

50-305

RESPONSE TO NUREG-0737 ITEM II.D.1

Docket # *50-305*

Control # *8403280048*

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

.2190	85.	-311.	-58.	-205.	15.	788.	-.0074	-.0136	.0221	.0074	.0137	-.1012	3317.
.2200	379.	-173.	-221.	-218.	30.	731.	-.0054	-.0147	.0194	.0119	.0143	-.0912	3185.
.2210	591.	-67.	-308.	-177.	6.	653.	-.0043	-.0155	.0138	.0152	.0136	-.0808	2826.
.2220	710.	15.	-330.	-100.	-39.	517.	-.0037	-.0162	.0067	.0180	.0123	-.0709	2371.
.2230	743.	72.	-312.	-34.	-78.	461.	-.0029	-.0167	-.0001	.0208	.0111	-.0620	1957.
.2240	695.	96.	-277.	18.	-79.	375.	-.0011	-.0171	-.0047	.0229	.0104	-.0540	1602.
.2250	563.	91.	-236.	39.	-25.	306.	.0023	-.0174	-.0064	.0240	.0103	-.0465	1292.
.2260	358.	77.	-189.	30.	72.	264.	.0070	-.0175	-.0057	.0251	.0108	-.0400	1147.
.2270	119.	54.	-137.	9.	183.	243.	.0123	-.0176	-.0036	.0265	.0114	-.0349	1272.

ADLPIPE PAGE 2098

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.14.

S/RV PIPING KEWAUNEE GKM08F 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	55	MEMBER	2	SEQUENCE	75	LOCATION	END	TYPE	RE						
TIME	FX	FY	FZ	HX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.2280	-107.	11.	-79.	6.	281.	224.	.0174	-.0175	-.0018	.0266	.0105	-.0311	1500.		
.2290	-293.	-49.	-9.	44.	343.	190.	.0215	-.0171	-.0016	.0249	.0072	-.0279	1647.		
.2300	-427.	-107.	73.	128.	354.	144.	.0243	-.0166	-.0038	.0227	.0016	-.0255	1680.		
.2310	-494.	-144.	154.	243.	315.	95.	.0259	-.0159	-.0079	.0211	-.0056	-.0239	1707.		
.2320	-473.	-159.	207.	371.	253.	46.	.0267	-.0152	-.0126	.0197	-.0139	-.0224	1883.		
.2330	-352.	-159.	204.	488.	196.	0.	.0273	-.0142	-.0163	.0179	-.0227	-.0206	2196.		
.2340	-146.	-134.	139.	571.	158.	-29.	.0283	-.0130	-.0177	.0163	-.0304	-.0186	2477.		
.2350	114.	-73.	20.	608.	147.	-35.	.0301	-.0115	-.0163	.0155	-.0360	-.0161	2613.		
.2360	399.	19.	-138.	601.	162.	-28.	.0324	-.0096	-.0120	.0146	-.0394	-.0129	2599.		
.2370	699.	122.	-317.	561.	194.	-22.	.0351	-.0073	-.0055	.0130	-.0410	-.0091	2479.		
.2380	999.	228.	-498.	499.	223.	-27.	.0372	-.0043	.0020	.0110	-.0410	-.0053	2283.		
.2390	1271.	341.	-653.	424.	232.	-50.	.0383	-.0007	.0094	.0093	-.0397	-.0016	2029.		
.2400	1478.	460.	-759.	346.	218.	-100.	.0380	.0034	.0159	.0080	-.0378	.0022	1755.		
.2410	1596.	572.	-802.	265.	183.	-180.	.0365	.0081	.0212	.0070	-.0357	.0057	1539.		
.2420	1620.	669.	-785.	178.	135.	-282.	.0337	.0132	.0253	.0066	-.0333	.0085	1500.		
.2430	1555.	746.	-720.	78.	86.	-394.	.0300	.0187	.0287	.0069	-.0307	.0101	1712.		
.2440	1412.	795.	-619.	-36.	45.	-510.	.0256	.0242	.0316	.0078	-.0278	.0104	2142.		
.2450	1192.	818.	-487.	-159.	18.	-629.	.0210	.0295	.0341	.0090	-.0248	.0100	2707.		
.2460	904.	825.	-326.	-282.	3.	-744.	.0162	.0344	.0359	.0107	-.0216	.0094	3321.		
.2470	570.	820.	-144.	-395.	-8.	-851.	.0114	.0385	.0367	.0129	-.0183	.0087	3916.		
.2480	223.	793.	47.	-485.	-18.	-948.	.0067	.0416	.0361	.0148	-.0152	.0078	4444.		
.2490	-106.	734.	232.	-542.	-27.	-1033.	.0023	.0437	.0340	.0160	-.0128	.0066	4868.		
.2500	-410.	650.	406.	-561.	-37.	-1098.	-.0015	.0445	.0304	.0163	-.0111	.0054	5150.		
.2510	-689.	552.	567.	-544.	-44.	-1136.	-.0044	.0439	.0255	.0163	-.0099	.0044	5261.		
.2520	-937.	439.	706.	-495.	-43.	-1139.	-.0060	.0418	.0196	.0158	-.0092	.0035	5186.		
.2530	-1135.	306.	810.	-415.	-26.	-1105.	-.0059	.0383	.0132	.0142	-.0092	.0027	4928.		
.2540	-1266.	152.	870.	-310.	5.	-1032.	-.0040	.0336	.0067	.0112	-.0098	.0021	4498.		
.2550	-1326.	-13.	884.	-182.	46.	-920.	-.0005	.0277	.0003	.0073	-.0107	.0015	3917.		
.2560	-1320.	-177.	856.	-33.	95.	-773.	.0046	.0208	-.0060	.0027	-.0119	.0014	3252.		
.2570	-1254.	-335.	794.	134.	149.	-601.	.0111	.0132	-.0122	-.0027	-.0135	.0021	2645.		
.2580	-1124.	-488.	699.	316.	201.	-413.	.0187	.0052	-.0183	-.0087	-.0156	.0035	2327.		
.2590	-923.	-628.	569.	501.	247.	-216.	.0269	-.0030	-.0240	-.0149	-.0180	.0054	2499.		
.2600	-668.	-747.	413.	680.	288.	-21.	.0354	-.0110	-.0291	-.0209	-.0210	.0084	3083.		
.2610	-390.	-836.	247.	845.	326.	164.	.0441	-.0185	-.0336	-.0264	-.0243	.0127	3840.		
.2620	-113.	-892.	82.	986.	360.	333.	.0526	-.0253	-.0372	-.0310	-.0279	.0182	4596.		
.2630	153.	-919.	-77.	1096.	389.	481.	.0607	-.0310	-.0400	-.0345	-.0315	.0243	5254.		
.2640	408.	-923.	-228.	1173.	411.	600.	.0678	-.0354	-.0417	-.0372	-.0352	.0311	5759.		
.2650	636.	-903.	-360.	1214.	426.	681.	.0737	-.0383	-.0425	-.0392	-.0388	.0385	6076.		

ADLPIPE PAGE 2099

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.14.

S/RV PIPING KEWAUNEE GKM08F 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	55	MEMBER	2	SEQUENCE	75	LOCATION	END	TYPE	RE
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.2570	-1254.	-335.	794.	134.	149.	-601.	.0111	.0132	-.0122	-.0027	-.0119	.0014	2645.
.2580	-1124.	-488.	699.	316.	201.	-413.	.0187	.0052	-.0183	-.0087	-.0156	.0035	2327.
.2590	-923.	-628.	569.	501.	247.	-216.	.0269	-.0030	-.0240	-.0149	-.0180	.0054	2499.
.2600	-668.	-747.	413.	670.	288.	-21.	.0354	-.0110	-.0291	-.0209	-.0210	.0084	3083.
.2610	-390.	-836.	747.	645.	326.	164.	.0441	-.0185	-.0336	-.0264	-.0243	.0127	3840.
.2620	-113.	-892.	82.	986.	360.	333.	.0526	-.0253	-.0372	-.0310	-.0279	.0182	4596.
.2630	153.	-919.	-77.	1096.	389.	481.	.0607	-.0310	-.0400	-.0345	-.0315	.0243	5254.
.2640	408.	-923.	-228.	1173.	411.	600.	.0678	-.0354	-.0417	-.0372	-.0352	.0311	5759.
.2650	636.	-903.	-360.	1214.	426.	681.	.0737	-.0383	-.0425	-.0392	-.0388	.0385	6076.

ADLPIPE PAGE 2099

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.14.

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	55	MEMBER	2	SEQUENCE	75	LOCATION	END	TYPE	RE						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	FX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.2660	808.	-854.	-458.	1220.	431.	725.	.0783	-.0397	-.0425	-.0399	-.0422	.0464	6188.		
.2670	907.	-775.	-512.	1190.	422.	731.	.0815	-.0394	-.0420	-.0393	-.0448	.0545	6089.		
.2680	942.	-677.	-528.	1127.	402.	699.	.0832	-.0377	-.0408	-.0376	-.0465	.0626	5785.		
.2690	930.	-567.	-517.	1033.	375.	631.	.0833	-.0344	-.0390	-.0353	-.0474	.0706	5289.		
.2700	870.	-445.	-482.	911.	343.	534.	.0820	-.0299	-.0364	-.0324	-.0474	.0785	4633.		
.2710	752.	-309.	-420.	763.	310.	420.	.0794	-.0243	-.0332	-.0287	-.0460	.0857	3858.		
.2720	588.	-169.	-340.	594.	276.	298.	.0760	-.0178	-.0297	-.0243	-.0434	.0918	3005.		
.2730	412.	-36.	-257.	413.	242.	168.	.0717	-.0108	-.0259	-.0198	-.0398	.0969	2117.		
.2740	250.	96.	-181.	228.	206.	30.	.0665	-.0035	-.0222	-.0152	-.0358	.1017	1288.		
.2750	101.	240.	-111.	48.	164.	-110.	.0605	.0035	-.0189	-.0102	-.0312	.1065	849.		
.2760	-38.	390.	-44.	-119.	113.	-242.	.0541	.0102	-.0166	-.0044	-.0262	.1108	1222.		
.2770	-150.	528.	13.	-267.	55.	-364.	.0476	.0164	-.0152	.0010	-.0210	.1141	1898.		
.2780	-200.	647.	41.	-392.	-5.	-475.	.0411	.0218	-.0144	.0055	-.0160	.1169	2568.		
.2790	-180.	759.	32.	-496.	-63.	-565.	.0348	.0263	-.0139	.0094	-.0114	.1194	3149.		
.2800	-111.	870.	-8.	-584.	-115.	-625.	.0291	.0296	-.0136	.0132	-.0068	.1214	3602.		
.2810	-15.	968.	-69.	-658.	-155.	-652.	.0245	.0318	-.0133	.0166	-.0024	.1224	3919.		
.2820	117.	1041.	-156.	-716.	-180.	-652.	.0210	.0329	-.0130	.0189	.0013	.1226	4113.		
.2830	298.	1096.	-271.	-760.	-192.	-628.	.0181	.0330	-.0127	.0204	.0037	.1222	4193.		
.2840	502.	1138.	-395.	-787.	-202.	-580.	.0158	.0319	-.0127	.0217	.0047	.1208	4168.		
.2850	683.	1155.	-498.	-791.	-219.	-514.	.0140	.0300	-.0136	.0224	.0045	.1181	4039.		
.2860	816.	1135.	-563.	-764.	-242.	-439.	.0129	.0275	-.0157	.0218	.0028	.1138	3812.		
.2870	906.	1078.	-591.	-709.	-273.	-356.	.0122	.0244	-.0187	.0196	-.0005	.1082	3502.		
.2880	955.	988.	-588.	-635.	-311.	-262.	.0117	.0208	-.0220	.0163	-.0046	.1010	3145.		
.2890	940.	862.	-548.	-548.	-346.	-157.	.0118	.0170	-.0251	.0115	-.0090	.0922	2783.		
.2900	833.	699.	-469.	-459.	-362.	-42.	.0132	.0130	-.0274	.0049	-.0130	.0825	2445.		
.2910	639.	512.	-361.	-375.	-351.	87.	.0159	.0088	-.0285	-.0031	-.0164	.0719	2174.		
.2920	389.	309.	-240.	-303.	-316.	233.	.0196	.0046	-.0282	-.0117	-.0186	.0606	2070.		
.2930	114.	87.	-121.	-241.	-261.	388.	.0239	.0004	-.0267	-.0209	-.0198	.0487	2195.		
.2940	-172.	-149.	-3.	-178.	-192.	539.	.0284	-.0036	-.0248	-.0310	-.0205	.0369	2501.		
.2950	-463.	-377.	117.	-106.	-123.	682.	.0329	-.0075	-.0233	-.0411	-.0207	.0256	2923.		
.2960	-729.	-584.	232.	-20.	-69.	814.	.0367	-.0112	-.0229	-.0502	-.0204	.0147	3412.		
.2970	-925.	-772.	324.	81.	-39.	929.	.0392	-.0146	-.0238	-.0584	-.0199	.0044	3895.		
.2980	-1023.	-942.	377.	194.	-24.	1014.	.0406	-.0175	-.0256	-.0663	-.0196	-.0044	4309.		
.2990	-1036.	-1074.	390.	308.	-19.	1070.	.0408	-.0200	-.0281	-.0732	-.0190	-.0110	4645.		
.3000	-986.	-1145.	366.	405.	-18.	1106.	.0402	-.0219	-.0305	-.0776	-.0174	-.0155	4917.		
.3010	-877.	-1161.	302.	473.	-12.	1124.	.0390	-.0233	-.0324	-.0795	-.0145	-.0181	5091.		
.3020	-699.	-1141.	190.	508.	5.	1113.	.0371	-.0237	-.0329	-.0802	-.0107	-.0185	5105.		
.3030	-463.	-1084.	41.	509.	33.	1066.	.0344	-.0232	-.0321	-.0798	-.0063	-.0165	4930.		

ADLPIPE PAGE 2100

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.14.

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	55	MEMBER	2	SEQUENCE	75	LOCATION	END	TYPE	RE
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.2570	-1254.	-335.	794.	134.	149.	-601.	.1111	.0132	-.0122	-.0027	-.0119	.0014	2645.
.2580	-1124.	-488.	699.	316.	201.	-413.	.1187	.0052	-.0183	-.0087	-.0156	.0035	2327.
.2590	-923.	-628.	569.	501.	247.	-216.	.0269	-.0030	-.0240	-.0149	-.0180	.0054	2499.
.2600	-668.	-747.	413.	680.	288.	-21.	.0354	-.0110	-.0291	-.0209	-.0210	.0084	3083.
.2610	-390.	-836.	247.	645.	326.	164.	.0441	-.0185	-.0336	-.0264	-.0243	.0127	3840.
.2620	-113.	-892.	82.	986.	360.	333.	.0526	-.0253	-.0372	-.0310	-.0279	.0182	4596.
.2630	153.	-919.	-77.	1096.	389.	481.	.0607	-.0310	-.0400	-.0345	-.0315	.0243	5254.
.2640	408.	-923.	-228.	1173.	411.	600.	.0678	-.0354	-.0417	-.0372	-.0352	.0311	5759.
.2650	636.	-903.	-360.	1214.	426.	681.	.0737	-.0383	-.0425	-.0392	-.0388	.0385	6076.

ADLPIPE PAGE 2099

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.14.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	55	MEMBER	2	SEQUENCE	75	LOCATION	END	TYPE	RE						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.2660	808.	-854.	-458.	1220.	431.	725.	.0783	-.0397	-.0425	-.0399	-.0422	.0464	6188.		
.2670	907.	-775.	-512.	1190.	422.	731.	.0815	-.0394	-.0420	-.0393	-.0448	.0545	6089.		
.2680	942.	-677.	-528.	1127.	402.	699.	.0832	-.0377	-.0408	-.0376	-.0465	.0626	5785.		
.2690	930.	-567.	-517.	1033.	375.	631.	.0833	-.0344	-.0390	-.0353	-.0474	.0706	5289.		
.2700	870.	-445.	-482.	911.	343.	534.	.0820	-.0299	-.0364	-.0324	-.0474	.0785	4633.		
.2710	752.	-309.	-420.	763.	310.	420.	.0794	-.0243	-.0332	-.0287	-.0460	.0857	3858.		
.2720	588.	-169.	-340.	594.	276.	298.	.0760	-.0178	-.0297	-.0243	-.0434	.0918	3005.		
.2730	412.	-36.	-257.	413.	242.	168.	.0717	-.0108	-.0259	-.0198	-.0398	.0969	2117.		
.2740	250.	96.	-181.	228.	206.	30.	.0665	-.0035	-.0222	-.0152	-.0358	.1017	1288.		
.2750	101.	240.	-111.	48.	164.	-110.	.0605	.0035	-.0189	-.0102	-.0312	.1065	849.		
.2760	-38.	390.	-44.	-119.	113.	-242.	.0541	.0102	-.0166	-.0044	-.0262	.1108	1222.		
.2770	-150.	528.	13.	-267.	55.	-364.	.0476	.0164	-.0152	.0010	-.0210	.1141	1898.		
.2780	-200.	647.	41.	-392.	-5.	-475.	.0411	.0218	-.0144	.0055	-.0160	.1169	2568.		
.2790	-180.	759.	32.	-496.	-63.	-565.	.0348	.0263	-.0139	.0094	-.0114	.1194	3149.		
.2800	-111.	870.	-8.	-584.	-115.	-625.	.0291	.0296	-.0136	.0132	-.0068	.1214	3602.		
.2810	-15.	968.	-69.	-658.	-155.	-652.	.0245	.0318	-.0133	.0166	-.0024	.1224	3919.		
.2820	117.	1041.	-156.	-716.	-180.	-652.	.0210	.0329	-.0130	.0189	.0013	.1226	4113.		
.2830	298.	1096.	-271.	-760.	-192.	-628.	.0181	.0330	-.0127	.0204	.0037	.1222	4193.		
.2840	502.	1138.	-395.	-787.	-202.	-580.	.0158	.0319	-.0127	.0217	.0047	.1208	4168.		
.2850	683.	1155.	-498.	-791.	-219.	-514.	.0140	.0300	-.0136	.0224	.0045	.1181	4039.		
.2860	816.	1135.	-563.	-764.	-242.	-439.	.0129	.0275	-.0157	.0218	.0028	.1138	3812.		
.2870	906.	1078.	-591.	-709.	-273.	-356.	.0122	.0244	-.0187	.0196	-.0005	.1082	3502.		
.2880	955.	988.	-588.	-635.	-311.	-262.	.0117	.0208	-.0220	.0163	-.0046	.1010	3145.		
.2890	940.	862.	-548.	-548.	-346.	-157.	.0118	.0170	-.0251	.0115	-.0090	.0922	2783.		
.2900	833.	699.	-469.	-459.	-362.	-42.	.0132	.0130	-.0274	.0049	-.0130	.0825	2445.		
.2910	639.	512.	-361.	-375.	-351.	87.	.0159	.0088	-.0285	-.0031	-.0164	.0719	2174.		
.2920	389.	309.	-240.	-303.	-316.	233.	.0196	.0046	-.0282	-.0117	-.0186	.0606	2070.		
.2930	114.	87.	-121.	-241.	-261.	388.	.0239	.0004	-.0267	-.0209	-.0198	.0487	2195.		
.2940	-172.	-149.	-3.	-178.	-192.	539.	.0284	-.0036	-.0248	-.0310	-.0205	.0369	2501.		
.2950	-463.	-377.	117.	-106.	-123.	682.	.0329	-.0075	-.0233	-.0411	-.0207	.0256	2923.		
.2960	-729.	-584.	232.	-20.	-69.	814.	.0367	-.0112	-.0229	-.0502	-.0204	.0147	3412.		
.2970	-925.	-772.	324.	81.	-39.	929.	.0392	-.0146	-.0238	-.0584	-.0199	.0044	3895.		
.2980	-1023.	-942.	377.	194.	-24.	1014.	.0406	-.0175	-.0256	-.0663	-.0196	-.0044	4309.		
.2990	-1036.	-1074.	390.	308.	-19.	1070.	.0408	-.0200	-.0281	-.0732	-.0190	-.0110	4645.		
.3000	-986.	-1145.	366.	405.	-18.	1106.	.0402	-.0219	-.0305	-.0776	-.0174	-.0155	4917.		
.3010	-877.	-1161.	302.	473.	-12.	1124.	.0390	-.0233	-.0324	-.0795	-.0145	-.0181	5091.		
.3020	-699.	-1141.	190.	508.	5.	1113.	.0371	-.0237	-.0329	-.0802	-.0107	-.0185	5105.		
.3030	-463.	-1084.	41.	509.	33.	1066.	.0344	-.0232	-.0321	-.0798	-.0063	-.0165	4930.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.14.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION 55 MEMBER 2 SEQUENCE 75 LOCATION END TYPE RE

.2950	-463.	-377.	117.	-106.	-123.	682.	.0329	-.0075	-.0233	-.0411	-.0207	.0256	2923.
.2960	-729.	-584.	232.	-70.	-69.	814.	.0367	-.0112	-.0229	-.0502	-.0204	.0147	3412.
.2970	-925.	-772.	324.	81.	-39.	929.	.0392	-.0146	-.0238	-.0584	-.0199	.0044	3895.
.2980	-1023.	-942.	377.	104.	-24.	1014.	.0406	-.0175	-.0256	-.0663	-.0196	-.0044	4309.
.2990	-1036.	-1074.	390.	302.	-19.	1070.	.0408	-.0200	-.0281	-.0732	-.0190	-.0110	4645.
.3000	-986.	-1145.	366.	405.	-18.	1106.	.0402	-.0219	-.0305	-.0776	-.0174	-.0155	4917.
.3010	-877.	-1161.	302.	473.	-12.	1124.	.0390	-.0233	-.0324	-.0795	-.0145	-.0181	5091.
.3020	-699.	-1141.	190.	508.	5.	1113.	.0371	-.0237	-.0329	-.0802	-.0107	-.0185	5105.
.3030	-463.	-1084.	41.	509.	33.	1066.	.0344	-.0232	-.0321	-.0798	-.0063	-.0165	4930.

ADLPIPE PAGE 2100

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.14.

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	55	MEMBER	2	SEQUENCE	75	LOCATION	END	TYPE	RE						
TIME	FX	FY	FZ	FX	MY	MZ				DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.3040	-212.	-977.	-120.	473.	60.	988.	.0308	-.0217	-.0303	-.0772	-.0011	-.0126	4579.		
.3050	17.	-821.	-265.	408.	75.	877.	.0262	-.0192	-.0280	-.0725	.0050	-.0072	4050.		
.3060	215.	-639.	-383.	320.	76.	724.	.0207	-.0155	-.0254	-.0668	.0110	-.0005	3319.		
.3070	392.	-445.	-476.	214.	64.	525.	.0141	-.0109	-.0224	-.0608	.0162	.0075	2381.		
.3080	535.	-232.	-539.	85.	37.	293.	.0063	-.0053	-.0189	-.0539	.0209	.0162	1282.		
.3090	611.	-0.	-558.	-68.	0.	40.	-.0021	.0008	-.0149	-.0455	.0250	.0252	330.		
.3100	598.	235.	-530.	-241.	-35.	-225.	-.0104	.0074	-.0103	-.0365	.0286	.0342	1385.		
.3110	513.	457.	-465.	-429.	-60.	-495.	-.0185	.0142	-.0048	-.0279	.0312	.0426	2747.		
.3120	385.	656.	-378.	-626.	-79.	-753.	-.0263	.0208	.0015	-.0195	.0329	.0496	4100.		
.3130	225.	829.	-272.	-819.	-96.	-988.	-.0338	.0270	.0081	-.0115	.0337	.0549	5369.		
.3140	28.	966.	-143.	-991.	-113.	-1196.	-.0404	.0324	.0144	-.0046	.0335	.0584	6498.		
.3150	-197.	1067.	7.	-1128.	-130.	-1371.	-.0461	.0367	.0200	.0009	.0321	.0603	7429.		
.3160	-420.	1131.	161.	-1223.	-153.	-1501.	-.0507	.0395	.0244	.0050	.0297	.0602	8107.		
.3170	-603.	1150.	300.	-1274.	-181.	-1577.	-.0544	.0407	.0278	.0079	.0264	.0577	8495.		
.3180	-734.	1118.	411.	-1277.	-207.	-1598.	-.0568	.0402	.0302	.0088	.0223	.0531	8580.		
.3190	-820.	1042.	494.	-1232.	-221.	-1561.	-.0576	.0378	.0317	.0079	.0177	.0469	8350.		
.3200	-865.	936.	545.	-1146.	-224.	-1458.	-.0567	.0335	.0322	.0061	.0131	.0390	7795.		
.3210	-852.	800.	556.	-1022.	-219.	-1292.	-.0543	.0275	.0320	.0035	.0090	.0293	6935.		
.3220	-761.	626.	518.	-862.	-204.	-1077.	-.0507	.0200	.0310	-.0005	.0051	.0184	5820.		
.3230	-601.	423.	440.	-668.	-182.	-830.	-.0460	.0113	.0294	-.0061	.0014	.0072	4509.		
.3240	-406.	216.	339.	-450.	-159.	-555.	-.0406	.0016	.0270	-.0117	-.0015	-.0039	3057.		
.3250	-201.	17.	230.	-220.	-141.	-264.	-.0348	-.0087	.0237	-.0168	-.0032	-.0148	1548.		
.3260	11.	-182.	116.	15.	-123.	27.	-.0287	-.0192	.0199	-.0218	-.0042	-.0251	531.		
.3270	227.	-382.	-2.	241.	-102.	299.	-.0228	-.0292	.0162	-.0269	-.0046	-.0342	1661.		
.3280	423.	-569.	-114.	445.	-78.	549.	-.0173	-.0386	.0128	-.0313	-.0042	-.0421	2967.		
.3290	562.	-723.	-200.	614.	-54.	771.	-.0122	-.0470	.0097	-.0339	-.0027	-.0485	4118.		
.3300	630.	-845.	-252.	743.	-27.	952.	-.0077	-.0541	.0072	-.0348	-.0003	-.0533	5042.		
.3310	640.	-941.	-274.	831.	0.	1080.	-.0040	-.0596	.0053	-.0349	.0026	-.0560	5687.		
.3320	608.	-1004.	-270.	876.	24.	1152.	-.0015	-.0634	.0041	-.0336	.0057	-.0566	6039.		
.3330	533.	-1024.	-238.	877.	38.	1170.	-.0003	-.0656	.0035	-.0304	.0093	-.0552	6104.		
.3340	402.	-1000.	-173.	837.	45.	1136.	-.0001	-.0661	.0033	-.0255	.0132	-.0517	5892.		
.3350	225.	-941.	-80.	763.	47.	1052.	-.0008	-.0651	.0037	-.0195	.0170	-.0463	5426.		
.3360	28.	-852.	25.	656.	48.	928.	-.0022	-.0628	.0046	-.0124	.0207	-.0395	4748.		
.3370	-165.	-738.	129.	521.	47.	780.	-.0044	-.0594	.0062	-.0041	.0242	-.0319	3919.		
.3380	-351.	-607.	228.	368.	46.	615.	-.0070	-.0552	.0081	.0049	.0273	-.0239	2996.		
.3390	-531.	-467.	324.	209.	46.	440.	-.0096	-.0505	.0100	.0142	.0298	-.0156	2043.		
.3400	-692.	-320.	410.	56.	46.	267.	-.0122	-.0457	.0116	.0236	.0316	-.0074	1154.		
.3410	-810.	-171.	477.	-81.	39.	106.	-.0147	-.0410	.0127	.0331	.0328	.0002	579.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.14.

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 55 MEMBER 2 SEQUENCE 75 LOCATION END TYPE RE

.3330	533.	-1024.	-238.	877.	38.	1170.	-.0003	-.0656	.0035	-.0304	.0093	-.0552	6104.
.3340	402.	-1000.	-173.	837.	45.	1136.	-.0001	-.0661	.0033	-.0255	.0132	-.0517	5892.
.3350	225.	-941.	-80.	763.	47.	1052.	-.0008	-.0651	.0037	-.0195	.0170	-.0463	5426.
.3360	28.	-852.	25.	656.	48.	928.	-.0022	-.0628	.0046	-.0124	.0207	-.0395	4748.
.3370	-165.	-738.	129.	521.	47.	780.	-.0044	-.0594	.0062	-.0041	.0242	-.0319	3919.
.3380	-351.	-607.	228.	368.	46.	615.	-.0070	-.0552	.0081	.0049	.0273	-.0239	2996.
.3390	-531.	-467.	324.	209.	46.	440.	-.0096	-.0505	.0100	.0142	.0298	-.0156	2043.
.3400	-692.	-320.	410.	56.	46.	267.	-.0122	-.0457	.0116	.0236	.0316	-.0074	1154.
.3410	-810.	-171.	477.	-81.	39.	106.	-.0147	-.0410	.0127	.0331	.0328	.0002	579.

ADLPIPE PAGE 2101

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.14.

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	55	MEMBER	2	SEQUENCE	75	LOCATION	END	TYPE	RE						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	FX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.3420	-867.	-35.	516.	-193.	24.	-38.	-.0171	-.0368	.0131	.0420	.0332	.0069	826.		
.3430	-867.	80.	530.	-271.	5.	-161.	-.0191	-.0333	.0128	.0495	.0327	.0127	1315.		
.3440	-822.	178.	519.	-314.	-14.	-254.	-.0203	-.0306	.0117	.0561	.0317	.0174	1689.		
.3450	-738.	261.	484.	-327.	-32.	-308.	-.0206	-.0290	.0102	.0620	.0305	.0207	1881.		
.3460	-608.	317.	419.	-312.	-44.	-323.	-.0202	-.0283	.0086	.0667	.0291	.0224	1883.		
.3470	-435.	339.	324.	-270.	-45.	-304.	-.0188	-.0285	.0070	.0697	.0274	.0226	1708.		
.3480	-242.	332.	211.	-206.	-36.	-255.	-.0166	-.0297	.0054	.0714	.0256	.0215	1376.		
.3490	-54.	310.	97.	-123.	-25.	-178.	-.0137	-.0316	.0038	.0725	.0239	.0192	910.		
.3500	113.	272.	-6.	-25.	-14.	-83.	-.0105	-.0342	.0018	.0730	.0222	.0158	365.		
.3510	257.	209.	-93.	88.	-6.	18.	-.0071	-.0370	-.0003	.0723	.0202	.0115	378.		
.3520	371.	123.	-159.	210.	-3.	117.	-.0039	-.0400	-.0026	.0705	.0179	.0063	1003.		
.3530	436.	26.	-195.	329.	-5.	212.	-.0010	-.0428	-.0050	.0684	.0157	.0003	1634.		
.3540	436.	-72.	-195.	437.	-11.	299.	.0018	-.0453	-.0072	.0664	.0138	-.0061	2213.		
.3550	370.	-171.	-161.	527.	-13.	374.	.0043	-.0474	-.0089	.0644	.0122	-.0127	2697.		
.3560	253.	-271.	-104.	591.	-9.	431.	.0066	-.0489	-.0099	.0622	.0108	-.0193	3053.		
.3570	103.	-361.	-31.	625.	-1.	471.	.0085	-.0496	-.0100	.0606	.0098	-.0257	3266.		
.3580	-74.	-432.	55.	628.	8.	494.	.0099	-.0497	-.0096	.0597	.0093	-.0316	3336.		
.3590	-271.	-478.	152.	606.	17.	496.	.0109	-.0491	-.0087	.0594	.0090	-.0366	3270.		
.3600	-469.	-502.	254.	565.	22.	477.	.0113	-.0479	-.0078	.0596	.0088	-.0408	3087.		
.3610	-640.	-500.	349.	509.	18.	440.	.0111	-.0461	-.0070	.0603	.0086	-.0441	2810.		
.3620	-763.	-475.	425.	442.	4.	390.	.0103	-.0438	-.0063	.0614	.0084	-.0466	2460.		
.3630	-833.	-426.	478.	368.	-14.	329.	.0092	-.0411	-.0057	.0626	.0083	-.0482	2060.		
.3640	-852.	-353.	504.	288.	-31.	263.	.0080	-.0383	-.0050	.0638	.0083	-.0487	1633.		
.3650	-816.	-255.	496.	201.	-44.	202.	.0071	-.0354	-.0040	.0651	.0087	-.0484	1203.		
.3660	-715.	-141.	448.	108.	-49.	151.	.0065	-.0325	-.0026	.0663	.0095	-.0476	801.		
.3670	-548.	-22.	357.	13.	-42.	111.	.0062	-.0298	-.0006	.0669	.0106	-.0464	498.		
.3680	-329.	99.	233.	-78.	-25.	81.	.0063	-.0272	.0016	.0669	.0116	-.0449	483.		
.3690	-83.	222.	92.	-161.	-4.	63.	.0068	-.0250	.0037	.0665	.0126	-.0435	722.		
.3700	177.	343.	-55.	-229.	16.	57.	.0075	-.0230	.0054	.0659	.0133	-.0424	986.		
.3710	443.	444.	-201.	-277.	32.	55.	.0081	-.0214	.0063	.0644	.0133	-.0419	1184.		
.3720	704.	519.	-336.	-301.	42.	53.	.0086	-.0200	.0065	.0619	.0124	-.0420	1290.		
.3730	936.	571.	-449.	-306.	46.	50.	.0089	-.0188	.0059	.0588	.0106	-.0428	1308.		
.3740	1113.	607.	-529.	-294.	46.	46.	.0093	-.0180	.0047	.0553	.0083	-.0439	1258.		
.3750	1223.	621.	-573.	-271.	46.	41.	.0097	-.0174	.0032	.0515	.0057	-.0454	1162.		
.3760	1271.	605.	-588.	-242.	54.	31.	.0104	-.0171	.0019	.0468	.0029	-.0472	1042.		
.3770	1260.	561.	-577.	-211.	71.	17.	.0113	-.0170	.0011	.0413	.0001	-.0491	931.		
.3780	1189.	500.	-541.	-181.	98.	-1.	.0125	-.0171	.0009	.0355	-.0025	-.0507	859.		
.3790	1054.	431.	-479.	-153.	132.	-25.	.0139	-.0174	.0011	.0297	-.0046	-.0518	851.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.14.

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	55	MEMBER	2	SEQUENCE	75	LOCATION	END	TYPE	RE
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.3710	443.	444.	-201.	-277.	32.	55.	.0081	-.0214	.0063	.0644	.0133	-.0419	1184.
.3720	704.	519.	-336.	-301.	42.	53.	.0086	-.0200	.0065	.0619	.0124	-.0420	1290.
.3730	936.	571.	-449.	-306.	46.	50.	.0089	-.0188	.0059	.0588	.0106	-.0428	1308.
.3740	1113.	607.	-529.	-294.	46.	46.	.0093	-.0180	.0047	.0553	.0083	-.0439	1258.
.3750	1223.	621.	-573.	-271.	46.	41.	.0097	-.0174	.0032	.0515	.0057	-.0454	1162.
.3760	1271.	605.	-588.	-242.	54.	31.	.0104	-.0171	.0019	.0468	.0029	-.0472	1042.
.3770	1260.	561.	-577.	-211.	71.	17.	.0113	-.0170	.0011	.0413	.0001	-.0491	931.
.3780	1189.	500.	-541.	-181.	98.	-1.	.0125	-.0171	.0009	.0355	-.0025	-.0507	859.
.3790	1054.	431.	-479.	-153.	132.	-25.	.0139	-.0174	.0011	.0297	-.0046	-.0518	851.

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

ADLPIPE STRESS ANALYSIS

83/12/02. 18.29.14.

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	55	MEMBER	2	SEQUENCE	75	LOCATION	END	TYPE	RE					
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	FX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.3800	869.	353.	-394.	-125.	172.	-56.	.0156	-.0181	.0017	.0238	-.0066	-.0522	917.	
.3810	661.	267.	-298.	-93.	212.	-98.	.0172	-.0189	.0024	.0177	-.0084	-.0519	1047.	
.3820	456.	178.	-201.	-57.	247.	-147.	.0184	-.0199	.0030	.0116	-.0102	-.0509	1222.	
.3830	267.	94.	-109.	-16.	275.	-202.	.0193	-.0210	.0034	.0059	-.0121	-.0492	1426.	
.3840	100.	21.	-25.	30.	295.	-264.	.0198	-.0224	.0034	.0006	-.0141	-.0466	1656.	
.3850	-34.	-37.	43.	78.	308.	-328.	.0200	-.0239	.0031	-.0042	-.0160	-.0432	1905.	
.3860	-112.	-79.	84.	124.	317.	-390.	.0198	-.0254	.0028	-.0083	-.0178	-.0392	2159.	
.3870	-125.	-106.	89.	163.	321.	-450.	.0190	-.0270	.0026	-.0118	-.0194	-.0346	2406.	
.3880	-82.	-113.	64.	192.	323.	-509.	.0179	-.0284	.0027	-.0147	-.0208	-.0294	2641.	
.3890	-2.	-96.	18.	212.	323.	-562.	.0165	-.0298	.0029	-.0168	-.0219	-.0237	2846.	
.3900	101.	-59.	-40.	219.	319.	-605.	.0147	-.0309	.0033	-.0180	-.0225	-.0183	2996.	
.3910	225.	-20.	-108.	218.	307.	-638.	.0124	-.0315	.0037	-.0191	-.0229	-.0139	3090.	
.3920	365.	10.	-179.	209.	287.	-663.	.0095	-.0315	.0043	-.0205	-.0232	-.0109	3141.	
.3930	499.	37.	-242.	192.	261.	-682.	.0061	-.0309	.0049	-.0222	-.0235	-.0090	3153.	
.3940	597.	68.	-283.	166.	225.	-692.	.0022	-.0297	.0055	-.0235	-.0237	-.0085	3114.	
.3950	643.	98.	-294.	127.	184.	-691.	-.0020	-.0279	.0062	-.0247	-.0235	-.0094	3030.	
.3960	645.	113.	-280.	78.	140.	-682.	-.0064	-.0254	.0070	-.0262	-.0233	-.0119	2926.	
.3970	610.	109.	-247.	19.	99.	-667.	-.0110	-.0224	.0083	-.0282	-.0231	-.0158	2813.	
.3980	527.	95.	-189.	-50.	58.	-640.	-.0157	-.0189	.0098	-.0304	-.0228	-.0211	2692.	
.3990	384.	72.	-101.	-125.	17.	-602.	-.0202	-.0151	.0115	-.0325	-.0221	-.0274	2567.	
.4000	186.	37.	14.	-199.	-21.	-553.	-.0243	-.0111	.0131	-.0349	-.0213	-.0347	2455.	

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)
.1680	-1252.	1321.	787.	-1415.	-370.	-2126.	-.0900	.0764	.0327	.0331	.0056	.0752	10770.

SECTION	55	MEMBER	3	SEQUENCE	750	LOCATION	END	TYPE	RU					
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	FX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
0.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.	
.0010	-0.	0.	0.	0.	-0.	-0.	-.0000	-.0000	.0000	-.0000	-.0000	.0000	0.	
.0020	-0.	0.	0.	0.	0.	-0.	.0000	-.0000	.0000	-.0000	-.0000	.0000	0.	
.0030	-0.	0.	0.	0.	0.	-0.	.0000	-.0000	.0000	-.0000	-.0000	.0000	1.	

ADLPIPE PAGE 2103

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

ADLPIPE STRESS ANALYSIS

83/12/02. 18.29.14.

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	55	MEMBER	3	SEQUENCE	750	LOCATION	END	TYPE	RU
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.3710	443.	444.	-201.	-277.	32.	55.	.0081	-.0214	.0063	.0644	.0133	-.0419	1184.
.3720	704.	519.	-336.	-301.	42.	53.	.0086	-.0200	.0065	.0619	.0124	-.0420	1290.
.3730	936.	571.	-449.	-306.	46.	50.	.0089	-.0188	.0059	.0588	.0106	-.0428	1308.
.3740	1113.	607.	-529.	-294.	46.	46.	.0093	-.0180	.0047	.0553	.0083	-.0439	1258.
.3750	1223.	621.	-573.	-271.	46.	41.	.0097	-.0174	.0032	.0515	.0057	-.0454	1162.
.3760	1271.	605.	-588.	-242.	54.	31.	.0104	-.0171	.0019	.0468	.0029	-.0472	1042.
.3770	1260.	561.	-577.	-211.	71.	17.	.0113	-.0170	.0011	.0413	.0001	-.0491	921.
.3780	1189.	500.	-541.	-181.	98.	-1.	.0125	-.0171	.0009	.0355	-.0025	-.0507	859.
.3790	1054.	431.	-479.	-153.	132.	-25.	.0139	-.0174	.0011	.0297	-.0046	-.0518	851.

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

ADLPIPE STRESS ANALYSIS

83/12/02. 18.29.14.

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	55	MEMBER	2	SEQUENCE	75	LOCATION	END	TYPE	RE					
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	FX	RY	RZ	STRESS
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
.3800	869.	353.	-394.	-125.	172.	-56.		.0156	-.0181	.0017	.0238	-.0066	-.0522	917.
.3810	661.	267.	-298.	-93.	212.	-98.		.0172	-.0189	.0024	.0177	-.0084	-.0519	1047.
.3820	456.	178.	-201.	-57.	247.	-147.		.0184	-.0199	.0030	.0116	-.0102	-.0509	1222.
.3830	267.	94.	-109.	-16.	275.	-202.		.0193	-.0210	.0034	.0059	-.0121	-.0492	1426.
.3840	100.	21.	-25.	30.	295.	-264.		.0198	-.0224	.0034	.0006	-.0141	-.0466	1656.
.3850	-34.	-37.	43.	78.	308.	-328.		.0200	-.0239	.0031	-.0042	-.0160	-.0432	1905.
.3860	-112.	-79.	84.	124.	317.	-390.		.0198	-.0254	.0028	-.0083	-.0178	-.0392	2159.
.3870	-125.	-106.	89.	163.	321.	-450.		.0190	-.0270	.0026	-.0118	-.0194	-.0346	2406.
.3880	-82.	-113.	64.	192.	323.	-509.		.0179	-.0284	.0027	-.0147	-.0208	-.0294	2641.
.3890	-2.	-96.	18.	212.	323.	-562.		.0165	-.0298	.0029	-.0168	-.0219	-.0237	2846.
.3900	101.	-59.	-40.	219.	319.	-605.		.0147	-.0309	.0033	-.0180	-.0225	-.0183	2996.
.3910	225.	-20.	-108.	218.	307.	-638.		.0124	-.0315	.0037	-.0191	-.0229	-.0139	3090.
.3920	365.	10.	-179.	209.	287.	-663.		.0095	-.0315	.0043	-.0205	-.0232	-.0109	3141.
.3930	499.	37.	-242.	192.	261.	-682.		.0061	-.0309	.0049	-.0222	-.0235	-.0090	3153.
.3940	597.	68.	-283.	166.	225.	-692.		.0022	-.0297	.0055	-.0235	-.0237	-.0085	3114.
.3950	643.	98.	-294.	127.	184.	-691.		-.0020	-.0279	.0062	-.0247	-.0235	-.0094	3030.
.3960	645.	113.	-280.	78.	140.	-682.		-.0064	-.0254	.0070	-.0262	-.0233	-.0119	2926.
.3970	610.	109.	-247.	19.	99.	-667.		-.0110	-.0224	.0083	-.0282	-.0231	-.0158	2813.
.3980	527.	95.	-189.	-50.	58.	-640.		-.0157	-.0189	.0098	-.0304	-.0228	-.0211	2692.
.3990	384.	72.	-101.	-125.	17.	-602.		-.0202	-.0151	.0115	-.0325	-.0221	-.0274	2567.
.4000	186.	37.	14.	-199.	-21.	-553.		-.0243	-.0111	.0131	-.0349	-.0213	-.0347	2455.

MAXIMUM VALUE OF STRESS OCCURS AT

TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	FX	RY	RZ	STRESS
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
.1680	-1252.	1321.	787.	-1415.	-370.	-2126.	-.0900	.0764	.0327	.0331	.0056	.0752	10770.

SECTION	55	MEMBER	3	SEQUENCE	750	LOCATION	END	TYPE	RU					
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	FX	RY	RZ	STRESS
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
0.0000	0.	0.	0.	0.	0.	0.		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.
.0010	-0.	0.	0.	0.	-0.	-0.		-.0000	-.0000	.0000	-.0000	-.0000	.0000	0.
.0020	-0.	0.	0.	0.	0.	-0.		.0000	-.0000	.0000	-.0000	-.0000	.0000	0.
.0030	-0.	0.	0.	0.	0.	-0.		.0000	-.0000	.0000	-.0000	-.0000	.0000	1.

ADLPIPE PAGE 2103

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

ADLPIPE STRESS ANALYSIS

83/12/02. 18.29.14.

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION 55 MEMBER 3 SEQUENCE 750 LOCATION END TYPE RU

SECTION	55	MEMBER	3	SEQUENCE	750	LOCATION	END	TYPE	RU	DZ	FX	RY	RZ	STRESS
TIME	FX	FY	FZ	MX	MY	MZ				(IN)	(DEG)	(DEG)	(DEG)	(PSI)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)			(IN)	(IN)				
0.0000	0.	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.
.0010	-0.	0.	0.	0.	0.	-0.	-0.	-0.0000	-0.0000	.0000	-0.0000	-0.0000	.0000	0.
.0020	-0.	0.	0.	0.	0.	0.	-0.	.0000	-0.0000	.0000	-0.0000	-0.0000	.0000	0.
.0030	-0.	0.	0.	0.	0.	0.	-0.	.0000	-0.0000	.0000	-0.0000	-0.0000	.0000	1.

ADLPIPE PAGE 2103 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.29.14.
 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	55	MEMBER	3	SEQUENCE	750	LOCATION	END	TYPE	RU	DZ	FX	RY	RZ	STRESS
TIME	FX	FY	FZ	MX	MY	MZ				(IN)	(DEG)	(DEG)	(DEG)	(PSI)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)			(IN)	(IN)				
.0040	-0.	0.	-0.	-0.	1.	-0.	0.	.0000	-0.0000	.0000	-0.0000	-0.0000	.0000	2.
.0050	1.	0.	-1.	-1.	2.	0.	0.	.0000	-0.0000	.0000	-0.0000	-0.0001	.0000	7.
.0060	4.	1.	-4.	-1.	3.	1.	0.	-0.0001	-0.0000	.0000	.0000	-0.0002	-0.0000	14.
.0070	10.	2.	-7.	-2.	5.	0.	0.	-0.0001	-0.0000	-0.0000	.0002	-0.0005	-0.0000	23.
.0080	19.	6.	-12.	-2.	7.	-2.	0.	-0.0003	-0.0000	-0.0002	.0004	-0.0009	-0.0000	34.
.0090	34.	11.	-19.	-3.	10.	-5.	0.	-0.0005	-0.0000	-0.0004	.0007	-0.0016	-0.0000	46.
.0100	61.	18.	-31.	-3.	11.	-7.	0.	-0.0009	-0.0000	-0.0008	.0014	-0.0026	-0.0002	58.
.0110	107.	28.	-52.	-4.	12.	-11.	0.	-0.0016	-0.0000	-0.0014	.0023	-0.0040	-0.0006	68.
.0120	179.	41.	-83.	-6.	9.	-17.	0.	-0.0027	-0.0000	-0.0021	.0038	-0.0058	-0.0011	86.
.0130	270.	62.	-120.	-9.	3.	-32.	0.	-0.0042	-0.0000	-0.0032	.0058	-0.0081	-0.0015	139.
.0140	364.	93.	-154.	-13.	-9.	-58.	0.	-0.0061	-0.0000	-0.0046	.0084	-0.0109	-0.0019	250.
.0150	441.	128.	-174.	-17.	-25.	-94.	0.	-0.0082	-0.0000	-0.0063	.0114	-0.0139	-0.0022	410.
.0160	482.	158.	-171.	-16.	-46.	-134.	0.	-0.0104	-0.0000	-0.0082	.0142	-0.0169	-0.0027	594.
.0170	471.	170.	-138.	-9.	-70.	-171.	0.	-0.0125	.0001	-0.0101	.0164	-0.0194	-0.0035	772.
.0180	391.	158.	-72.	5.	-96.	-199.	0.	-0.0140	.0002	-0.0115	.0173	-0.0206	-0.0048	921.
.0190	239.	122.	25.	20.	-121.	-210.	0.	-0.0146	.0003	-0.0121	.0168	-0.0199	-0.0064	1014.
.0200	21.	70.	144.	31.	-141.	-202.	0.	-0.0141	.0003	-0.0114	.0147	-0.0165	-0.0077	1035.
.0210	-232.	5.	261.	30.	-151.	-168.	0.	-0.0123	.0003	-0.0091	.0110	-0.0101	-0.0087	951.
.0220	-457.	-85.	338.	5.	-151.	-95.	0.	-0.0093	.0002	-0.0051	.0065	-0.0009	-0.0102	744.
.0230	-632.	-181.	370.	-38.	-135.	-4.	0.	-0.0056	-0.0000	.0002	.0015	.0099	-0.0111	584.
.0240	-775.	-252.	379.	-83.	-102.	74.	0.	-0.0017	-0.0005	.0059	-0.0036	.0202	-0.0100	630.
.0250	-946.	-281.	412.	-110.	-66.	123.	0.	.0022	-0.0013	.0103	-0.0078	.0287	-0.0068	742.
.0260	-1148.	-301.	482.	-105.	-49.	173.	0.	.0061	-0.0021	.0123	-0.0106	.0353	-0.0043	871.
.0270	-1241.	-379.	511.	-74.	-52.	270.	0.	.0097	-0.0027	.0119	-0.0119	.0393	-0.0059	1188.
.0280	-1177.	-476.	479.	-4.	-53.	368.	0.	.0120	-0.0033	.0102	-0.0135	.0391	-0.0078	1551.
.0290	-1089.	-507.	466.	111.	-58.	402.	0.	.0130	-0.0042	.0075	-0.0155	.0357	-0.0056	1758.
.0300	-1008.	-511.	464.	224.	-100.	434.	0.	.0148	-0.0049	.0034	-0.0155	.0342	-0.0039	2080.
.0310	-819.	-483.	378.	289.	-128.	494.	0.	.0179	-0.0053	.0005	-0.0147	.0347	-0.0027	2446.
.0320	-447.	-404.	161.	308.	-100.	544.	0.	.0209	-0.0057	.0018	-0.0165	.0356	.0023	2643.
.0330	60.	-313.	-154.	274.	-37.	580.	0.	.0233	-0.0058	.0070	-0.0199	.0378	.0098	2682.
.0340	541.	-188.	-492.	165.	53.	608.	0.	.0261	-0.0055	.0134	-0.0212	.0412	.0171	2639.
.0350	852.	26.	-753.	13.	167.	598.	0.	.0291	-0.0048	.0182	-0.0189	.0425	.0242	2590.
.0360	1040.	235.	-897.	-95.	243.	540.	0.	.0296	-0.0034	.0194	-0.0149	.0387	.0289	2504.
.0370	1281.	300.	-985.	-119.	242.	472.	0.	.0261	-0.0011	.0163	-0.0104	.0286	.0267	2268.
.0380	1585.	282.	-1040.	-84.	195.	375.	0.	.0191	.0020	.0092	-0.0050	.0115	.0194	1799.
.0390	1691.	352.	-941.	-16.	115.	175.	0.	.0102	.0053	-0.0012	.0025	-0.0094	.0139	878.
.0400	1432.	509.	-617.	71.	-21.	-117.	0.	.0014	.0085	-0.0132	.0114	-0.0273	.0114	577.
.0410	1094.	590.	-291.	112.	-156.	-354.	0.	-0.0049	.0119	-0.0221	.0178	-0.0378	.0062	1683.

ADLPIPE PAGE 2104 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.29.14.
 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	55	MEMBER	3	SEQUENCE	750	LOCATION	END	TYPE	RU
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.0330	80.	-313.	-154.	274.	-37.	580.	.0233	-.0058	.0070	-.0199	.0378	.0098	2682.
.0340	541.	-188.	-492.	165.	53.	608.	.0261	-.0055	.0134	-.0212	.0412	.0171	2639.
.0350	852.	26.	-753.	13.	167.	598.	.0291	-.0048	.0182	-.0189	.0425	.0242	2590.
.0360	1040.	235.	-897.	-95.	243.	540.	.0296	-.0034	.0194	-.0149	.0387	.0289	2504.
.0370	1281.	300.	-985.	-119.	242.	472.	.0261	-.0011	.0163	-.0104	.0286	.0267	2268.
.0380	1585.	282.	-1040.	-84.	195.	375.	.0191	.0020	.0092	-.0050	.0115	.0194	1799.
.0390	1691.	352.	-941.	-16.	115.	175.	.0102	.0053	-.0012	.0025	-.0094	.0139	878.
.0400	1432.	509.	-617.	71.	-21.	-117.	.0014	.0085	-.0132	.0114	-.0273	.0114	577.
.0410	1094.	590.	-291.	112.	-156.	-354.	-.0049	.0119	-.0221	.0178	-.0378	.0062	1683.

ADLPIPE PAGE 2104

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.29.14.

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	55	MEMBER	3	SEQUENCE	750	LOCATION	END	TYPE	RU						STRESS
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	RX	RY	RZ		(PSI)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)		
.0420	962.	577.	-183.	60.	-172.	-480.		-.0085	.0154	-.0218	.0164	-.0421	.0007		2142.
.0430	949.	534.	-234.	-79.	-85.	-538.		-.0105	.0183	-.0119	.0084	-.0390	-.0011		2297.
.0440	770.	520.	-270.	-309.	32.	-573.		-.0099	.0204	.0027	.0006	-.0266	.0004		2721.
.0450	380.	601.	-254.	-612.	181.	-599.		-.0062	.0217	.0173	-.0029	-.0101	.0032		3652.
.0460	11.	723.	-229.	-870.	330.	-628.		-.0029	.0222	.0284	-.0041	.0019	.0056		4687.
.0470	-136.	712.	-187.	-936.	366.	-676.		-.0048	.0220	.0331	-.0059	.0052	.0047		5056.
.0480	-85.	552.	-108.	-800.	277.	-743.		-.0117	.0213	.0300	-.0074	-.0005	-.0004		4701.
.0490	-40.	434.	30.	-578.	147.	-831.		-.0194	.0198	.0201	-.0045	-.0126	-.0071		4268.
.0500	-152.	440.	252.	-355.	-4.	-928.		-.0259	.0172	.0066	.0043	-.0247	-.0124		4145.
.0510	-268.	429.	460.	-149.	-180.	-980.		-.0316	.0137	-.0052	.0138	-.0312	-.0170		4204.
.0520	-141.	319.	462.	4.	-273.	-937.		-.0352	.0098	-.0093	.0165	-.0320	-.0200		4072.
.0530	152.	197.	252.	52.	-215.	-799.		-.0347	.0053	-.0044	.0122	-.0272	-.0194		3462.
.0540	292.	128.	34.	-7.	-102.	-601.		-.0301	.0005	.0056	.0073	-.0139	-.0167		2543.
.0550	194.	93.	-85.	-116.	-6.	-380.		-.0232	-.0044	.0162	.0045	.0050	-.0138		1659.
.0560	94.	50.	-185.	-192.	104.	-175.		-.0168	-.0091	.0254	.0005	.0201	-.0110		1168.
.0570	151.	-59.	-292.	-168.	184.	1.		-.0138	-.0131	.0307	-.0049	.0258	-.0108		1041.
.0580	228.	-249.	-284.	-25.	132.	139.		-.0153	-.0164	.0286	-.0070	.0245	-.0162		806.
.0590	113.	-416.	-82.	192.	-26.	209.		-.0191	-.0190	.0192	-.0042	.0183	-.0243		1191.
.0600	-211.	-500.	250.	422.	-180.	216.		-.0221	-.0210	.0070	-.0001	.0089	-.0312		2118.
.0610	-591.	-600.	585.	622.	-304.	238.		-.0237	-.0222	-.0030	.0011	.0015	-.0380		3054.
.0620	-871.	-805.	806.	749.	-390.	352.		-.0236	-.0225	-.0065	-.0026	.0012	-.0464		3820.
.0630	-1060.	-1028.	867.	758.	-367.	544.		-.0203	-.0221	-.0013	-.0117	.0084	-.0527		4182.
.0640	-1300.	-1152.	838.	630.	-216.	744.		-.0128	-.0214	.0109	-.0237	.0217	-.0531		4167.
.0650	-1641.	-1172.	803.	403.	-27.	921.		-.0029	-.0203	.0252	-.0331	.0395	-.0497		4198.
.0660	-1921.	-1138.	753.	158.	133.	1071.		.0059	-.0188	.0372	-.0378	.0552	-.0463		4552.
.0670	-1970.	-1103.	663.	1.	248.	1169.		.0107	-.0168	.0433	-.0396	.0607	-.0442		4987.
.0680	-1813.	-1113.	596.	3.	266.	1185.		.0107	-.0141	.0400	-.0379	.0538	-.0452		5067.
.0690	-1596.	-1121.	632.	141.	147.	1104.		.0063	-.0110	.0264	-.0294	.0378	-.0490		4687.
.0700	-1389.	-1019.	745.	335.	-48.	929.		-.0005	-.0078	.0061	-.0139	.0167	-.0515		4124.
.0710	-1133.	-824.	827.	511.	-231.	697.		-.0073	-.0047	-.0142	.0031	-.0049	-.0498		3733.
.0720	-747.	-649.	772.	610.	-355.	490.		-.0116	-.0015	-.0285	.0164	-.0203	-.0449		3587.
.0730	-260.	-492.	541.	571.	-379.	353.		-.0118	.0016	-.0332	.0247	-.0251	-.0368		3217.
.0740	180.	-256.	194.	371.	-275.	265.		-.0073	.0045	-.0280	.0292	-.0195	-.0227		2220.
.0750	460.	36.	-166.	66.	-86.	195.		.0008	.0071	-.0164	.0311	-.0058	-.0042		930.
.0760	634.	283.	-491.	-250.	113.	136.		.0103	.0097	-.0034	.0313	.0108	.0137		1276.
.0770	830.	467.	-778.	-498.	277.	72.		.0177	.0124	.0067	.0314	.0229	.0283		2397.
.0780	1072.	616.	-981.	-624.	354.	-32.		.0207	.0149	.0101	.0342	.0257	.0386		2997.
.0790	1278.	729.	-1028.	-608.	297.	-200.		.0189	.0174	.0046	.0416	.0197	.0439		2946.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.29.14.

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	55	MEMBER	3	SEQUENCE	750	LOCATION	END	TYPE	RU						STRESS
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	RX	RY	RZ		

.0710	-1133.	-824.	827.	511.	-231.	697.	-.0073	-.0047	-.0142	.0031	-.0049	-.0498	3733.
.0720	-747.	-649.	772.	610.	-355.	490.	-.0116	-.0015	-.0285	.0164	-.0203	-.0449	3587.
.0730	-260.	-492.	541.	571.	-379.	353.	-.0118	.0016	-.0332	.0247	-.0251	-.0368	3217.
.0740	180.	-256.	194.	371.	-275.	265.	-.0073	.0045	-.0280	.0292	-.0195	-.0227	2220.
.0750	460.	36.	-166.	66.	-86.	195.	.0008	.0071	-.0164	.0311	-.0058	-.0042	930.
.0760	634.	283.	-491.	-250.	113.	136.	.0103	.0097	-.0034	.0313	.0108	.0137	1276.
.0770	830.	467.	-778.	-498.	277.	72.	.0177	.0124	.0067	.0314	.0229	.0283	2397.
.0780	1072.	616.	-981.	-624.	354.	-32.	.0207	.0149	.0101	.0342	.0257	.0386	2997.
.0790	1278.	729.	-1028.	-608.	297.	-200.	.0189	.0174	.0046	.0416	.0197	.0439	2946.

ADLPIPE PAGE 2105

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.29.14.

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	55	MEMBER	3	SEQUENCE	750	LOCATION	END	TYPE	RU					
TIME	FX	FY	FZ	MX	MY	MZ								STRESS
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)								(PSI)
.0800	1400.	830.	-932.	-490.	141.	-431.	.0138	.0197	-.0081	.0531	.0073	.0455	2785.	
.0810	1467.	962.	-776.	-338.	-35.	-687.	.0073	.0215	-.0229	.0660	-.0082	.0464	3200.	
.0820	1521.	1074.	-641.	-213.	-187.	-895.	.0010	.0228	-.0345	.0768	-.0211	.0463	3916.	
.0830	1564.	1087.	-578.	-158.	-282.	-987.	-.0029	.0238	-.0389	.0819	-.0262	.0442	4335.	
.0840	1535.	1034.	-596.	-205.	-263.	-965.	-.0022	.0244	-.0345	.0799	-.0227	.0420	4262.	
.0850	1349.	995.	-633.	-348.	-139.	-871.	.0025	.0244	-.0229	.0727	-.0119	.0418	3957.	
.0860	1008.	954.	-624.	-526.	-0.	-731.	.0089	.0239	-.0082	.0638	.0039	.0416	3759.	
.0870	636.	851.	-570.	-662.	101.	-565.	.0148	.0230	.0053	.0538	.0197	.0387	3655.	
.0880	337.	695.	-488.	-695.	162.	-410.	.0186	.0218	.0151	.0427	.0298	.0333	3436.	
.0890	92.	525.	-340.	-610.	146.	-297.	.0194	.0203	.0191	.0329	.0333	.0260	2896.	
.0900	-156.	363.	-107.	-439.	36.	-218.	.0176	.0185	.0174	.0266	.0328	.0168	2051.	
.0910	-375.	226.	132.	-244.	-93.	-151.	.0153	.0162	.0134	.0223	.0304	.0073	1259.	
.0920	-491.	110.	275.	-85.	-158.	-67.	.0139	.0137	.0113	.0170	.0276	-.0006	798.	
.0930	-492.	-6.	290.	-4.	-153.	63.	.0136	.0109	.0132	.0110	.0275	-.0072	689.	
.0940	-434.	-105.	205.	-16.	-90.	238.	.0143	.0080	.0186	.0061	.0307	-.0128	1066.	
.0950	-381.	-151.	73.	-94.	30.	422.	.0161	.0049	.0252	.0033	.0341	-.0170	1808.	
.0960	-354.	-168.	-36.	-160.	157.	576.	.0174	.0021	.0290	.0026	.0341	-.0211	2579.	
.0970	-318.	-221.	-69.	-136.	209.	687.	.0160	-.0003	.0269	.0046	.0281	-.0280	3050.	
.0980	-235.	-319.	-23.	7.	170.	749.	.0109	-.0021	.0176	.0092	.0146	-.0382	3205.	
.0990	-150.	-429.	96.	245.	76.	755.	.0033	-.0033	.0028	.0154	-.0056	-.0501	3329.	
.1000	-159.	-539.	296.	519.	-45.	723.	-.0049	-.0040	-.0150	.0227	-.0275	-.0624	3719.	
.1010	-294.	-648.	534.	758.	-157.	692.	-.0116	-.0040	-.0317	.0303	-.0459	-.0743	4332.	
.1020	-497.	-751.	725.	904.	-197.	699.	-.0155	-.0035	-.0433	.0354	-.0582	-.0843	4839.	
.1030	-723.	-868.	829.	948.	-144.	752.	-.0157	-.0024	-.0477	.0359	-.0633	-.0913	5088.	
.1040	-987.	-1004.	879.	914.	-33.	831.	-.0124	-.0007	-.0463	.0322	-.0608	-.0954	5158.	
.1050	-1293.	-1105.	914.	830.	93.	896.	-.0067	.0014	-.0419	.0268	-.0527	-.0958	5113.	
.1060	-1572.	-1129.	935.	735.	205.	910.	-.0000	.0038	-.0371	.0216	-.0426	-.0921	4954.	
.1070	-1715.	-1106.	928.	670.	266.	853.	.0058	.0065	-.0336	.0170	-.0330	-.0853	4661.	
.1080	-1680.	-1045.	883.	651.	264.	715.	.0100	.0094	-.0321	.0132	-.0250	-.0752	4185.	
.1090	-1498.	-898.	789.	641.	231.	515.	.0133	.0125	-.0316	.0114	-.0184	-.0617	3566.	
.1100	-1143.	-710.	586.	574.	201.	329.	.0167	.0157	-.0310	.0130	-.0118	-.0489	2885.	
.1110	-703.	-476.	315.	456.	193.	121.	.0201	.0190	-.0287	.0159	-.0051	-.0335	2128.	
.1120	-244.	-182.	18.	299.	220.	-133.	.0232	.0222	-.0246	.0189	.0005	-.0141	1645.	
.1130	218.	149.	-301.	98.	272.	-371.	.0264	.0254	-.0202	.0237	.0044	.0045	1965.	
.1140	659.	437.	-595.	-97.	300.	-557.	.0288	.0289	-.0176	.0303	.0060	.0176	2672.	
.1150	1069.	629.	-807.	-209.	266.	-733.	.0292	.0327	-.0178	.0354	.0039	.0263	3369.	
.1160	1460.	777.	-943.	-235.	188.	-932.	.0272	.0365	-.0201	.0381	-.0025	.0331	4088.	
.1170	1771.	956.	-1005.	-226.	83.	-1132.	.0240	.0401	-.0235	.0404	-.0108	.0384	4830.	

ADLPIPE PAGE 2106

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.29.14.

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	55	MEMBER	3	SEQUENCE	750	LOCATION	END	TYPE	RU
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.1090	-1498.	-898.	789.	641.	231.	515.	.0133	.0125	-.0318	.0114	-.0184	-.0617	3566.
.1100	-1143.	-710.	586.	574.	201.	329.	.0167	.0157	-.0310	.0130	-.0118	-.0489	2885.
.1110	-703.	-476.	315.	456.	193.	121.	.0201	.0190	-.0287	.0159	-.0051	-.0335	2128.
.1120	-244.	-182.	10.	299.	220.	-133.	.0232	.0222	-.0246	.0189	.0005	-.0141	1645.
.1130	218.	149.	-301.	98.	272.	-371.	.0184	.0254	-.0202	.0237	.0044	.0045	1965.
.1140	659.	437.	-595.	-97.	300.	-557.	.0288	.0289	-.0176	.0303	.0060	.0176	2672.
.1150	1069.	629.	-807.	-209.	266.	-733.	.0292	.0327	-.0178	.0354	.0039	.0263	3369.
.1160	1460.	777.	-943.	-235.	188.	-932.	.0272	.0365	-.0201	.0381	-.0025	.0331	4088.
.1170	1771.	956.	-1005.	-226.	83.	-1132.	.0240	.0401	-.0235	.0404	-.0108	.0384	4830.

ADLPIPE PAGE 2106

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.14.

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	55	MEMBER	3	SEQUENCE	750	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)		
.1180	1944.	1083.	-990.	-216.	-59.	-1269.	.0210	.0437	-.0265	.0420	-.0158	.0390	5378.		
.1190	1978.	1138.	-899.	-197.	-168.	-1376.	.0195	.0471	-.0252	.0366	-.0163	.0398	5842.		
.1200	1765.	1148.	-809.	-227.	-167.	-1431.	.0210	.0500	-.0167	.0228	-.0121	.0427	6088.		
.1210	1492.	1105.	-770.	-374.	-76.	-1342.	.0257	.0526	-.0019	.0066	-.0011	.0420	5822.		
.1220	1069.	1013.	-721.	-593.	63.	-1127.	.0320	.0548	.0164	-.0096	.0144	.0369	5322.		
.1230	580.	822.	-635.	-780.	208.	-868.	.0376	.0565	.0338	-.0268	.0286	.0284	4948.		
.1240	122.	614.	-500.	-868.	330.	-662.	.0403	.0575	.0461	-.0428	.0344	.0195	4758.		
.1250	-274.	467.	-282.	-842.	345.	-521.	.0383	.0578	.0493	-.0513	.0306	.0086	4377.		
.1260	-603.	314.	36.	-686.	200.	-419.	.0316	.0574	.0419	-.0512	.0193	-.0072	3460.		
.1270	-868.	146.	415.	-392.	-5.	-399.	.0226	.0564	.0283	-.0506	.0008	-.0216	2336.		
.1280	-1001.	-32.	723.	-68.	-176.	-410.	.0143	.0546	.0144	-.0519	-.0197	-.0327	1884.		
.1290	-1024.	-137.	887.	142.	-279.	-370.	.0083	.0520	.0048	-.0509	-.0347	-.0404	2021.		
.1300	-984.	-169.	892.	190.	-300.	-250.	.0058	.0485	.0021	-.0480	-.0398	-.0442	1814.		
.1310	-845.	-207.	728.	121.	-208.	-94.	.0074	.0444	.0066	-.0484	-.0370	-.0426	1078.		
.1320	-627.	-179.	452.	-7.	-8.	9.	.0119	.0397	.0157	-.0528	-.0322	-.0320	57.		
.1330	-357.	-56.	156.	-162.	169.	70.	.0164	.0345	.0236	-.0530	-.0273	-.0181	1019.		
.1340	-65.	113.	-69.	-262.	234.	90.	.0186	.0292	.0251	-.0467	-.0256	-.0056	1514.		
.1350	279.	222.	-210.	-215.	211.	27.	.0181	.0240	.0194	-.0397	-.0317	.0056	1262.		
.1360	694.	251.	-296.	-34.	132.	-120.	.0151	.0192	.0078	-.0337	-.0452	.0160	758.		
.1370	1052.	337.	-311.	175.	9.	-316.	.0101	.0142	-.0068	-.0240	-.0610	.0273	1507.		
.1380	1254.	460.	-270.	320.	-132.	-476.	.0059	.0093	-.0206	-.0103	-.0722	.0371	2457.		
.1390	1268.	530.	-216.	394.	-186.	-582.	.0057	.0047	-.0291	-.0015	-.0770	.0475	3036.		
.1400	1152.	508.	-202.	399.	-107.	-612.	.0106	.0004	-.0297	-.0020	-.0754	.0592	3082.		
.1410	975.	419.	-246.	315.	33.	-510.	.0185	-.0036	-.0239	-.0062	-.0659	.0682	2506.		
.1420	714.	323.	-283.	196.	180.	-318.	.0271	-.0074	-.0152	-.0111	-.0517	.0748	1730.		
.1430	386.	160.	-264.	143.	310.	-111.	.0356	-.0107	-.0074	-.0191	-.0378	.0794	1497.		
.1440	46.	-46.	-177.	201.	404.	54.	.0431	-.0137	-.0035	-.0295	-.0285	.0828	1895.		
.1450	-221.	-212.	-49.	330.	407.	204.	.0474	-.0164	-.0047	-.0360	-.0240	.0830	2346.		
.1460	-349.	-356.	77.	501.	306.	377.	.0482	-.0185	-.0104	-.0369	-.0225	.0779	2912.		
.1470	-387.	-515.	190.	732.	188.	535.	.0475	-.0201	-.0172	-.0398	-.0240	.0720	3863.		
.1480	-364.	-711.	251.	971.	114.	691.	.0478	-.0208	-.0222	-.0472	-.0251	.0663	4995.		
.1490	-309.	-839.	231.	1120.	84.	883.	.0490	-.0209	-.0230	-.0547	-.0217	.0609	5964.		
.1500	-205.	-881.	114.	1143.	88.	1126.	.0506	-.0201	-.0185	-.0608	-.0122	.0557	6707.		
.1510	9.	-944.	-114.	1083.	142.	1382.	.0526	-.0182	-.0090	-.0702	.0007	.0506	7351.		
.1520	290.	-992.	-399.	980.	252.	1565.	.0551	-.0149	.0034	-.0834	.0127	.0482	7777.		
.1530	554.	-930.	-653.	825.	331.	1657.	.0551	-.0105	.0143	-.0919	.0226	.0463	7845.		
.1540	726.	-740.	-789.	653.	313.	1643.	.0507	-.0050	.0203	-.0918	.0288	.0429	7493.		
.1550	857.	-565.	-817.	541.	225.	1516.	.0420	.0021	.0210	-.0889	.0283	.0366	6784.		

ADLPIPE PAGE 2107

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.15.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION 55 MEMBER 3 SEQUENCE 750 LOCATION END TYPE RU

.1090	-1498.	-898.	789.	641.	231.	515.	.0133	.0125	-.0316	.0114	-.0184	-.0617	3566.
.1100	-1143.	-710.	586.	574.	201.	329.	.0167	.0157	-.0310	.0130	-.0118	-.0489	2885.
.1110	-703.	-476.	315.	456.	193.	121.	.0201	.0190	-.0287	.0159	-.0051	-.0335	2128.
.1120	-244.	-182.	10.	299.	220.	-123.	.0232	.0222	-.0246	.0189	.0005	-.0141	1645.
.1130	218.	149.	-301.	98.	272.	-371.	.0104	.0254	-.0202	.0237	.0044	.0045	1965.
.1140	659.	437.	-595.	-97.	300.	-557.	.0288	.0289	-.0176	.0303	.0060	.0176	2672.
.1150	1069.	629.	-807.	-209.	266.	-733.	.0292	.0327	-.0178	.0354	.0039	.0263	3369.
.1160	1460.	777.	-943.	-235.	188.	-932.	.0272	.0365	-.0201	.0381	-.0025	.0331	4088.
.1170	1771.	956.	-1005.	-226.	83.	-1132.	.0240	.0401	-.0235	.0404	-.0108	.0384	4830.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.29.14.

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	55	MEMBER	3	SEQUENCE	750	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ									STRESS
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.1180	1944.	1083.	-990.	-216.	-59.	-1269.	.0210	.0437	-.0265	.0420	-.0158	.0390	5378.		
.1190	1928.	1138.	-899.	-197.	-168.	-1376.	.0195	.0471	-.0252	.0366	-.0163	.0398	5842.		
.1200	1765.	1148.	-809.	-227.	-167.	-1431.	.0210	.0500	-.0167	.0228	-.0121	.0427	6088.		
.1210	1492.	1105.	-770.	-374.	-76.	-1342.	.0257	.0526	-.0019	.0066	-.0011	.0420	5822.		
.1220	1069.	1013.	-721.	-593.	63.	-1127.	.0320	.0548	.0164	-.0096	.0144	.0369	5322.		
.1230	580.	822.	-635.	-780.	208.	-868.	.0376	.0565	.0338	-.0268	.0286	.0284	4948.		
.1240	122.	614.	-500.	-868.	330.	-662.	.0403	.0575	.0461	-.0428	.0344	.0195	4758.		
.1250	-274.	467.	-282.	-842.	345.	-521.	.0383	.0578	.0493	-.0513	.0306	.0086	4377.		
.1260	-603.	314.	36.	-686.	200.	-419.	.0316	.0574	.0419	-.0512	.0193	-.0072	3460.		
.1270	-868.	146.	415.	-392.	-5.	-399.	.0226	.0564	.0283	-.0506	.0008	-.0216	2336.		
.1280	-1001.	-32.	723.	-68.	-176.	-410.	.0143	.0546	.0144	-.0519	-.0197	-.0327	1884.		
.1290	-1024.	-137.	887.	142.	-279.	-370.	.0083	.0520	.0048	-.0509	-.0347	-.0404	2021.		
.1300	-984.	-169.	892.	190.	-300.	-250.	.0058	.0485	.0021	-.0480	-.0398	-.0442	1814.		
.1310	-845.	-207.	728.	121.	-208.	-94.	.0074	.0444	.0066	-.0484	-.0370	-.0426	1078.		
.1320	-627.	-179.	452.	-7.	-8.	9.	.0119	.0397	.0157	-.0528	-.0322	-.0320	57.		
.1330	-357.	-56.	156.	-162.	169.	70.	.0164	.0345	.0236	-.0530	-.0273	-.0181	1019.		
.1340	-65.	113.	-69.	-262.	234.	90.	.0186	.0292	.0251	-.0467	-.0256	-.0056	1514.		
.1350	279.	222.	-210.	-215.	211.	27.	.0181	.0240	.0194	-.0397	-.0317	.0056	1262.		
.1360	694.	251.	-296.	-34.	132.	-120.	.0151	.0192	.0078	-.0337	-.0452	.0160	758.		
.1370	1052.	337.	-311.	175.	9.	-316.	.0101	.0142	-.0068	-.0240	-.0610	.0273	1507.		
.1380	1254.	460.	-270.	320.	-132.	-476.	.0059	.0093	-.0206	-.0103	-.0722	.0371	2457.		
.1390	1268.	530.	-216.	394.	-186.	-582.	.0057	.0047	-.0291	-.0015	-.0770	.0475	3036.		
.1400	1152.	508.	-202.	399.	-107.	-612.	.0106	.0004	-.0297	-.0020	-.0754	.0592	3082.		
.1410	975.	419.	-246.	315.	33.	-510.	.0185	-.0076	-.0239	-.0062	-.0659	.0682	2506.		
.1420	714.	323.	-283.	196.	180.	-318.	.0271	-.0074	-.0152	-.0111	-.0517	.0748	1730.		
.1430	386.	160.	-264.	143.	310.	-111.	.0356	-.0107	-.0074	-.0191	-.0378	.0794	1497.		
.1440	46.	-46.	-177.	201.	404.	54.	.0431	-.0137	-.0035	-.0295	-.0285	.0828	1895.		
.1450	-221.	-212.	-49.	330.	407.	204.	.0474	-.0164	-.0047	-.0360	-.0240	.0830	2346.		
.1460	-349.	-356.	77.	501.	306.	377.	.0482	-.0185	-.0104	-.0369	-.0225	.0779	2912.		
.1470	-387.	-515.	190.	732.	188.	535.	.0475	-.0201	-.0172	-.0398	-.0240	.0720	3863.		
.1480	-364.	-711.	251.	971.	114.	691.	.0478	-.0208	-.0222	-.0472	-.0251	.0663	4995.		
.1490	-309.	-839.	231.	1120.	84.	883.	.0490	-.0209	-.0230	-.0547	-.0217	.0609	5964.		
.1500	-205.	-881.	114.	1143.	88.	1126.	.0506	-.0201	-.0185	-.0608	-.0122	.0557	6707.		
.1510	9.	-944.	-114.	1083.	142.	1382.	.0526	-.0182	-.0090	-.0702	.0007	.0506	7351.		
.1520	290.	-992.	-399.	980.	252.	1565.	.0551	-.0149	.0034	-.0834	.0127	.0482	7777.		
.1530	554.	-930.	-653.	825.	331.	1657.	.0551	-.0105	.0143	-.0919	.0226	.0463	7845.		
.1540	726.	-740.	-789.	653.	313.	1643.	.0507	-.0050	.0203	-.0918	.0288	.0429	7493.		
.1550	857.	-565.	-817.	541.	225.	1516.	.0420	.0021	.0210	-.0889	.0283	.0366	6784.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.29.15.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION 55 MEMBER 3 SEQUENCE 750 LOCATION END TYPE RU

.1470	-387.	-515.	190.	732.	188.	535.	.0475	-.0201	-.0172	-.0398	-.0240	.0720	3863.
.1480	-364.	-711.	251.	971.	114.	691.	.0478	-.0208	-.0222	-.0472	-.0251	.0663	4995.
.1490	-309.	-839.	231.	1120.	84.	883.	.0490	-.0209	-.0230	-.0547	-.0217	.0609	5964.
.1500	-205.	-881.	114.	1143.	88.	1126.	.0506	-.0201	-.0185	-.0608	-.0122	.0557	6707.
.1510	0.	-944.	-114.	1083.	142.	1382.	.0528	-.0182	-.0090	-.0702	.0007	.0506	7351.
.1520	290.	-992.	-399.	980.	252.	1585.	.0551	-.0149	.0034	-.0834	.0127	.0482	7777.
.1530	554.	-930.	-653.	825.	331.	1657.	.0551	-.0105	.0143	-.0919	.0226	.0463	7845.
.1540	726.	-740.	-789.	653.	313.	1643.	.0507	-.0050	.0203	-.0918	.0288	.0429	7493.
.1550	857.	-565.	-817.	541.	225.	1516.	.0420	.0021	.0210	-.0889	.0283	.0366	6784.

ADLPIPE PAGE 2107

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.15.

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

CONDITION 24

LOADS
SHOCK
PRESSURE

ENGLISH UNITS

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

SECTION	55	MEMBER	3	SEQUENCE	750	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)		
.1560	1039.	-496.	-805.	495.	110.	1300.	.0300	.0107	.0178	-.0870	.0203	.0265	5822.		
.1570	1183.	-388.	-739.	441.	-19.	995.	.0150	.0202	.0129	-.0826	.0076	.0161	4545.		
.1580	1189.	-189.	-599.	304.	-179.	638.	-.0016	.0303	.0076	-.0720	-.0037	.0055	3044.		
.1590	1053.	41.	-424.	81.	-308.	234.	-.0170	.0407	.0044	-.0602	-.0120	-.0034	1649.		
.1600	841.	286.	-270.	-201.	-340.	-229.	-.0302	.0508	.0057	-.0530	-.0183	-.0068	1906.		
.1610	615.	544.	-153.	-536.	-328.	-694.	-.0423	.0603	.0109	-.0474	-.0210	-.0068	3909.		
.1620	383.	775.	-54.	-906.	-338.	-1102.	-.0538	.0689	.0177	-.0399	-.0187	-.0078	6117.		
.1630	92.	983.	70.	-1235.	-331.	-1492.	-.0636	.0762	.0247	-.0345	-.0152	-.0070	8200.		
.1640	-249.	1128.	229.	-1474.	-302.	-1876.	-.0712	.0817	.0305	-.0327	-.0126	-.0041	10036.		
.1650	-582.	1220.	407.	-1638.	-305.	-2209.	-.0778	.0852	.0337	-.0299	-.0099	-.0016	11548.		
.1660	-874.	1321.	580.	-1744.	-336.	-2471.	-.0842	.0863	.0348	-.0238	-.0073	.0014	12700.		
.1670	-1087.	1366.	704.	-1783.	-352.	-2638.	-.0888	.0848	.0343	-.0175	-.0055	.0041	13369.		
.1680	-1252.	1321.	787.	-1737.	-328.	-2711.	-.0905	.0808	.0328	-.0137	-.0046	.0074	13506.		
.1690	-1367.	1214.	828.	-1634.	-297.	-2655.	-.0900	.0744	.0300	-.0093	-.0028	.0094	13070.		
.1700	-1396.	1096.	815.	-1486.	-274.	-2464.	-.0880	.0655	.0260	-.0026	-.0006	.0101	12064.		
.1710	-1326.	938.	754.	-1259.	-240.	-2173.	-.0845	.0547	.0209	.0022	.0002	.0108	10527.		
.1720	-1139.	656.	643.	-942.	-213.	-1783.	-.0791	.0424	.0144	.0039	.0004	.0090	8464.		
.1730	-899.	366.	517.	-573.	-195.	-1334.	-.0725	.0291	.0067	.0049	.0003	.0071	6114.		
.1740	-627.	131.	378.	-200.	-197.	-830.	-.0655	.0149	-.0014	.0078	.0010	.0049	3656.		
.1750	-320.	-127.	218.	174.	-205.	-277.	-.0578	.0008	-.0089	.0095	.0032	.0012	1611.		
.1760	-14.	-433.	49.	554.	-183.	284.	-.0489	-.0126	-.0142	.0060	.0059	-.0024	2708.		
.1770	258.	-749.	-122.	889.	-138.	853.	-.0390	-.0247	-.0171	-.0007	.0103	-.0067	5176.		
.1780	427.	-994.	-258.	1142.	-88.	1408.	-.0290	-.0353	-.0176	-.0073	.0169	-.0112	7573.		
.1790	505.	-1220.	-354.	1319.	-42.	1925.	-.0192	-.0438	-.0161	-.0149	.0253	-.0169	9741.		
.1800	532.	-1450.	-424.	1445.	21.	2360.	-.0099	-.0498	-.0127	-.0258	.0332	-.0225	11550.		
.1810	505.	-1605.	-455.	1513.	93.	2673.	-.0026	-.0534	-.0080	-.0379	.0394	-.0261	12824.		
.1820	440.	-1678.	-447.	1495.	120.	2887.	.0020	-.0544	-.0036	-.0460	.0456	-.0309	13578.		
.1830	328.	-1674.	-391.	1408.	116.	2980.	.0041	-.0529	.0003	-.0512	.0508	-.0356	13764.		
.1840	196.	-1622.	-309.	1278.	119.	2934.	.0042	-.0491	.0042	-.0565	.0533	-.0389	13366.		
.1850	62.	-1519.	-219.	1096.	125.	2769.	.0023	-.0432	.0081	-.0604	.0540	-.0409	12442.		
.1860	-90.	-1331.	-116.	845.	117.	2515.	-.0019	-.0357	.0118	-.0598	.0540	-.0421	11082.		
.1870	-241.	-1098.	-21.	537.	100.	2196.	-.0077	-.0270	.0148	-.0551	.0535	-.0436	9446.		
.1880	-381.	-838.	65.	219.	105.	1798.	-.0144	-.0175	.0173	-.0496	.0508	-.0430	7573.		
.1890	-484.	-567.	141.	-88.	103.	1342.	-.0223	-.0078	.0183	-.0422	.0462	-.0412	5631.		
.1900	-537.	-271.	209.	-380.	62.	863.	-.0314	.0017	.0172	-.0308	.0411	-.0393	3943.		
.1910	-555.	59.	273.	-633.	1.	362.	-.0411	.0104	.0144	-.0170	.0350	-.0356	3042.		
.1920	-522.	353.	315.	-823.	-61.	-131.	-.0501	.0181	.0105	-.0041	.0290	-.0311	3485.		
.1930	-425.	599.	313.	-959.	-117.	-580.	-.0577	.0244	.0068	.0077	.0246	-.0258	4705.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.15.

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

CONDITION 24

LOADS
SHOCK
PRESSURE

ENGLISH UNITS

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

SECTION	55	MEMBER	3	SEQUENCE	750	LOCATION	END	TYPE	RU
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.1750	62.	-1519.	-210.	1006.	125.	2769.	.0023	-.0432	.0081	-.0604	.0540	-.0409	12442.
.1860	-90.	-1331.	-116.	845.	117.	2519.	-.0019	-.0357	.0118	-.0598	.0540	-.0421	11082.
.1870	-241.	-1098.	-21.	537.	100.	2196.	-.0077	-.0270	.0148	-.0551	.0535	-.0436	9446.
.1880	-381.	-838.	65.	219.	105.	1798.	-.0144	-.0175	.0173	-.0496	.0508	-.0430	7573.
.1890	-484.	-567.	141.	-88.	107.	1342.	-.0223	-.0078	.0183	-.0422	.0462	-.0412	5631.
.1900	-537.	-271.	209.	-380.	62.	863.	-.0314	.0017	.0172	-.0308	.0411	-.0393	3943.
.1910	-555.	59.	273.	-623.	1.	362.	-.0411	.0104	.0144	-.0170	.0350	-.0356	3042.
.1920	-522.	353.	315.	-823.	-61.	-131.	-.0501	.0181	.0105	-.0041	.0290	-.0311	3485.
.1930	-425.	599.	313.	-959.	-117.	-580.	-.0577	.0244	.0068	.0077	.0246	-.0258	4705.

ADLPIPE PAGE 2108

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.15.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	55	MEMBER	3	SEQUENCE	750	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ				DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)			(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.1940	-258.	831.	244.	-1075.	-159.	-954.			.0291	.0046	.0195	.0232	-.0198	6036.	
.1950	-37.	1041.	105.	-1181.	-170.	-1237.			.0319	.0045	.0306	.0250	-.0133	7174.	
.1960	201.	1192.	-80.	-1260.	-144.	-1436.			.0331	.0062	.0393	.0289	-.0065	7998.	
.1970	424.	1291.	-277.	-1303.	-95.	-1556.			.0325	.0085	.0464	.0335	-.0003	8480.	
.1980	625.	1353.	-455.	-1299.	-57.	-1597.			.0305	.0099	.0540	.0369	.0036	8596.	
.1990	802.	1349.	-586.	-1222.	-52.	-1570.			.0273	.0088	.0617	.0375	.0039	8306.	
.2000	928.	1250.	-640.	-1044.	-81.	-1501.			.0233	.0048	.0675	.0341	.0004	7639.	
.2010	961.	1079.	-601.	-786.	-138.	-1403.			.0187	-.0015	.0713	.0272	-.0061	6736.	
.2020	879.	879.	-478.	-503.	-219.	-1265.			.0138	-.0087	.0746	.0195	-.0154	5753.	
.2030	696.	653.	-308.	-238.	-298.	-1078.			.0087	-.0144	.0761	.0132	-.0268	4773.	
.2040	430.	388.	-128.	-14.	-334.	-851.			.0038	-.0164	.0731	.0094	-.0385	3814.	
.2050	89.	102.	45.	145.	-313.	-587.			-.0008	-.0138	.0654	.0089	-.0496	2841.	
.2060	-321.	-166.	210.	223.	-255.	-292.			-.0050	-.0074	.0554	.0122	-.0602	1868.	
.2070	-765.	-405.	371.	240.	-183.	12.			-.0086	.0011	.0445	.0175	-.0703	1261.	
.2080	-1179.	-627.	524.	240.	-107.	290.			-.0117	.0098	.0323	.0220	-.0794	1633.	
.2090	-1512.	-826.	669.	251.	-51.	519.			-.0141	.0167	.0201	.0236	-.0876	2415.	
.2100	-1747.	-971.	809.	274.	-42.	694.			-.0317	-.0159	.0202	.0219	-.0954	3117.	
.2110	-1880.	-1044.	939.	306.	-80.	811.			-.0291	-.0174	.0202	.0055	.0175	-.1022	3634.
.2120	-1898.	-1066.	1033.	348.	-137.	875.			-.0277	-.0184	.0179	.0023	.0112	-.1071	3970.
.2130	-1790.	-1058.	1059.	383.	-187.	905.			-.0266	-.0191	.0151	-.0004	.0048	-.1098	4174.
.2140	-1570.	-1009.	998.	378.	-217.	925.			-.0251	-.0196	.0133	-.0021	.0005	-.1100	4269.
.2150	-1278.	-907.	857.	315.	-213.	945.			-.0227	-.0200	.0135	-.0028	-.0005	-.1072	4252.
.2160	-953.	-772.	653.	207.	-170.	958.			-.0190	-.0204	.0156	-.0036	.0017	-.1014	4153.
.2170	-610.	-624.	412.	78.	-101.	959.			-.0144	-.0206	.0186	-.0044	.0058	-.0934	4037.
.2180	-257.	-469.	164.	-44.	-33.	941.			-.0102	-.0209	.0208	-.0039	.0104	-.0844	3934.
.2190	85.	-311.	-58.	-135.	10.	896.			-.0072	-.0210	.0210	-.0015	.0136	-.0753	3783.
.2200	379.	-173.	-221.	-170.	24.	817.			-.0053	-.0210	.0182	.0024	.0147	-.0670	3484.
.2210	591.	-67.	-308.	-149.	12.	706.			-.0043	-.0209	.0127	.0071	.0135	-.0596	3013.
.2220	710.	15.	-330.	-95.	-16.	582.			-.0036	-.0207	.0058	.0125	.0112	-.0533	2462.
.2230	743.	72.	-312.	-36.	-41.	465.			-.0028	-.0205	-.0007	.0179	.0092	-.0478	1954.
.2240	695.	96.	-277.	10.	-39.	367.			-.0011	-.0201	-.0053	.0220	.0086	-.0427	1542.
.2250	563.	91.	-236.	30.	3.	294.			.0022	-.0198	-.0071	.0241	.0099	-.0374	1234.
.2260	358.	77.	-189.	22.	74.	249.			.0068	-.0194	-.0065	.0252	.0129	-.0323	1086.
.2270	119.	54.	-137.	3.	154.	227.			.0120	-.0190	-.0046	.0259	.0161	-.0279	1145.
.2280	-107.	11.	-79.	6.	226.	215.			.0169	-.0186	-.0028	.0262	.0177	-.0245	1301.
.2290	-293.	-49.	-9.	55.	276.	197.			.0212	-.0181	-.0024	.0262	.0160	-.0223	1432.
.2300	-427.	-107.	73.	148.	290.	168.			.0242	-.0175	-.0041	.0272	.0108	-.0214	1529.
.2310	-494.	-144.	154.	267.	269.	131.			.0262	-.0167	-.0076	.0298	.0029	-.0215	1675.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.15.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION 55 MEMBER 3 SEQUENCE 750 LOCATION END TYPE RU

.1850	62.	-1519.	-210.	1096.	125.	2769.	.0023	-.0432	.0081	-.0604	.0540	-.0409	12442.
.1860	-90.	-1331.	-116.	845.	117.	2519.	-.0019	-.0357	.0118	-.0598	.0540	-.0421	11082.
.1870	-241.	-1098.	-21.	537.	100.	2196.	-.0077	-.0270	.0148	-.0551	.0535	-.0436	9446.
.1880	-381.	-838.	65.	219.	105.	1798.	-.0144	-.0175	.0173	-.0496	.0508	-.0430	7573.
.1890	-484.	-567.	141.	-88.	107.	1342.	-.0223	-.0078	.0183	-.0422	.0462	-.0412	5631.
.1900	-537.	-271.	209.	-380.	62.	863.	-.0314	.0017	.0172	-.0308	.0411	-.0393	3943.
.1910	-555.	59.	273.	-623.	1.	362.	-.0411	.0104	.0144	-.0170	.0350	-.0356	3042.
.1920	-522.	353.	315.	-823.	-61.	-131.	-.0501	.0181	.0105	-.0041	.0290	-.0311	3485.
.1930	-425.	599.	313.	-959.	-117.	-580.	-.0577	.0244	.0068	.0077	.0246	-.0258	4705.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.15.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	55	MEMBER	3	SEQUENCE	750	LOCATION	END	TYPE	RU					STRESS
TIME	FX	FY	FZ	MX	MY	MZ				DZ	RX	RY	RZ	(PSI)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	
.1940	-258.	831.	244.	-1075.	-159.	-954.	-.0640	.0291	.0046	.0195	.0232	-.0198	6036.	
.1950	-37.	1041.	105.	-1181.	-170.	-1237.	-.0684	.0319	.0045	.0306	.0250	-.0133	7174.	
.1960	201.	1192.	-80.	-1260.	-144.	-1436.	-.0703	.0331	.0062	.0393	.0289	-.0065	7998.	
.1970	424.	1291.	-277.	-1303.	-95.	-1556.	-.0704	.0325	.0085	.0464	.0335	-.0003	8480.	
.1980	625.	1353.	-455.	-1299.	-57.	-1597.	-.0700	.0305	.0099	.0540	.0369	.0036	8596.	
.1990	802.	1349.	-586.	-1222.	-52.	-1570.	-.0700	.0273	.0088	.0617	.0375	.0039	8306.	
.2000	928.	1250.	-640.	-1044.	-81.	-1501.	-.0705	.0233	.0048	.0675	.0341	.0004	7639.	
.2010	961.	1079.	-601.	-786.	-138.	-1403.	-.0712	.0187	-.0015	.0713	.0272	-.0061	6736.	
.2020	879.	879.	-478.	-503.	-219.	-1265.	-.0717	.0138	-.0087	.0746	.0195	-.0154	5753.	
.2030	696.	653.	-308.	-238.	-298.	-1078.	-.0713	.0087	-.0144	.0761	.0132	-.0268	4773.	
.2040	430.	388.	-128.	-14.	-334.	-851.	-.0688	.0038	-.0164	.0731	.0094	-.0385	3814.	
.2050	89.	102.	45.	145.	-313.	-587.	-.0640	-.0008	-.0138	.0654	.0089	-.0496	2841.	
.2060	-321.	-166.	210.	223.	-255.	-292.	-.0574	-.0050	-.0074	.0554	.0122	-.0602	1868.	
.2070	-765.	-405.	371.	240.	-183.	12.	-.0500	-.0086	.0011	.0445	.0175	-.0703	1261.	
.2080	-1179.	-627.	524.	240.	-107.	290.	-.0425	-.0117	.0098	.0323	.0220	-.0794	1633.	
.2090	-1512.	-826.	669.	251.	-51.	519.	-.0362	-.0141	.0167	.0201	.0236	-.0876	2415.	
.2100	-1747.	-971.	809.	274.	-42.	694.	-.0317	-.0159	.0202	.0108	.0219	-.0954	3117.	
.2110	-1880.	-1044.	939.	306.	-80.	811.	-.0291	-.0174	.0202	.0055	.0175	-.1022	3634.	
.2120	-1898.	-1066.	1033.	348.	-137.	875.	-.0277	-.0184	.0179	.0023	.0112	-.1071	3970.	
.2130	-1790.	-1058.	1059.	383.	-187.	905.	-.0266	-.0191	.0151	-.0004	.0048	-.1098	4174.	
.2140	-1570.	-1009.	998.	378.	-217.	925.	-.0251	-.0196	.0133	-.0021	.0005	-.1100	4269.	
.2150	-1278.	-907.	857.	315.	-213.	945.	-.0227	-.0200	.0135	-.0028	-.0005	-.1072	4252.	
.2160	-953.	-772.	653.	207.	-170.	958.	-.0190	-.0204	.0156	-.0036	.0017	-.1014	4153.	
.2170	-610.	-624.	412.	78.	-101.	959.	-.0144	-.0206	.0186	-.0044	.0058	-.0934	4037.	
.2180	-257.	-469.	164.	-44.	-33.	941.	-.0102	-.0209	.0208	-.0039	.0104	-.0844	3934.	
.2190	85.	-311.	-58.	-135.	10.	896.	-.0072	-.0210	.0210	-.0015	.0136	-.0753	3783.	
.2200	379.	-173.	-221.	-170.	24.	817.	-.0053	-.0210	.0182	.0024	.0147	-.0670	3484.	
.2210	591.	-67.	-308.	-149.	12.	706.	-.0043	-.0209	.0127	.0071	.0135	-.0596	3013.	
.2220	710.	15.	-330.	-95.	-16.	582.	-.0036	-.0207	.0058	.0125	.0112	-.0533	2462.	
.2230	743.	72.	-312.	-36.	-41.	465.	-.0028	-.0205	-.0007	.0179	.0092	-.0478	1954.	
.2240	695.	96.	-277.	10.	-39.	367.	-.0011	-.0201	-.0053	.0220	.0086	-.0427	1542.	
.2250	563.	91.	-236.	30.	3.	294.	.0022	-.0198	-.0071	.0241	.0099	-.0374	1234.	
.2260	358.	77.	-189.	22.	74.	249.	.0068	-.0194	-.0065	.0252	.0129	-.0323	1086.	
.2270	119.	54.	-137.	3.	154.	227.	.0120	-.0190	-.0046	.0259	.0161	-.0279	1145.	
.2280	-107.	11.	-79.	6.	226.	215.	.0169	-.0186	-.0028	.0262	.0177	-.0245	1301.	
.2290	-293.	-49.	-9.	55.	276.	197.	.0212	-.0181	-.0024	.0262	.0160	-.0223	1432.	
.2300	-427.	-107.	73.	148.	290.	168.	.0242	-.0175	-.0041	.0272	.0108	-.0214	1529.	
.2310	-494.	-144.	154.	267.	269.	131.	.0262	-.0167	-.0076	.0298	.0029	-.0215	1675.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.15.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	55	MEMBER	3	SEQUENCE	750	LOCATION	END	TYPE	RU					STRESS
---------	----	--------	---	----------	-----	----------	-----	------	----	--	--	--	--	--------

.2610	-390.	-836.	247.	1016.	340.	482.	.0448	-.0180	-.0320	.0053	-.0119	.0091	3818.
.2620	-113.	-892.	82.	1177.	368.	686.	.0535	-.0242	-.0355	.0053	-.0169	.0297	5888.
.2630	153.	-919.	-77.	1300.	391.	857.	.0616	-.0297	-.0380	.0053	-.0197	.0403	6699.
.2640	408.	-923.	-228.	1384.	409.	988.	.0688	-.0331	-.0394	.0050	-.0228	.0505	7297.
.2650	636.	-903.	-360.	1426.	420.	1071.	.0748	-.0353	-.0399	.0042	-.0262	.0603	7649.
.2660	808.	-854.	-458.	1426.	423.	1103.	.0795	-.0360	-.0397	.0034	-.0294	.0693	7726.
.2670	907.	-775.	-512.	1382.	414.	1081.	.0828	-.0350	-.0389	.0028	-.0323	.0773	7524.
.2680	942.	-677.	-528.	1298.	396.	1012.	.0845	-.0326	-.0376	.0021	-.0346	.0842	7063.
.2690	930.	-567.	-517.	1179.	370.	899.	.0846	-.0287	-.0357	.0010	-.0363	.0898	6378.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/31/02. 18.29.15.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	55	MEMBER	3	SEQUENCE	750	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)		
.2700	870.	-445.	-482.	1029.	329.	751.	.0832	-.0235	-.0330	-.0005	-.0372	.0944	5500.		
.2710	752.	-309.	-420.	849.	305.	577.	.0805	-.0174	-.0299	-.0020	-.0369	.0979	4469.		
.2720	588.	-169.	-340.	646.	268.	392.	.0770	-.0105	-.0265	-.0036	-.0353	.1000	3346.		
.2730	412.	-36.	-257.	432.	229.	201.	.0725	-.0031	-.0230	-.0055	-.0329	.1009	2206.		
.2740	250.	96.	-181.	215.	188.	2.	.0671	.0045	-.0195	-.0074	-.0300	.1013	1191.		
.2750	101.	240.	-111.	1.	141.	-202.	.0608	.0119	-.0166	-.0086	-.0268	.1016	1029.		
.2760	-38.	390.	-44.	-203.	88.	-400.	.0542	.0190	-.0146	-.0089	-.0234	.1015	1908.		
.2770	-150.	528.	13.	-383.	28.	-582.	.0475	.0254	-.0135	-.0086	-.0199	.1009	2910.		
.2780	-200.	647.	41.	-534.	-32.	-743.	.0408	.0311	-.0130	-.0085	-.0166	.1000	3820.		
.2790	-180.	759.	32.	-662.	-90.	-877.	.0343	.0358	-.0128	-.0084	-.0137	.0996	4603.		
.2800	-111.	870.	-8.	-774.	-142.	-978.	.0285	.0393	-.0128	-.0078	-.0106	.0995	5239.		
.2810	-15.	968.	-69.	-866.	-186.	-1040.	.0237	.0417	-.0129	-.0072	-.0075	.0994	5702.		
.2820	117.	1041.	-156.	-936.	-217.	-1065.	.0200	.0429	-.0129	-.0072	-.0046	.0995	5986.		
.2830	298.	1096.	-271.	-987.	-236.	-1055.	.0171	.0430	-.0127	-.0074	-.0028	.0998	6108.		
.2840	502.	1138.	-395.	-1018.	-252.	-1014.	.0147	.0419	-.0128	-.0073	-.0021	.0999	6087.		
.2850	683.	1155.	-498.	-1020.	-270.	-947.	.0130	.0399	-.0137	-.0069	-.0029	.0992	5916.		
.2860	816.	1135.	-563.	-986.	-290.	-858.	.0120	.0371	-.0156	-.0067	-.0052	.0974	5587.		
.2870	906.	1078.	-591.	-918.	-313.	-748.	.0115	.0335	-.0182	-.0071	-.0092	.0944	5112.		
.2880	955.	988.	-588.	-824.	-338.	-617.	.0112	.0294	-.0212	-.0079	-.0142	.0903	4521.		
.2890	940.	862.	-548.	-712.	-361.	-462.	.0117	.0247	-.0239	-.0097	-.0194	.0852	3848.		
.2900	833.	699.	-469.	-590.	-369.	-286.	.0134	.0198	-.0259	-.0132	-.0238	.0795	3140.		
.2910	639.	512.	-361.	-470.	-357.	-90.	.0163	.0146	-.0268	-.0181	-.0268	.0735	2492.		
.2920	389.	309.	-240.	-360.	-328.	126.	.0201	.0093	-.0264	-.0242	-.0281	.0674	2098.		
.2930	114.	87.	-121.	-254.	-285.	358.	.0244	.0039	-.0250	-.0311	-.0280	.0610	2185.		
.2940	-172.	-149.	-3.	-145.	-231.	591.	.0291	-.0014	-.0232	-.0388	-.0269	.0547	2717.		
.2950	-463.	-377.	117.	-29.	-176.	812.	.0336	-.0065	-.0218	-.0462	-.0253	.0486	3472.		
.2960	-729.	-584.	232.	97.	-135.	1017.	.0374	-.0113	-.0216	-.0522	-.0237	.0424	4299.		
.2970	-925.	-772.	324.	235.	-110.	1198.	.0400	-.0157	-.0226	-.0567	-.0223	.0362	5116.		
.2980	-1023.	-942.	377.	382.	-96.	1347.	.0413	-.0196	-.0245	-.0605	-.0215	.0305	5856.		
.2990	-1036.	-1074.	390.	524.	-88.	1455.	.0416	-.0228	-.0271	-.0632	-.0207	.0259	6463.		
.3000	-986.	-1145.	366.	638.	-85.	1522.	.0410	-.0252	-.0297	-.0640	-.0190	.0226	6897.		
.3010	-877.	-1161.	302.	713.	-82.	1551.	.0396	-.0268	-.0318	-.0635	-.0160	.0205	7133.		
.3020	-699.	-1141.	190.	748.	-71.	1539.	.0375	-.0273	-.0327	-.0629	-.0117	.0196	7149.		
.3030	-463.	-1084.	41.	743.	-51.	1480.	.0346	-.0266	-.0323	-.0624	-.0066	.0199	6915.		
.3040	-212.	-977.	-120.	691.	-34.	1370.	.0307	-.0248	-.0309	-.0610	-.0007	.0211	6407.		
.3050	17.	-821.	-265.	598.	-28.	1207.	.0259	-.0218	-.0291	-.0586	.0056	.0227	5624.		
.3060	215.	-639.	-383.	476.	-30.	990.	.0201	-.0176	-.0270	-.0559	.0116	.0242	4585.		
.3070	392.	-445.	-476.	332.	-42.	721.	.0132	-.0122	-.0244	-.0535	.0165	.0255	3316.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

8/31/02. 18.29.15.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION 55 MEMBER 3 SEQUENCE 750 LOCATION END TYPE RU

.2990	-1036.	-1074.	390.	524.	-88.	1455.	.0416	-.0228	-.0271	-.0632	-.0207	.0259	6463.
.3000	-986.	-1145.	266.	638.	-85.	1522.	.0410	-.0252	-.0297	-.0640	-.0190	.0226	6897.
.3010	-877.	-1161.	302.	713.	-82.	1551.	.0396	-.0268	-.0318	-.0635	-.0160	.0205	7133.
.3020	-699.	-1141.	190.	748.	-71.	1539.	.0375	-.0273	-.0327	-.0629	-.0117	.0196	7149.
.3030	-463.	-1084.	41.	743.	-51.	1480.	.0346	-.0266	-.0323	-.0624	-.0066	.0199	6915.
.3040	-212.	-977.	-120.	691.	-34.	1370.	.0307	-.0248	-.0309	-.0610	-.0007	.0211	6407.
.3050	17.	-821.	-265.	598.	-28.	1207.	.0259	-.0218	-.0291	-.0586	.0056	.0227	5624.
.3060	215.	-639.	-383.	476.	-30.	990.	.0201	-.0176	-.0270	-.0559	.0116	.0242	4585.
.3070	392.	-445.	-476.	332.	-42.	721.	.0132	-.0122	-.0244	-.0535	.0165	.0255	3316.

ADLPIPE PAGE 2111

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.15.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	55	MEMBER	2	SEQUENCE	750	LOCATION	END	TYPE	RU						
TIME	FX	FY	FZ	MX	MY	MZ				DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)			(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.3080	535.	-232.	-539.	159.	-63.	410.	.0052	-.0060	-.0212	-.0508	.0204	.0265	.0265	1853.	
.3090	611.	-0.	-558.	-43.	-91.	67.	-.0034	.0009	-.0175	-.0476	.0237	.0271	.0271	505.	
.3100	598.	235.	-530.	-269.	-117.	-294.	-.0120	.0082	-.0130	-.0446	.0264	.0272	.0272	1732.	
.3110	513.	457.	-465.	-508.	-135.	-656.	-.0202	.0157	-.0077	-.0423	.0283	.0268	.0268	3508.	
.3120	385.	656.	-378.	-752.	-146.	-1000.	-.0281	.0229	-.0015	-.0406	.0296	.0255	.0255	5256.	
.3130	225.	829.	-272.	-987.	-156.	-1310.	-.0356	.0294	.0051	-.0391	.0299	.0232	.0232	6877.	
.3140	28.	966.	-143.	-1195.	-164.	-1582.	-.0423	.0351	.0116	-.0380	.0293	.0201	.0201	8302.	
.3150	-197.	1067.	7.	-1360.	-170.	-1808.	-.0478	.0395	.0173	-.0372	.0275	.0165	.0165	9469.	
.3160	-420.	1131.	161.	-1477.	-180.	-1973.	-.0524	.0422	.0220	-.0362	.0247	.0122	.0122	10313.	
.3170	-603.	1150.	300.	-1537.	-192.	-2065.	-.0559	.0433	.0257	-.0350	.0208	.0074	.0074	10774.	
.3180	-734.	1118.	411.	-1538.	-201.	-2078.	-.0580	.0424	.0285	-.0341	.0162	.0023	.0023	10824.	
.3190	-820.	1042.	494.	-1481.	-201.	-2014.	-.0585	.0395	.0304	-.0334	.0114	-.0025	-.0025	10468.	
.3200	-865.	936.	545.	-1374.	-194.	-1871.	-.0573	.0346	.0313	-.0322	.0069	-.0071	-.0071	9722.	
.3210	-852.	800.	556.	-1221.	-181.	-1650.	-.0547	.0280	.0314	-.0307	.0030	-.0114	-.0114	8599.	
.3220	-761.	626.	518.	-1021.	-162.	-1361.	-.0508	.0197	.0308	-.0293	-.0003	-.0152	-.0152	7134.	
.3230	-601.	423.	440.	-779.	-136.	-1026.	-.0460	.0102	.0294	-.0282	-.0033	-.0184	-.0184	5406.	
.3240	-406.	216.	339.	-512.	-111.	-660.	-.0404	-.0002	.0271	-.0265	-.0055	-.0206	-.0206	3517.	
.3250	-201.	17.	230.	-233.	-92.	-280.	-.0344	-.0112	.0239	-.0238	-.0066	-.0222	-.0222	1568.	
.3260	11.	-182.	116.	49.	-74.	100.	-.0283	-.0222	.0202	-.0209	-.0070	-.0232	-.0232	559.	
.3270	227.	-382.	-2.	325.	-53.	463.	-.0223	-.0329	.0165	-.0184	-.0068	-.0236	-.0236	2370.	
.3280	423.	-569.	-114.	574.	-32.	796.	-.0167	-.0427	.0130	-.0159	-.0057	-.0234	-.0234	4096.	
.3290	562.	-723.	-200.	780.	-11.	1085.	-.0117	-.0514	.0098	-.0128	-.0035	-.0228	-.0228	5578.	
.3300	630.	-845.	-252.	938.	9.	1319.	-.0072	-.0586	.0070	-.0095	-.0004	-.0218	-.0218	6754.	
.3310	640.	-941.	-274.	1048.	30.	1485.	-.0037	-.0641	.0048	-.0065	.0032	-.0204	-.0204	7588.	
.3320	608.	-1004.	-270.	1107.	48.	1581.	-.0014	-.0678	.0033	-.0037	.0069	-.0186	-.0186	8056.	
.3330	533.	-1024.	-238.	1110.	59.	1604.	-.0004	-.0697	.0025	-.0005	.0109	-.0166	-.0166	8144.	
.3340	402.	-1000.	-173.	1063.	63.	1554.	-.0004	-.0697	.0020	.0030	.0148	-.0142	-.0142	7862.	
.3350	225.	-941.	-80.	971.	64.	1439.	-.0013	-.0682	.0021	.0065	.0187	-.0116	-.0116	7249.	
.3360	28.	-852.	25.	841.	64.	1271.	-.0030	-.0652	.0028	.0100	.0224	-.0088	-.0088	6365.	
.3370	-165.	-738.	129.	676.	62.	1068.	-.0054	-.0610	.0041	.0136	.0258	-.0060	-.0060	5283.	
.3380	-351.	-607.	228.	490.	61.	843.	-.0082	-.0560	.0058	.0174	.0288	-.0033	-.0033	4077.	
.3390	-531.	-467.	324.	297.	61.	604.	-.0110	-.0505	.0076	.0212	.0313	-.0007	-.0007	2821.	
.3400	-692.	-320.	410.	108.	60.	365.	-.0137	-.0449	.0092	.0254	.0331	.0019	.0019	1607.	
.3410	-810.	-171.	477.	-65.	53.	139.	-.0163	-.0394	.0102	.0301	.0340	.0042	.0042	677.	
.3420	-867.	-35.	516.	-208.	42.	-62.	-.0187	-.0345	.0107	.0351	.0340	.0061	.0061	921.	
.3430	-867.	80.	530.	-311.	29.	-231.	-.0207	-.0303	.0105	.0401	.0331	.0078	.0078	1623.	
.3440	-822.	178.	519.	-376.	15.	-362.	-.0219	-.0271	.0096	.0451	.0315	.0093	.0093	2178.	
.3450	-738.	261.	484.	-405.	1.	-445.	-.0222	-.0250	.0082	.0505	.0299	.0106	.0106	2512.	

ADLPIPE PAGE 2112

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.15.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	55	MEMBER	2	SEQUENCE	750	LOCATION	END	TYPE	RU
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.2990	-1036.	-1074.	390.	524.	-88.	1455.	.0416	-.0228	-.0271	-.0632	-.0207	.0259	6463.
.3000	-986.	-1145.	366.	638.	-85.	1522.	.0410	-.0252	-.0297	-.0640	-.0190	.0226	6897.
.3010	-877.	-1161.	302.	713.	-82.	1551.	.0396	-.0268	-.0318	-.0635	-.0160	.0205	7133.
.3020	-699.	-1141.	190.	748.	-71.	1539.	.0375	-.0273	-.0327	-.0629	-.0117	.0196	7149.
.3030	-463.	-1084.	41.	743.	-51.	1480.	.0346	-.0266	-.0323	-.0624	-.0066	.0199	6915.
.3040	-212.	-977.	-120.	691.	-34.	1370.	.0307	-.0248	-.0309	-.0610	-.0007	.0211	6407.
.3050	17.	-821.	-265.	598.	-28.	1207.	.0259	-.0218	-.0291	-.0586	.0056	.0227	5624.
.3060	215.	-639.	-383.	476.	-30.	990.	.0201	-.0176	-.0270	-.0559	.0116	.0242	4585.
.3070	392.	-445.	-476.	372.	-42.	721.	.0132	-.0122	-.0244	-.0535	.0165	.0255	3316.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.15.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	55	MEMBER	3	SEQUENCE	750	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)		
.3080	535.	-232.	-539.	159.	-63.	410.	.0052	-.0060	-.0212	-.0508	.0204	.0265	1853.		
.3090	611.	-0.	-558.	-43.	-91.	67.	-.0034	.0009	-.0175	-.0476	.0237	.0271	505.		
.3100	598.	235.	-530.	-269.	-117.	-294.	-.0120	.0082	-.0130	-.0446	.0264	.0272	1732.		
.3110	513.	457.	-465.	-508.	-135.	-656.	-.0202	.0157	-.0077	-.0423	.0283	.0268	3508.		
.3120	385.	656.	-378.	-752.	-146.	-1000.	-.0281	.0229	-.0015	-.0406	.0296	.0255	5256.		
.3130	225.	829.	-272.	-987.	-156.	-1310.	-.0356	.0294	.0051	-.0391	.0299	.0232	6877.		
.3140	28.	966.	-143.	-1195.	-164.	-1582.	-.0423	.0351	.0116	-.0380	.0293	.0201	8302.		
.3150	-197.	1067.	7.	-1360.	-170.	-1808.	-.0478	.0395	.0173	-.0372	.0275	.0165	9469.		
.3160	-420.	1131.	161.	-1477.	-180.	-1973.	-.0524	.0422	.0220	-.0362	.0247	.0122	10313.		
.3170	-603.	1150.	300.	-1537.	-192.	-2065.	-.0559	.0433	.0257	-.0350	.0208	.0074	10774.		
.3180	-734.	1118.	411.	-1538.	-201.	-2078.	-.0580	.0424	.0285	-.0341	.0162	.0023	10824.		
.3190	-820.	1042.	494.	-1481.	-201.	-2014.	-.0585	.0395	.0304	-.0334	.0114	-.0025	10468.		
.3200	-865.	936.	545.	-1374.	-194.	-1871.	-.0573	.0346	.0313	-.0322	.0069	-.0071	9722.		
.3210	-852.	800.	556.	-1221.	-181.	-1650.	-.0547	.0280	.0314	-.0307	.0030	-.0114	8599.		
.3220	-761.	626.	518.	-1021.	-162.	-1361.	-.0508	.0197	.0308	-.0293	-.0003	-.0152	7134.		
.3230	-601.	423.	440.	-779.	-136.	-1026.	-.0460	.0102	.0294	-.0282	-.0033	-.0184	5406.		
.3240	-406.	216.	339.	-512.	-111.	-660.	-.0404	-.0002	.0271	-.0265	-.0055	-.0206	3517.		
.3250	-201.	17.	230.	-233.	-92.	-280.	-.0344	-.0112	.0239	-.0238	-.0066	-.0222	1568.		
.3260	11.	-182.	116.	49.	-74.	100.	-.0283	-.0222	.0202	-.0209	-.0070	-.0232	559.		
.3270	227.	-382.	-2.	325.	-53.	463.	-.0223	-.0329	.0165	-.0184	-.0068	-.0236	2370.		
.3280	423.	-569.	-114.	574.	-32.	796.	-.0167	-.0427	.0130	-.0159	-.0057	-.0234	4096.		
.3290	562.	-723.	-200.	780.	-11.	1085.	-.0117	-.0514	.0098	-.0128	-.0035	-.0228	5578.		
.3300	630.	-845.	-252.	938.	9.	1319.	-.0072	-.0586	.0070	-.0095	-.0004	-.0218	6754.		
.3310	640.	-941.	-274.	1048.	30.	1485.	-.0037	-.0641	.0048	-.0065	.0032	-.0204	7588.		
.3320	608.	-1004.	-270.	1107.	48.	1581.	-.0014	-.0678	.0033	-.0037	.0069	-.0186	8056.		
.3330	533.	-1024.	-238.	1110.	59.	1604.	-.0004	-.0697	.0025	-.0005	.0109	-.0166	8144.		
.3340	402.	-1000.	-173.	1063.	63.	1554.	-.0004	-.0697	.0020	.0030	.0148	-.0142	7862.		
.3350	225.	-941.	-80.	971.	64.	1439.	-.0013	-.0682	.0021	.0065	.0187	-.0116	7249.		
.3360	28.	-852.	25.	841.	64.	1271.	-.0030	-.0652	.0028	.0100	.0224	-.0088	6365.		
.3370	-165.	-738.	129.	676.	62.	1068.	-.0054	-.0610	.0041	.0136	.0258	-.0060	5283.		
.3380	-351.	-607.	228.	490.	61.	843.	-.0082	-.0560	.0058	.0174	.0288	-.0033	4077.		
.3390	-531.	-467.	324.	297.	61.	604.	-.0110	-.0505	.0076	.0212	.0313	-.0007	2821.		
.3400	-692.	-320.	410.	108.	60.	365.	-.0137	-.0449	.0092	.0254	.0331	.0019	1607.		
.3410	-810.	-171.	477.	-65.	53.	139.	-.0163	-.0394	.0102	.0301	.0340	.0042	677.		
.3420	-867.	-35.	516.	-208.	42.	-62.	-.0187	-.0345	.0107	.0351	.0340	.0061	921.		
.3430	-867.	80.	530.	-311.	29.	-231.	-.0207	-.0303	.0105	.0401	.0331	.0078	1623.		
.3440	-822.	178.	519.	-376.	15.	-362.	-.0219	-.0271	.0096	.0451	.0315	.0093	2178.		
.3450	-738.	261.	484.	-405.	1.	-445.	-.0222	-.0250	.0082	.0505	.0299	.0106	2512.		

ADLPIPE PAGE 2112

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.15.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	55	MEMBER	3	SEQUENCE	750	LOCATION	END	TYPE	RU
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.3370	-165.	-738.	129.	676.	62.	1068.	-0054	-0610	.0041	.0136	.0258	-0060	5283.
.3380	-351.	-607.	226.	400.	61.	843.	-0082	-0560	.0058	.0174	.0288	-0033	4077.
.3390	-531.	-467.	324.	297.	61.	604.	-0110	-0505	.0076	.0212	.0313	-0007	2821.
.3400	-692.	-320.	410.	108.	60.	365.	-0137	-0449	.0092	.0254	.0331	.0019	1607.
.3410	-810.	-171.	477.	-65.	53.	139.	-0163	-0394	.0102	.0301	.0340	.0042	677.
.3420	-867.	-75.	516.	-200.	42.	-62.	-0187	-0345	.0107	.0351	.0340	.0061	921.
.3430	-867.	80.	530.	-311.	29.	-231.	-0207	-0303	.0105	.0401	.0331	.0078	1623.
.3440	-822.	178.	519.	-376.	15.	-362.	-0219	-0271	.0096	.0451	.0315	.0093	2178.
.3450	-738.	261.	484.	-405.	1.	-445.	-0222	-0250	.0082	.0505	.0299	.0106	2512.

ADLPIPE PAGE 2112

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

ADLPIPE STRESS ANALYSIS

83/12/02. 18.29.15.

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	55	MEMBER	3	SEQUENCE	750	LOCATION	END	TYPE	RU					STRESS
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ		(PSI)
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)		
.3460	-608.	317.	419.	-399.	-8.	-477.	-0216	-0239	.0068	.0557	.0283	.0115	2596.	
.3470	-435.	339.	324.	-358.	-10.	-459.	-0202	-0240	.0053	.0601	.0266	.0121	2431.	
.3480	-242.	332.	211.	-287.	-4.	-399.	-0179	-0250	.0040	.0639	.0250	.0125	2052.	
.3490	-54.	310.	97.	-195.	3.	-305.	-0149	-0270	.0025	.0678	.0236	.0124	1510.	
.3500	113.	272.	-6.	-83.	8.	-187.	-0116	-0296	.0007	.0715	.021	.0119	854.	
.3510	257.	209.	-93.	47.	12.	-54.	-0082	-0327	-0013	.0747	.0203	.0107	304.	
.3520	371.	123.	-159.	190.	14.	84.	-0048	-0359	-0035	.0771	.0182	.0086	869.	
.3530	436.	26.	-195.	332.	11.	221.	-0017	-0392	-0056	.0792	.0160	.0057	1665.	
.3540	436.	-72.	-195.	462.	6.	348.	.0012	-0422	-0077	.0810	.0139	.0021	2412.	
.3550	370.	-171.	-161.	571.	3.	459.	.0039	-0448	-0093	.0821	.0123	-0020	3058.	
.3560	253.	-271.	-104.	655.	4.	551.	.0063	-0468	-0101	.0823	.0110	-0066	3570.	
.3570	103.	-361.	-31.	705.	9.	621.	.0082	-0481	-0102	.0819	.0102	-0115	3920.	
.3580	-74.	-432.	55.	720.	14.	664.	.0097	-0487	-0097	.0812	.0098	-0164	4087.	
.3590	-271.	-478.	152.	704.	19.	676.	.0107	-0485	-0089	.0803	.0097	-0211	4074.	
.3600	-469.	-502.	254.	663.	22.	658.	.0112	-0477	-0079	.0791	.0096	-0257	3898.	
.3610	-640.	-500.	349.	603.	18.	613.	.0110	-0462	-0071	.0779	.0093	-0301	3587.	
.3620	-763.	-475.	425.	527.	9.	546.	.0103	-0442	-0064	.0767	.0088	-0341	3169.	
.3630	-833.	-426.	478.	440.	-3.	463.	.0092	-0417	-0057	.0753	.0082	-0376	2665.	
.3640	-852.	-353.	504.	342.	-15.	367.	.0081	-0390	-0050	.0737	.0077	-0402	2097.	
.3650	-816.	-255.	496.	234.	-23.	269.	.0071	-0361	-0041	.0718	.0078	-0420	1491.	
.3660	-715.	-141.	448.	119.	-25.	177.	.0064	-0332	-0027	.0696	.0085	-0430	894.	
.3670	-548.	-22.	357.	2.	-18.	96.	.0061	-0305	-0008	.0668	.0097	-0433	407.	
.3680	-329.	99.	233.	-110.	-3.	27.	.0062	-0279	.0013	.0634	.0111	-0430	473.	
.3690	-83.	222.	92.	-213.	15.	-29.	.0066	-0256	.0033	.0599	.0126	-0423	901.	
.3700	177.	343.	-55.	-301.	33.	-73.	.0072	-0237	.0048	.0566	.0138	-0417	1299.	
.3710	443.	444.	-201.	-364.	48.	-104.	.0079	-0220	.0057	.0533	.0142	-0415	1594.	
.3720	704.	519.	-336.	-400.	61.	-124.	.0084	-0208	.0059	.0498	.0136	-0419	1766.	
.3730	936.	571.	-449.	-411.	70.	-138.	.0089	-0198	.0054	.0464	.0120	-0429	1831.	
.3740	1113.	607.	-529.	-403.	76.	-148.	.0093	-0193	.0043	.0434	.0098	-0443	1820.	
.3750	1223.	621.	-573.	-381.	83.	-154.	.0099	-0190	.0030	.0403	.0073	-0460	1751.	
.3760	1271.	605.	-588.	-348.	95.	-156.	.0107	-0190	.0019	.0367	.0048	-0480	1639.	
.3770	1260.	561.	-577.	-307.	114.	-153.	.0118	-0193	.0013	.0325	.0026	-0502	1510.	
.3780	1189.	500.	-541.	-266.	139.	-149.	.0131	-0198	.0012	.0281	.0008	-0523	1401.	
.3790	1054.	431.	-479.	-226.	170.	-151.	.0146	-0206	.0016	.0235	-0004	-0539	1338.	
.3800	869.	353.	-394.	-184.	203.	-160.	.0163	-0215	.0022	.0189	-0013	-0550	1325.	
.3810	661.	267.	-298.	-138.	236.	-176.	.0179	-0226	.0030	.0143	-0020	-0557	1357.	
.3820	456.	178.	-201.	-87.	265.	-198.	.0192	-0238	.0037	.0099	-0029	-0560	1430.	
.3830	267.	94.	-109.	-32.	289.	-228.	.0202	-0252	.0041	.0060	-0040	-0558	1543.	

ADLPIPE PAGE 2113

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

ADLPIPE STRESS ANALYSIS

83/12/02. 18.29.15.

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION 55 MEMBER 3 SEQUENCE 750 LOCATION END TYPE RU

.3750	1227.	621.	-573.	-381.	83.	-154.	.0099	-.0190	.0030	.0403	.0073	-.0460	1751.
.3760	1271.	605.	-588.	-348.	95.	-156.	.107	-.0190	.0019	.0367	.0048	-.0480	1639.
.3770	1260.	561.	-577.	-307.	114.	-153.	.0118	-.0193	.0013	.0325	.0026	-.0502	1510.
.3780	1180.	500.	-541.	-266.	139.	-149.	.0131	-.0198	.0012	.0281	.0008	-.0523	1401.
.3790	1054.	431.	-479.	-226.	170.	-151.	.0146	-.0206	.0016	.0235	-.0004	-.0539	1338.
.3800	869.	353.	-394.	-184.	203.	-160.	.0163	-.0215	.0022	.0189	-.0013	-.0550	1325.
.3810	661.	267.	-298.	-138.	236.	-176.	.0179	-.0226	.0030	.0143	-.0020	-.0557	1357.
.3820	456.	178.	-201.	-87.	265.	-198.	.0192	-.0238	.0037	.0099	-.0029	-.0560	1430.
.3830	267.	94.	-109.	-32.	289.	-228.	.0202	-.0252	.0041	.0060	-.0040	-.0558	1543.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.15.

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

CONDITION 24

LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	55	MEMBER	3	SEQUENCE	750	LOCATION	END	TYPE	RU					
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	FX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.3840	100.	21.	-25.	26.	306.	-268.	.0208	-.0266	.0042	.0027	-.0054	-.0549	1702.	
.3850	-34.	-37.	43.	84.	318.	-314.	.0210	-.0280	.0041	-.0000	-.0069	-.0534	1899.	
.3860	-112.	-79.	84.	137.	326.	-367.	.0208	-.0295	.0039	-.0022	-.0084	-.0512	2115.	
.3870	-125.	-106.	89.	182.	330.	-414.	.0201	-.0308	.0038	-.0040	-.0098	-.0485	2334.	
.3880	-82.	-113.	64.	214.	331.	-467.	.0190	-.0321	.0039	-.0056	-.0111	-.0451	2551.	
.3890	-2.	-96.	18.	232.	330.	-524.	.0176	-.0331	.0042	-.0068	-.0122	-.0411	2758.	
.3900	101.	-59.	-40.	234.	325.	-577.	.0158	-.0338	.0046	-.0077	-.0130	-.0372	2929.	
.3910	225.	-20.	-108.	227.	313.	-620.	.0134	-.0341	.0051	-.0088	-.0136	-.0339	3048.	
.3920	365.	10.	-179.	215.	295.	-652.	.0106	-.0340	.0057	-.0105	-.0145	-.0317	3117.	
.3930	499.	37.	-242.	195.	272.	-675.	.0072	-.0333	.0064	-.0128	-.0155	-.0305	3146.	
.3940	597.	68.	-283.	163.	242.	-693.	.0033	-.0322	.0070	-.0151	-.0166	-.0302	3137.	
.3950	643.	98.	-294.	119.	206.	-702.	-.0008	-.0305	.0077	-.0177	-.0176	-.0311	3092.	
.3960	645.	113.	-280.	66.	168.	-699.	-.0052	-.0284	.0086	-.0211	-.0185	-.0332	3014.	
.3970	610.	109.	-247.	6.	132.	-684.	-.0098	-.0258	.0098	-.0253	-.0195	-.0365	2906.	
.3980	527.	95.	-189.	-62.	97.	-655.	-.0144	-.0228	.0114	-.0300	-.0203	-.0406	2776.	
.3990	384.	72.	-101.	-136.	60.	-614.	-.0188	-.0197	.0130	-.0349	-.0209	-.0455	2637.	
.4000	186.	37.	14.	-208.	25.	-560.	-.0229	-.0164	.0145	-.0401	-.0212	-.0508	2494.	

MAXIMUM VALUE OF STRESS OCCURS AT

TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	FX	RY	RZ	STRESS
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)
.1830	328.	-1674.	-391.	1408.	116.	2980.	.0041	-.0529	.0003	-.0512	.0508	-.0356	13764.

SECTION	55	MEMBER	4	SEQUENCE	76	LOCATION	DIS	TYPE	VA					
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	FX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
0.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.	
.0010	0.	0.	0.	0.	0.	0.	-.0000	.0000	.0000	-.0000	-.0000	.0000	0.	
.0020	0.	0.	0.	0.	0.	0.	.0000	-.0000	.0000	-.0000	-.0000	.0000	0.	
.0030	0.	0.	0.	0.	0.	0.	.0000	-.0000	.0000	-.0000	.0000	.0000	0.	
.0040	0.	0.	0.	0.	0.	0.	.0000	-.0000	.0000	-.0000	-.0000	.0000	0.	
.0050	0.	0.	0.	0.	0.	0.	.0000	-.0000	.0000	-.0000	-.0000	.0000	0.	
.0060	0.	0.	0.	0.	0.	0.	-.0000	-.0000	.0000	.0000	-.0001	.0000	0.	
.0070	0.	0.	0.	0.	0.	0.	-.0001	.0000	.0000	.0001	-.0003	-.0000	0.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.15.

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 55 MEMBER 4 SEQUENCE 76 LOCATION DIS TYPE VA

0.0000	0.	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.
.0010	0.	0.	0.	0.	0.	0.	0.	-0.0000	.0000	.0000	-0.0000	-0.0000	.0000	0.
.0020	0.	0.	0.	0.	0.	0.	0.	.0000	-0.0000	.0000	-0.0000	-0.0000	.0000	0.
.0030	0.	0.	0.	0.	0.	0.	0.	.0000	-0.0000	.0000	-0.0000	.0000	.0000	0.
.0040	0.	0.	0.	0.	0.	0.	0.	.0000	-0.0000	.0000	-0.0000	-0.0000	.0000	0.
.0050	0.	0.	0.	0.	0.	0.	0.	.0000	-0.0000	.0000	-0.0000	-0.0000	.0000	0.
.0060	0.	0.	0.	0.	0.	0.	0.	-0.0000	-0.0000	.0000	.0000	-0.0001	.0000	0.
.0070	0.	0.	0.	0.	0.	0.	0.	-0.0001	.0000	.0000	.0001	-0.0003	-0.0000	0.

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

ADLPIPE STRESS ANALYSIS

83/12/02. 18.29.15.

CONDITION 24
LOADS
SHOCK
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ENGLISH UNITS

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

SECTION	55	MEMBER	4	SEQUENCE	76	LOCATION	DIS	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.0080	0.	0.	0.	0.	0.	0.	-0.0002	.0000	-0.0001	.0003	-0.0007	-0.0001	0.		
.0090	0.	0.	0.	0.	0.	0.	-0.0004	.0000	-0.0003	.0007	-0.0014	-0.0002	0.		
.0100	0.	0.	0.	0.	0.	0.	-0.0008	.0000	-0.0006	.0013	-0.0023	-0.0005	0.		
.0110	0.	0.	0.	0.	0.	0.	-0.0014	.0000	-0.0010	.0022	-0.0037	-0.0009	0.		
.0120	0.	0.	0.	0.	0.	0.	-0.0024	.0000	-0.0016	.0036	-0.0055	-0.0016	0.		
.0130	0.	0.	0.	0.	0.	0.	-0.0037	.0001	-0.0024	.0055	-0.0079	-0.0025	0.		
.0140	0.	0.	0.	0.	0.	0.	-0.0055	.0001	-0.0035	.0080	-0.0108	-0.0035	0.		
.0150	0.	0.	0.	0.	0.	0.	-0.0075	.0002	-0.0048	.0109	-0.0141	-0.0048	0.		
.0160	0.	0.	0.	0.	0.	0.	-0.0095	.0003	-0.0064	.0138	-0.0175	-0.0064	0.		
.0170	0.	0.	0.	0.	0.	0.	-0.0114	.0004	-0.0080	.0162	-0.0204	-0.0083	0.		
.0180	0.	0.	0.	0.	0.	0.	-0.0128	.0004	-0.0093	.0176	-0.0221	-0.0103	0.		
.0190	0.	0.	0.	0.	0.	0.	-0.0134	.0003	-0.0100	.0176	-0.0218	-0.0121	0.		
.0200	0.	0.	0.	0.	0.	0.	-0.0131	.0002	-0.0096	.0158	-0.0188	-0.0131	0.		
.0210	0.	0.	0.	0.	0.	0.	-0.0116	-0.0001	-0.0079	.0121	-0.0128	-0.0130	0.		
.0220	0.	0.	0.	0.	0.	0.	-0.0090	-0.0005	-0.0048	.0069	-0.0039	-0.0123	0.		
.0230	0.	0.	0.	0.	0.	0.	-0.0059	-0.0010	-0.0006	.0007	.0069	-0.0105	0.		
.0240	0.	0.	0.	0.	0.	0.	-0.0026	-0.0016	.0040	-0.0057	.0175	-0.0070	0.		
.0250	0.	0.	0.	0.	0.	0.	.0008	-0.0023	.0076	-0.0108	.0266	-0.0025	0.		
.0260	0.	0.	0.	0.	0.	0.	.0044	-0.0029	.0089	-0.0135	.0333	-0.0012	0.		
.0270	0.	0.	0.	0.	0.	0.	.0078	-0.0036	.0081	-0.0140	.0371	.0023	0.		
.0280	0.	0.	0.	0.	0.	0.	.0100	-0.0044	.0065	-0.0136	.0369	.0031	0.		
.0290	0.	0.	0.	0.	0.	0.	.0112	-0.0050	.0041	-0.0124	.0337	.0061	0.		
.0300	0.	0.	0.	0.	0.	0.	.0131	-0.0054	.0002	-0.0092	.0315	.0083	0.		
.0310	0.	0.	0.	0.	0.	0.	.0162	-0.0056	-0.0027	-0.0068	.0314	.0107	0.		
.0320	0.	0.	0.	0.	0.	0.	.0191	-0.0055	-0.0015	-0.0083	.0329	.0166	0.		
.0330	0.	0.	0.	0.	0.	0.	.0212	-0.0051	.0033	-0.0129	.0363	.0250	0.		
.0340	0.	0.	0.	0.	0.	0.	.0238	-0.0042	.0092	-0.0174	.0414	.0329	0.		
.0350	0.	0.	0.	0.	0.	0.	.0265	-0.0028	.0139	-0.0198	.0447	.0392	0.		
.0360	0.	0.	0.	0.	0.	0.	.0272	-0.0009	.0154	-0.0192	.0424	.0418	0.		
.0370	0.	0.	0.	0.	0.	0.	.0243	.0013	.0132	-0.0153	.0325	.0378	0.		
.0380	0.	0.	0.	0.	0.	0.	.0182	.0039	.0078	-0.0086	.0150	.0283	0.		
.0390	0.	0.	0.	0.	0.	0.	.0105	.0069	-0.0004	.0012	-0.0069	.0173	0.		
.0400	0.	0.	0.	0.	0.	0.	.0028	.0100	-0.0106	.0127	-0.0269	.0065	0.		
.0410	0.	0.	0.	0.	0.	0.	-0.0029	.0131	-0.0182	.0204	-0.0397	-0.0052	0.		
.0420	0.	0.	0.	0.	0.	0.	-0.0062	.0158	-0.0175	.0179	-0.0442	-0.0137	0.		
.0430	0.	0.	0.	0.	0.	0.	-0.0084	.0180	-0.0081	.0063	-0.0394	-0.0163	0.		
.0440	0.	0.	0.	0.	0.	0.	-0.0085	.0196	.0051	-0.0078	-0.0251	-0.0151	0.		
.0450	0.	0.	0.	0.	0.	0.	-0.0057	.0208	.0179	-0.0200	-0.0063	-0.0128	0.		

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

ADLPIPE STRESS ANALYSIS

83/12/02. 18.29.15.

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION 55 MEMBER 4 SEQUENCE 76 LOCATION DIS TYPE VA

.0370	0.	0.	0.	0.	0.	0.	0.	.0243	.0013	.0132	-.0153	.0325	.0378	0.
.0380	0.	0.	0.	0.	0.	0.	0.	.0182	.0039	.0078	-.0086	.0150	.0283	0.
.0390	0.	0.	0.	0.	0.	0.	0.	.0105	.0069	-.0004	.0012	-.0069	.0173	0.
.0400	0.	0.	0.	0.	0.	0.	0.	.0028	.0100	-.0106	.0127	-.0269	.0065	0.
.0410	0.	0.	0.	0.	0.	0.	0.	-.0029	.0131	-.0162	.0204	-.0397	-.0052	0.
.0420	0.	0.	0.	0.	0.	0.	0.	-.0062	.0158	-.0175	.0179	-.0442	-.0137	0.
.0430	0.	0.	0.	0.	0.	0.	0.	-.0084	.0180	-.0081	.0063	-.0394	-.0163	0.
.0440	0.	0.	0.	0.	0.	0.	0.	-.0085	.0196	.0051	-.0078	-.0251	-.0151	0.
.0450	0.	0.	0.	0.	0.	0.	0.	-.0057	.0208	.0179	-.0200	-.0063	-.0128	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	55	MEMBER	4	SEQUENCE	76	LOCATION	DIS	TYPE	VA					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)		
.0460	0.	0.	0.	0.	0.	0.	-.0031	.0213	.0277	-.0287	.0081	-.0113	0.	
.0470	0.	0.	0.	0.	0.	0.	-.0053	.0209	.0320	-.0322	.0120	-.0131	0.	
.0480	0.	0.	0.	0.	0.	0.	-.0117	.0196	.0296	-.0293	.0049	-.0194	0.	
.0490	0.	0.	0.	0.	0.	0.	-.0187	.0176	.0210	-.0197	-.0092	-.0282	0.	
.0500	0.	0.	0.	0.	0.	0.	-.0244	.0150	.0089	-.0045	-.0239	-.0366	0.	
.0510	0.	0.	0.	0.	0.	0.	-.0296	.0117	-.0020	.0108	-.0335	-.0430	0.	
.0520	0.	0.	0.	0.	0.	0.	-.0331	.0077	-.0059	.0180	-.0360	-.0447	0.	
.0530	0.	0.	0.	0.	0.	0.	-.0329	.0033	-.0015	.0152	-.0302	-.0402	0.	
.0540	0.	0.	0.	0.	0.	0.	-.0291	-.0013	.0071	.0084	-.0151	-.0319	0.	
.0550	0.	0.	0.	0.	0.	0.	-.0233	-.0059	.0158	.0021	.0051	-.0232	0.	
.0560	0.	0.	0.	0.	0.	0.	-.0177	-.0104	.0234	-.0044	.0217	-.0150	0.	
.0570	0.	0.	0.	0.	0.	0.	-.0151	-.0145	.0281	-.0092	.0289	-.0100	0.	
.0580	0.	0.	0.	0.	0.	0.	-.0165	-.0182	.0261	-.0072	.0266	-.0113	0.	
.0590	0.	0.	0.	0.	0.	0.	-.0198	-.0212	.0175	.0019	.0176	-.0175	0.	
.0600	0.	0.	0.	0.	0.	0.	-.0222	-.0234	.0064	.0124	.0055	-.0246	0.	
.0610	0.	0.	0.	0.	0.	0.	-.0233	-.0251	-.0027	.0192	-.0039	-.0311	0.	
.0620	0.	0.	0.	0.	0.	0.	-.0231	-.0261	-.0061	.0193	-.0058	-.0361	0.	
.0630	0.	0.	0.	0.	0.	0.	-.0201	-.0266	-.0017	.0104	.0016	-.0367	0.	
.0640	0.	0.	0.	0.	0.	0.	-.0133	-.0264	.0089	-.0053	.0175	-.0313	0.	
.0650	0.	0.	0.	0.	0.	0.	-.0045	-.0254	.0213	-.0215	.0384	-.0230	0.	
.0660	0.	0.	0.	0.	0.	0.	.0033	-.0238	.0315	-.0336	.0566	-.0155	0.	
.0670	0.	0.	0.	0.	0.	0.	.0078	-.0216	.0370	-.0400	.0640	-.0109	0.	
.0680	0.	0.	0.	0.	0.	0.	.0081	-.0189	.0344	-.0383	.0576	-.0114	0.	
.0690	0.	0.	0.	0.	0.	0.	.0046	-.0157	.0224	-.0257	.0398	-.0173	0.	
.0700	0.	0.	0.	0.	0.	0.	-.0010	-.0121	.0045	-.0047	.0154	-.0250	0.	
.0710	0.	0.	0.	0.	0.	0.	-.0065	-.0081	-.0134	.0173	-.0091	-.0303	0.	
.0720	0.	0.	0.	0.	0.	0.	-.0100	-.0040	-.0260	.0335	-.0264	-.0316	0.	
.0730	0.	0.	0.	0.	0.	0.	-.0100	.0002	-.0301	.0408	-.0316	-.0272	0.	
.0740	0.	0.	0.	0.	0.	0.	-.0060	.0044	-.0255	.0394	-.0243	-.0157	0.	
.0750	0.	0.	0.	0.	0.	0.	.0012	.0086	-.0155	.0323	-.0074	.0005	0.	
.0760	0.	0.	0.	0.	0.	0.	.0095	.0126	-.0042	.0234	.0125	.0167	0.	
.0770	0.	0.	0.	0.	0.	0.	.0162	.0164	.0045	.0163	.0273	.0295	0.	
.0780	0.	0.	0.	0.	0.	0.	.0189	.0199	.0076	.0156	.0315	.0369	0.	
.0790	0.	0.	0.	0.	0.	0.	.0173	.0231	.0028	.0236	.0246	.0375	0.	
.0800	0.	0.	0.	0.	0.	0.	.0130	.0259	-.0085	.0388	.0095	.0328	0.	
.0810	0.	0.	0.	0.	0.	0.	.0074	.0282	-.0215	.0561	-.0089	.0263	0.	
.0820	0.	0.	0.	0.	0.	0.	.0018	.0299	-.0316	.0705	-.0243	.0203	0.	
.0830	0.	0.	0.	0.	0.	0.	-.0016	.0309	-.0354	.0774	-.0311	.0157	0.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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18.29.15.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION 55 MEMBER 4 SEQUENCE 76 LOCATION DIS TYPE VA

.0370	0.	0.	0.	0.	0.	0.	0.	0.	.0243	.0013	.0132	-.0153	.0325	.0378	0.
.0380	0.	0.	0.	0.	0.	0.	0.	0.	.0182	.0039	.0078	-.0086	.0150	.0283	0.
.0390	0.	0.	0.	0.	0.	0.	0.	0.	.0105	.0069	-.0004	.0012	-.0069	.0173	0.
.0400	0.	0.	0.	0.	0.	0.	0.	0.	.0028	.0100	-.0106	.0127	-.0269	.0065	0.
.0410	0.	0.	0.	0.	0.	0.	0.	0.	-.0029	.0131	-.0182	.0204	-.0397	-.0052	0.
.0420	0.	0.	0.	0.	0.	0.	0.	0.	-.0062	.0158	-.0175	.0179	-.0442	-.0137	0.
.0430	0.	0.	0.	0.	0.	0.	0.	0.	-.0084	.0180	-.0081	.0063	-.0394	-.0163	0.
.0440	0.	0.	0.	0.	0.	0.	0.	0.	-.0085	.0196	.0051	-.0078	-.0251	-.0151	0.
.0450	0.	0.	0.	0.	0.	0.	0.	0.	-.0057	.0208	.0179	-.0200	-.0063	-.0128	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.29.15.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	55	MEMBER	4	SEQUENCE	76	LOCATION	DIS	TYPE	VA						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)			
.0460	0.	0.	0.	0.	0.	0.	-.0031	.0213	.0277	-.0287	.0081	-.0113			0.
.0470	0.	0.	0.	0.	0.	0.	-.0053	.0209	.0320	-.0322	.0120	-.0131			0.
.0480	0.	0.	0.	0.	0.	0.	-.0117	.0196	.0296	-.0293	.0049	-.0194			0.
.0490	0.	0.	0.	0.	0.	0.	-.0187	.0176	.0210	-.0197	-.0092	-.0282			0.
.0500	0.	0.	0.	0.	0.	0.	-.0244	.0150	.0089	-.0045	-.0239	-.0366			0.
.0510	0.	0.	0.	0.	0.	0.	-.0296	.0117	-.0020	.0108	-.0335	-.0430			0.
.0520	0.	0.	0.	0.	0.	0.	-.0331	.0077	-.0059	.0180	-.0360	-.0447			0.
.0530	0.	0.	0.	0.	0.	0.	-.0329	.0033	-.0015	.0152	-.0302	-.0402			0.
.0540	0.	0.	0.	0.	0.	0.	-.0291	-.0013	.0071	.0024	-.0151	-.0319			0.
.0550	0.	0.	0.	0.	0.	0.	-.0233	-.0059	.0158	.0021	.0051	-.0232			0.
.0560	0.	0.	0.	0.	0.	0.	-.0177	-.0104	.0234	-.0044	.0217	-.0150			0.
.0570	0.	0.	0.	0.	0.	0.	-.0151	-.0145	.0281	-.0092	.0289	-.0100			0.
.0580	0.	0.	0.	0.	0.	0.	-.0165	-.0182	.0261	-.0072	.0266	-.0113			0.
.0590	0.	0.	0.	0.	0.	0.	-.0198	-.0212	.0175	.0019	.0176	-.0175			0.
.0600	0.	0.	0.	0.	0.	0.	-.0222	-.0234	.0064	.0124	.0055	-.0246			0.
.0610	0.	0.	0.	0.	0.	0.	-.0233	-.0251	-.0027	.0192	-.0039	-.0311			0.
.0620	0.	0.	0.	0.	0.	0.	-.0231	-.0261	-.0061	.0193	-.0058	-.0361			0.
.0630	0.	0.	0.	0.	0.	0.	-.0201	-.0266	-.0017	.0104	.0016	-.0367			0.
.0640	0.	0.	0.	0.	0.	0.	-.0133	-.0264	.0089	-.0053	.0175	-.0313			0.
.0650	0.	0.	0.	0.	0.	0.	-.0045	-.0254	.0213	-.0215	.0384	-.0230			0.
.0660	0.	0.	0.	0.	0.	0.	.0033	-.0238	.0315	-.0336	.0566	-.0155			0.
.0670	0.	0.	0.	0.	0.	0.	.0078	-.0216	.0370	-.0400	.0640	-.0109			0.
.0680	0.	0.	0.	0.	0.	0.	.0081	-.0189	.0344	-.0383	.0576	-.0114			0.
.0690	0.	0.	0.	0.	0.	0.	.0046	-.0157	.0224	-.0257	.0398	-.0173			0.
.0700	0.	0.	0.	0.	0.	0.	-.0010	-.0121	.0045	-.0047	.0154	-.0250			0.
.0710	0.	0.	0.	0.	0.	0.	-.0065	-.0081	-.0134	.0173	-.0091	-.0303			0.
.0720	0.	0.	0.	0.	0.	0.	-.0100	-.0040	-.0260	.0335	-.0264	-.0316			0.
.0730	0.	0.	0.	0.	0.	0.	-.0100	.0002	-.0301	.0408	-.0316	-.0272			0.
.0740	0.	0.	0.	0.	0.	0.	-.0060	.0044	-.0255	.0394	-.0243	-.0157			0.
.0750	0.	0.	0.	0.	0.	0.	.0012	.0086	-.0155	.0323	-.0074	.0005			0.
.0760	0.	0.	0.	0.	0.	0.	.0095	.0126	-.0042	.0234	.0125	.0167			0.
.0770	0.	0.	0.	0.	0.	0.	.0162	.0164	.0045	.0163	.0273	.0295			0.
.0780	0.	0.	0.	0.	0.	0.	.0189	.0199	.0076	.0156	.0315	.0369			0.
.0790	0.	0.	0.	0.	0.	0.	.0173	.0231	.0028	.0236	.0246	.0375			0.
.0800	0.	0.	0.	0.	0.	0.	.0130	.0259	-.0085	.0388	.0095	.0328			0.
.0810	0.	0.	0.	0.	0.	0.	.0074	.0282	-.0215	.0561	-.0089	.0263			0.
.0820	0.	0.	0.	0.	0.	0.	.0018	.0299	-.0316	.0705	-.0243	.0203			0.
.0830	0.	0.	0.	0.	0.	0.	-.0016	.0309	-.0354	.0774	-.0311	.0157			0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.29.15.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION 55 MEMBER 4 SEQUENCE 76 LOCATION DIS TYPE VA

.0750	0.	0.	0.	0.	0.	0.	0.	.0012	.0086	-.0155	.0323	-.0074	.0005	0.
.0760	0.	0.	0.	0.	0.	0.	0.	.0095	.0126	-.0042	.0234	.0125	.0167	0.
.0770	0.	0.	0.	0.	0.	0.	0.	.0162	.0164	.0045	.0163	.0273	.0295	0.
.0780	0.	0.	0.	0.	0.	0.	0.	.0199	.0199	.0076	.0156	.0315	.0369	0.
.0790	0.	0.	0.	0.	0.	0.	0.	.0173	.0231	.0028	.0236	.0246	.0375	0.
.0800	0.	0.	0.	0.	0.	0.	0.	.0130	.0259	-.0085	.0388	.0095	.0328	0.
.0810	0.	0.	0.	0.	0.	0.	0.	.0074	.0282	-.0215	.0561	-.0089	.0263	0.
.0820	0.	0.	0.	0.	0.	0.	0.	.0018	.0299	-.0316	.0705	-.0243	.0203	0.
.0830	0.	0.	0.	0.	0.	0.	0.	-.0016	.0309	-.0354	.0774	-.0311	.0157	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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18.29.15.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	55	MEMBER	4	SEQUENCE	76	LOCATION	DIS	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ			DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.0840	0.	0.	0.	0.	0.	0.	-.0012	.0312	-.0313	.0741	-.0273	.0144	0.		
.0850	0.	0.	0.	0.	0.	0.	.0029	.0308	-.0209	.0629	-.0146	.0170	0.		
.0860	0.	0.	0.	0.	0.	0.	.0084	.0299	-.0080	.0486	.0034	.0208	0.		
.0870	0.	0.	0.	0.	0.	0.	.0134	.0283	.0038	.0347	.0207	.0226	0.		
.0880	0.	0.	0.	0.	0.	0.	.0167	.0263	.0125	.0226	.0317	.0217	0.		
.0890	0.	0.	0.	0.	0.	0.	.0174	.0237	.0161	.0152	.0349	.0177	0.		
.0900	0.	0.	0.	0.	0.	0.	.0158	.0209	.0145	.0138	.0325	.0107	0.		
.0910	0.	0.	0.	0.	0.	0.	.0138	.0177	.0108	.0150	.0278	.0029	0.		
.0920	0.	0.	0.	0.	0.	0.	.0126	.0144	.0090	.0142	.0240	-.0028	0.		
.0930	0.	0.	0.	0.	0.	0.	.0123	.0109	.0109	.0104	.0240	-.0058	0.		
.0940	0.	0.	0.	0.	0.	0.	.0129	.0073	.0159	.0051	.0284	-.0066	0.		
.0950	0.	0.	0.	0.	0.	0.	.0145	.0039	.0220	-.0002	.0340	-.0058	0.		
.0960	0.	0.	0.	0.	0.	0.	.0157	.0008	.0257	-.0031	.0363	-.0058	0.		
.0970	0.	0.	0.	0.	0.	0.	.0146	-.0020	.0241	-.0005	.0314	-.0097	0.		
.0980	0.	0.	0.	0.	0.	0.	.0103	-.0044	.0162	.0082	.0175	-.0183	0.		
.0990	0.	0.	0.	0.	0.	0.	.0039	-.0063	.0034	.0213	-.0038	-.0300	0.		
.1000	0.	0.	0.	0.	0.	0.	-.0029	-.0075	-.0121	.0367	-.0274	-.0434	0.		
.1010	0.	0.	0.	0.	0.	0.	-.0086	-.0082	-.0269	.0512	-.0474	-.0562	0.		
.1020	0.	0.	0.	0.	0.	0.	-.0117	-.0082	-.0371	.0607	-.0502	-.0660	0.		
.1030	0.	0.	0.	0.	0.	0.	-.0116	-.0077	-.0411	.0626	-.0641	-.0714	0.		
.1040	0.	0.	0.	0.	0.	0.	-.0085	-.0065	-.0402	.0581	-.0595	-.0729	0.		
.1050	0.	0.	0.	0.	0.	0.	-.0032	-.0047	-.0367	.0505	-.0493	-.0711	0.		
.1060	0.	0.	0.	0.	0.	0.	.0028	-.0023	-.0330	.0426	-.0373	-.0669	0.		
.1070	0.	0.	0.	0.	0.	0.	.0080	.0008	-.0305	.0363	-.0268	-.0615	0.		
.1080	0.	0.	0.	0.	0.	0.	.0118	.0043	-.0298	.0322	-.0189	-.0551	0.		
.1090	0.	0.	0.	0.	0.	0.	.0146	.0082	-.0299	.0303	-.0130	-.0472	0.		
.1100	0.	0.	0.	0.	0.	0.	.0176	.0125	-.0298	.0301	-.0071	-.0394	0.		
.1110	0.	0.	0.	0.	0.	0.	.0206	.0171	-.0282	.0298	-.0008	-.0299	0.		
.1120	0.	0.	0.	0.	0.	0.	.0232	.0219	-.0247	.0284	.0052	-.0175	0.		
.1130	0.	0.	0.	0.	0.	0.	.0260	.0267	-.0207	.0275	.0099	-.0057	0.		
.1140	0.	0.	0.	0.	0.	0.	.0283	.0314	-.0182	.0284	.0118	.0022	0.		
.1150	0.	0.	0.	0.	0.	0.	.0287	.0360	-.0181	.0304	.0091	.0061	0.		
.1160	0.	0.	0.	0.	0.	0.	.0271	.0404	-.0198	.0325	.0013	.0075	0.		
.1170	0.	0.	0.	0.	0.	0.	.0243	.0444	-.0223	.0352	-.0089	.0072	0.		
.1180	0.	0.	0.	0.	0.	0.	.0216	.0480	-.0246	.0370	-.0165	.0038	0.		
.1190	0.	0.	0.	0.	0.	0.	.0203	.0510	-.0232	.0322	-.0191	.0017	0.		
.1200	0.	0.	0.	0.	0.	0.	.0215	.0534	-.0153	.0177	-.0149	.0032	0.		
.1210	0.	0.	0.	0.	0.	0.	.0256	.0551	-.0017	-.0029	-.0024	.0051	0.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.15.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION 55 MEMBER 4 SEQUENCE 76 LOCATION DIS TYPE VA

.1130	0.	0.	0.	0.	0.	0.	0.	.0260	.0267	-.0207	.0275	.0099	-.0057	0.
.1140	0.	0.	0.	0.	0.	0.	0.	.0283	.0314	-.0182	.0284	.0118	.0022	0.
.1150	0.	0.	0.	0.	0.	0.	0.	.0287	.0360	-.0181	.0304	.0091	.0061	0.
.1160	0.	0.	0.	0.	0.	0.	0.	.0271	.0404	-.0198	.0325	.0013	.0075	0.
.1170	0.	0.	0.	0.	0.	0.	0.	.0243	.0444	-.0223	.0352	-.0089	.0072	0.
.1180	0.	0.	0.	0.	0.	0.	0.	.0216	.0480	-.0246	.0370	-.0165	.0038	0.
.1190	0.	0.	0.	0.	0.	0.	0.	.0203	.0510	-.0232	.0322	-.0191	.0017	0.
.1200	0.	0.	0.	0.	0.	0.	0.	.0215	.0534	-.0153	.0177	-.0149	.0032	0.
.1210	0.	0.	0.	0.	0.	0.	0.	.0256	.0551	-.0017	-.0029	-.0024	.0051	0.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	55	MEMBER	4	SEQUENCE	76	LOCATION	DIS	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.1220	0.	0.	0.	0.	0.	0.	.0310	.0561	.0148	-.0257	.0152	.0062	0.		
.1230	0.	0.	0.	0.	0.	0.	.0359	.0564	.0305	-.0483	.0315	.0053	0.		
.1240	0.	0.	0.	0.	0.	0.	.0383	.0559	.0420	-.0668	.0395	.0025	0.		
.1250	0.	0.	0.	0.	0.	0.	.0365	.0549	.0454	-.0746	.0361	-.0045	0.		
.1260	0.	0.	0.	0.	0.	0.	.0306	.0533	.0393	-.0703	.0221	-.0175	0.		
.1270	0.	0.	0.	0.	0.	0.	.0228	.0511	.0277	-.0613	.0003	-.0315	0.		
.1280	0.	0.	0.	0.	0.	0.	.0157	.0484	.0159	-.0530	-.0228	-.0429	0.		
.1290	0.	0.	0.	0.	0.	0.	.0107	.0453	.0078	-.0461	-.0392	-.0497	0.		
.1300	0.	0.	0.	0.	0.	0.	.0084	.0418	.0056	-.0421	-.0447	-.0505	0.		
.1310	0.	0.	0.	0.	0.	0.	.0098	.0380	.0098	-.0447	-.0404	-.0446	0.		
.1320	0.	0.	0.	0.	0.	0.	.0138	.0340	.0182	-.0527	-.0318	-.0312	0.		
.1330	0.	0.	0.	0.	0.	0.	.0179	.0301	.0254	-.0576	-.0237	-.0159	0.		
.1340	0.	0.	0.	0.	0.	0.	.0198	.0262	.0268	-.0545	-.0209	-.0033	0.		
.1350	0.	0.	0.	0.	0.	0.	.0195	.0224	.0217	-.0463	-.0272	.0058	0.		
.1360	0.	0.	0.	0.	0.	0.	.0172	.0188	.0115	-.0347	-.0417	.0122	0.		
.1370	0.	0.	0.	0.	0.	0.	.0130	.0153	-.0013	-.0189	-.0592	.0178	0.		
.1380	0.	0.	0.	0.	0.	0.	.0093	.0119	-.0138	-.0010	-.0728	.0228	0.		
.1390	0.	0.	0.	0.	0.	0.	.0094	.0086	-.0217	.0099	-.0785	.0301	0.		
.1400	0.	0.	0.	0.	0.	0.	.0140	.0054	-.0225	.0097	-.0752	.0411	0.		
.1410	0.	0.	0.	0.	0.	0.	.0212	.0021	-.0178	.0032	-.0633	.0531	0.		
.1420	0.	0.	0.	0.	0.	0.	.0289	-.0012	-.0106	-.0053	-.0468	.0651	0.		
.1430	0.	0.	0.	0.	0.	0.	.0366	-.0043	-.0044	-.0148	-.0308	.0755	0.		
.1440	0.	0.	0.	0.	0.	0.	.0434	-.0073	-.0015	-.0235	-.0199	.0837	0.		
.1450	0.	0.	0.	0.	0.	0.	.0475	-.0100	-.0032	-.0263	-.0153	.0879	0.		
.1460	0.	0.	0.	0.	0.	0.	.0483	-.0124	-.0089	-.0226	-.0159	.0873	0.		
.1470	0.	0.	0.	0.	0.	0.	.0478	-.0144	-.0155	-.0191	-.0195	.0855	0.		
.1480	0.	0.	0.	0.	0.	0.	.0482	-.0157	-.0203	-.0197	-.0218	.0839	0.		
.1490	0.	0.	0.	0.	0.	0.	.0493	-.0163	-.0215	-.0231	-.0190	.0836	0.		
.1500	0.	0.	0.	0.	0.	0.	.0504	-.0161	-.0180	-.0291	-.0099	.0846	0.		
.1510	0.	0.	0.	0.	0.	0.	.0520	-.0148	-.0098	-.0406	.0036	.0864	0.		
.1520	0.	0.	0.	0.	0.	0.	.0537	-.0124	.0012	-.0570	.0174	.0892	0.		
.1530	0.	0.	0.	0.	0.	0.	.0531	-.0086	.0110	-.0701	.0284	.0898	0.		
.1540	0.	0.	0.	0.	0.	0.	.0484	-.0034	.0164	-.0753	.0339	.0857	0.		
.1550	0.	0.	0.	0.	0.	0.	.0399	.0030	.0172	-.0757	.0315	.0758	0.		
.1560	0.	0.	0.	0.	0.	0.	.0286	.0105	.0150	-.0748	.0214	.0602	0.		
.1570	0.	0.	0.	0.	0.	0.	.0144	.0189	.0114	-.0714	.0066	.0420	0.		
.1580	0.	0.	0.	0.	0.	0.	-.0014	.0281	.0074	-.0644	-.0077	.0220	0.		
.1590	0.	0.	0.	0.	0.	0.	-.0162	.0376	.0052	-.0587	-.0184	.0026	0.		

ADLPIPE PAGE 2118 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.29.15.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION 55 MEMBER 4 SEQUENCE 76 LOCATION DIS TYPE VA

.1130	0.	0.	0.	0.	0.	0.	0.	.0260	.0267	-.0207	.0275	.0099	-.0057	0.
.1140	0.	0.	0.	0.	0.	0.	0.	.0283	.0314	-.0182	.0284	.0118	.0022	0.
.1150	0.	0.	0.	0.	0.	0.	0.	.0287	.0360	-.0181	.0304	.0091	.0061	0.
.1160	0.	0.	0.	0.	0.	0.	0.	.0271	.0404	-.0198	.0325	.0013	.0075	0.
.1170	0.	0.	0.	0.	0.	0.	0.	.0243	.0444	-.0223	.0352	-.0089	.0072	0.
.1180	0.	0.	0.	0.	0.	0.	0.	.0216	.0480	-.0246	.0370	-.0165	.0038	0.
.1190	0.	0.	0.	0.	0.	0.	0.	.0203	.0510	-.0232	.0322	-.0191	.0017	0.
.1200	0.	0.	0.	0.	0.	0.	0.	.0215	.0534	-.0153	.0177	-.0149	.0032	0.
.1210	0.	0.	0.	0.	0.	0.	0.	.0256	.0551	-.0017	-.0029	-.0024	.0051	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.15.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	55	MEMBER	4	SEQUENCE	76	LOCATION	DIS	TYPE	VA						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)			
.1220	0.	0.	0.	0.	0.	0.	.0310	.0561	.0148	-.0257	.0152	.0062	0.		
.1230	0.	0.	0.	0.	0.	0.	.0359	.0564	.0305	-.0483	.0315	.0053	0.		
.1240	0.	0.	0.	0.	0.	0.	.0383	.0559	.0420	-.0668	.0395	.0025	0.		
.1250	0.	0.	0.	0.	0.	0.	.0365	.0549	.0454	-.0746	.0361	-.0045	0.		
.1260	0.	0.	0.	0.	0.	0.	.0306	.0533	.0393	-.0703	.0221	-.0175	0.		
.1270	0.	0.	0.	0.	0.	0.	.0228	.0511	.0277	-.0613	.0003	-.0315	0.		
.1280	0.	0.	0.	0.	0.	0.	.0157	.0484	.0159	-.0530	-.0228	-.0429	0.		
.1290	0.	0.	0.	0.	0.	0.	.0107	.0453	.0078	-.0461	-.0392	-.0497	0.		
.1300	0.	0.	0.	0.	0.	0.	.0084	.0418	.0056	-.0421	-.0447	-.0505	0.		
.1310	0.	0.	0.	0.	0.	0.	.0098	.0380	.0098	-.0447	-.0404	-.0446	0.		
.1320	0.	0.	0.	0.	0.	0.	.0138	.0340	.0182	-.0527	-.0318	-.0312	0.		
.1330	0.	0.	0.	0.	0.	0.	.0179	.0301	.0254	-.0576	-.0237	-.0159	0.		
.1340	0.	0.	0.	0.	0.	0.	.0198	.0262	.0268	-.0545	-.0209	-.0033	0.		
.1350	0.	0.	0.	0.	0.	0.	.0195	.0224	.0217	-.0463	-.0272	.0058	0.		
.1360	0.	0.	0.	0.	0.	0.	.0172	.0188	.0115	-.0347	-.0417	.0122	0.		
.1370	0.	0.	0.	0.	0.	0.	.0130	.0153	-.0013	-.0189	-.0592	.0178	0.		
.1380	0.	0.	0.	0.	0.	0.	.0093	.0119	-.0138	-.0010	-.0728	.0228	0.		
.1390	0.	0.	0.	0.	0.	0.	.0094	.0086	-.0217	.0099	-.0785	.0301	0.		
.1400	0.	0.	0.	0.	0.	0.	.0140	.0054	-.0225	.0097	-.0752	.0411	0.		
.1410	0.	0.	0.	0.	0.	0.	.0212	.0021	-.0178	.0032	-.0633	.0531	0.		
.1420	0.	0.	0.	0.	0.	0.	.0289	-.0012	-.0106	-.0053	-.0468	.0651	0.		
.1430	0.	0.	0.	0.	0.	0.	.0366	-.0043	-.0044	-.0148	-.0308	.0755	0.		
.1440	0.	0.	0.	0.	0.	0.	.0434	-.0073	-.0015	-.0235	-.0199	.0837	0.		
.1450	0.	0.	0.	0.	0.	0.	.0475	-.0100	-.0032	-.0263	-.0153	.0879	0.		
.1460	0.	0.	0.	0.	0.	0.	.0483	-.0124	-.0089	-.0226	-.0159	.0873	0.		
.1470	0.	0.	0.	0.	0.	0.	.0478	-.0144	-.0155	-.0191	-.0195	.0855	0.		
.1480	0.	0.	0.	0.	0.	0.	.0482	-.0157	-.0203	-.0197	-.0218	.0839	0.		
.1490	0.	0.	0.	0.	0.	0.	.0493	-.0163	-.0215	-.0231	-.0190	.0836	0.		
.1500	0.	0.	0.	0.	0.	0.	.0504	-.0161	-.0180	-.0291	-.0099	.0846	0.		
.1510	0.	0.	0.	0.	0.	0.	.0520	-.0148	-.0098	-.0406	.0036	.0864	0.		
.1520	0.	0.	0.	0.	0.	0.	.0537	-.0124	.0012	-.0570	.0174	.0892	0.		
.1530	0.	0.	0.	0.	0.	0.	.0531	-.0086	.0110	-.0701	.0284	.0898	0.		
.1540	0.	0.	0.	0.	0.	0.	.0484	-.0034	.0164	-.0753	.0339	.0857	0.		
.1550	0.	0.	0.	0.	0.	0.	.0399	.0030	.0172	-.0757	.0315	.0758	0.		
.1560	0.	0.	0.	0.	0.	0.	.0286	.0105	.0150	-.0748	.0214	.0602	0.		
.1570	0.	0.	0.	0.	0.	0.	.0144	.0189	.0114	-.0714	.0066	.0420	0.		
.1580	0.	0.	0.	0.	0.	0.	-.0014	.0281	.0074	-.0644	-.0077	.0220	0.		
.1590	0.	0.	0.	0.	0.	0.	-.0162	.0376	.0052	-.0587	-.0184	.0026	0.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.15.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION 55 MEMBER 4 SEQUENCE 76 LOCATION DIS TYPE VA

.1510	0.	0.	0.	0.	0.	0.	0.	.0520	-.0148	-.0098	-.0406	.0036	.0864	0.
.1520	0.	0.	0.	0.	0.	0.	0.	.0537	-.0124	.0012	-.0570	.0174	.0892	0.
.1530	0.	0.	0.	0.	0.	0.	0.	.0531	-.0086	.0110	-.0701	.0284	.0898	0.
.1540	0.	0.	0.	0.	0.	0.	0.	.0484	-.0034	.0164	-.0753	.0339	.0857	0.
.1550	0.	0.	0.	0.	0.	0.	0.	.0399	.0030	.0172	-.0757	.0315	.0758	0.
.1560	0.	0.	0.	0.	0.	0.	0.	.0286	.0105	.0150	-.0748	.0214	.0602	0.
.1570	0.	0.	0.	0.	0.	0.	0.	.0144	.0189	.0114	-.0714	.0066	.0420	0.
.1580	0.	0.	0.	0.	0.	0.	0.	-.0014	.0281	.0074	-.0644	-.0077	.0220	0.
.1590	0.	0.	0.	0.	0.	0.	0.	-.0162	.0376	.0052	-.0587	-.0184	.0026	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

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S/RV PIPING KEWAUNEE GKW00F 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	55	MEMBER	4	SEQUENCE	76	LOCATION	DIS	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.1600	0.	0.	0.	0.	0.	0.	-.0289	.0471	.0072	-.0589	-.0253	-.0127	0.		
.1610	0.	0.	0.	0.	0.	0.	-.0408	.0562	.0127	-.0622	-.0278	-.0247	0.		
.1620	0.	0.	0.	0.	0.	0.	-.0524	.0644	.0193	-.0648	-.0259	-.0361	0.		
.1630	0.	0.	0.	0.	0.	0.	-.0624	.0714	.0260	-.0682	-.0225	-.0452	0.		
.1640	0.	0.	0.	0.	0.	0.	-.0701	.0767	.0315	-.0726	-.0194	-.0520	0.		
.1650	0.	0.	0.	0.	0.	0.	-.0769	.0802	.0345	-.0738	-.0167	-.0579	0.		
.1660	0.	0.	0.	0.	0.	0.	-.0833	.0814	.0354	-.0704	-.0148	-.0618	0.		
.1670	0.	0.	0.	0.	0.	0.	-.0880	.0803	.0348	-.0650	-.0133	-.0633	0.		
.1680	0.	0.	0.	0.	0.	0.	-.0899	.0768	.0333	-.0596	-.0118	-.0619	0.		
.1690	0.	0.	0.	0.	0.	0.	-.0895	.0709	.0303	-.0521	-.0094	-.0583	0.		
.1700	0.	0.	0.	0.	0.	0.	-.0877	.0627	.0262	-.0415	-.0068	-.0528	0.		
.1710	0.	0.	0.	0.	0.	0.	-.0843	.0527	.0211	-.0305	-.0052	-.0447	0.		
.1720	0.	0.	0.	0.	0.	0.	-.0789	.0410	.0145	-.0201	-.0043	-.0363	0.		
.1730	0.	0.	0.	0.	0.	0.	-.0723	.0282	.0069	-.0090	-.0040	-.0265	0.		
.1740	0.	0.	0.	0.	0.	0.	-.0654	.0147	-.0012	.0038	-.0032	-.0160	0.		
.1750	0.	0.	0.	0.	0.	0.	-.0578	.0012	-.0088	.0154	-.0012	-.0056	0.		
.1760	0.	0.	0.	0.	0.	0.	-.0491	-.0118	-.0145	.0219	.0021	.0053	0.		
.1770	0.	0.	0.	0.	0.	0.	-.0395	-.0239	-.0178	.0242	.0074	.0158	0.		
.1780	0.	0.	0.	0.	0.	0.	-.0298	-.0345	-.0190	.0239	.0149	.0256	0.		
.1790	0.	0.	0.	0.	0.	0.	-.0205	-.0432	-.0184	.0206	.0240	.0334	0.		
.1800	0.	0.	0.	0.	0.	0.	-.0117	-.0498	-.0159	.0127	.0331	.0393	0.		
.1810	0.	0.	0.	0.	0.	0.	-.0047	-.0539	-.0120	.0022	.0407	.0440	0.		
.1820	0.	0.	0.	0.	0.	0.	-.0004	-.0556	-.0083	-.0068	.0473	.0449	0.		
.1830	0.	0.	0.	0.	0.	0.	.0015	-.0548	-.0049	-.0148	.0523	.0426	0.		
.1840	0.	0.	0.	0.	0.	0.	.0015	-.0516	-.0013	-.0239	.0549	.0383	0.		
.1850	0.	0.	0.	0.	0.	0.	-.0004	-.0464	.0025	-.0328	.0557	.0321	0.		
.1860	0.	0.	0.	0.	0.	0.	-.0046	-.0394	.0061	-.0392	.0555	.0242	0.		
.1870	0.	0.	0.	0.	0.	0.	-.0103	-.0311	.0092	-.0431	.0547	.0145	0.		
.1880	0.	0.	0.	0.	0.	0.	-.0168	-.0219	.0119	-.0462	.0520	.0048	0.		
.1890	0.	0.	0.	0.	0.	0.	-.0244	-.0123	.0135	-.0470	.0475	-.0052	0.		
.1900	0.	0.	0.	0.	0.	0.	-.0333	-.0028	.0130	-.0434	.0416	-.0158	0.		
.1910	0.	0.	0.	0.	0.	0.	-.0426	.0062	.0109	-.0364	.0344	-.0255	0.		
.1920	0.	0.	0.	0.	0.	0.	-.0512	.0144	.0077	-.0252	.0273	-.0340	0.		
.1930	0.	0.	0.	0.	0.	0.	-.0586	.0212	.0046	-.0198	.0219	-.0407	0.		
.1940	0.	0.	0.	0.	0.	0.	-.0648	.0265	.0026	-.0109	.0197	-.0447	0.		
.1950	0.	0.	0.	0.	0.	0.	-.0692	.0302	.0025	-.0025	.0212	-.0457	0.		
.1960	0.	0.	0.	0.	0.	0.	-.0714	.0321	.0039	.0042	.0254	-.0443	0.		
.1970	0.	0.	0.	0.	0.	0.	-.0718	.0324	.0058	.0104	.0308	-.0413	0.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.15.

S/RV PIPING KEWAUNEE GKW00F 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	55	MEMBER	4	SEQUENCE	76	LOCATION	DIS	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		

.1890	0.	0.	0.	0.	0.	0.	0.	0.	-.0244	-.0123	.0135	-.0470	.0475	-.0052	0.
.1900	0.	0.	0.	0.	0.	0.	0.	0.	-.0333	-.0028	.0130	-.0434	.0416	-.0158	0.
.1910	0.	0.	0.	0.	0.	0.	0.	0.	-.0426	.0062	.0109	-.0364	.0344	-.0255	0.
.1920	0.	0.	0.	0.	0.	0.	0.	0.	-.0512	.0144	.0077	-.0282	.0273	-.0340	0.
.1930	0.	0.	0.	0.	0.	0.	0.	0.	-.0506	.0212	.0046	-.0198	.0210	-.0407	0.
.1940	0.	0.	0.	0.	0.	0.	0.	0.	-.0648	.0265	.0026	-.0109	.0197	-.0447	0.
.1950	0.	0.	0.	0.	0.	0.	0.	0.	-.0692	.0302	.0025	-.0025	.0212	-.0457	0.
.1960	0.	0.	0.	0.	0.	0.	0.	0.	-.0714	.0321	.0039	.0042	.0254	-.0443	0.
.1970	0.	0.	0.	0.	0.	0.	0.	0.	-.0718	.0324	.0058	.0104	.0308	-.0413	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.15.

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

CONDITION 24

LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	55	MEMBER	4	SEQUENCE	76	LOCATION	DIS	TYPE	VA						
TIME	FX	FY	FZ	HX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.1980	0.	0.	0.	0.	0.	0.	-.0716	.0311	.0069	.0181	.0348	-.0387	0.		
.1990	0.	0.	0.	0.	0.	0.	-.0717	.0284	.0058	.0280	.0353	-.0378	0.		
.2000	0.	0.	0.	0.	0.	0.	-.0719	.0245	.0023	.0389	.0314	-.0395	0.		
.2010	0.	0.	0.	0.	0.	0.	-.0722	.0198	-.0033	.0503	.0236	-.0434	0.		
.2020	0.	0.	0.	0.	0.	0.	-.0722	.0144	-.0096	.0616	.0145	-.0491	0.		
.2030	0.	0.	0.	0.	0.	0.	-.0713	.0087	-.0146	.0707	.0068	-.0556	0.		
.2040	0.	0.	0.	0.	0.	0.	-.0686	.0030	-.0162	.0740	.0024	-.0611	0.		
.2050	0.	0.	0.	0.	0.	0.	-.0637	-.0027	-.0136	.0707	.0024	-.0649	0.		
.2060	0.	0.	0.	0.	0.	0.	-.0573	-.0080	-.0077	.0628	.0067	-.0673	0.		
.2070	0.	0.	0.	0.	0.	0.	-.0500	-.0128	.0001	.0521	.0132	-.0690	0.		
.2080	0.	0.	0.	0.	0.	0.	-.0428	-.0170	.0082	.0397	.0190	-.0703	0.		
.2090	0.	0.	0.	0.	0.	0.	-.0365	-.0205	.0148	.0276	.0216	-.0721	0.		
.2100	0.	0.	0.	0.	0.	0.	-.0320	-.0234	.0184	.0189	.0202	-.0750	0.		
.2110	0.	0.	0.	0.	0.	0.	-.0291	-.0256	.0188	.0142	.0152	-.0787	0.		
.2120	0.	0.	0.	0.	0.	0.	-.0273	-.0271	.0171	.0120	.0080	-.0821	0.		
.2130	0.	0.	0.	0.	0.	0.	-.0258	-.0282	.0149	.0102	.0008	-.0841	0.		
.2140	0.	0.	0.	0.	0.	0.	-.0241	-.0287	.0136	.0081	-.0039	-.0838	0.		
.2150	0.	0.	0.	0.	0.	0.	-.0216	-.0290	.0138	.0053	-.0047	-.0807	0.		
.2160	0.	0.	0.	0.	0.	0.	-.0181	-.0289	.0156	.0012	-.0017	-.0748	0.		
.2170	0.	0.	0.	0.	0.	0.	-.0139	-.0285	.0161	-.0034	.0037	-.0670	0.		
.2180	0.	0.	0.	0.	0.	0.	-.0100	-.0279	.0198	-.0067	.0094	-.0587	0.		
.2190	0.	0.	0.	0.	0.	0.	-.0072	-.0272	.0196	-.0070	.0135	-.0512	0.		
.2200	0.	0.	0.	0.	0.	0.	-.0055	-.0264	.0168	-.0042	.0148	-.0452	0.		
.2210	0.	0.	0.	0.	0.	0.	-.0044	-.0255	.0115	.0012	.0135	-.0410	0.		
.2220	0.	0.	0.	0.	0.	0.	-.0037	-.0245	.0049	.0082	.0109	-.0383	0.		
.2230	0.	0.	0.	0.	0.	0.	-.0028	-.0235	-.0014	.0155	.0086	-.0362	0.		
.2240	0.	0.	0.	0.	0.	0.	-.0011	-.0226	-.0058	.0211	.0081	-.0337	0.		
.2250	0.	0.	0.	0.	0.	0.	.0021	-.0217	-.0078	.0240	.0103	-.0304	0.		
.2260	0.	0.	0.	0.	0.	0.	.0064	-.0209	-.0075	.0250	.0145	-.0265	0.		
.2270	0.	0.	0.	0.	0.	0.	.0113	-.0201	-.0060	.0254	.0193	-.0226	0.		
.2280	0.	0.	0.	0.	0.	0.	.0161	-.0193	-.0044	.0259	.0222	-.0194	0.		
.2290	0.	0.	0.	0.	0.	0.	.0204	-.0186	-.0039	.0275	.0215	-.0176	0.		
.2300	0.	0.	0.	0.	0.	0.	.0237	-.0178	-.0051	.0313	.0167	-.0174	0.		
.2310	0.	0.	0.	0.	0.	0.	.0260	-.0169	-.0078	.0375	.0087	-.0187	0.		
.2320	0.	0.	0.	0.	0.	0.	.0277	-.0159	-.0108	.0445	-.0014	-.0203	0.		
.2330	0.	0.	0.	0.	0.	0.	.0293	-.0147	-.0127	.0504	-.0116	-.0214	0.		
.2340	0.	0.	0.	0.	0.	0.	.0312	-.0131	-.0125	.0541	-.0202	-.0215	0.		
.2350	0.	0.	0.	0.	0.	0.	.0334	-.0113	-.0100	.0552	-.0259	-.0203	0.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.15.

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

CONDITION 24

LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	55	MEMBER	4	SEQUENCE	76	LOCATION	DIS	TYPE	VA						
TIME	FX	FY	FZ	HX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		

.1890	0.	0.	0.	0.	0.	0.	0.	-.0244	-.0123	.0135	-.0470	.0475	-.0052	0.
.1900	0.	0.	0.	0.	0.	0.	0.	-.0333	-.0028	.0130	-.0434	.0416	-.0158	0.
.1910	0.	0.	0.	0.	0.	0.	0.	-.0426	.0062	.0109	-.0364	.0344	-.0255	0.
.1920	0.	0.	0.	0.	0.	0.	0.	-.0512	.0144	.0077	-.0282	.0273	-.0340	0.
.1930	0.	0.	0.	0.	0.	0.	0.	-.0526	.0212	.0046	-.0198	.0210	-.0407	0.
.1940	0.	0.	0.	0.	0.	0.	0.	-.0648	.0265	.0026	-.0109	.0197	-.0447	0.
.1950	0.	0.	0.	0.	0.	0.	0.	-.0692	.0302	.0025	-.0025	.0212	-.0457	0.
.1960	0.	0.	0.	0.	0.	0.	0.	-.0714	.0321	.0039	.0042	.0254	-.0443	0.
.1970	0.	0.	0.	0.	0.	0.	0.	-.0718	.0324	.0058	.0104	.0308	-.0413	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.15.

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

CONDITION 24

LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	55	MEMBER	4	SEQUENCE	76	LOCATION	DIS	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.1980	0.	0.	0.	0.	0.	0.	-.0716	.0311	.0069	.0181	.0348	-.0387	0.		
.1990	0.	0.	0.	0.	0.	0.	-.0717	.0284	.0058	.0280	.0353	-.0378	0.		
.2000	0.	0.	0.	0.	0.	0.	-.0719	.0245	.0023	.0389	.0314	-.0395	0.		
.2010	0.	0.	0.	0.	0.	0.	-.0722	.0198	-.0033	.0503	.0236	-.0434	0.		
.2020	0.	0.	0.	0.	0.	0.	-.0722	.0144	-.0096	.0616	.0145	-.0491	0.		
.2030	0.	0.	0.	0.	0.	0.	-.0713	.0087	-.0146	.0707	.0068	-.0556	0.		
.2040	0.	0.	0.	0.	0.	0.	-.0686	.0030	-.0162	.0740	.0024	-.0611	0.		
.2050	0.	0.	0.	0.	0.	0.	-.0637	-.0027	-.0136	.0707	.0024	-.0649	0.		
.2060	0.	0.	0.	0.	0.	0.	-.0573	-.0080	-.0077	.0628	.0067	-.0673	0.		
.2070	0.	0.	0.	0.	0.	0.	-.0500	-.0128	.0001	.0521	.0132	-.0690	0.		
.2080	0.	0.	0.	0.	0.	0.	-.0428	-.0170	.0082	.0397	.0190	-.0703	0.		
.2090	0.	0.	0.	0.	0.	0.	-.0365	-.0205	.0148	.0276	.0216	-.0721	0.		
.2100	0.	0.	0.	0.	0.	0.	-.0320	-.0234	.0184	.0189	.0202	-.0750	0.		
.2110	0.	0.	0.	0.	0.	0.	-.0291	-.0256	.0188	.0142	.0152	-.0787	0.		
.2120	0.	0.	0.	0.	0.	0.	-.0273	-.0271	.0171	.0120	.0080	-.0821	0.		
.2130	0.	0.	0.	0.	0.	0.	-.0258	-.0282	.0149	.0102	.0008	-.0841	0.		
.2140	0.	0.	0.	0.	0.	0.	-.0241	-.0287	.0136	.0081	-.0039	-.0838	0.		
.2150	0.	0.	0.	0.	0.	0.	-.0216	-.0290	.0138	.0053	-.0047	-.0807	0.		
.2160	0.	0.	0.	0.	0.	0.	-.0181	-.0289	.0156	.0012	-.0017	-.0748	0.		
.2170	0.	0.	0.	0.	0.	0.	-.0139	-.0285	.0161	-.0034	.0037	-.0670	0.		
.2180	0.	0.	0.	0.	0.	0.	-.0100	-.0279	.0198	-.0067	.0094	-.0587	0.		
.2190	0.	0.	0.	0.	0.	0.	-.0072	-.0272	.0196	-.0070	.0135	-.0512	0.		
.2200	0.	0.	0.	0.	0.	0.	-.0055	-.0264	.0168	-.0042	.0148	-.0452	0.		
.2210	0.	0.	0.	0.	0.	0.	-.0044	-.0255	.0115	.0012	.0135	-.0410	0.		
.2220	0.	0.	0.	0.	0.	0.	-.0037	-.0245	.0049	.0082	.0109	-.0383	0.		
.2230	0.	0.	0.	0.	0.	0.	-.0028	-.0235	-.0014	.0155	.0086	-.0362	0.		
.2240	0.	0.	0.	0.	0.	0.	-.0011	-.0226	-.0058	.0211	.0081	-.0337	0.		
.2250	0.	0.	0.	0.	0.	0.	.0021	-.0217	-.0078	.0240	.0103	-.0304	0.		
.2260	0.	0.	0.	0.	0.	0.	.0064	-.0209	-.0075	.0250	.0145	-.0265	0.		
.2270	0.	0.	0.	0.	0.	0.	.0113	-.0201	-.0060	.0254	.0193	-.0226	0.		
.2280	0.	0.	0.	0.	0.	0.	.0161	-.0193	-.0044	.0259	.0222	-.0194	0.		
.2290	0.	0.	0.	0.	0.	0.	.0204	-.0186	-.0039	.0275	.0215	-.0176	0.		
.2300	0.	0.	0.	0.	0.	0.	.0237	-.0178	-.0051	.0313	.0167	-.0174	0.		
.2310	0.	0.	0.	0.	0.	0.	.0260	-.0169	-.0078	.0375	.0087	-.0187	0.		
.2320	0.	0.	0.	0.	0.	0.	.0277	-.0159	-.0108	.0445	-.0014	-.0203	0.		
.2330	0.	0.	0.	0.	0.	0.	.0293	-.0147	-.0127	.0504	-.0116	-.0214	0.		
.2340	0.	0.	0.	0.	0.	0.	.0312	-.0131	-.0125	.0541	-.0202	-.0215	0.		
.2350	0.	0.	0.	0.	0.	0.	.0334	-.0113	-.0100	.0552	-.0259	-.0203	0.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.15.

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

CONDITION 24

LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	55	MEMBER	4	SEQUENCE	76	LOCATION	DIS	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		

.2270	0.	0.	0.	0.	0.	0.	0.	.0113	-.0201	-.0060	.0254	.0193	-.0226	0.
.2280	0.	0.	0.	0.	0.	0.	0.	.0161	-.0193	-.0044	.0259	.0222	-.0194	0.
.2290	0.	0.	0.	0.	0.	0.	0.	.0204	-.0186	-.0039	.0275	.0215	-.0176	0.
.2300	0.	0.	0.	0.	0.	0.	0.	.0237	-.0178	-.0051	.0312	.0167	-.0174	0.
.2310	0.	0.	0.	0.	0.	0.	0.	.0260	-.0169	-.0078	.0375	.0087	-.0187	0.
.2320	0.	0.	0.	0.	0.	0.	0.	.0277	-.0159	-.0108	.0445	-.0014	-.0203	0.
.2330	0.	0.	0.	0.	0.	0.	0.	.0293	-.0147	-.0127	.0504	-.0116	-.0214	0.
.2340	0.	0.	0.	0.	0.	0.	0.	.0312	-.0131	-.0125	.0541	-.0202	-.0215	0.
.2350	0.	0.	0.	0.	0.	0.	0.	.0334	-.0113	-.0100	.0552	-.0259	-.0203	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.15.

S/RV PIPING KEWAUNEE GKW02F 2 RUP DISK
2 SAFETY COLD FRW24F--2 PSV

CONDITION 24

LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	55	MEMBER	4	SEQUENCE	76	LOCATION	DIS	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.2360	0.	0.	0.	0.	0.	0.	0.	.0361	-.0090	-.0053	.0532	-.0286	-.0179	0.	
.2370	0.	0.	0.	0.	0.	0.	0.	.0387	-.0063	.0012	.0483	-.0289	-.0150	0.	
.2380	0.	0.	0.	0.	0.	0.	0.	.0408	-.0031	.0085	.0417	-.0279	-.0125	0.	
.2390	0.	0.	0.	0.	0.	0.	0.	.0416	.0006	.0156	.0345	-.0264	-.0113	0.	
.2400	0.	0.	0.	0.	0.	0.	0.	.0412	.0047	.0218	.0275	-.0252	-.0117	0.	
.2410	0.	0.	0.	0.	0.	0.	0.	.0395	.0091	.0267	.0207	-.0244	-.0140	0.	
.2420	0.	0.	0.	0.	0.	0.	0.	.0367	.0139	.0306	.0143	-.0240	-.0181	0.	
.2430	0.	0.	0.	0.	0.	0.	0.	.0329	.0187	.0337	.0079	-.0234	-.0237	0.	
.2440	0.	0.	0.	0.	0.	0.	0.	.0284	.0234	.0363	.0015	-.0222	-.0304	0.	
.2450	0.	0.	0.	0.	0.	0.	0.	.0235	.0278	.0383	-.0049	-.0204	-.0374	0.	
.2460	0.	0.	0.	0.	0.	0.	0.	.0185	.0317	.0395	-.0107	-.0180	-.0443	0.	
.2470	0.	0.	0.	0.	0.	0.	0.	.0135	.0350	.0397	-.0154	-.0152	-.0508	0.	
.2480	0.	0.	0.	0.	0.	0.	0.	.0086	.0375	.0386	-.0186	-.0127	-.0568	0.	
.2490	0.	0.	0.	0.	0.	0.	0.	.0041	.0389	.0362	-.0203	-.0106	-.0618	0.	
.2500	0.	0.	0.	0.	0.	0.	0.	.0001	.0392	.0324	-.0202	-.0092	-.0655	0.	
.2510	0.	0.	0.	0.	0.	0.	0.	-.0029	.0384	.0273	-.0182	-.0082	-.0673	0.	
.2520	0.	0.	0.	0.	0.	0.	0.	-.0045	.0363	.0213	-.0146	-.0073	-.0669	0.	
.2530	0.	0.	0.	0.	0.	0.	0.	-.0045	.0331	.0149	-.0102	-.0064	-.0641	0.	
.2540	0.	0.	0.	0.	0.	0.	0.	-.0028	.0287	.0084	-.0053	-.0055	-.0586	0.	
.2550	0.	0.	0.	0.	0.	0.	0.	.0007	.0235	.0019	-.0000	-.0046	-.0507	0.	
.2560	0.	0.	0.	0.	0.	0.	0.	.0057	.0175	-.0044	.0058	-.0037	-.0403	0.	
.2570	0.	0.	0.	0.	0.	0.	0.	.0121	.0109	-.0106	.0118	-.0030	-.0280	0.	
.2580	0.	0.	0.	0.	0.	0.	0.	.0196	.0042	-.0165	.0180	-.0027	-.0141	0.	
.2590	0.	0.	0.	0.	0.	0.	0.	.0278	-.0024	-.0220	.0242	-.0031	.0007	0.	
.2600	0.	0.	0.	0.	0.	0.	0.	.0363	-.0090	-.0268	.0300	-.0041	.0162	0.	
.2610	0.	0.	0.	0.	0.	0.	0.	.0451	-.0148	-.0309	.0352	-.0058	.0321	0.	
.2620	0.	0.	0.	0.	0.	0.	0.	.0537	-.0197	-.0341	.0395	-.0078	.0477	0.	
.2630	0.	0.	0.	0.	0.	0.	0.	.0619	-.0236	-.0364	.0426	-.0102	.0624	0.	
.2640	0.	0.	0.	0.	0.	0.	0.	.0691	-.0262	-.0375	.0444	-.0129	.0758	0.	
.2650	0.	0.	0.	0.	0.	0.	0.	.0752	-.0274	-.0377	.0447	-.0160	.0875	0.	
.2660	0.	0.	0.	0.	0.	0.	0.	.0799	-.0273	-.0372	.0436	-.0192	.0971	0.	
.2670	0.	0.	0.	0.	0.	0.	0.	.0833	-.0257	-.0362	.0416	-.0223	.1044	0.	
.2680	0.	0.	0.	0.	0.	0.	0.	.0850	-.0227	-.0347	.0385	-.0251	.1093	0.	
.2690	0.	0.	0.	0.	0.	0.	0.	.0852	-.0185	-.0325	.0340	-.0274	.1119	0.	
.2700	0.	0.	0.	0.	0.	0.	0.	.0838	-.0133	-.0298	.0283	-.0290	.1127	0.	
.2710	0.	0.	0.	0.	0.	0.	0.	.0812	-.0072	-.0267	.0217	-.0296	.1116	0.	
.2720	0.	0.	0.	0.	0.	0.	0.	.0775	-.0005	-.0235	.0145	-.0290	.1089	0.	
.2730	0.	0.	0.	0.	0.	0.	0.	.0730	.0065	-.0202	.0066	-.0276	.1049	0.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.15.

S/RV PIPING KEWAUNEE GKW02F 2 RUP DISK
2 SAFETY COLD FRW24F--2 PSV

CONDITION 24

LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION 55 MEMBER 4 SEQUENCE 76 LOCATION DIS TYPE VA

.2650	0.	0.	0.	0.	0.	0.	0.	.0752	-.0274	-.0377	.0447	-.0160	.0875	0.
.2660	0.	0.	0.	0.	0.	0.	0.	.0799	-.0273	-.0372	.0436	-.0192	.0971	0.
.2670	0.	0.	0.	0.	0.	0.	0.	.0833	-.0257	-.0362	.0416	-.0223	.1044	0.
.2680	0.	0.	0.	0.	0.	0.	0.	.0850	-.0227	-.0347	.0385	-.0251	.1093	0.
.2690	0.	0.	0.	0.	0.	0.	0.	.0852	-.0185	-.0325	.0340	-.0274	.1119	0.
.2700	0.	0.	0.	0.	0.	0.	0.	.0838	-.0133	-.0298	.0283	-.0290	.1127	0.
.2710	0.	0.	0.	0.	0.	0.	0.	.0812	-.0072	-.0267	.0217	-.0296	.1116	0.
.2720	0.	0.	0.	0.	0.	0.	0.	.0775	-.0005	-.0235	.0145	-.0290	.1089	0.
.2730	0.	0.	0.	0.	0.	0.	0.	.0730	.0065	-.0202	.0066	-.0276	.1049	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.15.

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

CONDITION 24

LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	55	MEMBER	4	SEQUENCE	76	LOCATION	DIS	TYPE	VA						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)			
.2740	0.	0.	0.	0.	0.	0.	.0674	.0137	-.0170	-.0013	-.0257	.1003			0.
.2750	0.	0.	0.	0.	0.	0.	.0611	.0208	-.0143	-.0086	-.0238	.0954			0.
.2760	0.	0.	0.	0.	0.	0.	.0544	.0275	-.0126	-.0145	-.0217	.0902			0.
.2770	0.	0.	0.	0.	0.	0.	.0475	.0336	-.0118	-.0193	-.0196	.0848			0.
.2780	0.	0.	0.	0.	0.	0.	.0407	.0389	-.0116	-.0234	-.0178	.0798			0.
.2790	0.	0.	0.	0.	0.	0.	.0341	.0433	-.0116	-.0268	-.0162	.0759			0.
.2800	0.	0.	0.	0.	0.	0.	.0282	.0467	-.0118	-.0295	-.0144	.0731			0.
.2810	0.	0.	0.	0.	0.	0.	.0233	.0489	-.0122	-.0316	-.0124	.0713			0.
.2820	0.	0.	0.	0.	0.	0.	.0195	.0501	-.0124	-.0336	-.0104	.0707			0.
.2830	0.	0.	0.	0.	0.	0.	.0165	.0502	-.0124	-.0354	-.0090	.0712			0.
.2840	0.	0.	0.	0.	0.	0.	.0141	.0492	-.0125	-.0364	-.0089	.0723			0.
.2850	0.	0.	0.	0.	0.	0.	.0124	.0472	-.0133	-.0362	-.0101	.0733			0.
.2860	0.	0.	0.	0.	0.	0.	.0116	.0443	-.0150	-.0353	-.0129	.0737			0.
.2870	0.	0.	0.	0.	0.	0.	.0113	.0406	-.0172	-.0339	-.0173	.0736			0.
.2880	0.	0.	0.	0.	0.	0.	.0114	.0362	-.0197	-.0322	-.0227	.0730			0.
.2890	0.	0.	0.	0.	0.	0.	.0121	.0313	-.0219	-.0310	-.0282	.0721			0.
.2900	0.	0.	0.	0.	0.	0.	.0140	.0259	-.0235	-.0310	-.0327	.0711			0.
.2910	0.	0.	0.	0.	0.	0.	.0171	.0202	-.0242	-.0327	-.0354	.0705			0.
.2920	0.	0.	0.	0.	0.	0.	.0210	.0142	-.0238	-.0357	-.0361	.0703			0.
.2930	0.	0.	0.	0.	0.	0.	.0254	.0082	-.0224	-.0397	-.0351	.0703			0.
.2940	0.	0.	0.	0.	0.	0.	.0299	.0023	-.0208	-.0444	-.0330	.0704			0.
.2950	0.	0.	0.	0.	0.	0.	.0344	-.0034	-.0197	-.0485	-.0304	.0704			0.
.2960	0.	0.	0.	0.	0.	0.	.0381	-.0088	-.0197	-.0509	-.0279	.0698			0.
.2970	0.	0.	0.	0.	0.	0.	.0406	-.0138	-.0209	-.0516	-.0260	.0686			0.
.2980	0.	0.	0.	0.	0.	0.	.0420	-.0181	-.0230	-.0511	-.0249	.0669			0.
.2990	0.	0.	0.	0.	0.	0.	.0422	-.0217	-.0256	-.0497	-.0238	.0653			0.
.3000	0.	0.	0.	0.	0.	0.	.0416	-.0243	-.0284	-.0473	-.0220	.0637			0.
.3010	0.	0.	0.	0.	0.	0.	.0400	-.0260	-.0307	-.0447	-.0188	.0623			0.
.3020	0.	0.	0.	0.	0.	0.	.0378	-.0265	-.0320	-.0430	-.0144	.0610			0.
.3030	0.	0.	0.	0.	0.	0.	.0346	-.0259	-.0321	-.0426	-.0089	.0597			0.
.3040	0.	0.	0.	0.	0.	0.	.0304	-.0240	-.0314	-.0425	-.0028	.0579			0.
.3050	0.	0.	0.	0.	0.	0.	.0253	-.0210	-.0302	-.0426	.0036	.0550			0.
.3060	0.	0.	0.	0.	0.	0.	.0192	-.0168	-.0286	-.0432	.0095	.0506			0.
.3070	0.	0.	0.	0.	0.	0.	.0120	-.0116	-.0264	-.0447	.0142	.0448			0.
.3080	0.	0.	0.	0.	0.	0.	.0039	-.0056	-.0236	-.0466	.0177	.0377			0.
.3090	0.	0.	0.	0.	0.	0.	-.0048	.0011	-.0201	-.0488	.0204	.0293			0.
.3100	0.	0.	0.	0.	0.	0.	-.0135	.0080	-.0159	-.0518	.0225	.0199			0.
.3110	0.	0.	0.	0.	0.	0.	-.0217	.0150	-.0107	-.0560	.0242	.0100			0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.15.

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

CONDITION 24

LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION 55 MEMBER 4 SEQUENCE 76 LOCATION DIS TYPE VA

.3030	0.	0.	0.	0.	0.	0.	0.	0.	.346	-.0259	-.0321	-.0426	-.0089	.0597	0.
.3040	0.	0.	0.	0.	0.	0.	0.	0.	.304	-.0240	-.0314	-.0425	-.0028	.0579	0.
.3050	0.	0.	0.	0.	0.	0.	0.	0.	.0253	-.0210	-.0302	-.0426	.0036	.0550	0.
.3060	0.	0.	0.	0.	0.	0.	0.	0.	.0192	-.0168	-.0186	-.0432	.0095	.0506	0.
.3070	0.	0.	0.	0.	0.	0.	0.	0.	.0120	-.0116	-.0264	-.0447	.0142	.0448	0.
.3080	0.	0.	0.	0.	0.	0.	0.	0.	.0039	-.0056	-.0236	-.0466	.0177	.0377	0.
.3090	0.	0.	0.	0.	0.	0.	0.	0.	-.0048	.0011	-.0201	-.0488	.0204	.0293	0.
.3100	0.	0.	0.	0.	0.	0.	0.	0.	-.0135	.0080	-.0159	-.0518	.0225	.0199	0.
.3110	0.	0.	0.	0.	0.	0.	0.	0.	-.0217	.0150	-.0107	-.0560	.0242	.0100	0.

ADLPIPE PAGE 2122

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.15.

S/RV PIPING KEWAUNEE GKW02F 2 RUP DISK
2 SAFETY COLD FWL4F--2 PSV

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	55	MEMBER	4	SEQUENCE	76	LOCATION	DIS	TYPE	VA						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)			
.3120	0.	0.	0.	0.	0.	0.	-.0297	.0216	-.0046	-.0608	.0252	-.0001	0.	0.	
.3130	0.	0.	0.	0.	0.	0.	-.0371	.0276	.0020	-.0656	.0254	-.0104	0.	0.	
.3140	0.	0.	0.	0.	0.	0.	-.0437	.0326	.0085	-.0701	.0247	-.0204	0.	0.	
.3150	0.	0.	0.	0.	0.	0.	-.0491	.0363	.0143	-.0737	.0229	-.0298	0.	0.	
.3160	0.	0.	0.	0.	0.	0.	-.0534	.0385	.0194	-.0758	.0199	-.0382	0.	0.	
.3170	0.	0.	0.	0.	0.	0.	-.0567	.0390	.0235	-.0762	.0160	-.0453	0.	0.	
.3180	0.	0.	0.	0.	0.	0.	-.0585	.0376	.0267	-.0753	.0114	-.0506	0.	0.	
.3190	0.	0.	0.	0.	0.	0.	-.0587	.0344	.0291	-.0729	.0067	-.0537	0.	0.	
.3200	0.	0.	0.	0.	0.	0.	-.0573	.0295	.0304	-.0689	.0026	-.0545	0.	0.	
.3210	0.	0.	0.	0.	0.	0.	-.0544	.0228	.0309	-.0632	-.0009	-.0531	0.	0.	
.3220	0.	0.	0.	0.	0.	0.	-.0504	.0147	.0306	-.0565	-.0037	-.0495	0.	0.	
.3230	0.	0.	0.	0.	0.	0.	-.0454	.0055	.0295	-.0489	-.0060	-.0439	0.	0.	
.3240	0.	0.	0.	0.	0.	0.	-.0398	-.0045	.0274	-.0400	-.0075	-.0368	0.	0.	
.3250	0.	0.	0.	0.	0.	0.	-.0338	-.0149	.0244	-.0299	-.0082	-.0286	0.	0.	
.3260	0.	0.	0.	0.	0.	0.	-.0276	-.0253	.0208	-.0194	-.0081	-.0199	0.	0.	
.3270	0.	0.	0.	0.	0.	0.	-.0217	-.0353	.0170	-.0095	-.0073	-.0110	0.	0.	
.3280	0.	0.	0.	0.	0.	0.	-.0162	-.0445	.0135	-.0002	-.0057	-.0023	0.	0.	
.3290	0.	0.	0.	0.	0.	0.	-.0114	-.0525	.0101	.0084	-.0031	.0058	0.	0.	
.3300	0.	0.	0.	0.	0.	0.	-.0071	-.0591	.0070	.0159	.0004	.0128	0.	0.	
.3310	0.	0.	0.	0.	0.	0.	-.0038	-.0641	.0045	.0218	.0044	.0185	0.	0.	
.3320	0.	0.	0.	0.	0.	0.	-.0017	-.0673	.0027	.0262	.0085	.0227	0.	0.	
.3330	0.	0.	0.	0.	0.	0.	-.0010	-.0688	.0015	.0295	.0126	.0253	0.	0.	
.3340	0.	0.	0.	0.	0.	0.	-.0012	-.0686	.0007	.0317	.0167	.0264	0.	0.	
.3350	0.	0.	0.	0.	0.	0.	-.0023	-.0668	.0005	.0327	.0205	.0261	0.	0.	
.3360	0.	0.	0.	0.	0.	0.	-.0042	-.0636	.0009	.0326	.0242	.0246	0.	0.	
.3370	0.	0.	0.	0.	0.	0.	-.0068	-.0593	.0019	.0318	.0275	.0221	0.	0.	
.3380	0.	0.	0.	0.	0.	0.	-.0097	-.0542	.0033	.0305	.0304	.0190	0.	0.	
.3390	0.	0.	0.	0.	0.	0.	-.0127	-.0486	.0049	.0291	.0329	.0155	0.	0.	
.3400	0.	0.	0.	0.	0.	0.	-.0155	-.0429	.0063	.0281	.0346	.0118	0.	0.	
.3410	0.	0.	0.	0.	0.	0.	-.0181	-.0374	.0073	.0281	.0354	.0082	0.	0.	
.3420	0.	0.	0.	0.	0.	0.	-.0206	-.0324	.0078	.0293	.0351	.0049	0.	0.	
.3430	0.	0.	0.	0.	0.	0.	-.0225	-.0280	.0077	.0314	.0339	.0021	0.	0.	
.3440	0.	0.	0.	0.	0.	0.	-.0235	-.0246	.0070	.0347	.0322	.0001	0.	0.	
.3450	0.	0.	0.	0.	0.	0.	-.0232	-.0221	.0059	.0392	.0303	-.0010	0.	0.	
.3460	0.	0.	0.	0.	0.	0.	-.0232	-.0208	.0047	.0446	.0284	-.0011	0.	0.	
.3470	0.	0.	0.	0.	0.	0.	-.0216	-.0205	.0034	.0501	.0268	-.0002	0.	0.	
.3480	0.	0.	0.	0.	0.	0.	-.0192	-.0213	.0023	.0559	.0253	.0016	0.	0.	
.3490	0.	0.	0.	0.	0.	0.	-.0162	-.0228	.0009	.0622	.0240	.0039	0.	0.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.15.

S/RV PIPING KEWAUNEE GKW02F 2 RUP DISK
2 SAFETY COLD FWL4F--2 PSV

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION 55 MEMBER 4 SEQUENCE 76 LOCATION DIS TYPE VA

.3410	0.	0.	0.	0.	0.	0.	0.	-.0181	-.0374	.0073	.0281	.0354	.0382	0.
.3420	0.	0.	0.	0.	0.	0.	0.	-.0206	-.0324	.0078	.0293	.0351	.0049	0.
.3430	0.	0.	0.	0.	0.	0.	0.	-.0225	-.0280	.0077	.0314	.0339	.0021	0.
.3440	0.	0.	0.	0.	0.	0.	0.	-.0235	-.0246	.0070	.0347	.0322	.0001	0.
.3450	0.	0.	0.	0.	0.	0.	0.	-.0238	-.0221	.0059	.0392	.0303	-.0010	0.
.3460	0.	0.	0.	0.	0.	0.	0.	-.0232	-.0208	.0047	.0446	.0284	-.0011	0.
.3470	0.	0.	0.	0.	0.	0.	0.	-.0216	-.0205	.0034	.0501	.0268	-.0002	0.
.3480	0.	0.	0.	0.	0.	0.	0.	-.0192	-.0213	.0023	.0559	.0253	.0016	0.
.3490	0.	0.	0.	0.	0.	0.	0.	-.0162	-.0228	.0009	.0622	.0240	.0039	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.15.

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	55	MEMBER	4	SEQUENCE	76	LOCATION	DIS	TYPE	VA							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)			
.3500	0.	0.	0.	0.	0.	0.	0.	-.0129	-.0251	-.0007	.0690	.0226	.0062			0.
.3510	0.	0.	0.	0.	0.	0.	0.	-.0093	-.0279	-.0025	.0757	.0209	.0083			0.
.3520	0.	0.	0.	0.	0.	0.	0.	-.0058	-.0310	-.0044	.0820	.0188	.0097			0.
.3530	0.	0.	0.	0.	0.	0.	0.	-.0026	-.0342	-.0063	.0880	.0166	.0103			0.
.3540	0.	0.	0.	0.	0.	0.	0.	.0004	-.0372	-.0081	.0934	.0145	.0100			0.
.3550	0.	0.	0.	0.	0.	0.	0.	.0032	-.0400	-.0095	.0976	.0127	.0087			0.
.3560	0.	0.	0.	0.	0.	0.	0.	.0057	-.0422	-.0103	.1001	.0115	.0066			0.
.3570	0.	0.	0.	0.	0.	0.	0.	.0078	-.0439	-.0103	.1012	.0107	.0037			0.
.3580	0.	0.	0.	0.	0.	0.	0.	.0093	-.0449	-.0097	.1009	.0105	.0001			0.
.3590	0.	0.	0.	0.	0.	0.	0.	.0103	-.0453	-.0089	.0996	.0104	-.0042			0.
.3600	0.	0.	0.	0.	0.	0.	0.	.0108	-.0450	-.0080	.0973	.0103	-.0091			0.
.3610	0.	0.	0.	0.	0.	0.	0.	.0107	-.0440	-.0071	.0945	.0099	-.0145			0.
.3620	0.	0.	0.	0.	0.	0.	0.	.0101	-.0425	-.0063	.0912	.0092	-.0201			0.
.3630	0.	0.	0.	0.	0.	0.	0.	.0091	-.0406	-.0056	.0874	.0083	-.0257			0.
.3640	0.	0.	0.	0.	0.	0.	0.	.0080	-.0384	-.0049	.0830	.0077	-.0308			0.
.3650	0.	0.	0.	0.	0.	0.	0.	.0071	-.0359	-.0040	.0781	.0076	-.0352			0.
.3660	0.	0.	0.	0.	0.	0.	0.	.0064	-.0334	-.0027	.0726	.0083	-.0386			0.
.3670	0.	0.	0.	0.	0.	0.	0.	.0060	-.0310	-.0010	.0664	.0095	-.0411			0.
.3680	0.	0.	0.	0.	0.	0.	0.	.0061	-.0287	.0009	.0598	.0113	-.0427			0.
.3690	0.	0.	0.	0.	0.	0.	0.	.0064	-.0267	.0027	.0533	.0131	-.0436			0.
.3700	0.	0.	0.	0.	0.	0.	0.	.0070	-.0250	.0040	.0474	.0146	-.0443			0.
.3710	0.	0.	0.	0.	0.	0.	0.	.0076	-.0236	.0048	.0421	.0154	-.0451			0.
.3720	0.	0.	0.	0.	0.	0.	0.	.0082	-.0225	.0050	.0376	.0150	-.0461			0.
.3730	0.	0.	0.	0.	0.	0.	0.	.0087	-.0219	.0046	.0338	.0137	-.0475			0.
.3740	0.	0.	0.	0.	0.	0.	0.	.0093	-.0216	.0037	.0310	.0118	-.0493			0.
.3750	0.	0.	0.	0.	0.	0.	0.	.0100	-.0217	.0026	.0285	.0095	-.0512			0.
.3760	0.	0.	0.	0.	0.	0.	0.	.0110	-.0220	.0017	.0260	.0074	-.0533			0.
.3770	0.	0.	0.	0.	0.	0.	0.	.0122	-.0227	.0012	.0231	.0056	-.0553			0.
.3780	0.	0.	0.	0.	0.	0.	0.	.0135	-.0236	.0012	.0199	.0045	-.0571			0.
.3790	0.	0.	0.	0.	0.	0.	0.	.0151	-.0247	.0017	.0167	.0039	-.0586			0.
.3800	0.	0.	0.	0.	0.	0.	0.	.0169	-.0260	.0023	.0135	.0038	-.0598			0.
.3810	0.	0.	0.	0.	0.	0.	0.	.0185	-.0273	.0030	.0104	.0038	-.0607			0.
.3820	0.	0.	0.	0.	0.	0.	0.	.0198	-.0288	.0037	.0078	.0035	-.0614			0.
.3830	0.	0.	0.	0.	0.	0.	0.	.0208	-.0303	.0042	.0057	.0029	-.0618			0.
.3840	0.	0.	0.	0.	0.	0.	0.	.0214	-.0318	.0044	.0044	.0020	-.0617			0.
.3850	0.	0.	0.	0.	0.	0.	0.	.0217	-.0333	.0044	.0036	.0008	-.0613			0.
.3860	0.	0.	0.	0.	0.	0.	0.	.0216	-.0347	.0043	.0031	-.0005	-.0603			0.
.3870	0.	0.	0.	0.	0.	0.	0.	.0209	-.0359	.0043	.0027	-.0019	-.0588			0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.15.

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 55 MEMBER 4 SEQUENCE 76 LOCATION DIS TYPE VA

.3780	0.	0.	0.	0.	0.	0.	0.	0.	.0135	-.0236	.0012	.0199	.0045	-.0571	0.
.3790	0.	0.	0.	0.	0.	0.	0.	0.	.0151	-.0247	.0017	.0167	.0039	-.0586	0.
.3800	0.	0.	0.	0.	0.	0.	0.	0.	.0169	-.0260	.0023	.0135	.0038	-.0598	0.
.3810	0.	0.	0.	0.	0.	0.	0.	0.	.0185	-.0273	.0030	.0104	.0038	-.0607	0.
.3820	0.	0.	0.	0.	0.	0.	0.	0.	.0198	-.0288	.0037	.0088	.0035	-.0614	0.
.3830	0.	0.	0.	0.	0.	0.	0.	0.	.0208	-.0293	.0042	.0057	.0029	-.0618	0.
.3840	0.	0.	0.	0.	0.	0.	0.	0.	.0214	-.0318	.0044	.0044	.0020	-.0617	0.
.3850	0.	0.	0.	0.	0.	0.	0.	0.	.0217	-.0333	.0044	.0036	.0008	-.0613	0.
.3860	0.	0.	0.	0.	0.	0.	0.	0.	.0216	-.0347	.0043	.0031	-.0005	-.0603	0.
.3870	0.	0.	0.	0.	0.	0.	0.	0.	.0209	-.0359	.0043	.0027	-.0019	-.0588	0.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.15.

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

CONDITION 24

LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	55	MEMBER	4	SEQUENCE	76	LOCATION	DIS	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.3880	0.	0.	0.	0.	0.	0.	.0199	-.0369	.0046	.0023	-.0031	-.0568	0.		
.3890	0.	0.	0.	0.	0.	0.	.0185	-.0377	.0050	.0017	-.0041	-.0543	0.		
.3900	0.	0.	0.	0.	0.	0.	.0167	-.0382	.0054	.0009	-.0051	-.0518	0.		
.3910	0.	0.	0.	0.	0.	0.	.0144	-.0383	.0060	-.0003	-.0060	-.0497	0.		
.3920	0.	0.	0.	0.	0.	0.	.0115	-.0381	.0067	-.0023	-.0072	-.0483	0.		
.3930	0.	0.	0.	0.	0.	0.	.0082	-.0374	.0074	-.0051	-.0088	-.0477	0.		
.3940	0.	0.	0.	0.	0.	0.	.0044	-.0364	.0082	-.0084	-.0105	-.0478	0.		
.3950	0.	0.	0.	0.	0.	0.	.0003	-.0350	.0089	-.0123	-.0122	-.0489	0.		
.3960	0.	0.	0.	0.	0.	0.	-.0039	-.0333	.0099	-.0172	-.0140	-.0509	0.		
.3970	0.	0.	0.	0.	0.	0.	-.0084	-.0312	.0113	-.0233	-.0158	-.0536	0.		
.3980	0.	0.	0.	0.	0.	0.	-.0129	-.0289	.0129	-.0300	-.0174	-.0568	0.		
.3990	0.	0.	0.	0.	0.	0.	-.0173	-.0264	.0145	-.0371	-.0188	-.0604	0.		
.4000	0.	0.	0.	0.	0.	0.	-.0213	-.0239	.0161	-.0444	-.0200	-.0642	0.		

MAXIMUM VALUE OF DISCONTINUITY FORCE OCCURS AT

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

SECTION	55	MEMBER	4	SEQUENCE	76	LOCATION	END	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
0.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.		
.0010	-0.	0.	0.	0.	0.	0.	-.0000	.0000	.0000	-.0000	-.0000	.0000	0.		
.0020	-0.	0.	0.	0.	0.	0.	.0000	-.0000	.0000	-.0000	-.0000	.0000	0.		
.0030	-0.	0.	0.	0.	0.	0.	.0000	-.0000	.0000	-.0000	-.0000	.0000	1.		
.0040	-0.	0.	-0.	-0.	0.	-0.	.0000	-.0000	.0000	-.0000	-.0000	.0000	1.		
.0050	1.	0.	-1.	-1.	1.	0.	.0000	-.0000	.0000	-.0000	-.0000	.0000	4.		
.0060	4.	1.	-4.	-1.	2.	1.	-.0000	-.0000	.0000	.0000	-.0001	.0000	9.		
.0070	10.	2.	-7.	-2.	4.	-0.	-.0001	.0000	.0000	.0001	-.0003	-.0000	15.		
.0080	19.	6.	-12.	-3.	7.	-3.	-.0002	.0000	-.0001	.0003	-.0007	-.0001	25.		
.0090	34.	11.	-19.	-4.	10.	-8.	-.0004	.0000	-.0003	.0007	-.0014	-.0002	40.		
.0100	61.	18.	-31.	-6.	12.	-13.	-.0008	.0000	-.0006	.0013	-.0023	-.0005	57.		
.0110	107.	28.	-52.	-8.	15.	-18.	-.0014	.0000	-.0010	.0022	-.0037	-.0009	74.		

ADLPIPE PAGE 2125

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.15.

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

CONDITION 24

LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

.3780	0.	0.	0.	0.	0.	0.	0.	0.	.115	-.0236	.0012	.0199	.0045	-.0571	0.
.3790	0.	0.	0.	0.	0.	0.	0.	0.	.151	-.0247	.0017	.0167	.0039	-.0586	0.
.3800	0.	0.	0.	0.	0.	0.	0.	0.	.169	-.0260	.0023	.0135	.0038	-.0598	0.
.3810	0.	0.	0.	0.	0.	0.	0.	0.	.185	-.0273	.0030	.0104	.0038	-.0607	0.
.3820	0.	0.	0.	0.	0.	0.	0.	0.	.198	-.0288	.0037	.0078	.0035	-.0614	0.
.3830	0.	0.	0.	0.	0.	0.	0.	0.	.208	-.0303	.0042	.0057	.0029	-.0618	0.
.3840	0.	0.	0.	0.	0.	0.	0.	0.	.214	-.0318	.0044	.0044	.0020	-.0617	0.
.3850	0.	0.	0.	0.	0.	0.	0.	0.	.217	-.0333	.0044	.0036	.0008	-.0613	0.
.3860	0.	0.	0.	0.	0.	0.	0.	0.	.216	-.0347	.0043	.0031	-.0005	-.0603	0.
.3870	0.	0.	0.	0.	0.	0.	0.	0.	.209	-.0359	.0043	.0027	-.0019	-.0588	0.

ADLPIPE PAGE 2124 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.29.15.
 S/RV PIPING KEWAUNEE GKWC8F 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	55	MEMBER	4	SEQUENCE	76	LOCATION	DIS	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.3880	0.	0.	0.	0.	0.	0.	.0199	-.0369	.0046	.0023	-.0031	-.0568	0.		
.3890	0.	0.	0.	0.	0.	0.	.0185	-.0377	.0050	.0017	-.0041	-.0543	0.		
.3900	0.	0.	0.	0.	0.	0.	.0167	-.0382	.0054	.0009	-.0051	-.0518	0.		
.3910	0.	0.	0.	0.	0.	0.	.0144	-.0383	.0060	-.0003	-.0060	-.0497	0.		
.3920	0.	0.	0.	0.	0.	0.	.0115	-.0381	.0067	-.0023	-.0072	-.0483	0.		
.3930	0.	0.	0.	0.	0.	0.	.0082	-.0374	.0074	-.0051	-.0088	-.0477	0.		
.3940	0.	0.	0.	0.	0.	0.	.0044	-.0364	.0082	-.0064	-.0105	-.0478	0.		
.3950	0.	0.	0.	0.	0.	0.	.0003	-.0350	.0089	-.0123	-.0122	-.0489	0.		
.3960	0.	0.	0.	0.	0.	0.	-.0039	-.0333	.0099	-.0172	-.0140	-.0509	0.		
.3970	0.	0.	0.	0.	0.	0.	-.0024	-.0312	.0113	-.0233	-.0158	-.0536	0.		
.3980	0.	0.	0.	0.	0.	0.	-.0129	-.0289	.0129	-.0300	-.0174	-.0568	0.		
.3990	0.	0.	0.	0.	0.	0.	-.0173	-.0264	.0145	-.0371	-.0188	-.0604	0.		
.4000	0.	0.	0.	0.	0.	0.	-.0213	-.0239	.0161	-.0444	-.0200	-.0642	0.		

MAXIMUM VALUE OF DISCONTINUITY FORCE OCCURS AT

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

SECTION	55	MEMBER	4	SEQUENCE	76	LOCATION	END	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
0.0000	0.	0.	0.	0.	0.	0.	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.		
.0010	-0.	0.	0.	0.	0.	-0.	-.0000	.0000	.0000	-.0000	-.0000	.0000	0.		
.0020	-0.	0.	0.	0.	0.	-0.	.0000	-.0000	.0000	-.0000	-.0000	.0000	0.		
.0030	-0.	0.	0.	0.	0.	-0.	.0000	-.0000	.0000	-.0000	-.0000	.0000	1.		
.0040	-0.	0.	-0.	-0.	0.	-0.	.0000	-.0000	.0000	-.0000	-.0000	.0000	1.		
.0050	1.	0.	-1.	-1.	1.	0.	.0000	-.0000	.0000	-.0000	-.0000	.0000	4.		
.0060	4.	1.	-4.	-1.	2.	1.	-.0000	-.0000	.0000	.0000	-.0001	.0000	9.		
.0070	10.	2.	-7.	-2.	4.	-0.	-.0001	.0000	.0000	.0001	-.0003	-.0000	15.		
.0080	19.	6.	-12.	-3.	7.	-3.	-.0002	.0000	-.0001	.0003	-.0007	-.0001	25.		
.0090	34.	11.	-19.	-4.	10.	-8.	-.0004	.0000	-.0003	.0007	-.0014	-.0002	40.		
.0100	61.	18.	-31.	-6.	12.	-13.	-.0008	.0000	-.0006	.0013	-.0023	-.0005	57.		
.0110	107.	28.	-52.	-8.	15.	-18.	-.0014	.0000	-.0010	.0022	-.0037	-.0009	74.		

ADLPIPE PAGE 2125 DIS/ADLPIPE ADLPIPE STRESS ANALYSIS 83/12/02. 18.29.15.
 S/RV PIPING KEWAUNEE GKWC8F 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

.0030	-0.	0.	0.	0.	0.	0.	-0.	.0000	-.0000	.0000	-.0000	.0000	.0000	1.
.0040	-0.	0.	-0.	-0.	-0.	0.	-0.	.0000	-.0000	.0000	-.0000	-.0000	.0000	1.
.0050	1.	0.	-1.	-1.	-1.	1.	0.	.0000	-.0000	.0000	-.0000	-.0000	.0000	4.
.0060	4.	1.	-4.	-1.	2.	1.	-0.	.0000	-.0000	.0000	.0000	-.0001	.0000	9.
.0070	10.	2.	-7.	-2.	4.	-0.	-.0001	.0000	.0000	.0001	-.0003	-.0000	.0000	15.
.0080	19.	6.	-12.	-3.	7.	-3.	-.0002	.0000	-.0001	.0003	-.0007	-.0001	.0000	25.
.0090	34.	11.	-19.	-4.	10.	-8.	-.0004	.0000	-.0003	.0007	-.0014	-.0002	.0000	40.
.0100	61.	18.	-31.	-6.	12.	-13.	-.0008	.0000	-.0006	.0013	-.0023	-.0005	.0000	57.
.0110	107.	28.	-52.	-8.	15.	-18.	-.0014	.0000	-.0010	.0022	-.0037	-.0009	.0000	74.

ADLPIPE PAGE 2125

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.29.15.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	55	MEMBER	4	SEQUENCE	76	LOCATION	END	TYPE	VA						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)			
.0120	179.	41.	-83.	-12.	16.	-27.	-.0024	.0000	-.0016	.0036	-.0055	-.0016		101.	
.0130	270.	62.	-120.	-18.	15.	-47.	-.0037	.0001	-.0024	.0055	-.0079	-.0025		158.	
.0140	364.	93.	-154.	-28.	11.	-81.	-.0055	.0001	-.0035	.0080	-.0108	-.0035		264.	
.0150	441.	128.	-174.	-39.	4.	-129.	-.0075	.0002	-.0048	.0109	-.0141	-.0048		411.	
.0160	482.	158.	-171.	-46.	-6.	-191.	-.0095	.0003	-.0064	.0138	-.0175	-.0064		567.	
.0170	471.	170.	-138.	-43.	-18.	-224.	-.0114	.0004	-.0080	.0162	-.0204	-.0083		695.	
.0180	391.	158.	-72.	-30.	-33.	-250.	-.0128	.0004	-.0093	.0176	-.0221	-.0103		773.	
.0190	239.	122.	25.	-10.	-52.	-253.	-.0134	.0003	-.0100	.0176	-.0218	-.0121		785.	
.0200	21.	70.	144.	7.	-72.	-232.	-.0131	.0002	-.0096	.0158	-.0188	-.0131		739.	
.0210	-232.	5.	261.	16.	-91.	-181.	-.0116	-.0001	-.0079	.0121	-.0128	-.0130		619.	
.0220	-457.	-85.	338.	9.	-110.	-80.	-.0090	-.0005	-.0048	.0069	-.0039	-.0123		415.	
.0230	-632.	-181.	370.	-12.	-122.	46.	-.0059	-.0010	-.0006	.0007	.0069	-.0105		400.	
.0240	-775.	-252.	379.	-40.	-120.	149.	-.0026	-.0016	.0040	-.0057	.0175	-.0070		596.	
.0250	-946.	-281.	412.	-62.	-112.	203.	.0008	-.0023	.0076	-.0108	.0266	-.0025		728.	
.0260	-1148.	-301.	482.	-55.	-113.	252.	.0044	-.0029	.0089	-.0135	.0333	.0012		856.	
.0270	-1241.	-379.	511.	-7.	-125.	378.	.0078	-.0036	.0081	-.0140	.0371	.0023		1212.	
.0280	-1177.	-476.	479.	87.	-124.	523.	.0100	-.0044	.0065	-.0136	.0369	.0031		1655.	
.0290	-1089.	-507.	466.	211.	-114.	575.	.0112	-.0050	.0041	-.0124	.0337	.0061		1896.	
.0300	-1008.	-511.	464.	325.	-137.	613.	.0131	-.0054	.0002	-.0092	.0315	.0083		2152.	
.0310	-819.	-483.	378.	388.	-158.	669.	.0162	-.0056	-.0027	-.0068	.0314	.0107		2401.	
.0320	-447.	-404.	161.	398.	-137.	702.	.0191	-.0055	-.0015	-.0083	.0329	.0166		2491.	
.0330	60.	-313.	-154.	358.	-92.	722.	.0212	-.0051	.0033	-.0129	.0363	.0250		2468.	
.0340	541.	-188.	-492.	234.	-35.	718.	.0238	-.0042	.0092	-.0174	.0414	.0329		2301.	
.0350	852.	26.	-753.	44.	37.	628.	.0265	-.0028	.0139	-.0198	.0447	.0392		1918.	
.0360	1040.	235.	-897.	-108.	94.	486.	.0272	-.0009	.0154	-.0192	.0424	.0418		1542.	
.0370	1281.	300.	-985.	-143.	112.	401.	.0243	.0013	.0132	-.0153	.0325	.0378		1339.	
.0380	1585.	282.	-1040.	-102.	115.	326.	.0182	.0039	.0078	-.0086	.0150	.0283		1097.	
.0390	1691.	352.	-941.	-55.	105.	101.	.0105	.0069	-.0004	.0012	-.0069	.0173		474.	
.0400	1432.	509.	-617.	-23.	51.	-274.	.0028	.0100	-.0106	.0127	-.0269	.0065		850.	
.0410	1094.	590.	-291.	-17.	-21.	-565.	-.0029	.0131	-.0182	.0204	-.0397	-.0052		1719.	
.0420	962.	577.	-183.	-70.	-20.	-690.	-.0062	.0158	-.0175	.0179	-.0442	-.0137		2112.	
.0430	949.	534.	-234.	-197.	41.	-730.	-.0084	.0180	-.0081	.0063	-.0394	-.0163		2303.	
.0440	770.	520.	-270.	-422.	97.	-768.	-.0085	.0196	.0051	-.0078	-.0251	-.0151		2681.	
.0450	380.	601.	-254.	-745.	159.	-849.	-.0057	.0208	.0179	-.0200	-.0063	-.0128		3470.	
.0460	11.	723.	-229.	-1035.	230.	-951.	-.0031	.0213	.0277	-.0287	.0081	-.0113		4331.	
.0470	-136.	712.	-187.	-1100.	250.	-1000.	-.0053	.0209	.0320	-.0322	.0120	-.0131		4586.	
.0480	-85.	552.	-108.	-928.	208.	-994.	-.0117	.0196	.0296	-.0293	.0049	-.0194		4185.	
.0490	-40.	434.	30.	-685.	150.	-1026.	-.0187	.0176	.0210	-.0197	-.0092	-.0282		3781.	

ADLPIPE PAGE 2126

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.29.16.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.0410	1094.	590.	-291.	-17.	-21.	-565.	-0029	.0131	-.0182	.0204	-.0397	-.0052	1719.
.0420	962.	577.	-202.	-70.	-20.	-690.	-0062	.0158	-.0175	.0179	-.0442	-.0137	2112.
.0430	949.	534.	-234.	-107.	41.	-730.	-0084	.0180	-.0081	.0063	-.0394	-.0163	2303.
.0440	770.	520.	-270.	-472.	97.	-768.	-0085	.0196	.0051	-.0078	-.0251	-.0151	2681.
.0450	380.	601.	-254.	-745.	159.	-849.	-0057	.0208	.0179	-.0200	-.0063	-.0128	3470.
.0460	11.	723.	-729.	-1075.	230.	-951.	-0031	.0213	.0277	-.0267	.0081	-.0113	4331.
.0470	-136.	712.	-107.	-1100.	250.	-1000.	-0053	.0209	.0320	-.0322	.0120	-.0131	4586.
.0480	-85.	552.	-108.	-920.	208.	-994.	-0117	.0196	.0296	-.0293	.0049	-.0194	4185.
.0490	-40.	434.	30.	-685.	150.	-1026.	-0187	.0176	.0210	-.0197	-.0092	-.0282	3781.

ADLPIPE PAGE 2126

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.16.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	55	MEMBER	4	SEQUENCE	76	LOCATION	END	TYPE	VA							
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	PZ	STRESS			
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)			
.0500	-152.	440.	252.	-474.	71.	-1132.	-.0244	.0150	.0089	-.0045	-.0239	-.0366	3738.			
.0510	-268.	429.	460.	-275.	-39.	-1185.	-.0296	.0117	-.0020	.0108	-.0335	-.0430	3702.			
.0520	-141.	319.	462.	-96.	-101.	-1086.	-.0331	.0077	-.0059	.0180	-.0360	-.0447	3332.			
.0530	152.	197.	252.	-8.	-66.	-880.	-.0329	.0033	-.0015	.0152	-.0302	-.0402	2685.			
.0540	292.	128.	34.	-40.	-16.	-644.	-.0291	-.0013	.0071	.0084	-.0151	-.0319	1962.			
.0550	194.	93.	-85.	-134.	4.	-412.	-.0233	-.0059	.0158	.0021	.0051	-.0232	1319.			
.0560	94.	50.	-185.	-195.	44.	-193.	-.0177	-.0104	.0234	-.0044	.0217	-.0150	846.			
.0570	151.	-59.	-292.	-139.	91.	35.	-.0151	-.0145	.0281	-.0092	.0287	-.0100	516.			
.0580	228.	-249.	-284.	49.	60.	261.	-.0165	-.0182	.0261	-.0072	.0266	-.0113	828.			
.0590	113.	-416.	-82.	297.	-35.	400.	-.0198	-.0212	.0175	.0019	.0176	-.0175	1521.			
.0600	-211.	-500.	250.	531.	-120.	429.	-.0222	-.0234	.0064	.0124	.0055	-.0246	2109.			
.0610	-591.	-600.	585.	739.	-186.	477.	-.0233	-.0251	-.0027	.0192	-.0039	-.0311	2734.			
.0620	-871.	-805.	806.	905.	-241.	669.	-.0231	-.0261	-.0061	.0193	-.0058	-.0361	3501.			
.0630	-1060.	-1028.	867.	964.	-236.	951.	-.0201	-.0266	-.0017	.0104	.0016	-.0367	4181.			
.0640	-1300.	-1152.	830.	863.	-157.	1195.	-.0133	-.0264	.0089	-.0053	.0175	-.0313	4519.			
.0650	-1641.	-1172.	803.	648.	-66.	1365.	-.0045	-.0254	.0213	-.0215	.0384	-.0230	4599.			
.0660	-1921.	-1138.	753.	397.	3.	1485.	.0033	-.0238	.0315	-.0336	.0566	-.0155	4676.			
.0670	-1970.	-1103.	663.	236.	67.	1565.	.0078	-.0216	.0370	-.0400	.0640	-.0109	4819.			
.0680	-1813.	-1113.	596.	243.	93.	1593.	.0081	-.0189	.0344	-.0383	.0576	-.0114	4910.			
.0690	-1596.	-1121.	632.	382.	43.	1527.	.0046	-.0157	.0224	-.0257	.0398	-.0173	4789.			
.0700	-1389.	-1019.	745.	545.	-52.	1316.	-.0010	-.0121	.0045	-.0047	.0154	-.0250	4335.			
.0710	-1133.	-824.	827.	670.	-126.	1010.	-.0065	-.0081	-.0134	.0173	-.0091	-.0303	3709.			
.0720	-747.	-649.	772.	730.	-192.	743.	-.0100	-.0040	-.0260	.0335	-.0264	-.0316	3221.			
.0730	-260.	-492.	541.	663.	-201.	560.	-.0100	.0002	-.0301	.0408	-.0316	-.0272	2710.			
.0740	180.	-256.	194.	424.	-144.	388.	-.0060	.0044	-.0255	.0394	-.0243	-.0157	1801.			
.0750	460.	36.	-166.	65.	-49.	201.	.0012	.0086	-.0155	.0323	-.0074	.0005	660.			
.0760	634.	283.	-491.	-295.	47.	40.	.0095	.0126	-.0042	.0234	.0125	.0167	916.			
.0770	830.	467.	-778.	-573.	131.	-96.	.0162	.0164	.0045	.0163	.0273	.0295	1812.			
.0780	1072.	616.	-981.	-725.	176.	-254.	.0189	.0199	.0076	.0156	.0315	.0369	2399.			
.0790	1278.	729.	-1028.	-735.	140.	-463.	.0173	.0231	-.0028	.0236	.0246	.0375	2680.			
.0800	1400.	830.	-932.	-646.	64.	-733.	.0130	.0259	-.0085	.0388	.0095	.0328	2977.			
.0810	1467.	962.	-776.	-533.	-25.	-1045.	.0074	.0282	-.0215	.0561	-.0089	.0263	3570.			
.0820	1521.	1074.	-641.	-442.	-105.	-1300.	.0018	.0299	-.0316	.0705	-.0243	.0203	4188.			
.0830	1564.	1087.	-578.	-393.	-161.	-1396.	-.0016	.0309	-.0354	.0774	-.0311	.0157	4439.			
.0840	1535.	1034.	-596.	-427.	-157.	-1352.	-.0012	.0312	-.0313	.0741	-.0273	.0144	4338.			
.0850	1749.	955.	-633.	-558.	-95.	-1249.	.0029	.0308	-.0209	.0629	-.0146	.0170	4172.			
.0860	1008.	954.	-624.	-727.	-34.	-1107.	.0084	.0299	-.0080	.0486	.0034	.0208	4031.			
.0870	636.	851.	-570.	-840.	1.	-914.	.0134	.0283	.0038	.0347	.0207	.0226	3776.			

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.16.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.0410	1094.	590.	-291.	-17.	-21.	-565.	-0029	.0131	-.0182	.0204	-.0397	-.0052	1719.
.0420	962.	577.	-167.	-70.	-20.	-690.	-.0062	.0158	-.0175	.0179	-.0442	-.0137	2112.
.0430	949.	534.	-234.	-197.	41.	-730.	-.0084	.0180	-.0081	.0063	-.0394	-.0163	2303.
.0440	770.	520.	-270.	-422.	07.	-768.	-.0085	.0196	.0051	-.0078	-.0251	-.0151	2681.
.0450	380.	601.	-254.	-745.	159.	-849.	-.0027	.0207	.0179	-.0200	-.0063	-.0128	3470.
.0460	11.	723.	-229.	-1035.	230.	-951.	-.0031	.0210	.0277	-.0287	.0081	-.0113	4331.
.0470	-136.	712.	-167.	-1100.	250.	-1000.	-.0053	.0209	.0320	-.0322	.0120	-.0131	4586.
.0480	-85.	552.	-108.	-928.	208.	-994.	-.0117	.0196	.0296	-.0293	.0049	-.0194	4185.
.0490	-40.	434.	30.	-685.	150.	-1026.	-.0187	.0176	.0210	-.0197	-.0092	-.0282	3781.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.29.16.

S/RV PIPING KEMAUNEE 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	55	MEMBER	4	SEQUENCE	76	LOCATION	END	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	FX	RY	PZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.0500	-152.	440.	252.	-474.	71.	-1132.	-.0244	.0150	.0089	-.0045	-.0239	-.0366	3738.		
.0510	-268.	429.	460.	-275.	-39.	-1185.	-.0296	.0117	-.0020	.0108	-.0335	-.0430	3702.		
.0520	-141.	319.	462.	-96.	-101.	-1086.	-.0331	.0077	-.0059	.0180	-.0360	-.0447	3332.		
.0530	152.	197.	252.	-8.	-66.	-880.	-.0329	.0033	-.0015	.0152	-.0302	-.0402	2685.		
.0540	292.	128.	34.	-40.	-16.	-644.	-.0291	-.0013	.0071	.0084	-.0151	-.0319	1962.		
.0550	194.	93.	-85.	-134.	4.	-472.	-.0233	-.0059	.0158	.0021	.0051	-.0232	1319.		
.0560	94.	50.	-185.	-195.	44.	-193.	-.0177	-.0104	.0234	-.0044	.0217	-.0150	846.		
.0570	151.	-59.	-292.	-139.	91.	35.	-.0151	-.0145	.0281	-.0092	.0289	-.0100	516.		
.0580	228.	-249.	-284.	70.	60.	261.	-.0165	-.0182	.0261	-.0072	.0266	-.0113	828.		
.0590	113.	-416.	-82.	297.	-35.	400.	-.0198	-.0212	.0175	.0019	.0176	-.0175	1521.		
.0600	-211.	-500.	250.	531.	-120.	429.	-.0222	-.0234	.0064	.0124	.0055	-.0246	2109.		
.0610	-591.	-600.	585.	739.	-186.	477.	-.0233	-.0251	-.0027	.0192	-.0039	-.0311	2734.		
.0620	-871.	-805.	806.	905.	-241.	669.	-.0231	-.0261	-.0061	.0193	-.0058	-.0361	3501.		
.0630	-1060.	-1028.	867.	964.	-236.	951.	-.0201	-.0266	-.0017	.0104	-.0016	-.0367	4181.		
.0640	-1300.	-1152.	838.	868.	-157.	1195.	-.0133	-.0264	.0089	-.0052	.0175	-.0313	4519.		
.0650	-1641.	-1172.	803.	648.	-66.	1365.	-.0045	-.0254	.0213	-.0215	.0384	-.0230	4599.		
.0660	-1921.	-1138.	753.	397.	3.	1485.	.0033	-.0238	.0315	-.0336	.0566	-.0155	4676.		
.0670	-1970.	-1103.	663.	236.	67.	1565.	.0078	-.0216	.0370	-.0400	.0640	-.0109	4819.		
.0680	-1813.	-1113.	596.	243.	93.	1593.	.0081	-.0189	.0344	-.0383	.0576	-.0114	4910.		
.0690	-1596.	-1121.	632.	382.	43.	1527.	.0046	-.0157	.0224	-.0257	.0398	-.0173	4789.		
.0700	-1389.	-1019.	745.	545.	-52.	1316.	-.0010	-.0121	.0045	-.0047	.0154	-.0250	4335.		
.0710	-1133.	-824.	827.	670.	-126.	1010.	-.0065	-.0081	-.0134	.0173	-.0091	-.0303	3709.		
.0720	-747.	-649.	772.	730.	-192.	743.	-.0100	-.0040	-.0260	.0335	-.0264	-.0316	3221.		
.0730	-260.	-492.	541.	663.	-201.	560.	-.0100	.0002	-.0301	.0408	-.0316	-.0272	2710.		
.0740	180.	-256.	194.	424.	-144.	388.	-.0060	.0044	-.0255	.0394	-.0243	-.0157	1801.		
.0750	460.	36.	-166.	65.	-49.	201.	.0012	.0086	-.0155	.0323	-.0074	.0005	660.		
.0760	634.	283.	-491.	-295.	47.	40.	.0095	.0126	-.0042	.0234	.0125	.0167	916.		
.0770	830.	467.	-778.	-573.	131.	-96.	.0162	.0164	.0045	.0163	.0273	.0295	1812.		
.0780	1072.	616.	-981.	-725.	176.	-254.	.0189	.0199	.0076	.0156	.0315	.0369	2399.		
.0790	1278.	729.	-1028.	-735.	148.	-463.	.0173	.0231	.0028	.0236	.0246	.0375	2680.		
.0800	1400.	830.	-932.	-646.	64.	-733.	.0130	.0259	-.0085	.0388	.0095	.0328	2977.		
.0810	1467.	962.	-776.	-533.	-25.	-1045.	.0074	.0282	-.0215	.0561	-.0089	.0263	3570.		
.0820	1521.	1074.	-641.	-442.	-105.	-1300.	.0018	.0299	-.0316	.0701	-.0243	.0203	4188.		
.0830	1564.	1087.	-578.	-393.	-161.	-1396.	-.0016	.0309	-.0354	.0774	-.0311	.0157	4439.		
.0840	1535.	1034.	-596.	-427.	-157.	-1352.	-.0012	.0312	-.0313	.0741	-.0273	.0144	4338.		
.0850	1349.	995.	-633.	-558.	-95.	-1249.	.0029	.0308	-.0209	.0629	-.0146	.0170	4172.		
.0860	1008.	954.	-624.	-727.	-34.	-1107.	.0084	.0299	-.0080	.0486	.0034	.0208	4031.		
.0870	636.	851.	-570.	-840.	1.	-914.	.0134	.0283	.0038	.0347	.0207	.0226	3776.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.29.16.

S/RV PIPING KEMAUNEE 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

.0790	1278.	729.	-1028.	-775.	140.	-463.	.173	.0231	.0028	.0236	.0246	.0375	2399.
.0800	1400.	830.	-932.	-646.	64.	-733.	.130	.0259	-.0085	.0388	.0095	.0328	2977.
.0810	1467.	962.	-776.	-523.	-25.	-1045.	.074	.0282	-.0215	.0561	-.0089	.0263	3570.
.0820	1521.	1074.	-641.	-442.	-105.	-1300.	.018	.0299	-.0316	.0705	-.0243	.0203	4188.
.0830	1564.	1097.	-578.	-393.	-161.	-1396.	-.0016	.0309	-.0354	.0774	-.0311	.0157	4439.
.0840	1535.	1034.	-596.	-427.	-107.	-1352.	-.0012	.0312	-.0313	.0741	-.0273	.0144	4338.
.0850	1349.	995.	-633.	-558.	-95.	-1249.	.0029	.0308	-.0209	.0629	-.0146	.0170	4172.
.0860	1008.	954.	-624.	-727.	-34.	-1107.	.0084	.0299	-.0080	.0486	.0034	.0208	4031.
.0870	636.	951.	-570.	-840.	1.	-914.	.0134	.0283	.0038	.0347	.0207	.0226	3776.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.16.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	55	MEMBER	4	SEQUENCE	76	LOCATION	END	TYPE	VA							
TIME	FX	FY	FZ	MX	MY	MZ		DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.0880	337.	695.	-488.	-840.	26.	-704.		.0167	.0263	.0125	.0226	.0317	.0217	3335.		
.0890	92.	525.	-340.	-721.	16.	-527.		.0174	.0237	.0161	.0152	.0349	.0177	2715.		
.0900	-156.	363.	-107.	-521.	-49.	-388.		.0158	.0209	.0145	.0138	.0325	.0107	1983.		
.0910	-375.	226.	132.	-305.	-125.	-271.		.0138	.0177	.0108	.0150	.0278	.0029	1298.		
.0920	-491.	110.	275.	-126.	-154.	-140.		.0126	.0144	.0090	.0142	.0240	-.0028	740.		
.0930	-492.	-6.	290.	-16.	-142.	41.		.0123	.0109	.0109	.0104	.0240	-.0058	454.		
.0940	-434.	-105.	205.	-0.	-104.	264.		.0129	.0073	.0159	.0051	.0284	-.0066	863.		
.0950	-381.	-151.	73.	-61.	-30.	471.		.0145	.0039	.0220	-.0002	.0340	-.0058	1446.		
.0960	-394.	-168.	-36.	-118.	55.	633.		.0157	.0008	.0257	-.0031	.0363	-.0058	1967.		
.0970	-318.	-221.	-69.	-79.	101.	770.		.0146	-.0020	.0241	-.0005	.0314	-.0097	2375.		
.0980	-235.	-319.	-23.	86.	102.	880.		.0103	-.0044	.0162	.0082	.0175	-.0183	2707.		
.0990	-150.	-429.	96.	344.	83.	939.		.0039	-.0063	.0034	.0213	-.0038	-.0300	3054.		
.1000	-159.	-539.	296.	636.	48.	956.		-.0029	-.0075	-.0121	.0367	-.0274	-.0434	3494.		
.1010	-294.	-648.	534.	889.	10.	956.		-.0086	-.0082	-.0269	.0512	-.0474	-.0562	3994.		
.1020	-497.	-751.	725.	1051.	6.	1010.		-.0117	-.0082	-.0371	.0607	-.0602	-.0660	4432.		
.1030	-723.	-868.	829.	1118.	51.	1105.		-.0116	-.0077	-.0411	.0626	-.0641	-.0714	4785.		
.1040	-987.	-1004.	879.	1114.	120.	1231.		-.0085	-.0065	-.0402	.0581	-.0595	-.0729	5065.		
.1050	-1293.	-1105.	914.	1053.	188.	1326.		-.0032	-.0047	-.0367	.0505	-.0493	-.0711	5183.		
.1060	-1572.	-1129.	935.	963.	242.	1337.		.0028	-.0023	-.0330	.0426	-.0373	-.0669	5064.		
.1070	-1715.	-1106.	920.	893.	264.	1263.		.0080	.0008	-.0305	.0363	-.0268	-.0615	4774.		
.1080	-1680.	-1045.	863.	861.	251.	1099.		.0118	.0043	-.0298	.0322	-.0189	-.0551	4316.		
.1090	-1498.	-898.	789.	820.	221.	843.		.0146	.0082	-.0299	.0303	-.0130	-.0472	3641.		
.1100	-1143.	-710.	586.	717.	185.	590.		.0176	.0125	-.0298	.0301	-.0071	-.0394	2881.		
.1110	-703.	-476.	315.	556.	163.	299.		.0206	.0171	-.0282	.0298	-.0008	-.0299	1984.		
.1120	-244.	-182.	18.	342.	169.	-64.		.0232	.0219	-.0247	.0284	.0052	-.0175	1176.		
.1130	218.	149.	-301.	76.	191.	-427.		.0260	.0267	-.0207	.0275	.0099	-.0057	1442.		
.1140	659.	437.	-595.	-174.	194.	-720.		.0203	.0314	-.0182	.0284	.0118	.0022	2329.		
.1150	1969.	629.	-807.	-322.	165.	-961.		.0287	.0360	-.0181	.0304	.0091	.0061	3125.		
.1160	1460.	777.	-943.	-377.	121.	-1208.		.0271	.0404	-.0198	.0325	.0013	.0075	3867.		
.1170	1771.	956.	-1005.	-409.	63.	-1472.		.0243	.0444	-.0223	.0352	-.0089	.0072	4651.		
.1180	1944.	1083.	-990.	-430.	-29.	-1658.		.0216	.0480	-.0246	.0370	-.0165	.0038	5210.		
.1190	1928.	1138.	-899.	-429.	-102.	-1790.		.0203	.0510	-.0232	.0322	-.0191	.0017	5607.		
.1200	1765.	1148.	-809.	-466.	-101.	-1858.		.0215	.0534	-.0153	.0177	-.0149	.0032	5834.		
.1210	1492.	1105.	-770.	-604.	-58.	-1762.		.0256	.0551	-.0017	-.0029	-.0024	.0051	5669.		
.1220	1069.	1013.	-721.	-804.	0.	-1527.		.0310	.0561	.0148	-.0257	.0152	.0062	5249.		
.1230	580.	822.	-635.	-948.	65.	-1207.		.0359	.0564	.0305	-.0483	.0315	.0053	4673.		
.1240	122.	614.	-500.	-992.	136.	-930.		.0383	.0559	.0420	-.0668	.0395	.0025	4158.		
.1250	-274.	467.	-282.	-941.	153.	-743.		.0365	.0549	.0454	-.0746	.0361	-.0045	3677.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.16.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

.1170	1771.	956.	1005.	-400.	63.	-1472.	.0243	.0444	-.0223	.0352	-.0089	.0072	4651.	
.1180	1944.	1083.	-990.	-470.	1944.	-29.	-1658.	.0216	.0480	-.0246	.0370	-.0165	.0038	5210.
.1190	1928.	1138.	-899.	-429.	-102.	-1790.	.0203	.0510	-.0232	.0322	-.0191	.0017	5607.	
.1200	1765.	1148.	-809.	-466.	-101.	-1358.	.0215	.0534	-.0153	.0177	-.0149	.0032	5834.	
.1210	1492.	1115.	-770.	-604.	-58.	-1762.	.0256	.0551	-.0017	-.0029	-.0024	.0051	5669.	
.1220	1069.	1013.	-721.	-804.	0.	-1527.	.0310	.0561	.0148	-.0257	.0152	.0062	5249.	
.1230	580.	822.	-635.	-948.	65.	-1207.	.0359	.0564	.0305	-.0483	.0315	.0053	4673.	
.1240	122.	614.	-500.	-992.	136.	-930.	.0383	.0559	.0420	-.0668	.0395	.0025	4158.	
.1250	-274.	467.	-282.	-941.	153.	-743.	.0365	.0549	.0454	-.0746	.0361	-.0045	3677.	

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DIS/ADLPIPE

ADLPIPE STRE: ANALYSIS

83/12/02. 18.29.16.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	55	MEMBER	4	SEQUENCE	76	LOCATION	END	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.1260	-603.	314.	36.	-764.	70.	-589.	.0306	.0533	.0393	-.0703	.0221	-.0175	2943.		
.1270	-868.	146.	415.	-448.	-30.	-507.	.0228	.0511	.0277	-.0613	.0003	-.0315	2060.		
.1280	-1001.	-32.	723.	-96.	-95.	-445.	.0157	.0484	.0159	-.0530	-.0228	-.0429	1414.		
.1290	-1024.	-137.	887.	132.	-131.	-359.	.0107	.0453	.0078	-.0461	-.0392	-.0497	1229.		
.1300	-984.	-169.	892.	187.	-141.	-223.	.0084	.0418	.0056	-.0421	-.0447	-.0505	983.		
.1310	-845.	-207.	728.	135.	-88.	-43.	.0098	.0380	.0098	-.0447	-.0404	-.0446	508.		
.1320	-627.	-179.	452.	14.	42.	58.	.0138	.0340	.0182	-.0527	-.0318	-.0312	221.		
.1330	-357.	-56.	156.	-156.	152.	78.	.0179	.0301	.0254	-.0576	-.0237	-.0159	703.		
.1340	-65.	113.	-69.	-286.	187.	37.	.0198	.0262	.0268	-.0545	-.0209	-.0033	1046.		
.1350	279.	222.	-210.	-258.	185.	-58.	.0195	.0224	.0217	-.0463	-.0272	.0058	983.		
.1360	694.	251.	-296.	-80.	169.	-198.	.0172	.0188	.0115	-.0347	-.0417	.0122	827.		
.1370	1052.	337.	-311.	109.	125.	-415.	.0130	.0153	-.0013	-.0189	-.0592	.0178	1359.		
.1380	1254.	460.	-270.	222.	52.	-620.	.0093	.0119	-.0138	-.0010	-.0728	.0228	2010.		
.1390	1268.	530.	-216.	276.	25.	-757.	.0094	.0086	-.0217	.0099	-.0785	.0301	2452.		
.1400	1152.	508.	-292.	286.	82.	-783.	.0140	.0054	-.0225	.0097	-.0752	.0411	2547.		
.1410	975.	419.	-246.	225.	160.	-649.	.0212	.0021	-.0178	.0032	-.0633	.0531	2147.		
.1420	714.	323.	-283.	171.	227.	-427.	.0289	-.0012	-.0106	-.0053	-.0468	.0651	1524.		
.1430	386.	160.	-264.	117.	285.	-163.	.0366	-.0043	-.0044	-.0148	-.0308	.0755	1062.		
.1440	46.	-46.	-177.	220.	336.	77.	.0434	-.0073	-.0015	-.0235	-.0199	.0837	1244.		
.1450	-221.	-212.	-49.	384.	332.	288.	.0475	-.0100	-.0032	-.0263	-.0153	.0879	1774.		
.1460	-349.	-356.	77.	584.	255.	519.	.0483	-.0124	-.0089	-.0226	-.0159	.0873	2500.		
.1470	-387.	-515.	190.	847.	179.	746.	.0478	-.0144	-.0155	-.0191	-.0195	.0855	3477.		
.1480	-364.	-711.	251.	1131.	137.	990.	.0482	-.0157	-.0203	-.0197	-.0218	.0839	4591.		
.1490	-309.	-839.	231.	1312.	112.	1243.	.0493	-.0163	-.0215	-.0231	-.0190	.0836	5509.		
.1500	-205.	-881.	114.	1351.	90.	1509.	.0504	-.0161	-.0180	-.0291	-.0099	.0846	6168.		
.1510	9.	-944.	-114.	1317.	93.	1804.	.0520	-.0148	-.0098	-.0406	.0036	.0864	6801.		
.1520	290.	-992.	-399.	1240.	144.	2022.	.0537	-.0124	.0012	-.0570	.0174	.0892	7228.		
.1530	554.	-930.	-653.	1082.	173.	2099.	.0551	-.0086	.0110	-.0701	.0284	.0898	7202.		
.1540	726.	-740.	-789.	871.	137.	2009.	.0484	-.0034	.0164	-.0753	.0339	.0857	6673.		
.1550	857.	-565.	-817.	718.	68.	1811.	.0399	.0030	.0172	-.0757	.0315	.0758	5929.		
.1560	1039.	-496.	-805.	654.	2.	1572.	.0286	.0105	.0150	-.0748	.0214	.0602	5179.		
.1570	1183.	-388.	-739.	572.	-62.	1226.	.0144	.0189	.0114	-.0714	.0066	.0420	4120.		
.1580	1189.	-189.	-599.	300.	-158.	781.	-.0014	.0291	.0074	-.0644	-.0077	.0220	2685.		
.1590	1053.	41.	-424.	91.	-242.	267.	-.0162	.0376	.0052	-.0587	-.0184	.0026	1131.		
.1600	241.	236.	-270.	-058.	-257.	-315.	-.0289	.0471	.0072	-.0589	-.0253	-.0127	1465.		
.1610	615.	544.	-153.	-661.	-247.	-907.	-.0408	.0562	.0127	-.0622	-.0278	-.0247	3495.		
.1620	383.	775.	-54.	-1091.	-269.	-1429.	-.0524	.0644	.0193	-.0648	-.0259	-.0361	5530.		
.1630	92.	983.	70.	-1476.	-278.	-1927.	-.0624	.0714	.0260	-.0682	-.0225	-.0452	7431.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.29.16.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNIT

INTERNAL FORCES IN THE PIPING

.1550	857.	-565.	-117.	718.	68.	1572.	.0399	.0030	.0172	-.0757	.0315	.0758	5929.
.1560	1039.	-496.	-805.	654.	2.	1572.	.0286	.0105	.0150	-.0748	.0214	.0602	5179.
.1570	1183.	-388.	-739.	572.	-62.	1226.	.0144	.0189	.0114	-.0714	.0066	.0420	4120.
.1580	1189.	-189.	-599.	300.	-158.	781.	-.0014	.0281	.0074	-.0644	-.0077	.0220	2685.
.1590	1053.	41.	-424.	91.	-242.	267.	-.0162	.0776	.0052	-.0587	-.0184	.0026	1131.
.1600	841.	206.	-270.	-258.	-257.	-315.	-.0289	.0471	.0072	-.0589	-.0253	-.0127	1465.
.1610	615.	544.	-153.	-661.	-247.	-907.	-.0408	.0562	.0127	-.0622	-.0278	-.0247	3495.
.1620	383.	775.	-54.	-1091.	-269.	-1429.	-.0524	.0644	.0193	-.0646	-.0259	-.0361	5530.
.1630	92.	983.	70.	-1476.	-278.	-1927.	-.0624	.0714	.0260	-.0682	-.0225	-.0452	7431.

ADLPIPE PAGE 2129

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.29.16.

S/RV PIPING KEWAUNEE GKW05F 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	55	MEMBER	4	SEQUENCE	76	LOCATION	END	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ			DY	DZ	FX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)			(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.1640	-249.	1128.	229.	-1758.	-260.	-2392.	-.0701	.0767	.0315	-.0726	-.0194	-.0520	9064.		
.1650	-582.	1220.	407.	-1953.	-264.	-2783.	-.0769	.0802	.0345	-.0738	-.0167	-.0579	10373.		
.1660	-874.	1321.	580.	-2093.	-289.	-3104.	-.0833	.0814	.0354	-.0704	-.0148	-.0618	11421.		
.1670	-1087.	1366.	704.	-2148.	-301.	-3301.	-.0880	.0803	.0348	-.0650	-.0133	-.0633	12015.		
.1680	-1252.	1321.	787.	-2096.	-280.	-3362.	-.0899	.0768	.0333	-.0596	-.0118	-.0619	12081.		
.1690	-1367.	1214.	828.	-1989.	-259.	-3254.	-.0895	.0709	.0303	-.0521	-.0094	-.0583	11622.		
.1700	-1396.	1096.	815.	-1792.	-249.	-3022.	-.0877	.0627	.0262	-.0415	-.0068	-.0528	10713.		
.1710	-1326.	938.	754.	-1523.	-225.	-2656.	-.0843	.0527	.0211	-.0305	-.0052	-.0447	9340.		
.1720	-1139.	656.	643.	-1133.	-202.	-2132.	-.0789	.0410	.0145	-.0201	-.0043	-.0363	7369.		
.1730	-899.	366.	517.	-697.	-182.	-1542.	-.0723	.0282	.0069	-.0090	-.0040	-.0265	5164.		
.1740	-627.	131.	378.	-250.	-180.	-919.	-.0654	.0147	-.0012	.0038	-.0032	-.0160	2949.		
.1750	-320.	-127.	218.	194.	-186.	-236.	-.0578	.0012	-.0088	.0154	-.0012	-.0056	1087.		
.1760	-14.	-433.	49.	656.	-165.	477.	-.0491	-.0118	-.0145	.0219	.0021	.0053	2518.		
.1770	258.	-749.	-122.	1077.	-130.	1200.	-.0395	-.0239	-.0178	.0242	.0074	.0158	4921.		
.1780	427.	-994.	-258.	1395.	-100.	1873.	-.0298	-.0345	-.0190	.0239	.0149	.0256	7110.		
.1790	505.	-1220.	-354.	1632.	-77.	2495.	-.0205	-.0432	-.0184	.0206	.0240	.0334	9071.		
.1800	532.	-1450.	-424.	1817.	-39.	3034.	-.0117	-.0498	-.0159	.0127	.0331	.0393	10757.		
.1810	505.	-1605.	-455.	1924.	13.	3414.	-.0047	-.0539	-.0120	.0022	.0407	.0440	11921.		
.1820	440.	-1678.	-447.	1923.	28.	3658.	-.0004	-.0556	-.0083	-.0068	.0473	.0449	12572.		
.1830	328.	-1674.	-391.	1833.	21.	3743.	.0015	-.0548	-.0049	-.0148	.0523	.0426	12679.		
.1840	196.	-1622.	-309.	1687.	29.	3668.	.0015	-.0516	-.0013	-.0239	.0549	.0383	12280.		
.1850	62.	-1519.	-219.	1475.	43.	3451.	-.0004	-.0464	.0025	-.0328	.0557	.0321	11416.		
.1860	-90.	-1331.	-116.	1173.	43.	3104.	-.0046	-.0394	.0061	-.0392	.0555	.0242	10096.		
.1870	-241.	-1098.	-21.	804.	33.	2675.	-.0103	-.0311	.0092	-.0431	.0547	.0145	8497.		
.1880	-381.	-838.	65.	419.	42.	2154.	-.0168	-.0219	.0119	-.0462	.0520	.0048	6676.		
.1890	-484.	-567.	141.	43.	48.	1572.	-.0244	-.0123	.0135	-.0470	.0475	-.0052	4787.		
.1900	-537.	-271.	209.	-325.	25.	957.	-.0333	-.0028	.0130	-.0434	.0416	-.0158	3077.		
.1910	-555.	59.	273.	-660.	-11.	309.	-.0426	.0062	.0109	-.0364	.0344	-.0255	2217.		
.1920	-522.	353.	315.	-923.	-47.	-313.	-.0512	.0144	.0077	-.0282	.0273	-.0340	2970.		
.1930	-425.	599.	313.	-1120.	-81.	-868.	-.0586	.0212	.0046	-.0198	.0219	-.0407	4318.		
.1940	-258.	831.	244.	-1289.	-113.	-1328.	-.0648	.0265	.0026	-.0109	.0197	-.0447	5661.		
.1950	-37.	1041.	105.	-1438.	-133.	-1704.	-.0692	.0302	.0025	-.0025	.0212	-.0457	6795.		
.1960	201.	1172.	-80.	-1545.	-131.	-1959.	-.0714	.0321	.0039	.0042	.0254	-.0443	7600.		
.1970	424.	1291.	-277.	-1602.	-116.	-2112.	-.0718	.0324	.0058	.0104	.0308	-.0413	8071.		
.1980	625.	1353.	-455.	-1605.	-108.	-2171.	-.0716	.0311	.0069	.0181	.0348	-.0387	8218.		
.1990	802.	1349.	-586.	-1520.	-120.	-2134.	-.0717	.0284	.0058	.0280	.0353	-.0378	7977.		
.2000	928.	1250.	-640.	-1316.	-142.	-2014.	-.0719	.0245	.0023	.0389	.0314	-.0395	7330.		
.2010	261.	1079.	-601.	-1018.	-174.	-1838.	-.0722	.0198	-.0033	.0503	.0236	-.0434	6412.		

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02. 18.29.16.

S/RV PIPING KEWAUNEE GKW05F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING

.1550	857.	-565.	-117.	718.	68.	1811.	.0399	.0030	.0172	-.0757	.0315	.0758	5929.
.1560	1039.	-496.	-805.	654.	2.	1572.	.0286	.0105	.0150	-.0748	.0214	.0602	5179.
.1570	1183.	-308.	-739.	572.	-62.	1226.	.0144	.0189	.0114	-.0714	.0066	.0420	4120.
.1580	1189.	-189.	-599.	380.	-158.	781.	-.0014	.0281	.0074	-.0644	-.0077	.0220	2685.
.1590	1053.	41.	-424.	91.	-242.	267.	-.0162	.0376	.0052	-.0587	-.0184	.0026	1131.
.1600	241.	206.	-270.	-258.	-257.	-315.	-.0289	.0471	.0072	-.0589	-.0253	-.0127	1465.
.1610	615.	544.	-153.	-661.	-247.	-907.	-.0408	.0562	.0127	-.0622	-.0278	-.0247	3495.
.1620	383.	775.	-54.	-1091.	-269.	-1429.	-.0524	.0644	.0193	-.0648	-.0259	-.0361	5530.
.1630	92.	983.	70.	-1476.	-278.	-1927.	-.0624	.0714	.0260	-.0682	-.0225	-.0452	7431.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.16.

S/RV PIPING KEWAUNEE GKW05F 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	55	MEMBER	4	SEQUENCE	76	LOCATION	END	TYPE	VA					
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	FX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.1640	-249.	1128.	229.	-1758.	-260.	-2392.	-.0701	.0767	.0315	-.0726	-.0194	-.0520	9064.	
.1650	-582.	1220.	407.	-1953.	-264.	-2783.	-.0769	.0802	.0345	-.0738	-.0167	-.0579	10373.	
.1660	-874.	1321.	580.	-2093.	-289.	-3104.	-.0833	.0814	.0354	-.0704	-.0148	-.0618	11421.	
.1670	-1087.	1366.	704.	-2148.	-301.	-3301.	-.0880	.0803	.0348	-.0650	-.0133	-.0633	12015.	
.1680	-1252.	1321.	787.	-2206.	-280.	-3362.	-.0399	.0768	.0333	-.0596	-.0118	-.0619	12081.	
.1690	-1367.	1214.	828.	-1969.	-259.	-3264.	-.0895	.0709	.0303	-.0521	-.0094	-.0583	11622.	
.1700	-1396.	1096.	815.	-1792.	-249.	-3022.	-.0877	.0627	.0262	-.0415	-.0068	-.0528	10713.	
.1710	-1326.	938.	754.	-1523.	-225.	-2656.	-.0843	.0527	.0211	-.0305	-.0052	-.0447	9340.	
.1720	-1139.	656.	643.	-1133.	-202.	-2132.	-.0789	.0410	.0145	-.0201	-.0043	-.0363	7369.	
.1730	-899.	366.	517.	-687.	-182.	-1542.	-.0723	.0282	.0069	-.0090	-.0040	-.0265	5164.	
.1740	-627.	131.	378.	-250.	-180.	-919.	-.0654	.0147	-.0012	.0038	-.0032	-.0160	2949.	
.1750	-320.	-127.	218.	194.	-186.	-236.	-.0578	.0012	-.0088	.0154	-.0012	-.0056	1087.	
.1760	-14.	-433.	49.	656.	-165.	477.	-.0491	-.0118	-.0145	.0219	.0021	.0053	2518.	
.1770	258.	-749.	-122.	1077.	-130.	1200.	-.0395	-.0239	-.0178	.0242	.0074	.0158	4921.	
.1780	427.	-994.	-258.	1395.	-100.	1873.	-.0298	-.0345	-.0190	.0239	.0149	.0256	7110.	
.1790	505.	-1220.	-354.	1632.	-77.	2495.	-.0205	-.0432	-.0184	.0206	.0240	.0334	9071.	
.1800	532.	-1450.	-424.	1817.	-35.	3034.	-.0117	-.0498	-.0159	.0127	.0331	.0393	10757.	
.1810	505.	-1605.	-455.	1924.	13.	3414.	-.0047	-.0539	-.0120	.0022	.0407	.0440	11921.	
.1820	440.	-1678.	-447.	1923.	28.	3658.	-.0004	-.0556	-.0083	-.0068	.0473	.0449	12572.	
.1830	328.	-1674.	-391.	1833.	21.	3743.	.0015	-.0548	-.0049	-.0148	.0523	.0426	12679.	
.1840	196.	-1622.	-309.	1687.	29.	3668.	.0015	-.0516	-.0013	-.0239	.0549	.0383	12280.	
.1850	62.	-1519.	-219.	1475.	43.	3451.	-.0004	-.0464	.0025	-.0328	.0557	.0321	11416.	
.1860	-90.	-1331.	-116.	1173.	43.	3104.	-.0046	-.0394	.0061	-.0392	.0555	.0242	10096.	
.1870	-241.	-1098.	-21.	804.	33.	2675.	-.0103	-.0311	.0092	-.0431	.0547	.0145	8497.	
.1880	-381.	-838.	65.	419.	42.	2154.	-.0168	-.0219	.0119	-.0462	.0520	.0048	6676.	
.1890	-484.	-567.	141.	43.	48.	1572.	-.0244	-.0123	.0135	-.0470	.0475	-.0052	4787.	
.1900	-537.	-271.	209.	-325.	25.	957.	-.0333	-.0028	.0130	-.0434	.0416	-.0158	3077.	
.1910	-595.	59.	273.	-660.	-11.	309.	-.0426	.0062	.0109	-.0364	.0344	-.0255	2217.	
.1920	-522.	353.	315.	-923.	-47.	-313.	-.0512	.0144	.0077	-.0282	.0273	-.0340	2970.	
.1930	-425.	599.	313.	-1120.	-81.	-868.	-.0586	.0212	.0046	-.0198	.0219	-.0407	4318.	
.1940	-258.	831.	244.	-1289.	-113.	-1338.	-.0648	.0265	.0026	-.0109	.0197	-.0447	5661.	
.1950	-37.	1041.	105.	-1438.	-133.	-1704.	-.0692	.0302	.0025	-.0025	.0212	-.0457	6795.	
.1960	201.	1192.	-80.	-1545.	-131.	-1959.	-.0714	.0321	.0039	.0042	.0254	-.0443	7600.	
.1970	424.	1291.	-277.	-1602.	-116.	-2112.	-.0718	.0324	.0058	.0104	.0308	-.0413	8071.	
.1980	625.	1393.	-455.	-1605.	-108.	-2171.	-.0716	.0311	.0069	.0181	.0348	-.0387	8218.	
.1990	802.	1349.	-586.	-1520.	-120.	-2134.	-.0717	.0284	.0058	.0280	.0353	-.0378	7977.	
.2000	928.	1250.	-640.	-1316.	-142.	-2014.	-.0719	.0245	.0023	.0389	.0314	-.0395	7330.	
.2010	961.	1079.	-601.	-1018.	-174.	-1838.	-.0722	.0198	-.0033	.0503	.0236	-.0434	6412.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.16.

S/RV PIPING KEWAUNEE GKW05F 2 RUP DISK
2 SAFETY COLD FKW24F--2 PSV

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

INTERNAL FORCES IN THE PIPING

.1920	-512.	353.	315.	-923.	-47.	-313.	-.0512	.0144	.0077	-.0282	.0273	-.0340	2970.
.1930	-425.	599.	313.	-1120.	-81.	-868.	-.0586	.0212	.0046	-.0198	.0219	-.0407	4318.
.1940	-258.	831.	244.	-1289.	-113.	-1338.	-.0648	.0265	.0026	-.0109	.0197	-.0447	5661.
.1950	-37.	1041.	105.	-1438.	-133.	-1704.	-.0692	.0302	.0025	-.0025	.0212	-.0457	6795.
.1960	201.	1192.	-80.	-1545.	-131.	-1959.	-.0714	.0321	.0039	.0042	.0254	-.0443	7600.
.1970	424.	1291.	-277.	-1602.	-116.	-2112.	-.0718	.0324	.0058	.0104	.0308	-.0413	8071.
.1980	625.	1353.	-455.	-1605.	-108.	-2171.	-.0716	.0311	.0069	.0181	.0348	-.0387	8218.
.1990	802.	1349.	-586.	-1520.	-120.	-2134.	-.0717	.0284	.0058	.0280	.0353	-.0378	7977.
.2000	928.	1250.	-640.	-1316.	-142.	-2014.	-.0719	.0245	.0023	.0389	.0314	-.0395	7330.
.2010	961.	1079.	-601.	-1018.	-174.	-1838.	-.0722	.0198	-.0033	.0503	.0236	-.0434	6412.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.16.

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

CONDITION 24

LOADS
SHOCK
PRESSURE
ENGLISH UNITSINTERNAL FORCES IN THE PIPING
FORCES AND MOMENTS ACT ON THE PIPING

SECTION	55	MEMBER	4	SEQUENCE	76	LOCATION	END	TYPE	VA						
TIME	FX	FY	FZ	HX	MY	MZ		DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.2020	879.	879.	-478.	-692.	-219.	-1614.		-.0722	.0144	-.0096	.0616	.0145	-.0491	5385.	
.2030	696.	653.	-308.	-381.	-267.	-1336.		-.0713	.0087	-.0146	.0707	.0068	-.0556	4304.	
.2040	430.	388.	-128.	-102.	-287.	-1003.		-.0686	.0030	-.0162	.0740	.0024	-.0611	3188.	
.2050	89.	102.	45.	118.	-271.	-628.		-.0637	-.0027	-.0136	.0707	.0024	-.0649	2113.	
.2060	-321.	-166.	210.	253.	-239.	-234.		-.0573	-.0080	-.0077	.0628	.0067	-.0673	1277.	
.2070	-765.	-405.	371.	320.	-202.	155.		-.0500	-.0128	.0001	.0521	.0132	-.0690	1246.	
.2080	-1179.	-627.	524.	367.	-159.	512.		-.0428	-.0170	.0082	.0397	.0190	-.0703	1975.	
.2090	-1512.	-826.	669.	418.	-119.	814.		-.0365	-.0205	.0148	.0276	.0216	-.0721	2806.	
.2100	-1747.	-971.	809.	470.	-104.	1042.		-.0320	-.0234	.0184	.0189	.0202	-.0750	3491.	
.2110	-1880.	-1044.	939.	514.	-117.	1185.		-.0291	-.0256	.0188	.0142	.0152	-.0787	3946.	
.2120	-1898.	-1066.	1033.	556.	-136.	1258.		-.0273	-.0271	.0171	.0120	.0080	-.0821	4204.	
.2130	-1790.	-1058.	1059.	587.	-149.	1290.		-.0258	-.0282	.0149	.0102	.0008	-.0841	4334.	
.2140	-1570.	-1009.	998.	573.	-152.	1299.		-.0241	-.0287	.0136	.0081	-.0039	-.0838	4344.	
.2150	-1278.	-907.	857.	603.	-140.	1288.		-.0216	-.0270	.0138	.0053	-.0047	-.0807	4217.	
.2160	-953.	-772.	653.	520.	-109.	1256.		-.0181	-.0289	.0156	.0012	-.0017	-.0748	3991.	
.2170	-610.	-624.	412.	310.	-64.	1208.		-.0139	-.0285	.0181	-.0034	.0037	-.0670	3734.	
.2180	-257.	-469.	164.	81.	-22.	1138.		-.0100	-.0279	.0198	-.0067	.0094	-.0587	3466.	
.2190	85.	-311.	-58.	-56.	5.	1039.		-.0072	-.0272	.0196	-.0070	.0135	-.0512	3167.	
.2200	379.	-173.	-221.	-117.	17.	913.		-.0055	-.0264	.0168	-.0042	.0148	-.0452	2800.	
.2210	591.	-67.	-308.	-118.	17.	765.		-.0044	-.0255	.0115	.0012	.0135	-.0410	2355.	
.2220	710.	15.	-330.	-62.	9.	610.		-.0037	-.0245	.0049	.0082	.0109	-.0383	1873.	
.2230	743.	72.	-312.	-38.	0.	469.		-.0028	-.0235	-.0014	.0155	.0086	-.0362	1432.	
.2240	695.	96.	-277.	0.	6.	359.		-.0011	-.0226	-.0058	.0211	.0081	-.0337	1092.	
.2250	563.	91.	-236.	19.	34.	281.		.0021	-.0217	-.0078	.0240	.0103	-.0304	863.	
.2260	358.	77.	-189.	12.	77.	232.		.0064	-.0209	-.0075	.0250	.0145	-.0265	744.	
.2270	119.	54.	-137.	-3.	122.	209.		.0113	-.0201	-.0060	.0254	.0193	-.0226	735.	
.2280	-107.	11.	-79.	8.	165.	204.		.0101	-.0193	-.0044	.0259	.0222	-.0194	799.	
.2290	-293.	-49.	-9.	68.	200.	204.		.0204	-.0186	-.0039	.0275	.0715	-.0176	894.	
.2300	-427.	-107.	73.	170.	219.	195.		.0237	-.0178	-.0051	.0313	.0167	-.0174	1031.	
.2310	-494.	-144.	154.	294.	219.	171.		.0260	-.0169	-.0078	.0375	.0087	-.0187	1231.	
.2320	-473.	-159.	207.	425.	211.	136.		.0277	-.0159	-.0108	.0445	-.0014	-.0203	1501.	
.2330	-352.	-159.	204.	542.	207.	102.		.0293	-.0147	-.0127	.0504	-.0116	-.0214	1793.	
.2340	-146.	-134.	179.	620.	209.	71.		.0312	-.0131	-.0125	.0541	-.0202	-.0215	2002.	
.2350	114.	-73.	20.	639.	216.	38.		.0334	-.0113	-.0100	.0552	-.0259	-.0203	2055.	
.2360	399.	19.	-138.	605.	229.	-7.		.0361	-.0090	-.0053	.0532	-.0286	-.0179	1967.	
.2370	699.	122.	-317.	534.	247.	-61.		.0387	-.0063	.0012	.0483	-.0289	-.0150	1800.	
.2380	999.	228.	-498.	440.	261.	-128.		.0408	-.0031	.0085	.0417	-.0279	-.0125	1604.	
.2390	1271.	341.	-653.	328.	263.	-222.		.0416	.0006	.0156	.0345	-.0264	-.0113	1446.	

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.16.

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

CONDITION 24

LOADS
SHOCK
PRESSURE
ENGLISH UNITS

.2310	-494.	-144.	154.	294.	219.	171.	.0260	-.0169	-.0078	.0375	.0087	-.0187	1231.
.2320	-477.	-159.	207.	425.	211.	136.	.0277	-.0159	-.0108	.0445	-.0014	-.0203	1501.
.2330	-352.	-159.	204.	542.	207.	102.	.0293	-.0147	-.0127	.0504	-.0116	-.0214	1793.
.2340	-146.	-134.	139.	620.	209.	71.	.0312	-.0131	-.0125	.0541	-.0202	-.0215	2002.
.2350	114.	-73.	20.	679.	216.	38.	.0334	-.0113	-.0100	.0552	-.0259	-.0203	2055.
.2360	399.	19.	-138.	605.	229.	-7.	.0361	-.0090	-.0053	.0532	-.0286	-.0179	1967.
.2370	699.	122.	-317.	534.	247.	-61.	.0387	-.0063	-.0012	.0483	-.0289	-.0150	1800.
.2380	999.	228.	-498.	440.	261.	-128.	.0408	-.0031	.0085	.0417	-.0279	-.0125	1604.
.2390	1271.	341.	-653.	328.	263.	-222.	.0416	.0006	.0156	.0345	-.0264	-.0113	1446.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.16.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	55	MEMBER	4	SEQUENCE	76	LOCATION	END	TYPE	VA						
TIME	FX	FY	FZ	HX	MY	MZ		DX	DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)		(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)	
.2400	1478.	460.	-759.	204.	255.	-353.	.0412	.0047	.0218	.0275	-.0252	-.0117	1462.		
.2410	1596.	572.	-802.	76.	238.	-517.	.0395	.0091	.0267	.0207	-.0244	-.0140	1746.		
.2420	1620.	669.	-785.	-58.	215.	-699.	.0367	.0139	.0306	.0143	-.0240	-.0181	2231.		
.2430	1555.	746.	-720.	-199.	191.	-882.	.0329	.0187	.0337	.0079	-.0234	-.0237	2810.		
.2440	1412.	795.	-619.	-344.	169.	-1053.	.0284	.0234	.0363	.0015	-.0222	-.0304	3409.		
.2450	1192.	818.	-487.	-490.	154.	-1211.	.0235	.0278	.0383	-.0049	-.0204	-.0374	4001.		
.2460	904.	825.	-326.	-632.	143.	-1359.	.0185	.0317	.0395	-.0107	-.0180	-.0443	4579.		
.2470	570.	820.	-144.	-759.	133.	-1493.	.0135	.0350	.0397	-.0154	-.0152	-.0508	5111.		
.2480	223.	793.	47.	-854.	125.	-1599.	.0086	.0375	.0386	-.0186	-.0127	-.0568	5527.		
.2490	-106.	734.	232.	-901.	120.	-1664.	.0041	.0389	.0362	-.0203	-.0106	-.0618	5768.		
.2500	-410.	650.	406.	-898.	119.	-1687.	.0001	.0392	.0324	-.0202	-.0092	-.0655	5825.		
.2510	-689.	552.	567.	-851.	120.	-1668.	-.0029	.0384	.0273	-.0182	-.0082	-.0673	5706.		
.2520	-937.	439.	706.	-762.	125.	-1598.	-.0045	.0363	.0213	-.0146	-.0073	-.0669	5400.		
.2530	-1135.	306.	810.	-631.	138.	-1469.	-.0045	.0331	.0149	-.0102	-.0064	-.0641	4883.		
.2540	-1266.	152.	870.	-460.	159.	-1278.	-.0028	.0287	.0084	-.0053	-.0055	-.0586	4161.		
.2550	-1326.	-13.	884.	-258.	185.	-1032.	.0007	.0235	.0019	-.0000	-.0046	-.0507	3284.		
.2560	-1320.	-177.	856.	-32.	214.	-745.	.0057	.0175	-.0044	.0050	-.0037	-.0403	2361.		
.2570	-1254.	-335.	794.	215.	245.	-433.	.0121	.0109	-.0106	.0118	-.0030	-.0280	1649.		
.2580	-1124.	-488.	699.	475.	276.	-104.	.0196	.0042	-.0165	.0180	-.0027	-.0141	1702.		
.2590	-923.	-628.	569.	737.	304.	230.	.0278	-.0026	-.0220	.0242	-.0031	.0007	2524.		
.2600	-668.	-747.	413.	985.	331.	551.	.0363	-.0090	-.0268	.0300	-.0041	.0162	3578.		
.2610	-390.	-836.	247.	1207.	356.	837.	.0451	-.0148	-.0309	.0352	-.0058	.0321	4595.		
.2620	-113.	-892.	82.	1389.	377.	1079.	.0537	-.0197	-.0341	.0395	-.0076	.0477	5471.		
.2630	153.	-919.	-77.	1526.	394.	1275.	.0619	-.0236	-.0364	.0426	-.0102	.0624	6167.		
.2640	408.	-923.	-228.	1618.	406.	1420.	.0691	-.0262	-.0375	.0444	-.0129	.0758	6664.		
.2650	636.	-903.	-360.	1663.	414.	1505.	.0752	-.0274	-.0377	.0447	-.0160	.0875	6938.		
.2660	808.	-854.	-458.	1655.	415.	1523.	.0799	-.0273	-.0372	.0436	-.0192	.0971	6958.		
.2670	907.	-775.	-512.	1595.	406.	1472.	.0833	-.0257	-.0362	.0416	-.0223	.1044	6716.		
.2680	942.	-677.	-528.	1488.	388.	1360.	.0850	-.0227	-.0347	.0385	-.0251	.1093	6243.		
.2690	930.	-567.	-517.	1342.	364.	1197.	.0852	-.0185	-.0325	.0340	-.0274	.1119	5582.		
.2700	870.	-445.	-482.	1160.	335.	992.	.0838	-.0133	-.0298	.0283	-.0290	.1127	4753.		
.2710	752.	-309.	-420.	944.	309.	752.	.0812	-.0072	-.0267	.0217	-.0296	.1116	3783.		
.2720	588.	-169.	-340.	704.	259.	496.	.0775	-.0005	-.0235	.0145	-.0290	.1089	2735.		
.2730	412.	-36.	-257.	453.	214.	237.	.0730	.0065	-.0202	.0066	-.0276	.1049	1687.		
.2740	250.	96.	-181.	201.	167.	-29.	.0674	.0137	-.0170	-.0013	-.0257	.1003	799.		
.2750	101.	240.	-111.	-52.	116.	-304.	.0611	.0208	-.0143	-.0086	-.0238	.0954	1003.		
.2760	-38.	390.	-44.	-295.	59.	-577.	.0544	.0275	-.0126	-.0145	-.0217	.0902	1978.		
.2770	-150.	528.	13.	-511.	-3.	-825.	.0475	.0336	-.0118	-.0193	-.0196	.0848	2953.		

ADLPIPE PAGE 2132

DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.16.

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

CONDITION 24
LOADS
SHOCK
PRESSURE
ENGLISH UNITS

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

SECTION	55	MEMBER	4	SEQUENCE	76	LOCATION	END	TYPE	VA
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.2690	930.	-567.	-517.	1342.	364.	1197.	.0852	-.0185	-.0325	.0340	-.0274	.1119	5582.
.2700	870.	-445.	-482.	1160.	335.	992.	.0838	-.0133	-.0298	.0283	-.0290	.1127	4753.
.2710	752.	-309.	-420.	944.	300.	752.	.0812	-.0072	-.0267	.0217	-.0296	.1116	3783.
.2720	588.	-149.	-340.	704.	259.	496.	.0775	-.0005	-.0235	.0145	-.0290	.1089	2735.
.2730	412.	-30.	-257.	453.	214.	237.	.0730	.0065	-.0202	.0066	-.0276	.1049	1687.
.2740	250.	96.	-181.	201.	167.	-29.	.0674	.0137	-.0170	-.0013	-.0257	.1003	799.
.2750	101.	240.	-111.	-52.	116.	-304.	.0611	.0208	-.0143	-.0086	-.0238	.0954	1003.
.2760	-38.	390.	-44.	-295.	59.	-577.	.0544	.0275	-.0126	-.0145	-.0217	.0902	1978.
.2770	-150.	528.	13.	-511.	-3.	-825.	.0475	.0336	-.0118	-.0193	-.0196	.0848	2953.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.15.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION	55	MEMBER	4	SEQUENCE	76	LOCATION	END	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ			DY	DZ	RX	RY	RZ	STRESS	
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.2780	-200.	647.	41.	-693.	-63.	-1041.	.0407	.0389	-.0116	-.0234	-.0178	.0798	3809.		
.2790	-180.	759.	32.	-848.	-119.	-1225.	.0341	.0433	-.0116	-.0268	-.0162	.0759	4546.		
.2800	-111.	870.	-8.	-984.	-172.	-1372.	.0282	.0467	-.0118	-.0295	-.0144	.0731	5163.		
.2810	-15.	968.	-69.	-1097.	-220.	-1473.	.0233	.0489	-.0122	-.0316	-.0124	.0713	5627.		
.2820	117.	1041.	-156.	-1181.	-258.	-1524.	.0195	.0501	-.0124	-.0336	-.0104	.0707	5917.		
.2830	298.	1096.	-271.	-1239.	-285.	-1530.	.0165	.0502	-.0124	-.0354	-.0090	.0712	6051.		
.2840	502.	1138.	-395.	-1274.	-306.	-1497.	.0141	.0492	-.0125	-.0364	-.0089	.0723	6053.		
.2850	683.	1155.	-498.	-1276.	-326.	-1429.	.0124	.0472	-.0133	-.0362	-.0101	.0733	5911.		
.2860	816.	1135.	-563.	-1234.	-344.	-1324.	.0116	.0443	-.0150	-.0353	-.0129	.0737	5604.		
.2870	906.	1078.	-591.	-1150.	-357.	-1185.	.0113	.0406	-.0172	-.0339	-.0173	.0736	5141.		
.2880	955.	988.	-588.	-1035.	-369.	-1011.	.0114	.0362	-.0197	-.0322	-.0227	.0730	4542.		
.2890	940.	862.	-548.	-894.	-378.	-800.	.0121	.0313	-.0219	-.0310	-.0282	.0721	3827.		
.2900	833.	699.	-469.	-737.	-376.	-557.	.0140	.0259	-.0235	-.0310	-.0327	.0711	3034.		
.2910	639.	512.	-361.	-577.	-363.	-288.	.0171	.0202	-.0242	-.0327	-.0354	.0705	2250.		
.2920	389.	309.	-240.	-423.	-341.	7.	.0210	.0142	-.0238	-.0357	-.0361	.0703	1652.		
.2930	114.	87.	-121.	-270.	-311.	325.	.0254	.0082	-.0224	-.0397	-.0351	.0703	1595.		
.2940	-172.	-149.	-3.	-109.	-274.	649.	.0299	.0023	-.0208	-.0444	-.0330	.0704	2169.		
.2950	-463.	-377.	117.	57.	-236.	958.	.0344	-.0034	-.0197	-.0485	-.0304	.0704	3007.		
.2960	-729.	-584.	232.	227.	-208.	1242.	.0301	-.0088	-.0197	-.0509	-.0279	.0698	3892.		
.2970	-925.	-772.	324.	406.	-189.	1498.	.0406	-.0138	-.0209	-.0516	-.0260	.0686	4755.		
.2980	-1023.	-942.	377.	592.	-176.	1717.	.0420	-.0181	-.0230	-.0511	-.0249	.0669	5552.		
.2990	-1036.	-1074.	390.	766.	-165.	1883.	.0422	-.0217	-.0256	-.0497	-.0238	.0653	6205.		
.3000	-986.	-1145.	366.	898.	-161.	1985.	.0416	-.0243	-.0284	-.0473	-.0220	.0637	6645.		
.3010	-877.	-1161.	302.	979.	-160.	2027.	.0400	-.0260	-.0307	-.0447	-.0188	.0623	6865.		
.3020	-699.	-1141.	190.	1016.	-155.	2014.	.0378	-.0265	-.0320	-.0430	-.0144	.0610	6879.		
.3030	-463.	-1084.	41.	1004.	-145.	1942.	.0346	-.0259	-.0321	-.0426	-.0089	.0597	6663.		
.3040	-212.	-977.	-120.	934.	-139.	1796.	.0304	-.0240	-.0314	-.0425	-.0028	.0579	6172.		
.3050	17.	-821.	-265.	810.	-142.	1574.	.0253	-.0210	-.0302	-.0426	.0036	.0550	5403.		
.3060	215.	-639.	-383.	650.	-149.	1286.	.0192	-.0168	-.0286	-.0432	.0095	.0506	4405.		
.3070	392.	-445.	-476.	463.	-159.	939.	.0120	-.0116	-.0264	-.0447	.0142	.0448	3220.		
.3080	535.	-232.	-539.	242.	-174.	539.	.0039	-.0056	-.0236	-.0466	.0177	.0377	1874.		
.3090	611.	-0.	-558.	-16.	-192.	97.	-.0048	.0011	-.0201	-.0488	.0204	.0293	657.		
.3100	598.	235.	-530.	-300.	-209.	-369.	-.0135	.0080	-.0159	-.0518	.0225	.0199	1581.		
.3110	513.	457.	-465.	-596.	-218.	-835.	-.0217	.0150	-.0107	-.0560	.0242	.0100	3190.		
.3120	385.	656.	-378.	-893.	-222.	-1274.	-.0297	.0216	-.0046	-.0608	.0252	-.0001	4779.		
.3130	225.	829.	-272.	-1175.	-223.	-1669.	-.0371	.0276	.0020	-.0656	.0254	-.0104	6246.		
.3140	28.	966.	-143.	-1422.	-221.	-2012.	-.0437	.0326	.0085	-.0701	.0247	-.0204	7525.		
.3150	-197.	1067.	7.	-1619.	-215.	-2294.	-.0491	.0363	.0143	-.0737	.0229	-.0298	8567.		

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ADLPIPE STRESS ANALYSIS

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18.29.16.

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

CONDITION 24

LOADS

SHOCK

PRESSURE

ENGLISH UNITS

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

SECTION 55 MEMBER 4 SEQUENCE 76 LOCATION END TYPE VA

.3070	392.	-445.	-476.	463.	-159.	-445.	939.	.0120	-.0116	-.0264	-.0447	.0142	.0448	3220.
.3080	535.	-232.	-539.	242.	-174.	539.	.0329	-.0056	-.0236	-.0466	.0177	.0377	1874.	
.3090	611.	-0.	-559.	-16.	-192.	97.	-.0048	.0011	-.0201	-.0488	.0204	.0293	657.	
.3100	598.	275.	-530.	-300.	-209.	-369.	-.0125	.0080	-.0159	-.0518	.0225	.0199	1581.	
.3110	517.	457.	-460.	-596.	-218.	-835.	-.0217	.0150	-.0107	-.0560	.0242	.0100	3190.	
.3120	385.	656.	-370.	-893.	-222.	-1274.	-.0297	.0216	-.0046	-.0608	.0252	-.0001	4779.	
.3130	225.	829.	-272.	-1175.	-223.	-1669.	-.0371	.0276	.0020	-.0656	.0254	-.0104	6246.	
.3140	28.	966.	-143.	-1422.	-221.	-2012.	-.0437	.0326	.0085	-.0701	.0247	-.0204	7525.	
.3150	-197.	1067.	7.	-1619.	-215.	-2294.	-.0491	.0363	.0143	-.0737	.0229	-.0298	8567.	

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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	55	MEMBER	4	SEQUENCE	76	LOCATION	END	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.3160	-420.	1131.	161.	-1759.	-210.	-2499.	-.0534	.0385	.0194	-.0758	.0199	-.0382	9317.		
.3170	-603.	1150.	300.	-1831.	-205.	-2608.	-.0567	.0390	.0235	-.0762	.0160	-.0453	9712.		
.3180	-734.	1118.	411.	-1829.	-196.	-2613.	-.0585	.0376	.0267	-.0753	.0114	-.0506	9722.		
.3190	-820.	1042.	494.	-1758.	-179.	-2520.	-.0587	.0344	.0291	-.0729	.0067	-.0537	9362.		
.3200	-865.	936.	545.	-1628.	-160.	-2332.	-.0573	.0295	.0304	-.0689	.0026	-.0545	8663.		
.3210	-852.	800.	556.	-1442.	-140.	-2049.	-.0544	.0228	.0309	-.0632	-.0009	-.0531	7632.		
.3220	-761.	626.	518.	-1198.	-115.	-1678.	-.0504	.0147	.0306	-.0565	-.0037	-.0495	6281.		
.3230	-601.	423.	440.	-903.	-86.	-1244.	-.0454	.0055	.0295	-.0489	-.0060	-.0439	4684.		
.3240	-406.	216.	339.	-581.	-59.	-776.	-.0398	-.0045	.0274	-.0400	-.0075	-.0368	2955.		
.3250	-201.	17.	230.	-249.	-38.	-297.	-.0338	-.0149	.0244	-.0299	-.0082	-.0286	1184.		
.3260	11.	-182.	116.	88.	-20.	182.	-.0276	-.0253	.0208	-.0194	-.0081	-.0199	616.		
.3270	227.	-382.	-2.	418.	1.	645.	-.0217	-.0353	.0170	-.0095	-.0073	-.0110	2336.		
.3280	423.	-569.	-114.	717.	20.	1070.	-.0162	-.0445	.0135	-.0002	-.0057	-.0023	3919.		
.3290	562.	-723.	-200.	965.	36.	1435.	-.0114	-.0525	.0101	.0084	-.0031	.0058	5263.		
.3300	630.	-845.	-252.	1155.	49.	1727.	-.0071	-.0591	.0070	.0159	.0004	.0128	6321.		
.3310	640.	-941.	-274.	1290.	63.	1937.	-.0038	-.0641	.0045	.0218	.0044	.0185	7081.		
.3320	608.	-1004.	-270.	1363.	75.	2059.	-.0017	-.0673	.0027	.0262	.0085	.0227	7516.		
.3330	533.	-1024.	-238.	1370.	81.	2087.	-.0010	-.0688	.0015	.0295	.0126	.0253	7598.		
.3340	402.	-1000.	-173.	1313.	83.	2020.	-.0012	-.0686	.0007	.0317	.0167	.0264	7334.		
.3350	225.	-941.	-80.	1203.	83.	1870.	-.0023	-.0668	.0005	.0327	.0205	.0261	6768.		
.3360	28.	-852.	25.	1046.	82.	1653.	-.0042	-.0636	.0009	.0326	.0242	.0246	5955.		
.3370	-165.	-738.	129.	849.	80.	1390.	-.0068	-.0593	.0019	.0318	.0275	.0221	4959.		
.3380	-351.	-607.	228.	626.	77.	1097.	-.0097	-.0542	.0033	.0305	.0304	.0190	3849.		
.3390	-531.	-467.	324.	394.	76.	787.	-.0127	-.0486	.0049	.0291	.0329	.0155	2687.		
.3400	-692.	-320.	410.	166.	75.	474.	-.0155	-.0429	.0063	.0281	.0346	.0118	1543.		
.3410	-810.	-171.	477.	-47.	70.	176.	-.0181	-.0374	.0073	.0281	.0354	.0082	592.		
.3420	-867.	-35.	516.	-224.	62.	-89.	-.0206	-.0324	.0078	.0293	.0351	.0049	758.		
.3430	-867.	80.	530.	-357.	55.	-309.	-.0225	-.0280	.0077	.0314	.0339	.0021	1446.		
.3440	-822.	178.	519.	-444.	48.	-481.	-.0235	-.0246	.0070	.0347	.0322	.0001	1998.		
.3450	-738.	261.	484.	-492.	39.	-598.	-.0238	-.0221	.0059	.0392	.0303	-.0010	2358.		
.3460	-608.	317.	419.	-497.	31.	-649.	-.0232	-.0208	.0047	.0446	.0284	-.0011	2487.		
.3470	-435.	339.	324.	-456.	30.	-632.	-.0216	-.0205	.0034	.0501	.0268	-.0002	2373.		
.3480	-242.	332.	211.	-378.	32.	-559.	-.0192	-.0213	.0023	.0559	.0253	.0016	2056.		
.3490	-54.	310.	97.	-275.	33.	-446.	-.0162	-.0228	.0009	.0622	.0240	.0039	1596.		
.3500	113.	272.	-6.	-149.	33.	-303.	-.0129	-.0251	-.0007	.0690	.0226	.0062	1031.		
.3510	257.	209.	-93.	1.	33.	-135.	-.0093	-.0279	-.0025	.0757	.0209	.0083	423.		
.3520	371.	123.	-159.	168.	33.	47.	-.0058	-.0310	-.0044	.0820	.0188	.0097	540.		
.3530	436.	26.	-195.	335.	30.	231.	-.0026	-.0342	-.0063	.0880	.0166	.0103	1242.		

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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	55	MEMBER	4	SEQUENCE	76	LOCATION	END	TYPE	VA
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.3450	-738.	261.	484.	-492.	29.	-598.	-.0238	-.0221	.0059	.0392	.0303	-.0010	2358.
.3460	-608.	317.	419.	-497.	31.	-649.	-.0232	-.0208	.0047	.0446	.0284	-.0011	2487.
.3470	-435.	339.	324.	-456.	30.	-632.	-.0216	-.0205	.0034	.0501	.0268	-.0002	2373.
.3480	-242.	372.	211.	-378.	32.	-559.	-.0192	-.0213	.0022	.0559	.0253	.0016	2056.
.3490	-54.	310.	97.	-275.	23.	-446.	-.0162	-.0222	.0005	.0622	.0240	.0039	1596.
.3500	113.	272.	-6.	-149.	33.	-303.	-.0129	-.0251	-.0007	.0690	.0226	.0062	1031.
.3510	257.	209.	-93.	1.	33.	-135.	-.0093	-.0279	-.0025	.0757	.0209	.0083	423.
.3520	371.	123.	-159.	168.	33.	47.	-.0058	-.0310	-.0044	.0820	.0188	.0097	540.
.3530	436.	26.	-195.	335.	30.	231.	-.0026	-.0342	-.0063	.0880	.0166	.0103	1242.

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DIS/ADLPIPE

ADLPIPE STRESS ANALYSIS

83/12/02.

18.29.16.

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

CONDITION 24

LOADS
SHOCK
PRESSURE

ENGLISH UNITS

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

SECTION	55	MEMBER	4	SEQUENCE	76	LOCATION	END	TYPE	VA						
TIME	FX	FY	FZ	MX	MY	MZ	DX	DY	DZ	RX	RY	RZ	STRESS		
(SEC)	(LB)	(LB)	(LB)	(FT-LB)	(FT-LB)	(FT-LB)	(IN)	(IN)	(IN)	(DEG)	(DEG)	(DEG)	(PSI)		
.3540	436.	-72.	-195.	489.	25.	401.	.0004	-.0372	-.0081	.0934	.0145	.0100	1925.		
.3550	370.	-171.	-161.	621.	21.	553.	.0032	-.0400	-.0095	.0976	.0127	.0087	2530.		
.3560	253.	-271.	-104.	726.	20.	684.	.0057	-.0422	-.0103	.1001	.0115	.0066	3034.		
.3570	103.	-361.	-31.	794.	20.	787.	.0078	-.0439	-.0103	.1012	.0107	.0037	3401.		
.3580	-74.	-432.	55.	822.	21.	853.	.0093	-.0449	-.0097	.1009	.0105	.0001	3603.		
.3590	-271.	-478.	152.	812.	22.	877.	.0103	-.0453	-.0089	.0996	.0104	-.0042	3636.		
.3600	-469.	-502.	254.	772.	22.	859.	.0108	-.0450	-.0080	.0973	.0103	-.0091	3513.		
.3610	-640.	-500.	349.	707.	19.	805.	.0107	-.0440	-.0071	.0945	.0099	-.0145	3253.		
.3620	-763.	-475.	425.	621.	14.	721.	.0101	-.0425	-.0063	.0912	.0092	-.0201	2896.		
.3630	-833.	-426.	478.	520.	8.	613.	.0091	-.0406	-.0056	.0874	.0083	-.0257	2444.		
.3640	-852.	-353.	504.	403.	4.	483.	.0080	-.0384	-.0049	.0830	.0077	-.0308	1915.		
.3650	-816.	-255.	496.	272.	1.	343.	.0071	-.0359	-.0040	.0781	.0076	-.0352	1331.		
.3660	-715.	-141.	448.	131.	2.	205.	.0064	-.0334	-.0027	.0726	.0083	-.0386	740.		
.3670	-548.	-22.	357.	-10.	9.	79.	.0060	-.0310	-.0010	.0664	.0095	-.0411	243.		
.3680	-329.	99.	233.	-145.	21.	-33.	.0061	-.0287	.0009	.0598	.0113	-.0427	458.		
.3690	-83.	222.	92.	-272.	36.	-133.	.0064	-.0267	.0027	.0533	.0131	-.0436	926.		
.3700	177.	343.	-55.	-381.	51.	-217.	.0070	-.0250	.0040	.0474	.0146	-.0443	1344.		
.3710	443.	444.	-201.	-462.	66.	-281.	.0076	-.0236	.0048	.0421	.0154	-.0451	1657.		
.3720	704.	519.	-336.	-509.	81.	-322.	.0082	-.0225	.0050	.0376	.0150	-.0461	1849.		
.3730	936.	571.	-449.	-527.	96.	-348.	.0087	-.0219	.0046	.0338	.0137	-.0475	1943.		
.3740	1113.	607.	-529.	-524.	110.	-365.	.0093	-.0216	.0037	.0310	.0118	-.0493	1971.		
.3750	1223.	621.	-573.	-504.	123.	-372.	.0100	-.0217	.0026	.0285	.0095	-.0512	1941.		
.3760	1271.	605.	-588.	-466.	141.	-364.	.0110	-.0220	.0017	.0260	.0074	-.0533	1848.		
.3770	1260.	561.	-577.	-415.	162.	-342.	.0122	-.0227	.0012	.0231	.0056	-.0553	1709.		
.3780	1189.	500.	-541.	-361.	186.	-315.	.0135	-.0236	.0012	.0199	.0045	-.0571	1563.		
.3790	1054.	431.	-479.	-307.	211.	-292.	.0151	-.0247	.0017	.0167	.0039	-.0586	1440.		
.3800	869.	353.	-394.	-251.	238.	-275.	.0169	-.0260	.0023	.0135	.0038	-.0598	1343.		
.3810	661.	267.	-298.	-188.	263.	-263.	.0185	-.0273	.0030	.0104	.0038	-.0607	1269.		
.3820	456.	178.	-201.	-121.	286.	-256.	.0198	-.0288	.0037	.0078	.0035	-.0614	1224.		
.3830	267.	94.	-109.	-49.	305.	-257.	.0208	-.0303	.0042	.0057	.0029	-.0618	1223.		
.3840	100.	21.	-25.	23.	319.	-272.	.0214	-.0318	.0044	.0044	.0020	-.0617	1278.		
.3850	-34.	-37.	43.	91.	329.	-299.	.0217	-.0333	.0044	.0036	.0008	-.0613	1382.		
.3860	-112.	-79.	84.	152.	336.	-334.	.0216	-.0347	.0043	.0031	-.0005	-.0603	1512.		
.3870	-125.	-106.	89.	203.	339.	-372.	.0209	-.0359	.0043	.0027	-.0019	-.0588	1652.		
.3880	-82.	-113.	64.	239.	340.	-420.	.0199	-.0369	.0046	.0023	-.0031	-.0568	1798.		
.3890	-2.	-96.	18.	254.	338.	-481.	.0185	-.0377	.0050	.0017	-.0041	-.0543	1947.		
.3900	101.	-59.	-40.	250.	331.	-545.	.0167	-.0382	.0054	.0009	-.0051	-.0518	2085.		
.3910	225.	-20.	-108.	237.	319.	-600.	.0144	-.0383	.0060	-.0003	-.0060	-.0497	2189.		

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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	55	MEMBER	4	SEQUENCE	76	LOCATION	END	TYPE	VA						
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