-92.	-0.0003	.0029	-0.0087	-0.0002	.0146	.0054	604.	
.0110	-630.	-435.	1906.	676.	-1520.	-124.	.0015	.0045	-0.0126	-0.0014	.0214	.0075	670.	

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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	MEMBER	SEQUENCE	LOCATION	END	TYPE	EL	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	HX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
.0120	-483.	-521.	1917.	966.	-1321.	-150.	.0044	.0067	-.0174	-.0037	.0287	.0090	659.							
.0130	-143.	-514.	1754.	1220.	-896.	-165.	.0084	.0096	-.0230	-.0077	.0355	.0087	611.							
.0140	27.	-425.	1305.	1433.	-322.	-196.	.0131	.0134	-.0290	-.0137	.0410	.0062	595.							
.0150	-254.	-278.	459.	1639.	368.	-253.	.0184	.0178	-.0350	-.0217	.0450	.0016	682.							
.0160	-1037.	-37.	-773.	1834.	1151.	-275.	.0244	.0229	-.0403	-.0315	.0475	-.0046	876.							
.0170	-2288.	391.	-2261.	1947.	1925.	-159.	.0314	.0284	-.0442	-.0424	.0493	-.0121	1101.							
.0180	-3541.	1030.	-3681.	1904.	2605.	144.	.0398	.0339	-.0460	-.0532	.0512	-.0201	1296.							
.0190	-3973.	1735.	-4474.	1695.	3061.	554.	.0502	.0387	-.0452	-.0626	.0536	-.0271	1422.							
.0200	-3419.	2249.	-4049.	1368.	2874.	900.	.0631	.0422	-.0419	-.0689	.0585	-.0304	1327.							
.0210	-2074.	2177.	-2391.	1140.	1985.	917.	.0788	.0439	-.0372	-.0707	.0678	-.0269	990.							
.0220	2739.	1171.	104.	1280.	1882.	347.	.0958	.0437	-.0319	-.0686	.0742	-.0152	924.							
.0230	9105.	-494.	2456.	1616.	2508.	-679.	.1110	.0425	-.0266	-.0646	.0748	.0001	1228.							
.0240	11845.	-1999.	3841.	1587.	2298.	-1695.	.1208	.0413	-.0214	-.0612	.0712	.0107	1311.							
.0250	8837.	-2508.	3958.	790.	606.	-2054.	.1244	.0411	-.0156	-.0590	.0679	.0124	916.							
.0260	6584.	-1947.	3703.	-496.	-454.	-1438.	.1248	.0422	-.0085	-.0573	.0644	.0098	637.							
.0270	12547.	-1277.	4625.	-1540.	1099.	-458.	.1222	.0443	.0004	-.0562	.0509	.0107	781.							
.0280	14402.	-1346.	5342.	-2050.	1088.	-16.	.1131	.0466	.0108	-.0561	.0368	.0157	931.							
.0290	2452.	-1677.	4201.	-2404.	-3319.	90.	.0980	.0485	.0216	-.0556	.0363	.0196	1645.							
.0300	-2057.	-1069.	4911.	-3046.	-5869.	1017.	.0823	.0498	.0322	-.0534	.0328	.0192	2685.							
.0310	4504.	254.	7306.	-3859.	-4883.	2624.	.0676	.0497	.0412	-.0477	.0222	.0163	2711.							
.0320	7133.	888.	7862.	-4410.	-4118.	3549.	.0506	.0473	.0467	-.0375	.0146	.0154	2809.							
.0330	3744.	79.	6482.	-4368.	-4374.	3035.	.0294	.0425	.0488	-.0253	.0062	.0188	2763.							
.0340	2400.	-1323.	4940.	-3885.	-3524.	1865.	.0051	.0361	.0483	-.0141	-.0109	.0223	2234.							
.0350	1336.	-1872.	2715.	-3501.	-1974.	1336.	-.0202	.0294	.0458	-.0054	-.0286	.0178	1699.							
.0360	-2798.	-1016.	-600.	-3537.	-902.	1929.	-.0450	.0230	.0422	.0012	-.0388	.0041	1657.							
.0370	-4243.	491.	-2960.	-3702.	552.	3030.	-.0680	.0166	.0389	.0069	-.0492	-.0103	1932.							
.0380	-1818.	1287.	-3450.	-3366.	2018.	3489.	-.0898	.0094	.0375	.0125	-.0666	-.0173	2107.							
.0390	-4930.	741.	-4017.	-2232.	802.	2779.	-.1115	.0008	.0385	.0175	-.0826	-.0187	1466.							
.0400	-14815.	-8.	-5449.	-789.	-2709.	1916.	-.1301	-.0087	.0384	.0227	-.0858	-.0213	1369.							
.0410	-13017.	554.	-4467.	128.	-2904.	2150.	-.1408	-.0187	.0360	.0307	-.0905	-.0275	1451.							
.0420	-4319.	1900.	-2779.	484.	-511.	2840.	-.1452	-.0293	.0299	.0436	-.0961	-.0348	1174.							
.0430	-1980.	2141.	-1662.	1019.	-611.	2398.	-.1444	-.0406	.0257	.0557	-.0928	-.0381	1074.							
.0440	-4373.	615.	-967.	2306.	-2463.	451.	-.1406	-.0519	.0224	.0620	-.0866	-.0360	1366.							
.0450	-1165.	-917.	370.	3638.	-2283.	-1480.	-.1337	-.0619	.0193	.0637	-.0874	-.0340	1823.							
.0460	4968.	-659.	1563.	4007.	-605.	-2032.	-.1246	-.0700	.0172	.0641	-.0902	-.0404	1819.							
.0470	3557.	1101.	1029.	3536.	-586.	-1425.	-.1160	-.0763	.0155	.0640	-.0834	-.0555	1548.							
.0480	-2458.	2967.	-307.	3093.	-1608.	-534.	-.1077	-.0820	.0140	.0640	-.0700	-.0692	1415.							
.0490	-3304.	3953.	-423.	3179.	-1260.	48.	-.0962	-.0881	.0147	.0664	-.0591	-.0706	1373.							

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

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.0400	-14815.	-8.	-5449.	-789.	-2709.	1916.	-1301	-.0087	.0384	.0227	-.0858	-.0213	1466.
.0410	-13017.	554.	-4467.	126.	-2904.	2150.	-1408	-.0187	.0360	.0307	-.0905	-.0275	1451.
.0420	-4319.	1900.	-2770.	484.	-511.	2840.	-1452	-.0293	.0299	.0436	-.0961	-.0348	1174.
.0430	-1980.	2141.	-1662.	1019.	-611.	2398.	-1444	-.0406	.0257	.0557	-.0928	-.0381	1074.
.0440	-4373.	615.	-967.	2306.	-2463.	451.	-1406	-.0519	.0224	.0620	-.0566	-.0360	1366.
.0450	-1165.	-917.	370.	3638.	-2283.	-1480.	-1337	-.0619	.0193	.0637	-.0874	-.0340	1823.
.0460	4968.	-659.	1503.	4007.	-605.	-2032.	-1246	-.0700	.0172	.0641	-.0902	-.0404	1819.
.0470	3557.	1101.	1029.	3536.	-586.	-1425.	-1160	-.0763	.0155	.0640	-.0834	-.0555	1548.
.0480	-2458.	2967.	-307.	3093.	-1608.	-534.	-1077	-.0820	.0140	.0640	-.0700	-.0692	1415.
.0490	-3304.	3953.	-427.	3179.	-1260.	48.	-.0962	-.0881	.0147	.0664	-.0591	-.0706	1373.

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

SECTION	28	MEMBER	2	SEQUENCE	53	LOCATION	END	TYPE	EL						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.0500	-1673.	3603.	175.	3757.	-458.	-130.	-.0808	-.0955	.0171	.0731	-.0472	-.0593	1520.		
.0510	-2081.	2224.	1182.	4302.	-889.	-1011.	-.0624	-.1043	.0203	.0823	-.0305	-.0431	1809.		
.0520	-2193.	871.	2816.	4064.	-1665.	-1876.	-.0414	-.1135	.0232	.0931	-.0120	-.0284	1916.		
.0530	-77.	49.	4077.	2919.	-1157.	-2321.	-.0181	-.1225	.0246	.1068	.0060	-.0157	1567.		
.0540	1980.	-1013.	3626.	1707.	725.	-2821.	.0060	-.1304	.0237	.1222	.0242	-.0015	1355.		
.0550	1716.	-2855.	1360.	1017.	3075.	-3724.	.0290	-.1364	.0208	.1352	.0424	.0149	1980.		
.0560	-327.	-4441.	-1831.	187.	5268.	-4367.	.0503	-.1393	.0178	.1441	.0582	.0278	2747.		
.0570	-1585.	-4461.	-4540.	-1667.	7102.	-3928.	.0703	-.1384	.0165	.1490	.0689	.0306	3325.		
.0580	-1297.	-3145.	-5653.	-4262.	7975.	-2569.	.0890	-.1341	.0181	.1493	.0745	.0229	3772.		
.0590	-1701.	-1748.	-5398.	-6596.	7173.	-1109.	.1060	-.1278	.0222	.1450	.0788	.0118	3936.		
.0600	-2690.	-974.	-4520.	-8151.	5416.	-35.	.1213	-.1209	.0277	.1392	.0836	.0058	3927.		
.0610	-2435.	-709.	-3547.	-8991.	4092.	673.	.1354	-.1147	.0325	.1358	.0889	.0069	3973.		
.0620	-565.	-611.	-2588.	-9324.	3579.	1174.	.1478	-.1101	.0351	.1360	.0949	.0104	4035.		
.0630	743.	-417.	-2076.	-9379.	3232.	1542.	.1578	-.1074	.0356	.1382	.1017	.0104	4028.		
.0640	1175.	-205.	-2291.	-9209.	3037.	1591.	.1641	-.1067	.0342	.1399	.1054	.0055	3943.		
.0650	1654.	-460.	-3099.	-8490.	3321.	943.	.1655	-.1077	.0309	.1396	.1019	-.0016	3678.		
.0660	1225.	-1328.	-4301.	-7001.	3560.	-378.	.1620	-.1097	.0263	.1372	.0935	-.0083	3156.		
.0670	-889.	-2041.	-5752.	-5121.	3308.	-1615.	.1549	-.1118	.0217	.1336	.0862	-.0149	2531.		
.0680	-1271.	-1751.	-6436.	-3362.	3258.	-1978.	.1459	-.1131	.0181	.1288	.0805	-.0227	2039.		
.0690	1234.	-729.	-5599.	-1662.	3341.	-1604.	.1351	-.1133	.0160	.1221	.0748	-.0303	1630.		
.0700	1365.	1.	-4204.	307.	2022.	-1314.	.1218	-.1130	.0149	.1141	.0721	-.0348	976.		
.0710	-1728.	8.	-3087.	2409.	-452.	-1524.	.1063	-.1125	.0140	.1065	.0716	-.0344	1158.		
.0720	-1240.	-324.	-1616.	4157.	-1625.	-1993.	.0904	-.1115	.0126	.1003	.0658	-.0301	1961.		
.0730	3493.	-641.	139.	5295.	-1106.	-2485.	.0741	-.1096	.0104	.0946	.0532	-.0258	2389.		
.0740	4925.	-888.	773.	5878.	-1020.	-2999.	.0555	-.1063	.0072	.0884	.0407	-.0252	2679.		
.0750	1839.	-921.	150.	5987.	-1767.	-3372.	.0342	-.1013	.0036	.0803	.0298	-.0286	2847.		
.0760	-167.	-514.	-424.	5709.	-1945.	-3281.	.0122	-.0941	.0008	.0700	.0172	-.0327	2755.		
.0770	-423.	255.	-492.	5228.	-1669.	-2680.	-.0090	-.0850	-.0006	.0587	.0047	-.0345	2451.		
.0780	-1851.	1089.	-289.	4685.	-2107.	-1816.	-.0285	-.0747	-.0001	.0477	-.0042	-.0327	2136.		
.0790	-2739.	1795.	737.	4073.	-3022.	-912.	-.0456	-.0639	.0025	.0375	-.0127	-.0278	2068.		
.0800	-993.	2183.	2832.	3416.	-3719.	-181.	-.0598	-.0535	.0067	.0279	-.0249	-.0202	2028.		
.0810	-94.	1973.	4661.	2860.	-4620.	120.	-.0715	-.0440	.0112	.0198	-.0376	-.0100	2181.		
.0820	-1484.	1119.	5132.	2478.	-5406.	-42.	-.0806	-.0355	.0149	.0144	-.0477	.0027	2387.		
.0830	-1134.	-27.	4575.	2151.	-4529.	-377.	-.0863	-.0274	.0173	.0116	-.0579	.0175	2018.		
.0840	1107.	-1128.	3235.	1754.	-2136.	-658.	-.0890	-.0191	.0188	.0095	-.0683	.0320	1140.		
.0850	415.	-2083.	1010.	1286.	-328.	-874.	-.0901	-.0095	.0202	.0051	-.0747	.0423	638.		
.0860	-2738.	-2730.	-1040.	722.	158.	-906.	-.0897	.0019	.0230	-.0035	-.0774	.0456	469.		
.0870	-3301.	-2770.	-1407.	-71.	245.	-473.	-.0866	.0153	.0279	-.0159	-.0805	.0430	216.		

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

.0765	-167.	-514.	-424.	5709.	-1945.	-3281.	.0122	-.0941	.0008	.0700	.0172	-.0327	2755.
.0770	-423.	255.	-492.	5228.	-1669.	-2620.	-.0090	-.0850	-.0006	.0587	.0047	-.0345	2451.
.0780	-1851.	1089.	-289.	4685.	-2107.	-1816.	-.0285	-.0747	-.0001	.0477	-.0042	-.0327	2186.
.0790	-2739.	1795.	737.	4073.	-3022.	-912.	-.0456	-.0639	.0025	.0375	-.0127	-.0278	2068.
.0800	-993.	2183.	1832.	3416.	-3719.	-181.	-.0598	-.0535	.0067	.0279	-.0249	-.0202	2028.
.0810	-94.	1973.	4861.	2860.	-4620.	120.	-.0715	-.0440	.0112	.0198	-.0376	-.0100	2181.
.0820	-1484.	1119.	5132.	2478.	-5406.	-42.	-.0806	-.0355	.0149	.0144	-.0477	.0027	2387.
.0830	-1134.	-27.	4575.	2151.	-4529.	-377.	-.0863	-.0274	.0173	.0116	-.0579	.0175	2018.
.0840	1107.	-1128.	3235.	1754.	-2136.	-658.	-.0890	-.0191	.0188	.0095	-.0683	.0320	1140.
.0850	415.	-2083.	1010.	1286.	-328.	-874.	-.0901	-.0095	.0202	.0051	-.0747	.0423	638.
.0860	-2738.	-2730.	-1040.	722.	158.	-906.	-.0897	.0019	.0230	-.0035	-.0774	.0456	469.
.0870	-2301.	-2770.	-1407.	-71.	245.	-473.	-.0866	.0153	.0279	-.0159	-.0805	.0430	216.

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

SECTION	28	MEMBER	2	SEQUENCE	53	LOCATION	END	TYPE	EL						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.0880	-1183.	-2196.	-81.	-1107.	-41.	461.	-.0806	.0305	.0348	-.0301	-.0828	.0372	481.		
.0890	54.	-1401.	1926.	-2147.	-1350.	1611.	-.0728	.0467	.0424	-.0441	-.0805	.0308	1206.		
.0900	312.	-669.	3986.	-2980.	-3090.	2773.	-.0640	.0628	.0487	-.0569	-.0741	.0247	2051.		
.0910	1206.	69.	5561.	-3684.	-4042.	3966.	-.0546	.0778	.0520	-.0677	-.0663	.0183	2711.		
.0920	2039.	872.	5949.	-4461.	-3931.	5119.	-.0453	.0910	.0510	-.0758	-.0581	.0105	3148.		
.0930	1782.	1529.	5017.	-5337.	-3104.	5944.	-.0369	.1016	.0456	-.0817	-.0501	.0010	3439.		
.0940	985.	1803.	3258.	-6136.	-1738.	6221.	-.0297	.1090	.0364	-.0855	-.0436	-.0086	3575.		
.0950	40.	1689.	1094.	-6621.	-8.	6000.	-.0236	.1131	.0241	-.0875	-.0381	-.0168	3586.		
.0960	-1075.	1370.	-1093.	-6612.	1782.	5526.	-.0184	.1141	.0092	-.0875	-.0312	-.0235	3531.		
.0970	-1996.	1089.	-2829.	-6076.	3417.	5044.	-.0142	.1121	-.0073	-.0849	-.0223	-.0295	3453.		
.0980	-2610.	1011.	-3940.	-5142.	4744.	4651.	-.0109	.1075	-.0249	-.0787	-.0123	-.0349	3371.		
.0990	-3047.	1045.	-4552.	-3927.	5703.	4219.	-.0087	.1008	-.0429	-.0688	-.0032	-.0395	3254.		
.1000	-2979.	876.	-4703.	-2433.	6376.	3489.	-.0073	.0926	-.0604	-.0575	.0024	-.0429	3076.		
.1010	-2346.	359.	-4450.	-709.	6765.	2350.	-.0066	.0836	-.0765	-.0472	.0033	-.0461	2888.		
.1020	-1945.	-225.	-4096.	984.	6730.	1014.	-.0060	.0750	-.0902	-.0394	.0007	-.0506	2760.		
.1030	-2114.	-421.	-3836.	2343.	6302.	-132.	-.0052	.0675	-.1010	-.0344	-.0028	-.0573	2699.		
.1040	-2052.	-35.	-3486.	3311.	5721.	-832.	-.0031	.0618	-.1082	-.0330	-.0053	-.0652	2674.		
.1050	-1702.	746.	-2940.	4106.	4934.	-1128.	.0008	.0579	-.1112	-.0348	-.0053	-.0722	2615.		
.1060	-1511.	1621.	-2194.	4930.	3713.	-1235.	.0068	.0551	-.1100	-.0385	-.0024	-.0771	2526.		
.1070	-649.	2428.	-988.	5750.	2217.	-1319.	.0146	.0529	-.1049	-.0431	.0011	-.0800	2529.		
.1080	389.	3229.	772.	6305.	214.	-1354.	.0242	.0506	-.0969	-.0480	.0063	-.0816	2589.		
.1090	1296.	4011.	3209.	6472.	-2409.	-1277.	.0368	.0476	-.0877	-.0506	.0181	-.0800	2818.		
.1100	7539.	3797.	5768.	6891.	-2797.	-1817.	.0496	.0433	-.0781	-.0488	.0217	-.0704	3072.		
.1110	10120.	2345.	6089.	7593.	-2830.	-3132.	.0597	.0383	-.0695	-.0462	.0249	-.0526	3486.		
.1120	6235.	605.	4036.	7946.	-3487.	-4433.	.0662	.0340	-.0621	-.0467	.0329	-.0314	3910.		
.1130	3271.	-388.	1525.	7527.	-3073.	-4892.	.0706	.0310	-.0549	-.0474	.0401	-.0111	3808.		
.1140	3116.	-788.	-552.	6623.	-1573.	-4661.	.0743	.0296	-.0472	-.0444	.0456	.0083	3311.		
.1150	1527.	-1548.	-2249.	5835.	-883.	-4504.	.0768	.0301	-.0386	-.0407	.0532	.0295	2979.		
.1160	-286.	-2974.	-2743.	5345.	-1204.	-4686.	.0780	.0329	-.0291	-.0401	.0595	.0529	2893.		
.1170	-374.	-4423.	-2011.	4859.	-1770.	-4850.	.0783	.0385	-.0192	-.0405	.0618	.0741	2845.		
.1180	4749.	-5145.	68.	4033.	-1201.	-4608.	.0762	.0472	-.0094	-.0398	.0526	.0853	2504.		
.1190	3764.	-4720.	673.	2603.	-2065.	-3712.	.0699	.0591	-.0012	-.0417	.0454	.0816	1999.		
.1200	-1744.	-3087.	-197.	641.	-3560.	-1953.	.0607	.0744	.0049	-.0501	.0413	.0664	1650.		
.1210	-44.	-815.	-14.	-1353.	-2638.	369.	.0511	.0915	.0090	-.0614	.0306	.0480	1199.		
.1220	565.	785.	-742.	-2690.	-1492.	2127.	.0412	.1082	.0112	-.0703	.0212	.0325	1501.		
.1230	-345.	1290.	-1522.	-3350.	-1097.	2920.	.0301	.1233	.0123	-.0782	.0107	.0209	1837.		
.1240	-2394.	1465.	-1830.	-3845.	-1683.	3324.	.0180	.1362	.0128	-.0871	-.0008	.0102	2149.		
.1250	-2253.	2042.	-1303.	-4364.	-2053.	3916.	.0060	.1464	.0125	-.0935	-.0146	-.0015	2493.		

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

CONDITION 24

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ENGLISH UNITS

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

.1150	1527.	-1548.	-2249.	5835.	-883.	-4504.	.0768	.0301	-.0386	-.0407	.0532	.0295	2979.
.1160	-286.	-2974.	-2743.	5345.	-1204.	-4686.	.0780	.0329	-.0291	-.0401	.0595	.0529	2893.
.1170	-374.	-4423.	-2011.	4859.	-1770.	-4850.	.0783	.0385	-.0192	-.0405	.0618	.0741	2845.
.1180	4749.	-5145.	61.	4033.	-1201.	-4606.	.0762	.0472	-.0094	-.0398	.0526	.0853	2504.
.1190	3764.	-4720.	673.	2603.	-2065.	-3712.	.0699	.0591	-.0012	-.0417	.0454	.0816	1999.
.1200	-1744.	-3087.	-197.	641.	-3560.	-1953.	.0607	.0744	.0049	-.0501	.0413	.0664	1650.
.1210	-44.	-815.	-14.	-1353.	-2638.	369.	.0511	.0915	.0090	-.0614	.0306	.0480	1199.
.1220	565.	785.	-742.	-2690.	-1492.	2127.	.0412	.1082	.0112	-.0703	.0212	.0325	1501.
.1230	-345.	1290.	-1522.	-3350.	-1097.	2920.	.0301	.1233	.0123	-.0782	.0107	.0209	1837.
.1240	-2394.	1465.	-1830.	-3845.	-1683.	3324.	.0180	.1362	.0128	-.0871	-.0008	.0102	2149.
.1250	-2253.	2042.	-1303.	-4364.	-2053.	3916.	.0060	.1464	.0125	-.0935	-.0146	-.0015	2493.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.29.

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

CONDITION 24  
LOADS  
SHOCK  
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ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	EL	DX	DY	DZ	RX	RY	RZ	STRESS
TIME	FX	FY	FZ	MX	MY	MZ	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)							
.1260	2131.	2738.	359.	-4460.	-1495.	4522.	-.0065	.1531	.0112	-.0942	-.0324	-.0131	2618.
.1270	-443.	2857.	712.	-3709.	-2773.	4668.	-.0196	.1563	.0077	-.0909	-.0381	-.0208	2639.
.1280	-2014.	2462.	1529.	-2275.	-3760.	4484.	-.0319	.1568	.0022	-.0876	-.0389	-.0211	2519.
.1290	357.	1801.	2819.	-480.	-3252.	4046.	-.0423	.1551	-.0050	-.0843	-.0391	-.0154	2092.
.1300	2193.	986.	3524.	1395.	-2461.	3239.	-.0516	.1521	-.0134	-.0816	-.0379	-.0108	1726.
.1310	4006.	417.	4234.	2882.	-1682.	2292.	-.0616	.1488	-.0224	-.0845	-.0410	-.0146	1624.
.1320	1174.	386.	3760.	3571.	-1958.	1630.	-.0726	.1462	-.0317	-.0939	-.0429	-.0274	1760.
.1330	442.	1435.	3372.	3704.	-1360.	1426.	-.0833	.1441	-.0410	-.1054	-.0486	-.0425	1684.
.1340	229.	2152.	2656.	4017.	-235.	1290.	-.0924	.1421	-.0496	-.1140	-.0531	-.0520	1696.
.1350	-1420.	2437.	1587.	4660.	549.	1118.	-.0993	.1399	-.0569	-.1203	-.0528	-.0533	1935.
.1360	734.	2847.	1942.	5018.	1710.	1272.	-.1039	.1376	-.0615	-.1273	-.0556	-.0501	2188.
.1370	1526.	3533.	2720.	4738.	1665.	1651.	-.1073	.1346	-.0631	-.1336	-.0589	-.0470	2122.
.1380	2768.	4010.	4315.	4057.	851.	1799.	-.1102	.1301	-.0618	-.1376	-.0677	-.0451	1813.
.1390	2000.	3846.	5317.	3277.	-585.	1440.	-.1129	.1237	-.0588	-.1385	-.0782	-.0410	1456.
.1400	677.	3197.	5023.	2472.	-1317.	825.	-.1144	.1156	-.0550	-.1361	-.0884	-.0315	1172.
.1410	3694.	2330.	4551.	1746.	-37.	239.	-.1146	.1058	-.0507	-.1291	-.1026	-.0169	707.
.1420	2357.	1218.	2612.	1221.	501.	-420.	-.1146	.0947	-.0457	-.1164	-.1110	-.0013	556.
.1430	-952.	158.	621.	645.	124.	-993.	-.1140	.0829	-.0391	-.1003	-.1167	.0121	478.
.1440	-3136.	-593.	-507.	-185.	-606.	-1297.	-.1114	.0715	-.0300	-.0833	-.1214	.0240	579.
.1450	-2360.	-1313.	-359.	-953.	-1213.	-1521.	-.1054	.0610	-.0182	-.0659	-.1261	.0366	869.
.1460	1502.	-2318.	1161.	-1289.	-1661.	-1926.	-.0970	.0518	-.0045	-.0488	-.1318	.0493	1144.
.1470	639.	-3204.	1879.	-1418.	-3486.	-2297.	-.0875	.0443	.0096	-.0334	-.1288	.0576	1769.
.1480	901.	-3057.	2587.	-1844.	-4643.	-1961.	-.0773	.0392	.0228	-.0212	-.1231	.0578	2154.
.1490	1607.	-1809.	2706.	-2532.	-4880.	-887.	-.0664	.0358	.0339	-.0112	-.1134	.0496	2235.
.1500	-488.	-267.	1427.	-3024.	-4983.	273.	-.0553	.0330	.0420	-.0012	-.0970	.0362	2341.
.1510	-942.	952.	38.	-3140.	-4152.	1025.	-.0439	.0296	.0475	.0084	-.0811	.0214	2129.
.1520	-1771.	1724.	-1465.	-3018.	-3339.	1253.	-.0320	.0249	.0508	.0178	-.0638	.0078	1875.
.1530	-489.	2144.	-1806.	-2717.	-2516.	1087.	-.0200	.0183	.0525	.0279	-.0483	-.0040	1549.
.1540	-1217.	2226.	-1763.	-2131.	-2824.	638.	-.0083	.0094	.0529	.0411	-.0282	-.0130	1443.
.1550	-2646.	2106.	-1550.	-1246.	-3471.	154.	.0039	-.0015	.0518	.0572	-.0031	-.0167	1481.
.1560	1087.	1863.	-289.	-197.	-2585.	-217.	.0163	-.0137	.0493	.0744	.0190	-.0131	1042.
.1570	1329.	1236.	-104.	1275.	-2254.	-780.	.0277	-.0268	.0449	.0917	.0452	-.0039	1085.
.1580	-14.	258.	-459.	2766.	-2148.	-1631.	.0372	-.0400	.0390	.1074	.0691	.0068	1550.
.1590	1135.	-592.	-516.	3904.	-1241.	-2490.	.0448	-.0523	.0320	.1187	.0839	.0142	1924.
.1600	836.	-995.	-1165.	4412.	-556.	-3160.	.0504	-.0628	.0242	.1241	.0939	.0159	2189.
.1610	-1219.	-1077.	-2270.	4544.	-266.	-3634.	.0545	-.0712	.0160	.1240	.1019	.0136	2337.
.1620	574.	-1011.	-2260.	4645.	873.	-3886.	.0578	-.0772	.0084	.1202	.1039	.0107	2455.
.1630	548.	-872.	-2554.	4777.	1520.	-3940.	.0603	-.0810	.0014	.1147	.1080	.0088	2559.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.29.

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

CONDITION 24  
LOADS  
SHOCK  
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ENGLISH UNITS

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

.1530	-489.	2144.	-1806.	-2717.	-2516.	1087.	-.0200	.0183	.0525	.0279	-.0483	-.0040	1549.
.1540	-1217.	2226.	-1763.	-2131.	-2824.	638.	-.0083	.0094	.0529	.0411	-.0282	-.0130	1443.
.1550	-2646.	2106.	-1550.	-1246.	-3471.	154.	.0039	-.0015	.0518	.0572	-.0031	-.0167	1481.
.1560	1087.	1863.	-289.	-117.	-2585.	-217.	.0163	-.0137	.0493	.0744	.0190	-.0131	1042.
.1570	1329.	1276.	-104.	1275.	-2254.	-780.	.0277	-.0268	.0449	.0917	.0452	-.0039	1085.
.1580	-14.	258.	-459.	2766.	-2148.	-1631.	.0372	-.0400	.0320	.1074	.0591	.0068	1550.
.1590	1135.	-592.	-516.	3904.	-1241.	-2490.	.0448	-.0523	.0320	.1187	.0839	.0142	1924.
.1600	836.	-995.	-1165.	4412.	-556.	-3160.	.0504	-.0628	.0242	.1241	.0939	.0159	2189.
.1610	-1219.	-1077.	-2270.	4544.	-266.	-3634.	.0545	-.0712	.0160	.1240	.1019	.0136	2337.
.1620	576.	-1011.	-2260.	4645.	873.	-3886.	.0578	-.0772	.0084	.1202	.1039	.0107	2455.
.1630	548.	-872.	-2554.	4777.	1520.	-2940.	.0603	-.0810	.0014	.1147	.1080	.0088	2559.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.29.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	28	MEMBER	2	SEQUENCE	53	LOCATION	END	TYPE	EL						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.1640	370.	-561.	-2594.	4796.	1930.	-3713.	.0616	-.0827	-.0043	.1068	.1115	.0077	2554.		
.1650	2373.	-63.	-1556.	4598.	2428.	-3234.	.0613	-.0825	-.0081	.0965	.1100	.0059	2457.		
.1660	1417.	495.	-795.	4128.	1313.	-2696.	.0590	-.0810	-.0103	.0854	.1080	.0029	2108.		
.1670	1416.	985.	193.	3418.	1358.	-2197.	.0548	-.0789	-.0110	.0745	.1006	-.0001	1719.		
.1680	827.	1120.	613.	2700.	1080.	-1906.	.0495	-.0765	-.0108	.0640	.0911	-.0004	1395.		
.1690	1435.	850.	875.	2124.	1462.	-1824.	.0434	-.0742	-.0101	.0549	.0791	.0029	1268.		
.1700	1238.	396.	647.	1596.	1877.	-1830.	.0365	-.0722	-.0091	.0497	.0679	.0081	1232.		
.1710	-2793.	-60.	-728.	1021.	1548.	-1832.	.0295	-.0704	-.0079	.0487	.0625	.0137	1046.		
.1720	-1613.	-483.	-945.	443.	2419.	-1756.	.0234	-.0685	-.0057	.0497	.0532	.0200	1213.		
.1730	-1010.	-1068.	-1149.	-15.	2951.	-1801.	.0183	-.0662	-.0024	.0521	.0459	.0266	1387.		
.1740	-1234.	-1792.	-1284.	-377.	2896.	-2004.	.0136	-.0633	.0022	.0558	.0395	.0319	1421.		
.1750	556.	-2429.	-675.	-764.	2971.	-2198.	.0088	-.0592	.0081	.0593	.0299	.0345	1514.		
.1760	543.	-2754.	-404.	-1263.	2454.	-2190.	.0037	-.0535	.0151	.0614	.0222	.0334	1414.		
.1770	1576.	-2548.	73.	-1880.	2203.	-1753.	-.0022	-.0460	.0231	.0616	.0135	.0285	1358.		
.1780	444.	-1902.	-145.	-2472.	1589.	-936.	-.0089	-.0371	.0317	.0601	.0079	.0204	1238.		
.1790	320.	-1015.	-141.	-2934.	1261.	104.	-.0161	-.0272	.0407	.0568	.0015	.0102	1282.		
.1800	1052.	-77.	346.	-3299.	908.	1160.	-.0240	-.0174	.0499	.0518	-.0065	-.0014	1450.		
.1810	-1867.	771.	302.	-3580.	-627.	2054.	-.0323	-.0084	.0587	.0465	-.0107	-.0135	1675.		
.1820	-1423.	1501.	1269.	-3699.	-1495.	2811.	-.0401	-.0011	.0667	.0418	-.0184	-.0246	1958.		
.1830	-49.	2000.	2390.	-3561.	-2020.	3364.	-.0471	.0039	.0732	.0385	-.0260	-.0337	2126.		
.1840	646.	2250.	3131.	-3225.	-2451.	3694.	-.0537	.0064	.0773	.0365	-.0317	-.0404	2200.		
.1850	840.	2280.	3434.	-2783.	-2645.	3814.	-.0605	.0062	.0788	.0362	-.0364	-.0444	2172.		
.1860	-777.	2073.	2841.	-2256.	-2794.	3709.	.0671	.0035	.0778	.0379	-.0381	-.0449	2072.		
.1870	-133.	1706.	2350.	-1717.	-1966.	3456.	-.0730	-.0014	.0747	.0409	-.0419	-.0419	1738.		
.1880	-1003.	1215.	1248.	-1257.	-1288.	3057.	-.0781	-.0080	.0702	.0443	-.0433	-.0368	1423.		
.1890	-2083.	682.	238.	-921.	-787.	2574.	-.0823	-.0157	.0650	.0472	-.0440	-.0306	1142.		
.1900	-1926.	180.	-38.	-687.	-356.	2068.	-.0850	-.0242	.0596	.0499	-.0448	-.0238	886.		
.1910	-3618.	-248.	-336.	-516.	-716.	1581.	-.0857	-.0330	.0542	.0533	-.0403	-.0161	727.		
.1920	-3857.	-530.	-88.	-363.	-863.	1219.	-.0837	-.0418	.0488	.0569	-.0332	-.0076	617.		
.1930	-2996.	-711.	416.	-148.	-698.	945.	-.0786	-.0503	.0432	.0600	-.0232	.0008	475.		
.1940	-2599.	-826.	764.	122.	-596.	662.	-.0710	-.0583	.0374	.0623	-.0102	.0074	361.		
.1950	-2519.	-817.	936.	332.	-504.	353.	-.0611	-.0658	.0315	.0632	.0037	.0102	281.		
.1960	-2081.	-654.	976.	401.	-184.	40.	-.0493	-.0726	.0258	.0625	.0167	.0090	178.		
.1970	-1670.	-453.	722.	422.	328.	-306.	-.0357	-.0789	.0203	.0607	.0289	.0054	247.		
.1980	-1517.	-366.	151.	568.	963.	-720.	-.0208	-.0847	.0151	.0591	.0410	.0014	534.		
.1990	-1240.	-428.	-515.	900.	1721.	-1162.	-.0049	-.0902	.0106	.0584	.0527	-.0014	908.		
.2000	-1093.	-562.	-1135.	1332.	2371.	-1549.	.0115	-.0953	.0070	.0591	.0642	-.0030	1256.		
.2010	-1370.	-678.	-1624.	1745.	2684.	-1837.	.0280	-.0998	.0044	.0615	.0757	-.0042	1481.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.29.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.1910	-3618.	-248.	-336.	-516.	-716.	1581.	-.0857	-.0330	.0542	.0533	-.0403	-.0161	727.
.1920	-3857.	-530.	-88.	-363.	-863.	1219.	-.0837	-.0418	.0488	.0569	-.0332	-.0076	617.
.1930	-2996.	-711.	416.	-146.	-698.	945.	-.0786	-.0503	.0432	.0600	-.0232	.0008	475.
.1940	-2599.	-826.	764.	122.	-596.	662.	-.0710	-.0582	.0374	.0623	-.0102	.0074	361.
.1950	-2519.	-817.	936.	372.	-504.	353.	-.0611	-.0658	.0315	.0632	.0037	.0102	281.
.1960	-2081.	-654.	976.	401.	-184.	40.	-.0493	-.0726	.0258	.0625	.0167	.0090	178.
.1970	-1670.	-453.	722.	422.	328.	-306.	-.0357	-.0789	.0203	.0607	.0289	.0054	247.
.1980	-1517.	-366.	151.	568.	963.	-720.	-.0208	-.0847	.0151	.0591	.0410	.0014	534.
.1990	-1240.	-428.	-515.	900.	1721.	-1162.	-.0049	-.0902	.0106	.0584	.0527	-.0014	908.
.2000	-1093.	-562.	-1135.	1332.	2371.	-1549.	.0115	-.0953	.0070	.0591	.0642	-.0030	1256.
.2010	-1370.	-676.	-1624.	1745.	2684.	-1837.	.0260	-.0998	.0044	.0615	.0757	-.0042	1481.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.29.

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

CONDITION 24  
LOADS  
SHOCK  
PRESSURE  
ENGLISH UNITS

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

SECTION	28	MEMBER	2	SEQUENCE	53	LOCATION	END	TYPE	EL						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.2020	-1204.	-850.	-1756.	2073.	2029.	-2063.	.0445	-.1038	.0020	.0659	.0854	-.0050	1633.		
.2030	-143.	-1125.	-1523.	2289.	2985.	-2337.	.0603	-.1069	.0019	.0716	.0918	-.0056	1777.		
.2040	712.	-1572.	-1328.	2361.	3002.	-2730.	.0748	-.1089	.0015	.0776	.0953	-.0066	1884.		
.2050	819.	-2042.	-1452.	2218.	2907.	-3124.	.0873	-.1093	.0011	.0830	.0965	-.0087	1930.		
.2060	915.	-2239.	-1837.	1762.	3019.	-3267.	.0979	-.1080	.0008	.0876	.0956	-.0130	1920.		
.2070	1167.	-2007.	-2409.	960.	3378.	-3014.	.1062	-.1047	.0006	.0911	.0933	-.0198	1857.		
.2080	805.	-1488.	-3157.	-71.	3637.	-2465.	.1123	-.0996	.0007	.0933	.0908	-.0276	1763.		
.2090	-47.	-948.	-3828.	-1130.	3642.	-1819.	.1161	-.0934	.0014	.0942	.0883	-.0346	1695.		
.2100	-382.	-520.	-4054.	-2084.	3533.	-1180.	.1180	-.0865	.0029	.0942	.0851	-.0395	1713.		
.2110	-165.	-177.	-2797.	-2912.	3307.	-550.	.1183	-.0794	.0051	.0938	.0819	-.0425	1782.		
.2120	117.	129.	-3245.	-3610.	2930.	73.	.1170	-.0728	.0076	.0929	.0797	-.0440	1866.		
.2130	322.	363.	-2624.	-4111.	2554.	634.	.1138	-.0668	.0100	.0917	.0787	-.0442	1959.		
.2140	286.	439.	-2211.	-4315.	2354.	1042.	.1089	-.0619	.0118	.0903	.0788	-.0426	2016.		
.2150	-159.	304.	-2184.	-4169.	2387.	1234.	.1023	-.0580	.0128	.0885	.0798	-.0390	1990.		
.2160	-734.	22.	-2431.	-3730.	2642.	1231.	.0943	-.0551	.0130	.0857	.0808	-.0345	1900.		
.2170	-1034.	-269.	-2666.	-3129.	3000.	1105.	.0851	-.0529	.0129	.0818	.0805	-.0303	1795.		
.2180	-1259.	-470.	-2701.	-2466.	3160.	913.	.0749	-.0512	.0130	.0768	.0782	-.0273	1650.		
.2190	-1625.	-589.	-2458.	-1753.	2934.	673.	.0638	-.0495	.0133	.0708	.0739	-.0251	1398.		
.2200	-1766.	-665.	-1906.	-967.	2452.	417.	.0523	-.0478	.0140	.0641	.0675	-.0227	1071.		
.2210	-1465.	-683.	-1158.	-149.	1907.	197.	.0406	-.0457	.0148	.0568	.0592	-.0198	772.		
.2220	-1014.	-591.	-402.	595.	1332.	54.	.0288	-.0432	.0155	.0497	.0490	-.0167	586.		
.2230	-627.	-380.	263.	1155.	720.	-31.	.0169	-.0403	.0157	.0426	.0368	-.0144	546.		
.2240	-338.	-117.	775.	1481.	116.	-128.	.0047	-.0370	.0153	.0353	.0219	-.0136	598.		
.2250	-161.	87.	1046.	1601.	-404.	-315.	-.0077	-.0334	.0142	.0281	.0045	-.0142	675.		
.2260	44.	154.	1086.	1591.	-755.	-619.	-.0200	-.0297	.0123	.0215	-.0149	-.0154	749.		
.2270	351.	103.	987.	1497.	-932.	-982.	-.0322	-.0259	.0098	.0159	-.0351	-.0167	810.		
.2280	465.	27.	808.	1327.	-1069.	-1290.	-.0442	-.0217	.0069	.0114	-.0544	-.0179	858.		
.2290	239.	-3.	614.	1101.	-1258.	-1455.	-.0556	-.0172	.0040	.0079	-.0714	-.0190	890.		
.2300	15.	-2.	543.	872.	-1455.	-1471.	-.0661	-.0122	.0013	.0050	-.0858	-.0199	901.		
.2310	-68.	-27.	638.	673.	-1636.	-1393.	-.0755	-.0065	-.0008	.0023	-.0975	-.0203	904.		
.2320	-298.	-96.	776.	479.	-1841.	-1276.	-.0835	-.0001	-.0025	-.0007	-.1063	-.0207	919.		
.2330	-661.	-161.	850.	253.	-1986.	-1125.	-.0899	.0069	-.0037	-.0046	-.1121	-.0215	922.		
.2340	-885.	-145.	821.	-10.	-1921.	-902.	-.0944	.0148	-.0046	-.0094	-.1150	-.0237	852.		
.2350	-1152.	11.	604.	-295.	-1664.	-573.	-.0968	.0233	-.0053	-.0152	-.1145	-.0275	716.		
.2360	-1728.	307.	176.	-570.	-1330.	-147.	-.0971	.0322	-.0057	-.0219	-.1101	-.0326	584.		
.2370	-2293.	692.	-284.	-797.	-955.	333.	-.0949	.0414	-.0057	-.0290	-.1023	-.0382	517.		
.2380	-2460.	1100.	-547.	-944.	-598.	813.	-.0904	.0504	-.0051	-.0360	-.0920	-.0435	555.		
.2390	-2331.	1481.	-513.	-1016.	-416.	1253.	-.0836	.0590	-.0038	-.0427	-.0798	-.0477	668.		

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ADLPIPE STRESS ANALYSIS

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18.27.29.

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  
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.2290	239.	-3.	614.	1101.	-1258.	-1455.	-.0556	-.0172	.0040	.0079	-.0714	-.0190	890.
.2300	15.	-2.	543.	872.	-1455.	-1471.	-.0661	-.0122	.0013	.0050	-.0858	-.0199	901.
.2310	-68.	-27.	632.	673.	-1636.	-1393.	-.0755	-.0065	-.0008	.0023	-.0975	-.0203	904.
.2320	-298.	-96.	776.	479.	-1841.	-1276.	-.0835	-.0001	-.0025	-.0007	-.1063	-.0207	919.
.2330	-661.	-161.	850.	253.	-1986.	-1125.	-.0899	.0069	-.0037	-.0046	-.1121	-.0215	922.
.2340	-885.	-145.	821.	-10.	-1921.	-902.	-.0944	.0148	-.0046	-.0094	-.1150	-.0237	852.
.2350	-1152.	11.	604.	-295.	-1664.	-573.	-.0968	.0233	-.0053	-.0152	-.1145	-.0275	716.
.2360	-1728.	307.	176.	-570.	-1330.	-147.	-.0971	.0322	-.0057	-.0219	-.1101	-.0326	584.
.2370	-2293.	692.	-284.	-797.	-955.	333.	-.0949	.0414	-.0057	-.0290	-.1023	-.0382	517.
.2380	-2460.	1100.	-547.	-944.	-598.	813.	-.0904	.0504	-.0051	-.0360	-.0920	-.0435	555.
.2390	-2331.	1481.	-513.	-1016.	-416.	1253.	-.0836	.0590	-.0038	-.0427	-.0798	-.0477	668.

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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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	EL									
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.2400	-2047.	1800.	-176.	-1032.	-489.	1627.	-.0748	.0666	-.0021	-.0490	-.0662	-.0507	798.		
.2410	-1584.	2015.	382.	-998.	-732.	1908.	-.0644	.0732	-.0002	-.0545	-.0520	-.0517	913.		
.2420	-1143.	2079.	930.	-904.	-1017.	2066.	-.0529	.0785	.0012	-.0586	-.0376	-.0503	993.		
.2430	-875.	1968.	1245.	-744.	-1202.	2088.	-.0406	.0823	.0015	-.0610	-.0231	-.0461	1012.		
.2440	-496.	1699.	1323.	-538.	-1147.	1983.	-.0279	.0848	.0006	-.0619	-.0094	-.0395	944.		
.2450	26.	1317.	1233.	-323.	-892.	1765.	-.0152	.0861	-.0016	-.0621	.0028	-.0314	804.		
.2460	290.	884.	1000.	-134.	-629.	1452.	-.0029	.0865	-.0050	-.0620	.0134	-.0231	637.		
.2470	130.	469.	614.	24.	-408.	1091.	.0087	.0863	-.0097	-.0618	.0224	-.0154	467.		
.2480	137.	143.	180.	162.	-39.	751.	.0193	.0858	-.0157	-.0618	.0294	-.0085	309.		
.2490	712.	-53.	-177.	287.	548.	483.	.0289	.0853	-.0227	-.0624	.0342	-.0027	315.		
.2500	1354.	-126.	-461.	398.	1122.	284.	.0371	.0849	-.0301	-.0640	.0373	.0019	491.		
.2510	1605.	-108.	-668.	496.	1470.	124.	.0436	.0849	-.0376	-.0667	.0388	.0054	625.		
.2520	1558.	-19.	-779.	588.	1607.	-4.	.0483	.0850	-.0447	-.0704	.0386	.0078	687.		
.2530	1462.	121.	-831.	689.	1660.	-96.	.0514	.0854	-.0512	-.0747	.0369	.0095	722.		
.2540	1429.	268.	-874.	825.	1707.	-173.	.0529	.0858	-.0571	-.0791	.0339	.0111	764.		
.2550	1413.	352.	-904.	1028.	1711.	-291.	.0531	.0862	-.0621	-.0835	.0299	.0129	809.		
.2560	1263.	333.	-896.	1310.	1571.	-493.	.0520	.0865	-.0663	-.0875	.0251	.0150	844.		
.2570	966.	236.	-833.	1648.	1251.	-763.	.0499	.0868	-.0693	-.0912	.0196	.0170	885.		
.2580	854.	121.	-650.	2010.	839.	-1045.	.0471	.0873	-.0713	-.0949	.0136	.0185	969.		
.2590	1150.	40.	-325.	2354.	420.	-1285.	.0438	.0880	-.0722	-.0987	.0070	.0194	1089.		
.2600	1564.	8.	39.	2636.	-30.	-1463.	.0399	.0892	-.0722	-.1028	.0002	.0200	1210.		
.2610	1768.	-7.	322.	2845.	-539.	-1591.	.0353	.0909	-.0715	-.1073	-.0066	.0206	1326.		
.2620	1827.	-40.	497.	2999.	-1033.	-1676.	.0300	.0934	-.0702	-.1123	-.0137	.0214	1439.		
.2630	1883.	-63.	569.	3072.	-1438.	-1684.	.0240	.0964	-.0684	-.1175	-.0211	.0223	1520.		
.2640	1861.	-22.	526.	3014.	-1757.	-1577.	.0173	.1002	-.0664	-.1228	-.0288	.0229	1536.		
.2650	1690.	71.	406.	2827.	-2034.	-1367.	.0099	.1045	-.0642	-.1282	-.0368	.0236	1501.		
.2660	1459.	160.	295.	2571.	-2294.	-1100.	.0019	.1093	-.0618	-.1337	-.0450	.0245	1451.		
.2670	1256.	216.	257.	2301.	-2544.	-799.	-.0064	.1145	-.0592	-.1392	-.0532	.0257	1413.		
.2680	1190.	276.	338.	2026.	-2775.	-449.	-.0149	.1199	-.0565	-.1447	-.0614	.0269	1391.		
.2690	1252.	403.	540.	1720.	-2986.	-22.	-.0234	.1253	-.0535	-.1502	-.0692	.0278	1383.		
.2700	1252.	605.	773.	1380.	-3184.	466.	-.0319	.1306	-.0505	-.1556	-.0766	.0281	1405.		
.2710	1126.	816.	935.	1061.	-3318.	947.	-.0402	.1354	-.0476	-.1603	-.0834	.0283	1449.		
.2720	1062.	949.	1004.	830.	-3296.	1344.	-.0482	.1395	-.0448	-.1635	-.0899	.0285	1467.		
.2730	1107.	995.	1003.	677.	-3125.	1643.	-.0558	.1427	-.0420	-.1652	-.0960	.0291	1443.		
.2740	1002.	1021.	948.	522.	-2936.	1897.	-.0630	.1450	-.0392	-.1660	-.1011	.0301	1418.		
.2750	778.	1058.	933.	342.	-2796.	2135.	-.0696	.1463	-.0363	-.1660	-.1047	.0318	1418.		
.2760	671.	1053.	1063.	210.	-2690.	2320.	-.0753	.1466	-.0332	-.1645	-.1066	.0346	1428.		
.2770	689.	968.	1353.	179.	-2629.	2425.	-.0801	.1458	-.0300	-.1613	-.1065	.0384	1437.		

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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

.2670	1256.	216.	257.	2301.	-2544.	-799.	-.0064	.1145	-.0592	-.1392	-.0532	.0257	1413.
.2680	1190.	276.	338.	2026.	-2775.	-449.	-.0149	.1199	-.0565	-.1447	-.0614	.0269	1391.
.2690	1252.	403.	540.	1720.	-2986.	-22.	-.0234	.1253	-.0535	-.1502	-.0692	.0278	1383.
.2700	1252.	605.	773.	1380.	-3184.	466.	-.0319	.1306	-.0505	-.1556	-.0766	.0281	1405.
.2710	1126.	816.	935.	1061.	-3318.	947.	-.0402	.1354	-.0476	-.1603	-.0834	.0283	1449.
.2720	1062.	949.	1004.	830.	-3296.	1344.	-.0482	.1395	-.0448	-.1635	-.0899	.0285	1467.
.2730	1107.	995.	1003.	677.	-3125.	1643.	-.0558	.1427	-.0420	-.1652	-.0960	.0291	1443.
.2740	1002.	1021.	948.	522.	-2936.	1897.	-.0630	.1450	-.0392	-.1660	-.1011	.0301	1418.
.2750	778.	1058.	933.	342.	-2796.	2135.	-.0696	.1463	-.0363	-.1660	-.1047	.0318	1418.
.2760	671.	1053.	1063.	210.	-2690.	2320.	-.0753	.1466	-.0332	-.1645	-.1066	.0346	1428.
.2770	689.	968.	1353.	179.	-2629.	2425.	-.0801	.1458	-.0300	-.1613	-.1065	.0384	1437.

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

CONDITION 24

LOADS

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ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	EL								STRESS
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.2780	718.	859.	1759.	204.	-2626.	2490.	-.0839	.1440	-.0269	-.1569	-.1041	.0430	1454.	
.2790	750.	800.	2231.	221.	-2646.	2559.	-.0868	.1412	-.0239	-.1517	-.0997	.0476	1480.	
.2800	746.	773.	2687.	243.	-2647.	2603.	-.0886	.1374	-.0214	-.1456	-.0937	.0518	1493.	
.2810	612.	724.	3018.	307.	-2593.	2564.	-.0894	.1326	-.0195	-.1382	-.0865	.0551	1469.	
.2820	414.	654.	3167.	396.	-2423.	2456.	-.0891	.1270	-.0183	-.1302	-.0785	.0576	1393.	
.2830	253.	596.	3145.	468.	-2112.	2323.	-.0877	.1207	-.0177	-.1222	-.0700	.0594	1274.	
.2840	48.	538.	2980.	528.	-1738.	2169.	-.0849	.1137	-.0177	-.1144	-.0612	.0608	1135.	
.2850	-212.	443.	2737.	615.	-1382.	1966.	-.0809	.1062	-.0181	-.1063	-.0524	.0617	995.	
.2860	-312.	315.	2513.	733.	-1051.	1724.	-.0755	.0981	-.0185	-.0979	-.0441	.0620	862.	
.2870	-151.	191.	2361.	856.	-760.	1475.	-.0689	.0897	-.0190	-.0895	-.0367	.0616	749.	
.2880	97.	82.	2248.	970.	-570.	1222.	-.0613	.0810	-.0193	-.0814	-.0306	.0603	666.	
.2890	311.	-18.	2125.	1078.	-496.	942.	-.0531	.0721	-.0195	-.0732	-.0262	.0577	608.	
.2900	572.	-92.	1965.	1165.	-478.	643.	-.0444	.0631	-.0195	-.0649	-.0236	.0536	567.	
.2910	882.	-105.	1741.	1202.	-480.	360.	-.0354	.0541	-.0193	-.0568	-.0229	.0481	539.	
.2920	1115.	-48.	1442.	1174.	-527.	110.	-.0265	.0451	-.0188	-.0488	-.0237	.0413	519.	
.2930	1224.	53.	1098.	1092.	-645.	-112.	-.0178	.0361	-.0179	-.0408	-.0256	.0339	511.	
.2940	1269.	166.	761.	967.	-823.	-312.	-.0094	.0271	-.0165	-.0325	-.0279	.0266	525.	
.2950	1324.	264.	465.	822.	-1030.	-488.	-.0012	.0179	-.0146	-.0237	-.0302	.0201	564.	
.2960	1441.	318.	232.	686.	-1236.	-648.	.0065	.0085	-.0122	-.0140	-.0320	.0149	624.	
.2970	1588.	318.	53.	574.	-1424.	-799.	.0137	-.0012	-.0094	-.0032	-.0328	.0111	695.	
.2980	1654.	282.	-121.	467.	-1580.	-928.	.0203	-.0111	-.0063	.0083	-.0324	.0086	759.	
.2990	1582.	229.	-346.	354.	-1667.	-1023.	.0262	-.0213	-.0030	.0203	-.0304	.0075	797.	
.3000	1425.	153.	-639.	254.	-1639.	-1093.	.0313	-.0315	.0004	.0326	-.0269	.0076	797.	
.3010	1212.	40.	-984.	185.	-1497.	-1159.	.0356	-.0419	.0039	.0450	-.0217	.0087	763.	
.3020	906.	-87.	-1343.	130.	-1295.	-1214.	.0392	-.0523	.0076	.0573	-.0150	.0108	714.	
.3030	508.	-196.	-1660.	65.	-1091.	-1233.	.0422	-.0625	.0113	.0689	-.0068	.0136	661.	
.3040	104.	-296.	-1871.	13.	-912.	-1225.	.0445	-.0725	.0152	.0800	.0025	.0173	613.	
.3050	-217.	-426.	-1942.	14.	-767.	-1223.	.0463	-.0822	.0193	.0907	.0126	.0218	579.	
.3060	-406.	-593.	-1872.	71.	-652.	-1244.	.0477	-.0916	.0234	.1010	.0229	.0269	564.	
.3070	-480.	-761.	-1695.	146.	-562.	-1270.	.0486	-.1005	.0273	.1104	.0327	.0323	560.	
.3080	-512.	-897.	-1472.	215.	-489.	-1286.	.0490	-.1086	.0310	.1183	.0416	.0374	559.	
.3090	-542.	-1000.	-1269.	277.	-403.	-1302.	.0488	-.1160	.0343	.1247	.0490	.0416	558.	
.3100	-548.	-1073.	-1131.	336.	-261.	-1330.	.0480	-.1224	.0370	.1296	.0545	.0446	560.	
.3110	-540.	-1114.	-1079.	380.	-46.	-1364.	.0465	-.1280	.0391	.1329	.0581	.0461	568.	
.3120	-571.	-1120.	-1112.	407.	220.	-1395.	.0444	-.1326	.0405	.1347	.0598	.0462	590.	
.3130	-624.	-1106.	-1193.	420.	517.	-1419.	.0414	-.1362	.0412	.1354	.0596	.0447	629.	
.3140	-629.	-1088.	-1266.	423.	833.	-1433.	.0378	-.1388	.0414	.1351	.0578	.0421	686.	
.3150	-609.	-1078.	-1298.	406.	1130.	-1428.	.0335	-.1405	.0412	.1342	.0547	.0385	749.	

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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



.3050	-217.	-426.	-1942.	14.	-767.	-1223.	.0463	-.0822	.0193	.0907	.0126	.0218	579.
.3060	-406.	-593.	-1872.	71.	-652.	-1244.	.0477	-.0916	.0234	.1010	.0229	.0269	564.
.3070	-480.	-761.	-1695.	146.	-562.	-1270.	.0486	-.1005	.0273	.1104	.0327	.0323	560.
.3080	-512.	-897.	-1472.	215.	-489.	-1286.	.0490	-.1086	.0310	.1183	.0416	.0374	559.
.3090	-542.	-1000.	-1269.	277.	-403.	-1302.	.0488	-.1160	.0343	.1247	.0490	.0416	558.
.3100	-548.	-1073.	-1131.	336.	-261.	-1330.	.0480	-.1224	.0370	.1296	.0545	.0446	560.
.3110	-540.	-1114.	-1079.	380.	-46.	-1364.	.0465	-.1280	.0391	.1329	.0581	.0461	568.
.3120	-571.	-1120.	-1112.	407.	220.	-1395.	.0444	-.1326	.0405	.1347	.0598	.0462	590.
.3130	-624.	-1106.	-1193.	420.	517.	-1419.	.0414	-.1362	.0412	.1354	.0596	.0447	629.
.3140	-629.	-1088.	-1266.	423.	833.	-1433.	.0378	-.1388	.0414	.1351	.0578	.0421	686.
.3150	-609.	-1078.	-1298.	406.	1130.	-1428.	.0335	-.1405	.0412	.1342	.0547	.0385	749.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.29.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	EL							STRESS
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	PX	RY	RZ	(PSI)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	
.3160	-608.	-1084.	-1276.	360.	1374.	-1400.	.0286	-.1412	.0408	.1328	.0504	.0343	800.
.3170	-622.	-1095.	-1200.	265.	1564.	-1332.	.0230	-.1409	.0402	.1310	.0452	.0293	831.
.3180	-662.	-1080.	-1095.	96.	1714.	-1201.	.0171	-.1395	.0395	.1286	.0395	.0238	841.
.3190	-776.	-1011.	-1002.	-164.	1830.	-984.	.0108	-.1370	.0390	.1256	.0336	.0176	836.
.3200	-1019.	-879.	-953.	-507.	1908.	-687.	.0044	-.1336	.0386	.1221	.0279	.0108	839.
.3210	-1345.	-689.	-947.	-916.	1959.	-326.	-.0020	-.1295	.0384	.1183	.0224	.0033	877.
.3220	-1675.	-444.	-964.	-1382.	1991.	80.	-.0079	-.1247	.0384	.1142	.0173	-.0046	973.
.3230	-1962.	-164.	-984.	-1886.	2002.	512.	-.0132	-.1197	.0386	.1099	.0127	-.0124	1123.
.3240	-2157.	109.	-978.	-2383.	1985.	927.	-.0176	-.1147	.0391	.1057	.0088	-.0197	1299.
.3250	-2232.	322.	-926.	-2825.	1933.	1277.	-.0211	-.1100	.0399	.1018	.0054	-.0261	1466.
.3260	-2255.	451.	-835.	-3189.	1829.	1536.	-.0235	-.1058	.0410	.0984	.0026	-.0313	1599.
.3270	-2247.	503.	-725.	-3478.	1683.	1708.	-.0248	-.1024	.0422	.0952	.0005	-.0350	1695.
.3280	-2164.	481.	-609.	-3681.	1538.	1797.	-.0250	-.0997	.0435	.0921	-.0011	-.0372	1756.
.3290	-2056.	377.	-516.	-3778.	1403.	1794.	-.0241	-.0979	.0447	.0892	-.0023	-.0379	1770.
.3300	-2025.	196.	-468.	-3771.	1257.	1693.	-.0223	-.0969	.0458	.0865	-.0031	-.0373	1734.
.3310	-2035.	-21.	-456.	-3692.	1115.	1526.	-.0196	-.0965	.0466	.0836	-.0037	-.0359	1664.
.3320	-1992.	-226.	-459.	-3578.	1006.	1332.	-.0161	-.0967	.0469	.0805	-.0042	-.0340	1584.
.3330	-1879.	-402.	-476.	-3444.	940.	1131.	-.0113	-.0973	.0467	.0771	-.0044	-.0318	1503.
.3340	-1724.	-558.	-510.	-3292.	914.	923.	-.0069	-.0982	.0459	.0736	-.0044	-.0292	1420.
.3350	-1525.	-696.	-563.	-3141.	933.	714.	-.0014	-.0993	.0444	.0702	-.0038	-.0264	1346.
.3360	-1311.	-806.	-647.	-3013.	997.	522.	.0045	-.1005	.0423	.0668	-.0027	-.0234	1291.
.3370	-1122.	-880.	-776.	-2923.	1100.	362.	.0106	-.1016	.0396	.0636	-.0010	-.0201	1262.
.3380	-960.	-932.	-945.	-2867.	1238.	232.	.0168	-.1027	.0363	.0607	.0015	-.0167	1257.
.3390	-837.	-981.	-1143.	-2832.	1394.	118.	.0230	-.1037	.0326	.0583	.0048	-.0130	1268.
.3400	-812.	-1047.	-1360.	-2796.	1533.	10.	.0289	-.1046	.0286	.0563	.0087	-.0090	1279.
.3410	-880.	-1135.	-1566.	-2737.	1630.	-99.	.0346	-.1052	.0244	.0548	.0134	-.0050	1279.
.3420	-949.	-1234.	-1719.	-2643.	1691.	-203.	.0401	-.1056	.0202	.0536	.0186	-.0010	1262.
.3430	-966.	-1329.	-1796.	-2510.	1720.	-298.	.0453	-.1057	.0161	.0526	.0244	.0024	1227.
.3440	-969.	-1418.	-1807.	-2326.	1710.	-390.	.0503	-.1052	.0120	.0516	.0305	.0052	1169.
.3450	-981.	-1505.	-1772.	-2086.	1667.	-488.	.0551	-.1042	.0082	.0502	.0368	.0070	1089.
.3460	-967.	-1580.	-1713.	-1797.	1624.	-589.	.0597	-.1025	.0044	.0483	.0431	.0077	1000.
.3470	-898.	-1618.	-1654.	-1490.	1613.	-676.	.0641	-.0999	.0009	.0455	.0488	.0071	922.
.3480	-796.	-1594.	-1619.	-1196.	1639.	-729.	.0682	-.0963	-.0025	.0416	.0539	.0051	865.
.3490	-707.	-1505.	-1614.	-934.	1686.	-740.	.0719	-.0918	-.0057	.0366	.0579	.0018	829.
.3500	-638.	-1363.	-1632.	-714.	1733.	-715.	.0751	-.0863	-.0087	.0307	.0607	-.0026	805.
.3510	-571.	-1180.	-1650.	-547.	1768.	-654.	.0778	-.0799	-.0114	.0238	.0621	-.0077	788.
.3520	-449.	-962.	-1641.	-452.	1788.	-553.	.0800	-.0727	-.0138	.0164	.0521	-.0132	773.
.3530	-276.	-722.	-1596.	-438.	1782.	-414.	.0815	-.0650	-.0160	.0085	.0506	-.0186	755.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.29.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.3430	-966.	-1329.	-1796.	-2510.	1720.	-298.	.0453	-.1057	.0161	.0526	.0244	.0024	1227.
.3440	-969.	-1418.	-1807.	-2326.	1710.	-390.	.0503	-.1052	.0120	.0516	.0305	.0052	1169.
.3450	-981.	-1505.	-1772.	-2086.	1667.	-488.	.0551	-.1042	.0082	.0502	.0368	.0070	1089.
.3460	-967.	-1580.	-1713.	-1797.	1624.	-589.	.0597	-.1025	.0044	.0483	.0431	.0077	1000.
.3470	-898.	-1618.	-1654.	-1490.	1613.	-676.	.0641	-.0999	.0009	.0455	.0488	.0071	922.
.3480	-796.	-1594.	-1619.	-1196.	1639.	-729.	.0682	-.0963	-.0021	.0416	.0539	.0051	865.
.3490	-703.	-1505.	-1614.	-934.	1686.	-740.	.0719	-.0918	-.0057	.0366	.0579	.0018	829.
.3500	-638.	-1363.	-1632.	-714.	1733.	-715.	.0751	-.0863	-.0087	.0307	.0607	-.0026	805.
.3510	-571.	-1180.	-1650.	-547.	1768.	-654.	.0778	-.0799	-.0114	.0238	.0621	-.0077	788.
.3520	-449.	-962.	-1641.	-452.	1788.	-553.	.0800	-.0727	-.0138	.0164	.0521	-.0132	773.
.3530	-276.	-722.	-1596.	-438.	1782.	-414.	.0815	-.0650	-.0160	.0085	.0506	-.0186	755.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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

CONDITION 24

LOADS

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ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	EL	DX	DY	DZ	RX	RY	RZ	STRESS
TIME	FX	FY	FZ	MX	MY	MZ	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)							
.3540	-105.	-486.	-1529.	-505.	1737.	-258.	.0823	-.0568	-.0179	.0007	.0578	-.0235	733.
.3550	46.	-292.	-1463.	-643.	1667.	-111.	.0823	-.0485	-.0195	-.0069	.0539	-.0275	718.
.3560	202.	-163.	-1418.	-845.	1602.	10.	.0815	-.0402	-.0209	-.0141	.0488	-.0305	727.
.3570	365.	-105.	-1412.	-1099.	1564.	98.	.0798	-.0320	-.0222	-.0206	.0427	-.0321	768.
.3580	511.	-117.	-1449.	-1392.	1552.	153.	.0771	-.0241	-.0232	-.0265	.0360	-.0322	839.
.3590	626.	-192.	-1508.	-1701.	1552.	173.	.0734	-.0166	-.0238	-.0317	.0288	-.0311	927.
.3600	709.	-317.	-1554.	-1996.	1542.	165.	.0688	-.0093	-.0241	-.0362	.0215	-.0289	1014.
.3610	766.	-464.	-1547.	-2251.	1501.	146.	.0631	-.0024	-.0238	-.0402	.0144	-.0257	1087.
.3620	821.	-599.	-1453.	-2450.	1420.	138.	.0566	.0042	-.0230	-.0437	.0078	-.0221	1138.
.3630	871.	-694.	-1254.	-2582.	1293.	154.	.0491	.0106	-.0216	-.0470	.0019	-.0182	1160.
.3640	876.	-735.	-963.	-2638.	1114.	198.	.0408	.0169	-.0198	-.0501	-.0030	-.0145	1152.
.3650	811.	-722.	-603.	-2607.	895.	261.	.0318	.0229	-.0175	-.0532	-.0070	-.0111	1111.
.3660	710.	-663.	-199.	-2488.	663.	334.	.0222	.0288	-.0150	-.0560	-.0100	-.0083	1042.
.3670	589.	-562.	223.	-2287.	440.	408.	.0121	.0343	-.0125	-.0585	-.0122	-.0061	949.
.3680	425.	-432.	633.	-2018.	230.	479.	.0019	.0395	-.0099	-.0607	-.0136	-.0044	837.
.3690	222.	-285.	1013.	-1691.	31.	543.	-.0084	.0444	-.0076	-.0624	-.0145	-.0032	713.
.3700	26.	-140.	1364.	-1314.	-153.	593.	-.0186	.0488	-.0054	-.0636	-.0150	-.0022	582.
.3710	-141.	-9.	1686.	-906.	-332.	626.	-.0282	.0528	-.0036	-.0641	-.0154	-.0013	461.
.3720	-278.	114.	1970.	-495.	-516.	649.	-.0373	.0564	-.0021	-.0642	-.0159	-.0006	388.
.3730	-376.	237.	2205.	-117.	-705.	672.	-.0455	.0596	-.0009	-.0641	-.0169	.0001	394.
.3740	-426.	358.	2374.	209.	-888.	695.	-.0528	.0625	-.0002	-.0637	-.0185	.0007	460.
.3750	-441.	458.	2456.	475.	-1061.	699.	-.0590	.0649	.0001	-.0634	-.0210	.0012	544.
.3760	-424.	530.	2446.	679.	-1220.	674.	-.0642	.0670	.0000	-.0629	-.0244	.0015	622.
.3770	-362.	589.	2358.	804.	-1362.	631.	-.0682	.0687	-.0004	-.0627	-.0287	.0018	683.
.3780	-263.	654.	2209.	843.	-1494.	587.	-.0710	.0701	-.0011	-.0627	-.0337	.0019	728.
.3790	-146.	721.	2026.	810.	-1631.	542.	-.0727	.0711	-.0019	-.0632	-.0391	.0021	762.
.3800	-4.	773.	1842.	731.	-1780.	485.	-.0732	.0718	-.0027	-.0640	-.0447	.0025	796.
.3810	176.	808.	1682.	625.	-1940.	414.	-.0726	.0721	-.0035	-.0653	-.0501	.0033	835.
.3820	378.	833.	1555.	506.	-2108.	336.	-.0711	.0720	-.0041	-.0667	-.0550	.0045	880.
.3830	568.	854.	1449.	386.	-2267.	253.	-.0686	.0714	-.0047	-.0681	-.0589	.0061	928.
.3840	727.	866.	1339.	278.	-2391.	161.	-.0653	.0703	-.0051	-.0694	-.0616	.0082	968.
.3850	840.	848.	1201.	204.	-2451.	48.	-.0613	.0686	-.0055	-.0704	-.0627	.0110	987.
.3860	900.	784.	1025.	177.	-2434.	-100.	-.0567	.0664	-.0060	-.0707	-.0620	.0144	980.
.3870	920.	681.	822.	191.	-2340.	-275.	-.0517	.0636	-.0064	-.0704	-.0594	.0185	949.
.3880	922.	557.	615.	227.	-2178.	-457.	-.0462	.0603	-.0069	-.0695	-.0548	.0234	898.
.3890	918.	412.	436.	283.	-1973.	-643.	-.0405	.0566	-.0073	-.0679	-.0483	.0289	840.
.3900	913.	228.	308.	384.	-1753.	-845.	-.0346	.0527	-.0078	-.0653	-.0400	.0350	796.
.3910	916.	8.	246.	538.	-1537.	-1067.	-.0286	.0485	-.0082	-.0614	-.0302	.0413	781.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.29.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.3810	176.	808.	1682.	625.	-1940.	414.	-.0726	.0718	-.0027	-.0653	-.0501	.0033	835.
.3820	378.	833.	1555.	506.	-2108.	336.	-.0711	.0720	-.0041	-.0667	-.0550	.0045	880.
.3830	568.	854.	1449.	386.	-2267.	253.	-.0686	.0714	-.0047	-.0681	-.0589	.0061	928.
.3840	727.	866.	1339.	278.	-2391.	161.	-.0653	.0703	-.0051	-.0694	-.0616	.0082	968.
.3850	840.	848.	1201.	204.	-2451.	48.	-.0613	.0686	-.0055	-.0704	-.0627	.0110	987.
.3860	900.	784.	1025.	177.	-2434.	-100.	-.0567	.0664	-.0060	-.0707	-.0620	.0144	980.
.3870	920.	681.	822.	191.	-2340.	-275.	-.0517	.0636	-.0064	-.0704	-.0594	.0185	949.
.3880	922.	557.	619.	227.	-2178.	-457.	-.0462	.0603	-.0069	-.0695	-.0548	.0234	898.
.3890	918.	412.	436.	283.	-1973.	-643.	-.0405	.0566	-.0073	-.0679	-.0483	.0289	840.
.3900	913.	228.	308.	384.	-1753.	-845.	-.0346	.0527	-.0078	-.0653	-.0400	.0350	796.
.3910	916.	8.	246.	538.	-1537.	-1067.	-.0286	.0485	-.0082	-.0614	-.0302	.0413	781.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.29.

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

CONDITION 24  
LOADS  
SHOCK  
PRESSURE  
ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	EL								
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
.3920	932.	-206.	245.	721.	-1328.	-1276.	-.0228	.0443	-.0086	-.0565	-.0193	.0475	794.	
.3930	946.	-367.	281.	906.	-1123.	-1433.	-.0171	.0403	-.0089	-.0509	-.0077	.0533	816.	
.3940	934.	-462.	324.	1086.	-923.	-1533.	-.0118	.0367	-.0093	-.0449	.0040	.0583	840.	
.3950	893.	-510.	356.	1272.	-727.	-1597.	-.0069	.0335	-.0098	-.0387	.0154	.0624	870.	
.3960	848.	-515.	369.	1460.	-532.	-1639.	-.0025	.0308	-.0103	-.0324	.0259	.0651	907.	
.3970	836.	-464.	366.	1634.	-333.	-1649.	.0013	.0287	-.0109	-.0265	.0350	.0665	941.	
.3980	874.	-356.	349.	1789.	-129.	-1623.	.0045	.0272	-.0115	-.0209	.0427	.0666	971.	
.3990	943.	-219.	316.	1946.	72.	-1578.	.0070	.0263	-.0121	-.0157	.0488	.0655	1006.	
.4000	1020.	-91.	267.	2125.	257.	-1539.	.0087	.0258	-.0126	-.0108	.0532	.0635	1058.	

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)
.0620	-565.	-611.	-2588.	-9324.	3579.	1174.	.1478	-.1101	.0351	.1360	.0949	.0104	4035.

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)	
0.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.	
.0010	-4.	-1.	-6.	1.	4.	-1.	-.0000	-.0000	-.0000	.0000	.0000	-.0000	2.	
.0020	-30.	-4.	-43.	6.	28.	-3.	-.0000	-.0000	-.0000	.0000	.0001	-.0000	12.	
.0030	-84.	-4.	-125.	8.	84.	-3.	-.0000	-.0000	-.0001	.0001	.0003	.0001	34.	
.0040	-145.	13.	-244.	-2.	168.	10.	-.0001	-.0000	-.0003	.0003	.0006	.0004	68.	
.0050	-205.	47.	-379.	-33.	263.	36.	-.0002	.0000	-.0006	.0005	.0012	.0009	107.	
.0060	-289.	86.	-530.	-78.	354.	65.	-.0004	.0002	-.0013	.0007	.0020	.0016	148.	
.0070	-338.	110.	-717.	-123.	493.	80.	-.0007	.0005	-.0022	.0007	.0032	.0022	207.	
.0080	-224.	113.	-969.	-167.	768.	78.	-.0010	.0010	-.0037	.0006	.0054	.0028	317.	
.0090	42.	122.	-1270.	-248.	1141.	75.	-.0010	.0017	-.0057	.0004	.0092	.0037	470.	
.0100	312.	170.	-1553.	-417.	1443.	92.	-.0003	.0029	-.0087	-.0002	.0146	.0054	604.	
.0110	453.	249.	-1748.	-676.	1520.	124.	.0015	.0045	-.0126	-.0014	.0214	.0075	670.	
.0120	374.	305.	-1822.	-966.	1321.	150.	.0044	.0067	-.0174	-.0037	.0287	.0090	659.	
.0130	120.	288.	-1747.	-1220.	896.	165.	.0084	.0096	-.0230	-.0077	.0355	.0087	611.	
.0140	-1.	206.	-1410.	-1433.	322.	196.	.0131	.0134	-.0290	-.0137	.0410	.0062	595.	
.0150	218.	92.	-711.	-1639.	-368.	253.	.0184	.0178	-.0350	-.0217	.0450	.0016	682.	

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2 SAFETY COLD FKW24F--2 PSV

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

.0050	-205.	47.	-379.	-33.	263.	36.	-.0002	.0000	-.0006	.0005	.0012	.0009	107.
.0060	-289.	86.	-530.	-78.	354.	65.	-.0004	.0002	-.0013	.0007	.0020	.0016	148.
.0070	-338.	110.	-717.	-123.	493.	80.	-.0007	.0005	-.0022	.0007	.0032	.0022	207.
.0080	-424.	111.	-969.	-167.	762.	78.	-.0010	.0010	-.0037	.0006	.0054	.0028	317.
.0090	42.	122.	-1270.	-248.	1141.	75.	-.0010	.0017	-.0057	.0004	.0092	.0037	470.
.0100	312.	170.	-1553.	-417.	1443.	92.	-.0003	.0029	-.0087	-.0002	.0146	.0054	604.
.0110	453.	249.	-1748.	-676.	1520.	124.	.0015	.0045	-.0126	-.0014	.0214	.0075	670.
.0120	374.	305.	-1822.	-966.	1321.	150.	.0044	.0067	-.0174	-.0037	.0287	.0090	659.
.0130	129.	288.	-1747.	-1220.	896.	165.	.0084	.0096	-.0230	-.0077	.0355	.0087	611.
.0140	-1.	206.	-1410.	-1433.	322.	196.	.0131	.0134	-.0290	-.0137	.0410	.0062	595.
.0150	218.	92.	-711.	-1639.	-368.	253.	.0124	.0173	-.0350	-.0217	.0450	.0016	682.

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INTERNAL FORCES IN THE PIPING  
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SECTION	29	MEMBER	1	SEQUENCE	53	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)		
.0160	838.	-77.	348.	-1834.	-1151.	275.	.0244	.0229	-.0403	-.0315	.0475	-.0046		876.
.0170	1874.	-377.	1655.	-1947.	-1925.	159.	.0314	.0284	-.0442	-.0424	.0493	-.0121		1101.
.0180	3004.	-837.	2920.	-1904.	-2605.	-144.	.0398	.0339	-.0460	-.0532	.0512	-.0201		1296.
.0190	3550.	-1347.	3660.	-1695.	-3061.	-554.	.0502	.0387	-.0452	-.0626	.0536	-.0271		1422.
.0200	3373.	-1719.	3358.	-1368.	-2874.	-900.	.0631	.0422	-.0419	-.0689	.0585	-.0304		1327.
.0210	2543.	-1654.	2009.	-1140.	-1985.	-917.	.0788	.0439	-.0372	-.0707	.0578	-.0269		990.
.0220	-1342.	-846.	-54.	-1280.	-1882.	-347.	.0958	.0437	-.0319	-.0686	.0742	-.0152		924.
.0230	-6664.	509.	-2025.	-1616.	-2508.	679.	.1110	.0425	-.0266	-.0646	.0748	.0001		1228.
.0240	-9194.	1741.	-3096.	-1587.	-2298.	1695.	.1208	.0413	-.0214	-.0612	.0712	.0107		1311.
.0250	-6981.	2141.	-2994.	-790.	-606.	2054.	.1244	.0411	-.0156	-.0590	.0679	.0124		916.
.0260	-5081.	1683.	-2629.	496.	454.	1438.	.1248	.0422	-.0085	-.0573	.0644	.0098		637.
.0270	-10010.	1255.	-3261.	1540.	-1099.	458.	.1222	.0443	.0004	-.0562	.0509	.0107		781.
.0280	-11812.	1494.	-3563.	2050.	-1088.	16.	.1131	.0466	.0108	-.0561	.0368	.0157		931.
.0290	-2091.	1868.	-2244.	2404.	3319.	-90.	.0980	.0485	.0216	-.0556	.0363	.0196		1645.
.0300	1468.	1485.	-2602.	3046.	5869.	-1017.	.0823	.0498	.0322	-.0534	.0328	.0192		2685.
.0310	-4084.	489.	-4602.	3859.	4883.	-2624.	.0676	.0497	.0412	-.0477	.0222	.0163		2711.
.0320	-6015.	-104.	-5352.	4410.	4118.	-3549.	.0506	.0473	.0467	-.0375	.0146	.0154		2809.
.0330	-3059.	406.	-4551.	4368.	4374.	-3035.	.0294	.0425	.0488	-.0253	.0062	.0188		2763.
.0340	-2250.	1449.	-3504.	3885.	3524.	-1865.	.0051	.0361	.0483	-.0141	-.0109	.0223		2234.
.0350	-1559.	1799.	-1870.	3501.	1974.	-1336.	-.0202	.0294	.0458	-.0054	-.0286	.0178		1699.
.0360	2167.	991.	630.	3537.	902.	-1929.	-.0450	.0230	.0422	.0012	-.0388	.0041		1657.
.0370	3597.	-266.	2461.	3702.	-552.	-3030.	-.0680	.0166	.0389	.0069	-.0492	-.0103		1932.
.0380	1365.	-878.	2959.	3366.	-2018.	-3489.	-.0898	.0094	.0375	.0125	-.0666	-.0173		2107.
.0390	3733.	-453.	3566.	2232.	-802.	-2779.	-.1115	.0008	.0385	.0175	-.0826	-.0187		1466.
.0400	12095.	83.	4688.	789.	2709.	-1916.	-.1301	-.0087	.0384	.0227	-.0858	-.0213		1369.
.0410	10580.	-416.	3662.	-128.	2904.	-2150.	-.1408	-.0187	.0360	.0307	-.0905	-.0275		1451.
.0420	3236.	-1686.	1940.	-484.	511.	-2840.	-.1452	-.0293	.0299	.0436	-.0961	-.0348		1174.
.0430	1438.	-2137.	705.	-1019.	611.	-2398.	-.1444	-.0406	.0257	.0557	-.0928	-.0381		1074.
.0440	3509.	-997.	-91.	-2306.	2463.	-451.	-.1406	-.0519	.0224	.0620	-.0866	-.0360		1366.
.0450	640.	313.	-1290.	-3638.	2283.	1480.	-.1337	-.0619	.0193	.0637	-.0874	-.0340		1823.
.0460	-4596.	121.	-2264.	-4007.	605.	2032.	-.1246	-.0700	.0172	.0641	-.0902	-.0404		1819.
.0470	-3306.	-1360.	-1744.	-3536.	586.	1425.	-.1160	-.0763	.0155	.0640	-.0834	-.0555		1548.
.0480	1772.	-2843.	-492.	-3093.	1608.	534.	-.1077	-.0820	.0140	.0640	-.0700	-.0692		1415.
.0490	2403.	-3534.	-202.	-3179.	1260.	-48.	-.0962	-.0881	.0147	.0664	-.0591	-.0706		1373.
.0500	1063.	-3207.	-539.	-3757.	458.	130.	-.0808	-.0955	.0171	.0731	-.0472	-.0593		1520.
.0510	1489.	-2080.	-1230.	-4302.	889.	1011.	-.0624	-.1043	.0203	.0823	-.0305	-.0431		1809.
.0520	1601.	-946.	-2428.	-4064.	1665.	1876.	-.0414	-.1135	.0232	.0931	-.0120	-.0284		1916.
.0530	-84.	-301.	-3381.	-2919.	1157.	2321.	-.0181	-.1225	.0246	.1068	.0060	-.0157		1567.

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INTERNAL FORCES IN THE PIPING  
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.0420	2238.	-1896.	1948.	-484.	511.	-2840.	-1452.	-.0299	.0299	.0430	-.0961	-.0348	1174.
.0430	1438.	-2137.	705.	-1019.	611.	-2398.	-.1444	-.0406	.0257	.0557	-.0928	-.0381	1074.
.0440	3509.	-997.	-91.	-2306.	2463.	-451.	-.1406	-.0519	.0224	.0620	-.0866	-.0360	1366.
.0450	840.	313.	-1290.	-3638.	2283.	1480.	-.1337	-.0619	.0193	.0637	-.0874	-.0340	1823.
.0460	-4596.	121.	-2264.	-4007.	605.	2032.	-.1246	-.0700	.0172	.0641	-.0902	-.0404	1819.
.0470	-3306.	-1360.	-1744.	-3536.	586.	1425.	-.1160	-.0763	.0155	.0640	-.0834	-.0555	1548.
.0480	1772.	-2843.	-492.	-3093.	1608.	534.	-.1077	-.0820	.0140	.0640	-.0700	-.0692	1415.
.0490	2403.	-3534.	-202.	-3179.	1260.	-48.	-.0962	-.0881	.0147	.0664	-.0591	-.0706	1373.
.0500	1063.	-3207.	-539.	-3757.	458.	130.	-.0808	-.0955	.0171	.0731	-.0472	-.0593	1520.
.0510	1489.	-2080.	-1230.	-4302.	889.	1011.	-.0624	-.1043	.0203	.0823	-.0305	-.0431	1809.
.0520	1601.	-946.	-2428.	-4064.	1665.	1876.	-.0414	-.1135	.0232	.0931	-.0120	-.0284	1916.
.0530	-84.	-301.	-3381.	-2919.	1157.	2321.	-.0181	-.1225	.0246	.1068	.0060	-.0157	1567.

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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)
29	1	53					.0540	-1589.	471.	-3041.	-1707.	-725.	2821.	.0060	-.1304	.0237	.1222	.0242	-.0015	1355.
							.0550	-1145.	1946.	-1259.	-1017.	-3075.	3724.	.0290	-.1364	.0208	.1352	.0424	.0149	1980.
							.0560	760.	3318.	1331.	-167.	-5268.	4367.	.0503	-.1303	.0178	.1441	.0582	.0278	2747.
							.0570	1992.	3440.	3656.	1667.	-7102.	3928.	.0703	-.1384	.0165	.1490	.0589	.0306	3325.
							.0580	1817.	2493.	4844.	4262.	-7975.	2569.	.0890	-.1341	.0181	.1493	.0745	.0229	3772.
							.0590	2117.	1548.	5016.	6596.	-7173.	1109.	.1060	-.1278	.0222	.1450	.0788	.0118	3936.
							.0600	2928.	1157.	4642.	8151.	-5416.	35.	.1213	-.1209	.0277	.1392	.0836	.0058	3927.
							.0610	2745.	1140.	4051.	8991.	-4092.	-673.	.1354	-.1147	.0325	.1358	.0889	.0069	3973.
							.0620	1202.	1158.	3328.	9324.	-3579.	-1174.	.1478	-.1101	.0351	.1360	.0949	.0104	4035.
							.0630	178.	979.	2854.	9379.	-3232.	-1542.	.1578	-.1074	.0356	.1382	.1017	.0104	4028.
							.0640	-84.	699.	2890.	9209.	-3037.	-1591.	.1641	-.1067	.0342	.1399	.1054	.0055	3943.
							.0650	-551.	782.	3399.	8490.	-3321.	-943.	.1655	-.1077	.0309	.1396	.1019	-.0016	3678.
							.0660	-409.	1363.	4277.	7001.	-3560.	378.	.1620	-.1097	.0263	.1372	.0935	-.0083	3156.
							.0670	1268.	1794.	5383.	5121.	-3308.	1615.	.1549	-.1118	.0217	.1336	.0862	-.0149	2531.
							.0680	1667.	1432.	5867.	3362.	-3258.	1978.	.1459	-.1131	.0181	.1288	.0805	-.0227	2039.
							.0690	-398.	554.	5156.	1662.	-3341.	1604.	.1351	-.1133	.0160	.1221	.0748	-.0303	1630.
							.0700	-564.	-65.	4039.	-307.	-2022.	1314.	.1218	-.1130	.0149	.1141	.0721	-.0348	976.
							.0710	1981.	-136.	3118.	-2409.	452.	1524.	.1063	-.1125	.0140	.1065	.0716	-.0344	1158.
							.0720	1490.	68.	1804.	-4157.	1625.	1993.	.0904	-.1115	.0126	.1003	.0658	-.0301	1961.
							.0730	-2636.	267.	173.	-5295.	1106.	2485.	.0741	-.1096	.0104	.0946	.0532	-.0258	2389.
							.0740	-3992.	365.	-569.	-5878.	1020.	2999.	.0555	-.1063	.0072	.0884	.0407	-.0252	2679.
							.0750	-1583.	276.	-250.	-5987.	1767.	3372.	.0342	-.1013	.0036	.0803	.0298	-.0286	2847.
							.0760	-155.	-76.	81.	-5709.	1945.	3281.	.0122	-.0941	.0008	.0700	.0172	-.0327	2755.
							.0770	-121.	-631.	34.	-5228.	1669.	2680.	-.0090	-.0850	-.0006	.0587	.0047	-.0345	2451.
							.0780	1099.	-1229.	-207.	-4685.	2107.	1816.	-.0285	-.0747	-.0001	.0477	-.0042	-.0327	2186.
							.0790	1898.	-1719.	-1054.	-4073.	3022.	912.	-.0456	-.0639	.0025	.0375	-.0127	-.0278	2068.
							.0800	330.	-1919.	-2686.	-3416.	3719.	181.	-.0598	-.0535	.0067	.0279	-.0249	-.0202	2028.
							.0810	-564.	-1661.	-4074.	-2860.	4620.	-120.	-.0715	-.0440	.0112	.0198	-.0376	-.0100	2181.
							.0820	589.	-963.	-4409.	-2478.	5406.	42.	-.0806	-.0355	.0149	.0144	-.0477	.0027	2387.
							.0830	368.	-68.	-3976.	-2151.	4529.	377.	-.0863	-.0274	.0173	.0116	-.0579	.0175	2018.
							.0840	-1416.	797.	-2930.	-1754.	2136.	658.	-.0890	-.0191	.0188	.0095	-.0683	.0320	1140.
							.0850	-702.	1553.	-1127.	-1286.	328.	874.	-.0901	-.0095	.0202	.0051	-.0747	.0423	638.
							.0860	2054.	2096.	610.	-722.	-158.	906.	-.0897	.0019	.0230	-.0035	-.0774	.0456	469.
							.0870	2554.	2217.	1046.	71.	-245.	473.	-.0866	.0153	.0279	-.0159	-.0305	.0430	216.
							.0880	793.	1887.	124.	1107.	41.	-461.	-.0806	.0305	.0348	-.0301	-.0828	.0372	481.
							.0890	-187.	1380.	-1372.	2147.	1350.	-1611.	-.0728	.0467	.0424	-.0441	-.0805	.0308	1206.
							.0900	-383.	916.	-2949.	2980.	3090.	-2773.	-.0640	.0628	.0487	-.0569	-.0741	.0247	2051.
							.0910	-1161.	427.	-4187.	3684.	4042.	-3966.	-.0546	.0778	.0520	-.0677	-.0663	.0183	2711.

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

.0810	-564.	-1661.	-4074.	-2860.	4620.	-120.	-.0715	-.0440	.0112	.0198	-.0376	-.0100	2181.
.0820	589.	-963.	-4409.	-2478.	5406.	42.	-.0806	-.0355	.0149	.0144	-.0477	.0027	2387.
.0830	368.	-68.	-3976.	-2151.	4529.	377.	-.0863	-.0274	.0173	.0116	-.0579	.0175	2018.
.0840	-1416.	797.	-2930.	-1754.	2136.	658.	-.0890	-.0191	.0188	.0095	-.0583	.0320	1140.
.0850	-702.	1553.	-1127.	-1256.	328.	874.	-.0901	-.0095	.0202	.0051	-.0747	.0423	638.
.0860	2054.	2096.	610.	-722.	-158.	906.	-.0897	.0019	.0230	-.0035	-.0774	.0456	469.
.0870	2554.	2217.	1046.	71.	-245.	473.	-.0866	.0153	.0279	-.0159	-.0805	.0430	216.
.0880	793.	1887.	124.	1107.	41.	-461.	-.0806	.0305	.0348	-.0301	-.0828	.0372	481.
.0890	-187.	1380.	-1372.	2147.	1350.	-1611.	-.0728	.0467	.0424	-.0441	-.0805	.0308	1206.
.0900	-383.	916.	-2949.	2980.	3090.	-2773.	-.0640	.0628	.0487	-.0569	-.0741	.0247	2051.
.0910	-1161.	427.	-4187.	3684.	4042.	-3966.	-.0546	.0778	.0520	-.0677	-.0663	.0183	2711.

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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)
29	1	53					.0920	-1852.	-159.	-4519.	4461.	3931.	-5119.	-.0453	.0910	.0510	-.0758	-.0581	.0105	3148.
							.0930	-1581.	-671.	-3804.	5337.	3104.	-5944.	-.0369	.1016	.0456	-.0817	-.0501	.0010	3439.
							.0940	-866.	-901.	-2409.	6136.	1738.	-6221.	-.0297	.1090	.0364	-.0855	-.0436	-.0086	3575.
							.0950	-32.	-834.	-680.	6621.	8.	-6000.	-.0236	.1131	.0241	-.0875	-.0381	-.0168	3586.
							.0960	962.	-613.	1036.	6612.	-1782.	-5526.	-.0184	.1141	.0092	-.0875	-.0312	-.0235	3531.
							.0970	1787.	-442.	2327.	6076.	-3417.	-5044.	-.0142	.1121	-.0073	-.0849	-.0223	-.0295	3453.
							.0980	2351.	-498.	3041.	5142.	-4744.	-4651.	-.0109	.1075	-.0249	-.0787	-.0123	-.0349	3371.
							.0990	2755.	717.	3289.	3927.	-5703.	-4219.	-.0087	.1008	-.0429	-.0688	-.0032	-.0395	3254.
							.1000	2666.	-788.	3142.	2433.	-6376.	-3489.	-.0073	.0926	-.0604	-.0575	.0024	-.0429	3076.
							.1010	1997.	-546.	2712.	709.	-6765.	-2350.	-.0066	.0836	-.0765	-.0472	.0033	-.0461	2888.
							.1020	1481.	-230.	2288.	-984.	-6730.	-1014.	-.0060	.0750	-.0902	-.0394	.0007	-.0506	2760.
							.1030	1480.	-204.	2036.	-2343.	-6302.	132.	-.0052	.0675	-.1010	-.0344	-.0028	-.0573	2699.
							.1040	1347.	-562.	1772.	-3311.	-5721.	832.	-.0031	.0618	-.1082	-.0330	-.0053	-.0652	2674.
							.1050	1038.	-1163.	1373.	-4106.	-4934.	1128.	.0008	.0579	-.1112	-.0348	-.0053	-.0722	2615.
							.1060	944.	-1833.	807.	-4930.	-3713.	1235.	.0068	.0551	-.1100	-.0385	-.0024	-.0771	2526.
							.1070	256.	-2457.	-137.	-5750.	-2217.	1319.	.0146	.0529	-.1049	-.0431	.0011	-.0800	2529.
							.1080	-610.	-3044.	-1553.	-6305.	-214.	1354.	.0242	.0506	-.0969	-.0480	.0063	-.0816	2589.
							.1090	-1272.	-3622.	-3572.	-6472.	2409.	1277.	.0368	.0476	-.0877	-.0506	.0181	-.0800	2818.
							.1100	-6580.	-3571.	-5618.	-6891.	2797.	1817.	.0496	.0433	-.0781	-.0488	.0217	-.0704	3072.
							.1110	-8764.	-2533.	-5799.	-7593.	2830.	3132.	.0597	.0383	-.0695	-.0462	.0249	-.0526	3486.
							.1120	-5382.	-1030.	-4018.	-7946.	3487.	4433.	.0662	.0340	-.0621	-.0467	.0329	-.0314	3910.
							.1130	-2759.	-60.	-1755.	-7527.	3073.	4892.	.0706	.0310	-.0549	-.0474	.0401	-.0111	3808.
							.1140	-2469.	251.	267.	-6623.	1573.	4661.	.0743	.0296	-.0472	-.0444	.0456	.0083	3311.
							.1150	-925.	826.	1984.	-5835.	883.	4504.	.0768	.0301	-.0386	-.0407	.0532	.0295	2979.
							.1160	703.	2157.	2640.	-5345.	1204.	4686.	.0780	.0329	-.0291	-.0401	.0595	.0529	2893.
							.1170	784.	3540.	2196.	-4859.	1770.	4850.	.0783	.0385	-.0192	-.0405	.0618	.0741	2845.
							.1180	-3706.	4122.	607.	-4033.	1201.	4608.	.0762	.0472	-.0094	-.0398	.0526	.0853	2504.
							.1190	-2932.	3671.	137.	-2603.	2065.	3712.	.0699	.0591	-.0012	-.0417	.0454	.0816	1999.
							.1200	1737.	2454.	803.	-641.	3560.	1953.	.0607	.0744	.0049	-.0501	.0413	.0664	1650.
							.1210	198.	881.	620.	1353.	2638.	-369.	.0511	.0915	.0090	-.0614	.0306	.0480	1199.
							.1220	-259.	-351.	1204.	2690.	1492.	-2127.	.0412	.1082	.0112	-.0703	.0212	.0325	1501.
							.1230	567.	-751.	1879.	3350.	1097.	-2920.	.0301	.1233	.0123	-.0782	.0107	.0209	1837.
							.1240	2281.	-732.	2184.	3845.	1683.	-3324.	.0180	.1362	.0128	-.0871	-.0008	.0102	2149.
							.1250	2079.	-1062.	1798.	4364.	2053.	-3916.	.0060	.1464	.0125	-.0935	-.0146	-.0015	2493.
							.1260	-1833.	-1719.	461.	4460.	1495.	-4522.	-.0065	.1531	.0112	-.0942	-.0324	-.0131	2618.
							.1270	275.	-2077.	77.	3709.	2773.	-4668.	-.0196	.1563	.0077	-.0909	-.0381	-.0208	2639.
							.1280	1512.	-1866.	-810.	2275.	3760.	-4484.	-.0319	.1568	.0022	-.0876	-.0389	-.0211	2519.
							.1290	-536.	-1384.	-2158.	480.	3252.	-4046.	-.0423	.1551	-.0050	-.0843	-.0391	-.0154	2092.

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S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK

2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.1180	-3706.	412.	707.	-4033.	1201.	4608.	.0762	.0472	-.0094	-.0398	.0526	.0853	2504.
.1190	-2932.	3671.	137.	-2603.	2065.	3712.	.0699	.0591	-.0012	-.0417	.0454	.0816	1999.
.1200	1737.	2454.	803.	-641.	3560.	1953.	.0607	.0744	.0049	-.0501	.0413	.0664	1650.
.1210	198.	881.	620.	1353.	2638.	-369.	.0511	.0915	.0090	-.0614	.0306	.0480	1199.
.1220	-259.	-351.	1204.	2690.	1492.	-2127.	.0412	.1082	.0112	-.0703	.0212	.0325	1501.
.1230	567.	-751.	1879.	3350.	1097.	-2920.	.0301	.1233	.0123	-.0782	.0107	.0209	1837.
.1240	2281.	-732.	2184.	3845.	1683.	-3324.	.0190	.1362	.0128	-.0871	-.0008	.0102	2149.
.1250	2079.	-1062.	1798.	4364.	2053.	-3916.	.0060	.1464	.0125	-.0935	-.0146	-.0015	2493.
.1260	-1833.	-1719.	461.	4460.	1495.	-4522.	-.0065	.1531	.0112	-.0942	-.0324	-.0131	2618.
.1270	275.	-2077.	77.	3709.	2773.	-4668.	-.0196	.1563	.0077	-.0909	-.0381	-.0208	2639.
.1280	1512.	-1866.	-810.	2275.	3760.	-4484.	-.0319	.1568	.0022	-.0876	-.0389	-.0211	2519.
.1290	-536.	-1384.	-2158.	480.	3252.	-4046.	-.0423	.1551	-.0050	-.0843	-.0391	-.0154	2092.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.29.

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

CONDITION 24  
LOADS  
SHOCK  
PRESSURE  
ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	RU	TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS
29	1	53					(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
.1300	-2027.	-918.	-3004.	-1395.	2461.	-3239.	-.0516	.1521	-.0134	-.0816	-.0379	-.0108	1726.							
.1310	-3639.	-622.	-3740.	-2882.	1682.	-2292.	-.0616	.1488	-.0224	-.0845	-.0410	-.0146	1624.							
.1320	-1332.	-793.	-3454.	-3571.	1958.	-1630.	-.0726	.1462	-.0317	-.0939	-.0429	-.0274	1760.							
.1330	-841.	-1452.	-3237.	-3704.	1360.	-1426.	-.0833	.1441	-.0410	-.1054	-.0486	-.0425	1684.							
.1340	-706.	-2117.	-2786.	-4017.	235.	-1290.	-.0924	.1421	-.0496	-.1140	-.0531	-.0520	1696.							
.1350	765.	-2442.	-2091.	-4660.	-549.	-1118.	-.0993	.1399	-.0569	-.1203	-.0528	-.0533	1935.							
.1360	-1041.	-2678.	-2558.	-5018.	-1710.	-1272.	-.1039	.1376	-.0615	-.1273	-.0556	-.0501	2188.							
.1370	-1673.	-3115.	-3300.	-4738.	-1665.	-1651.	-.1073	.1346	-.0631	-.1336	-.0589	-.0470	2122.							
.1380	-2827.	-3470.	-4556.	-4057.	-851.	-1799.	-.1102	.1301	-.0618	-.1376	-.0577	-.0451	1813.							
.1390	-2289.	-3342.	-5245.	-3277.	585.	-1440.	-.1129	.1237	-.0588	-.1385	-.0782	-.0410	1456.							
.1400	-1152.	-2741.	-4910.	-2472.	1317.	-825.	-.1144	.1156	-.0550	-.1361	-.0884	-.0315	1172.							
.1410	-3701.	-1904.	-4463.	-1746.	37.	-239.	-.1146	.1058	-.0507	-.1291	-.1026	-.0169	707.							
.1420	-2496.	-1025.	-2817.	-1221.	-501.	420.	-.1146	.0947	-.0457	-.1164	-.1110	-.0013	556.							
.1430	331.	-255.	-1098.	-645.	-124.	993.	-.1140	.0829	-.0391	-.1003	-.1167	.0121	478.							
.1440	2201.	333.	-76.	185.	606.	1297.	-.1114	.0715	-.0300	-.0833	-.1214	.0240	579.							
.1450	1574.	950.	-77.	953.	1213.	1521.	-.1054	.0610	-.0182	-.0659	-.1261	.0366	869.							
.1460	-1744.	1793.	-1137.	1289.	1661.	1926.	-.0970	.0518	-.0045	-.0488	-.1318	.0493	1144.							
.1470	-950.	2503.	-1522.	1418.	3486.	2297.	-.0875	.0443	.0096	-.0334	-.1288	.0576	1769.							
.1480	-1126.	2482.	-1890.	1844.	4643.	1961.	-.0773	.0392	.0228	-.0212	-.1231	.0578	2154.							
.1490	-1649.	1601.	-1794.	2532.	4880.	887.	-.0664	.0358	.0339	-.0112	-.1134	.0496	2235.							
.1500	303.	382.	-600.	3024.	4983.	-273.	-.0553	.0330	.0420	-.0012	-.0970	.0362	2341.							
.1510	814.	-599.	637.	3140.	4152.	-1025.	-.0439	.0296	.0475	.0084	-.0811	.0214	2129.							
.1520	1621.	-1196.	1905.	3018.	3339.	-1253.	-.0320	.0249	.0508	.0178	-.0638	.0078	1875.							
.1530	496.	-1504.	2209.	2717.	2516.	-1087.	-.0200	.0183	.0525	.0279	-.0483	-.0040	1549.							
.1540	1082.	-1664.	2177.	2131.	2824.	-638.	-.0083	.0094	.0529	.0411	-.0282	-.0130	1443.							
.1550	2355.	-1729.	1961.	1246.	3471.	-154.	.0039	-.0015	.0518	.0572	-.0031	-.0167	1481.							
.1560	-784.	-1605.	857.	117.	2585.	217.	.0163	-.0137	.0493	.0744	.0190	-.0131	1042.							
.1570	-854.	-1181.	602.	-1275.	2254.	780.	.0277	-.0268	.0449	.0917	.0452	-.0039	1085.							
.1580	387.	-515.	821.	-2766.	2148.	1631.	.0372	-.0400	.0390	.1074	.0691	.0068	1550.							
.1590	-606.	74.	847.	-3904.	1241.	2490.	.0448	-.0523	.0320	.1187	.0839	.0142	1924.							
.1600	-347.	341.	1357.	-4412.	556.	3160.	.0504	-.0628	.0242	.1241	.0939	.0159	2189.							
.1610	1414.	391.	2220.	-4544.	266.	3634.	.0545	-.0712	.0160	.1240	.1019	.0136	2337.							
.1620	-206.	364.	2160.	-4645.	-873.	3886.	.0578	-.0772	.0084	.1202	.1039	.0107	2455.							
.1630	-174.	228.	2283.	-4777.	-1520.	3940.	.0603	-.0810	.0014	.1147	.1080	.0088	2559.							
.1640	28.	-13.	2148.	-4796.	-1930.	3713.	.0616	-.0827	-.0043	.1068	.1115	.0077	2554.							
.1650	-1721.	-321.	1153.	-4598.	-2428.	3234.	.0613	-.0825	-.0081	.0965	.1100	.0059	2457.							
.1660	-943.	-727.	434.	-4128.	-1813.	2696.	.0590	-.0810	-.0103	.0854	.1080	.0029	2108.							
.1670	-1034.	-1095.	-396.	-3418.	-1358.	2197.	.0548	-.0789	-.0110	.0745	.1006	-.0001	1719.							

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DIS/ADLPIPE

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

CONDITION 24  
LOADS  
SHOCK  
PRESSURE  
ENGLISH UNITS

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

.1570	-854.	-1161.	202.	-1275.	2254.	780.	.0277	-.0268	.0449	.0917	.0452	-.0039	1085.
.1580	387.	-515.	821.	-2766.	2148.	1631.	.0372	-.0400	.0390	.1074	.0591	.0068	1550.
.1590	-606.	74.	847.	-3904.	1241.	2496.	.0448	-.0523	.0320	.1187	.0839	.0142	1924.
.1600	-347.	341.	1357.	-4412.	556.	3160.	.0504	-.0628	.0242	.1241	.0939	.0159	2189.
.1610	1414.	391.	2220.	-4544.	266.	3634.	.0545	-.0712	.0160	.1240	.1019	.0136	2337.
.1620	-206.	364.	2167.	-4645.	-877.	3806.	.0578	-.0772	.0084	.1202	.1039	.0107	2455.
.1630	-174.	228.	2283.	-4777.	-1520.	3940.	.0603	-.0810	.0014	.1147	.1080	.0088	2559.
.1640	28.	-13.	2148.	-4796.	-1930.	3713.	.0616	-.0827	-.0042	.1068	.1115	.0077	2554.
.1650	-1721.	-321.	1153.	-4598.	-2428.	3234.	.0613	-.0825	-.0081	.0965	.1100	.0059	2457.
.1660	-943.	-727.	434.	-4128.	-1013.	2696.	.0590	-.0810	-.0103	.0854	.1080	.0029	2108.
.1670	-1024.	-1095.	-396.	-3418.	-1358.	2197.	.0548	-.0789	-.0110	.0745	.1006	-.0001	1719.

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ADLPIPE STRESS ANALYSIS

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S/RV PIPING KENAUNEE 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	29	MEMBER	1	SEQUENCE	53	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)	
.1680	-621.	-1132.	-713.	-2700.	-1080.	1906.	.0495	-.0765	-.0108	.0640	.0911	-.0004	1395.	
.1690	-1255.	-776.	-871.	-2124.	-1462.	1824.	.0434	-.0742	-.0101	.0549	.0791	.0029	1268.	
.1700	-1150.	-337.	-629.	-1596.	-1877.	1830.	.0365	-.0722	-.0091	.0497	.0579	.0081	1232.	
.1710	2292.	-11.	521.	-1021.	-1548.	1832.	.0295	-.0704	-.0079	.0487	.0525	.0137	1046.	
.1720	1367.	357.	723.	-443.	-2419.	1756.	.0234	-.0685	-.0057	.0497	.0532	.0200	1213.	
.1730	891.	868.	886.	15.	-2951.	1801.	.0183	-.0662	-.0024	.0521	.0459	.0266	1387.	
.1740	1144.	1436.	979.	377.	-2896.	2004.	.0136	-.0633	.0022	.0558	.0395	.0319	1421.	
.1750	-391.	1927.	488.	764.	-2971.	2198.	.0088	-.0592	.0081	.0593	.0299	.0345	1514.	
.1760	-372.	2189.	289.	1263.	-2454.	2190.	.0037	-.0535	.0151	.0614	.0222	.0334	1414.	
.1770	-1272.	2081.	-50.	1880.	-2203.	1753.	-.0022	-.0460	.0231	.0616	.0135	.0285	1358.	
.1780	-264.	1598.	196.	2472.	-1589.	936.	-.0089	-.0371	.0317	.0601	.0079	.0204	1238.	
.1790	-151.	946.	287.	2934.	-1261.	-104.	-.0161	-.0272	.0407	.0568	.0015	.0102	1282.	
.1800	-825.	292.	-7.	3299.	-908.	-1160.	-.0240	-.0174	.0499	.0518	-.0065	-.0014	1450.	
.1810	1672.	-336.	103.	3580.	627.	-2054.	-.0323	-.0084	.0587	.0465	-.0107	-.0135	1675.	
.1820	1225.	-886.	-630.	3699.	1495.	-2811.	-.0401	-.0011	.0667	.0418	-.0184	-.0246	1958.	
.1830	-13.	-1284.	-1537.	3561.	2020.	-3364.	-.0471	.0039	.0732	.0385	-.0260	-.0337	2126.	
.1840	-645.	-1502.	-2192.	3225.	2451.	-3694.	-.0537	.0064	.0773	.0365	-.0317	-.0404	2200.	
.1850	-859.	-1559.	-2524.	2783.	2645.	-3814.	-.0605	.0062	.0788	.0362	-.0364	-.0444	2172.	
.1860	506.	-1471.	-2136.	2256.	2794.	-3709.	-.0671	.0035	.0778	.0379	-.0381	-.0449	2072.	
.1870	-85.	-1237.	-1810.	1717.	1966.	-3456.	-.0730	-.0014	.0747	.0409	-.0419	-.0419	1738.	
.1880	668.	-896.	-969.	1257.	1288.	-3057.	-.0781	-.0080	.0702	.0443	-.0433	-.0368	1423.	
.1890	1566.	-490.	-163.	921.	787.	-2574.	-.0823	-.0157	.0650	.0472	-.0440	-.0306	1142.	
.1900	1325.	-92.	83.	687.	356.	-2068.	-.0850	-.0242	.0596	.0499	-.0448	-.0238	886.	
.1910	2710.	207.	328.	516.	716.	-1581.	-.0857	-.0330	.0542	.0533	-.0403	-.0161	727.	
.1920	2888.	408.	80.	363.	863.	-1219.	-.0837	-.0418	.0488	.0569	-.0332	-.0076	617.	
.1930	2166.	552.	-428.	148.	698.	-945.	-.0786	-.0503	.0432	.0600	-.0232	.0008	475.	
.1940	1866.	630.	-828.	-122.	596.	-662.	-.0710	-.0583	.0374	.0623	-.0102	.0074	361.	
.1950	1824.	593.	-1061.	-332.	504.	-353.	-.0611	-.0658	.0315	.0632	.0037	.0102	281.	
.1960	1461.	448.	-1142.	-401.	184.	-40.	-.0493	-.0726	.0258	.0625	.0167	.0090	178.	
.1970	1148.	289.	-945.	-422.	-328.	306.	-.0357	-.0789	.0203	.0607	.0289	.0054	247.	
.1980	1096.	218.	-460.	-568.	-963.	720.	-.0208	-.0847	.0151	.0591	.0410	.0014	534.	
.1990	944.	266.	133.	-900.	-1721.	1162.	-.0049	-.0902	.0106	.0584	.0527	-.0014	908.	
.2000	898.	377.	708.	-1332.	-2371.	1549.	.0115	-.0953	.0070	.0591	.0642	-.0030	1256.	
.2010	1231.	479.	1178.	-1745.	-2684.	1837.	.0280	-.0998	.0044	.0615	.0757	-.0042	1481.	
.2020	1195.	576.	1349.	-2073.	-2829.	2063.	.0445	-.1038	.0028	.0659	.0854	-.0050	1633.	
.2030	373.	760.	1218.	-2289.	-2985.	2337.	.0603	-.1069	.0019	.0716	.0918	-.0056	1777.	
.2040	-306.	1091.	1113.	-2361.	-3002.	2730.	.0748	-.1089	.0015	.0776	.0953	-.0066	1884.	
.2050	-370.	1458.	1263.	-2218.	-2907.	3124.	.0873	-.1093	.0011	.0830	.0965	-.0087	1930.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.29.

S/RV PIPING KENAUNEE 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



.1950	1824.	593.	1761.	-332.	504.	-353.	-.0611	-.0658	.0315	.0632	.0037	.0102	281.
.1960	1461.	448.	-1142.	-401.	184.	-40.	-.0493	-.0726	.0258	.0625	.0167	.0090	178.
.1970	1148.	289.	-945.	-422.	-328.	306.	-.0357	-.0789	.0203	.0607	.0289	.0054	247.
.1980	1096.	218.	-460.	-568.	-963.	720.	-.0208	-.0847	.0151	.0591	.0410	.0014	534.
.1990	944.	266.	133.	-900.	-1721.	1162.	-.0049	-.0902	.0106	.0584	.0527	-.0014	908.
.2000	898.	377.	708.	-1332.	-2371.	1549.	.0115	-.0953	.0070	.0591	.0642	-.0030	1256.
.2010	1231.	479.	1178.	-1745.	-2684.	1837.	.0280	-.0998	.0044	.0615	.0757	-.0042	1481.
.2020	1195.	576.	1349.	-2073.	-2829.	2063.	.0445	-.1038	.0028	.0659	.0854	-.0050	1633.
.2030	373.	760.	1218.	-2289.	-2985.	2337.	.0603	-.1069	.0019	.0716	.0918	-.0056	1777.
.2040	-306.	1091.	1113.	-2361.	-3002.	2730.	.0748	-.1089	.0015	.0776	.0953	-.0066	1884.
.2050	-370.	1458.	1263.	-2218.	-2907.	3124.	.0873	-.1093	.0011	.0830	.0965	-.0087	1930.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.29.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	RU	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	HX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
29	1	53					.2060	-433.	1620.	1627.	-1762.	-3019.	3267.	.0979	-.1080	.0008	.0876	.0956	-.0130	1920.
							.2070	-619.	1448.	2143.	-960.	-3378.	3014.	.1062	-.1047	.0006	.0911	.0933	-.0198	1857.
							.2080	-265.	1067.	2801.	71.	-3637.	2465.	.1123	-.0996	.0007	.0933	.0908	-.0276	1763.
							.2090	493.	694.	3404.	1130.	-3642.	1819.	.1161	-.0934	.0014	.0942	.0883	-.0346	1695.
							.2100	774.	424.	3657.	2084.	-3533.	1180.	.1180	-.0865	.0029	.0942	.0851	-.0395	1713.
							.2110	576.	215.	3518.	2912.	-3307.	550.	.1183	-.0794	.0051	.0938	.0819	-.0425	1782.
							.2120	334.	28.	3124.	3610.	-2930.	-73.	.1170	-.0728	.0076	.0929	.0797	-.0440	1866.
							.2130	157.	-117.	2654.	4111.	-2554.	-634.	.1138	-.0668	.0100	.0917	.0787	-.0442	1959.
							.2140	181.	-164.	2328.	4315.	-2354.	-1042.	.1089	-.0619	.0118	.0903	.0788	-.0426	2016.
							.2150	562.	-66.	2283.	4169.	-2387.	-1234.	.1023	-.0580	.0128	.0885	.0798	-.0390	1990.
							.2160	1064.	146.	2431.	3730.	-2642.	-1231.	.0943	-.0551	.0130	.0857	.0808	-.0345	1900.
							.2170	1323.	361.	2559.	3129.	-3000.	-1105.	.0851	-.0529	.0129	.0818	.0805	-.0303	1795.
							.2180	1491.	482.	2535.	2466.	-3160.	-913.	.0749	-.0512	.0130	.0768	.0782	-.0273	1650.
							.2190	1747.	524.	2298.	1753.	-2934.	-673.	.0638	-.0495	.0133	.0708	.0739	-.0251	1398.
							.2200	1793.	544.	1811.	967.	-2452.	-417.	.0523	-.0478	.0140	.0641	.0675	-.0227	1071.
							.2210	1472.	535.	1154.	149.	-1907.	-197.	.0406	-.0457	.0148	.0568	.0592	-.0198	772.
							.2220	1048.	438.	480.	-595.	-1332.	-54.	.0288	-.0432	.0155	.0497	.0490	-.0167	586.
							.2230	682.	244.	-119.	-1155.	-720.	31.	.0169	-.0403	.0157	.0426	.0368	-.0144	546.
							.2240	379.	17.	-584.	-1481.	-116.	128.	.0047	-.0370	.0153	.0353	.0219	-.0136	598.
							.2250	157.	-157.	-849.	-1601.	404.	315.	-.0077	-.0334	.0142	.0281	.0045	-.0142	675.
							.2260	-93.	-225.	-930.	-1591.	755.	619.	-.0200	-.0297	.0123	.0215	-.0149	-.0154	749.
							.2270	-436.	-204.	-905.	-1497.	932.	982.	-.0322	-.0259	.0098	.0159	-.0351	-.0167	810.
							.2280	-615.	-166.	-820.	-1327.	1069.	1290.	-.04 ?	-.0217	.0069	.0114	-.0544	-.0179	858.
							.2290	-492.	-169.	-723.	-1101.	1258.	1455.	-.0550	-.0172	.0040	.0079	-.0714	-.0190	890.
							.2300	-359.	-197.	-719.	-872.	1455.	1471.	-.0661	-.0122	.0013	.0050	-.0858	-.0199	901.
							.2310	-340.	-195.	-830.	-673.	1636.	1393.	-.0755	-.0065	-.0008	.0023	-.0975	-.0203	904.
							.2320	-186.	-143.	-953.	-479.	1841.	1276.	-.0835	-.0001	-.0025	-.0007	-.1063	-.0207	919.
							.2330	95.	-81.	-1000.	-253.	1986.	1125.	-.0899	.0069	-.0037	-.0046	-.1121	-.0215	922.
							.2340	271.	-78.	-943.	10.	1921.	902.	-.0944	.0148	-.0046	-.0094	-.1150	-.0237	852.
							.2350	505.	-182.	-728.	295.	1664.	573.	-.0968	.0233	-.0053	-.0152	-.1145	-.0275	716.
							.2360	1027.	-395.	-348.	570.	1330.	147.	-.0971	.0322	-.0057	-.0219	-.1101	-.0326	584.
							.2370	1557.	-677.	50.	797.	955.	-333.	-.0949	.0414	-.0057	-.0290	-.1023	-.0382	517.
							.2380	1757.	-980.	284.	944.	598.	-813.	-.0904	.0504	-.0051	-.0360	-.0920	-.0435	555.
							.2390	1713.	-1266.	278.	1016.	416.	-1253.	-.0836	.0590	-.0038	-.0427	-.0798	-.0477	668.
							.2400	1533.	-1499.	37.	1032.	489.	-1627.	-.0748	.0666	-.0021	-.0490	-.0562	-.0507	798.
							.2410	1189.	-1642.	-370.	998.	732.	-1908.	-.0644	.0732	-.0002	-.0545	-.0520	-.0517	913.
							.2420	859.	-1669.	-759.	904.	1017.	-2066.	-.0529	.0785	.0012	-.0586	-.0376	-.0503	993.
							.2430	691.	-1572.	-959.	744.	1202.	-2088.	-.0406	.0823	.0015	-.0610	-.0231	-.0461	1012.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.29.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.2330	95.	-81.	-1000.	-253.	1986.	1125.	-.0899	.0069	-.0037	-.0046	-.1121	-.0215	919.
.2340	271.	-78.	-943.	10.	1921.	902.	-.0944	.0148	-.0046	-.0094	-.1150	-.0237	852.
.2350	505.	-182.	-728.	295.	1664.	573.	-.0968	.0233	-.0053	-.0152	-.1145	-.0275	716.
.2360	1027.	-395.	-348.	570.	1330.	147.	-.0971	.0322	-.0057	-.0219	-.1101	-.0326	584.
.2370	1557.	-677.	50.	797.	955.	-333.	-.0949	.0414	-.0057	-.0290	-.1023	-.0382	517.
.2380	1757.	-980.	284.	944.	598.	-813.	-.0904	.0504	-.0051	-.0360	-.0920	-.0435	555.
.2390	1713.	-1266.	278.	1016.	416.	-1253.	-.0836	.0590	-.0038	-.0427	-.0798	-.0477	668.
.2400	1533.	-1499.	37.	1032.	489.	-1627.	-.0748	.0666	-.0021	-.0490	-.0562	-.0507	798.
.2410	1189.	-1642.	-370.	998.	732.	-1908.	-.0644	.0732	-.0002	-.0545	-.0520	-.0517	913.
.2420	859.	-1669.	-759.	904.	1017.	-2066.	-.0529	.0785	.0012	-.0586	-.0376	-.0503	993.
.2430	691.	-1572.	-959.	744.	1202.	-2088.	-.0406	.0823	.0011	-.0610	-.0231	-.0461	1012.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.29.

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

CONDITION 24  
LOADS  
SHOCK  
PRESSURE  
ENGLISH UNITS

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

SECTION	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	KZ (DEG)	STRESS (PSI)
29	.2440	445.	-1352.	-976.	538.	1147.	-1983.	-.0279	.0848	.0006	-.0619	-.0094	-.0395	944.
	.2450	76.	-1039.	-865.	323.	892.	-1765.	-.0152	.0861	-.0016	-.0621	.0028	-.0314	804.
	.2460	-91.	-688.	-645.	134.	629.	-1452.	-.0029	.0865	-.0050	-.0620	.0134	-.0231	637.
	.2470	81.	-364.	-315.	-24.	408.	-1091.	.0087	.0863	-.0097	-.0618	.0224	-.0154	467.
	.2480	101.	-117.	25.	-162.	39.	-751.	.0193	.0858	-.0157	-.0618	.0294	-.0085	309.
	.2490	-356.	25.	270.	-287.	-548.	-483.	.0289	.0853	-.0227	-.0624	.0342	-.0027	315.
	.2500	-868.	74.	438.	-398.	-1122.	-284.	.0371	.0849	-.0301	-.0640	.0373	.0019	491.
	.2510	-1073.	59.	550.	-496.	-1470.	-124.	.0436	.0849	-.0376	-.0667	.0388	.0054	625.
	.2520	-1060.	-4.	601.	-588.	-1607.	4.	.0483	.0850	-.0447	-.0704	.0386	.0078	687.
	.2530	-1013.	-110.	615.	-689.	-1660.	96.	.0514	.0854	-.0512	-.0747	.0369	.0095	722.
	.2540	-1009.	-222.	619.	-825.	-1707.	173.	.0529	.0858	-.0571	-.0791	.0339	.0111	764.
	.2550	-1019.	-285.	608.	-1028.	-1711.	291.	.0531	.0862	-.0621	-.0835	.0299	.0129	809.
	.2560	-935.	-275.	568.	-1310.	-1571.	493.	.0520	.0865	-.0663	-.0875	.0251	.0150	844.
	.2570	-738.	-210.	482.	-1648.	-1251.	763.	.0499	.0868	-.0693	-.0912	.0196	.0170	885.
	.2580	-695.	-139.	299.	-2010.	-839.	1045.	.0471	.0873	-.0713	-.0949	.0136	.0185	969.
	.2590	-987.	-102.	1.	-2354.	-420.	1285.	.0438	.0880	-.0722	-.0987	.0070	.0194	1089.
	.2600	-1367.	-99.	-325.	-2636.	30.	1463.	.0399	.0892	-.0722	-.1028	.0002	.0200	1210.
	.2610	-1567.	-93.	-577.	-2845.	539.	1591.	.0353	.0909	-.0715	-.1073	-.0066	.0206	1326.
	.2620	-1644.	-63.	-728.	-2999.	1033.	1676.	.0300	.0934	-.0702	-.1123	-.0137	.0214	1439.
	.2630	-1713.	-41.	-785.	-3072.	1438.	1684.	.0240	.0964	-.0684	-.1175	-.0211	.0223	1520.
	.2640	-1708.	-67.	-745.	-3014.	1757.	1577.	.0173	.1002	-.0664	-.1228	-.0288	.0229	1536.
	.2650	-1581.	-131.	-637.	-2827.	2034.	1367.	.0099	.1045	-.0642	-.1282	-.0368	.0236	1501.
	.2660	-1413.	-183.	-535.	-2571.	2294.	1100.	.0019	.1093	-.0618	-.1337	-.0450	.0245	1451.
	.2670	-1270.	-207.	-492.	-2301.	2544.	799.	-.0064	.1145	-.0592	-.1392	-.0532	.0257	1413.
	.2680	-1237.	-238.	-550.	-2026.	2775.	449.	-.0149	.1199	-.0565	-.1447	-.0514	.0269	1391.
	.2690	-1312.	-314.	-709.	-1720.	2986.	22.	-.0234	.1253	-.0535	-.1502	-.0692	.0278	1383.
	.2700	-1335.	-435.	-900.	-1380.	3184.	-466.	-.0319	.1306	-.0505	-.1556	-.0766	.0281	1405.
	.2710	-1250.	-562.	-1038.	-1061.	3318.	-947.	-.0402	.1354	-.0476	-.1603	-.0834	.0283	1449.
	.2720	-1213.	-657.	-1102.	-830.	3296.	-1344.	-.0482	.1395	-.0448	-.1635	-.0899	.0285	1467.
	.2730	-1271.	-708.	-1108.	-677.	3125.	-1643.	-.0558	.1427	-.0420	-.1652	-.0960	.0291	1443.
	.2740	-1201.	-730.	-1071.	-522.	2936.	-1897.	-.0630	.1450	-.0392	-.1660	-.1011	.0301	1418.
	.2750	-1031.	-734.	-1066.	-342.	2796.	-2135.	-.0696	.1463	-.0363	-.1660	-.1047	.0318	1418.
	.2760	-960.	-711.	-1173.	-210.	2690.	-2320.	-.0753	.1466	-.0332	-.1645	-.1066	.0346	1428.
	.2770	-986.	-651.	-1409.	-179.	2629.	-2425.	-.0801	.1458	-.0300	-.1613	-.1065	.0384	1437.
	.2780	-1012.	-574.	-1746.	-204.	2626.	-2490.	-.0839	.1440	-.0269	-.1569	-.1041	.0430	1454.
	.2790	-1041.	-509.	-2150.	-221.	2646.	-2559.	-.0868	.1412	-.0239	-.1517	-.0997	.0476	1480.
	.2800	-1045.	-472.	-2549.	-243.	2647.	-2603.	-.0886	.1374	-.0214	-.1456	-.0937	.0518	1493.
	.2810	-937.	-455.	-2847.	-307.	2593.	-2564.	-.0894	.1326	-.0195	-.1382	-.0865	.0551	1469.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.27.30.

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

CONDITION 24  
LOADS  
SHOCK  
PRESSURE  
ENGLISH UNITS

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

.2710	-1250.	-562.	-1038.	-1061.	3318.	-947.	-.0402	.1354	-.0476	-.1603	-.0834	.0283	1449.
.2720	-1213.	-657.	-1102.	-830.	3296.	-1344.	-.0482	.1395	-.0448	-.1635	-.0899	.0285	1467.
.2730	-1271.	-798.	-1108.	-677.	3125.	-1643.	-.0558	.1427	-.0420	-.1652	-.0960	.0291	1443.
.2740	-1261.	-730.	-1071.	-522.	2936.	-1697.	-.0630	.1450	-.0392	-.1660	-.1011	.0301	1418.
.2750	-1031.	-734.	-1066.	-342.	2796.	-2135.	-.0696	.1463	-.0363	-.1660	-.1047	.0318	1418.
.2760	-960.	-711.	-1173.	-210.	2690.	-2320.	-.0753	.1466	-.0332	-.1645	-.1066	.0346	1428.
.2770	-986.	-651.	-1409.	-179.	2629.	-2425.	-.0801	.1458	-.0300	-.1613	-.1065	.0384	1437.
.2780	-1012.	-574.	-1746.	-204.	2626.	-2490.	-.0839	.1440	-.0269	-.1569	-.1041	.0430	1454.
.2790	-1041.	-509.	-2150.	-221.	2646.	-2559.	-.0868	.1412	-.0239	-.1517	-.0997	.0476	1480.
.2800	-1045.	-472.	-2549.	-243.	2647.	-2603.	-.0886	.1374	-.0214	-.1456	-.0937	.0518	1493.
.2810	-937.	-455.	-2847.	-307.	2593.	-2564.	-.0894	.1326	-.0195	-.1382	-.0865	.0551	1469.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.30.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

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)
29	1	53					.2820	-769.	-437.	-2999.	-396.	2423.	-2456.	-.0891	.1270	-.0183	-.1302	-.0785	.0576	1393.
							.2830	-627.	-404.	-3013.	-468.	2112.	-2323.	-.0877	.1207	-.0177	-.1222	-.0700	.0594	1274.
							.2840	-440.	-350.	-2907.	-528.	1738.	-2169.	-.0849	.1137	-.0177	-.1144	-.0512	.0608	1135.
							.2850	-192.	-279.	-2723.	-615.	1382.	-1966.	-.0809	.1062	-.0181	-.1063	-.0524	.0617	995.
							.2860	-66.	-195.	-2542.	-733.	1051.	-1724.	-.0755	.0981	-.0185	-.0979	-.0441	.0620	862.
							.2870	-155.	-102.	-2412.	-856.	760.	-1475.	-.0689	.0897	-.0190	-.0895	-.0367	.0616	749.
							.2880	-319.	-8.	-2310.	-970.	570.	-1222.	-.0613	.0810	-.0193	-.0814	-.0306	.0603	666.
							.2890	-463.	70.	-2194.	-1078.	496.	-942.	-.0531	.0721	-.0195	-.0732	-.0262	.0577	608.
							.2900	-656.	115.	-2043.	-1165.	478.	-643.	-.0444	.0631	-.0195	-.0649	-.0236	.0536	567.
							.2910	-896.	113.	-1837.	-1202.	480.	-360.	-.0354	.0541	-.0193	-.0568	-.0229	.0481	539.
							.2920	-1076.	63.	-1563.	-1174.	527.	-110.	-.0265	.0451	-.0188	-.0488	-.0237	.0413	519.
							.2930	-1158.	-22.	-1243.	-1092.	645.	112.	-.0178	.0361	-.0179	-.0408	-.0256	.0339	511.
							.2940	-1190.	-113.	-915.	-967.	823.	312.	-.0094	.0271	-.0165	-.0325	-.0279	.0266	525.
							.2950	-1226.	-182.	-617.	-822.	1030.	488.	-.0012	.0179	-.0146	-.0237	-.0302	.0201	564.
							.2960	-1307.	-217.	-366.	-686.	1236.	648.	.0065	.0085	-.0122	-.0140	-.0320	.0149	624.
							.2970	-1413.	-221.	-156.	-574.	1424.	799.	.0137	-.0012	-.0094	-.0032	-.0328	.0111	695.
							.2980	-1450.	-202.	52.	-467.	1580.	928.	.0203	-.0111	-.0063	.0083	-.0324	.0086	759.
							.2990	-1371.	-161.	297.	-354.	1667.	1023.	.0262	-.0213	-.0030	.0203	-.0304	.0075	797.
							.3000	-1214.	-97.	595.	-254.	1639.	1093.	.0313	-.0315	.0004	.0326	-.0269	.0076	797.
							.3010	-1005.	-16.	935.	-185.	1497.	1159.	.0356	-.0419	.0039	.0450	-.0217	.0087	763.
							.3020	-711.	73.	1287.	-130.	1295.	1214.	.0392	-.0523	.0076	.0573	-.0150	.0108	714.
							.3030	-341.	163.	1599.	-65.	1091.	1233.	.0422	-.0625	.0113	.0689	-.0068	.0136	661.
							.3040	36.	253.	1817.	-13.	912.	1225.	.0445	-.0725	.0152	.0800	.0025	.0173	613.
							.3050	342.	354.	1912.	-14.	767.	1223.	.0463	-.0822	.0193	.0907	.0126	.0218	579.
							.3060	537.	471.	1882.	-71.	652.	1244.	.0477	-.0916	.0234	.1010	.0229	.0269	564.
							.3070	629.	593.	1753.	-146.	562.	1270.	.0486	-.1005	.0273	.1104	.0327	.0323	560.
							.3080	678.	700.	1578.	-215.	489.	1286.	.0490	-.1086	.0310	.1183	.0416	.0374	559.
							.3090	721.	779.	1418.	-277.	403.	1302.	.0488	-.1160	.0343	.1247	.0490	.0416	558.
							.3100	741.	831.	1308.	-336.	261.	1330.	.0480	-.1224	.0370	.1296	.0545	.0446	560.
							.3110	746.	861.	1267.	-380.	46.	1364.	.0465	-.1280	.0391	.1329	.0581	.0461	568.
							.3120	781.	868.	1290.	-407.	-220.	1395.	.0444	-.1326	.0405	.1347	.0598	.0462	590.
							.3130	831.	854.	1344.	-420.	-517.	1419.	.0414	-.1362	.0412	.1354	.0596	.0447	629.
							.3140	833.	832.	1380.	-423.	-833.	1433.	.0378	-.1388	.0414	.1351	.0578	.0421	686.
							.3150	804.	817.	1370.	-406.	-1130.	1428.	.0335	-.1405	.0412	.1342	.0547	.0385	749.
							.3160	783.	814.	1307.	-360.	-1374.	1400.	.0286	-.1412	.0408	.1328	.0504	.0343	800.
							.3170	766.	811.	1199.	-265.	-1564.	1332.	.0230	-.1409	.0402	.1310	.0452	.0293	831.
							.3180	765.	795.	1071.	-96.	-1714.	1201.	.0171	-.1395	.0395	.1286	.0395	.0238	841.
							.3190	827.	753.	958.	164.	-1830.	984.	.0108	-.1370	.0390	.1256	.0336	.0176	836.

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S/RV PIPING KEWAUNEE GKW02F 2 RUP DISK  
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CONDITION 24

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ENGLISH UNITS

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

.3090	721.	779.	1418.	-277.	403.	1302.	.0488	-.1160	.0343	.1247	.0490	.0416	.0374	559.
.3100	741.	831.	1308.	-336.	261.	1330.	.0480	-.1224	.0370	.1296	.0545	.0446	.0446	560.
.3110	746.	861.	1267.	-380.	46.	1364.	.0465	-.1280	.0391	.1329	.0581	.0461	.0461	568.
.3120	781.	868.	1290.	-407.	-220.	1395.	.0444	-.1326	.0405	.1347	.0598	.0462	.0462	590.
.3130	831.	854.	1344.	-470.	-517.	1419.	.0414	-.1362	.0412	.1354	.0596	.0447	.0447	629.
.3140	833.	832.	1380.	-423.	-833.	1433.	.0378	-.1388	.0414	.1351	.0578	.0421	.0421	686.
.3150	804.	817.	1370.	-406.	-1130.	1428.	.0335	-.1405	.0412	.1342	.0547	.0385	.0385	749.
.3160	783.	814.	1307.	-360.	-1374.	1400.	.0286	-.1412	.0408	.1328	.0504	.0343	.0343	800.
.3170	766.	811.	1199.	-265.	-1564.	1332.	.0230	-.1409	.0402	.1310	.0452	.0293	.0293	831.
.3180	765.	795.	1071.	-96.	-1714.	1201.	.0171	-.1395	.0395	.1286	.0395	.0238	.0238	841.
.3190	827.	753.	958.	164.	-1830.	984.	.0108	-.1370	.0390	.1256	.0336	.0176	.0176	836.

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S/RV PIPING KEWAUNEE GKW08F 2 RUP DISK  
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ENGLISH UNITS

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

SECTION	29	MEMBER	1	SEQUENCE	53	LOCATION	DEG	TYPE	RU	RU	DZ	RX	RY	RZ	STRESS
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.3200	1001.	671.	892.	507.	-1908.	687.		.0044	-.1336	.0386	.1221	.0279	.0108	839.	
.3210	1249.	541.	874.	916.	-1959.	326.		-.0020	-.1295	.0384	.1183	.0224	.0033	877.	
.3220	1503.	371.	884.	1382.	-1991.	-80.		-.0079	-.1247	.0384	.1142	.0173	-.0046	973.	
.3230	1728.	182.	898.	1886.	-2002.	-512.		-.0132	-.1197	.0386	.1099	.0127	-.0124	1123.	
.3240	1879.	6.	888.	2383.	-1985.	-927.		-.0176	-.1147	.0391	.1057	.0088	-.0197	1299.	
.3250	1930.	-134.	843.	2825.	-1933.	-1277.		-.0211	-.1100	.0399	.1018	.0054	-.0261	1466.	
.3260	1939.	-220.	772.	3189.	-1829.	-1536.		-.0235	-.1058	.0410	.0984	.0026	-.0313	1599.	
.3270	1929.	-243.	688.	3478.	-1683.	-1708.		-.0248	-.1024	.0422	.0952	.0005	-.0350	1695.	
.3280	1862.	-202.	606.	3681.	-1538.	-1797.		-.0250	-.0997	.0435	.0921	-.0011	-.0372	1756.	
.3290	1781.	-100.	550.	3778.	-1403.	-1794.		-.0241	-.0979	.0447	.0892	-.0023	-.0379	1770.	
.3300	1768.	50.	541.	3771.	-1257.	-1693.		-.0223	-.0969	.0458	.0865	-.0031	-.0373	1734.	
.3310	1790.	226.	567.	3692.	-1115.	-1526.		-.0196	-.0965	.0466	.0836	-.0037	-.0359	1664.	
.3320	1765.	396.	603.	3578.	-1006.	-1332.		-.0161	-.0967	.0469	.0805	-.0042	-.0340	1584.	
.3330	1680.	544.	643.	3444.	-940.	-1131.		-.0118	-.0973	.0467	.0771	-.0044	-.0318	1503.	
.3340	1561.	667.	690.	3292.	-914.	-923.		-.0069	-.0982	.0459	.0736	-.0044	-.0292	1420.	
.3350	1404.	773.	745.	3141.	-933.	-714.		-.0014	-.0993	.0444	.0702	-.0038	-.0264	1346.	
.3360	1235.	859.	818.	3013.	-997.	-522.		.0045	-.1005	.0423	.0668	-.0027	-.0234	1291.	
.3370	1090.	920.	924.	2923.	-1100.	-362.		.0106	-.1016	.0396	.0636	-.0010	-.0201	1262.	
.3380	971.	962.	1062.	2867.	-1238.	-232.		.0168	-.1027	.0363	.0607	.0015	-.0167	1257.	
.3390	886.	1001.	1224.	2832.	-1394.	-118.		.0230	-.1037	.0326	.0583	.0048	-.0130	1268.	
.3400	879.	1054.	1403.	2796.	-1533.	-10.		.0289	-.1046	.0286	.0563	.0087	-.0090	1279.	
.3410	946.	1121.	1574.	2737.	-1630.	99.		.0346	-.1052	.0244	.0548	.0134	-.0050	1279.	
.3420	1009.	1192.	1699.	2643.	-1691.	203.		.0401	-.1056	.0202	.0536	.0186	-.0010	1262.	
.3430	1025.	1256.	1757.	2510.	-1720.	298.		.0453	-.1057	.0161	.0526	.0244	.0024	1227.	
.3440	1028.	1311.	1758.	2326.	-1710.	390.		.0503	-.1052	.0120	.0516	.0305	.0052	1169.	
.3450	1039.	1359.	1718.	2086.	-1667.	488.		.0551	-.1042	.0082	.0502	.0368	.0070	1089.	
.3460	1028.	1395.	1657.	1797.	-1624.	589.		.0597	-.1025	.0044	.0483	.0431	.0077	1000.	
.3470	975.	1401.	1597.	1490.	-1613.	676.		.0641	-.0999	.0009	.0455	.0488	.0071	922.	
.3480	900.	1364.	1556.	1196.	-1639.	729.		.0682	-.0963	-.0025	.0416	.0539	.0051	865.	
.3490	832.	1280.	1542.	934.	-1686.	740.		.0719	-.0918	-.0057	.0366	.0579	.0018	829.	
.3500	784.	1159.	1550.	714.	-1733.	715.		.0751	-.0863	-.0087	.0307	.0607	-.0026	805.	
.3510	731.	1009.	1560.	547.	-1768.	654.		.0778	-.0799	-.0114	.0238	.0621	-.0077	788.	
.3520	629.	838.	1550.	452.	-1788.	553.		.0800	-.0727	-.0138	.0164	.0621	-.0132	773.	
.3530	481.	656.	1510.	438.	-1782.	414.		.0815	-.0650	-.0160	.0085	.0606	-.0186	755.	
.3540	333.	482.	1452.	505.	-1737.	258.		.0823	-.0568	-.0179	.0007	.0578	-.0235	733.	
.3550	198.	344.	1393.	643.	-1667.	111.		.0823	-.0485	-.0195	-.0069	.0539	-.0275	718.	
.3560	58.	258.	1350.	845.	-1602.	-10.		.0815	-.0402	-.0209	-.0141	.0488	-.0305	727.	
.3570	-89.	232.	1334.	1099.	-1564.	-98.		.0798	-.0320	-.0222	-.0206	.0427	-.0321	768.	

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

CONDITION 24

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ENGLISH UNITS

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

.3470	975.	1401.	1597.	1490.	-1613.	676.	.641	-.0999	.0009	.0455	.0488	.0071	922.
.3480	900.	1364.	1556.	1196.	-1639.	729.	.682	-.0963	-.0025	.0416	.0539	.0051	865.
.3490	832.	1280.	1542.	934.	-1686.	740.	.0719	-.0918	-.0057	.0366	.0579	.0018	829.
.3500	784.	1159.	1550.	714.	-1733.	715.	.0751	-.0863	-.0027	.0307	.0507	-.0026	805.
.3510	731.	1009.	1560.	547.	-1768.	654.	.0778	-.0799	-.0114	.0238	.0621	-.0077	788.
.3520	629.	838.	1550.	452.	-1788.	553.	.0800	-.0727	-.0138	.0164	.0521	-.0132	773.
.3530	481.	656.	1510.	438.	-1782.	414.	.0815	-.0650	-.0160	.0085	.0506	-.0186	755.
.3540	333.	482.	1452.	505.	-1737.	258.	.0823	-.0568	-.0179	.0007	.0578	-.0235	733.
.3550	198.	344.	1393.	643.	-1667.	111.	.0823	-.0485	-.0195	-.0069	.0539	-.0275	718.
.3560	58.	258.	1350.	845.	-1602.	-10.	.0815	-.0402	-.0209	-.0141	.0488	-.0305	727.
.3570	-89.	232.	1334.	1099.	-1564.	-98.	.0796	-.0320	-.0222	-.0206	.0427	-.0321	768.

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ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	BEG	TYPE	RU	TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	PX	RY	RZ	STRESS
29	1	53					(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
.3580	-222.	262.	1349.	1392.	-1552.	-153.	.0771	-.0241	-.0232	-.0265	.0360	-.0322	839.							
.3590	-333.	341.	1380.	1701.	-1552.	-173.	.0734	-.0166	-.0238	-.0317	.0288	-.0311	927.							
.3600	-419.	458.	1398.	1996.	-1542.	-165.	.0688	-.0093	-.0241	-.0362	.0215	-.0289	1014.							
.3610	-487.	589.	1374.	2251.	-1501.	-146.	.0631	-.0024	-.0238	-.0402	.0144	-.0257	1087.							
.3620	-555.	708.	1278.	2450.	-1420.	-138.	.0566	.0042	-.0230	-.0437	.0078	-.0221	1138.							
.3630	-621.	794.	1097.	2582.	-1293.	-154.	.0491	.0106	-.0216	-.0470	.0019	-.0182	1160.							
.3640	-650.	836.	837.	2638.	-1114.	-198.	.0408	.0169	-.0198	-.0501	-.0030	-.0145	1152.							
.3650	-623.	133.	518.	2607.	-895.	-261.	.0318	.0229	-.0175	-.0532	-.0070	-.0111	1111.							
.3660	-569.	786.	158.	2488.	-663.	-334.	.0222	.0288	-.0150	-.0560	-.0100	-.0083	1042.							
.3670	-502.	698.	-223.	2287.	-440.	-408.	.0121	.0343	-.0125	-.0585	-.0122	-.0061	949.							
.3680	-400.	578.	-599.	2018.	-230.	-479.	.0019	.0395	-.0099	-.0607	-.0136	-.0044	837.							
.3690	-265.	441.	-957.	1691.	-31.	-543.	-.0084	.0444	-.0076	-.0624	-.0145	-.0032	713.							
.3700	-135.	302.	-1292.	1314.	153.	-593.	-.0186	.0488	-.0054	-.0636	-.0150	-.0022	582.							
.3710	-27.	167.	-1600.	906.	332.	-626.	-.0282	.0528	-.0036	-.0641	-.0154	-.0013	461.							
.3720	60.	36.	-1872.	495.	516.	-649.	-.0373	.0564	-.0021	-.0642	-.0159	-.0006	388.							
.3730	117.	-94.	-2096.	117.	705.	-672.	-.0455	.0596	-.0009	-.0641	-.0169	.0001	394.							
.3740	137.	-215.	-2259.	-209.	888.	-695.	-.0528	.0625	-.0002	-.0637	-.0185	.0007	460.							
.3750	130.	-315.	-2346.	-475.	1061.	-699.	-.0590	.0649	.0001	-.0634	-.0210	.0012	544.							
.3760	96.	-395.	-2351.	-679.	1220.	-674.	-.0642	.0670	.0000	-.0629	-.0244	.0015	622.							
.3770	27.	-466.	-2287.	-804.	1362.	-631.	-.0682	.0687	-.0004	-.0627	-.0287	.0018	683.							
.3780	-72.	-536.	-2169.	-843.	1494.	-587.	-.0710	.0701	-.0011	-.0627	-.0337	.0019	728.							
.3790	-184.	-601.	-2020.	-810.	1631.	-542.	-.0727	.0711	-.0019	-.0632	-.0391	.0021	762.							
.3800	-313.	-648.	-1863.	-731.	1780.	-485.	-.0732	.0718	-.0027	-.0640	-.0447	.0025	796.							
.3810	-473.	-673.	-1718.	-625.	1940.	-414.	-.0726	.0721	-.0035	-.0653	-.0501	.0033	835.							
.3820	-647.	-687.	-1592.	-506.	2108.	-336.	-.0711	.0720	-.0041	-.0667	-.0550	.0045	880.							
.3830	-806.	-698.	-1475.	-386.	2267.	-253.	-.0686	.0714	-.0047	-.0681	-.0589	.0061	928.							
.3840	-934.	-697.	-1350.	-278.	2391.	-161.	-.0653	.0705	-.0051	-.0694	-.0616	.0082	968.							
.3850	-1017.	-671.	-1200.	-204.	2451.	-48.	-.0613	.0686	-.0055	-.0704	-.0627	.0110	987.							
.3860	-1050.	-617.	-1018.	-177.	2434.	100.	-.0567	.0664	-.0060	-.0707	-.0620	.0144	980.							
.3870	-1043.	-538.	-814.	-191.	2340.	275.	-.0517	.0636	-.0064	-.0704	-.0594	.0185	949.							
.3880	-1015.	-439.	-614.	-227.	2178.	457.	-.0462	.0603	-.0069	-.0695	-.0548	.0234	898.							
.3890	-978.	-315.	-443.	-283.	1973.	643.	-.0405	.0566	-.0073	-.0679	-.0483	.0289	840.							
.3900	-937.	-163.	-321.	-354.	1757.	845.	-.0346	.0527	-.0078	-.0653	-.0400	.0350	796.							
.3910	-805.	3.	-256.	-578.	1537.	1067.	-.0286	.0485	-.0082	-.0614	-.0302	.0413	781.							
.3920	-883.	154.	-245.	-721.	1328.	1276.	-.0228	.0443	-.0086	-.0565	-.0193	.0475	794.							
.3930	-859.	266.	-270.	-906.	1127.	1433.	-.0171	.0403	-.0089	-.0509	-.0077	.0533	816.							
.3940	-816.	332.	-307.	-1066.	923.	1533.	-.0118	.0367	-.0093	-.0449	.0040	.0583	840.							
.3950	-752.	357.	-336.	-1270.	727.	1597.	-.0069	.0335	-.0098	-.0387	.0154	.0624	870.							

ADLPIPE PAGE 1276

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.30.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.3850	-1017.	-671.	-1200.	-204.	2451.	-48.	-.0613	.0686	-.0055	-.0704	-.0627	.0110	987.
.3860	-1050.	-617.	-1018.	-177.	2434.	100.	-.0567	.0664	-.0060	-.0707	-.0620	.0144	980.
.3870	-1043.	-538.	-814.	-191.	2340.	275.	-.0517	.0636	-.0064	-.0704	-.0594	.0185	949.
.3880	-1015.	-439.	-614.	-227.	2178.	407.	-.0462	.0603	-.0069	-.0695	-.0548	.0234	898.
.3890	-978.	-315.	-447.	-283.	1973.	643.	-.0405	.0566	-.0073	-.0679	-.0483	.0289	840.
.3900	-937.	-163.	-321.	-384.	1753.	845.	-.0346	.0527	-.0078	-.0653	-.0400	.0350	796.
.3910	-905.	3.	-256.	-538.	1537.	1067.	-.0286	.0485	-.0082	-.0614	-.0302	.0413	781.
.3920	-883.	154.	-245.	-721.	1328.	1276.	-.0228	.0443	-.0086	-.0565	-.0193	.0475	794.
.3930	-859.	266.	-270.	-906.	1127.	1433.	-.0171	.0403	-.0089	-.0509	-.0077	.0533	816.
.3940	-816.	332.	-307.	-1086.	923.	1533.	-.0118	.0367	-.0093	-.0449	.0040	.0583	840.
.3950	-752.	357.	-336.	-1272.	727.	1597.	-.0069	.0335	-.0098	-.0387	.0154	.0624	870.

ADLPIPE PAGE 1276 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 8/12/02. 18.27.30.  
 S/RV PIPING KEWAUNEE GKWOOF 2 RUP DISK  
 2 SAFETY COLD FKW24F--2 PSV

CONDITION 24  
 LOADS  
 SHOCK  
 PRESSURE  
 ENGLISH UNITS

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

SECTION	29	MEMBER	1	SEQUENCE	53	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)		
.3960	-691.	343.	-350.	-1460.	532.	1639.	-.0025	.0308	-.0103	-.0324	.0259	.0651	907.		
.3970	-663.	287.	-352.	-1634.	333.	1649.	.0013	.0287	-.0109	-.0265	.0350	.0665	941.		
.3980	-680.	192.	-346.	-1789.	129.	1623.	.0045	.0272	-.0115	-.0209	.0427	.0666	971.		
.3990	-726.	74.	-332.	-1946.	-72.	1578.	.0070	.0263	-.0121	-.0157	.0488	.0655	1006.		
.4000	-782.	-44.	-307.	-2125.	-257.	1539.	.0087	.0258	-.0126	-.0108	.0532	.0635	1058.		

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)
.0620	-1202.	-1158.	-3328.	-9324.	3579.	1174.	.1478	-.1101	.0351	.1360	.0949	.0104	4035.

SECTION	29	MEMBER	1	SEQUENCE	253	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
0.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.		
.0010	4.	1.	6.	-1.	-4.	1.	-.0000	-.0000	-.0000	.0000	.0000	-.0000	2.		
.0020	30.	4.	43.	-6.	-28.	3.	-.0000	-.0000	-.0000	.0000	.0001	-.0000	12.		
.0030	84.	4.	125.	-8.	-84.	3.	-.0000	-.0000	-.0001	.0001	.0003	.0001	34.		
.0040	145.	-13.	244.	2.	-168.	-10.	-.0001	-.0000	-.0003	.0003	.0006	.0004	68.		
.0050	205.	-47.	379.	33.	-263.	-36.	-.0002	.0000	-.0006	.0005	.0012	.0009	107.		
.0060	289.	-86.	530.	78.	-354.	-65.	-.0004	.0002	-.0013	.0007	.0020	.0016	148.		
.0070	338.	-110.	717.	123.	-493.	-80.	-.0007	.0005	-.0022	.0007	.0032	.0022	207.		
.0080	224.	-113.	969.	167.	-768.	-78.	-.0010	.0010	-.0037	.0006	.0054	.0028	317.		
.0090	-42.	-122.	1270.	248.	-1141.	-75.	-.0010	.0017	-.0057	.0004	.0092	.0037	470.		
.0100	-312.	-170.	1553.	417.	-1443.	-92.	-.0003	.0029	-.0087	-.0002	.0146	.0054	604.		
.0110	-453.	-249.	1748.	676.	-1520.	-124.	.0015	.0045	-.0126	-.0014	.0214	.0075	670.		
.0120	-374.	-305.	1822.	966.	-1321.	-150.	.0044	.0067	-.0174	-.0037	.0287	.0090	659.		
.0130	-129.	-288.	1747.	1220.	-896.	-165.	.0024	.0096	-.0230	-.0077	.0355	.0087	611.		
.0140	1.	-206.	1410.	1433.	-322.	-196.	.0131	.0134	-.0290	-.0137	.0410	.0062	595.		
.0150	-218.	-92.	711.	1639.	368.	-253.	.0184	.0178	-.0350	-.0217	.0450	.0016	682.		
.0160	-838.	77.	-348.	1834.	1150.	-275.	.0244	.0229	-.0403	-.0315	.0475	-.0046	876.		
.0170	-1874.	377.	-1655.	1947.	1925.	-159.	.0314	.0284	-.0442	-.0424	.0493	-.0121	1101.		
.0180	-3004.	837.	-2920.	1904.	2604.	144.	.0398	.0339	-.0460	-.0532	.0512	-.0201	1296.		
.0190	-3550.	1347.	-3660.	1695.	3061.	554.	.0502	.0387	-.0452	-.0626	.0536	-.0271	1422.		

ADLPIPE PAGE 1277 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 8/12/02. 18.27.30.  
 S/RV PIPING KEWAUNEE GKWOOF 2 RUP DISK  
 2 SAFETY COLD FKW24F--2 PSV

CONDITION 24  
 LOADS  
 SHOCK  
 PRESSURE  
 ENGLISH UNITS

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

.0090	-42.	-122.	177.	248.	-1141.	-75.	-1010	.0017	-.0057	.0004	.0092	.0037	470.
.0100	-312.	-170.	1553.	417.	-1443.	-92.	-.0003	.0029	-.0027	-.0000	.0146	.0054	604.
.0110	-453.	-249.	1749.	676.	-1520.	-124.	.0015	.0045	-.0126	-.0014	.0214	.0075	670.
.0120	-374.	-305.	1822.	967.	-1321.	-150.	.0044	.0067	-.0174	-.0037	.0287	.0090	659.
.0130	-129.	-288.	1747.	1220.	-896.	-165.	.0084	.0096	-.0230	-.0077	.0355	.0087	611.
.0140	1.	-206.	1410.	1473.	-720.	-196.	.0171	.0134	-.0299	-.0137	.0410	.0062	595.
.0150	-218.	-92.	711.	1639.	368.	-253.	.0184	.0178	-.0350	-.0217	.0450	.0016	682.
.0160	-838.	77.	-348.	1874.	1150.	-275.	.0244	.0229	-.0403	-.0315	.0475	-.0046	876.
.0170	-1874.	377.	-1655.	1947.	1925.	-159.	.0314	.0284	-.0442	-.0424	.0493	-.0121	1101.
.0180	-3004.	837.	-2920.	1904.	2004.	144.	.0398	.0339	-.0440	-.0532	.0512	-.0201	1296.
.0190	-3550.	1347.	-3660.	1695.	3061.	554.	.0502	.0287	-.0452	-.0626	.0536	-.0271	1422.

ADLPIPE PAGE 1277 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.27.30.

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

CONDITION 24  
LOADS  
SHOCK  
PRESSURE  
ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
29	1	253					.0200	-3373.	1719.	-3350.	1368.	2874.	900.	.0631	.0422	-.0419	-.0689	.0585	-.0304	1327.
							.0210	-2543.	1654.	-2009.	1140.	1985.	917.	.0788	.0439	-.0372	-.0707	.0678	-.0269	990.
							.0220	1342.	846.	54.	1220.	1882.	347.	.0958	.0437	-.0319	-.0686	.0742	-.0152	924.
							.0230	6664.	-509.	2025.	1610.	2508.	-680.	.1110	.0425	-.0266	-.0646	.0748	.0001	1228.
							.0240	9194.	-1741.	3096.	1587.	2298.	-1695.	.1208	.0413	-.0214	-.0612	.0712	.0107	1311.
							.0250	6981.	-2141.	2994.	790.	607.	-2054.	.1244	.0411	-.0156	-.0590	.0579	.0124	916.
							.0260	5081.	-1683.	2629.	-496.	-454.	-1438.	.1248	.0422	-.0085	-.0573	.0644	.0098	637.
							.0270	10010.	-1255.	3261.	-1540.	1099.	-458.	.1222	.0443	.0004	-.0562	.0509	.0107	781.
							.0280	11812.	-1494.	3583.	-2050.	1089.	-16.	.1131	.0466	.0108	-.0561	.0368	.0157	931.
							.0290	2091.	-1868.	2244.	-2404.	-3319.	90.	.0980	.0485	.0216	-.0556	.0363	.0196	1645.
							.0300	-1468.	-1485.	2602.	-3046.	-5869.	1017.	.0823	.0498	.0322	-.0534	.0328	.0192	2685.
							.0310	4084.	-489.	4602.	-3859.	-4883.	3624.	.0676	.0497	.0412	-.0477	.0222	.0163	2710.
							.0320	6015.	104.	5352.	-4410.	-4118.	3549.	.0506	.0473	.0467	-.0375	.0146	.0154	2809.
							.0330	3059.	-406.	4551.	-4368.	-4373.	3035.	.0294	.0425	.0488	-.0253	.0062	.0188	2763.
							.0340	2250.	-1449.	3504.	-3885.	-3524.	1865.	.0051	.0361	.0483	-.0141	-.0109	.0223	2234.
							.0350	1559.	-1799.	1870.	-3501.	-1974.	1336.	-.0202	.0294	.0458	-.0054	-.0286	.0178	1699.
							.0360	-2167.	-991.	-630.	-3537.	-902.	1929.	-.0450	.0230	.0422	.0012	-.0388	.0041	1657.
							.0370	-3597.	266.	-2461.	-3702.	552.	3030.	-.0680	.0160	.0389	.0069	-.0492	-.0103	1932.
							.0380	-1365.	878.	-2959.	-3366.	2018.	3490.	-.0898	.0094	.0375	.0125	-.0666	-.0173	2107.
							.0390	-3733.	453.	-3566.	-2232.	802.	2779.	-.1115	.0008	.0385	.0175	-.0826	-.0187	1466.
							.0400	-12095.	-83.	-4688.	-789.	-2710.	1916.	-.1301	-.0087	.0384	.0227	-.0858	-.0213	1369.
							.0410	-10580.	416.	-3662.	128.	-2905.	2150.	-.1408	-.0187	.0360	.0307	-.0905	-.0275	1451.
							.0420	-3236.	1686.	-1940.	484.	-511.	2840.	-.1452	-.0293	.0299	.0436	-.0961	-.0348	1174.
							.0430	-1438.	2137.	-705.	1019.	-611.	2398.	-.1444	-.0406	.0257	.0557	-.0928	-.0381	1074.
							.0440	-3509.	997.	91.	2306.	-2463.	451.	-.1406	-.0519	.0224	.0620	-.0866	-.0360	1366.
							.0450	-640.	-313.	1290.	3636.	-2283.	-1480.	-.1337	-.0619	.0193	.0637	-.0874	-.0340	1823.
							.0460	4596.	-121.	2264.	4007.	-605.	-2032.	-.1246	-.0700	.0172	.0641	-.0902	-.0404	1819.
							.0470	3306.	1360.	1744.	3535.	-586.	-1425.	-.1160	-.0763	.0155	.0640	-.0834	-.0555	1548.
							.0480	-1772.	2843.	492.	3092.	-1608.	-534.	-.1077	-.0820	.0140	.0640	-.0700	-.0692	1415.
							.0490	-2403.	3534.	202.	3179.	-1260.	48.	-.0962	-.0880	.0147	.0664	-.0591	-.0706	1372.
							.0500	-1063.	3207.	539.	3757.	-458.	-130.	-.0808	-.0955	.0171	.0731	-.0472	-.0593	1520.
							.0510	-1489.	2080.	1230.	4302.	-889.	-1010.	-.0624	-.1043	.0203	.0823	-.0305	-.0431	1809.
							.0520	-1601.	946.	2428.	4063.	-1665.	-1876.	-.0414	-.1135	.0232	.0931	-.0120	-.0284	1916.
							.0530	84.	301.	3381.	2919.	-1157.	-2321.	-.0181	-.1225	.0246	.1068	.0060	-.0157	1567.
							.0540	1589.	-471.	3041.	1707.	725.	-2821.	.0060	-.1304	.0237	.1222	.0242	-.0015	1355.
							.0550	1145.	-1946.	1259.	1017.	3075.	-3724.	.0290	-.1364	.0208	.1352	.0424	.0149	1980.
							.0560	-760.	-3318.	-1331.	187.	5260.	-4367.	.0503	-.1393	.0178	.1441	.0582	.0278	2747.
							.0570	-1992.	-3440.	-3656.	-1666.	7102.	-3928.	.0703	-.1384	.0165	.1490	.0689	.0306	3325.

ADLPIPE PAGE 1277 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.27.30.

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

CONDITION 24  
LOADS  
CHECK  
PRESSURE  
ENGLISH UNITS

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

.0470	3706.	1360.	1744.	3535.	-586.	-1425.	-.1160	-.0763	.0155	.0640	-.0834	-.0555	1548.
.0480	-1772.	2843.	492.	3092.	-1608.	-534.	-.1077	-.0820	.0140	.0640	-.0700	-.0692	1415.
.0490	-2403.	3534.	202.	3179.	-1260.	48.	-.0962	-.0880	.0147	.0664	-.0591	-.0706	1372.
.0500	-1063.	3207.	529.	3757.	-459.	-170.	-.0808	-.0955	.0171	.0731	-.0472	-.0593	1520.
.0510	-1489.	2080.	1270.	4302.	-889.	-1010.	-.0624	-.1042	.0203	.0823	-.0305	-.0431	1809.
.0520	-1601.	942.	2428.	4067.	-1665.	-1876.	-.0414	-.1135	.0232	.0931	-.0120	-.0284	1916.
.0530	84.	301.	3381.	2919.	-1157.	-2321.	-.0181	-.1225	.0246	.1068	.0060	-.0157	1567.
.0540	1589.	-471.	3041.	1707.	725.	-2821.	.0660	-.1304	.0237	.1222	.0242	-.0015	1355.
.0550	1145.	-1946.	1259.	1017.	3075.	-3724.	.0290	-.1364	.0208	.1352	.0424	.0149	1980.
.0560	-760.	-3318.	-1331.	187.	5267.	-4267.	.0503	-.1392	.0178	.1441	.0582	.0278	2747.
.0570	-1992.	-3440.	-3656.	-1666.	7102.	-3928.	.0703	-.1384	.0165	.1490	.0689	.0306	3325.

ADLPIPE PAGE 1277 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.27.30.

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

CONDITION 24  
LOADS  
SHOCK  
PRESSURE  
ENGLISH UNITS

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

SECTION	29	MEMBER	1	SEQUENCE	253	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)		
.0580	-1817.	-2493.	-4844.	-4261.	7975.	-2569.	.0890	-.1341	.0181	.1493	.0745	.0229	3772.		
.0590	-2117.	-1548.	-5016.	-6596.	7173.	-1104.	.1060	-.1278	.0222	.1450	.0788	.0118	3936.		
.0600	-2928.	-1157.	-4642.	-8150.	5416.	-35.	.1213	-.1209	.0277	.1392	.0836	.0058	3927.		
.0610	-2745.	-1140.	-4051.	-8991.	4092.	673.	.1354	-.1147	.0325	.1358	.0889	.0069	3973.		
.0620	-1202.	-1158.	-3328.	-9324.	3579.	1174.	.1478	-.1101	.0351	.1360	.0949	.0104	4035.		
.0630	-178.	-979.	-2854.	-9378.	3232.	1542.	.1578	-.1074	.0356	.1382	.1017	.0104	4028.		
.0640	84.	-699.	-2890.	-9209.	3037.	1591.	.1641	-.1067	.0342	.1399	.1054	.0055	3943.		
.0650	551.	-782.	-3399.	-8490.	3322.	943.	.1655	-.1076	.0309	.1396	.1019	-.0016	3678.		
.0660	409.	-1363.	-4277.	-7001.	3560.	-379.	.1620	-.1097	.0263	.1372	.0935	-.0083	3156.		
.0670	-1268.	-1794.	-5383.	-5121.	3308.	-1615.	.1549	-.1118	.0217	.1336	.0862	-.0149	2531.		
.0680	-1667.	-1432.	-5867.	-3362.	3258.	-1978.	.1459	-.1131	.0181	.1288	.0805	-.0227	2039.		
.0690	398.	-554.	-5156.	-1662.	3342.	-1604.	.1351	-.1133	.0160	.1221	.0748	-.0303	1630.		
.0700	564.	65.	-4039.	307.	2023.	-1314.	.1218	-.1130	.0149	.1141	.0721	-.0348	976.		
.0710	-1981.	136.	-3118.	2409.	-452.	-1524.	.1063	-.1125	.0140	.1065	.0716	-.0344	1158.		
.0720	-1490.	-68.	-1804.	4157.	-1625.	-1993.	.0904	-.1115	.0126	.1003	.0658	-.0301	1961.		
.0730	2636.	-267.	-173.	5255.	-1106.	-2485.	.0741	-.1096	.0104	.0946	.0532	-.0258	2389.		
.0740	3992.	-365.	569.	5878.	-1020.	-2999.	.0555	-.1063	.0072	.0884	.0407	-.0252	2679.		
.0750	1583.	-276.	250.	5987.	-1767.	-3372.	.0342	-.1013	.0036	.0803	.0298	-.0286	2847.		
.0760	155.	76.	-81.	5709.	-1945.	-3281.	.0122	-.0941	.0008	.0700	.0172	-.0327	2755.		
.0770	121.	631.	-34.	5228.	-1669.	-2680.	-.0090	-.0850	-.0006	.0587	.0047	-.0345	2451.		
.0780	-1099.	1229.	207.	4685.	-2108.	-1815.	-.0285	-.0747	-.0001	.0477	-.0042	-.0327	2186.		
.0790	-1898.	1719.	1054.	4073.	-3022.	-912.	-.0456	-.0639	.0025	.0375	-.0127	-.0278	2068.		
.0800	-330.	1919.	2686.	3416.	-3719.	-181.	-.0598	-.0535	.0067	.0279	-.0247	-.0202	2028.		
.0810	564.	1661.	4074.	2860.	-4620.	120.	-.0715	-.0440	.0112	.0198	-.0376	-.0100	2181.		
.0820	-589.	963.	4409.	2478.	-5407.	-42.	-.0806	-.0355	.0149	.0144	-.0477	.0027	2387.		
.0830	-368.	68.	3976.	2151.	-4529.	-377.	-.0863	-.0274	.0173	.0116	-.0579	.0175	2018.		
.0840	1416.	-797.	2930.	1755.	-2136.	-658.	-.0890	-.0191	.0188	.0095	-.0683	.0320	1140.		
.0850	702.	-1353.	1127.	1287.	-328.	-874.	-.0901	-.0095	.0202	.0051	-.0747	.0423	638.		
.0860	-2054.	-2096.	-610.	722.	158.	-906.	-.0897	.0019	.0230	-.0035	-.0774	.0456	469.		
.0870	-2554.	-2217.	-1046.	-71.	245.	-473.	-.0866	.0153	.0279	-.0159	-.0805	.0430	216.		
.0880	-793.	-1887.	-124.	-1107.	-41.	461.	-.0806	.0305	.0348	-.0301	-.0928	.0372	481.		
.0890	187.	-1386.	1372.	-2147.	-1350.	1611.	-.0728	.0467	.0424	-.0441	-.0805	.0308	1206.		
.0900	383.	-916.	2949.	-2980.	-3090.	2773.	-.0639	.0628	.0487	-.0569	-.0741	.0247	2051.		
.0910	1161.	-427.	4187.	-3684.	-4042.	3966.	-.0546	.0778	.0520	-.0677	-.0663	.0183	2711.		
.0920	1852.	159.	4519.	-4461.	-3931.	5119.	-.0453	.0910	.0510	-.0758	-.0581	.0105	3148.		
.0930	1581.	671.	3804.	-5337.	-3104.	5944.	-.0269	.1016	.0456	-.0817	-.0501	.0010	3439.		
.0940	866.	901.	2409.	-6176.	-1738.	6221.	-.0297	.1090	.0364	-.0855	-.0436	-.0086	3575.		
.0950	32.	834.	680.	-6621.	-6.	6000.	-.0236	.1131	.0241	-.0875	-.0381	-.0168	3586.		

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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



.0850	702.	-1553.	1127.	1287.	-328.	-874.	-0901	-0095	.0202	.0051	-.0747	.0423	638.
.0860	-2054.	-2096.	-610.	722.	158.	-926.	-.0897	.0019	.0230	-.0035	-.0774	.0456	469.
.0870	-2554.	-2217.	-1046.	-71.	245.	-473.	-.0866	.0153	.0279	-.0159	-.0805	.0430	216.
.0880	-797.	-1887.	-124.	-1107.	-41.	461.	-.0806	.0305	.0348	-.0301	-.0828	.0372	481.
.0890	187.	-1380.	1372.	-2147.	-1350.	1611.	-.0728	.0467	.0424	-.0441	-.0805	.0308	1206.
.0900	383.	-916.	2949.	-2980.	-2090.	2773.	-.0639	.0628	.0487	-.0569	-.0741	.0247	2051.
.0910	1161.	-427.	4187.	-3684.	-4042.	3966.	-.0546	.0778	.0520	-.0677	-.0563	.0183	2711.
.0920	1952.	159.	4519.	-4461.	-3931.	5119.	-.0453	.0910	.0510	-.0758	-.0581	.0105	3148.
.0930	1581.	671.	2804.	-5337.	-3104.	5944.	-.0369	.1016	.0456	-.0817	-.0501	.0010	3439.
.0940	866.	901.	2409.	-6176.	-1738.	6221.	-.0297	.1090	.0364	-.0855	-.0436	-.0086	3575.
.0950	32.	874.	680.	-6621.	-8.	6000.	-.0236	.1131	.0241	-.0875	-.0381	-.0168	3586.

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

CONDITION 24

LOADS

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PRESSURE

ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU								
TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	RX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
.0960	-962.	613.	-1036.	-6612.	1782.	5526.	-.0184	.1141	.0092	-.0875	-.0312	-.0235	3531.	
.0970	-1787.	442.	-2327.	-6076.	3417.	5044.	-.0142	.1121	-.0073	-.0849	-.0223	-.0295	3453.	
.0980	-2351.	498.	-3041.	-5142.	4744.	4651.	-.0109	.1075	-.0249	-.0787	-.0123	-.0349	3371.	
.0990	-2755.	717.	-3289.	-3927.	5703.	4219.	-.0087	.1008	-.0429	-.0688	-.0032	-.0395	3254.	
.1000	-2666.	788.	-3142.	-2433.	6376.	3489.	-.0073	.0926	-.0604	-.0575	.0024	-.0429	3076.	
.1010	-1997.	546.	-2712.	-709.	6765.	2350.	-.0066	.0836	-.0765	-.0472	.0033	-.0481	2889.	
.1020	-1481.	230.	-2288.	984.	6730.	1014.	-.0060	.0750	-.0902	-.0394	.0007	-.0506	2760.	
.1030	-1480.	204.	-2036.	2343.	6302.	-132.	-.0052	.0675	-.1010	-.0344	-.0028	-.0573	2699.	
.1040	-1341.	562.	-1772.	3311.	5721.	-832.	-.0031	.0618	-.1082	-.0330	-.0053	-.0652	2673.	
.1050	-1038.	1163.	-1373.	4106.	4934.	-1128.	.0008	.0579	-.1112	-.0348	-.0053	-.0722	2615.	
.1060	-944.	1833.	-807.	4930.	3713.	-1235.	.0068	.0551	-.1100	-.0385	-.0024	-.0771	2526.	
.1070	-256.	2457.	137.	5750.	2217.	-1319.	.0146	.0529	-.1049	-.0431	.0011	-.0800	2529.	
.1080	610.	3044.	1553.	6305.	214.	-1354.	.0242	.0506	-.0969	-.0480	.0063	-.0816	2589.	
.1090	1272.	3622.	3572.	6472.	-2409.	-1277.	.0368	.0476	-.0877	-.0506	.0181	-.0800	2818.	
.1100	6580.	3571.	5618.	6891.	-2797.	-1817.	.0496	.0433	-.0781	-.0488	.0217	-.0704	3072.	
.1110	8764.	2533.	5799.	7593.	-2830.	-3132.	.0597	.0383	-.0695	-.0462	.0249	-.0526	3486.	
.1120	5382.	1030.	4018.	7946.	-3487.	-4433.	.0662	.0340	-.0621	-.0467	.0329	-.0314	3910.	
.1130	2759.	60.	1755.	7527.	-3073.	-4892.	.0706	.0310	-.0549	-.0474	.0401	-.0111	3808.	
.1140	2469.	-251.	-267.	6623.	-1573.	-4661.	.0743	.0296	-.0472	-.0444	.0456	.0083	3311.	
.1150	925.	-826.	-1984.	5835.	-883.	-4504.	.0768	.0301	-.0386	-.0407	.0532	.0295	2979.	
.1160	-703.	-2157.	-2640.	5346.	-1204.	-4686.	.0780	.0329	-.0291	-.0401	.0595	.0529	2893.	
.1170	-784.	-3540.	-2196.	4859.	-1770.	-4850.	.0783	.0385	-.0192	-.0405	.0618	.0741	2845.	
.1180	3706.	-4122.	-607.	4034.	-1201.	-4608.	.0762	.0471	-.0094	-.0398	.0526	.0853	2504.	
.1190	2932.	-3671.	-137.	2604.	-2065.	-3712.	.0699	.0591	-.0012	-.0417	.0454	.0816	1999.	
.1200	-1737.	-2454.	-803.	641.	-3560.	-1953.	.0607	.0744	.0049	-.0501	.0413	.0664	1650.	
.1210	-198.	-881.	-620.	-1353.	-2638.	369.	.0511	.0915	.0090	-.0614	.0306	.0480	1199.	
.1220	259.	351.	-1204.	-2690.	-1492.	2127.	.0412	.1082	.0112	-.0703	.0212	.0325	1501.	
.1230	-567.	751.	-1879.	-3350.	-1097.	2920.	.0301	.1233	.0123	-.0782	.0107	.0209	1837.	
.1240	-2281.	732.	-2184.	-3846.	-1683.	3324.	.0180	.1362	.0128	-.0871	-.0008	.0102	2149.	
.1250	-2079.	1062.	-1798.	-4364.	-2053.	3916.	.0060	.1464	.0125	-.0935	-.0146	-.0015	2493.	
.1260	1833.	1719.	-461.	-4460.	-1495.	4522.	-.0065	.1531	.0112	-.0942	-.0324	-.0131	2618.	
.1270	-275.	2077.	-77.	-3709.	-2773.	4668.	-.0196	.1563	.0077	-.0909	-.0381	-.0208	2639.	
.1280	-1512.	1866.	810.	-2275.	-3760.	4484.	-.0312	.1568	.0022	-.0876	-.0389	-.0211	2519.	
.1290	536.	1384.	2158.	-480.	-3292.	4046.	-.0423	.1551	-.0050	-.0843	-.0391	-.0154	2092.	
.1300	2027.	918.	3004.	1395.	-2461.	3239.	-.0516	.1521	-.0134	-.0816	-.0379	-.0108	1726.	
.1310	3639.	622.	3740.	2882.	-1682.	2292.	-.0616	.1488	-.0224	-.0845	-.0410	-.0146	1624.	
.1320	1732.	703.	3454.	3571.	-1959.	1636.	-.0726	.1462	-.0317	-.0939	-.0429	-.0274	1760.	
.1330	841.	1452.	3237.	3704.	-1361.	1426.	-.0833	.1441	-.0410	-.1054	-.0486	-.0425	1684.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING

.1230	-567.	751.	-2179.	-3350.	-1097.	2920.	.0301	.1233	.0123	-.0782	.0107	.0209	1837.
.1240	-2281.	732.	-2184.	-2846.	-1683.	3324.	.180	.1362	.0128	-.0871	-.0008	.0102	2149.
.1250	-2079.	1062.	-1792.	-4364.	-2053.	3916.	.0060	.1464	.0125	-.0935	-.0146	-.0015	2493.
.1260	1822.	1719.	-461.	-4460.	-1495.	4521.	-.0065	.1531	.0112	-.0942	-.0324	-.0131	2618.
.1270	-175.	2077.	-77.	-2709.	-2773.	4668.	-.0176	.1562	.0077	-.0909	-.0381	-.0208	2639.
.1280	-1512.	1866.	810.	-2275.	-3760.	4494.	-.0317	.1562	.0022	-.0876	-.0389	-.0211	2519.
.1290	536.	1304.	2158.	-480.	-3252.	4048.	-.0423	.1551	-.0050	-.0843	-.0391	-.0154	2092.
.1300	2027.	918.	3004.	1395.	-2461.	3239.	-.0516	.1521	-.0134	-.0816	-.0379	-.0108	1726.
.1310	3639.	622.	3740.	2882.	-1602.	2292.	-.0616	.1488	-.0224	-.0845	-.0410	-.0146	1624.
.1320	1332.	703.	3454.	3571.	-1958.	1830.	-.0726	.1462	-.0317	-.0939	-.0429	-.0274	1760.
.1330	841.	1452.	3237.	3704.	-1361.	1426.	-.0833	.1441	-.0410	-.1054	-.0486	-.0425	1684.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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18.27.30.

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

CONDITION 24  
LOADS

SHOCK  
PRESSURE

ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
29	1	253					.1340	706.	2117.	2786.	4017.	-235.	1290.	-.0924	.1421	-.0496	-.1140	-.0531	-.0520	1696.
							.1350	-765.	2442.	2091.	4659.	549.	1118.	-.0993	.1399	-.0569	-.1203	-.0528	-.0533	1935.
							.1360	1041.	2678.	2558.	5018.	1710.	1272.	-.1039	.1376	-.0615	-.1273	-.0556	-.0501	2188.
							.1370	1677.	3115.	3300.	4738.	1665.	1651.	-.1073	.1346	-.0631	-.1336	-.0589	-.0470	2121.
							.1380	2827.	3470.	4556.	4057.	851.	1799.	-.1102	.1301	-.0618	-.1376	-.0677	-.0451	1813.
							.1390	2289.	3342.	5245.	3277.	-585.	1441.	-.1129	.1237	-.0588	-.1385	-.0732	-.0410	1455.
							.1400	1152.	2741.	4910.	2471.	-1317.	825.	-.1144	.1156	-.0550	-.1361	-.0884	-.0315	1172.
							.1410	3701.	1904.	4463.	1746.	-36.	239.	-.1146	.1058	-.0507	-.1291	-.1026	-.0169	707.
							.1420	2496.	1025.	2817.	1221.	501.	-420.	-.1146	.0947	-.0457	-.1164	-.1110	-.0013	556.
							.1430	-331.	255.	1098.	645.	124.	-992.	-.1140	.0829	-.0391	-.1003	-.1167	.0121	478.
							.1440	-2201.	-333.	76.	-185.	-606.	-1297.	-.1114	.0715	-.0300	-.0833	-.1214	.0240	579.
							.1450	-1574.	-950.	77.	-953.	-1213.	-1521.	-.1054	.0610	-.0182	-.0659	-.1261	.0366	869.
							.1460	1744.	-1793.	1137.	-1289.	-1661.	-1926.	-.0970	.0518	-.0045	-.0488	-.1318	.0493	1144.
							.1470	950.	-2503.	1522.	-1418.	-3486.	-2298.	-.0875	.0443	.0096	-.0334	-.1288	.0576	1769.
							.1480	1126.	-2482.	1890.	-1844.	-4643.	-1562.	-.0773	.0392	.0228	-.0212	-.1231	.0578	2154.
							.1490	1649.	-1601.	1794.	-2532.	-4879.	-887.	-.0664	.0358	.0739	-.0112	-.1134	.0496	2235.
							.1500	-303.	-382.	600.	-3024.	-4983.	273.	-.0553	.0330	.0420	-.0012	-.0970	.0362	2341.
							.1510	-814.	599.	-637.	-3140.	-4152.	1025.	-.0439	.0296	.0475	.0084	-.0811	.0214	2129.
							.1520	-1621.	1196.	-1905.	-3018.	-3339.	1253.	-.0320	.0249	.0508	.0178	-.0638	.0078	1875.
							.1530	-496.	1504.	-2209.	-2717.	-2516.	1087.	-.0200	.0183	.0525	.0279	-.0483	-.0040	1549.
							.1540	-1082.	1664.	-2177.	-2131.	-2824.	638.	-.0083	.0094	.0529	.0411	-.0282	-.0130	1443.
							.1550	-2355.	1729.	-1961.	-1246.	-3471.	154.	.0039	-.0015	.0518	.0572	-.0031	-.0167	1481.
							.1560	784.	1605.	-857.	-117.	-2585.	-217.	.0163	-.0137	.0493	.0744	.0190	-.0131	1042.
							.1570	854.	1181.	-602.	1274.	-2254.	-780.	.0277	-.0208	.0449	.0917	.0452	-.0039	1085.
							.1580	-387.	515.	-821.	2766.	-2148.	-1631.	.0372	-.0400	.0390	.1074	.0691	.0068	1550.
							.1590	608.	-74.	-847.	3904.	-1241.	-2490.	.0448	-.0523	.0320	.1187	.0839	.0142	1924.
							.1600	347.	-341.	-1357.	4412.	-556.	-3160.	.0504	-.0628	.0242	.1241	.0939	.0159	2189.
							.1610	-1414.	-391.	-2220.	4544.	-266.	-3634.	.0545	-.0712	.0160	.1240	.1019	.0136	2337.
							.1620	206.	-364.	-2160.	4645.	873.	-3886.	.0578	-.0772	.0084	.1202	.1039	.0107	2455.
							.1630	174.	-228.	-2283.	4777.	1520.	-3940.	.0603	-.0810	.0014	.1147	.1080	.0088	2559.
							.1640	-28.	13.	-2148.	4796.	1930.	-3713.	.0616	-.0827	-.0043	.1068	.1115	.0077	2554.
							.1650	1721.	321.	-1153.	4598.	2428.	-3234.	.0613	-.0825	-.0081	.0965	.1100	.0059	2457.
							.1660	943.	727.	-434.	4128.	1913.	-2696.	.0590	-.0810	-.0103	.0854	.1080	.0029	2108.
							.1670	1034.	1095.	396.	3418.	1358.	-2197.	.0548	-.0789	-.0110	.0745	.1006	-.0001	1719.
							.1680	621.	1132.	713.	2700.	1080.	-1906.	.0495	-.0765	-.0108	.0640	.0911	-.0004	1395.
							.1690	1255.	776.	871.	2124.	1462.	-1824.	.0434	-.0742	-.0101	.0549	.0791	.0029	1267.
							.1700	1130.	377.	629.	1596.	1877.	-1830.	.0365	-.0722	-.0091	.0497	.0579	.0081	1232.
							.1710	-2292.	11.	-521.	1021.	1548.	-1632.	.0295	-.0704	-.0079	.0487	.0525	.0137	1046.

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

CONDITION 24  
LOADS

SHOCK  
PRESSURE

ENGLISH UNITS

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

.1600	347.	-341.	-1357.	4412.	-556.	-3160.	.0504	-.0628	.0242	.1241	.0939	.0159	2189.
.1610	-1414.	-391.	-2220.	4544.	-266.	-3634.	.0545	-.0712	.0160	.1240	.1019	.0136	2337.
.1620	206.	-364.	-2160.	4645.	873.	-3886.	.0578	-.0772	.0084	.1202	.1039	.0107	2455.
.1630	174.	-228.	-2283.	4777.	1520.	-3940.	.0603	-.0810	.0014	.1147	.1080	.0088	2559.
.1640	-28.	13.	-2148.	4796.	1930.	-3713.	.0616	-.0827	-.0043	.1068	.1115	.0077	2554.
.1650	1721.	321.	-1153.	4598.	2428.	-3234.	.0613	-.0825	-.0081	.0965	.1100	.0059	2457.
.1660	947.	727.	-434.	4128.	1813.	-2696.	.0590	-.0810	-.0103	.0854	.1080	.0029	2108.
.1670	1034.	1095.	396.	3418.	1258.	-2197.	.0548	-.0789	-.0110	.0745	.1006	-.0001	1719.
.1680	621.	1132.	713.	2700.	1080.	-1906.	.0495	-.0765	-.0108	.0640	.0911	-.0004	1395.
.1690	1255.	776.	871.	2124.	1462.	-1824.	.0434	-.0742	-.0101	.0549	.0791	.0029	1267.
.1700	1150.	377.	629.	1596.	1877.	-1630.	.0365	-.0722	-.0091	.0497	.0779	.0081	1232.
.1710	-2292.	11.	-521.	1021.	1548.	-1832.	.0295	-.0704	-.0079	.0487	.0525	.0137	1046.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.30.

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU	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)						
.1720	-1367.	-357.	-723.	444.	2419.	-1756.	.0234	-.0685	-.0057	.0497	.0532	.0200	1213.						
.1730	-891.	-868.	-886.	-15.	2951.	-1801.	.0183	-.0662	-.0024	.0521	.0459	.0266	1387.						
.1740	-1144.	-1436.	-979.	-377.	2896.	-2004.	.0136	-.0633	.0022	.0558	.0395	.0319	1421.						
.1750	391.	-1927.	-488.	-764.	2972.	-2198.	.0088	-.0592	.0081	.0593	.0299	.0345	1514.						
.1760	372.	-2189.	-289.	-1262.	2454.	-2190.	.0037	-.0535	.0151	.0614	.0222	.0334	1414.						
.1770	1272.	-2081.	50.	-1880.	2203.	-1753.	-.0022	-.0460	.0231	.0616	.0135	.0285	1358.						
.1780	264.	-1598.	-196.	-2472.	1589.	-937.	-.0089	-.0371	.0317	.0601	.0079	.0204	1237.						
.1790	151.	-946.	-287.	-2934.	1261.	104.	-.0161	-.0272	.0407	.0568	.0015	.0102	1282.						
.1800	825.	-292.	7.	-3299.	909.	1160.	-.0240	-.0174	.0499	.0518	-.0065	-.0014	1450.						
.1810	-1672.	336.	-103.	-3580.	-627.	2054.	-.0323	-.0084	.0587	.0465	-.0107	-.0135	1675.						
.1820	-1225.	886.	630.	-3699.	-1495.	2811.	-.0401	-.0011	.0667	.0418	-.0184	-.0246	1958.						
.1830	13.	1284.	1537.	-3561.	-2020.	3364.	-.0471	.0039	.0732	.0385	-.0260	-.0337	2126.						
.1840	645.	1502.	2192.	-3226.	-2451.	3694.	-.0537	.0064	.0773	.0365	-.0317	-.0404	2200.						
.1850	859.	1559.	2524.	-2783.	-2645.	3814.	-.0605	.0062	.0788	.0362	-.0364	-.0444	2172.						
.1860	-506.	1471.	2136.	-2257.	-2794.	3709.	-.0671	.0035	.0778	.0379	-.0381	-.0449	2072.						
.1870	85.	1237.	1810.	-1717.	-1966.	3456.	-.0730	-.0014	.0747	.0409	-.0419	-.0419	1738.						
.1880	-668.	896.	969.	-1257.	-1288.	3057.	-.0781	-.0080	.0702	.0443	-.0433	-.0368	1424.						
.1890	-1566.	490.	163.	-921.	-787.	2574.	-.0823	-.0157	.0650	.0472	-.0440	-.0306	1142.						
.1900	-1325.	92.	-83.	-687.	-356.	2068.	-.0850	-.0242	.0596	.0499	-.0448	-.0238	886.						
.1910	-2710.	-207.	-320.	-516.	-717.	1581.	-.0857	-.0330	.0542	.0533	-.0403	-.0161	727.						
.1920	-2888.	-408.	-80.	-363.	-863.	1219.	-.0837	-.0418	.0488	.0569	-.0332	-.0076	617.						
.1930	-2166.	-552.	428.	-148.	-699.	945.	-.0786	-.0503	.0432	.0600	-.0232	.0008	475.						
.1940	-1866.	-630.	828.	122.	-596.	662.	-.0710	-.0583	.0374	.0623	-.0102	.0074	361.						
.1950	-1824.	-593.	1061.	332.	-505.	353.	-.0611	-.0658	.0315	.0632	.0037	.0102	281.						
.1960	-1461.	-448.	1142.	401.	-184.	40.	-.0493	-.0726	.0258	.0625	.0167	.0090	178.						
.1970	-1148.	-289.	945.	422.	328.	-306.	-.0357	-.0789	.0203	.0607	.0289	.0054	247.						
.1980	-1096.	-218.	460.	568.	962.	-720.	-.0208	-.0847	.0151	.0591	.0410	.0014	534.						
.1990	-944.	-266.	-133.	900.	1721.	-1162.	-.0049	-.0902	.0106	.0584	.0527	-.0014	908.						
.2000	-895.	-377.	-708.	1332.	2371.	-1549.	.0115	-.0953	.0070	.0591	.0642	-.0030	1256.						
.2010	-1231.	-479.	-1178.	1745.	2684.	-1837.	.0280	-.0998	.0044	.0615	.0757	-.0042	1481.						
.2020	-1195.	-576.	-1349.	2073.	2829.	-2063.	.0445	-.1038	.0028	.0659	.0854	-.0050	1633.						
.2030	-373.	-760.	-1218.	2289.	2985.	-2337.	.0603	-.1069	.0019	.0716	.0918	-.0055	1777.						
.2040	306.	-1091.	-1113.	2361.	3002.	-2730.	.0748	-.1089	.0015	.0776	.0953	-.0066	1884.						
.2050	370.	-1458.	-1263.	2218.	2907.	-3124.	.0873	-.1093	.0011	.0830	.0965	-.0087	1930.						
.2060	433.	-1620.	-1627.	1762.	3019.	-3267.	.0979	-.1080	.0008	.0876	.0956	-.0130	1920.						
.2070	619.	-1448.	-2143.	960.	3378.	-3014.	.1062	-.1046	.0006	.0911	.0933	-.0198	1857.						
.2080	265.	-1067.	-2801.	-70.	3637.	-2465.	.1123	-.0996	.0007	.0933	.0908	-.0276	1763.						
.2090	-493.	-694.	-3404.	-1130.	3642.	-1819.	.1161	-.0934	.0014	.0942	.0883	-.0346	1695.						

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.30.

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

.1990	-944.	-266.	-133.	900.	1721.	-1162.	-0049	-.0902	.0106	.0584	.0527	-.0014	908.
.2000	-898.	-377.	-708.	1332.	2371.	-1549.	.115	-.0953	.0070	.0591	.0615	-.0030	1256.
.2010	-1231.	-479.	-1178.	1745.	2684.	-1837.	.0280	-.0998	.0044	.0615	.0757	-.0042	1481.
.2020	-1195.	-576.	-1349.	2073.	2829.	-2063.	.0445	-.1036	.0028	.0659	.0854	-.0050	1633.
.2030	-373.	-760.	-1218.	2289.	2985.	-2337.	.0603	-.1069	.0019	.0716	.0918	-.0056	1777.
.2040	306.	-1091.	-1113.	2361.	3002.	-2730.	.0748	-.1089	.0015	.0776	.0953	-.0066	1884.
.2050	370.	-1458.	-1263.	2218.	2907.	-3124.	.0873	-.1093	.0011	.0830	.0965	-.0087	1930.
.2060	433.	-1620.	-1627.	1762.	3019.	-3267.	.0979	-.1080	.0008	.0876	.0956	-.0130	1920.
.2070	619.	-1448.	-2143.	960.	3378.	-3014.	.1062	-.1046	.0006	.0911	.0933	-.0198	1857.
.2080	265.	-1067.	-2801.	-70.	3637.	-2455.	.1123	-.0996	.0007	.0933	.0908	-.0276	1763.
.2090	-493.	-694.	-3404.	-1130.	3642.	-1819.	.1161	-.0934	.0014	.0942	.0883	-.0346	1695.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.30.

S/RV PIPING KEWAUNEE GKW06F 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	29	MEMBER	1	SEQUENCE	253	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.2100	-774.	-424.	-3657.	-2084.	3533.	-1180.	.1180	-.0865	.0029	.0942	.0851	-.0395	1713.		
.110	-576.	-215.	-3518.	-2912.	3308.	-550.	.1183	-.0794	.0051	.0938	.0819	-.0425	1782.		
.2120	-334.	-28.	-3124.	-3610.	2930.	73.	.1170	-.0728	.0076	.0929	.0797	-.0440	1866.		
.2130	-157.	117.	-2654.	-4111.	2555.	634.	.1138	-.0668	.0100	.0917	.0787	-.0442	1959.		
.2140	-181.	164.	-2328.	-4315.	2354.	1042.	.1089	-.0619	.0118	.0903	.0788	-.0426	2016.		
.2150	-562.	66.	-2283.	-4169.	2387.	1234.	.1023	-.0580	.0128	.0885	.0798	-.0390	1990.		
.2160	-1064.	-146.	-2431.	-3730.	2642.	1231.	.0943	-.0551	.0130	.0857	.0808	-.0345	1900.		
.2170	-1323.	-361.	-2559.	-3129.	3000.	1105.	.0851	-.0529	.0129	.0818	.0805	-.0303	1795.		
.2180	-1491.	-482.	-2535.	-2466.	3160.	913.	.0749	-.0512	.0130	.0768	.0782	-.0273	1650.		
.2190	-1747.	-524.	-2298.	-1753.	2934.	673.	.0638	-.0495	.0133	.0708	.0739	-.0251	1398.		
.2200	-1793.	-544.	-1811.	-967.	2452.	417.	.0523	-.0478	.0140	.0641	.0675	-.0227	1071.		
.2210	-1472.	-535.	-1154.	-149.	1907.	197.	.0406	-.0457	.0148	.0568	.0592	-.0198	772.		
.2220	-1048.	-438.	-480.	595.	1332.	54.	.0288	-.0432	.0155	.0497	.0490	-.0167	586.		
.2230	-682.	-244.	119.	1155.	720.	-31.	.0169	-.0403	.0157	.0426	.0368	-.0144	546.		
.2240	-379.	-17.	584.	1481.	116.	-128.	.0047	-.0370	.0153	.0353	.0219	-.0136	598.		
.2250	-157.	157.	849.	1601.	-404.	-315.	-.0077	-.0334	.0142	.0281	.0045	-.0142	675.		
.2260	93.	225.	930.	1591.	-755.	-619.	-.0200	-.0297	.0123	.0215	-.0149	-.0154	749.		
.2270	436.	204.	905.	1497.	-932.	-982.	-.0322	-.0259	.0098	.0159	-.0351	-.0167	810.		
.2280	615.	166.	820.	1327.	-1069.	-1290.	-.0442	-.0217	.0069	.0114	-.0544	-.0179	858.		
.2290	492.	169.	723.	1101.	-1258.	-1455.	-.0556	-.0172	.0040	.0079	-.0714	-.0190	890.		
.2300	359.	197.	719.	872.	-1455.	-1471.	-.0661	-.0122	.0013	.0050	-.0858	-.0199	901.		
.2310	340.	195.	830.	673.	-1636.	-1393.	-.0755	-.0065	-.0009	.0023	-.0975	-.0203	904.		
.2320	186.	143.	953.	479.	-1841.	-1276.	-.0835	-.0001	-.0025	-.0007	-.1063	-.0207	919.		
.2330	-95.	81.	1000.	253.	-1986.	-1125.	-.0899	.0069	-.0037	-.0046	-.1121	-.0215	922.		
.2340	-271.	78.	943.	-10.	-1921.	-902.	-.0944	.0148	-.0046	-.0094	-.1150	-.0237	852.		
.2350	-505.	182.	728.	-295.	-1664.	-573.	-.0968	.0233	-.0053	-.0152	-.1145	-.0275	716.		
.2360	-1027.	395.	348.	-570.	-1330.	-147.	-.0971	.0322	-.0057	-.0219	-.1101	-.0326	584.		
.2370	-1557.	677.	-50.	-797.	-956.	333.	-.0949	.0414	-.0057	-.0290	-.1023	-.0382	517.		
.2380	-1757.	980.	-284.	-945.	-598.	813.	-.0904	.0504	-.0051	-.0360	-.0920	-.0435	555.		
.2390	-1713.	1266.	-278.	-1016.	-416.	1253.	-.0836	.0590	-.0038	-.0427	-.0798	-.0477	668.		
.2400	-1533.	1499.	-37.	-1072.	-489.	1627.	-.0748	.0666	-.0021	-.0490	-.0662	-.0507	798.		
.2410	-1189.	1642.	370.	-998.	-732.	1908.	-.0644	.0732	-.0002	-.0545	-.0520	-.0517	913.		
.2420	-859.	1669.	759.	-904.	-1017.	2067.	-.0529	.0785	.0012	-.0586	-.0376	-.0503	993.		
.2430	-691.	1572.	959.	-744.	-1202.	2089.	-.0406	.0823	.0015	-.0610	-.0231	-.0461	1012.		
.2440	-445.	1352.	970.	-538.	-1147.	1983.	-.0279	.0848	.0006	-.0619	-.0094	-.0395	944.		
.2450	-76.	1039.	865.	-323.	-892.	1765.	-.0152	.0861	-.0016	-.0621	.0028	-.0314	804.		
.2460	51.	688.	645.	-134.	-629.	1452.	-.0029	.0865	-.0050	-.0620	.0134	-.0231	637.		
.2470	-81.	364.	319.	24.	-408.	1091.	.0087	.0863	-.0097	-.0618	.0224	-.0154	467.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.30.

S/RV PIPING KEWAUNEE GKW06F 2 RUP DISK  
2 SAFETY COLD FKM24F--2 PSV

CONDITION 24  
LOADS  
SHOCK  
PRESSURE  
ENGLISH UNIT

INTERNAL FORCES IN THE PIPING

.2370	-1557.	677.	-50.	-797.	-956.	333.	-0949	.0414	-0057	-0290	-1023	-0382	517.
.2380	-1757.	980.	-284.	-945.	-598.	813.	-0904	.0504	-0051	-0360	-0920	-0435	555.
.2390	-1713.	1266.	-278.	-1016.	-416.	1253.	-0836	.0590	-0038	-0427	-0798	-0477	668.
.2400	-1533.	1499.	-37.	-1032.	-489.	1627.	-0748	.0666	-0021	-0490	-0562	-0507	798.
.2410	-1189.	1642.	370.	-998.	-732.	1908.	-0644	.0732	-0002	-0545	-0520	-0517	913.
.2420	-859.	1669.	759.	-904.	-1017.	2067.	-0529	.0785	.0012	-0586	-0376	-0503	993.
.2430	-691.	1572.	959.	-744.	-1202.	2089.	-0406	.0823	.0015	-0610	-0231	-0461	1012.
.2440	-445.	1352.	976.	-538.	-1147.	1983.	-0279	.0848	.0006	-0619	-0094	-0395	944.
.2450	-76.	1039.	865.	-323.	-892.	1785.	-0152	.0861	-0016	-0621	.0028	-0314	804.
.2460	91.	688.	645.	-134.	-629.	1452.	-0029	.0865	-0050	-0620	.0134	-0231	637.
.2470	-81.	364.	315.	24.	-408.	1091.	.0087	.0863	-0097	-0618	.0224	-0154	467.

ADLPIPE PAGE 1283 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.27.30.

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

CONDITION 24  
LOADS  
SHOCK  
PRESSURE  
ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	PX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
29	1	253					.2480	-101.	117.	-25.	162.	-39.	751.	.0193	.0858	-0157	-0618	.0294	-0085	309.
							.2490	356.	-25.	-270.	287.	548.	483.	.0289	.0853	-0227	-0624	.0342	-0027	315.
							.2500	868.	-74.	-438.	398.	1122.	284.	.0371	.0849	-0301	-0640	.0373	.0019	491.
							.2510	1073.	-59.	-550.	496.	1470.	124.	.0436	.0849	-0376	-0667	.0388	.0054	625.
							.2520	1060.	4.	-601.	588.	1607.	-4.	.0483	.0850	-0447	-0704	.0386	.0078	687.
							.2530	1013.	110.	-615.	689.	1660.	-96.	.0514	.0854	-0512	-0747	.0369	.0095	722.
							.2540	1009.	222.	-619.	825.	1707.	-173.	.0529	.0858	-0571	-0791	.0339	.0111	764.
							.2550	1019.	285.	-608.	1028.	1711.	-291.	.0531	.0862	-0621	-0835	.0299	.0129	809.
							.2560	935.	275.	-568.	1310.	1571.	-493.	.0520	.0865	-0663	-0875	.0251	.0150	844.
							.2570	738.	210.	-482.	1648.	1251.	-763.	.0499	.0868	-0593	-0912	.0196	.0170	885.
							.2580	695.	139.	-299.	2010.	839.	-1045.	.0471	.0873	-0713	-0949	.0136	.0185	969.
							.2590	987.	102.	-1.	2354.	420.	-1285.	.0438	.0880	-0722	-0937	.0370	.0194	1089.
							.2600	1367.	99.	325.	2636.	-30.	-1463.	.0399	.0892	-0722	-1028	.0002	.0200	1210.
							.2610	1567.	93.	577.	2845.	-539.	-1591.	.0353	.0909	-0715	-1073	-0066	.0206	1326.
							.2620	1644.	63.	728.	2999.	-1033.	-1676.	.0300	.0934	-0702	-1123	-0137	.0214	1439.
							.2630	1713.	41.	785.	3072.	-1438.	-1684.	.0240	.0964	-0684	-1175	-0211	.0223	1520.
							.2640	1708.	67.	745.	3014.	-1757.	-1577.	.0173	.1002	-0664	-1228	-0288	.0229	1536.
							.2650	1581.	131.	637.	2827.	-2034.	-1367.	.0099	.1045	-0642	-1282	-0368	.0236	1501.
							.2660	1413.	183.	535.	2571.	-2293.	-1100.	.0019	.1093	-0618	-1337	-0450	.0245	1451.
							.2670	1270.	207.	492.	2301.	-2544.	-799.	-0064	.1145	-0592	-1392	-0532	.0257	1413.
							.2680	1237.	238.	550.	2026.	-2775.	-449.	-0149	.1199	-0565	-1447	-0514	.0269	1391.
							.2690	1312.	314.	709.	1720.	-2986.	-22.	-0234	.1253	-0535	-1502	-0692	.0278	1383.
							.2700	1335.	435.	900.	1380.	-3184.	466.	-0319	.1306	-0505	-1555	-0766	.0281	1405.
							.2710	1250.	562.	1038.	1061.	-3318.	947.	-0402	.1354	-0476	-1603	-0834	.0283	1449.
							.2720	1213.	657.	1102.	830.	-3296.	1344.	-0482	.1395	-0448	-1635	-0899	.0285	1467.
							.2730	1271.	708.	1108.	677.	-3125.	1643.	-0558	.1427	-0420	-1652	-0960	.0291	1443.
							.2740	1201.	730.	1071.	522.	-2936.	1897.	-0630	.1450	-0392	-1660	-1011	.0301	1418.
							.2750	1031.	734.	1066.	342.	-2796.	2135.	-0696	.1463	-0363	-1660	-1047	.0318	1418.
							.2760	960.	711.	1173.	210.	-2690.	2320.	-0753	.1466	-0332	-1645	-1066	.0346	1428.
							.2770	986.	651.	1409.	179.	-2629.	2425.	-0801	.1458	-0300	-1613	-1065	.0384	1437.
							.2780	1012.	574.	1746.	204.	-2626.	2490.	-0839	.1440	-0269	-1569	-1041	.0430	1454.
							.2790	1041.	509.	2150.	221.	-2646.	2559.	-0868	.1412	-0239	-1517	-0997	.0476	1480.
							.2800	1045.	472.	2549.	243.	-2647.	2603.	-0886	.1374	-0214	-1456	-0937	.0518	1493.
							.2810	937.	455.	2847.	307.	-2593.	2564.	-0894	.1326	-0195	-1382	-0865	.0551	1469.
							.2820	769.	437.	2999.	396.	-2423.	2456.	-0891	.1270	-0183	-1302	-0785	.0576	1393.
							.2830	627.	404.	3013.	468.	-2112.	2323.	-0877	.1207	-0177	-1222	-0700	.0594	1274.
							.2840	440.	350.	2907.	528.	-1738.	2169.	-0849	.1137	-0177	-1144	-0612	.0608	1135.
							.2850	192.	279.	2723.	615.	-1382.	1966.	-0809	.1062	-0181	-1063	-0574	.0617	995.

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

CONDITION 24  
LOADS  
SHOCK  
PRESSURE  
ENGLISH UNIT

INTERNAL FORCES IN THE PIPING

.2750	1031.	774.	1066.	342.	-2796.	2135.	-.0696	.1463	-.0383	-.1660	-.1047	.0318	1418.
.2760	960.	711.	1173.	210.	-2690.	2320.	-.0753	.1466	-.0332	-.1645	-.1066	.0346	1428.
.2770	986.	651.	1409.	179.	-2629.	2425.	-.0801	.1458	-.0300	-.1613	-.1065	.0384	1437.
.2780	1012.	574.	1746.	204.	-2626.	2490.	-.0839	.1440	-.0269	-.1569	-.1041	.0430	1454.
.2790	1041.	509.	2150.	221.	-2646.	2559.	-.0868	.1412	-.0239	-.1517	-.0997	.0476	1480.
.2800	1045.	472.	2549.	243.	-2647.	2603.	-.0886	.1374	-.0214	-.1456	-.0937	.0518	1493.
.2810	937.	455.	2847.	307.	-2593.	2564.	-.0894	.1326	-.0195	-.1382	-.0865	.0551	1469.
.2820	769.	437.	2999.	396.	-2423.	2456.	-.0891	.1270	-.0183	-.1302	-.0785	.0576	1393.
.2830	627.	404.	3013.	468.	-2112.	2323.	-.0877	.1207	-.0177	-.1222	-.0700	.0594	1274.
.2840	440.	350.	2907.	528.	-1738.	2189.	-.0849	.1137	-.0177	-.1144	-.0612	.0608	1135.
.2850	192.	279.	2723.	615.	-1382.	1986.	-.0809	.1062	-.0181	-.1063	-.0524	.0617	995.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.27.30.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)	
29	1	253																			
.2860	66.	195.	2542.	733.	-1051.	1724.	-.0755	.0981	-.0185	-.0979	-.0441	.0620	862.								
.2870	155.	102.	2412.	856.	-760.	1475.	-.0689	.0897	-.0190	-.0895	-.0367	.0616	749.								
.2880	319.	8.	2310.	970.	-570.	1222.	-.0613	.0810	-.0193	-.0814	-.0306	.0603	666.								
.2890	463.	-70.	2194.	1078.	-496.	942.	-.0531	.0721	-.0195	-.0732	-.0262	.0577	608.								
.2900	656.	-115.	2043.	1165.	-478.	643.	-.0444	.0631	-.0195	-.0649	-.0236	.0536	567.								
.2910	896.	-113.	1837.	1202.	-480.	360.	-.0354	.0541	-.0193	-.0568	-.0229	.0481	539.								
.2920	1076.	-63.	1563.	1175.	-527.	110.	-.0265	.0451	-.0188	-.0488	-.0237	.0413	519.								
.2930	1158.	22.	1243.	1092.	-645.	-112.	-.0178	.0361	-.0179	-.0408	-.0256	.0339	511.								
.2940	1190.	113.	915.	967.	-823.	-312.	-.0094	.0271	-.0165	-.0325	-.0279	.0266	525.								
.2950	1226.	182.	617.	822.	-1030.	-488.	-.0012	.0179	-.0146	-.0237	-.0302	.0201	564.								
.2960	1307.	217.	366.	686.	-1236.	-648.	.0065	.0085	-.0122	-.0140	-.0320	.0149	624.								
.2970	1413.	221.	156.	574.	-1424.	-799.	.0137	-.0012	-.0094	-.0032	-.0328	.0111	695.								
.2980	1450.	202.	-52.	467.	-1580.	-928.	.0203	-.0111	-.0063	.0083	-.0324	.0086	759.								
.2990	1371.	161.	-297.	354.	-1666.	-1023.	.0262	-.0213	-.0030	.0203	-.0304	.0075	797.								
.3000	1214.	97.	-595.	254.	-1639.	-1093.	.0313	-.0315	.0004	.0326	-.0269	.0076	797.								
.3010	1005.	16.	-935.	185.	-1497.	-1159.	.0356	-.0419	.0339	.0450	-.0217	.0087	763.								
.3020	711.	-73.	-1287.	130.	-1295.	-1214.	.0392	-.0523	.0076	.0573	-.0150	.0108	714.								
.3030	341.	-163.	-1599.	65.	-1091.	-1233.	.0422	-.0625	.0113	.0689	-.0068	.0136	661.								
.3040	-36.	-253.	-1817.	13.	-912.	-1225.	.0445	-.0725	.0152	.0800	.0025	.0173	613.								
.3050	-342.	-354.	-1912.	14.	-767.	-1223.	.0463	-.0822	.0193	.0907	.0126	.0218	579.								
.3060	-537.	-471.	-1882.	71.	-652.	-1244.	.0477	-.0916	.0234	.1010	.0229	.0269	564.								
.3070	-629.	-593.	-1753.	146.	-562.	-1270.	.0486	-.1005	.0273	.1104	.0327	.0323	560.								
.3080	-678.	-700.	-1578.	215.	-489.	-1286.	.0490	-.1086	.0310	.1183	.0416	.0374	559.								
.3090	-721.	-779.	-1418.	277.	-403.	-1302.	.0488	-.1160	.0343	.1247	.0490	.0416	558.								
.3100	-741.	-831.	-1308.	336.	-261.	-1330.	.0480	-.1224	.0370	.1296	.0545	.0446	560.								
.3110	-746.	-861.	-1267.	380.	-46.	-1364.	.0465	-.1280	.0391	.1329	.0581	.0461	568.								
.3120	-781.	-868.	-1290.	407.	220.	-1395.	.0444	-.1326	.0405	.1347	.0598	.0462	590.								
.3130	-831.	-854.	-1344.	420.	517.	-1419.	.0414	-.1362	.0412	.1354	.0596	.0447	629.								
.3140	-833.	-832.	-1380.	423.	833.	-1433.	.0378	-.1388	.0414	.1351	.0578	.0421	686.								
.3150	-804.	-817.	-1370.	406.	1130.	-1428.	.0335	-.1405	.0412	.1342	.0547	.0385	749.								
.3160	-783.	-814.	-1307.	360.	1374.	-1400.	.0286	-.1412	.0408	.1328	.0504	.0343	800.								
.3170	-766.	-811.	-1199.	265.	1564.	-1333.	.0230	-.1409	.0402	.1310	.0452	.0293	831.								
.3180	-765.	-795.	-1071.	96.	1714.	-1201.	.0171	-.1395	.0395	.1286	.0395	.0238	841.								
.3190	-827.	-753.	-958.	-164.	1830.	-984.	.0108	-.1370	.0390	.1256	.0336	.0176	836.								
.3200	-1001.	-671.	-892.	-507.	1908.	-687.	.0044	-.1336	.0386	.1221	.0279	.0108	839.								
.3210	-1249.	-541.	-874.	-916.	1958.	-326.	-.0020	-.1295	.0384	.1183	.0224	.0033	877.								
.3220	-1503.	-371.	-884.	-1382.	1991.	80.	-.0079	-.1247	.0384	.1142	.0173	-.0046	973.								
.3230	-1728.	-182.	-898.	-1886.	2002.	512.	-.0132	-.1197	.0386	.1099	.0127	-.0124	1123.								

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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

.3130	-831.	-854.	-1380.	420.	517.	-1419.	.414	-.1362	.0412	.1354	.0596	.0447	629.
.3140	-833.	-832.	-1380.	423.	833.	-1433.	.378	-.1388	.0414	.1351	.0578	.0421	686.
.3150	-804.	-817.	-1370.	406.	1130.	-1428.	.0335	-.1405	.0412	.1342	.0547	.0385	749.
.3160	-783.	-814.	-1307.	360.	1374.	-1400.	.0286	-.1412	.0408	.1328	.0504	.0343	800.
.3170	-766.	-811.	-1199.	265.	1564.	-1233.	.0230	-.1409	.0402	.1310	.0452	.0293	831.
.3180	-765.	-795.	-1071.	96.	1714.	-1201.	.0171	-.1395	.0395	.1286	.0395	.0238	841.
.3190	-827.	-753.	-958.	-164.	1830.	-984.	.0108	-.1370	.0390	.1256	.0336	.0176	836.
.3200	-1001.	-671.	-892.	-507.	1908.	-687.	.0044	-.1336	.0386	.1221	.0279	.0108	839.
.3210	-1249.	-541.	-874.	-916.	1958.	-326.	-.0020	-.1295	.0384	.1183	.0224	.0033	877.
.3220	-1503.	-371.	-884.	-1382.	1991.	80.	-.0079	-.1247	.0384	.1142	.0173	-.0046	973.
.3230	-1728.	-182.	-898.	-1886.	2002.	512.	-.0132	-.1197	.0386	.1099	.0127	-.0124	1123.

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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  
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ENGLISH UNITS

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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU	TIME (SEC)	FX (LB)	FY (LB)	FZ (LB)	MX (FT-LB)	MY (FT-LB)	MZ (FT-LB)	DX (IN)	DY (IN)	DZ (IN)	RX (DEG)	RY (DEG)	RZ (DEG)	STRESS (PSI)
.3240	29	1	253					-1879.	-6.	-888.	-2383.	1985.	927.	-.0176	-.1147	.0391	.1057	.0088	-.0197	1299.
.3250								-1930.	134.	-843.	-2825.	1933.	1277.	-.0211	-.1100	.0399	.1018	.0054	-.0261	1466.
.3260								-1939.	220.	-772.	-3189.	1829.	1536.	-.0235	-.1058	.0410	.0984	.0026	-.0313	1599.
.3270								-1929.	243.	-688.	-3478.	1683.	1708.	-.0248	-.1024	.0422	.0952	.0005	-.0350	1695.
.3280								-1862.	202.	-606.	-3681.	1538.	1797.	-.0250	-.0997	.0435	.0921	-.0011	-.0372	1756.
.3290								-1781.	100.	-550.	-3776.	1402.	1794.	-.0241	-.0979	.0447	.0892	-.0023	-.0379	1770.
.3300								-1768.	-50.	-541.	-3771.	1257.	1693.	-.0223	-.0968	.0458	.0865	-.0031	-.0373	1734.
.3310								-1790.	-226.	-567.	-3692.	1115.	1526.	-.0196	-.0965	.0466	.0836	-.0037	-.0359	1664.
.3320								-1765.	-396.	-603.	-3578.	1006.	1332.	-.0161	-.0967	.0469	.0805	-.0042	-.0340	1584.
.3330								-1680.	-544.	-643.	-3444.	940.	1131.	-.0118	-.0973	.0467	.0771	-.0044	-.0318	1503.
.3340								-1561.	-667.	-690.	-3292.	914.	923.	-.0069	-.0982	.0459	.0736	-.0044	-.0292	1420.
.3350								-1404.	-773.	-745.	-3141.	933.	714.	-.0014	-.0993	.0444	.0702	-.0038	-.0264	1346.
.3360								-1235.	-859.	-818.	-3013.	997.	522.	.0045	-.1005	.0423	.0668	-.0027	-.0234	1291.
.3370								-1090.	-920.	-924.	-2923.	1100.	362.	.0106	-.1016	.0396	.0636	-.0010	-.0201	1262.
.3380								-971.	-962.	-1062.	-2867.	1238.	237.	.0168	-.1027	.0363	.0607	.0015	-.0167	1257.
.3390								-886.	-1001.	-1224.	-2832.	1394.	118.	.0230	-.1037	.0326	.0583	.0048	-.0130	1268.
.3400								-879.	-1054.	-1403.	-2796.	1533.	10.	.0289	-.1046	.0286	.0563	.0087	-.0090	1279.
.3410								-946.	-1121.	-1574.	-2737.	1630.	-99.	.0346	-.1052	.0244	.0548	.0134	-.0050	1279.
.3420								-1009.	-1192.	-1699.	-2643.	1691.	-203.	.0401	-.1056	.0202	.0536	.0186	-.0010	1262.
.3430								-1025.	-1256.	-1757.	-2510.	1720.	-299.	.0453	-.1057	.0161	.0526	.0244	.0024	1227.
.3440								-1028.	-1311.	-1758.	-2326.	1710.	-390.	.0503	-.1052	.0120	.0516	.0305	.0052	1169.
.3450								-1039.	-1359.	-1718.	-2086.	1667.	-488.	.0551	-.1042	.0082	.0502	.0368	.0070	1089.
.3460								-1028.	-1395.	-1657.	-1797.	1624.	-589.	.0597	-.1025	.0044	.0483	.0431	.0077	1000.
.3470								-975.	-1401.	-1597.	-1490.	1613.	-676.	.0641	-.0999	.0009	.0455	.0488	.0071	922.
.3480								-900.	-1364.	-1556.	-1196.	1639.	-729.	.0682	-.0963	-.0025	.0416	.0539	.0051	865.
.3490								-832.	-1280.	-1542.	-934.	1686.	-740.	.0719	-.0918	-.0057	.0366	.0579	.0018	829.
.3500								-784.	-1159.	-1550.	-714.	1733.	-715.	.0751	-.0863	-.0087	.0307	.0607	-.0026	805.
.3510								-731.	-1009.	-1560.	-547.	1768.	-654.	.0778	-.0799	-.0114	.0238	.0621	-.0077	788.
.3520								-629.	-838.	-1550.	-452.	1788.	-553.	.0800	-.0727	-.0138	.0164	.0621	-.0132	773.
.3530								-481.	-656.	-1510.	-438.	1782.	-414.	.0815	-.0650	-.0160	.0085	.0606	-.0186	755.
.3540								-333.	-482.	-1452.	-505.	1737.	-258.	.0823	-.0568	-.0179	.0007	.0578	-.0235	733.
.3550								-198.	-344.	-1393.	-643.	1667.	-111.	.0823	-.0485	-.0195	-.0069	.0539	-.0275	718.
.3560								-58.	-258.	-1350.	-845.	1602.	10.	.0815	-.0402	-.0209	-.0141	.0488	-.0305	727.
.3570								89.	-232.	-1334.	-1099.	1564.	98.	.0798	-.0320	-.0222	-.0206	.0427	-.0321	768.
.3580								222.	-262.	-1349.	-1392.	1552.	153.	.0771	-.0241	-.0232	-.0265	.0360	-.0322	839.
.3590								333.	-341.	-1380.	-1701.	1552.	173.	.0734	-.0166	-.0238	-.0317	.0288	-.0311	927.
.3600								419.	-458.	-1398.	-1996.	1542.	165.	.0688	-.0093	-.0241	-.0362	.0215	-.0289	1014.
.3610								487.	-589.	-1374.	-2251.	1501.	146.	.0631	-.0024	-.0238	-.0402	.0144	-.0257	1087.

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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

.3510	-731.	-1009.	-1560.	-547.	1768.	-654.	.0778	-.0799	-.0114	.0238	.0521	-.0077	788.
.3520	-629.	-838.	-1550.	-452.	1788.	-553.	.0800	-.0727	-.0138	.0164	.0621	-.0132	773.
.3530	-481.	-656.	-1510.	-438.	1782.	-414.	.0815	-.0650	-.0160	.0185	.0506	-.0186	755.
.3540	-333.	-482.	-1452.	-505.	1737.	-258.	.0823	-.0568	-.0179	.0007	.0578	-.0235	733.
.3550	-198.	-344.	-1393.	-643.	1667.	-111.	.0823	-.0485	-.0195	-.0069	.0539	-.0275	718.
.3560	-58.	-258.	-1350.	-845.	1602.	10.	.0815	-.0402	-.0209	-.0141	.0488	-.0305	727.
.3570	89.	-232.	-1334.	-1099.	1564.	98.	.0798	-.0320	-.0222	-.0206	.0427	-.0321	768.
.3580	222.	-262.	-1349.	-1392.	1552.	153.	.0771	-.0241	-.0232	-.0265	.0360	-.0322	839.
.3590	323.	-341.	-1380.	-1701.	1552.	173.	.0734	-.0166	-.0238	-.0317	.0288	-.0311	927.
.3600	419.	-458.	-1398.	-1996.	1542.	165.	.0688	-.0093	-.0241	-.0362	.0215	-.0289	1014.
.3610	487.	-589.	-1374.	-2251.	1501.	146.	.0631	-.0024	-.0238	-.0402	.0144	-.0257	1087.

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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

SECTION	MEMBER	SEQUENCE	LOCATION	END	TYPE	RU	TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS
29	1	253					(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
.3620	555.	-708.	-1278.	-2450.	1420.	138.	.0566	.0042	-.0230	-.0437	.0078	-.0221	1138.							
.3630	621.	-794.	-1097.	-2582.	1293.	154.	.0491	.0106	-.0216	-.0470	.0019	-.0182	1160.							
.3640	650.	-836.	-837.	-2638.	1114.	198.	.0408	.0169	-.0198	-.0501	-.0030	-.0145	1152.							
.3650	623.	-833.	-518.	-2607.	895.	261.	.0318	.0229	-.0175	-.0532	-.0070	-.0111	1111.							
.3660	569.	-786.	-158.	-2488.	663.	334.	.0222	.0288	-.0150	-.0560	-.0100	-.0083	1042.							
.3670	502.	-698.	223.	-2287.	440.	408.	.0121	.0343	-.0125	-.0585	-.0122	-.0061	949.							
.3680	400.	-578.	599.	-2018.	230.	479.	.0019	.0395	-.0099	-.0607	-.0136	-.0044	837.							
.3690	265.	-441.	957.	-1691.	31.	543.	-.0084	.0444	-.0076	-.0624	-.0145	-.0032	713.							
.3700	135.	-302.	1292.	-1314.	-153.	593.	-.0186	.0488	-.0054	-.0636	-.0150	-.0022	582.							
.3710	27.	-167.	1600.	-906.	-332.	626.	-.0282	.0528	-.0036	-.0641	-.0154	-.0013	461.							
.3720	-60.	-36.	1872.	-495.	-516.	649.	-.0373	.0564	-.0021	-.0642	-.0159	-.0006	388.							
.3730	-117.	94.	2096.	-117.	-705.	672.	-.0455	.0596	-.0009	-.0641	-.0169	.0001	394.							
.3740	-137.	215.	2259.	209.	-888.	695.	-.0528	.0625	-.0002	-.0637	-.0185	.0007	460.							
.3750	-130.	315.	2346.	475.	-1061.	699.	-.0590	.0649	.0001	-.0634	-.0210	.0012	544.							
.3760	-96.	395.	2351.	679.	-1220.	674.	-.0642	.0670	.0000	-.0629	-.0244	.0015	622.							
.3770	-27.	466.	2287.	804.	-1362.	631.	-.0682	.0687	-.0004	-.0627	-.0287	.0018	683.							
.3780	72.	536.	2169.	843.	-1494.	587.	-.0710	.0701	-.0011	-.0627	-.0337	.0019	728.							
.3790	184.	601.	2020.	810.	-1631.	542.	-.0727	.0711	-.0019	-.0632	-.0391	.0021	762.							
.3800	313.	648.	1863.	731.	-1780.	485.	-.0732	.0718	-.0027	-.0640	-.0447	.0025	796.							
.3810	473.	673.	1718.	625.	-1940.	414.	-.0726	.0721	-.0035	-.0653	-.0501	.0033	835.							
.3820	647.	687.	1592.	506.	-2108.	336.	-.0711	.0720	-.0041	-.0667	-.0550	.0045	880.							
.3830	806.	698.	1475.	386.	-2267.	253.	-.0686	.0714	-.0047	-.0681	-.0589	.0061	928.							
.3840	934.	697.	1350.	278.	-2391.	161.	-.0653	.0703	-.0051	-.0694	-.0616	.0082	968.							
.3850	1017.	671.	1200.	204.	-2451.	48.	-.0613	.0686	-.0055	-.0704	-.0627	.0110	987.							
.3860	1050.	617.	1018.	177.	-2434.	-100.	-.0567	.0664	-.0060	-.0707	-.0620	.0144	980.							
.3870	1043.	538.	814.	191.	-2340.	-275.	-.0517	.0636	-.0064	-.0704	-.0594	.0185	948.							
.3880	1015.	439.	614.	227.	-2178.	-457.	-.0462	.0603	-.0069	-.0695	-.0548	.0234	898.							
.3890	978.	315.	443.	283.	-1973.	-643.	-.0405	.0566	-.0073	-.0679	-.0483	.0289	840.							
.3900	937.	163.	321.	384.	-1753.	-845.	-.0346	.0527	-.0078	-.0653	-.0400	.0350	796.							
.3910	905.	-3.	256.	538.	-1537.	-1067.	-.0286	.0485	-.0082	-.0614	-.0302	.0413	781.							
.3920	883.	-154.	245.	721.	-1328.	-1276.	-.0228	.0443	-.0086	-.0565	-.0193	.0475	794.							
.3930	859.	-266.	270.	906.	-1123.	-1433.	-.0171	.0403	-.0089	-.0509	-.0077	.0533	816.							
.3940	816.	-332.	307.	1086.	-923.	-1533.	-.0118	.0367	-.0093	-.0449	.0040	.0583	840.							
.3950	752.	-357.	336.	1272.	-727.	-1597.	-.0069	.0335	-.0098	-.0387	.0154	.0624	870.							
.3960	691.	-343.	350.	1460.	-532.	-1639.	-.0025	.0308	-.0103	-.0324	.0259	.0651	907.							
.3970	663.	-287.	352.	1634.	-333.	-1649.	.0013	.0287	-.0109	-.0265	.0350	.0665	941.							
.3980	680.	-192.	346.	1789.	-129.	-1623.	.0045	.0272	-.0115	-.0209	.0427	.0666	971.							
.3990	726.	-74.	332.	1946.	72.	-1578.	.0070	.0263	-.0121	-.0157	.0488	.0655	1006.							

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.3880	1015.	439.	614.	227.	-2178.	-457.	-.0462	.0603	-.0069	-.0695	-.0548	.0234	898.
.3890	978.	315.	443.	283.	-1973.	-643.	-.0405	.0566	-.0073	-.0679	-.0483	.0289	840.
.3900	937.	163.	321.	384.	-1753.	-845.	-.0346	.0527	-.0078	-.0653	-.0400	.0350	796.
.3910	905.	-3.	256.	538.	-1537.	-1067.	-.0286	.0485	-.0082	-.0614	-.0302	.0413	781.
.3920	883.	-154.	245.	721.	-1320.	-1276.	-.0228	.0443	-.0086	-.0565	-.0193	.0475	794.
.3930	859.	-266.	270.	906.	-1123.	-1433.	-.0171	.0403	-.0089	-.0509	-.0077	.0533	816.
.3940	816.	-332.	307.	1006.	-927.	-1533.	-.0118	.0367	-.0093	-.0449	.0040	.0583	840.
.3950	752.	-357.	336.	1272.	-727.	-1597.	-.0069	.0335	-.0098	-.0387	.0154	.0624	870.
.3960	691.	-343.	350.	1460.	-532.	-1639.	-.0025	.0308	-.0103	-.0324	.0259	.0651	907.
.3970	663.	-287.	352.	1634.	-333.	-1649.	.0013	.0287	-.0109	-.0265	.0350	.0665	941.
.3980	680.	-192.	346.	1789.	-129.	-1623.	.0045	.0272	-.0115	-.0209	.0427	.0666	971.
.3990	726.	-74.	332.	1946.	72.	-1578.	.0070	.0263	-.0121	-.0157	.0488	.0655	1006.

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SECTION	29	MEMBER	1	SEQUENCE	253	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ									
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.4000	782.	44.	307.	2125.	257.	-1539.	.0087	.0258	-.0126	-.0108	.0532	.0635	1058.		

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)
.0620	-1202.	-1158.	-3328.	-9324.	3579.	1174.	.1478	-.1101	.0351	.1360	.0949	.0104	4035.

SECTION	29	MEMBER	2	SEQUENCE	844	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ									
(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	4.	1.	6.	-1.	-3.	1.	-.0000	.0000	-.0000	.0000	.0000	-.0000	1.		
.0020	30.	4.	43.	-8.	-25.	4.	-.0000	.0000	-.0000	.0000	.0001	-.0000	6.		
.0030	84.	4.	125.	-10.	-77.	3.	-.0001	-.0000	-.0001	.0001	.0002	-.0001	17.		
.0040	145.	-13.	244.	8.	-163.	-13.	-.0002	.0000	-.0002	.0003	.0005	.0004	36.		
.0050	205.	-47.	379.	54.	-263.	-48.	-.0003	.0000	-.0006	.0005	.0011	.0009	61.		
.0060	289.	-86.	530.	116.	-354.	-85.	-.0006	.0002	-.0012	.0007	.0018	.0016	85.		
.0070	338.	-110.	717.	172.	-516.	-106.	-.0010	.0004	-.0021	.0008	.0030	.0022	123.		
.0080	224.	-113.	969.	217.	-901.	-105.	-.0015	.0009	-.0034	.0007	.0050	.0027	208.		
.0090	-42.	-122.	1270.	302.	-1463.	-104.	-.0018	.0016	-.0053	.0005	.0085	.0037	333.		
.0100	-312.	-170.	1553.	492.	-1951.	-132.	-.0016	.0026	-.0079	.0001	.0137	.0053	448.		
.0110	-453.	-249.	1748.	785.	-2136.	-183.	-.0005	.0040	-.0115	-.0010	.0204	.0075	508.		
.0120	-374.	-305.	1822.	1100.	-1920.	-223.	.0018	.0059	-.0160	-.0032	.0279	.0090	495.		
.0130	-129.	-288.	1747.	1346.	-1369.	-233.	.0051	.0085	-.0212	-.0070	.0349	.0087	430.		
.0140	1.	-206.	1410.	1524.	-658.	-246.	.0093	.0118	-.0269	-.0129	.0408	.0061	373.		
.0150	-218.	-92.	711.	1680.	103.	-275.	.0142	.0158	-.0327	-.0208	.0451	.0015	379.		
.0160	-838.	77.	-348.	1801.	865.	-257.	.0200	.0203	-.0379	-.0305	.0480	-.0046	448.		
.0170	-1874.	377.	-1655.	1782.	1496.	-69.	.0267	.0252	-.0417	-.0413	.0502	-.0120	518.		
.0180	-3004.	837.	-2920.	1536.	1981.	344.	.0349	.0301	-.0434	-.0522	.0524	-.0199	563.		
.0190	-3550.	1347.	-3660.	1103.	2374.	875.	.0451	.0344	-.0425	-.0618	.0550	-.0265	614.		
.0200	-3373.	1719.	-3358.	612.	2193.	1310.	.0576	.0375	-.0390	-.0682	.0599	-.0296	584.		
.0210	-2543.	1654.	-2009.	414.	1347.	1311.	.0724	.0388	-.0338	-.0702	.0687	-.0261	428.		
.0220	1342.	846.	54.	908.	2459.	549.	.0890	.0382	-.0282	-.0679	.0753	-.0148	596.		
.0230	6664.	-509.	2025.	1839.	4953.	-801.	.1043	.0366	-.0229	-.0637	.0768	-.0003	1189.		

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